Carl Stahl®

GENERAL CATALOGUE LIFTING EQUIPMENT

DIRECT

International Edition No. 4

Wolfgang Schwenger
General Manager

“Intelligent ergonomic processes – safety at work”

Dear Customers and Friends of Carl Stahl!

We are pleased to present to you the fourth international edition of our general catalogue Carl Stahl Direct. As you will see, contents and layout have been thoroughly revised. Not without a sense of pride we are looking back on decades of international experience and expertise in rope and lifting equipment, evidenced by 652 pages bursting with valuable information and new and exciting products. Compact and clearly presented it shows you our wide range of top quality products and services that has been continuously expanded and improved since the foundation of our company back in 1880.

Carl Stahl is a partner you can rely on. With 65 subsidiaries worldwide we are where you need us. Our qualified staff will be happy to receive your enquiries and to offer you tailor-made solutions for your lifting requirements. You can also benefit from our wide range of training programmes offered throughout the year by Carl Stahl Evita on a global basis. They will be pleased to welcome you to one of the many seminars available for different subjects.

Your safety is our major concern: With this in mind our Condor Range has been further extended. Condor is our own brand and offers you top quality at the best possible price. These products are easily identified by the Condor logo, please watch out for them throughout this catalogue.

Now we invite you to sit back, relax and enjoy our wide product range. Whatever your problem may be, we have the solution. Do not hesitate to put us to the test. We look forward to hearing from you shortly!

Carl Stahl is **Connected to Safety**

Sincerely yours

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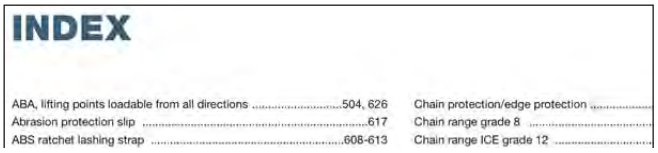
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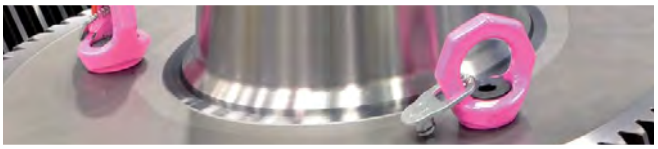

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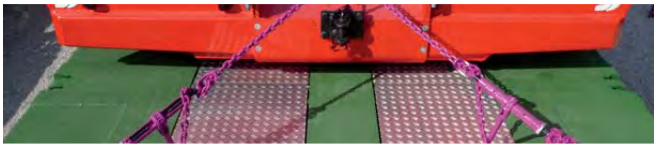

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CRANE TECHNOLOGY

Wall Jib Cranes

Wall jib crane type LW

Wall Jib Crane Type	Load capacity in kg	Jib range in mm	Page
CS/LW	80 - 1,000	2,000 - 7,000	**15**
CS/LWX	80 - 500	2,000 - 7,000	**16**
CS/VW	125 - 5,000	2,000 - 10,000	**17**

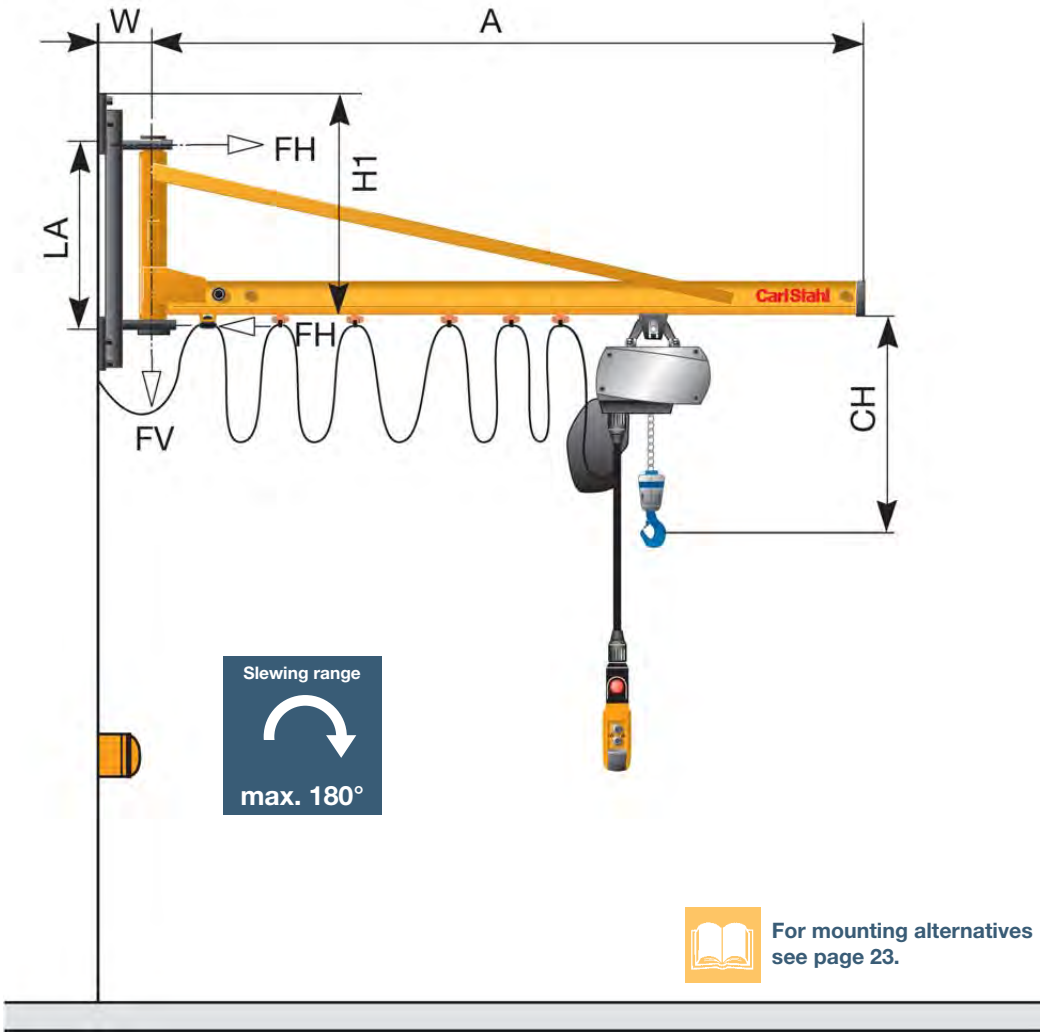
Wall jib crane typ CS/LW with electric chain hoist

- For indoor use only
- Delivery EXW

Scope of delivery crane:
Jib arm complete with wall mount, electric chain hoist with push trolley, complete electric installation, mounting plan, manual slewing. A detailed data sheet is available on request.

Scope of delivery chain hoist:
Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking. We will gladly provide you with an explanation of any versions not included in these overviews on request.

Features:
- **Standard lifting height 3.0 m**
- Lightweight structure (DIN 15018 H2/B2)
- Slewing range will depend on mount
- According to EEC directive 2006/42 EC
- Easy moving jib mount
- Quality corrosion protection acc. to DIN 55 928
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With attachment diagram
- Mounting bolts to be provided by customer



For mounting alternatives see page 23.

Multi-lift only for the electric chain hoist, see page 76

Load capacity in kg	Jib length in mm	Type/Size	Lifting speed in m/min	Dimensions in mm CH	H1	LA	W	FH in kN	FV in kN	Weight in kg	Item no.
125	2000	LW25	8/2.0	389	614	492	160	6.31	2.18	100	8013.20.01
125	3000	LW25	8/2.0	389	614	492	160	10.13	2.32	113	8013.30.01
125	4000	LW25	8/2.0	389	614	492	160	14.23	2.46	127	8013.40.01
125	5000	LW25	8/2.0	389	614	600	160	18.55	2.60	139	8013.50.01
125	6000	LW36	8/2.0	389	665	600	190	21.23	3.25	208	8013.60.01
250	3000	LW25	8/2.0	389	614	492	160	17.23	3.55	113	8013.30.02
250	4000	LW36	8/2.0	389	665	600	190	20.48	4.05	166	8013.40.02
250	5000	LW36	8/2.0	389	665	600	190	26.65	4.26	187	8013.50.02
250	6000	LW36	8/2.0	389	665	600	190	33.18	4.48	208	8013.60.02
250	7000	LW200	8/2.0	375	900	800	230	32.03	5.49	312	8013.70.02
500	2000	LW36	4/1.0	470	665	600	190	17.19	6.21	135	8013.20.05
500	3000	LW36	4/1.0	470	665	600	190	27.08	6.43	157	8013.30.05
500	4000	LW36	4/1.0	470	665	600	190	37.15	6.64	178	8013.40.05
500	5000	LW200	4/1.0	456	900	800	230	36.75	7.53	268	8013.50.05
500	6000	LW200	4/1.0	456	900	800	230	45.35	7.81	296	8013.60.05
1000	2000	LW200	4/1.0	516	900	800	230	22.46	11.61	199	8013.20.10
1000	3000	LW200	4/1.0	516	900	800	230	36.21	11.91	228	8013.30.10
1000	3500	LW200	4/1.0	516	900	800	230	43.39	12.10	247	8013.35.10
1000	4000	LW200	4/1.0	516	900	800	230	50.30	12.19	256	8013.40.10
1000	5000	LW235	4/1.0	516	980	880	230	59.53	12.79	320	8013.50.10

CRANE TECHNOLOGY

Wall Jib Cranes

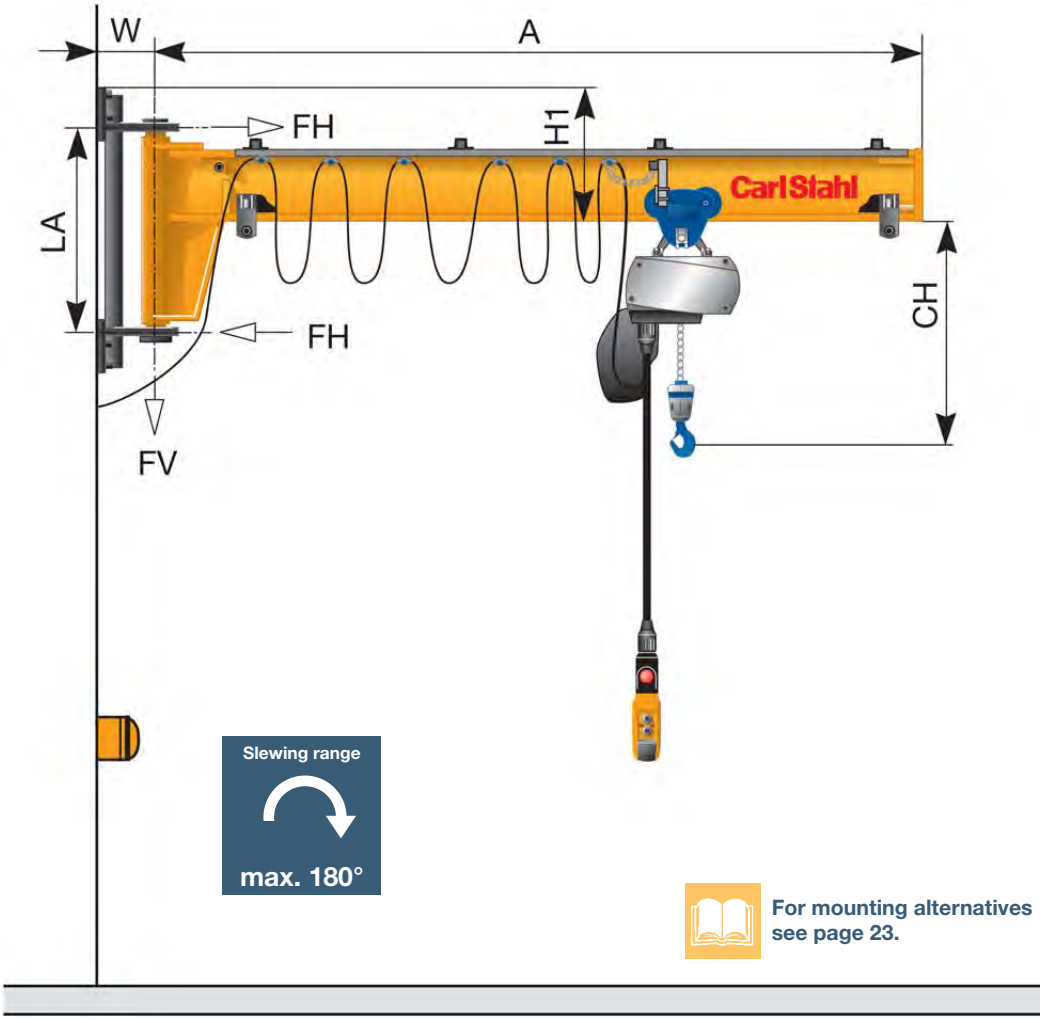
Wall jib crane type CS/LWX with electric chain hoist

- For indoor use only
- Delivery EXW

Scope of delivery crane:
Jib arm complete with wall mount, electric chain hoist with push trolley, complete electric installation, mounting plan, manual slewing. A detailed data sheet is available on request.

Scope of delivery chain hoist:
Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking. We will gladly provide you with an explanation of any versions not included in these overviews on request.

Features*:
- **Standard lifting height 3.0 m**
- Lightweight structure (DIN 15018 H2/B2)
- Slewing range will depend on mount
- According to EEC directive 2006/42 EC
- Quality corrosion protection acc. to DIN 55 928 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With attachment diagram.
- Mounting bolts to be provided by customer



For mounting alternatives see page 23.

Multi-lift only for the electric chain hoist, see page 76

Load capacity in kg	Jib length in mm	Type/Size	Lifting speed in m/min	Dimensions in mm CH	H1	LA	W	FH in kN	FV in kN	Weight in kg	Item no.
125	2000	LWX25	8/2.0	383	296	492	160	5.60	2.50	121	8015.20.01
125	2500	LWX25	8/2.0	383	296	492	160	7.20	2.60	131	8015.25.01
125	3000	LWX25	8/2.0	383	296	492	160	8.90	2.70	141	8015.30.01
125	3500	LWX25	8/2.0	383	296	492	160	10.70	2.80	151	8015.35.01
125	4000	LWX36	8/2.0	382	350	600	190	12.10	3.30	202	8015.40.01
125	4500	LWX36	8/2.0	382	350	600	190	14.00	3.40	213	8015.45.01
125	5000	LWX36	8/2.0	382	350	600	190	16.00	3.50	223	8015.50.01
125	5500	LWX200	8/2.0	381	452	800	230	14.80	4.50	321	8015.55.01
125	6000	LWX200	8/2.0	381	452	800	230	16.60	4.60	336	8015.60.01
250	3000	LWX36	8/2.0	382	350	600	190	13.70	4.30	179	8015.30.02
250	3500	LWX36	8/2.0	382	350	600	190	16.30	4.40	190	8015.35.02
250	4000	LWX36	8/2.0	382	350	600	190	19.10	4.60	210	8015.40.02
250	4500	LWX200	8/2.0	381	452	800	230	17.10	5.40	292	8015.45.02
250	5000	LWX200	8/2.0	381	452	800	230	19.40	5.60	307	8015.50.02
250	5500	LWX200	8/2.0	381	452	800	230	21.80	5.70	323	8015.55.02
250	6000	LWX200	8/2.0	381	452	800	230	24.30	5.90	338	8015.60.02
500	3000	LWX36	4/1.0	469	350	600	190	24.50	6.90	196	8015.30.05
500	3500	LWX200	4/1.0	468	452	800	230	22.00	7.70	277	8015.35.05
500	4000	LWX200	4/1.0	468	452	800	230	25.50	7.80	293	8015.40.05

***Additional extras on request:**
- Electric trolley drive

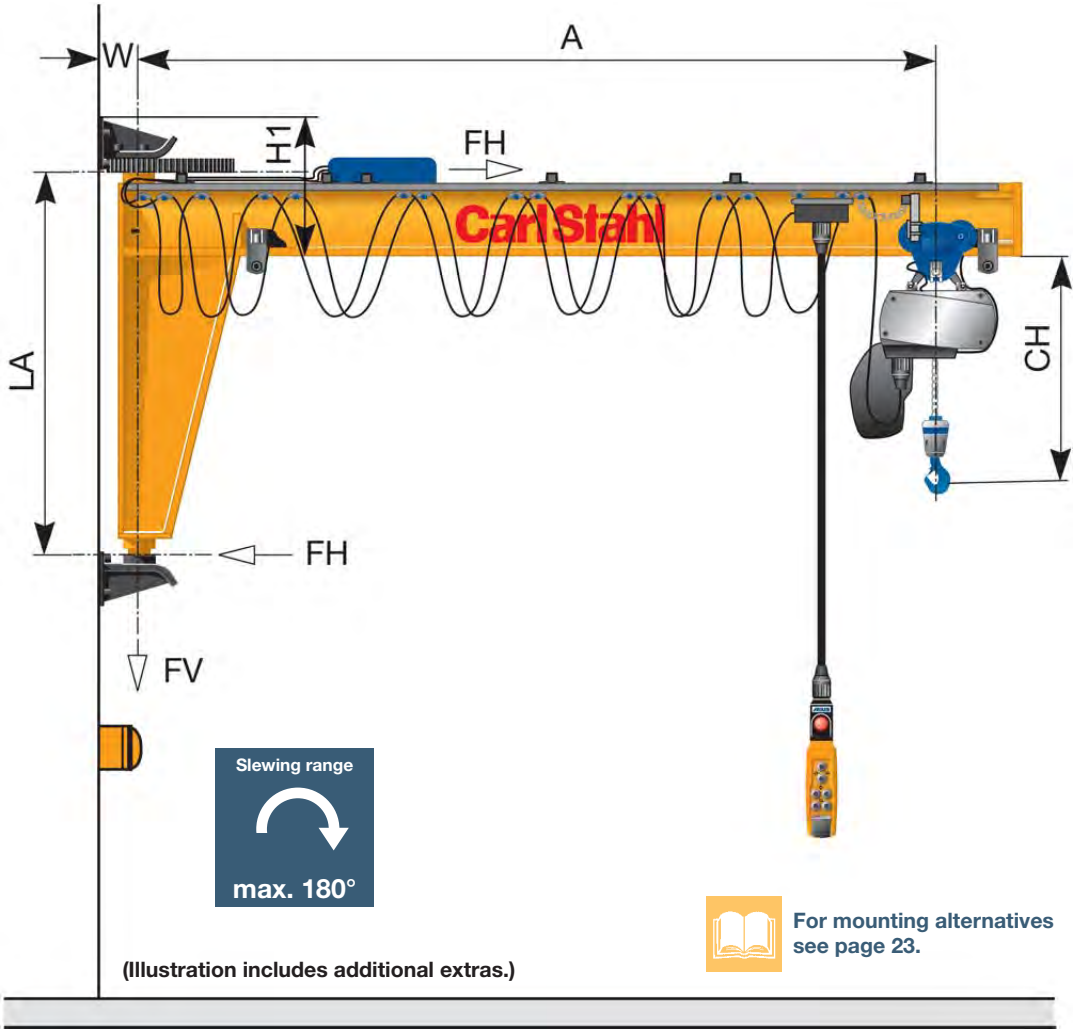
Wall jib crane type CS/VW with electric chain hoist

- For indoor use only
- Delivery EXW

Scope of delivery crane:
Jib arm complete with wall mount, electric chain hoist with push trolley, complete electric installation, mounting plan, manual slewing. A detailed data sheet is available on request.

Scope of delivery chain hoist:
Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking. We will gladly provide you with an explanation of any versions not included in these overviews on request.

Features*:
- **Standard lifting height 3.0 m**
- Medium-weight structure (DIN 15018 H2/B3)
- Slewing range will depend on mount
- According to EEC directive 2006/42 EC
- Quality corrosion protection acc. to DIN 55 928 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With attachment diagram.
- Mounting bolts to be provided by customer



(Illustration includes additional extras.)

For mounting alternatives see page 23.

Multi-lift only for the electric chain hoist, see page 76

Load capacity in kg	Jib length in mm	Type/Size	Lifting speed in m/min	Dimensions in mm LA	CH	H1	W	FH in kN	FV in kN	Weight in kg	Item no.
125	3000	WL35	8/2.0	630	383	305	80	12.0	3.3	204	8017.30.01
250	3000	WL35	8/2.0	630	382	345	80	18.1	4.7	228	8017.30.02
250	4000	WL35	8/2.0	1000	382	385	80	16.6	5.4	301	8017.40.02
250	5000	WL35	8/2.0	1000	382	385	80	21.4	5.8	337	8017.50.02
500	3000	WL35	4/1.0	1000	469	385	80	19.8	7.7	278	8017.30.05
500	4000	WL35	4/1.0	1000	469	385	80	26.8	8.0	313	8017.40.05
500	5000	WL50	4/1.0	1250	469	505	110	29.2	9.7	485	8017.50.05
1000	4000	WL50	4/1.0	1250	528	505	110	38.4	14.2	445	8017.40.10
1000	4500	WL50	4/1.0	1250	528	565	110	44.8	15.2	545	8017.45.10
1000	5000	WL50	4/1.0	1250	528	565	110	50.2	15.5	576	8017.50.10
2000	4000	WL50	4/1.0	1250	630	605	110	56.6	25.6	607	8017.40.20
2000	5000	WL60	4/1.0	1600	630	695	130	73.0	27.9	849	8017.50.20

***Available options:**
- Electric trolley drive
- Electric jib drive
- Extra trolley for independent movement of pendant control

CRANE TECHNOLOGY

Pillar Jib Cranes

Pillar jib crane type VS

Pillar Jib Crane Type	Load capacity in kg	Jib length in mm	Page
CS/LS	80 - 1,000	2,000 - 7,000	**19**
CS/LSX	80 - 500	2,000 - 7,000	**20**
CS/VS	125 - 6,300	2,000 - 10,000	**21**

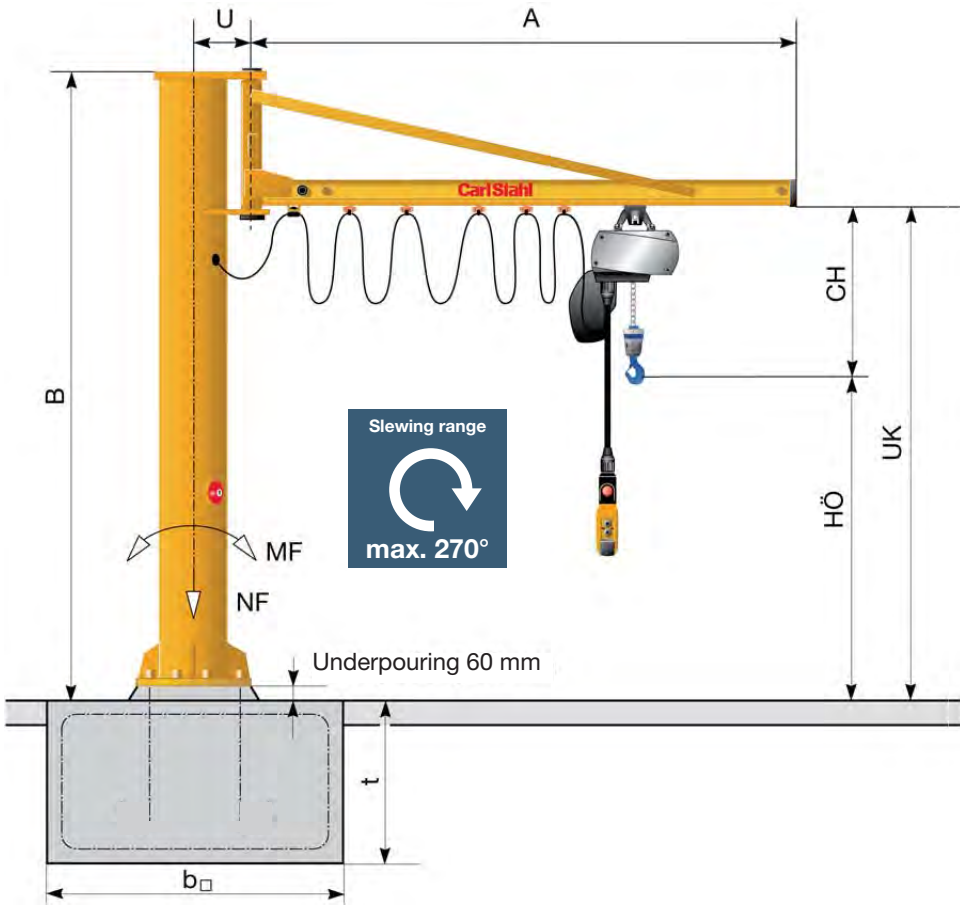
Pillar jib crane type CS/LS with electric chain hoist

- For indoor use only
- Delivery EXW

Scope of delivery crane:
Pillar and jib arm complete with anchoring bolts and template, electric chain hoist with push trolley, movable rubber buffers, complete electric installation, foundation plan, manual slewing.

Scope of delivery chain hoist:
Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking.

Features:
- Lightweight construction (DIN 15018 H2/B2)
- According to EEC directive 2006/42/EC
- Quality corrosion protection acc. to DIN 55298 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With anchoring bolts, template, and foundation plan



Multi-lift only for the electric chain hoist, see page 76

Load capacity in kg	Jib length in mm	Type/ Size	Dowel plate	Lifting speed in m/min	Dimensions in mm							MF in kNm	NF in kN	Weight in kg	Item no.
					B*	UK*	CH	HÖ	U	b	t				
125	2000	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	800	800	3.4	3.2	219	8014.20.01
125	2500	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	900	800	4.4	3.3	228	8014.25.01
125	3000	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	1000	800	5.2	3.3	232	8014.30.01
125	4000	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	1100	800	7.2	3.5	246	8014.40.01
125	5000	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	1200	800	9.3	3.6	258	8014.50.01
250	2000	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	1000	800	6	4.4	219	8014.20.02
250	3000	LS25	LS25-I	8/2.0	3140	2600	389	2211	250	1100	800	9	4.6	232	8014.30.02
250	4000	LS36	LS36-I	8/2.0	3200	2600	389	2211	290	1300	800	13	5.4	324	8014.40.02
250	5000	LS36	LS36-I	8/2.0	3200	2600	389	2211	290	1400	800	16.7	5.7	345	8014.50.02
250	6000	LS36	LS36-I	8/2.0	3200	2600	389	2211	290	1500	800	20.6	5.9	366	8014.60.02
500	2000	LS36	LS36-I	4/1.0	3200	2600	470	2130	290	1200	800	11.8	7.6	289	8014.20.05
500	3000	LS36	LS36-I	4/1.0	3200	2600	470	2130	290	1400	800	17.6	7.8	313	8014.30.05
500	4000	LS36	LS36-I	4/1.0	3200	2600	470	2130	290	1500	800	23.7	8	334	8014.40.05
500	5000	LS200	LS200-I	4/1.0	3390	2600	456	2144	350	1700	800	31.2	9.7	509	8014.50.05
500	6000	LS200	LS200-II	4/1.0	3390	2600	456	2144	350	1800	800	38.1	10	537	8014.60.05
1000	3000	LS200	LS200-I	4/1.0	3390	2600	516	2084	350	1700	800	33.1	14.3	471	8014.30.10
1000	3500	LS200	LS200-II	4/1.0	3390	2600	516	2084	350	1800	800	39	14.5	490	8014.35.10
1000	4000	LS200	LS200-II	4/1.0	3390	2600	516	2084	350	1800	800	44.5	14.6	499	8014.40.10
1000	4500	LS235	LS235-I	4/1.0	3470	2600	516	2084	385	1900	800	51.7	16.5	703	8014.45.10
1000	5000	LS235	LS235-I	4/1.0	3470	2600	516	2084	385	2000	800	56.4	16.4	712	8014.50.10

***The dimensions B and UK are variable. Different heights can result in a different crane size. Please contact us for pricing.**

For mounting alternatives see page 22.

CRANE TECHNOLOGY

Pillar Jib Cranes

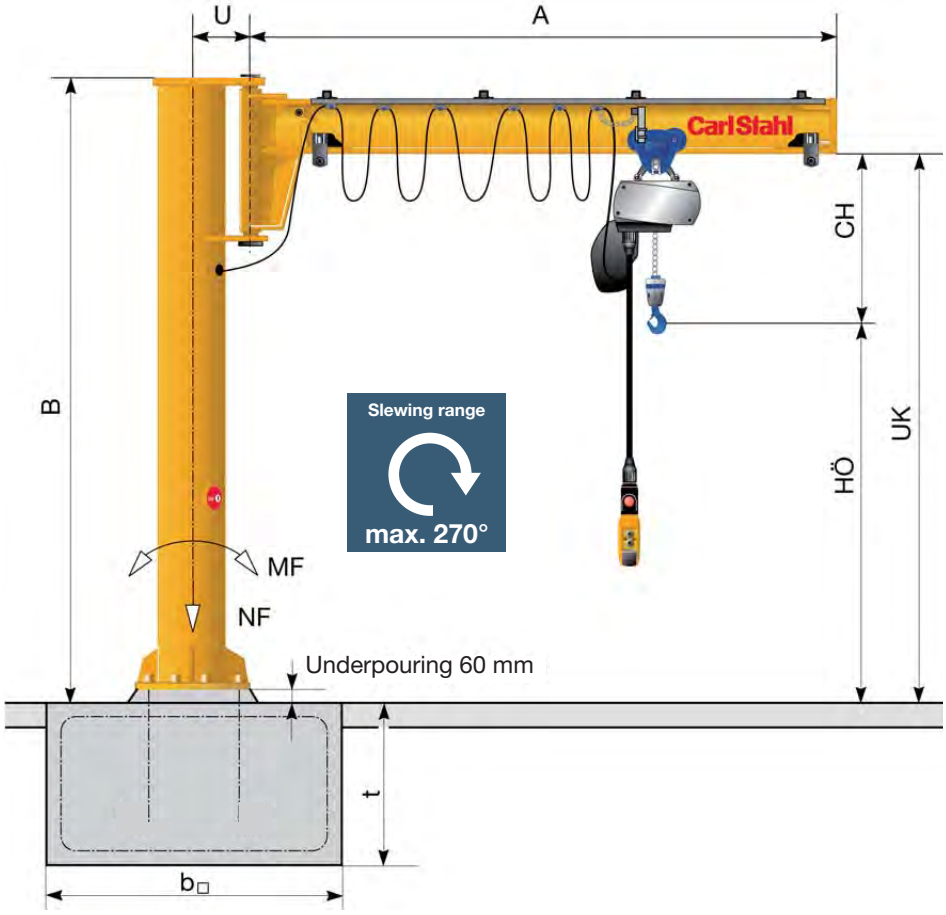
Pillar jib crane type CS/LSX with electric chain hoist

- For indoor use only
- Delivery EXW

Scope of delivery crane:
Pillar and jib arm complete with anchoring bolts and template, electric chain hoist with push trolley, movable rubber buffers, complete electric installation, foundation plan, manual slewing.

Scope of delivery chain hoist:
Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking.

Features*:
- Lightweight construction (DIN 15018 H2/B2)
- According to EEC directive 2006/42/EG
- Quality corrosion protection acc. to DIN 55298 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With anchoring bolts, template, and foundation plan



Multi-lift only for the electric chain hoist, see page 76

Load capacity in kg	Jib length in mm	Type/ Size	Dowel plate	Lifting speed in m/min	Dimensions in mm							MF in kNm	NF in kN	Weight in kg	Item no.
					B**	UK**	CH	HÖ	U	b	t				
125	2000	LSX25	LSX25-I	8/2.0	2825	2600	383	2217	250	800	800	4.2	4	257	8016.20.01
125	2500	LSX25	LSX25-I	8/2.0	2825	2600	383	2217	250	900	800	5.2	4	267	8016.25.01
125	3000	LSX25	LSX25-I	8/2.0	2825	2600	383	2217	250	1000	800	6.3	4.1	277	8016.30.01
125	3500	LSX25	LSX25-I	8/2.0	2825	2600	383	2217	250	1000	800	7.4	4.2	287	8016.35.01
125	4000	LSX36	LSX36-I	8/2.0	2890	2600	382	2218	290	1100	800	9.3	5	381	8016.40.01
125	4500	LSX36	LSX36-I	8/2.0	2890	2600	382	2218	290	1200	800	10.6	5.1	391	8016.45.01
125	5000	LSX36	LSX36-I	8/2.0	2890	2600	382	2218	290	1200	800	12	5.2	402	8016.50.01
125	5500	LSX200	LSX200-I	8/2.0	2950	2600	381	2219	350	1300	800	15.2	7.2	591	8016.55.01
125	6000	LSX200	LSX200-I	8/2.0	2950	2600	381	2219	350	1400	800	17	7.3	607	8016.60.01
250	3000	LSX36	LSX36-I	8/2.0	2890	2600	382	2218	290	1200	800	10.9	6	358	8016.30.02
250	3500	LSX36	LSX36-I	8/2.0	2890	2600	382	2218	290	1200	800	12.8	6.1	369	8016.35.02
250	4000	LSX36	LSX36-I	8/2.0	2890	2600	382	2218	290	1300	800	14.7	6.3	389	8016.40.02
250	4500	LSX200	LSX200-I	8/2.0	2950	2600	381	2219	350	1400	800	18	8.1	562	8016.45.02
250	5000	LSX200	LSX200-I	8/2.0	2950	2600	381	2219	350	1400	800	20.2	8.3	577	8016.50.02
250	5500	LSX200	LSX200-I	8/2.0	2950	2600	381	2219	350	1500	800	22.5	8.4	593	8016.55.02
250	6000	LSX200	LSX200-I	8/2.0	2950	2600	381	2219	350	1500	800	25	8.6	608	8016.60.02
500	3000	LSX36	LSX36-I	4/1.0	2890	2600	469	2131	290	1400	800	19.5	8.6	375	8016.30.05
500	3500	LSX200	LSX200-I	4/1.0	2950	2600	468	2132	350	1500	800	23.7	10.4	547	8016.35.05
500	4000	LSX200	LSX200-I	4/1.0	2950	2600	468	2132	350	1600	800	27.1	10.5	563	8016.40.05

***Available options:**
- Electric trolley drive

**** The dimensions B and UK are variable. Different heights can result in a different crane size. Please contact us for pricing.**

For mounting alternatives see page 22.

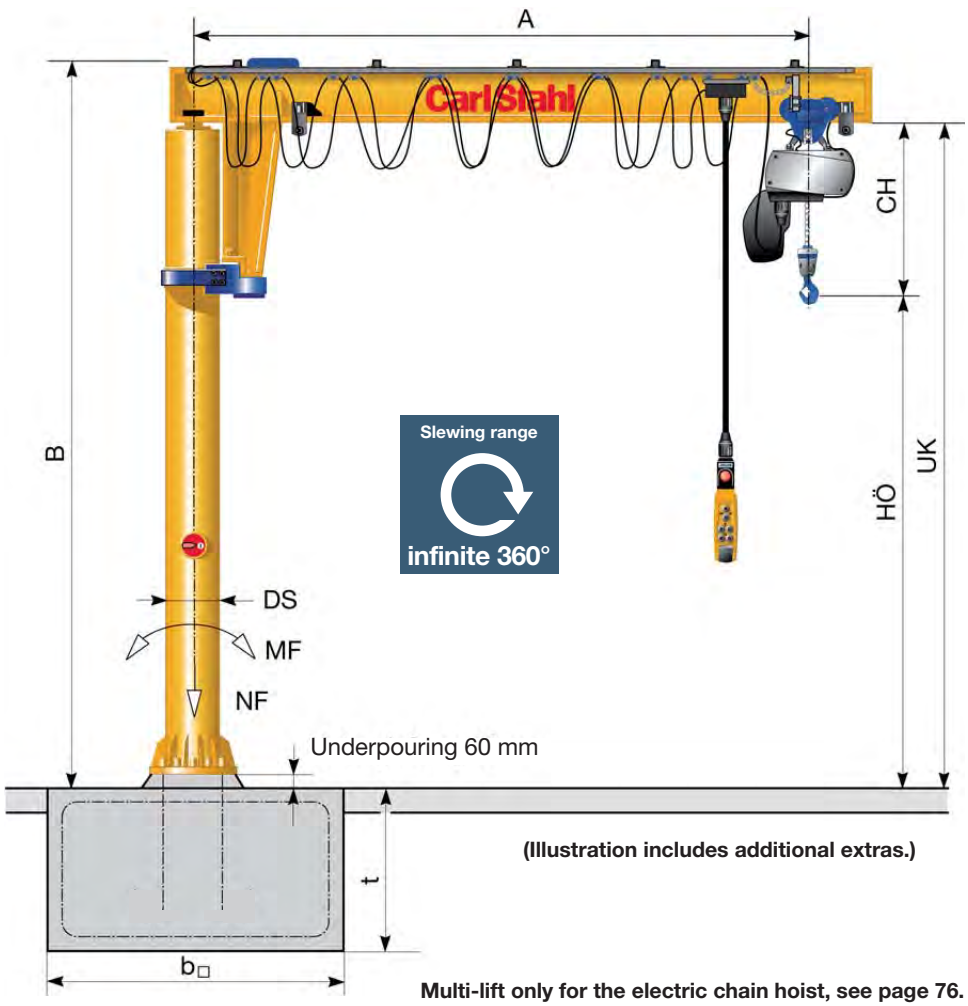
Pillar jib crane type CS/VS with electric chain hoist

- For indoor use only
- Delivery EXW

Scope of delivery crane:
Pillar and jib arm complete with anchoring bolts and template, electric chain hoist with push trolley, movable rubber buffers, complete electric installation, foundation plan, manual slewing.

Scope of delivery chain hoist:
Top quality electric chain hoist model GM, degree of protection IP 55, tested safety chain, chain container, with precision hoist, power supply 400 V/50 Hz, controlled via the safety pendant control with mechanical contact locking.

Features*:
- Medium-weight structure (DIN 15018 H2/B3)
- According to EEC directive 2006/42/EC
- Quality corrosion protection acc. to DIN 55298 (mechanically shot blasted)
- 1-layer primer daffodil-yellow
- Film-based protective packaging
- Electric wiring complete with lockable mains switch and power supply to the hoist
- With anchoring bolts, template, and foundation plan



(Illustration includes additional extras.)

Multi-lift only for the electric chain hoist, see page 76.

Load capacity in kg	Jib length in mm	Type/ Size	Dowel plate	Lifting speed in m/min	Dimensions in mm							MF in kNm	NF in kN	Weight in kg	Item no.
					B**	UK**	CH	HÖ	DS	b	t				
125	2500	VS273	VS273-I	8/2.0	3560	3300	382	2918	273	1000	800	5.5	4.8	408	8018.25.01
125	3000	VS273	VS273-I	8/2.0	3560	3300	382	2918	273	1100	800	6.7	4.9	421	8018.30.01
125	4000	VS273	VS273-I	8/2.0	3560	3300	382	2918	273	1200	800	9.2	5.2	449	8018.40.01
125	5000	VS273	VS273-I	8/2.0	3600	3300	382	2918	273	1300	800	12.1	5.5	520	8018.50.01
250	3000	VS273	VS273-I	8/2.0	3560	3300	381	2921	273	1200	800	10.3	6.2	421	8018.30.02
250	4000	VS273	VS273-I	8/2.0	3600	3300	381	2921	273	1300	800	14.9	6.8	484	8018.40.02
250	5000	VS273	VS273-I	8/2.0	3720	3300	380	2920	273	1500	800	20.9	7.7	663	8018.50.02
500	3000	VS273	VS273-I	4/1.0	3600	3300	469	2831	273	1400	800	18.3	8.9	461	8018.30.05
500	4000	VS323	VS323-I	4/1.0	3660	3300	469	2831	323	1500	1000	25.2	10.4	661	8018.40.05
500	4500	VS323	VS323-I	4/1.0	3660	3300	468	2832	323	1600	1000	30	11.1	685	8018.45.05
500	5000	VS323	VS323-II	4/1.0	3720	3300	466	2834	323	1700	1000	35.8	12.1	788	8018.50.05
1000	3000	VS323	VS323-II	4/1.0	3660	3300	528	2772	323	1600	1000	34.6	15.5	621	8018.30.10
1000	4000	VS355	VS355-II	4/1.0	3720	3300	526	2774	355	1800	1000	48.1	17.2	793	8018.40.10
1000	5000	VS406	VS406-I	4/1.0	3720	3300	526	2774	406	1900	1000	61.7	19	971	8018.50.10
2000	3000	VS406	VS406-I	4/1.0	3660	3300	633	2667	406	1900	1000	65.7	27.5	825	8018.30.20
2000	4000	VS457	VS457-I	4/1.0	3720	3300	631	2669	457	2100	1000	89.5	29.7	1057	8018.40.20
2000	5000	VS457	VS457-II	4/1.0	3860	3300	627	2673	457	2400	1000	117.6	32.1	1298	8018.50.20

***Available options:**
- Electric trolley drive
- Electric jib drive
- Extra trolley for independent movement of pendant control
- Swivelling stops

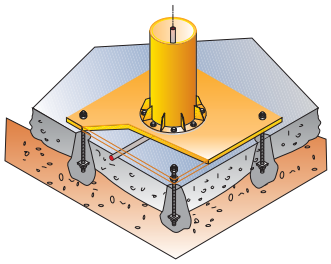
**** The dimensions B and UK are variable. Different heights can result in a different crane size. Please contact us for pricing.**

For mounting alternatives see page 22.

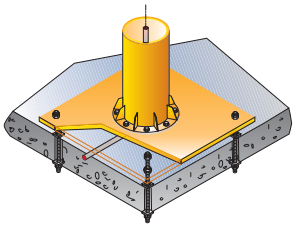
CRANE TECHNOLOGY

Attachments for pillar jib cranes

Intermediate plate for pillar jib cranes LS, LSX + VS (with stone anchors)



Intermediate plate
for a concrete floor



Intermediate plate
for a concrete suspended ceiling

Attachment to existing, suitable concrete floors can occur using a square intermediate plate. Once holes have been drilled and chiselled out in the base plate, anchors are inserted and cast. Carl Stahl supplies the intermediate plate and, on request, the suitable base anchors.

As an alternative to the intermediate plate on a concrete base, it is also possible to attach the intermediate plate to a suitable concrete ceiling with anchor bolts. Carl Stahl supplies the intermediate plate and, on request, the suitable anchor bolts.

Type/Size	Length in mm	Width in mm	Thickn. in mm	Anchor	Ø dm in mm	Weight in kg	Item no.
LS 25	500	500	20	4	M20	38	8014.Z0.25
LS 36	600	600	30	4	M27	82	8014.Z0.36
LS 200	1000	1000	30	4	M30	235	8014.Z2.00
LS 235	1000	1000	30	4	M30	235	8014.Z2.35
LSX 25	500	500	20	4	M20	37	8016.Z0.25
LSX 36	600	600	30	4	M27	82	8016.Z0.36
LSX 200	1000	1000	30	4	M30	235	8016.Z2.00
VS 273	600	600	35	4	M30	99	8018.Z2.73
VS 323	1000	1000	35	4	M27	275	8018.Z3.23
VS 355	1000	1000	40	4	M30	314	8018.Z3.55
VS 406	1300	1300	35	8	M24	465	8018.Z4.06
VS 457	1300	1300	40	8	M30	531	8018.Z4.57

1.) Floor/ceiling thickness according to the site inspection by the structural engineer
2.) Concrete strength C25/30 (formerly B25) acc. to DIN 1045
3.) Minimum age of freshly plastered ceilings = approx. 4 weeks
4.) Grouting: Intermediate plate to concrete base 60 mm
Intermediate plate to concrete suspended ceiling 100 mm

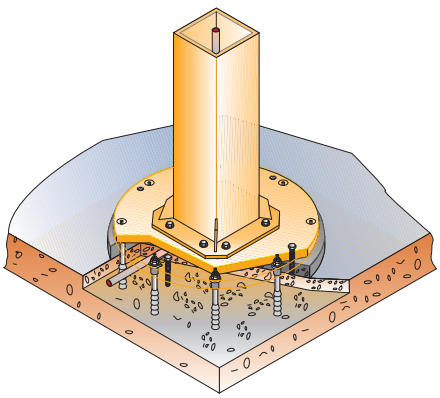
Stone anchors 4 piece-set for intermediate plate for for a concrete floor

Size/Type	Item no.
M20 x 500	8040.00.34
M24 x 500	8040.00.35
M27 x 500	8040.00.36
M30 x 500	8040.00.37

Stone anchors 4 piece-set for intermediate plate for for a concrete suspended ceiling

Size/Type	Item no.
M20 x 700	8040.01.34
M24 x 700	8040.01.35
M27 x 700	8040.01.36
M30 x 700	8040.01.37

Dowel plate for pillar jib cranes LS, LSX and VS (with composite anchor)



1.) Min. floor/ceiling thickness of 200 mm (250 mm for size VS 457 I/II)
2.) Concrete strength C25/30 (formerly B25) acc. to DIN 1045
3.) Minimum age of freshly plastered ceilings = ca. 4 weeks
4.) Grouting: dowel plate to concrete base 30 mm

Attaching pillar jib cranes with up to medium load capacities using our dowel attachment system is particularly economical. This involves the use of angler compound anchors specially developed for dynamic loads and fully embedded into the round dowel plate during assembly. Carl Stahl supplies the dowel plate, the necessary dowels and a formwork ring for the grouting and the mortar.

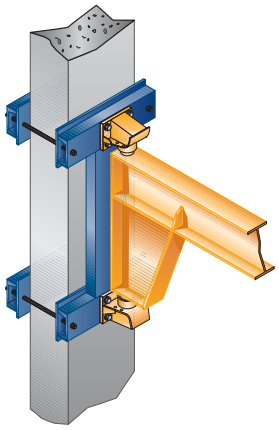
Size/Type	Diameter in mm	Thickness in mm	Anchor	Weight in kg	Item no.
L25-I	550	35	4	63	8014.DR0.25
L36-I	750	35	8	119	8014.DR0.36
L200-I	850	40	12	175	8014.DR2.01
L200-II	1000	40	12	244	8014.DR2.02
L235-I	1100	45	16	332	8014.DR2.35
VS273-I	800	40	8	155	8014.DR2.731
VS323-I	800	40	12	155	8014.DR3.231
VS323-II	900	40	12	197	8014.DR3.232
VS355-II	1100	45	16	332	8014.DR3.552
VS406-I	1150	45	16	364	8014.DR4.061
VS457-I	1350	50	12	558	8014.DR4.571
VS457-II	1550	55	16	811	8014.DR4.572

Positioning and grouting: to work safely, a crane must be carefully positioned before it is used. The existing floor surfaces are not always even enough to ensure that this is possible. All attachment systems for our pillar jib cranes therefore have an assembly gap to offer the necessary adjustment possibilities. The subsequent grouting of the crane ensures its rigidity.

CRANE TECHNOLOGY

Attachments for wall-mounted jib cranes

To reinforced concrete columns using clasp brackets for types LW, LWX and VW

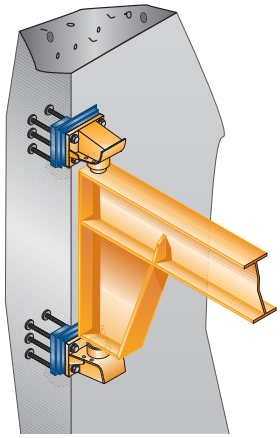


Requirements:
Minimum column width 300 mm
Minimum column depth 300 mm

Wall-mounted jib cranes can be attached to structurally suitable square or rectangular reinforced concrete columns that are freely accessible from all sides using clasp brackets. Threaded bars are used to apply the necessary tension forces required to securely hold the crane at the desired height. The column must have the necessary minimum width. Carl Stahl supplies the clasp brackets designed for the column dimensions with the necessary attachment materials.

Size	Dimensions	Item no.
LW 25	Depends on the column and pillar cross-sections available at the installation site. The width and depth of the pillars must be specified when ordering.	8013.U0.25
LW 36		8013.U0.36
LW 200		8013.U2.00
LW 235		8013.U2.35
LWX 25		8015.U0.25
LWX 36		8015.U0.36
LWX 200		8015.U2.00
VW 35		8017.U0.35
VW 50		8017.U0.50

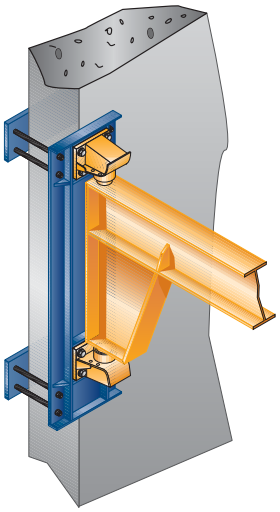
To reinforced concrete walls or columns using weld plates for types LW, LWX and VW



By casting suitable mounting plates with back anchors, concrete walls and columns can be used as a substructure for the attachment of wall-mounted jib cranes by means of weld plates. From a structural perspective, it must be ensured that the mounting plates are precisely aligned and offer perpendicular connection surfaces. The weld plates are welded onto the substructure. The crane's wall brackets and wall bearings are screwed onto the weld plates.

Size	Length in mm	Height in mm	Weight in kg	Item no.
VW 35	220	160	12	8017.A0.35
VW 50	320	220	30	8017.A0.50
VW 60	320	260	59	8017.A0.60
LW/LWX 25	320	140	15	8017.A0.25
LW/LWX 36	320	140	18	8017.A0.36
LW/LWX 200	320	215	29	8017.A2.00
LW 235	320	215	29	8017.A2.35

To reinforced concrete walls using wall brackets and anchor bolts for type VW



Attachment to suitably solid reinforced concrete walls occurs using wall brackets. With types LW and LWX, the wall bracket forms part of the scope of delivery. For type VW it is available as an added extra. The wall brackets are attached to the wall using tie rods and counter plates. The Carl Stahl scope of delivery includes the anchor rods adapted to the wall thickness, the counter plates and the necessary attachment material.

Size	Length max. in mm	Width max. in mm	Weight in kg	Item no.
VW 35	1260	390	36	8017.W0.35
VW 50	1950	570	149	8017.W0.50
VW 60	2450	670	205	8017.W0.60

Check the building statics: jib cranes transfer forces and torques to the building and supporting structures. Sufficient static strength is a prerequisite for safe crane operation. Have a structural engineer confirm the existence of this.

All items on pages 22 and 23 are delivered from the production site.

CRANE TECHNOLOGY
Crane Accessories

Slewing stop using a buffer rod for types VW, VS, LWX and LSX

During everyday use, pillar and wall-mounted jib cranes can accidentally and independently slew right or left. A buffer rod prevents the crane jib from crashing into the building. A stop on the building is required.

Size	Item no.
Suitable for all sizes	8040.00.32

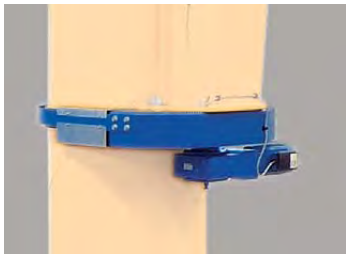
Adjustable Jib Slewing Stops for Type VS and LS

Adjustable jib slewing stops can be supplied for both pillar jib crane types VS and LS. These are attached to the support pillar and prevent the jib from crashing into the building or machinery.

Size	Range	Item no.
VS 273	0 - 240°	8018.A2.73
VS 323	0 - 240°	8018.A3.23
VS 355	0 - 255°	8018.A3.55
VS 406	0 - 255°	8018.A4.06
VS 457	0 - 255°	8018.A4.57
LS 25	0 - 210°	8018.A0.25
LS 36	0 - 210°	8018.A0.36
LS 200	0 - 210°	8018.A2.00
LS 235	0 - 210°	8018.A2.35

Electric Slewing Mechanism for Wall and Pillar Jib Cranes Type VW and VS

Electric Slewing Mechanism VW

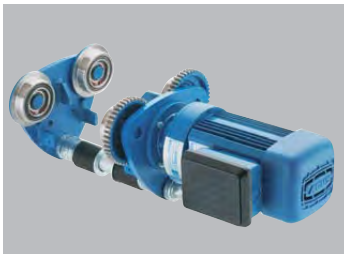


Electric Slewing Mechanism VS

Electrical slewing mechanism for rational material flows, easy positioning and safe working. Comes with 2 speeds as standard: a fast mode for rapid transportation and a precision mode for accurate positioning. The mechanism is controlled using the pendant control on the chain hoist. **Caution: on the wall-mounted jib crane the installation height is reduced by the slewing drive at the top.**

Surcharge on request.

Electric Trolley for Wall and Pillar Jib Cranes Type VW, VS, LWX and LSX



Electric trolley for high operating loads and secure handling especially with high jib lengths and a high load capacity. With 2 speeds as standard: the slow movement speed of 5 m/minute allows extremely sensitive and precise positioning, while the fast speed of 20 m/minute saves time in the case of longer travel distances.

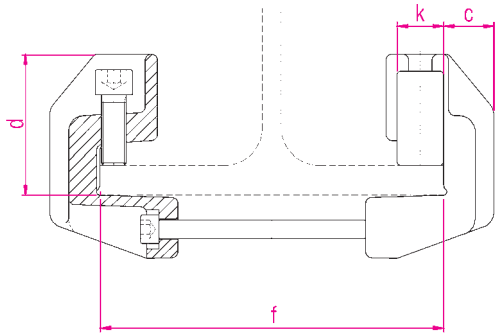
Surcharge on request.

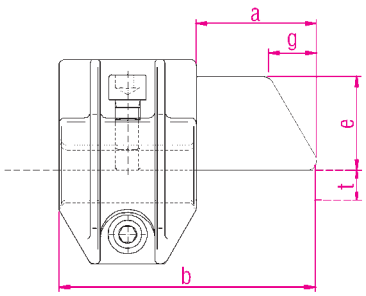
All items on this page are delivered from the production site.

Clamping Buffers

Clamping buffers can be used for a variety of purposes: for limiting crane travel, fixing hoists at specific positions, absorbing impact energy or securing trolleys against rolling away.
They are adjustable and can be installed as required. In particular they can be used temporarily, offering considerable versatility. Especially for monorail hoist trolleys, we offer clamping buffers designed for adaption to current conditions.
With jib cranes they can be used to avoid collisions of the load with obstacles within the slewing range.

All clamping buffers are also suitable for parallel flanges.





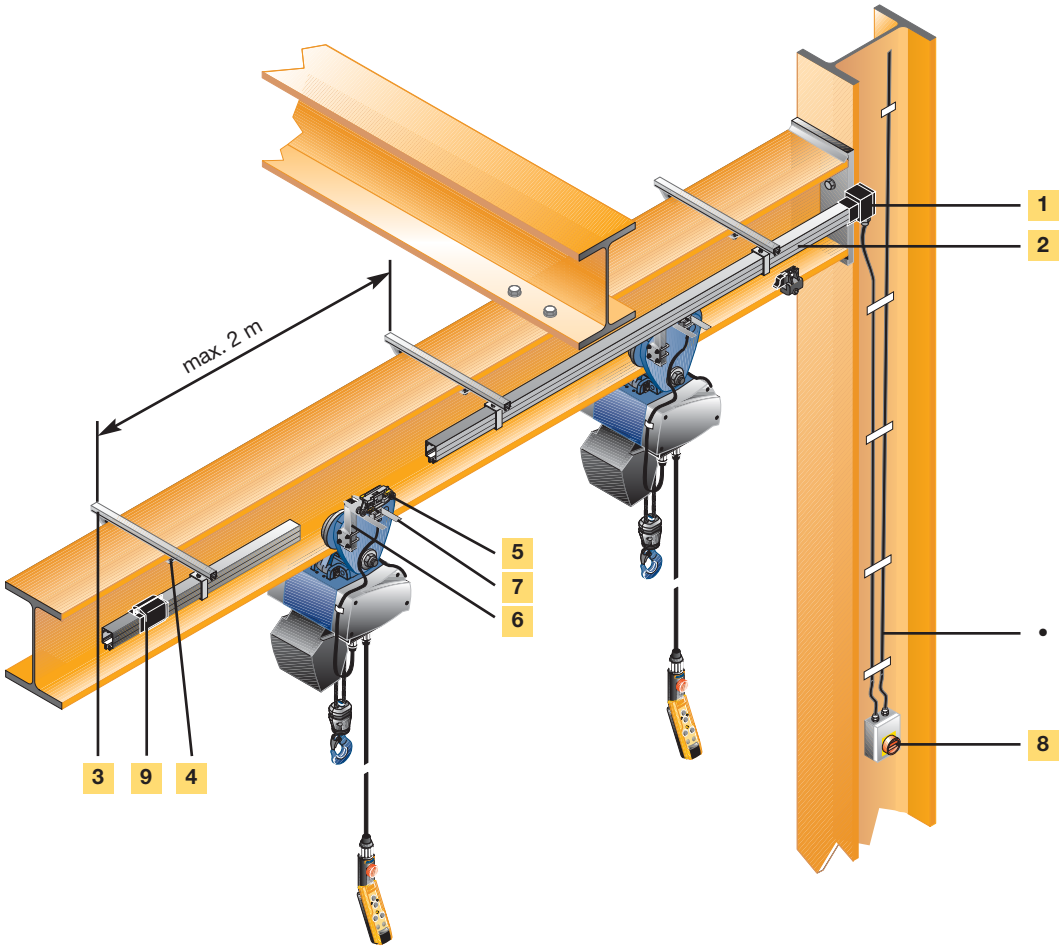
According to German Crane Safety Regulations § 19, crane rails have to be fitted with endstops.

Type	Size	Dimensions in mm							Max. flange thickness t in mm	Flange width f in mm	Weight in kg/pce	Item no.
		a	b	c	d	e	g	k				
Type alpha 1	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	64 - 120	2.6	8044.A3.29
Type alpha 2	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	121 - 190	2.6	8044.A4.34
Type alpha 3	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	191 - 243	2.6	8044.A4.35
Type alpha 4	for electric chain hoists up to 2.5 t	45	110	20	63	40	15	26	5.7 - 20.5	244 - 300	2.6	8044.A4.43
Type beta 1	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	110 - 160	5.9	8044.B4.44
Type beta 2	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	161 - 230	5.9	8044.B4.45
Type beta 3	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	231 - 283	5.9	8044.B4.46
Type beta 4	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	284 - 340	5.9	8044.B4.47
Type beta 5	for electric chain hoists up to 4 t	80	170	32	90	60	35	30	11.5 - 30	341 - 405	5.9	8044.B4.48
Type gamma 1	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	151 - 230	6.0	8044.G4.49
Type gamma 2	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	231 - 283	6.0	8044.G4.51
Type gamma 3	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	284 - 340	6.1	8044.G4.54
Type gamma 4	for wire rope hoists, large cranes	97	185	32	90	79	55	46	19 - 30	341 - 405	6.1	8044.G4.56

CRANE TECHNOLOGY

Power Lines

Power supply from protected conductor system



Scope of delivery

1 Power supply end feed
2 Protected conductor
3 Mounting console
4 Clamping brackets
5 Current collector carrier
6 Trolley current collector (part of scope of delivery of hoist)
7 Collector fork
8 Mains connection switch
9 Power rails and housing connector

An intermediate power feed is necessary from a track length of 30 m.

- The riser (incl. accessories) to the mains connection switch and from there to the feed must be provided on site.

When selecting the conductor line type, the voltage drop in accordance with the track length must be considered.

Fixed components:
End cap, power supply end feed, anchor mounts, reinforcement clamps, current collector carrier with 4 m connecting cable, collector fork and mains connection switch.

Length-dependent components:
Conductor line, sliding suspension points, mounting consoles and clamping brackets.

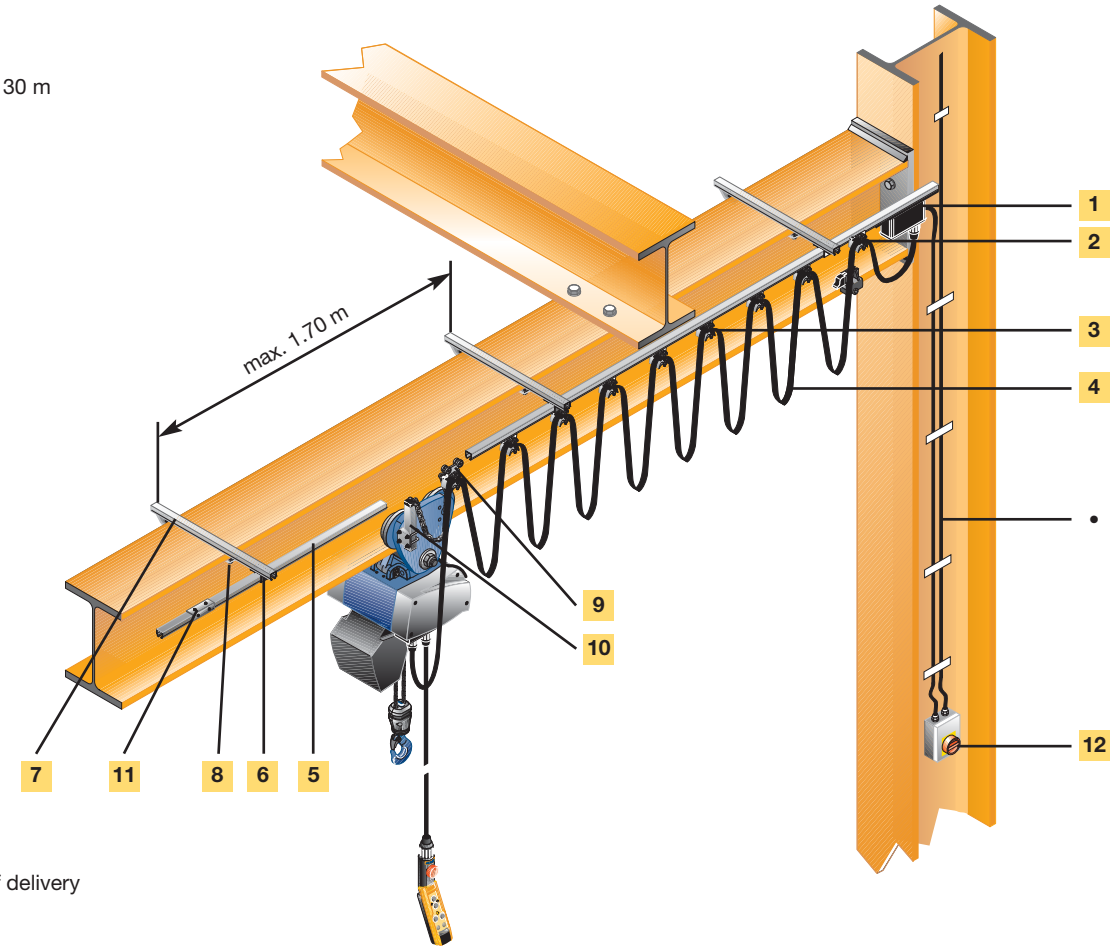
***Type explanation:**
Number 4 = 4 copper busbars
Number 40-200 = max. power strength in amps

Type*	Item no. (end cap, power supply end feed, anchor mounts, reinforcement clamps, current collector carrier with 4 m connecting cable, collector fork, mains connection switch).
CS-SL 4/40**	8041.00.40
CS-SL 4/60**	8041.00.60
CS-SL 4/100	8041.01.00
CS-SL 4/140	8041.01.40
CS-SL 4/200	8041.02.00

** Power supply end feed

Power supply from festoon system*

*for travels ≤ 30 m



Scope of delivery

1 Transitional terminal box (flat/round cable)
2 End clamp
3 Flat cable carrier
4 Flat cable
5 Rail
6 Rail support
7 Mounting console
8 Clamping brackets
9 Current collector carrier
10 Trolley current collector
11 Rail connector
12 Mains connection switch

• The riser (incl. accessories) to the mains connection switch and from there to the terminal box must be provided on site.

When selecting the conductor line, the voltage drop must be considered. Items delivered pre-assembled (i.e. flat cable on cable trolley, current collector carrier and end clamp attached).

Fixed components:
Transitional terminal box, end clamp, current collector carrier, mains connection switch, trolley current collector

Length-dependent components:
Flat cable carrier, flat cable, rail, rail support, rail connector, mounting consoles, clamping brackets

Type	Item no. (transitional terminal box, end clamp, current collector carrier, mains connection switch, trolley current collector)
CS-SK	8042.00.SK

CRANE TECHNOLOGY

Pillar and wall-mounted jib crane

Pillar and wall-mounted jib crane Type CS-BOY NEW!

Fast and secure handling of workpieces

The CS-BOY handling crane in a pillar or wall-mounted version can be used to rapidly handle workpieces, tools or small parts. The BOY can be used as a handling device with a high rationalisation effect. An electric chain hoist is available as a lifting device. When the load is manually touched, the jib jack-knifes so that all areas of the work area are precisely and easily accessible and the crane can quasi turn corners. All cranes come as standard with a manual slewing resistance control. The BOY can be used as a feed unit for energy and ventilation systems or as a welding set carrier.

Load capacity	Jib length in m		
in kg	2	3	4
63	✓	✓	✓
125	✓	✓	✓
250	✓	✓	✓

Please ask us about your crane projects!

Features
- Classed under EN 13001 HC2 S2 HD2 as suitable for light industrial use
- Lightweight design
- Installation site: factory work floor
- Folding jib
- Painted in daffodil-yellow (RAL 1007)
- High-quality corrosion protection thanks to mechanical steel shot blasting
- With a manual slewing resistance control
- With a suspension system at the end of the jib for suspending a lifting device with a hook suspension point

Electrical specifications
- Lockable mains connection switch
- Round cable power supply, laid in the jib arms up to the end of the jib
- Operating voltage 400 V/50 Hz, control voltage 48 V

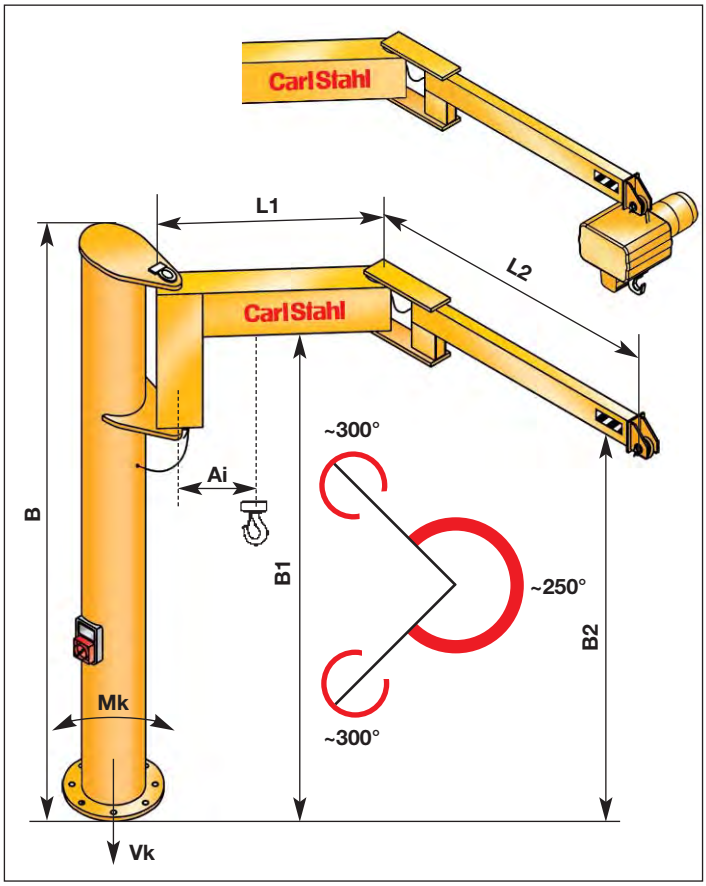
Electrical chain hoist
- Electrical chain hoist with hook suspension point
- 2 hoist speeds
- On the wall-mounted jib crane without the lower edge specified, the electric chain hoist comes with a standard hoist height of 3 m and a control cable length of 2 m.
- On the pillar jib crane, the hoist height and the control cable length are adapted to the lower edge unless a different length is ordered.

Attachment options
- Pillar jib crane: attachment using foundations or a compound anchor plate
- Wall-mounted jib crane: with standard bearing bracket

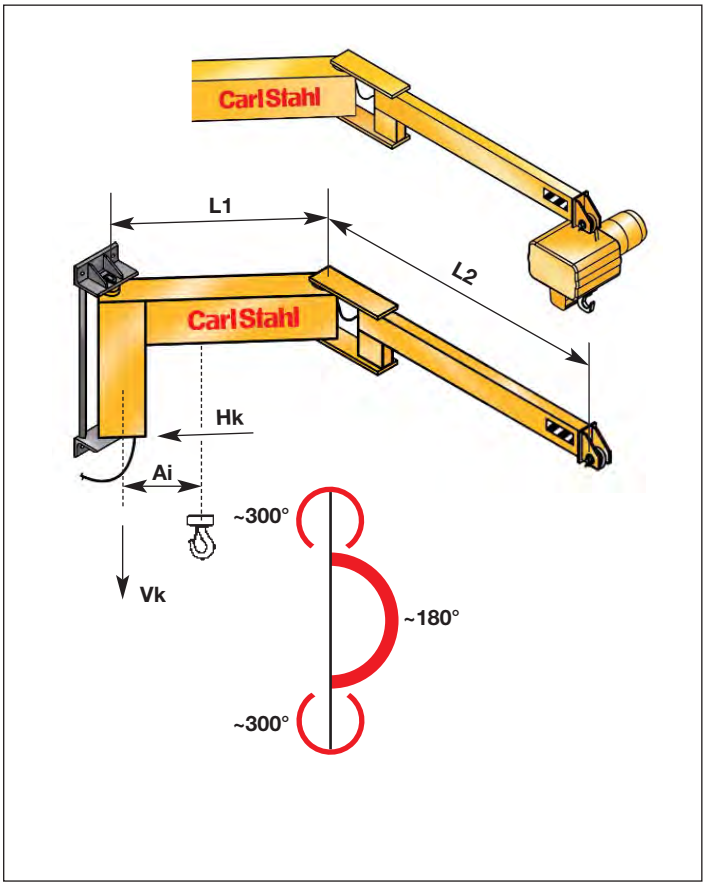
CRANE TECHNOLOGY

Pillar and wall-mounted jib crane

Pillar and wall-mounted jib crane Type CS-BOY



Pillar jib crane Type CS-BOY BS



Wall-mounted jib crane Type CS-BOY BW

Pillar jib crane Type CS-BOY BS - Slewing range ~250°/~300°

WLL in kg	Jib length in mm			Dimensions in mm				Max. vert. force in kN	Max. moment in kNcm	Weight in kg*
	L (L1+L2)	L1	L2	Ai	B	B1	B2	Vk	Mk	
63	2000	1000	1000	517	3280	2900	3060	4	360	216
63	3000	1600	1400	800	3280	2900	3060	4	527	250
63	4000	2100	1900	1053	3280	2900	3060	4	700	282
125	2000	1000	1000	517	3280	2900	3060	5	497	243
125	3000	1600	1400	800	3280	2900	3060	5	726	281
125	4000	2100	1900	1053	3280	2900	3060	5	961	303
250	2000	1000	1000	517	3280	2900	3060	6	773	250
250	3000	1600	1400	800	3280	2900	3060	6	1127	288
250	4000	2100	1900	1053	3280	2900	3060	7	1488	320

Matching electrical chain hoist

Installation height in mm	Hoist speed in m/min	Weight in kg
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7

Wall-mounted jib crane Type CS-BOY BW - Slewing range ~180°/~300°

WLL in kg	Jib length in mm			Approach dim. in mm	Max. horiz. force in kN	Max. vert. force in kN	Weight in kg*
	L (L1+L2)	L1	L2	Ai	Hk	Vk	
63	2000	1000	1000	517	5	2	104
63	3000	1600	1400	800	8	3	138
63	4000	2100	1900	1053	11	3	170
125	2000	1000	1000	517	6	3	110
125	3000	1600	1400	800	10	3	151
125	4000	2100	1900	1053	14	4	189
250	2000	1000	1000	517	10	4	118
250	3000	1600	1400	800	16	5	170
250	4000	2100	1900	1053	21	5	205

Matching electrical chain hoist

Installation height in mm	Hoist speed in m/min	Weight in kg
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7
376	8/2	21.7

*w/o hoist

CRANE TECHNOLOGY
Movable Cranes

Movable crane WK 1

Highly flexible with the movable crane
Without any fixing, this movable pillar jib crane can be used wherever it is needed. The crane can be transported within minutes using existing equipment like a forklift truck or an overhead crane or it may be moved by mounting the mechanical or hydraulic wheels, which are available as accessories. The 400 V electrical connection is provided via an extension cable to make the crane instantly ready for use. The jib range can be considerably increased with the articulated jib arm. Even corners or areas blocked with columns can be reached. The crane can be fitted with hoists or handling devices from many different manufacturers.

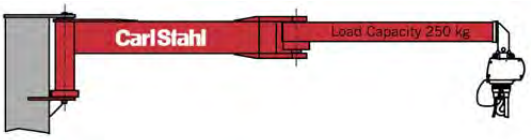
The WK1 crane offers the following advantages:
- Easy installation
- Easy moving jib arm and trolley
- Jib arm with adjustable strap brake
- High stability

Optionally available:
- Slewing range restriction mechanism for restricting the slewing range in 30° intervals or slewing locking device to prevent the jib from slewing when the crane is being moved from one place to another.
- Also available with an operating voltage of 230 V

Pictured chain hoist and wheels not included in price and delivery.

Attention! For safety reasons these cranes are only delivered with the original foundation filling material (see page 31).

Model **A**

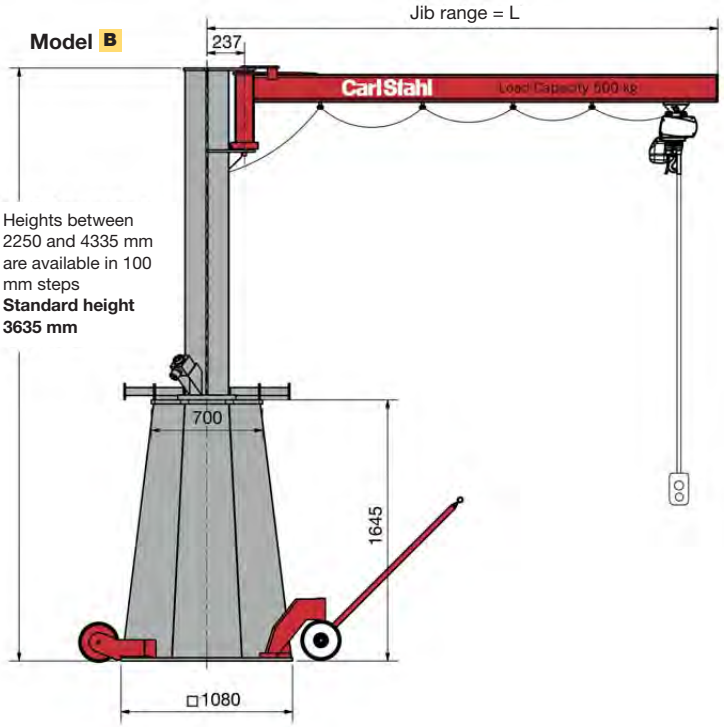


Movable crane WK 1 with articulated jib arm, slewing range 310°, model A

Load capacity in kg	L max. in mm	Overall height in mm	Crane weight in kg w/o hoist w/o filling material	Item no.
125	4400	3635	725	8025.44.12
250	3000	3635	680	8025.30.25
500	1750	3635	630	8025.17.50

Total crane weight including filling material: 3,200 kg

Model **B**



Movable crane WK1 with standard jib arm, slewing range 270°, model B

Load capacity in kg	L max. in mm	Overall height in mm	Crane weight in kg w/o hoist w/o filling material	Item no.
100	4715	3635	635	8024.47.10
160	4065	3635	627	8024.43.15
200	3665	3635	610	8024.36.20
250*	3215	3635	600	8024.32.25
320	2600	3635	590	8024.27.30
400	2150	3635	575	8024.22.40
500	1750	3635	565	8024.17.50

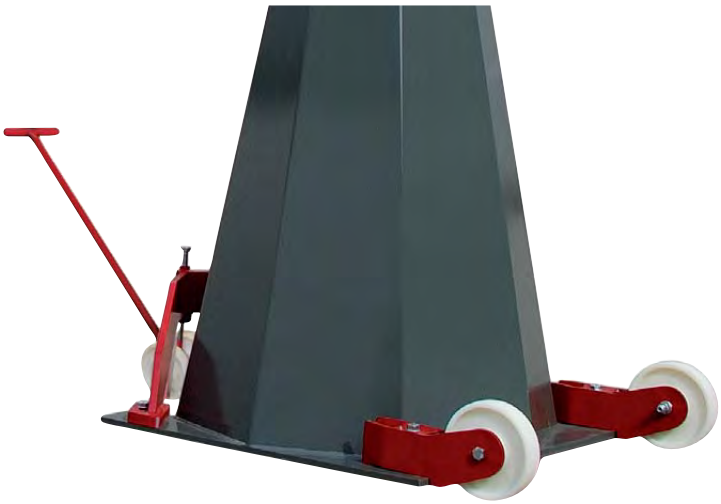
Total crane weight including filling material: 3,200 kg

Attention: Please note that the model with articulated jib arm does not feature the push trolley. The hoist is attached directly to a support plate at the tip of the jib arm (see fig. A).

Suitable chain hoists can be found from page 74.

Mechanical Wheel Set

The mechanical wheel set allows fast and easy movement of the crane to its next site. High quality polyamid wheels (diameter 250 mm) and a robust draw bar ensure smooth running.



Designation	Stroke in mm	Weight in kg	Item no.
Mechanical wheel set for WK 1 + WK 3 (Load capacity 4,000 kg)	20	85	8025.00.20

Hydraulic Wheel Set

The hydraulic wheel set is the more convenient way to move the crane. It consists of 3 single-acting hydraulic cylinders with a stroke of 25 mm, 1 hydraulic hand pump preset to 350 bar, together with the complete piping and hose system.

Designation	Stroke max. in mm	Weight in kg	Item no.
Hydraulic wheel set for WK 1 + WK 3 (Load capacity 4,000 kg)	25	90	8025.00.20H1
Hydraulic wheel set for WK-SL (Load capacity 5,000 kg)	25	90	8025.00.25H3

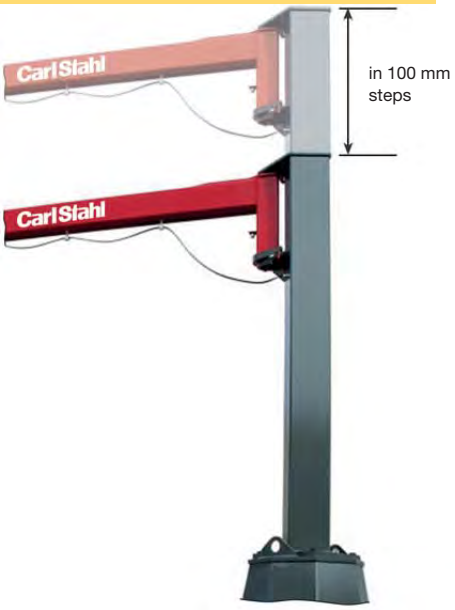
Foundation Pillar Filling Material

For best stability only use the original filling material!

Designation	Item no.
Filling material for foundation pillar WK 1	8025.00.10
Filling material for foundation pillar WK 3	8025.00.10
Filling material for foundation pillar WK-SL	8025.00.10

Additional pillar height

The crane pillar may be heightened in 100 mm-steps to ensure the ideal ergonomic working height of the crane.

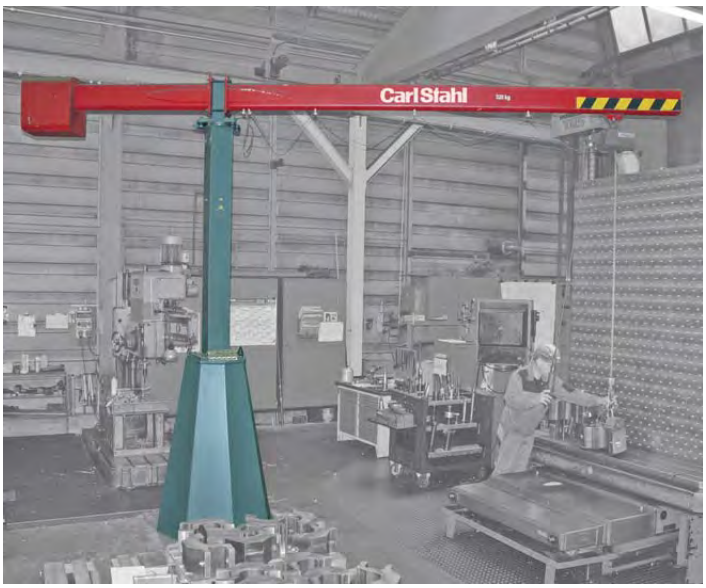


Designation	Item no.
Additional pillar height for WK 1, Basic height 3,635 mm	8025.00.30
Additional pillar height for WK 3, Basic height 3,600 mm	8025.00.30
Additional pillar height for WK-SL Basic height 3,850 mm	8025.00.30

CRANE TECHNOLOGY

Movable Cranes

Movable crane WK3 – 360° slewing range



Versatile and mobile for heavy loads
The movable crane WK3 with counterweight offers high mobility in connection with capacities up to 1,000 kg. As the WK1 also the WK3 can be transported within minutes using existing equipment like a forklift truck or an overhead crane or it may be moved by mounting the mechanical or hydraulic wheels, which are available as accessories. Electrically connected with an extension cord it is immediately ready for use. The crane can be fitted with hoists or handling devices from many different manufacturers.

The WK3 crane offers the following advantages:
- Thanks to counterweight high load capacities of up to 1,000 kg
- Slewing range 360° (slewing limit stops available as option)
- Easy installation
- Easy moving jib arm and trolley
- Jib arm with adjustable strap brake
- Low space requirement
- High stability

Optionally available:
- Slewing range restriction mechanism for restricting the slewing range in 30° intervals or slewing locking device to prevent the jib from slewing when the crane is being moved from one place to another.
- Also available with an operating voltage of 230 V

Pictured chain hoist and wheels not included in price and delivery.

Attention! For safety reasons these cranes are only delivered with the original foundation filling material (see page 31).

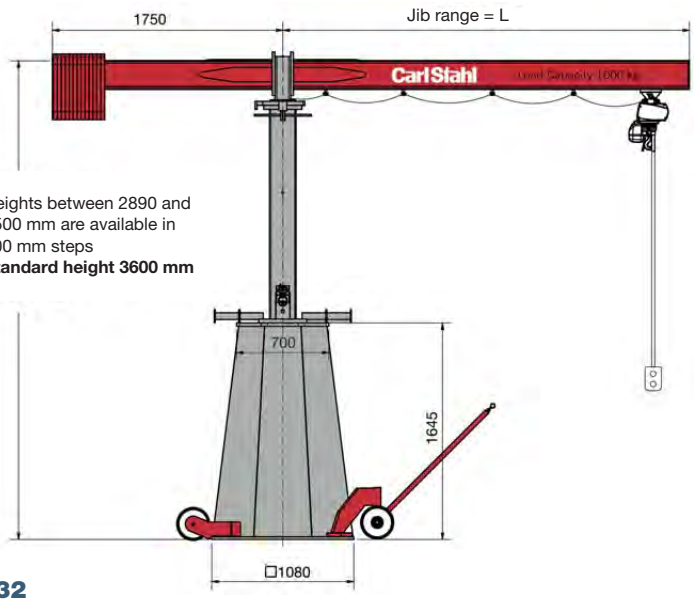
Model A

Movable crane WK3 – slewing range 360°, without counterweight, model A

Lod cap. in kg	Jib range L in mm	Overall height in mm	Crane weight in kg w/o hoist w/o filling material	Item no.
100	4500	3600	700	8024.32.4510
160	4000	3600	680	8024.32.4315
200	3600	3600	660	8024.32.3620
250	3100	3600	650	8024.32.3125
320	2600	3600	640	8024.32.2730
400	2150	3600	625	8024.32.2240
500	1750	3600	600	8024.32.1750

Total crane weight including filling material: 3,300 kg

Model B



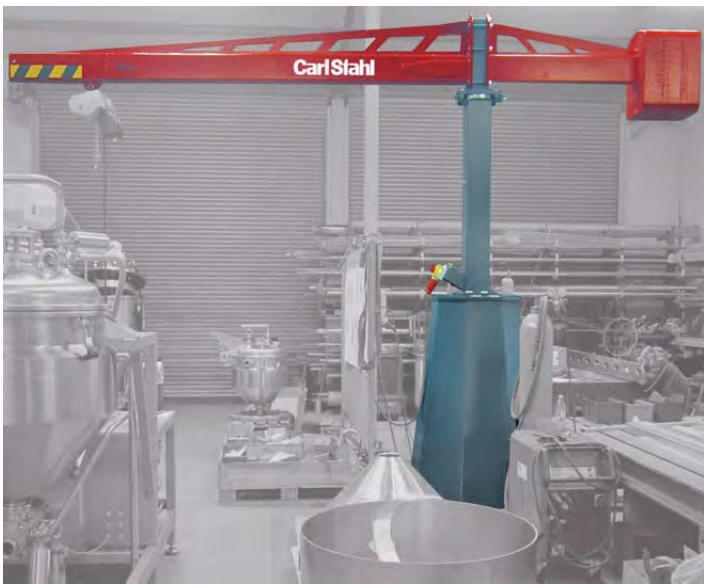
Heights between 2890 and 4500 mm are available in 100 mm steps
Standard height 3600 mm

Movable crane WK3 – slewing range 360°, with counterweight, model B

Load cap. in kg	Jib range L in mm	Overall height in mm	Crane weight in kg w/o hoist w/o filling material	Item no.
200	4500	3600	1230	8024.31.4520
320	4000	3600	1220	8024.31.4330
400	3600	3600	1210	8024.31.3640
500	3100	3600	1200	8024.31.3150
600	2750	3600	1190	8024.31.2760
800	2150	3600	1175	8024.31.2280
1000	1750	3600	1170	8024.31.1100

Total crane weight including filling material: 3,800 kg

Movable crane WK–SL 360° slewing range



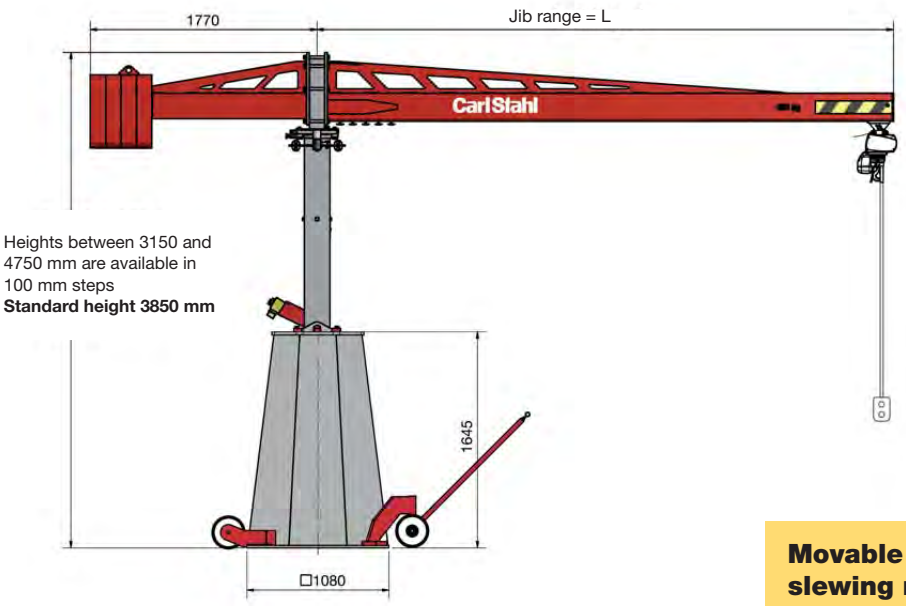
Versatile and mobile for heavy loads with maximum jib length
The movable crane WK-SL offers both high mobility and good capacity at maximum jib length. Like the WK1 and the WK3, the WK-SL can also be transported within minutes using existing equipment like a forklift truck, an overhead crane or the optionally retrofittable hydraulic ground trolley. It is then instantly ready for operation with a 400 V electrical connection via an extension cable. The crane can be fitted with hoists or handling devices from many different manufacturers.

The WK-SL crane offers the following advantages:
- Thanks to counterweight high load capacities of up to 600 kg
- Slewing range 360° (slewing limit stops available as option)
- Easy installation
- Easy moving jib arm and trolley
- Jib arm with adjustable strap brake
- Low space requirement

Optionally available:
- Also available with an operating voltage of 230 V

Pictured chain hoist and wheels not included in price and delivery.

Attention! For safety reasons these cranes are only delivered with the original foundation filling material (see page 31).



Heights between 3150 and 4750 mm are available in 100 mm steps
Standard height 3850 mm

Movable crane WK-SL with counterweight, slewing range 360°

Load cap. in kg	Jib range L in mm	Overall height in mm	Crane weight in kg w/o hoist w/o filling material	Item no.
400	4500	3850	1800	8024.33.45.40
500	4000	3850	1780	8024.33.40.50
550	3600	3850	1765	8024.33.36.55
600	3100	3850	1750	8024.33.31.60

Total crane weight including filling material: 4,800 kg

CRANE TECHNOLOGY

Jib Cranes

Wall and Pillar Jib Cranes for Outdoor Use

Special measures have to be taken if jib cranes are operated outdoors. Apart from the mandatory weather protection for the idle position of the hoist, a fully galvanised steel construction and/or a weather-proof top coat is absolutely necessary. The jib arm has to be fitted with a locking device which also serves as a wind protection.

Furthermore UV and weather resistant electric cables are required. Depending on the use and actual site of the crane (under roofing, close to the water's edge, in a sewage plant etc.) further arrangements have to be made. We can offer you complete project planning for your jib crane, if requested also assembly and final inspection on site by our crane experts. Please contact us today for an offer.

Suitable for outdoor use! Ideal for stonemasonry, builders' merchants, sewage plants, etc.

Wall jib cranes are available as standard from 125 kg to 10,000 kg. Pillar jib cranes are available as standard up to 20,000 kg and 12,000 mm jib length. Special versions for up to 80,000 kg are possible at any time.

Special constructions always available on request. Please contact us for details.

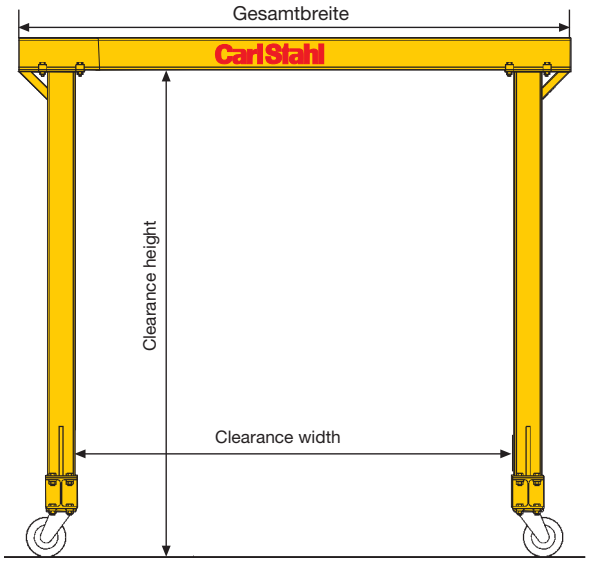
CondorCrane Gantry Crane CS-PK

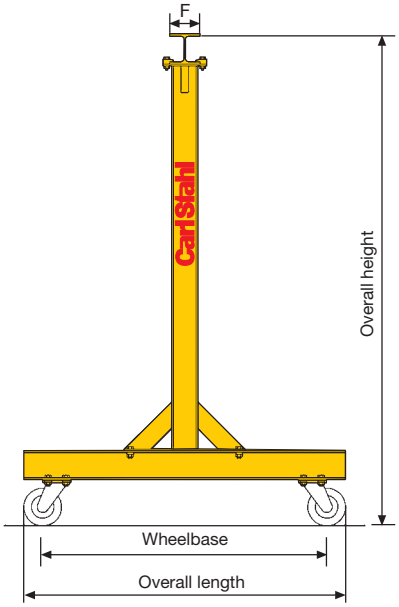
This versatile gantry crane is suitable for in- and outdoor use. Erection is quick and easy. Thanks to the lindapter connection the clearance width is adjustable.

Load capacities between 50 and 5,000 kg and clearance widths between 2 and 6 m are available.

During erection at site the regulations of BGV D6 have to be observed. The following roller types are available:
- Polyamide: can be used for smooth industrial floors and for capacities between 50 and 5,000 kg.
- Solid rubber: can be used for rough, uneven floors and for capacities up to 1,000 kg (over 1,000 kg Vulkollan is much cheaper)
- Vulkollan: can be used on slightly uneven floors (with stones, holes, edges) and for capacities up to 3,200 kg

Scope of delivery:
- Gantry crane without hoist, power feed and clamping buffers
- Painted in RAL 1004 (golden yellow), other colours on request
- Carriage: 4 steerable rollers, 2 of them with stop brake
- Polyamide rollers are standard, other materials on request





Load capacity in kg	Clearance height in mm	Clearance width in mm	Overall height in mm	Overall length (wheelbase) in mm	Overall width in mm	Weight ca. in kg	Flange width in mm	Item no.
250	3000	3000	3100	1500	3540	220	100	8027.30.02
500	3000	3000	3120	1500	3540	245	120	8027.30.05
500	3500	4000	3620	2000	4540	265	120	8027.35.05
1000	3000	3000	3150	1500	3540	330	160	8027.30.10
1000	3500	4000	3660	2000	4540	390	160	8027.35.10
2000	3000	3000	3160	1500	3660	390	160	8027.30.20
2000	4000	4000	4180	2000	4660	470	180	8027.40.20
3000	3000	3000	3180	1500	3660	470	180	8027.30.30

We generally deliver the gantry crane systems straight to the customer from the production plant in Velten. We will gladly inform you about the precise shipping and packaging costs on request.

Standard rollers: Polyamide.
Alternatively Vulkollan or solid rubber wheels are available. Please contact us for pricing.

CRANE TECHNOLOGY

HB Light Crane System

HB Light Crane System

HB Light Crane System

Facts at a glance:

- Load capacities 63 kg up to 2 tons
- Girder lengths up to 12 m
- Flexible and individual configuration
- Modularly extendable from a workplace crane to an area-covering system
- Comfortable handling and easy to move
- Low headroom and short end approach distance
- Extensive standard equipment
- Easy to install and maintain
- Optional electric long and cross travel
- Optional mobile control

CRANE TECHNOLOGY

HB Light Crane System

Fax-Enquiry for HB Light Crane System **Copy – Fill in – Fax**

Your contact details

Company name: .....

Contact person: .....

Street/P.O. Box: .....

ZIP/City: .....

Phone: .....

Fax: .....

Email:.....

We would like to receive:

❑ a quotation

❑ advice over the telephone

❑ a visit from a sales representative

Technical characteristics of required crane system:

(Please fill in as completely as possible)

A. Area-Covering Transport:

Load capacity (GL):.....kg

Girder length (LT): .....mm

Crane rail length (L): .....mm

Suspension spacing (LB):.....mm

Number of cranes

per rail: .....pcs

Electric trolley: ❑ Yes ❑ No

Electric travel: ❑ Yes ❑ No

Ceiling construction:

❑ Steel construction

❑ Reinforecd concrete

❑ Beam construction

❑ Inclinded roof

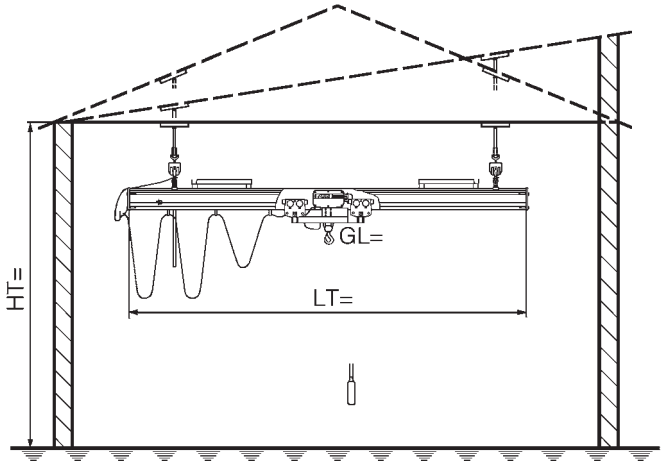
Inclination angle.....

On-site conditions:

Installation height (HT):.....mm

Required

Hook height (HÖ):.....mm



View A

——— possible roof inclination

B. Linear Transport:

Load capacity (GL):.....kg

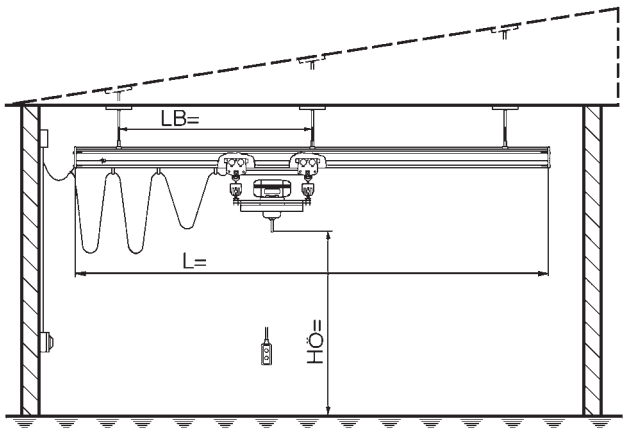
Crane rail length (L): .....mm

Suspension spacing (LB):.....mm

Number of chain hoists.....

per rail: .....pcs

Electric trolley: ❑ Yes ❑ No



View B

CRANE TECHNOLOGY

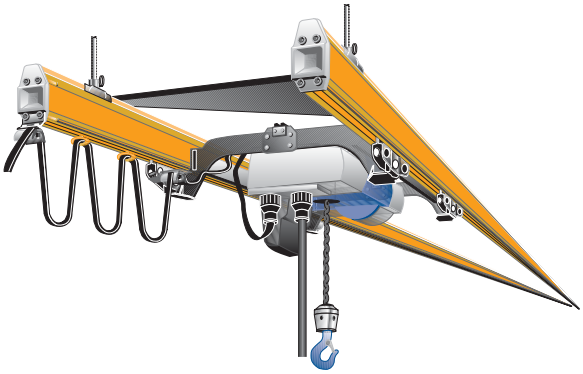
HB Light Crane System

Monorail ESB - Linear Transport

- Curved track possible
- Low headroom
- Wide suspension spacing
- Optional electric trolley

Capacity in kg	Max. suspension spacing in mm
125	10,500
250	10,300
500	9,000
1000	7,300
2000	5,100

Double Girder Crane ZSK - Linear Transport



- Wide suspension spacing
- Particularly favourable hoist height due to the chain hoist being positioned between the rails
- Very low headroom
- Optional electric travel
- Optional mobile control

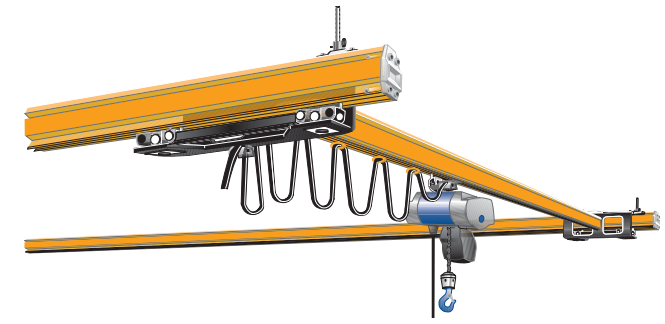
Capacity in kg	Max. suspension spacing in mm
125	10,500
250	10,500
500	10,300
1000	9,000
2000	7,300

Single Girder Crane EHB - Area-Covering Transport

- Very lightweight crane, ideal for lightweight constructions
- Easy to move manually
- Low headroom
- Short end approach dimensions
- Wide suspension spacing

Capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	10,300	10,000
250	9,500	10,000
500	8,200	10,000
1000	6,900	8,000

Single Girder Crane EHB-X - Area-Covering Transport



- Optimum use of the room height thanks to stooled-up crane
- Easy to move manually
- Very low headroom
- Short end approach dimensions
- Wide suspension spacing
- Optional electric travel
- Optional mobile control

Capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	10,500	8,000
250	9,700	8,000
500	8,600	8,000
1000	7,200	7,000

CRANE TECHNOLOGY

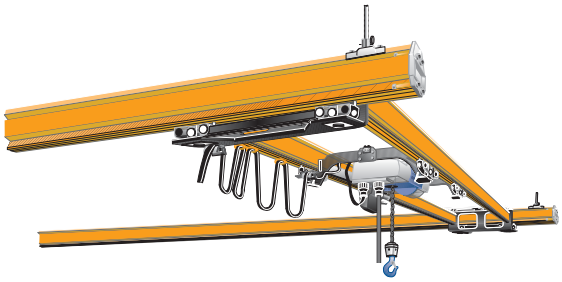
HB Light Crane System

Double Girder Crane ZHB - Area-Covering Transport

- Wide suspension spacing
- Very low headroom
- Particularly favourable hoist height due to the chain hoist being positioned between the crane supports
- Optional electric travel
- Optional mobile control

Capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	8,900	12,000
250	8,400	12,000
500	7,300	12,000
1000	6,200	12,000
2000	4,100	8,000

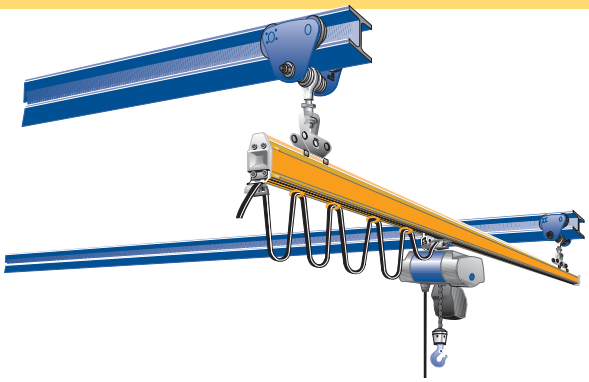
Double Girder Crane ZHB-X - Area-Covering Transport



- Optimum use of the room height thanks to stooled-up crane
- Very low headroom
- Wide max. suspension spacing
- Optional electric travel
- Optional mobile control

Capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	9,300	8,000
250	8,800	8,000
500	7,800	8,000
1000	6,700	8,000
2000	5,200	6,000

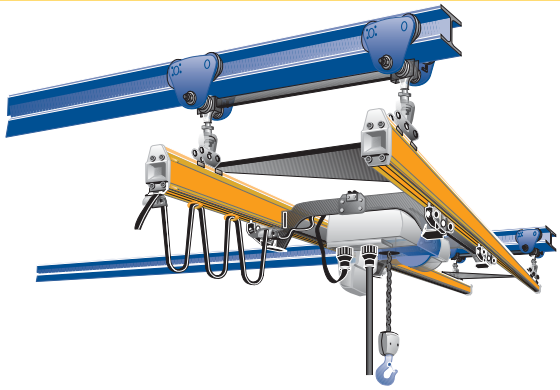
Single Girder Crane EHB-I for an existing crane runway on site (blue) - Area-Covering Transport



- Very lightweight crane, ideal for lightweight constructions
- Easy to move manually
- Crane runway made from standard rolled sections
- Short end approach dimensions

Capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	10,300	10,000
250	9,500	10,000
500	8,200	10,000
1000	6,900	8,000

Double Girder Crane ZHB-I for an existing crane runway on site (blue) - Area-Covering Transport



- High load capacity
- Particularly favourable hoist height due to the chain hoist being positioned between the crane supports
- Crane runway made from standard rolled sections
- Optional electric travel
- Optional mobile control

Capacity in kg	Max. suspension spacing in mm	Max. crane bridge length in mm
125	8,900	12,000
250	8,400	12,000
500	7,300	12,000
1000	6,200	12,000
2000	4,100	8,000

CRANE TECHNOLOGY

Adapter Cranes

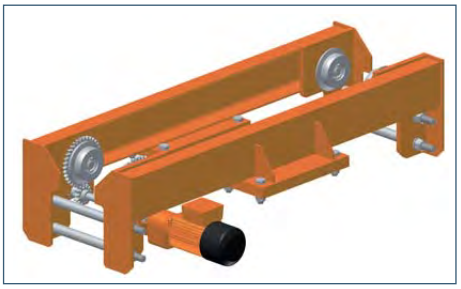
Adapter Cranes

With adapter cranes you can build a complete crane system for all applications. Adapter cranes do not include the main beam. They are available either in a screwable or weldable version. The main beam can be bought nearby the site in the requested length. This helps to reduce transport costs to a minimum as only the components are supplied. Several adapter versions are possible.

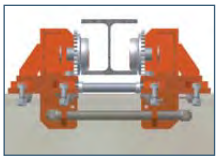
Scope of delivery:

- 1 electric chain hoist with chain and pendant control for 3 m track height including contactor control 42 V/50 Hz and power supply for the hoist from the crane bridge. Operating voltage 400 V/50 Hz.
- 1 set end carriages. Crane components will be supplied sand-blasted and primed including screws.
- 1 set of adapter plates depending on the desired version

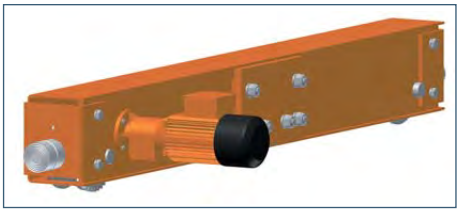
Electric chain hoist 620R



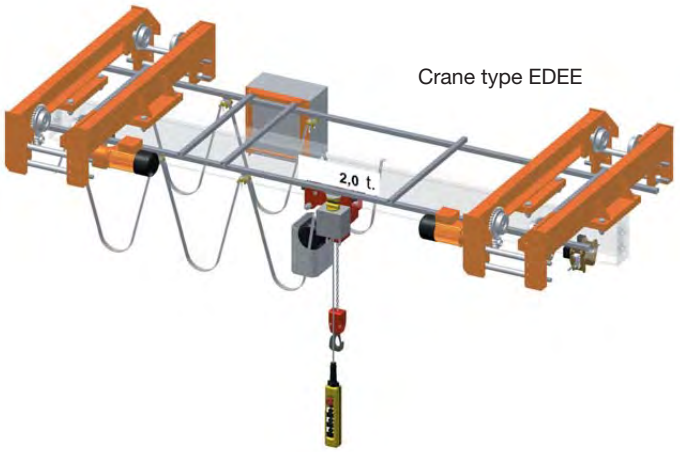
End carriage EDEE



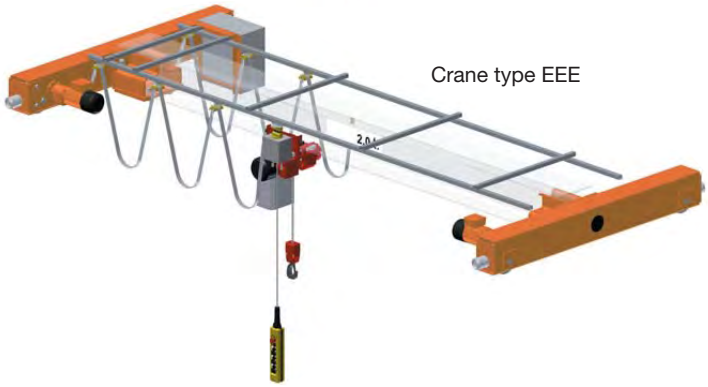
e.g. adapter plate A screwable



End carriage EEE



Crane type EDEE



Crane type EEE

Documentation:

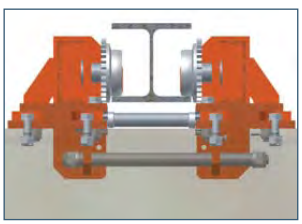
- CE declaration with the note ‘Adapter crane’
- Set-up, operating and maintenance instructions for the crane type
- Test logbook without main beam entry. The crane constructor must complete this with the tare weight of the crane and the resulting wheel loads.

Single girder underslung adapter crane EDEE

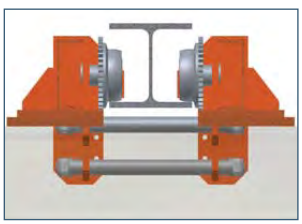
According to DIN 15018 H2/B3
with electric chain hoist 620R

Capacity in kg	Span up to m	Wheel base in mm	Wheel diameter in mm	Lifting speed of electric chain hoist 620R in m/min.
1000	7	1200	120	4/1
1000	12	1600	150	4/1
1000	15	2000	200	4/1
2000	7	1200	120	5/1.25
2000	12	1600	150	5/1.25
2000	15	2000	200	5/1.25

Adapters for crane type EDEE



Version A
screwable
adapter plates



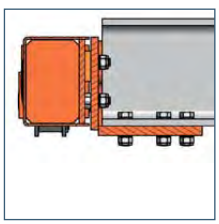
Version C
weldable
adapter plates

Single girder overhead travelling adapter crane EEE

According to DIN 15018 H2/B3
with electric chain hoist 620R

Capacity in kg	Span up to m	Wheel base in mm	Wheel diameter in mm	Lifting speed of electric chain hoist 620R in m/min.
1000	7	1200	125	4/1
1000	12	1600	160	4/1
1000	16	2200	200	4/1
2000	7	1200	125	5/1.25
2000	12	1600	160	5/1.25
2000	16	2200	200	5/1.25

Adapters for crane type EEE



Version A
screwable
adapter plates

Version B
screwable for main
beam fastened on
end carriage

Version C
weldable
adapter plates

Articulated single girder underslung adapter crane TA

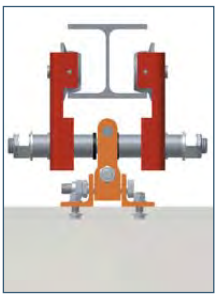
With adapter cranes you can build a complete crane system for all applications. Adapter cranes do not include the main beam. The main beam can be bought nearby the site in the requested length. This helps to reduce transport costs to a minimum as only the components are supplied. The TA adapter crane stands out due to its low price and simple installation.

- According to DIN 15018 H1/B2
- Adjustable crane trolley
- Also available as complete crane with main beam
- Other spans and load capacities on request
- Version with manual hoist on request

Scope of delivery:
- Electric chain hoist 620 R with manual trolley, load chain and pendant control for 3 m track height
- Complete power supply from crane bridge
- 1 set articulated crane trolley
- Installation and safe use instructions

Documentation:
- CE declaration with the note ‘Adapter crane’
- Set-up, operating and maintenance instructions for the crane type
- Test logbook without main beam entry. The crane constructor must complete this with the tare weight of the crane and the resulting wheel loads.

Electric chain hoist 620R



Articulated crane trolley

Please contact us for pricing!

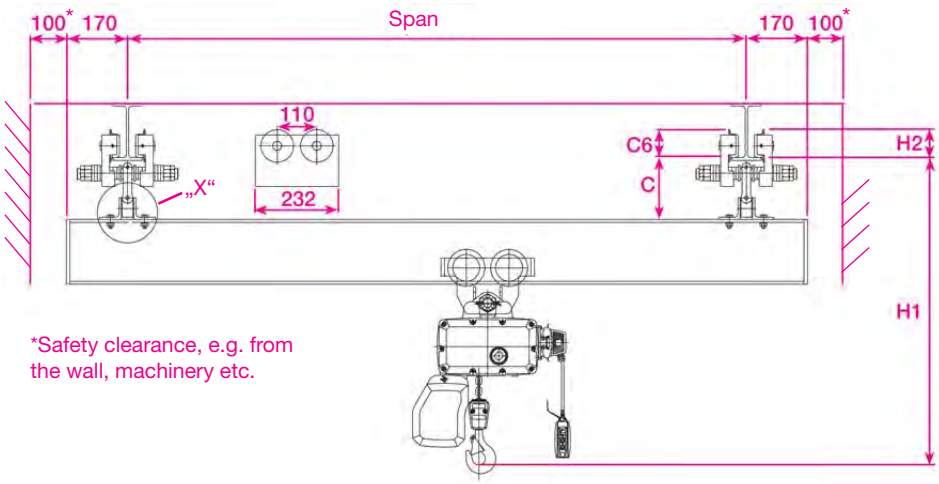
Also available in explosion-proof version. For details see pages 68-69.

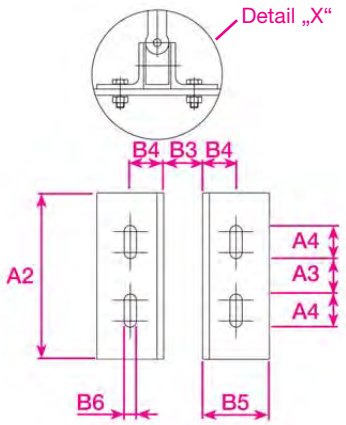
Electric chain hoist 620R see pages 80-81.

Load capacity in kg	Lifting speed in m/min	FEM 9.511, ISO 4301	Span up to m	Max. flange width of runway beam (1) in mm	Weight of crane w/o hoist in kg	Main dimensions in mm										
						A2	A3	A4	B3	B4	B5	B6	C	C6	H1*	H2
250	8/2	1Am M4	4	179	90	150	32	30	43	27	50	11	172	77	743	78
250	8/2	1Am M4	7	179	170	150	32	30	43	27	50	11	172	77	743	78
500	8/2	1Am M4	4	179	90	150	32	30	43	27	50	11	172	77	776	78
500	8/2	1Am M4	7	179	240	150	32	30	43	27	50	11	172	77	776	78
1000	4/1	1Am M4	4	179	130	150	32	30	43	27	50	11	172	77	859	78
1000	4/1	1Am M4	7	179	320	150	32	30	43	27	50	11	172	77	859	78

(1) Please indicate runway beam profile with your order

*depends on span





CRANE TECHNOLOGY

Aluminium Crane Systems

Light crane system of high-strength aluminium CS ONE - Load capacities up to 2,000 kg

Carl Stahl system modules for aluminium crane systems

- 7 coordinated profile sizes ensure optimized and flexible system configurations
- Load capacity can be upgraded by innovative profile reinforcements
- 1 trolley with 8 castors for working without jamming
- Each trolley version is suitable for each profile
- Nearly unlimited possible combinations by item®-compatible slots on the in- and outside of the profiles
- GS seal of approval
- Aluminium system modules with a broad range of accessories for the greatest diversity!

Your advantages compared to conventional steel constructions:

- Low noise level due to ball bearing rollers
- Smooth running (force to move trolley ~ 25% of the load weight, (measured on a sample system)
- Low dead weight and high stability of the profiles
- Short end approach dimensions
- Very low headroom
- Easy rail joint (without painting, welding or drilling)
- Different options for power supply: internal or external conductor line, energy chain, cable drag
- Short delivery times
- Easy to assemble

CRANE TECHNOLOGY
Aluminium Crane Systems

Expenditure of Effort when working with Aluminium Crane Systems

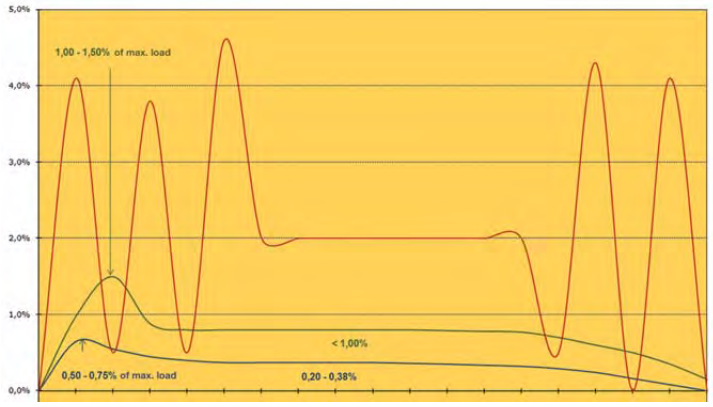
The more easy a crane system is moving, the more comfortable and ergonomic it is to work with. That is why Carl Stahl puts special emphasis on optimum running characteristics of all system components.

Load in kg	Starting effort in kg	Moving effort in kg
100	0.5 - 0.8	0.2 - 0.4
250	1.3 - 1.9	0.5 - 0.8
500	2.5 - 3.8	1.0 - 1.9
750	3.8 - 5.8	1.5 - 2.9
1000	5.0 - 7.5	2.0 - 3.8
1500	7.6 - 15.0	3.0 - 5.8
2000	10.0 - 16.0	4.0 - 7.6

The use of electrical drives results in an enhanced energy balance, which positively effects the design of the drive and brakes. As a result, less energy is consumed during acceleration and breaking.

Prices on request!

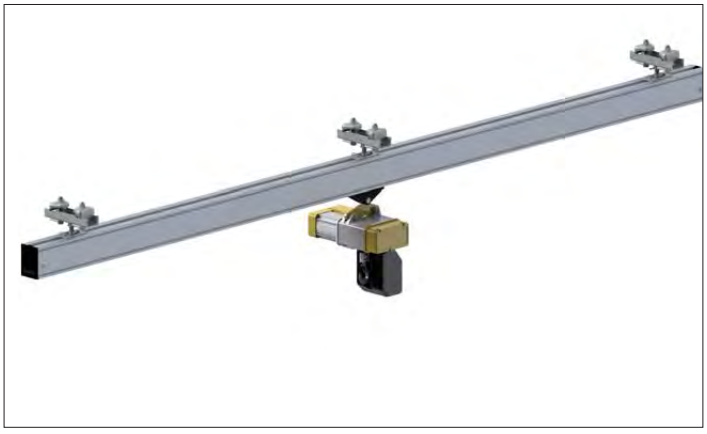
According to DIN EN 13157.2004, the maximum allowable operating force for manual trolleys is 25 daN or 25 kg.



Steel **Standard Alu-Systems** **Carl Stahl**

The values for the Carl Stahl profiles have been determined experimentally. All other values have been taken from published charts.

Crane System Overview



Monorail

Single girder crane

Double girder crane, raised

Singe girder crane, telescopic

CRANE TECHNOLOGY

Carbon fibre/aluminium crane system

Ultra-light crane beam made from carbon fibre, type CS Carbon NEW!

- Maximum ergonomics for load capacities of up to 100 kg
- Weight-optimised trolley
- Ultra-light beam with a tare weight of just 1,700 g/m
- Anchoring strut also made from carbon
- The crane boom is only stuck on and inserted
- Delivered pre-assembled, simply press and screw together on site

Prices on request!

Small aluminium modular system for workplace systems, type CS Nano NEW!

- Smooth-running properties and ergonomics for load movement or the handling of tools weighing up to 100 kg
- Ideal for work benches and work stations
- Three beam sizes: CS NANO 40, CS NANO 60 and CS NANO 80
- 1 trolley for all CS NANO beams
- Downward and upward load suspension possible
- 7 item®-compatible grooves for the attachment of further components
- **Available with load capacities of 15, 50 and 100 kg**

Prices on request!

CRANE TECHNOLOGY

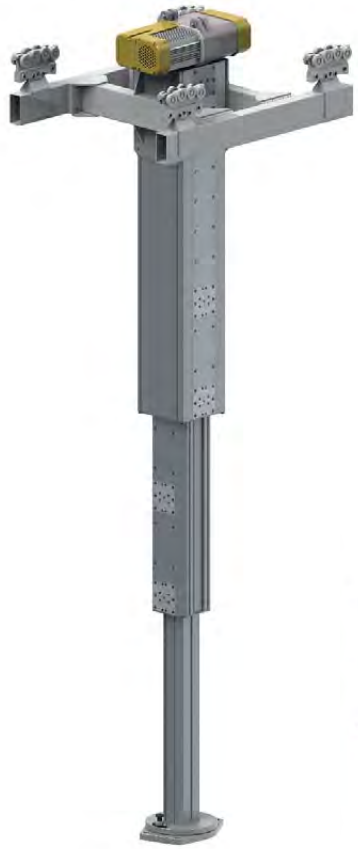
Aluminium Crane Systems

Aluminium lifting axis modules for the transportation of non-central loads, type CS Move NEW!

Development kit for an individual lifting axis module through to a complete lifting axis

- Secure handling of non-central loads with the eepos lifting axis modular construction kit
- Individual installation dimensions and lifting heights
- Load capacity up to 1,000 kg, higher loads on request
- Up to 2,500 Nm torque absorption in case of offset loads
- Electric lifting, pneumatic available as option
- High mechanical resistance also with offset loads
- Steplessly adjustbale lifting speed
- Rigid guidance with no play
- Low-maintenance
- Outer 'item'-slots for additional attachments
- Further lifting axes can be individually tailored to specific installation situations
- Broad range of accessories available, e.g.: driving frame, supports, attachments
- Scope of delivery: Completely assembled lifting axis incl. lifting motor and driving frame

Prices on request!



Sizes S, M, L

© with the kind approval of Audi Hungaria Kft.

CRANE TECHNOLOGY

Aluminium crane system

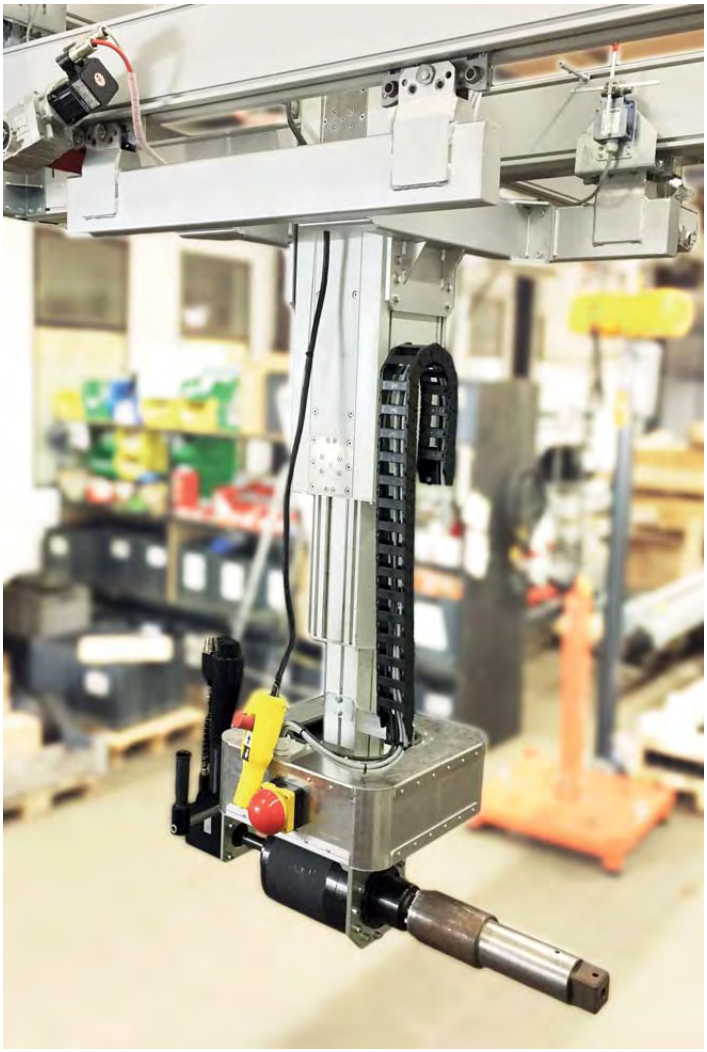
Control system for the Carl Stahl aluminium lifting axis, type CS Tronic

NEW!

- CS TRONIC is designed as a collaborative control system: the operator simply speeds up the load; the motorised crane system hurries after it
- The operator can touch the load freely and from all sides in order to move and position it
- Developed as an additional control option for movements in X and Y direction
- The measurement unit can be attached to the crane system directly or to the aluminium lifting axis below this
- The on-site configuration of the intelligent controller enables individual acceleration and braking ramps
- No dead time caused by sensors, control units or actuators

How the CS TRONIC control system works

- The measurement unit determines the route difference between the load and the crane system
- The CS TRONIC control system detects the operator's movement and supplements and reinforces it
- The crane system above the measuring unit appears weightless
- Example: a load (e.g. screwdriver) of approx. 120 kg hangs on a lifting axis that is suspended on a crane system weighing approx. 400 kg. Thanks to the collaborative control system, the operator simply moves the load. The weight of the lifting axis and the crane system is moved by the CS TRONIC control system.

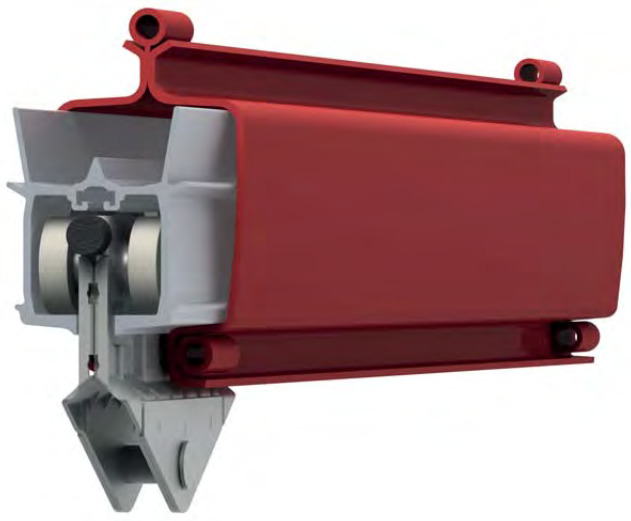


Prices on request!

Slide-in Profile

For the first time ever, the new slide-in aluminium profile allows for a reasonably priced modernization possibility of an existing steel crane system. Once the new slide-in components have been fitted into the existing steel profile, it offers all features of a smooth-running aluminium system: Easy and ergonomic load transport, even long crane bridges can be moved at no effort and without jamming.

Silde-in Profile Trolley
This steel-body trolley has been specially designed for use with the slide-in profile, but can still be used with other crane profiles as well. Jamming of the trolley is ruled out by the special arrangement of the 8 plastic wheels.
The trolley has a rated capacity of 600 kg as with other trolleys from the CS ONE product range.



Portable Aluminium Gantry Crane, stationary and movable version, single or double beam

Description:
- The aluminium gantry crane system is a highly mobile and flexible, height and length-adjustable, freestanding structure.
- The aluminium gantry crane can be constructed and dismantled effortlessly and with few actions.
- No structural changes (e.g. dowel attachments or similar) are required.

Features:
- All side frames can be easily folded up for compact short or long-term storage and transportation.
- Even when subjected to a load, the trolley on the single/double aluminium beam is infinitely movable and can be locked into place in any position. Double beam version: thanks to the lockable trolley being positioned at the top, the maximum lift can be used in proportion to the entire height.
- The stop buffers act as collision guards for the trolley.
- The usable length of the aluminium gantry crane can be infinitely moved between the side frames by using the horizontal adjustment mechanism. The runway width of the single/double aluminium beam is therefore variable.
- Double beam version: the two individual aluminium beams are placed and fixed onto the frame supports. These components are also used to ensure that the aluminium double beam is in a parallel position.

Special aluminium gantry crane, movable under load

Special aluminium gantry crane, stationary version, with chassis

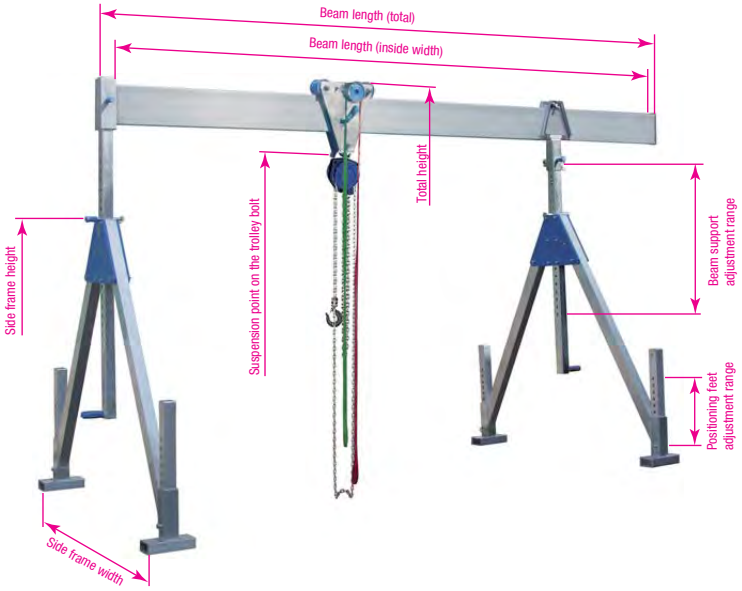
CRANE TECHNOLOGY

Rapid-assembly Aluminium Gantry Cranes

Rapid-assembly aluminium gantry crane, type CS-SKE, stationary version, single beam

Description:
The stationary version of the aluminium gantry crane offers the advantage in many situations that it stands on its own feet. The 4 positioning feet can be individually and independently height adjusted and therefore adapted to the conditions on site. This crane type offers optimum stability for all load applications. Further descriptions and features can be found on page 47.

Scope of delivery:
2 x side frames, foldable with height-adjustable beam supports (grid dimensions 50 mm) with height-adjustable positioning feet (grid dimensions 40 mm)
1 x aluminium beam
1 x lockable trolley
1 x stop buffer
1 x integrated horizontal adjustment mechanism



Variant (version):
Aluminium gantry crane with divisible, push-fit aluminium beam
The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation.
The two pieces can be also be used as a single beam.

The following combinations are possible:
1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)

Caution:
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 101.

Aluminium beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4164	1260/2360	1640/2740	700	400	1300	96	8030.4K.10S
1000	4000/4164	1740/2990	2120/3370	850	400	1740	102	8030.5K.10S
1000	4000/4184	2320/4020	2700/4400	1300	400	2240	154	8030.6K.10S
1500	4000/4164	1260/2360	1640/2740	700	400	1300	104	8030.4K.15S
1500	4000/4164	1740/2990	2120/3370	850	400	1740	110	8030.5K.15S
1500	4000/4184	2320/4020	2700/4400	1300	400	2240	162	8030.6K.15S

Aluminium beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	1260/2360	1640/2740	700	400	1300	91	8030.4K.10
1000	4000/4100	1740/2990	2120/3370	850	400	1740	97	8030.5K.10
1000	4000/4100	2320/4020	2700/4400	1300	400	2240	149	8030.6K.10
1500	4000/4100	1260/2360	1640/2740	700	400	1300	99	8030.4K.15
1500	4000/4100	1740/2990	2120/3370	850	400	1740	105	8030.5K.15
1500	4000/4100	2320/4020	2700/4400	1300	400	2240	157	8030.6K.15

Beam lengths of up to 8 m available for quick delivery. Special versions for many areas of use!

Please contact us with your questions!

Accessories

Wall bracket, see page 52

Trolley, see page 52

Cabling/power supply, see page 52

Circumferential strap, see page 53

Hand winch, see page 53

Storage and transport box, see page 53

CRANE TECHNOLOGY

Rapid-assembly Aluminium Gantry Cranes

Rapid-assembly aluminium gantry crane, type CS-SKD, stationary version, double beam

Description:
This aluminium gantry crane version is suited to uses in which the maximum lift should be used in proportion to the total height. Furthermore, the double beam version is used as the perfect aid for various uses at higher load capacities. Further descriptions and features can be found on page 47.

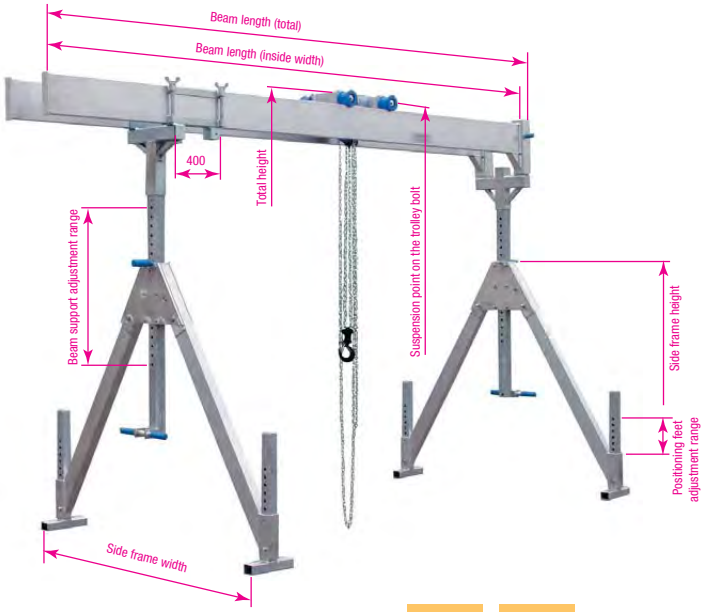
Scope of delivery:

2 x side frames, foldable with height-adjustable beam supports (grid dimensions 50 mm) with height-adjustable positioning feet (grid dimensions 40 mm)
1 x aluminium double beam (1 set = 2 individual beams)
1 x top, lockable trolley
1 x stop buffer
1 x integrated horizontal adjustment mechanism
1 x push-fit support

Variant (version):
Aluminium gantry crane with divisible, push-fit aluminium beam
The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation.
The individual pieces can be also be used as a double beam.

The following combinations are possible:
Beam length 4,000 mm
1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)

Beam length 6,000 mm
1. Beam length 2,000 mm
2. Beam length 4,000 mm
3. Beam length 6,000 mm (2,000 + 4,000 mm)



Caution:
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 101.

Aluminium double beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4184	2150/3570	2240/3660	1020	400	1740	172	8030.5H.10S
1000	6000/6184	2150/3570	2240/3660	1020	400	1740	224	8030.6H.10S
2000	4000/4184	2640/3790	2730/3880	750	400	2230	258	8030.5H.20S
2000	6000/6184	2640/3790	2730/3880	750	400	2230	294	8030.6H.20S
3000	4000/4184	2640/3790	2730/3880	750	400	2230	258	8030.5H.30S
3000	6000/6184	2640/3790	2730/3880	750	400	2230	294	8030.6H.30S

Aluminium double beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	2150/3570	2240/3660	1020	400	1740	162	8030.5H.10
1000	6000/6100	2150/3570	2240/3660	1020	400	1740	214	8030.6H.10
2000	4000/4100	2640/3790	2730/3880	750	400	2230	248	8030.5H.20
2000	6000/6100	2640/3790	2730/3880	750	400	2230	284	8030.6H.20
3000	4000/4100	2640/3790	2730/3880	750	400	2230	248	8030.5H.30
3000	6000/6100	2640/3790	2730/3880	750	400	2230	284	8030.6H.30

Beam lengths of up to 8 m available for quick delivery (3 t up to 6 m). Special versions for many areas of use!

Please contact us with your questions!!

Accessories

Wall bracket, see page 52

Trolley, see page 52

Cabling/power supply, see page 52

Circumferential strap, see page 53

Hand winch, see page 53

Storage and transport box, see page 53

CRANE TECHNOLOGY

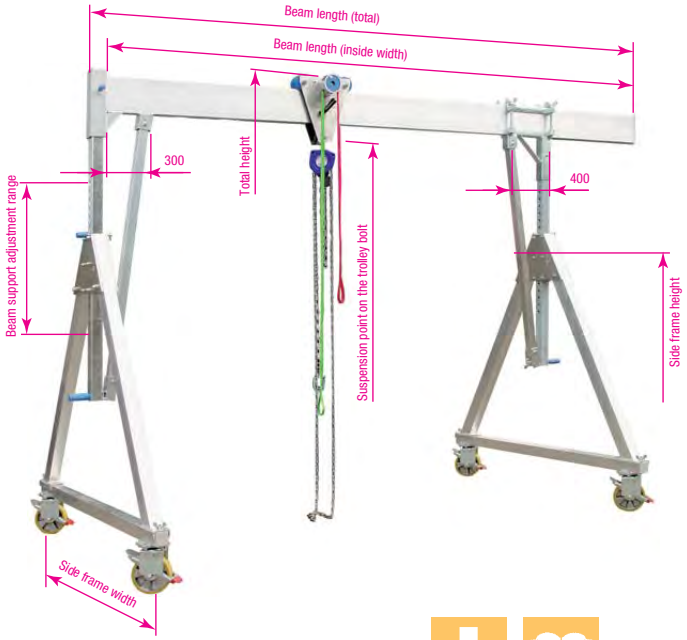
Rapid-assembly Aluminium Gantry Cranes

Rapid-assembly aluminium gantry crane, type CS-FKE, version 'movable under load', single beam

Description:
With this crane type, the load can be hoisted, moved to the aluminium beam using the trolley and set down. It is also possible to move the entire constructed aluminium gantry crane, even under load. Further descriptions and features can be found on page 47.

Scope of delivery:

2 x side frame, foldable
with height-adjustable beam support (grid dimensions 50 mm)
incl. 4 sheet steel guide rollers, diameter 50 mm
with heavy-duty polyurethane tread and
with integrated wheel and slewing ring brake
1 x aluminium beam
1 x lockable trolley
1 x stop buffer
1 x integrated horizontal adjustment mechanism



Variant (version):
Aluminium gantry crane with divisible, push-fit aluminium beam
The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation.
One of the two items (with sleeve) can also be used as a single beam.

The following combinations are possible:
1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)

Caution:
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 101.

Aluminium beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	1730/2130	2110/2510	400	-	1490	180	8030.7V.0110S
1000	4000/4100	1730/2130	2110/2510	400	-	1490	202	8030.7V.0210S
1000	4000/4100	2170/3020	2550/3400	850	-	2000	220	8030.7V.0310S
1500	4000/4100	2170/3020	2550/3400	850	-	2000	196	8030.7V.0115S
1500	4000/4100	2500/3800	2880/4180	1300	-	2320	218	8030.7V.0215S
1500	4000/4100	2500/3800	2880/4180	1300	-	2320	236	8030.7V.0315S

Aluminium beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	1730/2130	2110/2510	400	-	1490	167	8030.7V.0110
1000	4000/4100	1730/2130	2110/2510	400	-	1490	175	8030.7V.0210
1000	4000/4100	2170/3020	2550/3400	850	-	2000	189	8030.7V.0310
1500	4000/4100	2170/3020	2550/3400	850	-	2000	197	8030.7V.0115
1500	4000/4100	2500/3800	2880/4180	1300	-	2320	207	8030.7V.0215
1500	4000/4100	2500/3800	2880/4180	1300	-	2320	215	8030.7V.0315

Special versions for many areas of use!
Please contact us with your questions!

Accessories

Wall bracket, see page 52

Cabling/power supply, see page 52

Circumferential strap, see page 53

Hand winch, see page 53

Storage and transport box, see page 53

CRANE TECHNOLOGY

Rapid-assembly Aluminium Gantry Cranes

Rapid-assembly aluminium gantry crane, type CS-FKD, version 'movable under load', double beam

Description:
In addition to the benefits of the 'stationary product with a double beam', this aluminium gantry crane also offers a further great feature: it can and may be moved with a suspended load, e.g. for positioning over machinery. The load capacity is up to 3,000 kg. Further descriptions and features can be found on page 47.

Scope of delivery:

2 x side frame, foldable
with height-adjustable beam support (grid dimensions 50 mm)
including sheet steel guide rollers, diameter 50 mm
with heavy-duty polyurethane tread and
with integrated wheel and slewing ring brake
Version 1,000 kg and 1,500 kg: x 4
Version 2,000 kg and 3,000 kg: x 8
1 x aluminium double beam
1 x top, lockable trolley
1 x stop buffer
1 x integrated horizontal adjustment mechanism
1 x push-fit support

Variant (version):
Aluminium gantry crane with divisible, push-fit aluminium beam
The bulkiest and longest component can be supplied as a divisible, push-fit version, e.g. for compact transportation. One of the two items (with sleeve) can also be used as a double beam.

The following combinations are possible:
1. Beam length of 2,000 mm
2. Beam length of 4,000 mm (2,000 mm + 2,000 mm)

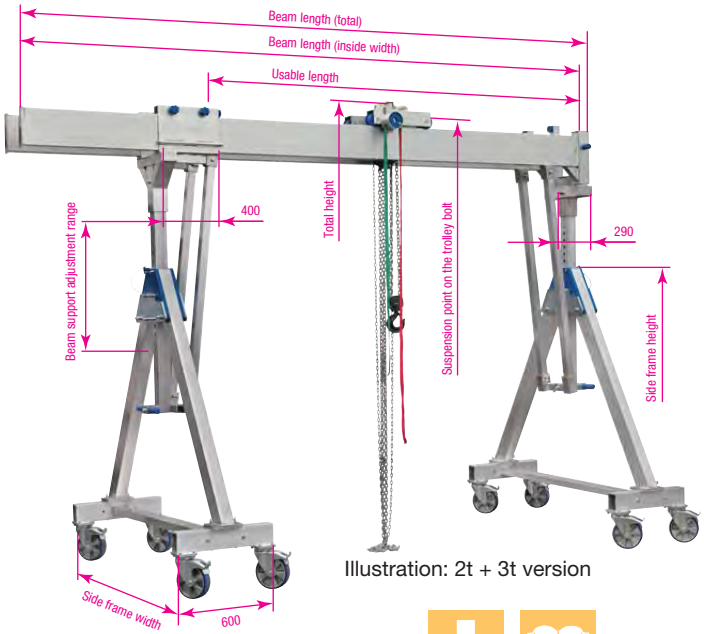


Illustration: 2t + 3t version

Caution:
The chain block shown is not included in the scope of delivery. Chain blocks can be found from page 101.

Aluminium double beam: divisible, push-fit design

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	2060/2460	2150/2550	400	-	1490	244	8030.8V.0110S
1000	4000/4100	2500/3350	2590/3440	850	-	2000	270	8030.8V.0210S
1000	4000/4100	2830/4130	2920/4220	1300	-	2320	288	8030.8V.0310S
2000	4000/4100	2120/2470	2210/2560	350	-	1350/600	310	8030.8V.0120S
2000	4000/4100	2620/3370	2710/3460	750	-	1870/600	336	8030.8V.0220S
2000	4000/4100	3030/4180	3120/4270	1150	-	2220/600	358	8030.8V.0320S
3000	4000/4100	2120/2470	2210/2560	350	-	1350/600	310	8030.8V.0130S
3000	4000/4100	2620/3370	2710/3460	750	-	1870/600	336	8030.8V.0230S
3000	4000/4100	3030/4180	3120/4270	1150	-	2220/600	358	8030.8V.0330S

Aluminium double beam

Load capacity in kg	Beam length inside width/total in mm	Min./max. suspension point on the trolley bolt in mm	Min./max. total height in mm	Beam support adjustment range in mm	Positioning feet adjustment range in mm	Side frame width in mm	Weight in kg/pce	Item no.
1000	4000/4100	2060/2460	2150/2550	400	-	1490	234	8030.8V.0110
1000	4000/4100	2500/3350	2590/3440	850	-	2000	260	8030.8V.0210
1000	4000/4100	2830/4130	2920/4220	1300	-	2320	278	8030.8V.0310
2000	4000/4100	2120/2470	2210/2560	350	-	1350/600	300	8030.8V.0120
2000	4000/4100	2620/3370	2710/3460	750	-	1870/600	326	8030.8V.0220
2000	4000/4100	3030/4180	3120/4270	1150	-	2220/600	348	8030.8V.0320
3000	4000/4100	2120/2470	2210/2560	350	-	1350/600	300	8030.8V.0130
3000	4000/4100	2620/3370	2710/3460	750	-	1870/600	326	8030.8V.0230
3000	4000/4100	3030/4180	3120/4270	1150	-	2220/600	348	8030.8V.0330

Beam lengths of up to 8 m available for quick delivery (3 t up to 5 m).
Special versions for many areas of use!
Please contact us with your questions!

Accessories see Type CS-FKE

CRANE TECHNOLOGY

Portable Aluminium Gantry Cranes - Accessories

Wall bracket for aluminium gantry cranes in the versions ‘stationary’ and ‘movable under load’

Description:

- The wall bracket facilitates the attachment of the beam to a wall. This widens the field of possible applications especially when used through door or window openings.
- The single/double aluminium beam can be slewed through 180° at the wall bracket (in unloaded condition)

For gantry crane	Item no.
8030.4K.xx 8030.5K.xx	8030.ZW.01
8030.6K.xx 8030.7V.xxx	8030.ZW.02
8030.5H.xx 8030.6H.xx 8030.8V.xxx	8030.ZW.03

Wheel sets for stationary aluminium gantry cranes

Description:

- Facilitates moving of the assembled, unloaded gantry crane easily to its next operating site
- The integrated forks permit the lateral stands to stay upright during assembly and disassembly of the crane
- The wheel sets are individually height-adjustable
- The spring-mounted wheels allow the lateral stands to rest directly on the supports when under load
- No need for assembly or disassembly
- Scope of delivery: 4 pcs ‘forks’ = 1 wheel set

Wheel set for indoor use:
Vulkollan wheels

For gantry crane	Item no.
stationary version	8030.ZV.01

Wheel set for indoor and outdoor use:
Solid rubber wheels

For gantry crane	Item no.
stationary version	8030.ZL.01

Wiring/power supply for aluminium gantry cranes in the versions ‘stationary’ and ‘movable under load’

Description:

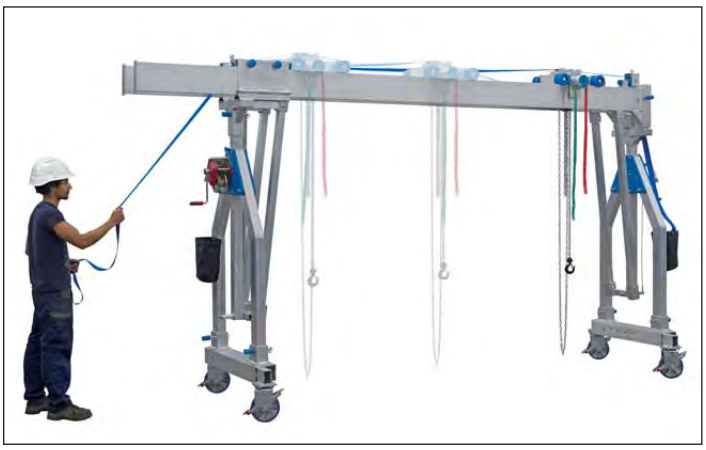
- The portal crane is delivered ready to use
- Power supply 400 V/16A, 50 Hz, 5-pole with switch (standard version)
- Phase changing 5-pole CEE plug
- PUR coiled cable
- Electrical connection of the hoist is effected by a 6-pole plug
- All electrical components are suitable for indoor and outdoor use under normal operating conditions.

For gantry crane	Item no.
stationary version version ‘movable under load’ ‘single beam’	8030.SZ.E04
stationary version version ‘movable under load’ ‘double beam’	8030.SZ.D04

When ordering an accessory indicate item no. of your aluminium gantry crane!
The manual hoist devices and electrical chain hoist shown are not included in the scope of delivery.

Circumferential strap for aluminium cranes in the versions ‘stationary’ and ‘movable under load’

Description:
- The circumferential strap can be used to move the trolley with the suspended load to the single/double aluminium beam.
- The operator can remain outside the hazardous area while moving the trolley. This makes work far easier.
- With integrated clamping plates at both ends of the strap. These components are used to weight load the circumferential strap.
- With integrated clamp device
  - on both face sides of the aluminium beam (single beam)
  - on the push-fit support and the horizontal adjustment mechanism (double beam)
  This gives the circumferential strap the necessary tension, i.e. the area under the lockable trolley is clear.
- With 2 storage options on the 2 side frames (the circumferential strap can be stored here).



For Gantry Crane	Item no.
stationary version version ‘movable under load single beam’	8030.ZB.01
stationary version version ‘movable under load double beam’	8030.ZB.02

Hand winches for height adjustment for aluminium cranes in the versions ‘stationary’ and ‘movable under load’

Description:
- For height adjustment (Not to be used under load).
- The aluminium gantry crane can be assembled on a low level.
- Afterwards it can be raised to the desired working height using the hand winches.
- Caution: the hand winch must be activated from both sides.
- Scope of delivery: 1 set = 2 winches (1 per lateral stand)

For Gantry Crane	Item no.
Suitable for all aluminium gantry cranes	8030.ZA.01

Storage/transport box for aluminium gantry cranes in the versions ‘stationary’ and ‘movable under load’

Description:
- Material: Aluminium. Rugged construction with hinged lid
- Plate for padlock
- Shell handles on the lid
- Ultra-elasticated solid rubber tyres with integrated wheel and slewing ring brake
- The storage and transport box can be moved individually and unassisted.
- The base is reinforced so it can be transported with a pallet truck or a forklift (e.g. for loading on a vehicle).
- The single components of the aluminium gantry crane can be stowed completely and in a space-saving way. Ideal for safe storage and transport.
- Mechanics at site always have a complete crane system at hand.

The storage/transport box is available in 3 dimensions:
Length 2,400 mm, Width 685 mm, Height 660/860 mm
Length 3,000 mm, Width 685 mm, Height 660/860 mm
Length 4,200 mm, Width 685 mm, Height 1,000/1,200 mm

Please inform us which aluminium gantry crane (plus accessories) you would like. We will then recommend the ideal storage and transport box.
This product is continually tailored to the respective aluminium gantry crane.

When ordering an accessory indicate item no. of your aluminium gantry crane!
The manual hoist devices shown are not included in the scope of delivery.

CRANE TECHNOLOGY
Alu-Multilift

**The Alu-Multilift – easy to carry!
To facilitate your work.**

Alu-Multilift without counterweight

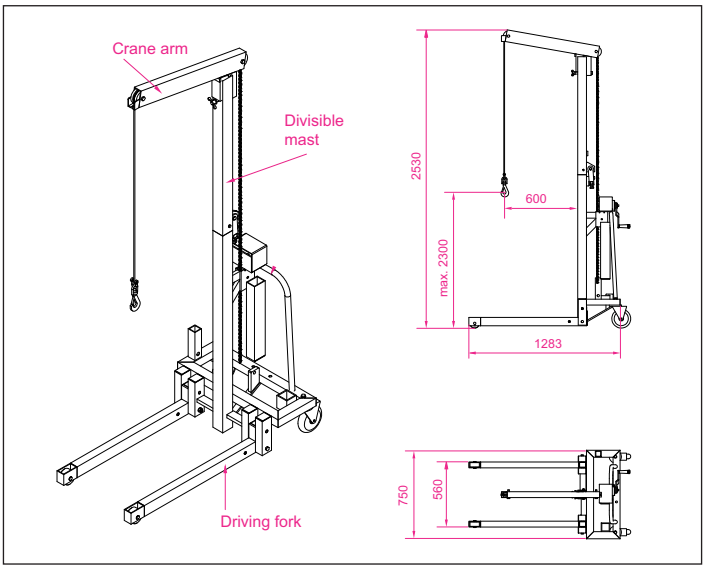
Alu-Multilift
Load capacity 250 kg

Version without counterweight
Dead weight 70 kg

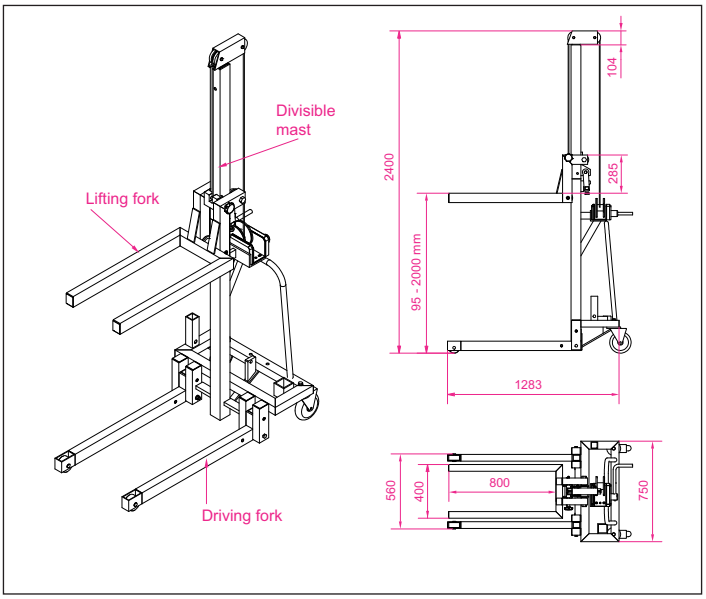
Description:
- The Alu-Multilift has been specially developed for businesses in need of a mobile lifting device
- Folded for transport it will fit into a van
- Top of mast extension is detachable
- The lifting fork is height adjustable under load.
- The product can be individually moved and rotated almost 'on the spot'.
- With just a few turns the Alu-Multilift can be folded away
- It can be moved into both euro flat pallets and pallet cages.

Scope of delivery:
- With crane arm (ref. Ill. 1)
- With lifting fork (ref. Ill. 2)
- With wire rope winch, including fold-down handle
- Driving fork height 95 mm (from the floor to the upper edge of the driving fork)
- Driving fork width 560 mm
- With 2 heavy-duty wheels
  With a wheel and slewing ring brake
  With elasticated solid rubber tyres, diameter 160 mm
  These wheels are attached to the basic frame.
- With 2 guide rollers or fork wheels made from high-grade plastic, diameter 80 mm
  These wheels are attached to the driving fork.
- With safety load hook with swivel (rotatable by 360° under load)
- Dimensions when folded up: 496 x 750 x 1,300 mm

Version with crane arm - Ill. 1



Version with lifting fork - Ill. 2



Ill. 1:
Version with crane arm
- Total height 2,530 mm
- Jib length 600 mm
- Hook path 0 - 2,300 mm

Ill. 2:
Version with lifting fork
- Total height 2,400 mm
- Width of lift. fork 400 mm
- Length of lift. fork 800 mm
- Lifting height 95 - 2,000 mm

Load capac-ity in kg	Type	Lifting height w/ lifting fork in mm	Width of lift. fork in mm	Length of lift. fork in mm	Width of base forks in mm	With crane arm: Jib length in mm	With crane arm: Hook path in mm	Dimensions folded in mm	Weight in kg/pce	Item no.
250	w/o counterweight	2000	400	800	560	600	2300	496 x 750 x 1300	70	7172.00.02

**Special versions for many areas of use!
Please contact us with your questions!**

Alu-Multilift with counterweight

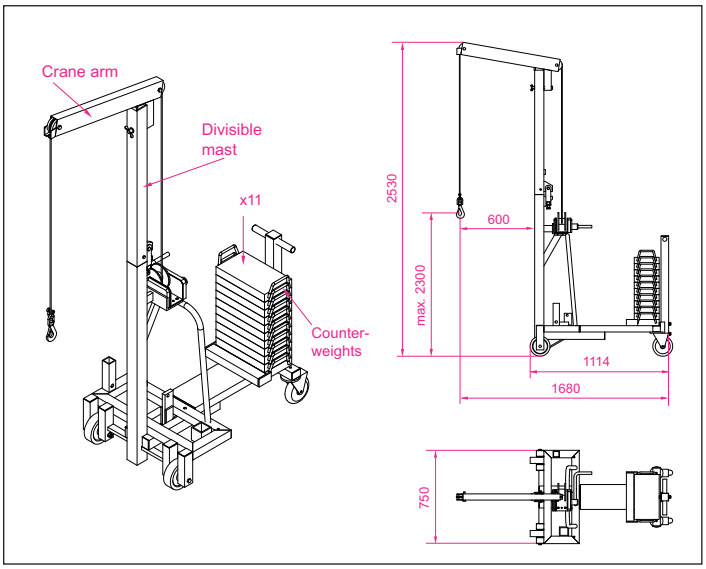
Alu-Multilift
Load capacity 250 kg

Version with counterweight
Dead weight 400 kg

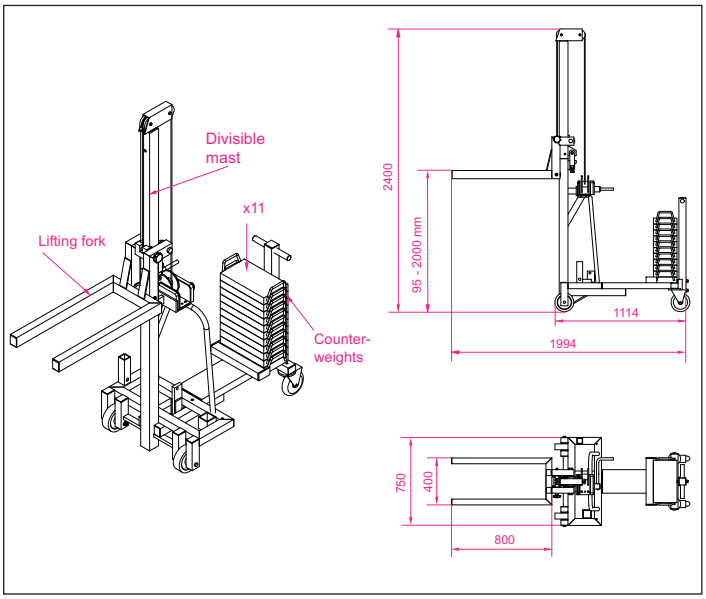
Description:
- The Alu-Multilift has been specially developed for businesses in need of a mobile lifting device
- Folded for transport it will fit into a van
- Top of mast extension is detachable
- The lifting fork is height adjustable under load.
- The product can be individually moved and rotated almost 'on the spot'.
- With just a few turns the Alu-Multilift can be folded away
- It can be moved into both euro flat pallets and pallet cages.
- The attachment part (including the counterweight) can be removed from the Alu-Multilift.

Scope of delivery:
- With crane arm (ref. Ill. 3)
- With lifting fork (ref. Ill. 4)
- With wire rope winch, including fold-down handle
- With 11 counterweights
  The counterweights are equipped with a lock to prevent them from being accidentally removed.
- With 2 heavy-duty wheels
  With elasticated solid rubber tyres, diameter 160 mm
  These wheels are attached to the basic frame (front).
- With 2 heavy-duty wheels
  With a wheel and slewing ring brake
  With elasticated solid rubber tyres, diameter 160 mm
  These wheels are attached to the attachment part (back).
- With safety load hook with swivel (rotatable by 360° under load)
- Dimensions when folded up: 432 x 750 x 1,300 mm + attachment part

Version with crane arm - Ill. 3



Version with lifting fork - Ill. 4



Ill. 3:
Version with crane arm
- Total height 2,530 mm
- Jib length 600 mm
- Hook path 0 - 2,300 mm

Ill. 4:
Version with lifting fork
- Total height 2,400 mm
- Width of lift. fork 400 mm
- Length of lift. fork 800 mm
- Lifting height 95 - 2,000 mm

Load capac-ity in kg	Type	Lifting height w/ lifting fork in mm	Width of lift. fork in mm	Length of lift. fork in mm	Width of base forks in mm	With crane arm		Dimensions folded in mm	Weight in kg/pce	Item no.
						Jib length in mm	Hook path in mm			
250	w/ counterweight	2000	400	800	-	600	2300	432 x 750 x 1300 + attachm.part	400	7172.00.12

Special versions for many areas of use!
Please contact us with your questions!

CRANE TECHNOLOGY

Aluminium Tripod

Aluminium tripod with rubber-metal feet - Load capacity 1,000 kg

Description:
- Used to hoist loads, especially in places that are difficult for conventional devices to access.
- Wide adjusting range due to telescopic legs
- The ring bolt can be rotated 360° under load.
- High stability through anti-slip rubber-metal linings on bottom of legs
- Stability guaranteed.
- The sophisticated design means that no safety chain or similar is required with our standard version.

Description - Aluminium Tripod - Ill. 1:
- Collapsible, overall height for transport 2 m, diameter approx. 450 mm (e.g. in transport condition).

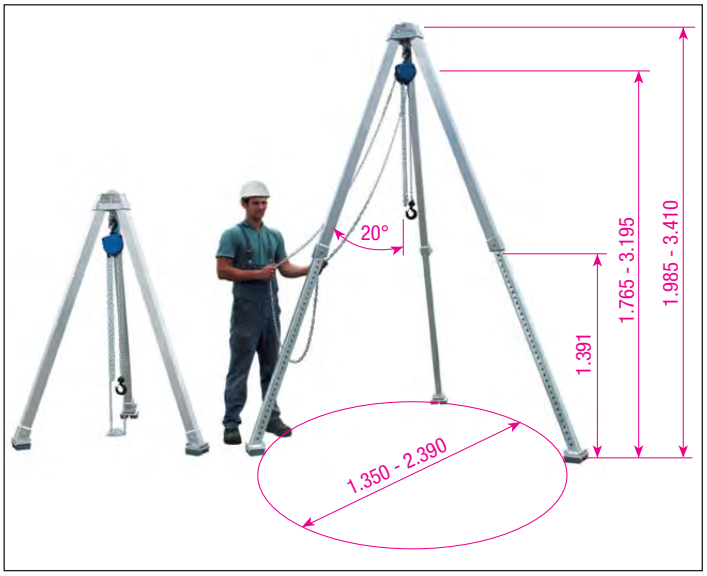
Description - Aluminium Tripod with hand winch - Ill. 2:
- Collapsible, overall height for transport 2,200 mm, diameter approx. 600 mm (e.g. in transport condition).
- The winch crank is equipped with a drum direct-gear allowing to quickly wind off the unloaded cable (with integrated safety hook)
- The winch is detachable and can be flange-mounted at any desired height on the tripod
- Rope length 25 m, rope ø 7 mm
- The load can be suspended from either the safety load hook on the rope or directly from the ring bolt.

Load capacity in kg	Type	Lifting height min./max. in mm	Weight in kg/pce	Item no.
1000	standard	1765-3195	54	7170.10.10
1000	w/ hand winch	1765-3195	74	7170.20.10

Please note: Pictured chain block and securing chain not included.

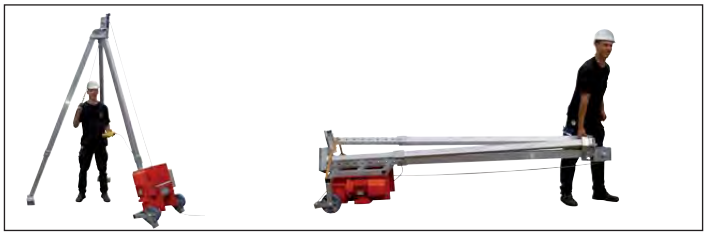
For chain blocks see from page 101.

Aluminium Tripod - Ill. 1



Aluminium Tripod with hand winch - Ill. 2

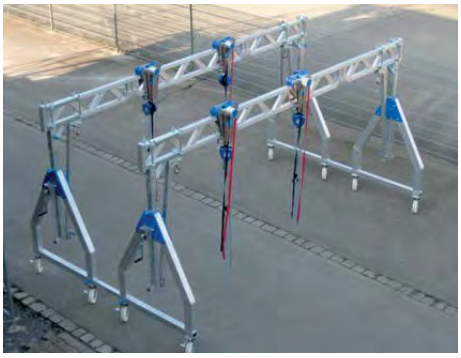
On request the aluminium tripods are also available with an electric wire rope winch. Please contact us for details!



CRANE TECHNOLOGY

Aluminium Gantry Cranes

Aluminium gantry cranes for the most individual and diverse applications



CRANE TECHNOLOGY
Workshop Cranes

Movable Workshop Cranes with Parallel or Spread Chassis, Foldable

High-quality lightweight crane for occasional use with parallel or spread chassis. Optional working load limit of 500 kg or 1,000 kg.

Benefits:
- Can be quickly and easily folded up into a compact size for periods of non-use
- Easy-to-operate lever for manual hydraulic hoisting of the load
- Remains movable even when folded up (without load)
- Ideal assistant for occasional use with the largest lift in its device class
- 80 mm lift without load, 20 mm lift with load
- With locking device on the guide wheels

Largest lift in its price class!

F500PKS
F1000PKS

Type PKS folded

Type VKS folded

F500VKS
F1000VKS

Parallel chassis

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in front of hydraulics in mm	Chassis outer/inner in mm	Lifting height* in mm	Weight in kg/pce	Item no. Parallel chassis
500 - 250	F500PKS	0	790-1090	1125/900	2100/2330	130	8024.00.05
1000 - 500	F1000PKS	0	790-1090	1125/900	2100/2330	135	8024.00.10

* Max. with jib arm retracted/jib arm extended

Spread chassis

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in front of hydraulics in mm	Chassis outer/inner in mm	Lifting height* in mm	Weight in kg/pce	Item no. Spread chassis
500 - 250	F500VKS	0	790-1090	1125/900	2100/2330	125	8024.04.05
1000 - 500	F1000VKS	0	790-1090	1125/900	2100/2330	125	8024.04.10

* Max. with jib arm retracted/jib arm extended

Movable Workshop Cranes with Parallel Chassis ‘Industry’

High-quality workshop crane ‘made in Germany’ for regular industrial use with a parallel chassis for straddling euro pallets or pallet cages. Optional working load limit of 1,000 kg, 2,000 kg or 3,000 kg.

Benefits:

- Robust design, therefore highly durable
- 13 jib positions for large jib lengths and lifting heights
- Adjustable manual pump reduces the effort in relation to heavy loads and enables faster pumping without or with small loads
- Pump enables the load to be held for a long time without being lowered
- Mechanical drive postioner reduces the effort required to move the crane and enables a controlled approach to expensive machinery or with sensitive loads
- The crane and load can be moved by a single person – even with a 3 ton load
- In connection with the 180°-steerable drawbar of the mechanical drive positioner, the crane is extremely versatile
- Manual device

HB2000FaPo
also straddles
1,000 mm pallets

Mechanical drive positioner

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in front of hydraulics in mm	Chassis outer/inner in mm	Lifting height* in mm	Weight in kg/pce	Item no.
1000 - 90	HB1000FaPo	0-1488	650-2450	980/825	2350/3750	290	8024.00.11
2000 - 155	HB2000FaPo	0-1730	1100-3200	1250/1050	3450/5390	520	8024.00.21
3000 - 200	HB3000FaPo	0-1635	1100-3200	1600/1400	3475/5410	800	8024.00.31

* Max. with jib arm retracted/jib arm extended

CRANE TECHNOLOGY
Workshop Cranes

Industry Crane with Counterweight 'Industry'

High-quality, particularly durable industrial crane with a counterweight 'made in Germany' for regular industrial use. Optional working load limit of 500 kg, 1,000 kg or 2,000 kg.

Benefits:
- Ideal for maintenance work conducted indoors or above machinery
- Thanks to the chassis being placed at the back, loads or machinery can be directly approached
- 13 jib positions for large jib lengths and load bearing capacities
- Adjustable manual pump reduces the effort in relation to heavy loads and enables faster pumping without or with small loads
- Pump enables the load to be held for a long time without being lowered
- Mechanical drive postioner reduces the effort required to move the crane and enables a controlled approach to expensive machinery or with sensitive loads
- Even the HB2000GKFaPo can be moved by a single person
- In connection with the 180°-steerable drawbar of the mechanical drive positioner, the crane is extremely versatile
- Manual device

HB1000GKFaPo

HB500GKFaPo

Mechanical drive postioner

HB1000GKBRP is also available with electric operation ON REQUEST!

HB1000GKBRP
Even more convenient and productive thanks to the electric lift and drive unit

Load capacity max. in kg	Type	Jib range in front of hydraulics in mm	Jib range in front of wheels in mm	Jib range in mm	Chassis outer in mm	Lifting height* in mm	Weight in kg/pce	Item no.
500 - 90	HB500GKFaPo	730-2530	730-2530	1100-2900	800	2400/3750	360 +1000**	8024.03.05
1000 - 90	HB1000GKFaPo	730-2530	730-2530	1100-2900	800	2400/3750	365 +1000**	8024.03.10
2000 - 155	HB2000GKFaPo	1025-3175	1025-3175	1650-3750	1000	5000/3240	650 +2000**	8024.03.20

* Max. with jib arm retracted/jib arm extended
** The crane is only operational with the counterweight box filled. Counterweight filling material can be ordered with your crane at extra cost.

Counterweight Crane

High-quality, particularly durable industrial crane with a counterweight 'made in Germany' and a load capacity of 500 kg for occasional use.

Benefits:
- Dual-action manual hydraulics for securely lifting and lowering the load
- Thanks to the chassis being placed at the back, loads or machinery can be directly approached
- Simple manoeuvrability thanks to manual drawbar with steering control deflection of 180 degrees
- Device locked into place by positioning the drawbar vertically
- Drive-through width of just 800 mm, meaning the device fits through almost any door
- Convenient operation thanks to the large safety load hook and ergonomic handles for positioning the boom
- Comes with filled counterweight boxes

ITI500N folded

ITI500N

Greatest manual lift in its class! Lift of 1 m reached with just 8-16 strokes.

Further advantages of the ITI500B07:
- Design with battery-operated electric lift
- Comes with battery and a separate charger
- With adjustable lowering speed as standard

ITI500B07

The electric lift makes things even easier! The manual button enables you to choose whether to stand by the crane or the load.

Load capacity max. in kg	Type	Jib range in front of wheels in mm	Jib range in mm	Chassis outer in mm	Lifting height* in mm	Weight in kg/pce	Item no.
500 - 175	ITI500N	465-1625	925-2085	800	2300/2950	600	8024.01.05
500 - 220	ITI500B07	465-1625	925-2085	800	2300/2950	745	8024.02.05

* Max. with jib arm retracted/jib arm extended

CRANE TECHNOLOGY
Workshop Cranes

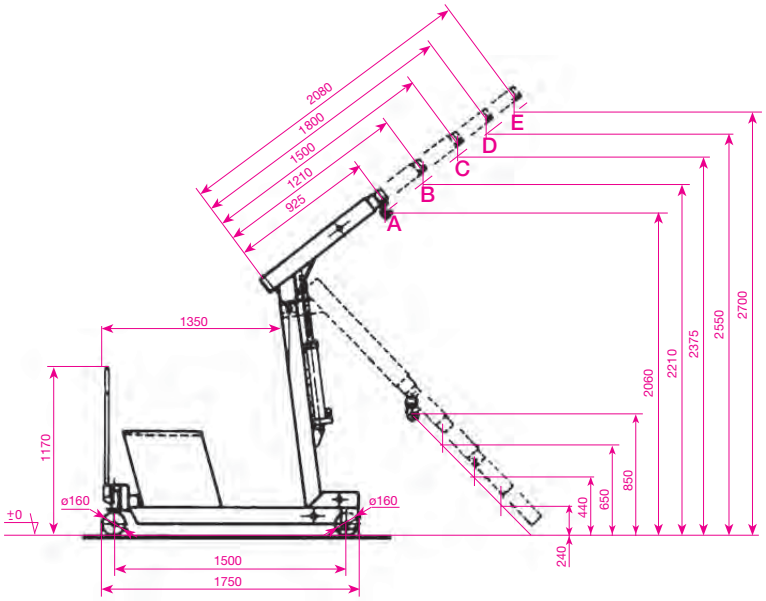
Hydraulic Counterweight Crane with collapsible Jib Arm

3 models with max. capacities of 250 kg, 350 kg and 550 kg

- Ideal for loading and unloading of trucks and for lifting and lowering of machines, work at loading ramps etc.
- All models with double-action hydraulic pump (lifting on every pump movement)
- Big jib range due to adjustable jib arm (5 positions)
- Collapsible jib arm for space-saving transport and storage
- Handle-controlled tandem steering wheels with locking mechanism on the basic frame
- Big wheels with ball bearing and foot guard
- Safety swivel hook with 360° rotation
- Delivery includes counterweight box and tool tray
- Counterweight blocks:
  each block has a threaded jacket into which a ring bolt can be screwed so that the block can be easily removed/attached using a forklift/crane once the two mounting screws on the frame have been loosened.
  This makes the counterweight crane easier to transport and suitable for use on several building sites.
  The block is highly stable and has a tool tray.
  The rounded edges offer greater safety and make the block more attractive.
- Scope of delivery:
  Counterweight crane with counterweight block and tool tray (fully assembled ready for operation)
- Individual custom solutions available on request

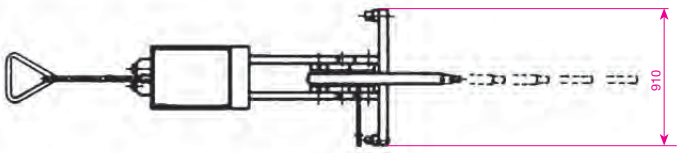
MKS 550 G

MKS 550 G
folded away



Control lever/button

Tandem wheels



Load capacity max. in kg	Type	Load capacity at jib arm length in kg					Weight in kg/pce	Item no.
		925 mm A	1210 mm B	1500 mm C	1800 mm D	2080 mm E		
250	MKS 250G	250	200	150	100	50	390	8042.30.02
350	MKS 350G	350	280	210	150	100	460	8042.30.03
550	MKS 550G	550	450	350	250	150	600	8042.30.05

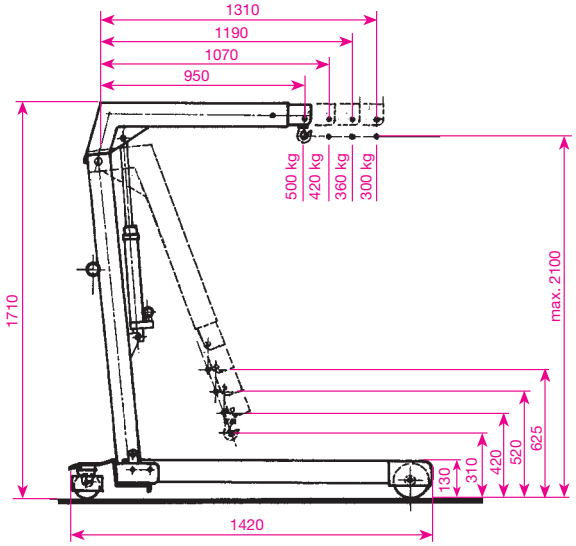
Workshop Crane with hinged jib arm and V-shaped chassis, for occasional use

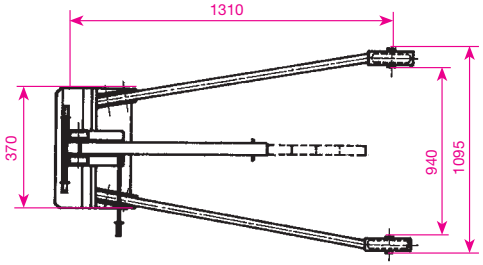
Load capacities 500 and 1,000 kg

- All models with double-action hydraulic pump (pump lever works in both directions to lift the load faster)
- Jib arm adjustable in 4 positions
- Rugged hydraulics with precisely adjustable lowering speed
- Both steering wheels with foot brake
- Big wheels for easy movement
- All wheels with foot guard
- All cranes CE-marked

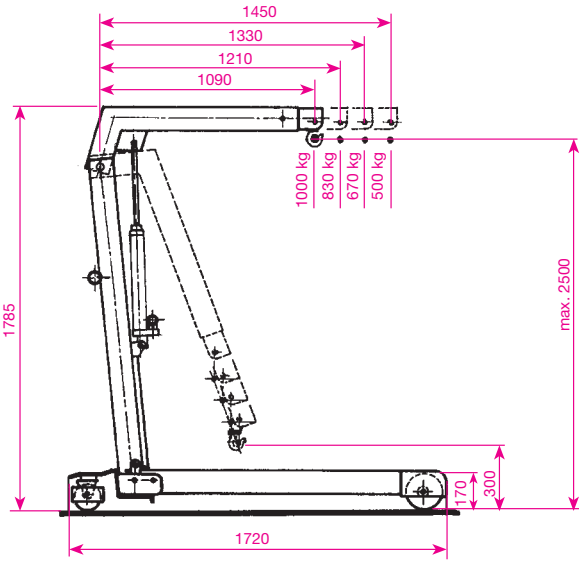
MKS 500 DW-S

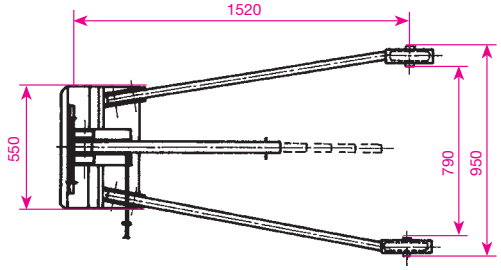
MKS 500 DW-S folded away





MKS 500 DW-S





MKS 1000 DW-S

Load capacity max. in kg	Type	Chassis	Characteristics	Weight in kg/pce	Item no.
500	MKS 500 DW-S	V-shaped	foldable	73	8042.21.05
1000	MKS 1000 DW-S	V-shaped	foldable	108	8042.21.10

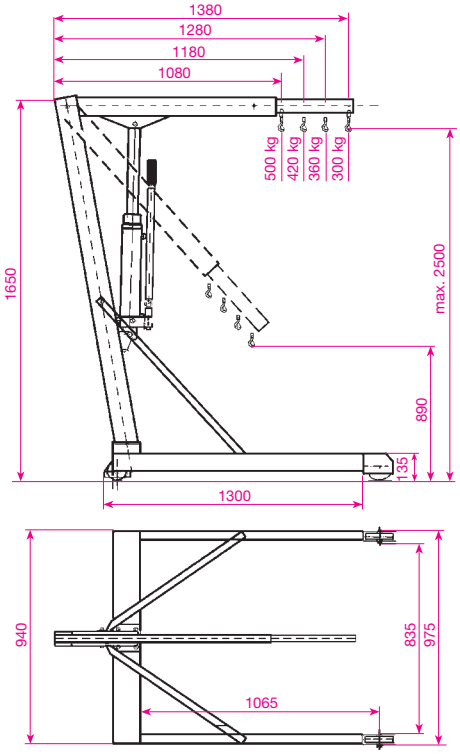
CRANE TECHNOLOGY
Workshop Cranes

Workshop Crane, collapsible with parallel Chassis for Work over Pallets

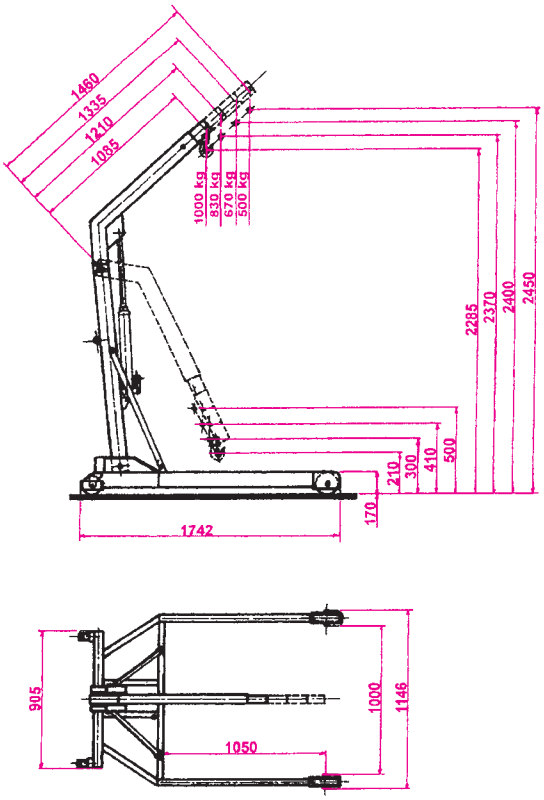
Load capacities 500 and 1,000 kg

- All models with double-action hydraulic pump (pump lever works in both directions to lift the load faster)
- Jib arm adjustable in 4 positions
- Rugged hydraulics with precisely adjustable lowering speed
- Both steering wheels with foot brake (MKS 500 PDW + MKS 1000 PDW)
- Big wheels for easy movement
- All wheels with foot guard
- All cranes CE-marked

MKS 1000 PDW



MKS 500 PDW



MKS 1000 PDW

Load capacity max. in kg	Type	Chassis	Characteristics	Weight in kg/pce	Item no.
500	MKS 500 PDW	parallel	collapsible	73	8042.23.05
1000	MKS 1000 PDW	parallel	collapsible	121	8042.23.10

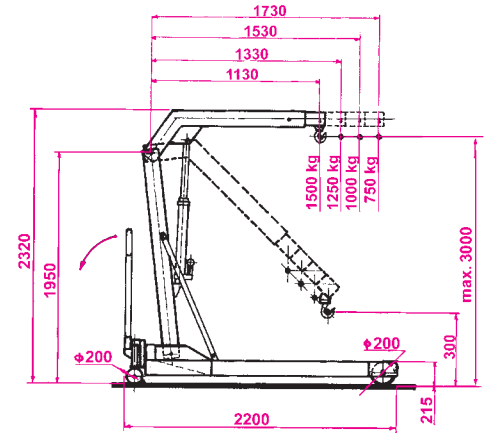
CRANE TECHNOLOGY
Workshop Cranes

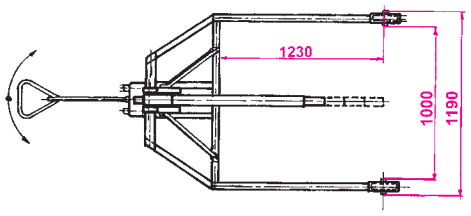
Workshop Crane, collapsible with parallel Chassis for Work over Pallets

Load capacities 1,500 and 2,000 kg

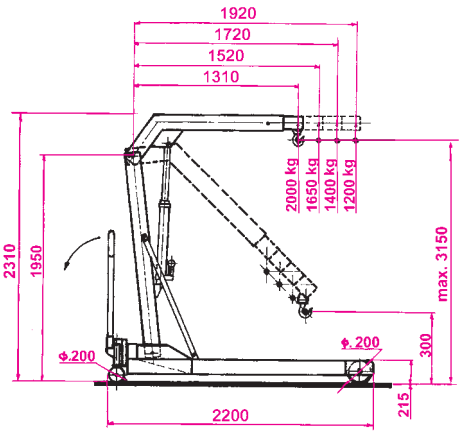
- All models with double-action hydraulic pump (pump lever works in both directions to lift the load faster)
- Jib arm adjustable in 4 positions
- Rugged hydraulics with precisely adjustable lowering speed
- PU wheels on aluminium rim. All 4 wheels with ball bearing, Ø 200 mm (MKS 1500 PDW + MKS 2000 PDW)
- Handle bar-steered tandem wheels with locking device at the frame (MKS 1500 PDW + MKS 2000 PDW)
- Big wheels for easy movement
- All wheels with foot guard
- All cranes CE-marked

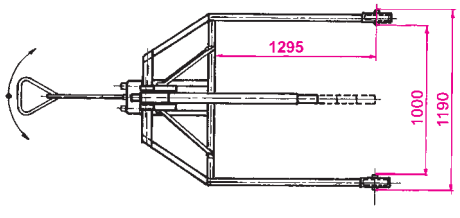
Photo shows type MKS 2000 PDW





MKS 1500 PDW





MKS 2000 PDW

Load capacity max. in kg	Type	Chassis	Characteristics	Weight in kg/pce	Item no.
1500	MKS 1500 PDW	parallel	collapsible	230	8042.23.15
2000	MKS 2000 PDW	parallel	collapsible	250	8042.23.20

LIFTING EQUIPMENT

Powered Lifting Equipment

Air Hoists	Pages 70-73
Electric Chain Hoists	Pages 74-81
Electric Wire Rope Winches	Pages 82-87
Motor-driven Rope Pulling Machines	Pages 88-92
Accessories	Pages 93-94

Manual Lifting Equipment

Lever Hoists	Pages 96-100
Chain Blocks	Pages 101-105
Hoist Chains	Page 106
Trolleys	Page 107
Retractors/Balancers	Pages 109-112
Hand Winches	Pages 113-117
Manual Rope Pulling Machines	Pages 118-119
Accessories	Pages 120-121

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www.carlstahl.com
WLL 1,6 t
CODE:CLLH016
7,1x20,1mm EN818-7-T
340 N - EN 12195-3

EXPLOSION PROTECTION

In order to harmonise explosion protection and to adapt it to a new guideline concept, the European Union issued the EU directive 94/9/EC in 1994. It governs the requirements for explosion protected equipment and protective systems by approximating essential safety requirements (GSA) of the EC treaty between the member states. This is also where the designation ATEX 95 used among experts derives from; formerly ATEX 100a.

The scope of this directive covers all industrial ex-areas including mining and also includes dust explosion protection. It applies to all electrical but also mechanical equipment and protective systems. Apart from the essential safety requirements also the classification of equipment and protective devices in groups has been newly regulated, as well as their certification and marking.

Only equipment which has been marked accordingly must be used in explosive environments.

For placing on the market of explosion protected equipment the EU directive 94/9/EC is in effect since 01 March 1996.

According to directive ATEX 95 (EU directive 94/9/EC) the manufacturer has to ensure that from 2003 his lifting devices are produced according to the valid rules, standards and regulations for explosion protected equipment. They also must be assigned to ex-classes and marked accordingly.

Hazardous zones categories

Hazardous places are classified in terms of zones. For the zone classification refer to IEC 60079-10 and national standards. The chart below shows the zone classification in connection with the equipment category.

Gases, mists, vapours	Equipment category	Dusts	Equipment category	Presence of explosive atmosphere
Zone 0	1G	Zone 20	1D	continuously/for long periods/frequently
Zone 1	2G	Zone 21	2D	occasionally
Zone 2	3G	Zone 22	3D	only rarely and for a short period of time

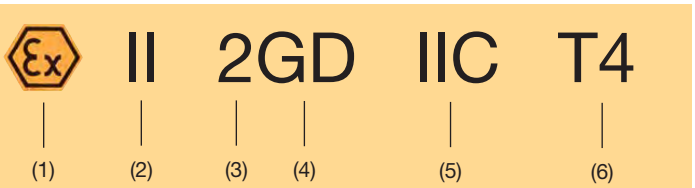
Temperature classes

The maximum surface temperature of the equipment must be lower than the ignition temperature of the gas/vapour/air mixture. Equipment approved for higher temperature classes, can of course be used in places where a lower temperature class is required. As in practice gas/air mixtures in T5 do not occur at all, and for T6 only occur occasionally with special gas/air mixtures like sulfur hydrocarbon (IIC), our lifting devices have not been assigned to these temperature classes.

Temperature class	Gas ignition temperature in °C	Max. surface temperature of the equipment in °C
T1	>450	450
T2	>300 < 450	300
T3	>200 < 300	200
T4	>135 < 200	135
T5	>100 < 135	100
T6	>85 < 100	85

Explosion protected lifting devices and load suspension equipment

For use in explosive environments Carl Stahl offers a wide range of spur wheel chain blocks which can be combined either with a push trolley or a geared trolley, air-powered or electric chain hoists, manual, electric or air-powered monorail trolleys, and air driven winches.
Three different versions are offered: compact, low headroom and extremely low headroom to allow best possible adaption to all conditions even in confined spaces.



(1) Marking of explosion protection according to “ATEX 95”

(2) Equipment group:
I = For underground workings/mines
II = For all other areas subject to explosion hazard

(3) ATEX category:
1 = Continuous, long-term and frequent danger (>1000 hrs/year) Zone 0
2 = Occasional danger (10-1,000 hrs/year) Zone 1
3 = Infrequent or short-term danger (<10 hrs/year) Zone 2

(4) G(as) = Areas with explosive gas, vapour, mist and air mixtures
D(ust) = Areas with explosive dust air mixtures

(5) Explosion group based on material: IIA, IIB, IIC

(6) Temperature class

Gas explosion groups

Flammable gases and vapours can be assigned to temperature classes based on their ignitability.

Substance designation	Ignition temperature	Temperature class	Explosion group
Acetone	540°C	T1	IIA
Ammonia	630°C	T1	IIA
Benzene (pure)	555°C	T1	IIA
Acetic acid	485°C	T1	IIA
Ethane	515°C	T1	IIA
Ethyl acetate	460°C	T1	IIB
City gas (illumination gas)	560°C	T1	IIB
Hydrogene sulfide	270°C	T3	IIC
Hydrogene	560°C	T1	IIB
Ethylene	425°C	T2	IIC
Acetylene	305°C	T2	IIA
Heating oil	300°C	T3	IIA
Acetaldehyde	140°C	T4	IIB
Ethyl ether	180°C	T4	

EXPLOSION PROTECTION

Explosion protected lifting devices and load suspension equipment

Air-powered chain hoist
Type Mini

Page 71

II3 GD II A T4(X)

Air-powered chain hoist
Type PROFI

Page 72

II2 GD II A T4(X)
II3 GD II B T4(X)

Air-powered chain hoist
Type PROFI
with motor trolley

Page 73

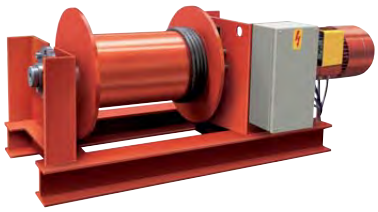
II2 GD II A T4(X)
II3 GD II B T4(X)

Electric and air-powered winch
Type 43/86

Page 84

Electric wire rope winch with planetary gear

Page 86



Trolleys type
Type HTP and HTG

Page 107

***Yale*lift360**

Page 103

Vacuum tube lifter Jumbo

Page 180

The following items are available on request:

Electric chain hoist with trolley

Trolley

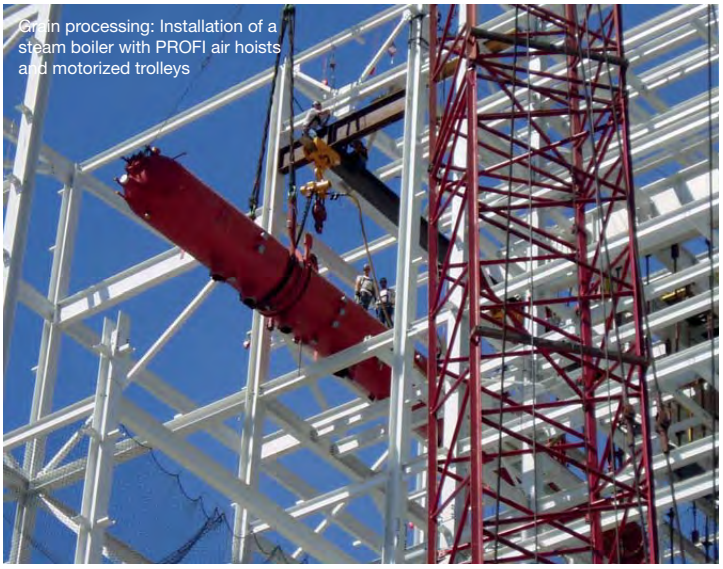
Chain block with geared trolley

POWERED LIFTING EQUIPMENT

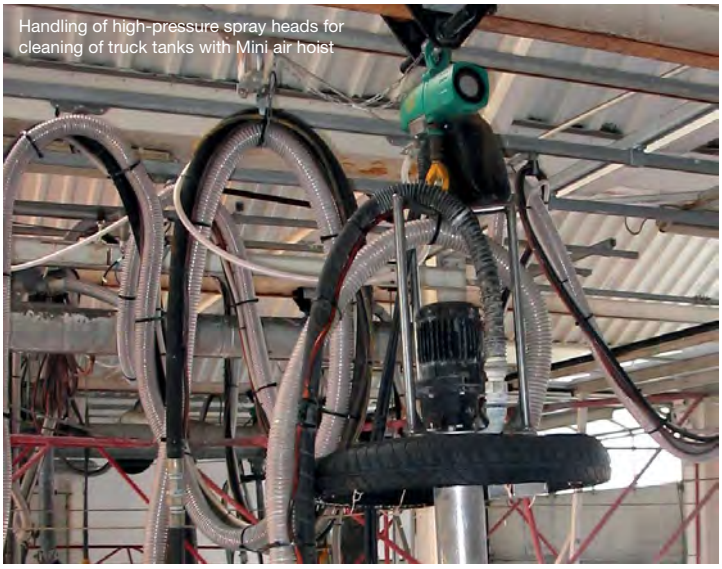
Air Hoists

2 x 40 ton hoist for offshore use

Handling of wing sections with 2 air-powered hoists type Mini



Grain processing: Installation of a steam boiler with PROFI air hoists and motorized trolleys



Handling of high-pressure spray heads for cleaning of truck tanks with Mini air hoist

Dismantling of marine propellers with several PROFI air hoists

POWERED LIFTING EQUIPMENT

Air hoists

Air Hoist Type Mini

The advantages of air hoists

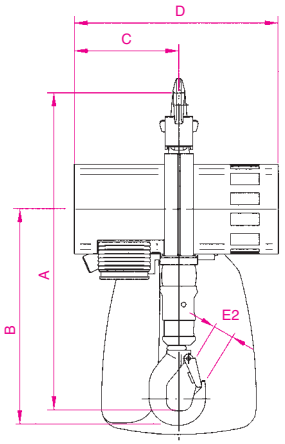
Generally, air hoists can be used in the same areas as electric hoists. Being driven by compressed air, they are particularly suitable for use in hazardous environments. They are also resistant against moisture, vapours and dust and can be operated in temperatures between -20°C (-4°F) and +70°C (+158°F) (type Mini up to 50°C [122°F]). The duty time and availability is 100% - no dead time.

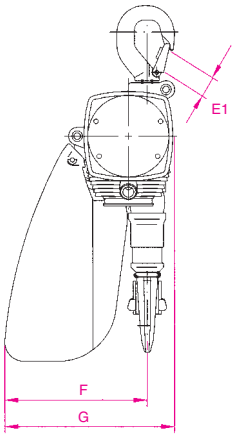
Load capacities: 125 kg, 250 kg, 500 kg, 980 kg
Lifting heights: 3 m, 5 m, 8 m
Control lengths: 2 m, 4 m, 6 m
Air pressure: 6 bar

The Mini is a versatile hoist at a very reasonable price.
Standard lifting height 3 m (max. 8 m)
Standard control cable length 2 m (max. 6 m)

Benefits:
- Extremely compact at a minimum weight
- Suitable for oil-free operation
- Ideal and low-cost alternative to electric hoists
- Also suitable for horizontal pulling
- Aluminium push button control with emergency stop, maximum control cable length 6 m
- Also available with manual trolley
- Chain container for standard lifting height included

Suitable for operation in hazardous areas according to 94/9/EC ('ATEX 100a'). Corresponds to II3 GD II A T4(X).
For detailed information on explosion protected hoists see pages 68-69.





Type	Weight in kg/ pce	Item no. Standard lifting height 3 m	Weight in kg/ pce	Item no. Standard lifting height 5 m	Weight in kg/ pce	Item no. Standard lifting height 8 m
Mini 125	9.5	7874.00.01	10.2	7874.05.01	11.25	7874.08.01
Mini 250	10.5	7874.00.02	11.2	7874.05.02	12.3	7874.08.02
Mini 500	21.0	7874.00.05	23.0	7874.05.05	26.0	7874.08.05
Mini 1000	23.0	7874.00.10	25.0	7874.05.10	28.0	7874.08.10

Type	Load capacity in t	Chain falls	Power output in kW	Lifting speed at rated load m/min	Air consumption at rated load in m³/min		Dimensions in mm						
					Lifting	Lowering	A lowest headroom	B	C	D	E1	E2	F to centre hook	G max. width
Mini 125	0.125	1	0.4	15	0.5	0.7	328	232	109	213	19	19	148	177
Mini 250	0.250	1	0.4	8	0.5	0.7	328	232	109	213	19	19	148	177
Mini 500	0.500	1	1.0	10	1.2	1.6	458	316	148	292	28	28	194	234
Mini 1000	0.980	1	1.0	5	1.2	1.6	458	316	148	292	28	28	194	234

Lifting speed at 2 m control cable length. Longer control cable lengths reduce the lifting speed.

POWERED LIFTING EQUIPMENT

Hydraulic Chain Hoists

Air Hoist PROFI

Load capacities: 250 kg to 16 ton
(deliverable up to 100 t)

Standard lifting height 3 m
Standard control cable length 2 m
Air pressure: 6 bar

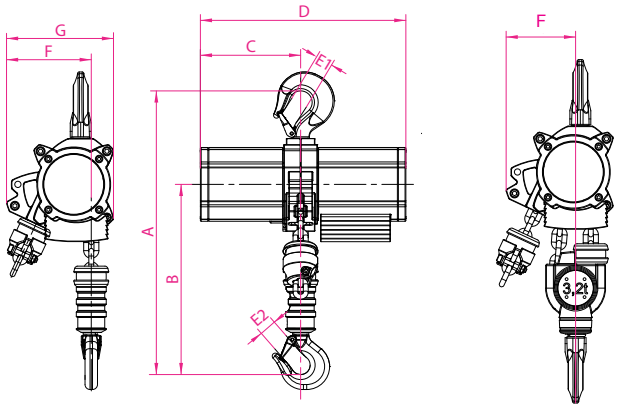
Advantages:
- Rugged construction, minimum headroom
- Suitable for oil-free operation
- Easy operation and low-maintenance
- Unlimited switching at non-stop operation
- Standard overload protection for load capacities 1,000 kg and over (in EC)
- Brass push button control with emergency stop
- Galvanised round steel chain according to EN 818

The rugged industrial hoist with a wide range of accessories

Suitable for operation in hazardous areas according to 94/9/EG („ATEX 100a“) Corresponds to II2 GD II A T4(X) and II3 GD II B T4(X)

Improved spark protection for extremely high explosion-proof requirements. Please contact us for more information.

For detailed information on explosion protected hoists please see pages 68-69.



1-leg 2-leg

Air hoists with load capacities up to 100 ton are available.

Type	Load capacity in t	Chain falls	Power output in kW	Lifting speed at rated load in m/min	Air consumption in m³/min		Dimensions in mm								Weight kg/pce at height 3 m	Item no.
					Lifting	Lowering	A lowest headroom	B	C	D	E1	E2	F to centre hook	G max. width		
Profi 025 TI	0.25	1	1	20	1.2	1.5	450	288	145	297	28	28	137	176	27	7875.00.02
Profi 05 TI	0.5	1	1	11	1.2	1.5	450	288	145	297	28	28	137	176	27	7875.00.05
Profi 1 TI	1	1	1	5.5	1.2	1.5	450	288	145	297	28	28	137	176	28	7875.00.10
Profi 1.5 TI*	1.6	1	2	6	2.6	3.6	480	293	200	412	28	26	170	215	56	7875.00.15
Profi 2 TI	2	2	1	2.7	1.2	1.5	498	336	145	297	28	28	137	183	34	7875.00.20
Profi 3 TI*	3.2	1	3.5	5	4	5.5	593	373	233	483	40	30	187	233	86	7875.00.30
Profi 3 TI/2*	3.2	2	2	3	2.6	3.6	544	356	200	412	28	28	140	215	66	7875.00.302
Profi 6 TI*	6.3	2	3.5	2.5	4	5.5	674	454	233	483	40	40	154	233	110	7875.00.60
Profi 10 TI*	10	2	3.5	1.6	4	5.5	813	548	308	575	44	44	197	306	156	7875.01.00
Profi 16 TI*	16	3	3.5	1	4	5.5	898	598	382	692	53	53	199	308	240	7875.01.50

* incl. chain container

Please note that higher lifting heights require a larger chain container which results in extra cost.

POWERED LIFTING EQUIPMENT

Hydraulic Chain Hoists

Air Hoist PROFI with motorized Trolley

Load capacities: 250 kg to 16 ton
(deliverable up to 20 t)

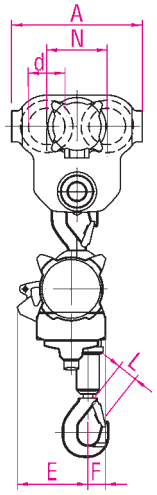
Standard lifting height 3 m
Standard control cable length 2 m
Air pressure: 6 bar

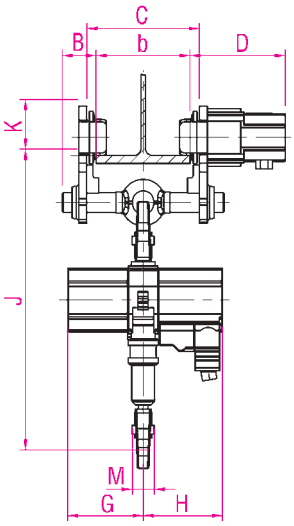
Make your PROFI go 'mobile' by means of an airpowered motor trolley. This combination stands out by its high availability and safety. The trolley is suitable for all I-beams according to DIN 1025 or similar types. Equipped with anti-climb and anti-drop devices the motor trolley is also suitable for curved track. Push button control with emergency stop.

The motorized trolleys are easy to install, robust and low-maintenance (sealed bearings).

Different energy feeding systems are available on request:
- Energy chain
- C-rail
- Square rail
- Spiral hose
- Hose trolleys

Special versions:
- Low headroom trolleys where only low ceilings are available
- Locking device for securing the trolley in a certain position
- 2-step travelling speed
- Pneumatic stop switches as runway limit
- Increased spark protection for highest explosion-proof requirements





Suitable for operation in hazardous areas according to 94/9/EG ('ATEX 100a'). Corresponds to II2 GD II A T4(X) and II3 GD II B T4(X).

For detailed information on explosion protected hoists please see pages 68-69.

Load capacty in t	Trolley type	Dimensions in mm															Total weight in kg	Item no.
		A	B max.	C	d	D	E	F	G	H	J*	J**	K	L	M	N		
0.25	LM 2 t	250	130	b+36	70	185	137	39	145	152	-	563	95	28	42	116	53	7876.00.02
0.5	LM 2 t	250	130	b+36	70	185	137	39	145	152	-	563	95	28	42	116	53	7876.00.05
1.0	LM 2 t	250	130	b+36	70	185	137	39	145	152	-	563	95	28	42	116	54	7876.00.10
2	LM 2 t	250	130	b+36	70	185	137	46	145	152	-	611	95	28	42	116	60	7876.00.20
3.2	LM 3.2 t	292	113	b+60	84	191	187	46	233	250	635	798	107	30	42	136	119	7876.00.30
6.3	LM 6.3 t	500	157	b+70	165	205	154	79	233	250	763	919	215	40	51	236	234	7876.00.60
10	LM10-16 t	490	162	b+70	165	318	197	109	308	267	944	1131	215	42	66	236	376	7876.01.00
16	LM10-16 t	490	162	b+70	165	318	199	109	382	310	997	1216	215	55	82	236	460	7876.01.50

Travelling speed at rated load, capacities 0.25 – 6.3 ton: 9/14 m/min
Travelling speed at rated load, capacities 10-16 ton: 5/12 m/min
Max. lower flange width, load capacities 0.25 - 2 ton: 280 mm
Max. lower flange width, load capacities 3.2 - 16 ton: 310 mm

* mounted
** suspended

Maintenance unit with holder

Increase the service life of your air hoists!

Consisting of filter regulator with pressure gauge and oiler

The vane motors of the air hoists Mini and PROFI are greased with a special lubricant during assembly which makes operation with oil-free air possible. If the hoists are used in continuous duty though or the compressed air does not meet the requirements, we recommend using this maintenance unit.

Version	Item no.
G 1/2" for Profi 025TI, 05TI, 1TI, 2TI, Mini	7876.WH.12
G 3/4" for Profi 3TI, 6TI, 10TI, 16TI	7876.WH.34

POWERED LIFTING EQUIPMENT

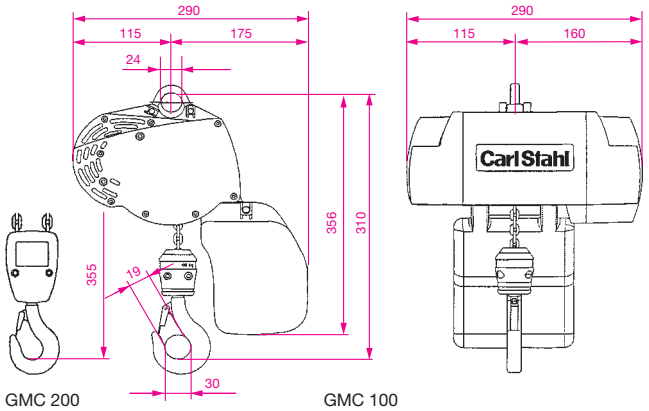
Electric Chain Hoists

Electric Chain Hoist CS-Compact GMC

- Motor housing powder coated in RAL 5017 (traffic blue)
- Hinged, detachable suspension bracket
- Operating voltage: single-phase (AC), 230 V/50 Hz
- Protection rating IP21, insulation class F
- Pendant control with emergency stop, IP65
- Infinitely controllable lifting speed
- Overload protection thanks to non-adjustable slipping clutch
- High-strength, galvanised round steel chain with chain container
- **Hook path (standard lifting height) 3 m**
- Control cable in line with hook path

Scope of delivery:
Electric chain hoist with pendant control and control cable, fully assembled ready for connection with chain container, retracted chain and approx. 3 m connection cable with mains plug.

Operates on 230 V wall socket!



GMC 200 GMC 100

Load capacity in kg	100	100	100	100	200	200	200
Type	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC200.6-2	GMC200.6-2	GMC200.6-2
Lifting speed in m/min	0.7 - 12	0.7 - 12	0.7 - 12	0.7 - 12	0.3 - 6	0.3 - 6	0.3 - 6
Chain falls	1	1	1	1	2	2	2
Duty ratio in % ED	40	40	40	40	40	40	40
Power output in kW	0.425	0.425	0.425	0.425	0.425	0.425	0.425
Drice group FEM 9.511/ISO	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4
Hook path in m	3	6	10	20	3	6	10
Switching frequency in c/h	300	300	300	300	300	300	300
Smallest hook dimensions in mm	300	300	300	300	345	345	345
Weight in kg with 3 m hook path	10	10	10	10	12	12	12
Item no. Version with suspension eye	9020.30.01H03	9020.30.01H06	9020.30.01H10	9020.30.01H20	9020.30.02H03	9020.30.02H06	9020.30.02H10

Suitable Push Trolley for CS-Compact GMC

Load capacity in kg	Flange width in mm	Item no.
300	42-120	9020.HF.01
300	121-180	9020.HF.02

POWERED LIFTING EQUIPMENT

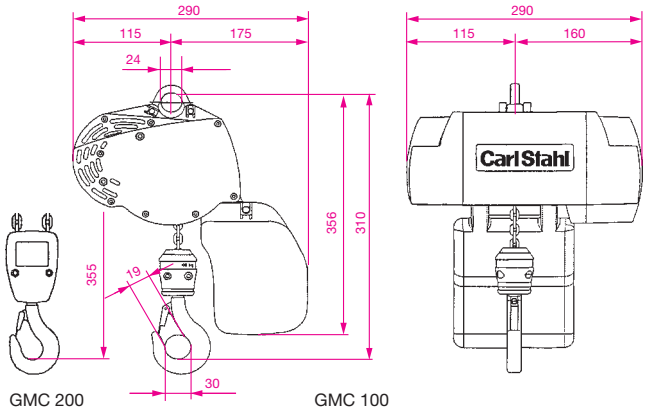
Electric Chain Hoists

Electric Chain Hoist CS-Compact GMC

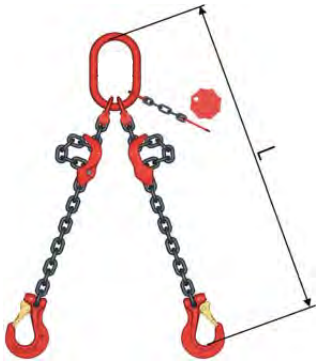
- Motor housing powder coated in RAL 5017 (traffic blue)
- Hinged, detachable suspension bracket
- Operating voltage: single-phase (AC), 230 V/50 Hz
- Protection rating IP21, insulation class F
- Pendant control with emergency stop, IP65
- Infinitely controllable lifting speed
- Overload protection thanks to non-adjustable slipping clutch
- High-strength, galvanised round steel chain with chain container
- **Hook path (standard lifting height) 3 m**
- Control cable in line with hook path

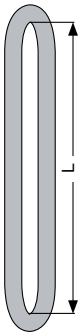
Scope of delivery:

- 1 x electric chain hoist with pendant control and control cable, fully assembled ready for connection with chain container, retracted load chain and approx. 3 m connection cable with mains plug
- 1 x chain sling, twin leg, grade 80, shortenable, nominal chain thickness 6 mm, usable length (L) 1.5 m, load capacity at an angle of inclination of 0-45° = 1.6 t, load capacity at an angle of inclination of 45-60° = 1.12 t
- 1 x 'Liftfix' polyester grommet sling pursuant to DIN EN 1492-2, usable length (L) 1 m, load capacity 1 t
- 1 x conventional aluminium case with handle and two locking buckles



GMC 200 GMC 100





Technical data Electric Chain Hoist

Load capacity in kg	100	100	100	100	200	200	200
Type	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC100.12-1	GMC200.6-2	GMC200.6-2	GMC200.6-2
Lifting speed in m/min	0.7 - 12	0.7 - 12	0.7 - 12	0.7 - 12	0.3 - 6	0.3 - 6	0.3 - 6
Chain falls	1	1	1	1	2	2	2
Duty ratio in % ED	40	40	40	40	40	40	40
Power output in kW	0.425	0.425	0.425	0.425	0.425	0.425	0.425
Drice group FEM 9.511/ISO	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4	1Am/M4
Hook path in m	3	6	10	20	3	6	10
Switching frequency in c/h	300	300	300	300	300	300	300
Smallest hook dimensions in mm	300	300	300	300	345	345	345
Weight in kg with 3 m hook path	10	10	10	10	12	12	12

Item no. Complete set	902S.ET.01H03	902S.ET.01H06	902S.ET.01H10	902S.ET.01H20	902S.ET.02H03	902S.ET.02H06	902S.ET.02H10

POWERED LIFTING EQUIPMENT

Electric Chain Hoists

Electric Chain Hoist CS-Compact GM

- Motor housing powder coated in RAL 5017 (traffic blue)
- Hinged, detachable suspension bracket
- Operating voltage: three-phase current, 380 - 415 V/50 Hz
- Protection rating IP55, insulation class F
- Pendant control with emergency stop, IP65
- Direct control
  48 V electronic control with semi-conductor technology for type GM8
- Quick-connectors with swivel screw
- 2 lifting speeds (main hoist/precision hoist)
- Overload protection thanks to externally adjustable slipping clutch
- High-strength, galvanised profiled steel chain with chain container
- **Hook path (standard lifting height) 3 m**
- Control cable in line with hook path

Scope of delivery:
Electric chain hoist with pendant control and control cable, fully assembled ready for connection with chain container, retracted chain and mains plug.

Other versions available on request:
- Load capacities of up to 4,000 kg
- Higher/lower lifting speeds
- 48 V contactor control, as standard from 3,200 kg version
- Tiger G2 remote control
- Electronic hoist limit switch
- Operating hours meter
- Infinite lifting with inverter
- Special voltages

Version with suspension eye

Version with manual trolley

Version with electric trolley

Everything wirelessly under control – with the optional remote control (48 V contactor control required).

Prices on request!

Load capacity in kg		125	250	500	1000	2000	3200
Type		GM2 125.8-1	GM2 250.8-1	GM2 500.4-2	GM4 1000.4-2	GM6 2000.4-2	GM8 3200.4-2
Lifting speed in m/min		8/2	8/2	4/1	4/1	4/1	4/0.7
Chain falls		1	1	2	2	2	2
Duty ratio in % ED		60	60	60	60	50	40
Power output in kW		0.09/0.35	0.09/0.35	0.09/0.35	0.22/0.9	0.4/1.7	0.75/3
Drice group FEM 9.511/ISO		4m/M7	2m/M5	2m/M5	2m/M5	2m/M5	2m/M5
Weight in kg	Version with suspension eye	22	22	25	38	64	102
Weight in kg	Version with manual trolley	27	27	31	51	91	135
Weight in kg	Version with electric trolley	55	55	58	71	100	142
Item no. Version with suspension eye		9020.02.01.81	9020.02.02.81	9020.02.05.42	9020.04.10.42	9020.06.20.42	9020.08.32.42
Item no. Version with manual trolley*		9020.12.01.81	9020.12.02.81	9020.12.05.42	9020.14.10.42	9020.16.20.42	9020.18.32.42
Item no. Version with electric trolley* (20/5 m/min.)		9020.22.01.81	9020.22.02.81	9020.22.05.42	9020.24.10.42	9020.26.20.42	9020.28.32.42

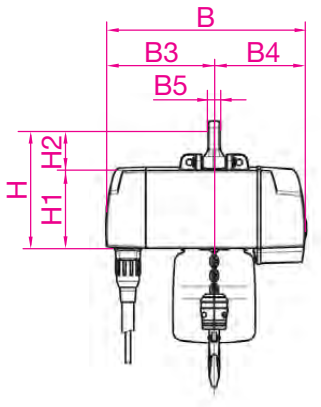
* Please indicate flange width BPR of the carrier beam with your order

POWERED LIFTING EQUIPMENT

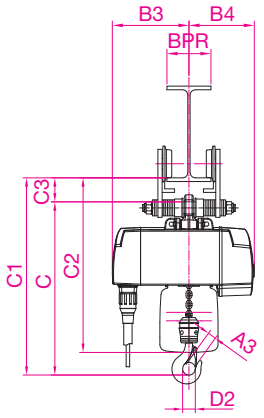
Electric Chain Hoists

Dimensions for standard version with 3 m lifting height

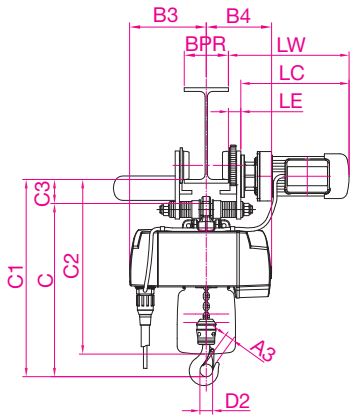
Version with suspension eye

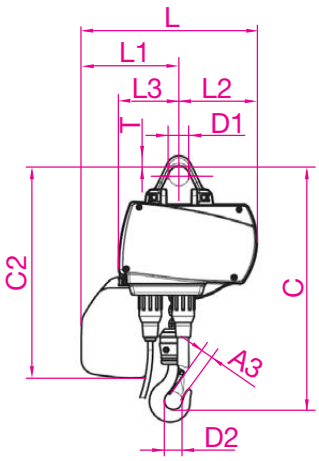


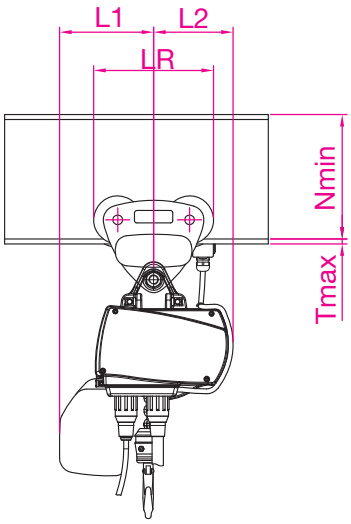
Version with manual trolley (HF)



Version with electric trolley (EF)







Type	Dimensions in mm													
	B	B3	B4	B5	L	L1	L2	L3	H	H1	D1	H2	T	C2
GM2 125.8-1	346	175	171	24	313	181	132	103	194	129	42	65	21	357
GM2 250.8-1	346	175	171	24	313	181	132	103	194	129	42	65	21	357
GM2 500.4-2	346	175	171	24	313	181	132	103	194	129	42	65	21	357
GM4 1000.4-2	400	217	183	24	353	197	156	120	237	158	42	79	21	427
GM6 2000.4-2	472	281	191	28	466	255	211	154	301	196	65	105	28	549
GM8 3200.4-2	542	306	236	28	472	254	218	198	340	235	65	105	28	816

Type	Trolley	Dimensions in mm											
		C	C1	C3	D1	D2	A3	LR	N (min.)	T (max.)	LE	LW	LC
GM2 125.8-1	HF 3	344	390	46	42	30	19	165	110	20	-	-	-
	EF 14	344	412	68	42	30	19	-	-	-	34	373	339
GM2 250.8-1	HF 3	344	390	46	42	30	19	165	110	20	-	-	-
	EF 14	344	412	68	42	30	19	-	-	-	34	373	339
GM2 500.4-2	HF 6	425	477	52.5	42	43	31	205	120	20	-	-	-
	EF 14	425	493	68	42	43	31	-	-	-	34	373	339
GM4 1000.4-2	HF 14	470	538	68	42	43	31	250	130	20	-	-	-
	EF 14	470	538	68	42	43	31	-	-	-	34	373	339
GM6 2000.4-2	HF 22	564	643	79	65	50	36	320	160	21.5	-	-	-
	EF 22	564	643	79	65	50	36	-	-	-	39	377	338
GM8 3200.4-2	HF 36	674	758	84	65	50	36	320	160	21.5	-	-	-
	EF 36	674	758	84	65	50	36	-	-	-	44	383	339

* Please indicate flange width BPR of the carrier beam with your order.

POWERED LIFTING EQUIPMENT

Electric Chain Hoists

Electric Chain Hoist CS

Small overall dimensions and low headroom due to compact construction. Helical gearing ensures high load capacity and low noise level at all speeds. All gear wheels are case-hardened and micro-finished. The disc brake reacts quickly and safely at lowest wear. The hoist is resistant against dust and weather due to its fully enclosed housing and a specially sealed brake. The low-wear load chain according to DIN EN 818 is surface-hardened and galvanised.

Power supply: 400 VAC 50 Hz (other voltages on request), protected IP55, insulation class F

Standard lifting height is 3 m.

Version with electric trolley

Load capacites up to 60 tons available

Up to 2,000 kg capacity also available for 230 VAC

Lifting equipment chains for powered lifting equipment can be found on page 106.

Version with suspension eye

Version with manual trolley

Version with geared trolley

Also available in explosion-protected version.

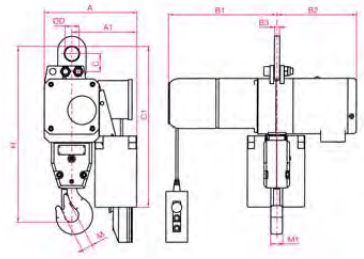
*** Please indicate required flange width with your order!**
**** With 3 m lifting height**

Load capacity in kg	500	1.000	2.000	2.500	3.200	5.000	10.000	10.000
Type	CS 405	CS 410	CS 620	CS 825	CS 732	CS 850	CS 910	CS 1010
Lifting speed main/precision in m/min.	9.4 / 2.3	4.5 / 1.1	4.0 / 1.0	8.0 / 2.0	4.0 / 1.0	4.0 / 1.0	2.8 / 0.7	5.8 / 1.4
Chain falls	1	2	2	1	2	2	2	1
Duty ratio in % ED	40 / 25	40 / 25	30 / 20	40 / 25	40 / 25	40 / 25	40 / 40	40 / 25
Power output in kW	0.75 / 0.18	0.75 / 0.18	1.5 / 0.37	4.0 / 1.1	2.5 / 0.6	4.0 / 1.1	5.5 / 1.4	12.0 / 2.5
Drice group FEM 9.511/ISO	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6	3m/M6
Weight in kg Version with suspension eye	65	75	105	130	130	135	350**	750**
Weight in kg Version with manual or geared monorail trolley	79	89	131	172	172	177	437**	920**
Weight in kg Version with electric monrail trolley	91	101	146	186	186	203	450**	990**
Item no. Version with suspension eye	9010.00.05	9010.00.10	9010.00.20	9010.00.25	9010.00.32	9010.00.50	9010.00.100-2	9010.00.100
Item no. Version with manual trolley*	9010.10.05	9010.10.10	9010.10.20	9010.10.25	9010.10.32	9010.10.50	9010.10.100.2	9010.10.100
Item no. Version with geared monorail trolley*	9010.20.05	9010.20.10	9010.20.20	9010.20.25	9010.20.32	9010.20.50	9010.20.100-2	9010.20.100
Item no. Version with electric monorail trolley*	9010.30.05	9010.30.10	9010.30.20	9010.30.25	9010.30.32	9010.30.50	9010.30.100-2	9010.30.100

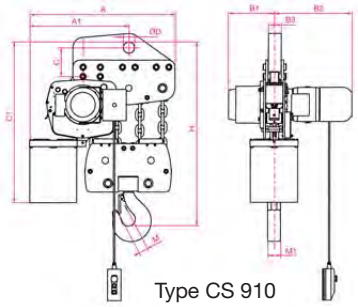
POWERED LIFTING EQUIPMENT

Electric Chain Hoists

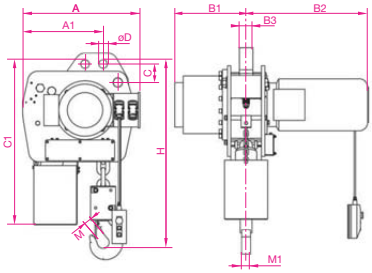
Dimensions: versions with suspension eye



Type CS 405 - 850



Type CS 910



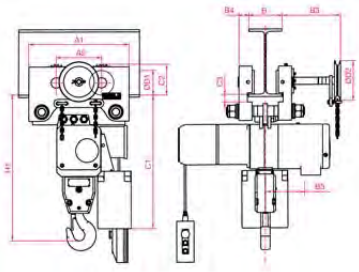
Type CS 1010

Type	Dimensions in mm										
	A	A1	B1**	B2**	B3	C	C*	D	H	M	M1
CS 405	290	235	225	330	12	40	465	40	400	23	17
CS 410	290	210	225	330	12	40	465	40	460	29	22
CS 620	320	225	265	390	15	80	560	55	640	39	29
CS 825	365	307	312	430	20	70	630	55	590	32	38
CS 732	365	256	312	430	20	70	635	55	710	48	36
CS 850	365	256	312	430	20	70	630	55	690	38	45
CS 910	635	486	290 (360)	520 (562)	80	148	1075	61	940	49	63
CS 1010	707	477	424	727	80	110	983	50	980	57	53

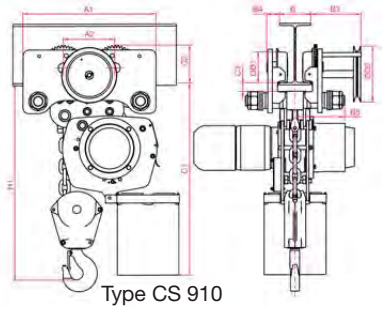
*With chain container size 1

**Dimensions in brackets with faster lifting speed

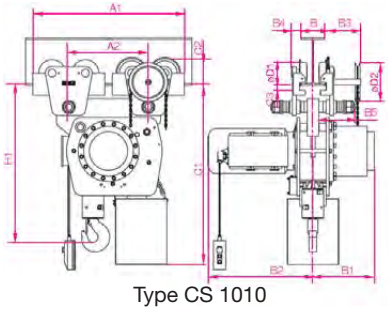
Dimensions: versions with manual or geared monorail trolley



Type CS 405 - 850

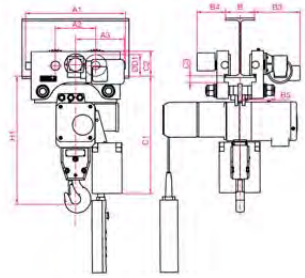


Type CS 910

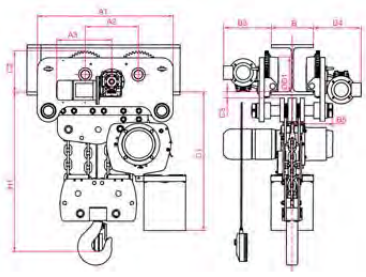


Type CS 1010

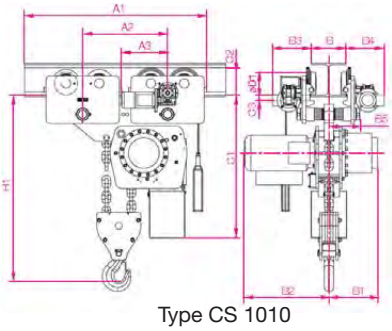
Dimensions: versions with electric monorail trolley



Type CS 405 - 850



Type CS 910



Type CS 1010

Type	Flange width B from - to at load bolt size in mm		Dimensions in mm																		
			A1	A1					B3	B3*	B4	B4	B5	B5						H1	H1
	1 N	2 N	Type 1	Type 2	A2	A3*	B1**	B2**	Type 1	Type 2	Type 1	Type 2	1N	2N	C1	C2	C3	D1	D2	Type 1	Type 2
CS 405	50-135	136-220	287	337	142	245	225	330	272	231	31	175	122	166	450	83	25	65	135	393	393
CS 410	50-135	136-220	287	337	142	245	225	330	272	231	31	175	122	166	450	83	25	65	135	453	453
CS 620	66-185	186-310	350	400	172	245	265	390	281	190	40	176	169	230	530	107	31	85	135	610	610
CS 825	74-196	197-310	428	488	209	245	312	430	284	190	46	181	181	240	640	150	32	120	135	600	600
CS 732	74-196	197-310	428	488	209	245	312	430	284	239	46	181	181	240	640	150	32	120	135	710	710
CS 850	74-192	193-310	492	552	223	245	312	430	283	250	53	188	190	246	650	150	38	120	195	710	710
CS 910	119-215	216-312	650	714	253	245	290 (360)	520 (562)	248	230	62	249	229	276	940	185	42	150	270	940	898
CS 1010	160-310	-	1048	1160	550	283	424	727	246	299	69	299	291	-	1249	185	45	150	270	1145	1145

Type 1 = Manual or geared monorail trolley
Type 2 = Electric monorail trolley

*for travel speed 16/4 m/min.
**Dimensions in brackets with faster lifting speed

POWERED LIFTING EQUIPMENT

Electric Chain Hoists

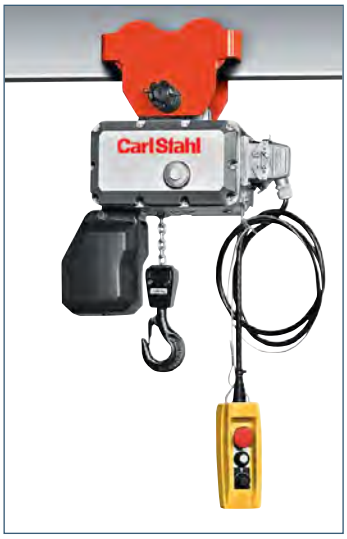
Electric Chain Hoist Type 620

This electric chain hoist is an ideal supplement to our existing range of well-known and proven chain hoists. For many standard applications the type 620 is a real alternative due to its convincing price-performance-ratio.

- Power supply 400 VAC 50 Hz, direct control
- Protected IP55 – insulation class F
- Overload protection by slipping clutch
- Low noise level due to helical gear wheels
- High-strength galvanised round steel special grade chain
- AC brake motor with electro-magnetic spring-loaded disc brake
- German certificate of origin
- **Standard lifting height 3 m**

Version with suspension eye Type „S“

Version with manual trolley Type ‘R’



Version with electric trolley Type ‘E’

Lifting equipment chains for powered lifting equipment can be found on page 106.

Load capacity in kg	125	250	500	1000	2000
Type	620/125-1	620/250-1	620/500-1	620/1000-2	620/2000-2
Lifting speed in m/min	8/2	8/2	8/2	4/1	5/1.25
Chain falls	1	1	1	2	2
Duty ratio in % ED	100	60	40	40	30
Power output in kW	0.18/0.05	0.36/0.09	0.75/0.18	0.75/0.18	1.9/0.45
Drice group FEM 9.511/ISO	2m/M5	1Am/M4	1Am/M4	1Am/M4	1Am/M4
Weight electric chain hoist in kg					
- Type S with suspension eye*	30	30	31	33	54
- Type R with manual trolley*	37	37	38	47	75
- Type E with electric trolley*	56	56	57	59	95
Item no. Version with suspension eye Type ‘S’	9012.00.01	9012.00.02	9012.00.05	9012.00.10	9012.00.20
Item no. Version with manual trolley Type ‘R’	9012.10.01	9012.10.02	9012.10.05	9012.10.10	9012.10.20
Item no. Version with electric trolley Type ‘E’	9012.30.01	9012.30.02	9012.30.05	9012.30.10	9012.30.20

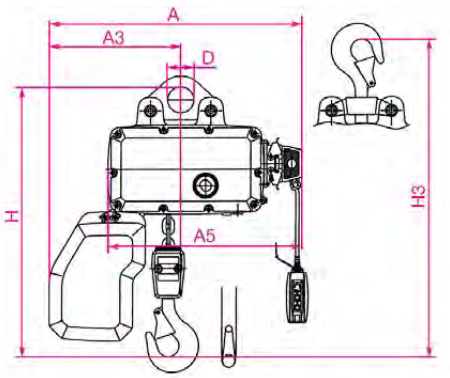
* At 3 m standard lifting height
** Electric trolley speed 16/4 m/min
*** Please note that higher lifting heights require a larger chain container which results in extra cost.

POWERED LIFTING EQUIPMENT

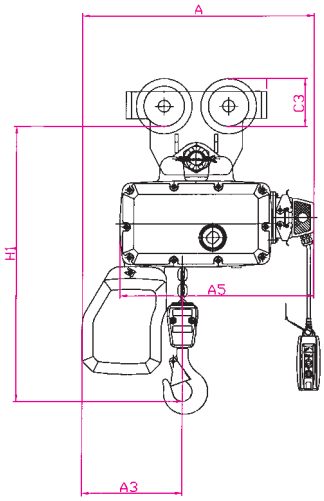
Electric Chain Hoists

Dimensions for standard version with 3 m lifting height

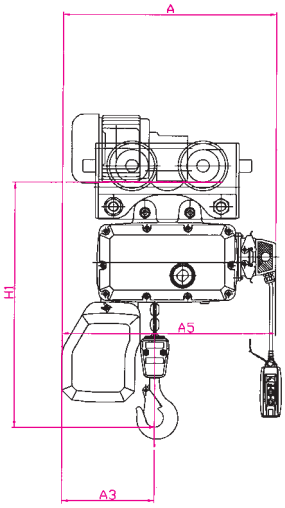
Version with suspension eye Type 'S'

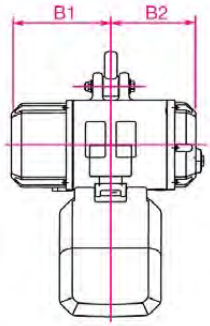


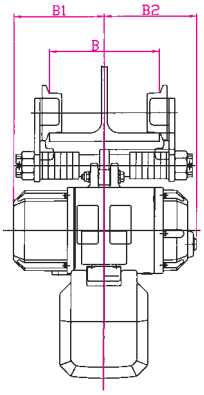
Version with manual trolley Type 'R'

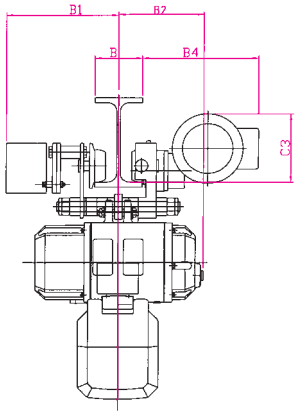


Version with electric trolley Type 'E'









Type	Dimensions in mm														
	A	A3	A5	B Type R*	B Type R**	B Type E*	B Type E**	B1***	B2	B4 Type E	D	H Type S	H1 Type R	H1 Type E	H3 Type S
620/125-1	426	209	357	64-152	153-310	50-135	136-220	165	168	230	36	367	411	393	435
620/250-1	426	209	357	64-152	153-310	50-135	136-220	165	168	230	36	367	411	393	435
620/500-1	426	209	357	64-152	153-310	50-135	136-220	165	168	230	36	400	444	426	489
620/1000-2	426	235	357	64-190	191-310	50-135	136-220	165	168	230	36	463	507	489	571
620/2000-2	502	284	380	88-190	191-310	66-186	187-306	196	185	231	52	570	620	588	679

* At load bolt size 1 N
** At load bolt size 2 N
*** With protected control lifting/moving – dimensions of the limit switch/operational limit switch increased by 70 mm

POWERED LIFTING EQUIPMENT

Electric Wire Rope Winches

Electric Wire Rope Winch Model RPE

Load capacities 250 - 1,000 kg
Universal and compact electric wire rope winch. The winch can be mounted on any even surface in any position.
Design according to DIN 15020, drive group 1 Bm/M3, accident prevention regulations DGUV 55 (winches, lifting- and pulling devices), and to EEC Machinery Directive.

- Compact dimensions due to internal brake motor
- High efficiency due to spur gear with permanently lubricated ball bearings. Helical gear wheels in 1st gear.
- Motors are protected IP54, insulation class F
- Power supply: 230/400 V, 50 Hz, 3-phase
- Designed for direct control

Options available:

- 230 VAC, 50 Hz, single phase
- Protection IP55
- Extended capacity or grooved rope drum. Rope drum with 2 rope outlets
- Gear limit switch for limiting the rope travel in both directions and slack rope switch (only with protected control)
- Low voltage protected control, control voltage 42 V

Technical Data

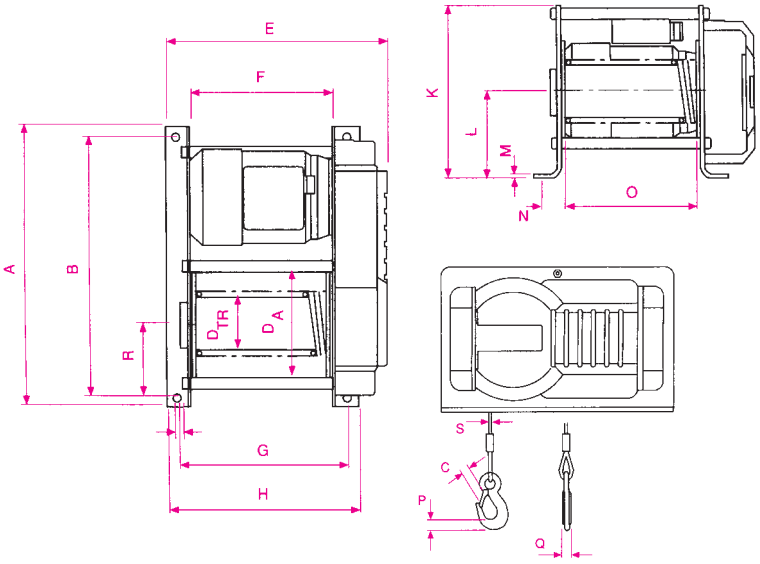
Type	Pulling force in kg*	Lifting speed 1st layer in m/min	Lifting speed top layer in m/min	Rope Ø in mm	Power output in kW	Duty ratio ED** in %	Useful rope length in m 1st layer	Useful rope length in m top layer	Weight in kg***	Item no.
RPE 2-13	250	10.2	13.2	4	0.55	40	11.2	54.4	31.8	7609.05.02
RPE 5-6	500	4.6	6.6	6	0.55	40	7.0	38.8	32.8	7609.05.05
RPE 5-12	500	8.7	12.6	6	1.10	40	11.0	55.4	41.0	7609.11.05
RPE 9- 6	990	5.1	6.5	8	1.10	40	10.2	37.4	76.0	7609.11.09
RPE 10-6****	1000	5.1	6.5	8	1.10	40	10.2	37.4	76.9	7609.11.10

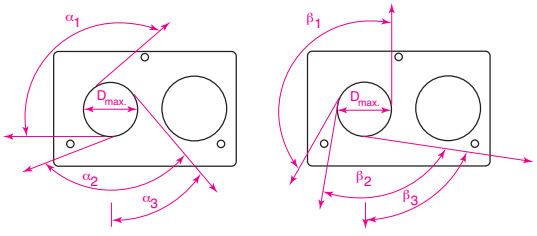
* in top rope layer ** at 120 c/h. *** w/o rope **** with slipping clutch

Rope price + accessories see next page.

Dimensions in mm

Type	Dimensions in mm																			
	A	B	C	Drum D TR	Drum D max.	Drum D A	E	F	G	H	I	K	L	M	N	O	P	Q	R	S
RPE 2-13	405	375	18	76	104	150	338	210	260	290	11	250	125	6	33.0	194	19	13	125	4
RPE 5-6	405	375	18	76	118	150	338	210	260	290	11	250	125	6	33.0	194	19	13	125	6
RPE 5-12	405	375	18	76	118	150	428	300	350	380	11	250	125	6	33.0	284	19	13	125	6
RPE 9- 6	525	485	25	108	148	180	450	270	345	380	13	340	170	10	47.5	250	24	19	170	8
RPE 10-6	525	485	25	108	148	180	450	270	345	380	13	340	170	10	47.5	250	24	19	170	8





Rope outlet angles

Model	α_1	α_2	α_3	β_1	β_2	β_3
RPE 2-13	130°	110°	40°	150°	90°	80°
RPE 5-6	130°	110°	40°	150°	90°	80°
RPE 5-12	130°	110°	40°	150°	90°	80°
RPE 9- 6	145°	125°	50°	155°	100°	83°
RPE 10-6	145°	125°	50°	155°	100°	83°

POWERED LIFTING EQUIPMENT

Electric Wire Rope Winches

Accessories for electric Wire Rope Winch Model RPE

Different rope drums

e.g. for extended rope capacity, grooved for regular winding, with separation web and 2nd rope outlet for working with 2 ropes, traversing operation.

Gear limit switch

for limiting rope travel in both directions

Single phase AC motor

for 230 VAC, 50 Hz, single phase for mobile use of the winch

Air motor

for non-stop operation and infinitely variable rope speed

Extended rope capacity smooth	Pulling force in kg	Rope speed m/min.	Total rope capcacity
Size 2	250	13.0	80 m
	500	6.5	57 m
	990	6.0	56 m
	1000	6.0	56 m
Size 3	250	13.0	206 m
	500	6.5	149 m
	990	6.0	107 m
	1000	6.0	107 m

Extended rope capacity grooved	Pulling force in kg	Rope speed m/min.	Total rope capacity
Size 2	250	13.0	64 m
	500	6.5	49 m
	990	6.0	47 m
	1000	6.0	47 m
Size 3	250	13.0	165 m
	500	6.5	128 m
	990	6.0	89 m
	1000	6.0	89 m

Special versions and accessories
Smooth rope drum
Size 2
Item no. 7609.00.26
Size 3
Item no. 7609.00.27

Special versions and accessories
Grooved rope drum
Size 1 up to 500 kg
Item no. 7609.00.11
Size 1 up to 1000 kg
Item no. 7609.00.12
Size 2 up to 500 kg
Item no. 7609.00.13
Size 2 up to 1000 kg
Item no. 7609.00.14
Size 3 up to 500 kg
Item no. 7609.00.18
Size 3 up to 1000 kg
Item no. 7609.00.19

Special versions and accessories
Direct control
(pendant control with emergency stop and 2 m control cable)
Item no. 7609.00.01
Protected control
(Control voltage 42 V, pendant control with emergency stop and 3 m control cable)
Item no. 7609.00.02
Wall switch with emergency stop (lockable)
Item no. 7609.00.03
Control cable
Direct control
Item no. 7609.00.04
Protected control
Item no. 7609.00.05
Rope drum with separation web and 2 rope fasteners
Item no. 7609.00.06
Single phase 230 VAC, 50 Hz version
(for RPE 2-13 and RPE 5-6)
Item no. 7609.00.07
(for RPE 5-12, 9-6 and 10-6)
Item no. 7609.00.25
IP 55 protection
Item no. 7609.00.08
Gear limit switch
(includes protected control)
Item no. 7609.00.09
Slack rope switch (for RPE2-13, 5-6) (includes protected control)
Item no. 7609.00.10
Suitable steel wire rope
(one end pointed, other end with hook)

Wire rope	Rope Ø in mm	Item no.
Wire rope sim. DIN	4	7609.00.15
3069 SE-1770 N/mm²	6	7609.00.16
	8	7609.00.17

POWERED LIFTING EQUIPMENT

Electric Wire Rope Winches

Electric Winch Type 43/86 E

Rope pulling force 125 – 3.200 kg

This compact electric winch is a robust and technically mature design for all applications. Due to the position of the motor the wire rope can run off in any direction.
Available for 230/400 V, 50 Hz, 3-phase or 230 VAC single phase

- Maintenance-free ball bearings
- Drive group 1 Bm
- Protected IP54
- Electric overload protection for capacities 1,000 kg and over (including protected control)

More options:
- Other protection classes
- Limit switch
- Grooved drum
- Extended rope capacity
- Double rope speed (for 125-500 kg) in 230 VAC version
- 2nd rope speed in 230/400 V 3-phase version

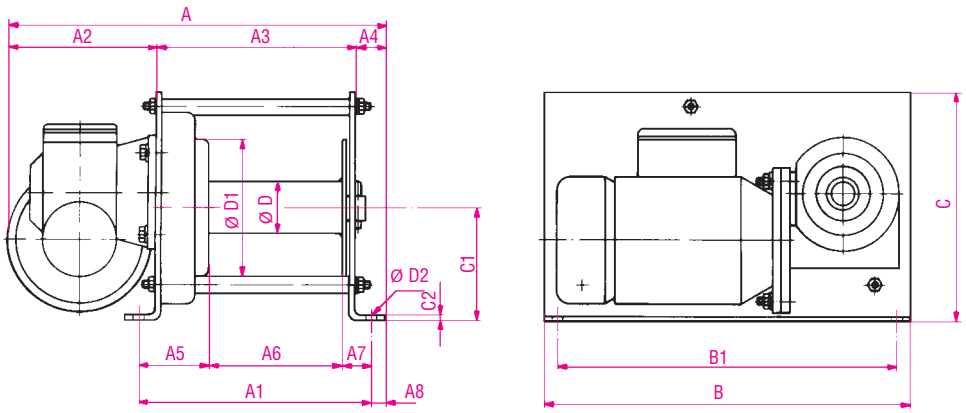
In its standard version this winch is suitable for pulling. Equipped with a limit switch in connection with a protected control, this winch can also be used for lifting.

Wire Rope Winch Type 43/86 for AC 3- and single phase

Rope pulling force in 1st layer in kg	Rope speed in top layer in m/min	AC power output, 1-step in kW	Min. rope Ø at 1770 N/mm² in mm	Duty ratio ED in %	Rope capacity* in m 1st layer	Rope capacity* in m Total	Weight in kg/pce	Item no. 3-phase AC	Item no. Single phase AC
125	8 (11)	0.37	4.0	40	6.4	32	27	7608.10.01	7608.20.01
250	5 (7)	0.37	4.0	40	7.1	35	37	7608.10.02	7608.20.02
500	2.5 (4)	0.37	6.0	40	5.7	30	40	7608.10.05	7608.20.05
990	4.5 (6)	1.30	8.0	40	8.4	30	88	7608.10.09	7608.20.09
1000	4.5 (6)	1.30	8.0	40	8.4	30	88	7608.10.10	7608.20.10
2000 **	4.5 (6)	2.60	11.0	40	8.0	30	160	7608.10.20	7608.20.20
3200 **	4.5 (5.5)	3.00	16.0	40	9.0	37	210	7608.10.32	-

* Useful rope length in smooth drum

** For single phase AC 2.2 (3) m/min.



Rope pulling force in 1st layer in kg	Main dimensions in mm A1	A2	A3	A4	A5	A6	A7	A8	B	B1	C	C1	C2	D	D1	D2
125	205	165	171	30	43	135	27	13	405	375	215	140	4	60	130	9
250	260	165	222	34	78	150	32	15	405	375	250	125	6	60	150	11
500	260	165	222	34	82	145	33	15	405	375	250	125	6	76	150	11
1000	345	216	289	45	99	198	48	17	575	535	270	155	10	108	180	13
2000	440	216	358	61	173	200	67	20	600	550	385	171	15	146	245	17
3200	525	198	443	61	193	257	75	20	600	550	405	191	15	216	370	17

POWERED LIFTING EQUIPMENT

Pneumatic wire rope winches

Pneumatic wire rope winch Type 43/86 P

- For lifting and pulling
  A lifting and lowering limiter is required for lifting applications
- Compressed air supply 6 bar
  The compressed air supply must be equipped with a maintenance unit (comprising a water separator, oiler and pressure reducer).

Rope pulling force in 1st layer in kg	Rope speed in top layer in m/min		Rope capacity* in m		Rope Ø at 1,770 N/mm² in mm	Weight in kg/pce	Item no.
	Lifting	Lowering	1st layer	Total			
250	7	12	7.1	35	4	36	7608.D0.02
250	12	18	7.1	35	4	45	7608.D0.22
500	4	7	5.7	30	6	40	7608.D0.05
500	8	16	5.7	30	6	50	7608.D0.25
500	12	16	5.7	30	6	50	7608.D0.12
990	6	12	8.4	30	8	110	7608.D0.09
1000	6	12	8.4	30	8	110	7608.D0.10
2000	3	6	8.0	30	11	175	7608.D0.20

* Useful rope length in smooth drum

Accessories for Type 43/86

Additional options	Item no.
Pendant control switch 1-step lifting	7608.Z0.01
Pendant control switch 2-step lifting	7608.Z0.02
Wall-mounted control switch 1-step lifting	7608.Z0.03
Wall-mounted control switch 2-step lifting	7608.Z0.04
Pendant control for air-powered winch	7608.Z0.05
Surcharge Lockable switch	7608.Z0.06
Emergency limit switch for external installation	7608.Z0.07
Control cable per m	7608.Z0.08
Air hose per m	7608.Z0.09
Other voltages and frequencies	7608.Z0.10
Radio remote control [1]	7608.Z0.11
Frequency control	7608.Z0.00
Electric overload protection (125-990 daN) [2]	7608.Z0.12
Protected control (control voltage 42 V)	7608.Z0.13

[1] Protected control and upper and lower rope limit switch necessary
[2] Protected control included

**Electric and pneumatic wire rope winch type 43/86 also available in an explosion-protected version.
For detailed information see pages 68-69.**

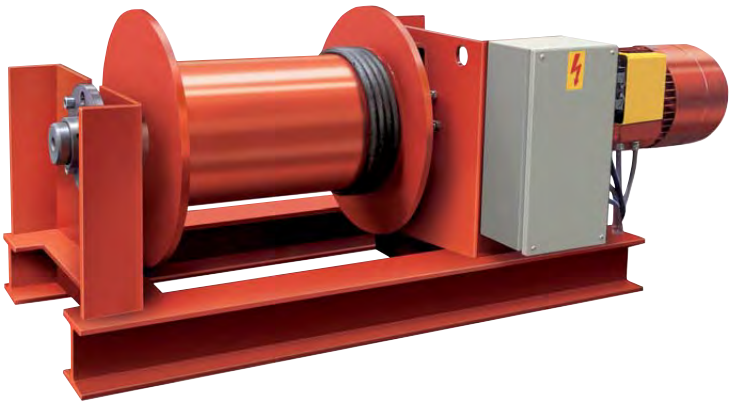
POWERED LIFTING EQUIPMENT

Electric Wire Rope Winches

Electric Wire Rope Winch with planetary Gear Type 45/10 for Lifting[1)] and Pulling

Rope pulling force 2,000 – 20,000 kgs

This classic assembly winch has been developed using latest technology and offers a very reasonable price-performance ratio. Its rugged construction and big rope capacity form a solid basis for a wide variety of uses. For your individual application this new winch can be delivered with many different accessories.



The standard version offers the following benefits:

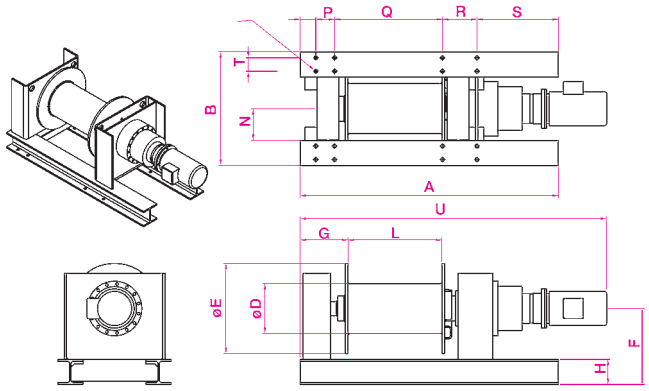
- Precision planetary gear
- FEM duty classification from 1Bm – 2m
- **Standard version - 1 Bm**
- Big rope capacity for all applications
- Rigid winch construction and welding
- Separated planetary gear for easy maintenance
- Manufactured in Germany

Also available in explosion-proof version.
For detailed information see pages 68-69.

Additional options:

- Grooved rope drum
- 2nd brake as safety brake
- Rope pressure roller
- Rope spooling guide
- Slack rope monitoring
- Free-wheeling drum mechanism
- Separating partition and/or 2nd rope fastening on the drum
- Space-saving bevel gear
- Manual operation in case of emergency
- Operation hour counter
- Upper and lower rope limit
- Other rope speeds, rope capacities and voltages
- Radio remote control
- Protected control
- Infinitely adjustable rope speed
- Protection class IP66
- Air powered version
- Hydraulically powered version
- Protective hood for drum
- Capstan winch head
- Disengaging clutch
- Explosion-proof version

(1) For lifting applications an upper and lower rope limit switch must be used.



Please note that other rope speeds and power ratings are available on request

Rope pulling force in 1st layer in kg*	Rope speed in m/min	Power output in kW	Rope Ø in mm	Duty ratio ED in %	Required MBL of rope in kN	Rope capacity in m 1st layer	Rope capacity in m 5th layer	Weight in kg/pce	Item no.
2000	5.5 / 23	2 / 8.5	10	40	71	20	135	300	7615.10.20
3200	3 / 12.5	2 / 8.5	12	40	114	23	160	345	7615.10.32
4000	2.5 / 11	2 / 8.5	13	40	142	22	150	350	7615.10.40
5000	2 / 8	2 / 8.5	14	40	178	25	165	450	7615.10.50
6300	1.7 / 7	2 / 8.5	16	40	224	20	155	495	7615.10.63
8000	1.3 / 5.5	2 / 8.5	18	40	284	22	155	725	7615.10.80
10000	1 / 4	2 / 8.5	20	40	355	22	155	740	7615.11.00
12500	0.3 / 3.5	2 / 8.5	22	40	444	22	160	855	7615.11.25
16000	0.6 / 2.5	2 / 8.5	25	40	568	22	160	1250	7615.11.60
20000	0.5 / 2.1	2 / 8.5	28	40	710	22	160	1320	7615.12.00

Rope pulling force in 1st layer in kg*	Main dimensions in mm																
	A	B	D	E	F	G	H	L	M	N	O	P	Q	R	S	T	U**
2000	1450	544	133	300	320	215	100	530	13	172	70	100	700	100	480	56	1630
3200	1450	544	159	320	320	215	100	610	13	172	70	100	700	100	480	56	1750
4000	1450	544	178	350	320	215	100	580	13	172	70	100	700	100	480	56	1720
5000	1530	620	203	400	370	204	120	610	17	190	90	75	700	75	590	70	1770
6300	1530	620	219	430	370	204	120	610	17	190	90	75	700	75	590	70	1880
8000	1650	724	254	510	485	301	160	600	23	202	100	120	690	220	520	86	2000
10000	1650	724	279	550	485	301	160	600	23	202	100	120	690	220	520	86	2000
12500	1650	724	318	610	485	301	160	600	23	202	100	120	690	220	520	86	2130
16000	1850	1000	356	685	595	378	220	600	25	280	150	200	700	200	600	120	2240
20000	1850	1000	394	760	595	378	220	600	25	280	150	200	700	200	600	120	2310

* subject to change ** depends on type of drive

POWERED LIFTING EQUIPMENT

Electric Wire Rope Winches

Portable electric Wire Rope Hoist Type Minifor™

The Minifor™ is a portable, electric hoist with endlessly running wire rope for lifting and pulling of loads. The special self-clamping drive mechanism allows for a virtually unlimited rope length. This drive mechanism consists of a specially-profiled rope sheave and two pretensioned pressure rollers which clamp the rope under load.

Scope of delivery:
- Hoist with pendant control, length 2.5 m, without rope
- 2 limit switch springs with Allen key
- Type TR10 and TR30 with steel box, type TR30S to TR50S in cardboard box

Options and accessories:
- Capture pulley kit
- Rope reeling device
- Radio remote control, range appr. 50 m, frequency 433 Mhz
- Plug-in control cable
- For control cable lengths over 20 m a strain relief is recommended

Capacity in kg	Type	Lifting speed in m/min	Power supply	Power output in kW	Nominal current in A	Duty ratio** in %	Dimensions L x W x H in mm	Rope Ø in mm	Dead weight in kg*	Item no.
100	TR10	15	230 V / 50 Hz	0.37	4	60	356 x 209 x 427	6.5	21	7405.00.01
300	TR30	5	230 V / 50 Hz	0.37	4	60	356 x 209 x 427	6.5	21	7405.00.03
300	TR30s	13	230 V / 50 Hz	1.1	8	60	356 x 209 x 427	6.5	31.6	7405.01.03
300	TR30s	13	400 V / 50 Hz	1.1	3.4	60	492 x 224 x 430	6.5	31.6	7405.02.03
500	TR50	7	230 V / 50 Hz	1.1	8	60	492 x 224 x 430	6.5	31.6	7405.01.05
500	TR50	7	400 V / 50 Hz	1.1	3.4	60	492 x 224 x 430	6.5	31.6	7405.02.05

* without rope ** at 120 c/h

Wire rope for Minifor (rope Ø = 6.5 mm), rope length 10 m with hook, on reel, 1 limit switch spring
Item no. 7405.02.10
Other rope lengths on request.

Winch for Material Transport Type tirak™

The tirak™ is an endless winch – it simply drives the rope without storing it.
This makes lifting and pulling without rope length restrictions possible.

The rope run principle enables the tirak™ to 'climb' a rope without restriction.

Robust and powerful yet still easy to transport, the tirak™ offers outstanding reliability even in demanding environments, such as harsh construction site conditions.

Its key benefits
- low weight
- compact size
- any rope length

enable simple handling and make the tirak™ easier to integrate into proprietary applications in order to improve productivity and efficiency.

Scope of delivery: tirak™ winch, control panel
Rope on demand.

Capacity in kg	Type	Lifting speed in m/min	Power supply	Power output in kW	Rope Ø in mm	Lifting force limiter	Dead weight in kg	Item no.
500	tirak™ X 500	9	400 V 3-phase	0.9	8	no	40	7405.03.05
1500	tirak™ X 1530	9	400 V 3-phase	2.8	10	yes	49	7405.03.15

Special rope for tirak™	Rope Ø in mm	One-sided assembly
tirak™ X 500	8	With tip and hook
tirak™ X 1530	10	With tip and hook

Other capacities on request.
With optional carry case for protecting the winches and/or integrated winder for long rope lengths on request.
Version available for transporting people from 300 - 2,000 kg.

POWERED LIFTING EQUIPMENT

Motor-driven Rope Pulling Machines

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319

Swiss Quality

How the Habegger rope pulling machines work

Functional principle

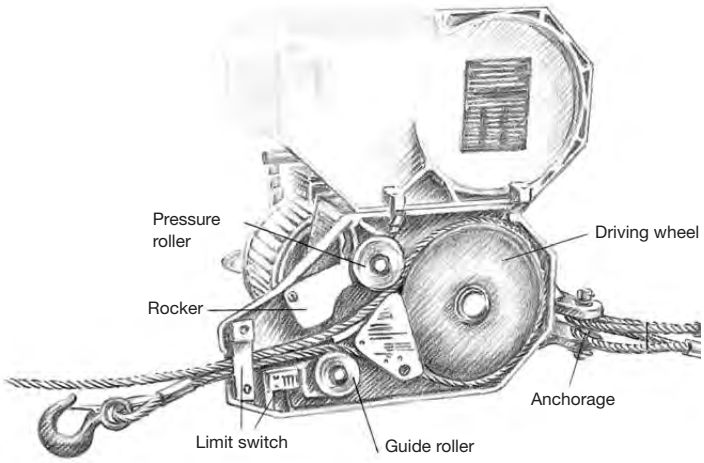
A wire rope of any length serves as the pulling medium. The rope is directed around the driving wheel by the pressure and guiding roller, and pushed out again without any load on it. This driving wheel system is patented. Force is transmitted from the flanks of the driving wheel via the three-point rocker onto the rope, which is looped around the driving sheave. The wire rope can be quickly and easily inserted and removed at any point along its length. There is no longer any need to laboriously thread it in from one end.

Overload protection

A built-in protective device in the form of a sliding clutch or a thermal protection device protects your wire rope hoist against overloads. The limit switch automatically switches off the electric motor if the load is pulled against the housing. Securely anchor the rope pulling machine to the work station with cords and slings.

Available as a powered rope pulling machine

- with an electric motor
- with an electric motor and a reel drive
- with a combustion motor
- with a hydraulic drive



Rope pulling machines can be found from page 118.

HIT-TRAC® Motor-driven Rope Pulling Machine with Electric Motor

Unmatched quality and performance!!

Suitable for lifting and pulling. With no rope drum involved this rope pulling machine's rope capacity is unlimited. Up/down movement by pendant control with emergency stop.

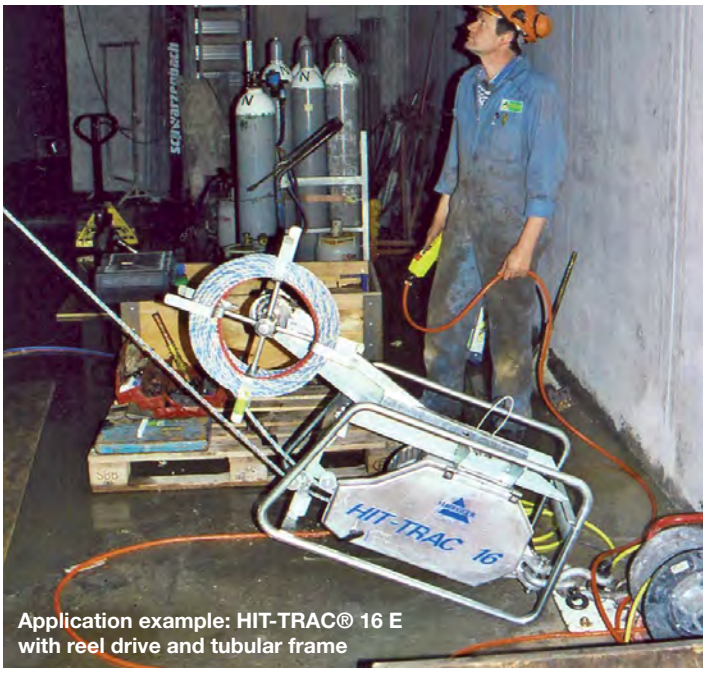
HIT-TRAC® 8 E with single phase electric motor 1.0 kW, 230 V 50 Hz, rope speed 1-6 m/min.

HIT-TRAC® 16 E with 3-phase electric motor 3.0 kW, 400 V 50 Hz, 7.8 A, rope speed 10 m/min

HIT-TRAC® 8 E

HIT-TRAC® 16 E

Scope of delivery without rope.



Application example: HIT-TRAC® 16 E with reel drive and tubular frame

Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Duty cycle ED	Weight without rope in kg	Item no.
HIT-TRAC 8 E	800	8.2	30%	32	7413.01.08
HIT-TRAC 16 E	1600	11.2	30%	58	7413.01.16

POWERED LIFTING EQUIPMENT

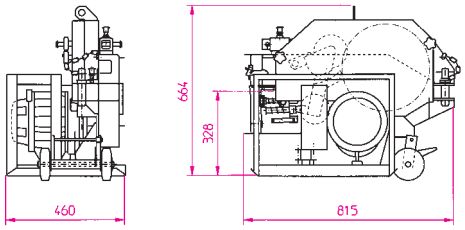
Motor-driven Rope Pulling Machines

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319 — Swiss Quality — CarlStahl®

HIT-TRAC® 32 E with Electric Motor

with 3 kW 3-phase electric motor, 400 V, 6.8 A, 50 Hz

The professional rope pulling machine for heavy loads of up to 3.2 ton in direct pull. Lifting, lowering and pulling controlled by push-button pendant. Rope speed max. 5 m/min. Wire ropes of any length may be used as pulling medium. Power transmission from the flanges of the driving wheel directly to the rope. The wire rope can be quickly and easily inserted and withdrawn at any point along its length. The tedious job of feeding it in from one side is no longer required.

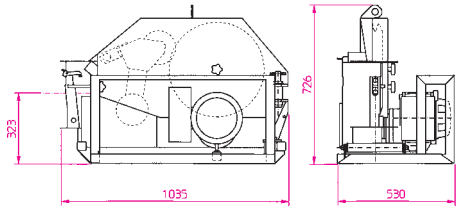


Scope of delivery without rope.

Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Rope speed in m/min.	Duty cycle ED	Weight without rope in kg	Item no.
HIT-TRAC 32 E	3200	16	5	30%	160	7413.01.32

HIT-TRAC® 64 E with Electric Motor

with 3 kW 3-phase electric motor, 400 V, 6.8 A, 50 Hz

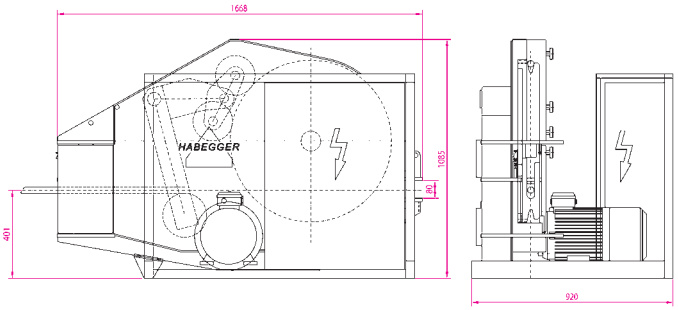


Scope of delivery without rope.

Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Rope speed in m/min.	Duty cycle ED	Weight without rope kg	Item no.
HIT-TRAC 64 E	6400	20	2.5	30%	245	7413.01.64

HIT-TRAC® 128 E with Electric Motor

with 7.5 kW 3-phase electric motor, 400 V, 15.1 A, 50 Hz



Scope of delivery without rope.

Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Rope speed in m/min.	Duty cycle ED	Weight without rope kg	Item no.
HIT-TRAC 128 E	12800	28	2.5	100%	860	7413.01.128

POWERED LIFTING EQUIPMENT

Motor-driven Rope Pulling Machines

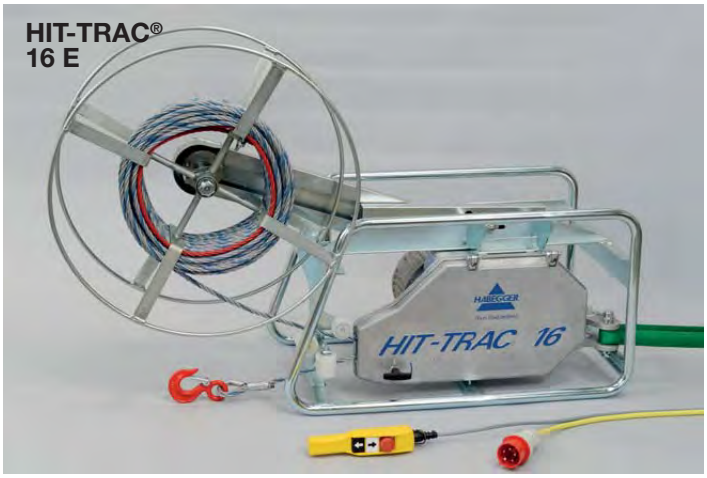
HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319

Swiss Quality

HIT-TRAC® 16 E with Reel Drive and Tubular Skid

The ideal supplement for the HIT-TRAC® 16 E with electric motor when working with long rope lengths. The wire rope is automatically coiled and uncoiled. The rope lasts longer as it does not run over edges, gets buckled or unnecessarily dirty. The coiling device is directly driven by the HIT-TRAC® motor. The outrigger can be folded in for transport.

Max. rope length 120 m in Ø 11.2 mm



Description	Dimensions in mm	Weight in kg	Item no.
HIT-Trac 16/11 E with reel drive and tubular skid w/o rope	630x1100x492	83	7413.H1.16

HIT-TRAC® Motor-driven Rope Pulling Machine with Combustion Engine Type 8 B / 16 B

Suitable for lifting and pulling. With no rope drum involved this rope pulling machine's rope capacity is unlimited. Using the built-on disc brake the rope can be slackened or precisely lowered.
Overload protection thanks to slipping clutch at 20% overload.

HIT-TRAC® 8 B with Stihl combustion engine 2.6 kW, rope speed approx. 10 m/min

HIT-TRAC® 16 B with Stihl combustion engine 5.2 kW, maxiumum rope speed 10 m/min

Scope of delivery without rope.

Type	Nominal capacity (pulling, lifting, lowering) in kg	Rope Ø in mm	Weight without rope in kg	Item no.
HIT-TRAC 8 B	800	8.2	30	7412.01.08
HIT-TRAC 16 B	1600	11.2	44	7412.01.16

POWERED LIFTING EQUIPMENT

Special Wire Rope, Reel Drive

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319

Swiss Quality

Carl Stahl®

Reel Drive

The motor can permanently remain on and produces a pulling force of approx. 20 kg depending on the diameter.
Depending on the force on the rope, this is either wound up or unwound.
No automatic winding device

Reel Drive 4

Reel Drive 6

Type	Rope capture in m for	Winding speed in m/min.	Drive motor	Voltage in V	Current in A	Weight in kg	For reel width up to mm	Item no.
Reel Drive 4	Rope Ø 8mm = max. 600 m Rope Ø 11 mm = max. 300 m	0 – 10	Rotary field magnet	400	0.2	70	*	7413.02.04
Reel Drive 6	Reels up to Ø 1.2 m	0 - 5	Rot. field magn.	400	0.2	162	780	7413.02.06

*Fixed reel

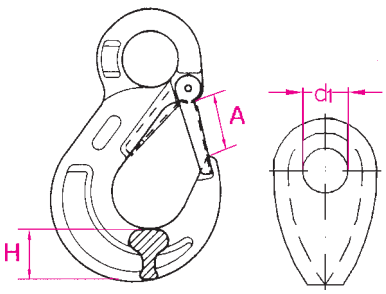
Scope of delivery:
Reel Drive 4 without rope
Reel Drive 6 without rope and wooden reel

Special Wire Rope for HIT-TRAC® Motor-driven Rope Pulling Machines

Rope for HIT-TRAC 8B, 8E, 16 B, 16 E, 32 E, 64 E:
One end with pressed thimble and safety eye hook, other end fused and tapered.

Rope for HIT-TRAC 128 E:
Both ends with pressed thimbles and safety eye hooks

Available in almost any metre length thanks to the processing of piece goods.
Also available with other hook dimensions on request.



Description	Nominal capacity in kg	Rope Ø in mm	Hook dim. in mm A	Hook dim. in mm H	Thimble dim. in mm Ø d1	Item no.
First metre Special wire rope for HIT-TRAC 8B, 8E	800	8.2	25	20	-	7412.60.08
First metre Special wire rope for HIT-TRAC 16 B, 16 E	1600	11.2	29.5	27	-	7412.60.11
First metre Special wire rope for HIT-TRAC 32 E	3200	16	38	37	-	7412.60.16
First metre Special wire rope for HIT-TRAC 64 E	6400	20	52.5	49	-	7412.60.20
First metre Special wire rope for HIT-TRAC 128 E	12800	28	-	-	55	7412.60.28

POWERED LIFTING EQUIPMENT

Hydraulic Drive

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319

Swiss Quality

Hydraulic Drive

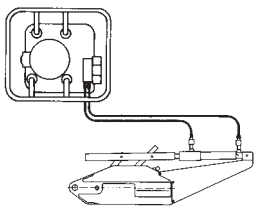
Make it easier for yourself

For frequent use the hydraulic drive soon pays off. Without much expense it can be retrofitted to the manual rope pulling machines HIT 16 and HIT 32. The units remain as easy to handle and as practical as before. If necessary they can be switched to manual operation. Change of direction can be achieved by relocating the cylinder fitting from the forward motion lever to the reverse motion lever. The hydraulic drive is separate.

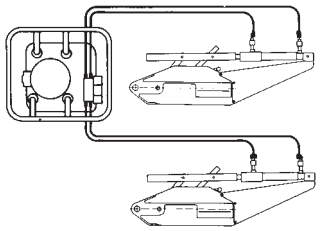
To ensure optimum performance, the hydraulic drives must be adapted to every specific application. Therefore we supplement the basic equipment sets with suitable hydraulic hoses, cylinders, supports, and hydraulic power packs. An existing hydraulic installation can be completed with a control valve. In agricultural applications the tractor will provide the necessary pressure directly. On request you will receive all your material in strong wooden crates which simplify transport and protect it from damage.

Rope pulling machine with hydraulic drive

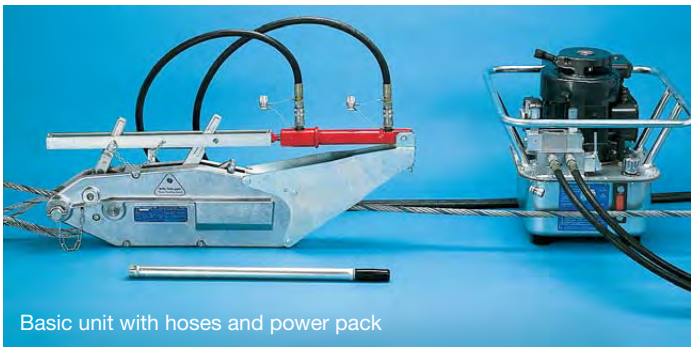
Type	Nom. capacity in kg	Rope speed in m/min forward/lifting	Rope speed in m/min reverse/lowering	Weight in kg	Item no. Basic unit w/o rope	Item no. Support	Item no. Hydraulic cylinder
HIT-16-H	1600	1.2	2.0	20	7410.01.16	74Y0.08.57	74Y0.05.55
HIT-32-H	3200	0.3	1.2	31	7410.01.32	74Y0.01.64	74Y0.01.58



Operation of 1 unit



Operation of 2 units



Basic unit with hoses and power pack

Description	Information	Dimensions in m	Weight in kg	Item no.
Hydraulic hoses	with quick release connectors • Inside Ø 9.5 mm • Max. pressure 280 bar	3	2.1	74Y0.04.50
		5	3.3	74Y0.04.51
		10	6.7	74Y0.04.52

Depending on the hydraulic power pack one or two units can be operated simultaneously. The power packs are either driven by a 4-stroke petrol engine or an electric motor for 400 V 50 Hz 3-phase.

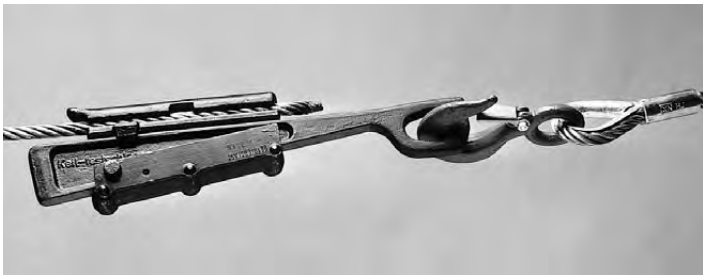
Hydraulic power pack HE (electric)

Hydraulic power pack HB (petrol)

Type	Drive	Connections rope pulling machines	Oil flow rate in l/min	Pressure in bar	Tank capaccity in litres	Weight in kg	Power output in kW	Item no.
HE 1	400V 50Hz	1	8.4	160	13	50	1.5	74Y0.05.30
HE 2	400V 50Hz	2	2 x 8.4	160	17	60	2.9	74Y0.05.65
HB 1	petrol	1	9.2	160	13	46	3.7	74Y0.05.29
HB 2	petrol	2	2 x 9.2	160	17	60	5.9	74Y0.05.66

Wedge Clamping Tool CONI-KLAM

The wedge clamping tools CONI-KLAM are simple and practical devices for gripping and supporting the ropes during pulling. The rope is retained by parallel moveable gripping jaws. CONI-KLAM clamping tools are self-gripping; the retention force always adjusts itself to the pulling force. The mechanism is released by pushing back the wedge.



Nominal load in kg	Rope Ø in mm	Type	Weight in kg	Item no.
1000	5 - 10	EC 10	1.2	7420.00.10
2000	10 - 14	EC 14	2.6	7420.00.30
3200	14 - 21	EC 21	5.4	7420.00.50

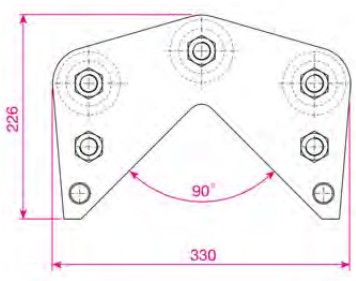
Anchoring Systems

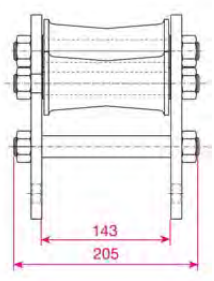
The anchoring system must always and everywhere be adapted to the pulling force of the device, taking into account the soil conditions and the weather. The titan field anchorage has proven very effective in open terrain.

Habegger manual rope pulling machine HIT 32 secured with titan field anchorage

Description	For rope pulling machines	Weight in kg	Item no.
Titan field anchorage with 8 anchoring rods	HIT 16 / 32 HIT-TRAC	31	7421.16.32
HIT plate anchorage	HIT 6 / 10 / 16	1	7422.06.16

Rope Deflection Roller 90°





Designation	Rope Ø in mm	Rope force in kN	Item no.
Rope Deflection Roller 90°, 3 rollers	up to 16	max. 80	7410.90.10

LIFTING EQUIPMENT
Accessories

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319

Swiss Quality

Rope Deflection Roller, single

Total length in mm	Weight in kg	Item no. single
170	2.0	7410.90.01

Rope Deflection Roller, double

Total length in mm	Weight in kg	Item no. double
410	4.2	7410.90.02

Rope Deflection Roller, triple

Total length in mm	Weight in kg	Item no. triple
650	6.5	7410.90.03

Admissibloe load:
A single roller can be loaded with up to 12 kN, i.e. with a pulling force of 16 kN it is sufficient to have 2 rollers to guide the rope around a 90° angle.

Rope Pulleys, Steel and Aluminium, foldable

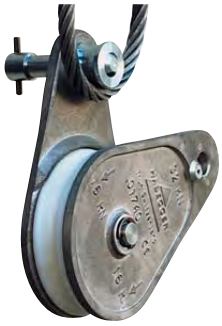
To deflect the special wire ropes using rope pulling machines if your position is not in the direction of pull or for use as block and tackle to double load capacity.

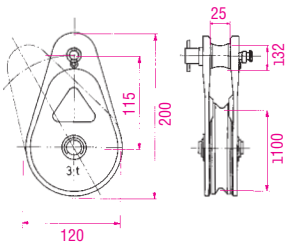
Further sheave blocks and rope cylinders can be found on pages 398-399.

Rope Pulley Type AL-A 32 kN

Model: Foldable
For deflection of ropes and for doubling the load capacity of rope pulling machines up to HIT 16.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
3200	AL-A 32 kN Alu-Friction bearing	100	11.2	200	1.2	7410.50.03
3200	ST-A 32 kN Steel-Ball bearing	105	11.2	225	3.3	7410.5S.03



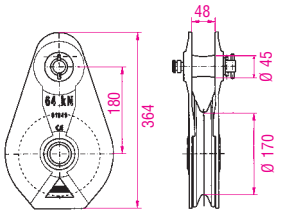


Rope Pulley Type AL-A 64 kN

Model: Foldable
For deflection of ropes and for doubling the load capacity of rope pulling machines up to HIT 32.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
6400	AL-A 64 kN Alu-Friction bearing	170	16.2	364	5.0	7410.50.06
6400	AL-A 64 kN Alu-Friction bearing	170	16.2	364	6.0	7410.53.06
6400	ST-A 64 kN Steel-Ball bearing	170	16.2	348	8.0	7410.5S.06

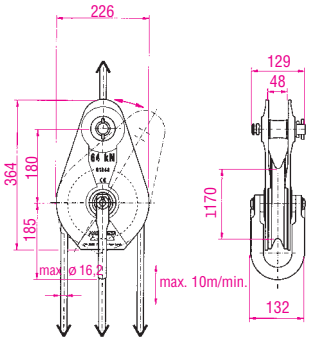
Aluminium version



Rope Pulley Type AL-A 64 kN

Model: Foldable, aluminium, friction bearing, anchorage bracket
To increase pulling capacity of manual rope pulling machines HIT 16 up to the triple by multiple reeving of the rope.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
6400	AL-A 64 kN	170	16.2	365	5.0	7410.52.06

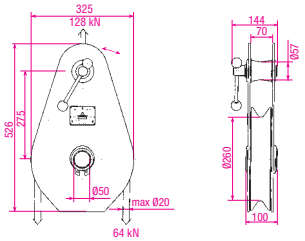


Rope Pulley Type ST-A 128 kN

Model: Foldable, steel, ball bearing
1 and 2 sheave versions. For rope pulling machines up to 6.4 ton load capacity.

Capacity in kg	Type	Roller Ø in mm	Max. rope Ø in mm	Overall length in mm	Weight in kg	Item no.
12500	ST-A 128 kN Steel-KL, 1 sheave	260	20.0	520	20.5	7410.5S.12
12500	ST-A 128 kN Steel-KL, 2 sheaves	260	20.0	520	23	7410.5S.13

1 sheave version



MANUAL LIFTING EQUIPMENT

Lever Hoists

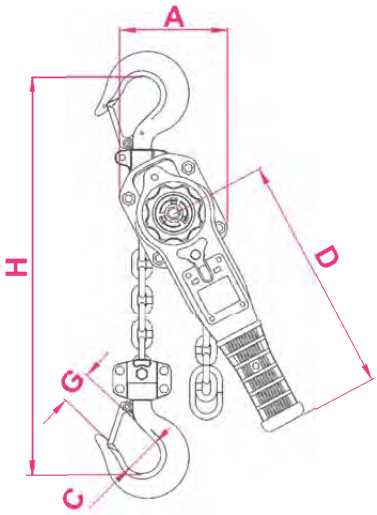
CondorLift Lever Hoist Type CLLH

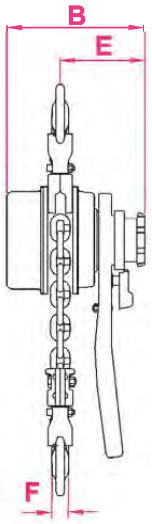
The compact and lightweight premium class ratchet hoist!
Designed for demanding applications.

- Tough and shock-resistant housing
- Forged hooks with reinforced safety latch made from cast steel
- Double safety free chaining device, optimized for fast height adjustment of the unloaded chain
- Optimized lever with improved ergonomics and reinforced cross-section
- High quality powder coating in RAL 3000 of the housing components
- All unpainted parts with high-grade corrosion protection
- Low-wear sintered brake linings
- Ratchet disc and pawl with additional wear- and corrosion protection
- Load wheel with needle bearing
- High-strength RUD load chain acc. to DIN EN 818-7-T
- Extensive spare parts and maintenance service

Option: Overload protection with slipping clutch

Product video:
carlstahl.de/CLLH





Load chain for manual hoists version RT see page 106.

Load capacity in kg	Type	Standard lifting height in m	Lever force at rated load in daN	Chain falls	Dimensions in mm								Weight in kg/pce	Item no.
					A	B	C	D	E	F	G	H		
800	CLLH0008F	1.5	29	1	119	144	35.5	245	97	14	23.5	280	5.7	7311.CL.LH008F
1000	CLLH0010F	1.5	36	1	119	144	42.5	245	97	15	29	300	5.9	7311.CL.LH010F
1600	CLLH0016F	1.5	34	1	126	126	42.5	265	100	19	32	335	8	7311.CL.LH016F
2500	CLLH0025F	1.5	37	1	150	150	47	265	102	21	36.5	375	11.2	7311.CL.LH025F
3200	CLLH0032F	1.5	37	1	159	159	50	415	112	24.5	39	395	15	7311.CL.LH032F
6300	CLLH0063F	1.5	38	2	217	217	60	415	112	34	50	540	26	7311.CL.LH063F

MANUAL LIFTING EQUIPMENT

Lever Hoists

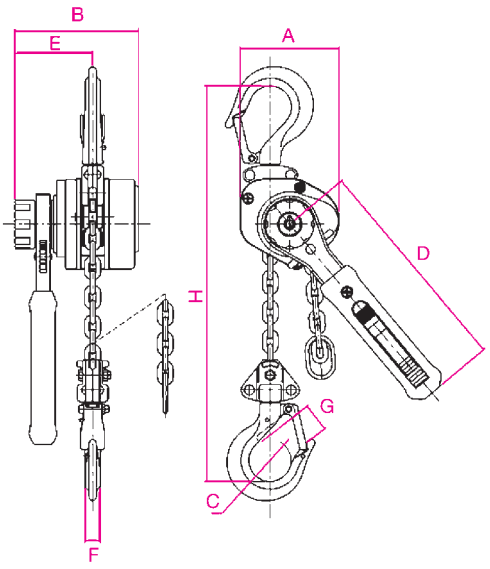
Our little powerhouse: Top-performance, top design in smallest dimensions

CondorLift Lever Hoist Mini Type CLLM

The ultra-light premium class mini lever hoist. Holds more than 150 times its own weight! (with standard lifting height)

- Attractive high-quality aluminium housing
- Extended application range due to wide hook opening
- Easy handling with low physical effort on the lever
- Easy adjustment by free chaining mode
- Load drop protection in free-wheeling position
- High-strength RUD load chain of highest grade
- Fully protected mechanism for low maintenance cost

Product video: carlstahl.de/CLLM



Load capacity in kg	Type	Standard lift in m	Lever force at rated load in daN	Chain falls	Dimensions in mm								Weight in kg/pce	Item no.
					A	B	C	D	E	F	G	H		
250	CLLM003F	1.0	20	1	68	87	32	140	55.5	11	21	200	1.5	7311.CL.LM003F
500	CLLM005F	1.0	24	1	81	100.5	34.5	180	62.5	12	24.5	250	2.5	7311.CL.LM005F
750	CLLM075F	1.5	26	1	92	105	35.5	180	64	14	28.5	260	3.4	7311.CL.LM075F
1500	CLLM150F	1.5	32	1	109	122	42.5	220	68.5	21.5	35	330	5.9	7311.CL.LM150F

MANUAL LIFTING EQUIPMENT

Lever Hoists

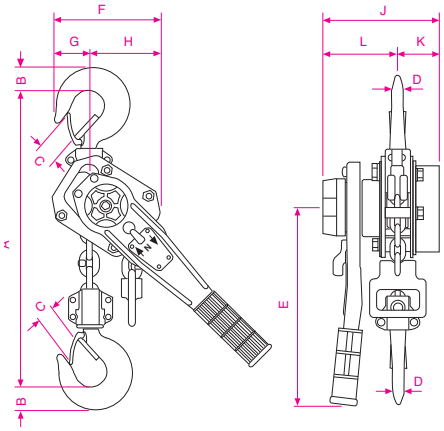
Lever Hoist Model PT

Also available with slipping clutch!!!

An all-purpose hoist especially for applications where cost-performance ratio is decisive.

- Free chaining device (for fast pulling of the unloaded chain through the hoist)
- Galvanised and yellow-chromated round steel chain according to all national and international requirements
- Swivelling, forged hooks made of non-ageing heat-treated steel with safety latches
- Short lever with rubber grip for safe handling of the hoist

Each PT model is proof-tested with 50% overload and comes with a test certificate that includes the serial number.

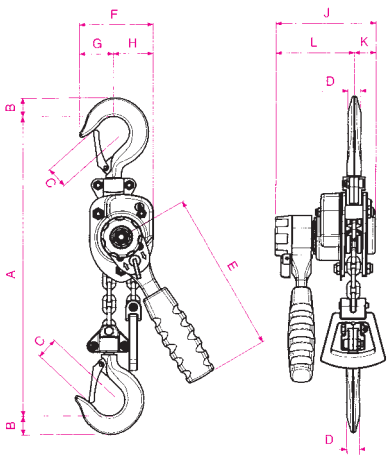


Load capacity in kg	Chain falls	Lever force at nominal load in daN	Lift with a lever twist in mm	Standard lifting height in m	Dimensions in mm A	B	C	D	E	F	G	H	J	K	L	Weight with standard lift in kg	Item no.
800	1	26	24	1.5	290	21	24	13	235	120	38	82	142	52	90	5.5	7307.00.08
1600	1	30	23	1.5	330	27	31	20	370	138	41	97	163	65	98	9.6	7307.00.16
3200	1	38	16	1.5	430	36	35	24	370	177	53	124	185	83	102	16	7307.00.32
6300	2	39	8	1.5	580	53	46	43	370	259	85	174	185	83	102	31	7307.00.63

Lever hoist CS-Mini

Big in performance! Fits in every tool box!

- For lifting, pulling, lashing
- **Dead weight only 2.2 kg** (in 250 kg version)
- Fits in every tool box
- Compact design, easy handling
- Galvanised, high-strength round steel chain according to EN 818-7
- Robust rubber grip with anti-slip profile
- Forged hooks
- **Standard lifting height 1.5 m**

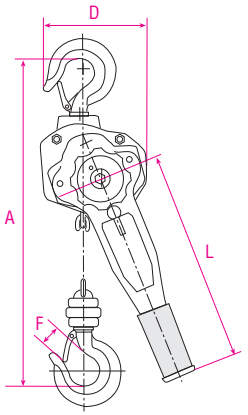


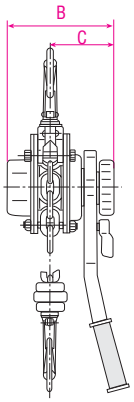
Load capacity in kg	Lever force nom. load in daN	Chain falls	Lift with a lever twist in mm	Dimensions in mm A min.	B	C	D	E	F	G	H	J	K	L	Weight w/ standard lift in kg	Item no.
250	25	1	80	240	20	21	14	160	72	33	39	98	21	77	2.2	7311.30.02
500	25	1	40	282	17	24	12	160	104	38	66	116	36	80	2.8	7311.30.05

MANUAL LIFTING EQUIPMENT
Lever Hoists

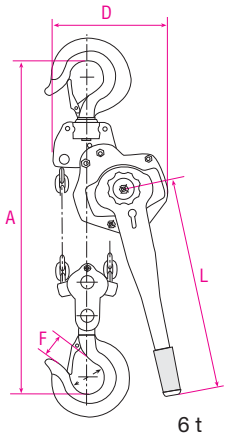
Lever Hoist Type RZ

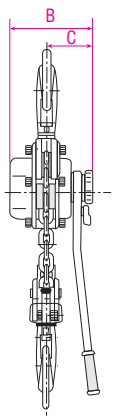
- With round steel chain according to EN 818-7
- Standard lifting height 1.5 m





0.75 - 3 t



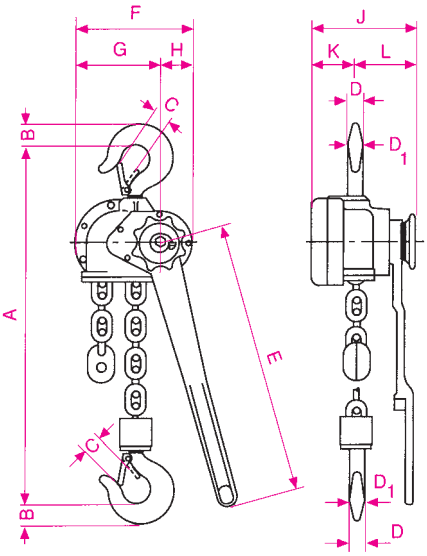


6 t

Load capacity in kg	Type	Lever force at nominal load in N	Chain falls	Dimensions in mm							Weight with standard lift in kg	Item no.
				A	B	C	D	H min.	F	L		
750	RZ 75	210	1	320	156	94	132	38	26	280	7.5	7311.50.07
1500	RZ 150	240	1	360	176	103	162	42	32	410	11.5	7311.50.15
2000	RZ 200	300	1	365	176	103	162	45	34	410	12.7	7311.50.20
3000	RZ 300	320	1	470	202	112	185	50	34	410	21.0	7311.50.30
6000	RZ 600	340	2	565	202	112	230	65	44	410	31.5	7311.50.60

Lever Hoist D 85 with flexible Round Steel Chain

- Portable and versatile hoist for lifting, pulling and tensioning
- Simple and safe use
- Low headroom for use in confined areas
- Short distance between hooks
- Housing of malleable cast iron
- Drop-forged hooks for rough industrial use
- Virtually unlimited applications in workshops, machine construction, steel mills, shipbuilding, assembly in civil engineering
- Ideal for positioning of heavy machinery, power line construction and lashing of heavy loads for transport
- The robust design makes the hoist suitable for use in damp environments



Type C 85 with roller chain

Option:
- Available with overload protection
- Type C 85 with roller chain

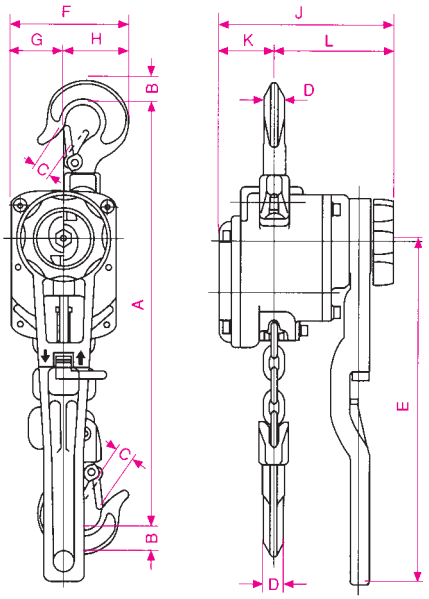
Capacity in kg	Lever force at nominal load in daN	Chain falls	Lift with a lever twist in mm	Dimensions in mm													Weight w/ standard lift in kg	Item no.
				A min.	B	C	D	D1	E	F	G	H	J	K	L		
750	38	1	111	322	21	27	15	17	443	112	56	56	142	39	103	8.2	7301.00.07
1500	31	1	45	389	27	30	20	23	443	189	134	55	171	72	99	16.3	7301.00.15
3000	40	1	33	403	35	34	25	25	570	197	142	55	179	76	103	19.6	7301.00.30
6000	42	2	17	532	48	46	40	40	570	197	142	55	218	76	142	32.9	7301.00.60
10000	37	3	11	805	61	54	40	45	570	305	163	142	218	76	142	60	7301.01.00

MANUAL LIFTING EQUIPMENT

Lever Hoists

Lever Hoist Model AL

- Compact design
- Housing and lever made of aluminium alloy
- Low weight
- High-strength round steel chain according to EN 818-7
- Low operating effort
- Short lever
- Free chaining device
- Articulated swivel hooks



Load capacity in kg	Lever force at nominal load in daN	Lift with a lever twist in mm	Chain falls	Standard lifting height in m	Dimensions in mm A	B	C	D	E	F	G	H	J	K	L	Weight at standard lift in kg	Item no.
750	16	30	1	1.5	315	20	22	14	300	106	47	59	154	49	105	6.4	7303.00.07
1000	22	30	1	1.5	325	23	23	16	300	109	47	62	154	49	105	6.6	7303.00.10
1500	18	16	1	1.5	380	27	26	20	300	138	60	78	177	74	103	10	7303.00.15
3000	28	14	1	1.5	455	36	33	24	400	168	75	93	212	94	118	18	7303.01.30

Chain Lock for Lever Hoists

- The use of chain locks is limited to lever ratchet hoists.
- This helps to avoid the loose chain end from slipping through.
- They have to be mounted close to the hoist at the free unloaded end of the chain.
- Main application is overhead line construction.

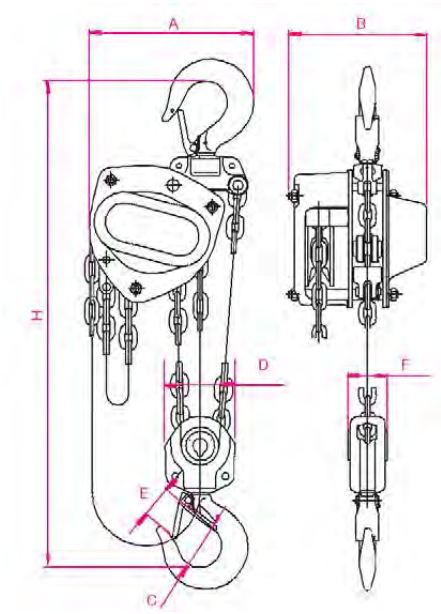
Load capacity in kg	Nominal size	Chain size in mm	Weight in kg/pce	Item no.
800	6	6 x 18	0.3	HB41.77.70
1600	8	8 x 24	0.5	HB41.77.71
3200	10	10 x 30	0.8	HB41.77.72

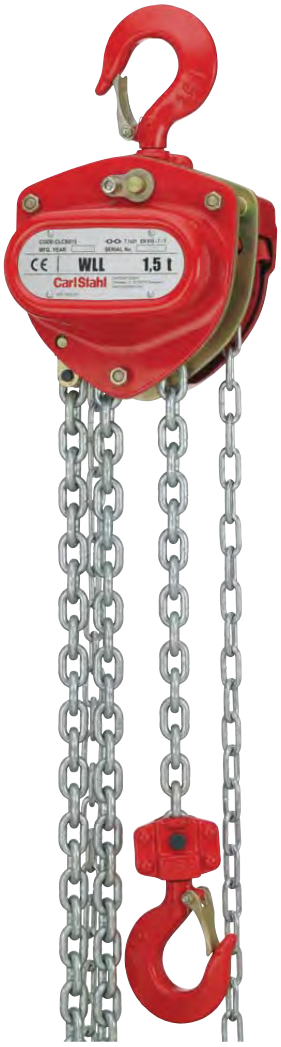
Not to be used for shortening or lifting!

CondorLift Chain Block CLCB

The compact and lightweight premium class chain block! Designed for demanding applications.

- Highly shock-resistant housing, fully encapsulated against moisture and dust
- Forged hooks with reinforced safety latch made from cast steel
- Main axle with ball bearing to minimize effort
- Precision gear for long working life
- All unpainted parts with high-grade corrosion protection
- Ratchet disc and pawl with additional wear- and corrosion protection
- Low-wear sintered brake linings
- Completely redesigned connecting bolt, accessible from the outside, for fast and easy exchange of the suspension hook or attachment to a trolley
- Housing with high quality powder coating in RAL 3000
- Extensive spare parts and maintenance service





Load capacities in similar versions available up to 50 tons.

Load capacity in kg	Type	Standard lift in m	Lift force at nominal load in N	Chain falls	Chain overhauled to lift load 1 m in m	Weight in kg/pce	Item no.
500	CLCB005F	3.0	22.8	1	25	11	7311.CL.CB005F
1000	CLCB010F	3.0	28.4	1	43	13	7311.CL.CB010F
1500	CLCB015F	3.0	34.3	1	57	16	7311.CL.CB015F
3000	CLCB030F	3.0	35.3	2	114	24	7311.CL.CB030F
5000	CLCB050F	3.0	33.3	2	198	41	7311.CL.CB050F

Load capacity in kg	Type	Dimensions in mm						
		A	B	C	D	E	F	H
500	CLCB005F	139.5	130.5	32	43	27	25	285
1000	CLCB010F	161	161.5	40	51	33	30	295
1500	CLCB015F	182	170	42	64	33.5	34	350
3000	CLCB030F	235	170	52	106	43.5	53	510
5000	CLCB050F	282	192	60	133	51	64	600

Load chain for manual hoists version RT see page 106.

Product video: carlstahl.de/CLCB

MANUAL LIFTING EQUIPMENT

Chain Blocks

Spur Wheel Chain Block with integrated Push Trolley Model Yalelift ITP
Spur Wheel Chain Block with integrated Geared Trolley Model Yalelift ITG

Load capacites 500 - 5,000 kg

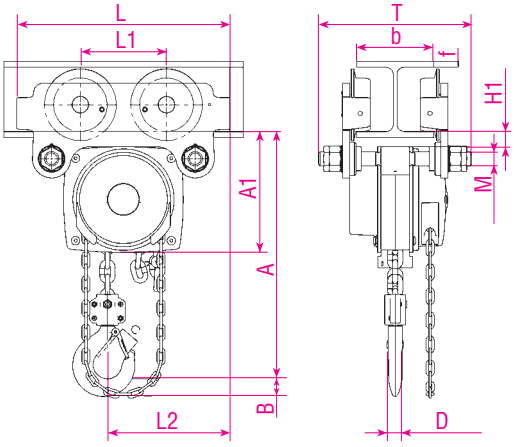
The combination of a Yalelift 360 with a low headroom trolley provides more flexibility in applications.

- All units up to 3,000 kg are delivered with a single chain fall
- Low headroom, ideal for low ceilings
- The manual trolley is adjustable to fit a wide range of beam profiles
- The excellent running characteristics of the trolley wheels are guaranteed by ball bearings
- Anti-tilt device and wheel fracture supports are standard

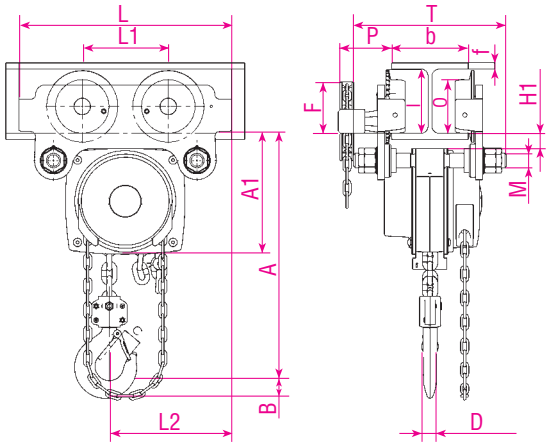
Option:
- Corrosion-protected version
- Adjustable overload protection
- Lockable trolley
- Chain container
- Explosion-protected version

Capacities up to 20 t available.

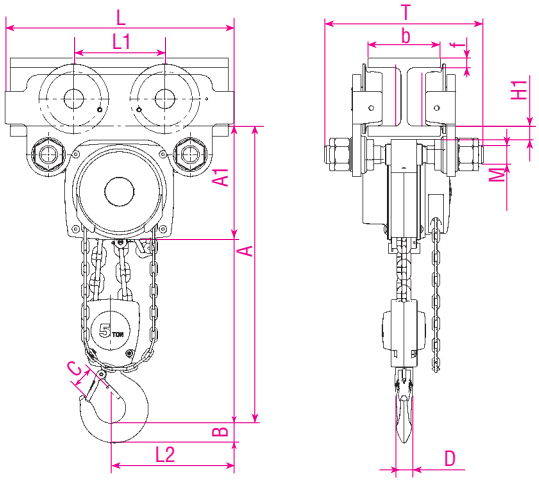
Also available in explosion-protected version.



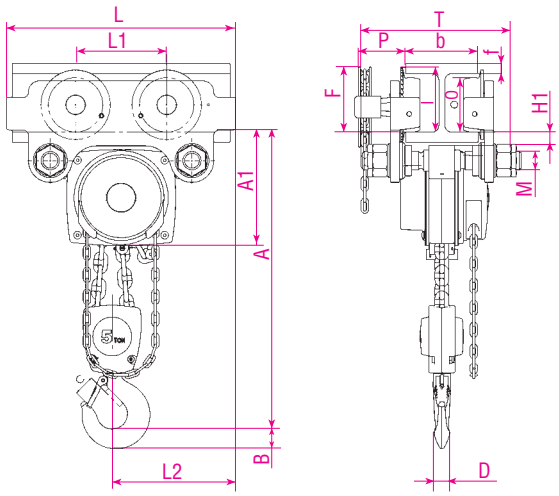
Type P Load capacity 0.5 - 3 t



Type G Load capacity 0.5 - 3 t



Type P Load capacity 5 t



Type G Load capacity 5 t

MANUAL LIFTING EQUIPMENT

Chain Blocks

Load capacity in kg	Type	Dimensions in mm with 3 m lift															
		A min.	A1	B	C	D	F (Type G)	H1	I (Type P)	I (Type G)	L	L1	L2	M	O	P	T (Range A)	T (Range B)
500	A	245	158	17	24	14	-	24.5	71.5	-	270	130	159	M18	60	-	280	400
500	B	245	158	17	24	14	92	24.5	-	76.5	270	130	159	M18	60	108	280	400
1000	A	272	178	22	29	19	-	24	71.5	-	310	130	175	M22	60	-	290	410
1000	B	272	178	22	29	19	92	24	-	76.5	310	130	175	M22	60	110	290	410
2000	A	323	205.5	30	35	22	-	23.5	95.5	-	360	150	207	M27	80	-	305	425
2000	B	323	205.5	30	35	22	91	23.5	-	98	360	150	207	M27	80	112	305	425
3000	A	382	252	38	40	30	-	32	131	-	445	180	256	M30	112	-	320	440
3000	B	382	252	38	40	30	107	32	-	132.5	445	180	256	M30	112	112	320	440
5000	A	550	260.5	45	47	37	-	30.5	142.5	-	525	209	283	M42	125	-	364	484
5000	B	550	260.5	45	47	37	149.5	30.5	-	148.5	525	209	283	M42	125	117	364	484

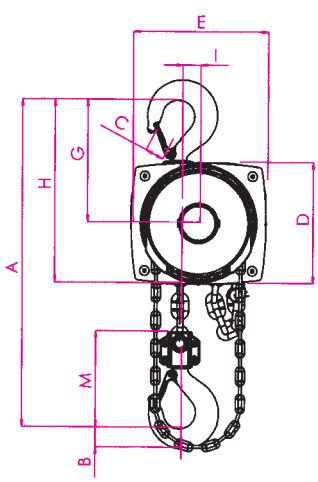
Load capacity in kg	Type	Beam width b in mm	Minimum curve radius in m	Max. flange thickness t in mm	Weight Type G in kg/pce	Item no. Type G	Weight Type P in kg/pce	Item no. Type P
500	A	50-180	0.90	19	24	7202.GA.05	20	7202.PA.05
500	B	180-300	0.90	19	25	7202.GB.05	21	7202.PB.05
1000	A	50-180	0.90	19	32	7202.GA.10	27	7202.PA.10
1000	B	180-300	0.90	19	33	7202.GB.10	29	7202.PB.10
2000	A	58-180	1.15	19	49	7202.GA.20	44	7202.PA.20
2000	B	180-300	1.15	19	50	7202.GB.20	46	7202.PB.20
3000	A	74-180	1.50	27	82	7202.GA.30	77	7202.PA.30
3000	B	180-300	1.40	27	84	7202.GB.30	79	7202.PB.30
5000	A	98-180	2.00	27	130	7202.GA.50	125	7202.PA.50
5000	B	180-300	1.80	27	134	7202.GB.50	129	7202.PB.50

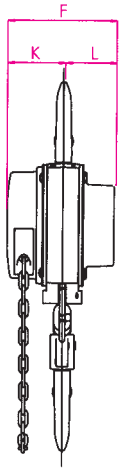
Yalelift360 - The 360° Chain Block with Round Steel Chain

Standard lifting height 3 m
Load capacity 500 - 5,000 kg

Your benefits:
- The new 360° rotating hand chain wheel cover allows the user to operate the hand chain from any angle
- Additional safety for the operator due to 360° rotating hand chain wheel cover
- New patented brake system provides quiet, smooth and safe lifting at low maintenance
- Durable and cost-saving due to first-class workmanship
- Even in the toughest outdoor conditions the internal gear is protected by the almost fully enclosed chain guide and gear group

Option:
- Available with overload protection





Also available in explosion protected version. See pages 68-69 for detailed information.

Load capacity in kg	Standard lifting height in m	Lift force at nominal load in daN	Chain falls	Lift per 1 m hand chain in mm	Dimensions in mm													Weight at standard lift in kg	Item no.
					A	B	C	D	E	F	G	H	I	K	L	M	N		
500	3	21	1	33	300	17	24	133	148	148	139	206	24	61	87	110	14	9	7201.50.05
1000	3	30	1	20	335	22	29	156	175	167	164	242	24	70	97	125	19	13	7201.50.10
2000	3	32	1	14	395	30	35	182	203	194	192	283	31	83	111	156	22	20	7201.50.20
3000	3	38	1	12	520	38	40	220	250	219	225	335	34	95	124	178	30	29	7201.50.30
5000	3	34	2	6	654	45	47	220	250	219	242	352	21	95	124	285	37	38	7201.50.50

Higher load capacities up to 20 t available on request.

MANUAL LIFTING EQUIPMENT

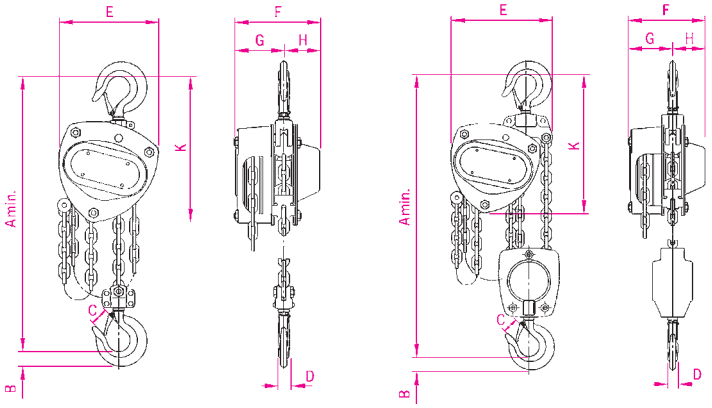
Chain Blocks

Spur Wheel Chain Block Type VSIII

Improved version

- The enhanced hand chain guide enables the hand chain to run smoothly without tilting or sticking.
- High-quality bearings in the side plates, the gear cover and the load chain wheel enable the smooth true running of the load chain wheel and drive pinion.
- Optimised manual forces enable simple handling.
- Precision machined guide rollers enable the load chain to run optimally.
- Ball bearings and roller bearings in the gearbox, side plates and load chain wheel guarantee durability and a maintenance friendly design.
- Zinc-plated and yellow-chromated brake parts and chain guide rollers ensure increased corrosion protection.
- The zinc-plated load chain supplied as standard provides added corrosion protection.

Option:
- Available with chain container
- Available with overload protection



Load-bearing chain falls: 1

Load-bearing chain falls: 2

Also available with chain container!!!

Standard lifting height 3 m

Load capacity in kg	Model	Lift force at nominal load in daN	Chain falls	Weight at standard lifting height in kg	Item no.	Item no. Chain container
250	VSIII 0.25/1	20	1	3.9	7201.00.02	7203.KS.4002
500	VSIII 0.5/1	21	1	9.0	7201.00.05	7203.KS.4005
1000	VSIII 1/1	24	1	11.5	7201.00.10	7203.KS.4010
1500	VSIII 1.5/1	30	1	17.5	7201.00.15	7203.KS.4015
2000	VSIII 2/1	32	1	19.0	7201.10.20	7203.KS.4020
2000	VSIII 2/2	29	2	17.3	7201.00.20	7203.KS.2020
3000	VSIII 3/1	40	1	31.0	7201.10.30	7203.KS.3020
3000	VSIII 3/2	37	2	27.0	7201.00.30	7203.KS.2030
5000	VSIII 5/2	41	2	43.0	7201.00.50	7203.KS.1050

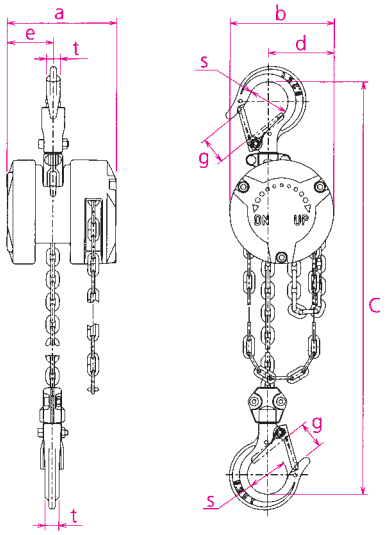
Load capacity in kg	Model	Dimensions in mm								
		A	B	C	D	E	F	G	H	K
250	VSIII 0.25/1	290	12	26	11	118	113	65	48	190
500	VSIII 0.5/1	350	21	23	16	145	140	80	60	240
1000	VSIII 1/1	380	28	27	20	158	155	87	68	270
1500	VSIII 1.5/1	450	33	36	22	180	175	85	90	300
2000	VSIII 2/1	460	36	35	29	205	180	94	86	320
2000	VSIII 2/2	490	36	35	29	170	155	87	68	285
3000	VSIII 3/1	570	45	40	29	240	210	110	100	370
3000	VSIII 3/2	580	45	40	29	220	175	94	81	340
5000	VSIII 5/2	700	47	45	40	250	190	95	95	410

MANUAL LIFTING EQUIPMENT
Chain Blocks

Mini Chain Block CLCM

The ultra-light premium class mini chain block.
Holds up to 100 times its own weight!
(with standard lifting height)

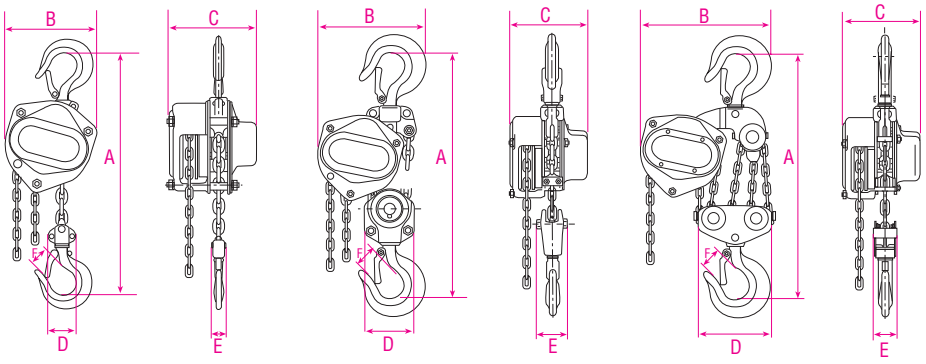
- Excellently crafted aluminium housing
- Extended application range due to wide hook opening
- Increased safety due to overload protection
- High-strength load chain of the highest quality class (BG tested)
- **Lifting height: 2.5 m**



Load capacity in kg	Type	Dimensions load chain in mm	Standard length hand chain in m	Lift force at nominal load in daN	Chain falls	Chain overhauled to lift load 1 m in m	Dimensions in mm								Weight in kg/pce	Item no.
							a	b	C	d	e	g	s	t		
250	CLCM003	3.2 x 9.0	2	14.7	1	33.8	88	84	217	53	37	21	32	11	2.4	7311.CLCM003
500	CLCM005	4.3 x 12.0	2.5	19.0	1	42.8	102	102	260	66	44	24.5	35.5	12	4.5	7311.CLCM005

Spur Wheel Chain Block Type FZ

With round steel chain according to EN 818-7
Standard lifting height 3 m



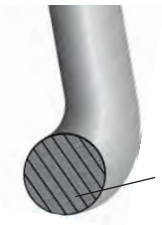
0.5 - 2 t 3 - 5 t 10 t

Load capacity in kg	Model	Lift force at nominal load in daN	Chain falls	Dimensions in mm							Weight at standard lift in kg	Item no.
				A	B	C	D	E	F	fl		
500	FZ 05	26	1	312	140	131	60	33	31	36	10	7311.40.05
1000	FZ 10	31	1	360	156	151	61	31	33	39	12	7311.40.10
1500	FZ 15	35	1	385	176	151	60	44	38	43	18.5	7311.40.15
2000	FZ 20	39	1	430	223	183	67	58	40	45	20	7311.40.20
3000	FZ 30	46	2	490	223	151	106	85	44	52	29	7311.40.30
5000	FZ 50	47	2	675	252	183	133	64	49	58	45.5	7311.40.50

MANUAL LIFTING EQUIPMENT

Hoist Chains

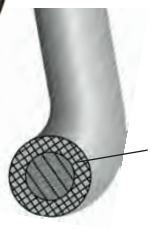
Hoist Chain Type RT for Manual Hoists



- Type **RT** for low/medium wear stress EN 818-7-T
- Tempered
- Surface: galvanised

Chain size in mm	Breaking load $F_{Bmin.}$ in kN	Weight kg/m	Item no.
3 x 9	20.1	0.210	HB41.77.32
4 x 12	20.1	0.350	HB41.77.01
4.2 x 12.2	20.1	0.350	HB41.77.33
5 x 15	31.4	0.540	HB41.77.02
5.6 x 15.8	39.4	0.680	HB41.77.26
5.6 x 17	39.4	0.680	HB41.77.03
6 x 18	45.2	0.800	HB41.77.04
6 x 18.5	45.2	0.800	HB41.77.05
6.3 x 19.1	49.9	0.860	HB41.77.07
7 x 22	61.6	1.100	HB41.77.09
7.1 x 20.1	67	1.100	HB41.77.27
7.1 x 21	63.3	1.100	HB41.77.11
7.1 x 21.2	67	1.100	HB41.77.12
8 x 24	80.4	1.400	HB41.77.16
9 x 24.8	102	1.800	HB41.77.28
9 x 27	102	1.800	HB41.77.17
10 x 28	126	2.200	HB41.77.20
10 x 28.1	126	2.200	HB41.77.29
10 x 30	126	2.200	HB41.77.21
11 x 31	152	2.700	HB41.77.23
13 x 36	212.3	3.800	HB41.77.25

Hoist Chain Type RTS for Powered Hoists



- Type **RTS** for high wear stress EN 818-7-DAT
- Uniform surface hardness and case depth especially in the joints, high wear resistance, long service life
- Highest dynamic resistance, maximum operational reliability
- All RUD chains are 100% calibrated
- Surface: galvanised

Chain size in mm	Breaking load $F_{Bmin.}$ in kN	Weight kg/m	Item no.
3.1 x 9.3	11.3	0.210	HB41.78.01
4 x 12	20.1	0.350	HB41.78.02
5 x 15	31.4	0.540	HB41.78.03
5 x 15.3	31.4	0.540	HB41.78.04
5 x 16	31.4	0.540	HB41.78.05
6 x 18	45.2	0.800	HB41.78.06
6 x 18.6	45.2	0.800	HB41.78.07
6.3 x 19.1	49.9	0.860	HB41.78.09
6.5 x 18.5	53.1	0.940	HB41.78.10
6.5 x 19.5	53.1	0.940	HB41.78.11
7 x 21	61.6	1.100	HB41.78.12
7 x 21.9	61.6	1.100	HB41.78.13
7 x 22	61.6	1.100	HB41.78.15
7.1 x 20.2	63.3	1.100	HB41.78.29
7.2 x 21	65.1	1.200	HB41.78.32
8 x 24	80.4	1.400	HB41.78.19
9 x 27	102	1.800	HB41.78.20
10 x 28	126	2.200	HB41.78.23
10 x 30.2	126	2.200	HB41.78.25
13 x 36	212.3	3.800	HB41.78.28

Hand Chain for Chain Blocks

- Surface: galvanised, not tested

Chain size in mm	Item no.
5 x 25	HB41.79.04

Chain lock for hoist chains see page 100.

MANUAL LIFTING EQUIPMENT

Trolleys

Lower Flange Trolley Type HTP / Type HTG

Trolleys are used to precisely position and easily move larger loads in conjunction with manual or electric lifting equipment.

- Encapsulated ball bearings for smooth running
- Adjustable to fit a wide range of beams and profiles (INP, IPE and IPB)
- Precise adjustment by counter-threaded bol, centered load suspension – no side movement on the beam
- The trolleys comply with the applicable UVV regulations and the Machinery Directive.

Option:

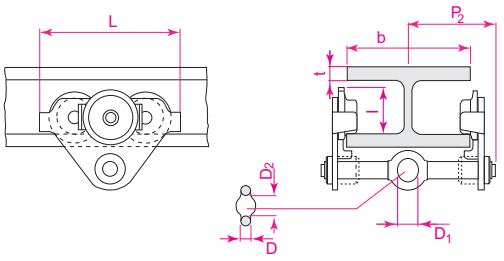
- Pivoting hand chain guide
- Rust and acid-resistant hand chains
- Approach buffer
- Corrosion-protected design
- Explosion-proof version
- Locking mechanism for attaching the manual trolley to the beam without load (park position, e.g. in shipping).

Also available in explosion-proof version. For detailed information see pages 68-69.

Beam attachments as suspension points for lifting equipment can be found on page 165.

Lower flange trolley with roller trolley Type HTP

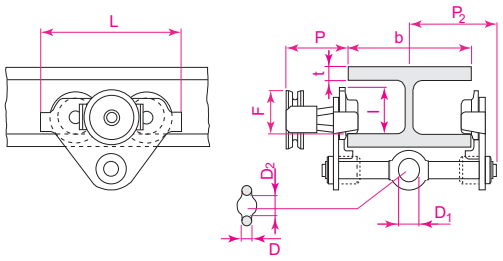
Continuously adjustable lower flange trolley as push trolley.



Load capacity in kg	Dimensions in mm b Type A	b Type B	D	D1	D2	l	L	P2 Type A	P2 Type B	t Type A	t Type B	Weight in kg Type A	Weight in kg Type B	Item no. Type A	Item no. Type B
500	50-220	160-300	16	25	30	71.5	260	146	187	25	40	8.0	10.6	7213.A0.05	7213.B0.05
1000	50-220	160-300	17	30	35	71.5	260	150	187	25	40	9.0	12.0	7213.A0.10	7213.B0.10
2000	66-220	160-300	22	40	47	95.5	310	155	189.5	25	40	16.0	19.3	7213.A0.20	7213.B0.20
3000	74-220	160-300	26	48	58	131	390	160	191.5	25	40	32.0	35.8	7213.A0.30	7213.B0.30
5000	90-220	180-300	33	60	70	142.5	450	167.5	191.5	25	40	48.0	52.2	7213.A0.50	7213.B0.50

Geared Trolley Type HTG

Infinitely adjustable geared trolley for 3 m crane runway height.



Load capacity in kg	Dimensions in mm b Type A	b Type B	D	D1	D2	F	l	L	P	P2 Type A	P2 Type B	t Type A	t Type B	Weight in kg Type A	Weight in kg Type B	Item no. Type A	Item no. Type B
500	50-220	160-300	16	25	30	91.5	76.5	260	110	146	187	25	40	9.7	12.6	7214.A0.05	7214.B0.05
1000	50-220	160-300	17	30	35	91.5	76.5	260	110	150	187	25	40	11.2	14.1	7214.A0.10	7214.B0.10
2000	66-220	160-300	22	40	47	90.5	98	310	110	155	189.5	25	40	18.0	21.3	7214.A0.20	7214.B0.20
3000	74-220	160-300	26	48	58	107.5	132.5	390	110	160	191.5	25	40	35.4	39.2	7214.A0.30	7214.B0.30
5000	90-220	180-300	33	60	70	149.5	148.5	450	110	167.5	191.5	25	40	51.8	56.0	7214.A0.50	7214.B0.50

*Type B available up to 20,000 kg load capacity

MANUAL LIFTING EQUIPMENT

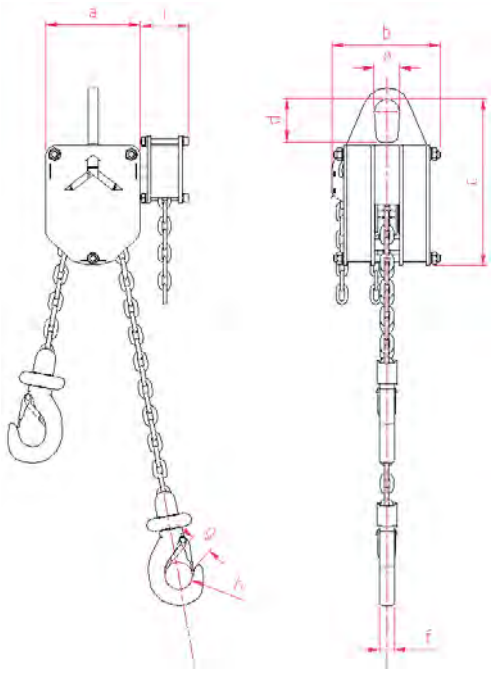
Load tilting device

CondorTilt Load tilting device

NEW!

The load tilting device from the own brand series Condor with a load capacity of 500 kg for precisely tilting loads

- Fulfils the highest requirements under DIN EN 13155
- Robust and impact-resistant metal housing
- Self-locking worm gear unit results in a high level of transmission with minimal effort
- High-strength RUD load chain with a standard length of 3 m
- Transmission 1:38
- Rotating swivel hook with reinforced safety flap prevents the load chain from twisting
- Manual chain length: 1.5 m
- Accessories: shortenable combined pendant for 3/4-point suspension
- Individual solutions also possible



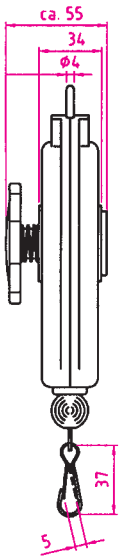
Maximum permissible spread angle:
up to 90°: 100% of the max. load capacity
90°-120°: 70% of the max. load capacity

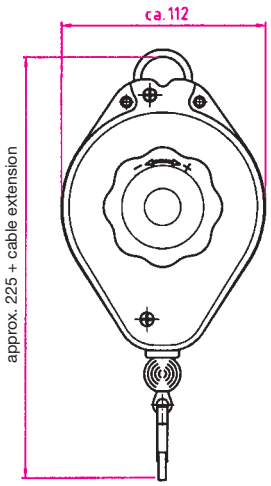
Load capacity in kg	Type	Dimensions in mm									Weight in kg/pce	Item no.
		a	b	c	d	e	f	g	h	i		
500	LNG05	110	127	195	50	30	12	21	32	57	6	7316.00.50

Note: 500 kg electric and 3,150 kg manual versions available from the 2nd quarter of 2015.

CondorLift Retractor

Your advantages:
- Easy load adjustment with hand wheel
- Impact-resistant plastic housing
- Small, light-weight and compact
- Suitable for all assembly workstations
- Steel suspension eye
- Riveted special bearing spring
- Polyamide cable, ø 2 mm



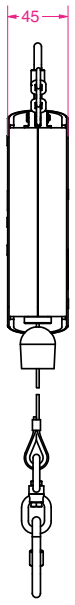


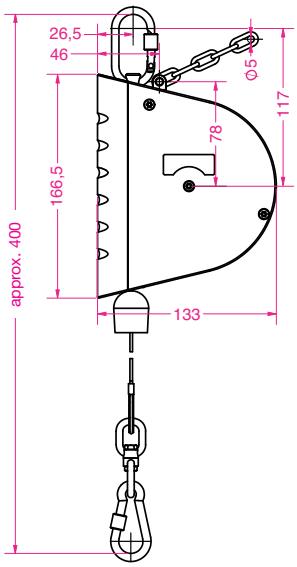
Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.5 - 1.2	2.0	0.6	5200000001.C
1.0 - 2.0	2.0	0.6	5200000002.C

CondorLift Retractor

Your advantages:
- Very stable housing made of impact- and abrasion-resistant plastic
- Easy load adjustment
- Insulated suspension with swivelling snap hook with screw lock
- Integrated load swivel
- Snap hook with screw lock for load suspension
- Also available with automatic ratchet lock

Ratchet lock must not be used to exchange loads!





Version without ratchet lock

Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.5 - 2.0	2.5	0.80	7211080001.C
1.5 - 3.0	2.5	0.80	7211080002.C

Version with ratchet lock

Load capacity in kg	Item no.
0.5 - 2.0	7212080001.C
1.5 - 3.0	7212080002.C

MANUAL LIFTING EQUIPMENT

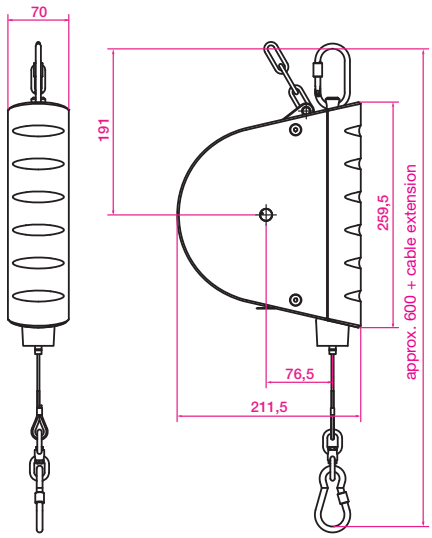
Retractors and Balancers

CondorLift Retractor

Your advantages:

- Very stable housing made of impact- and abrasion-resistant plastic
- Easy load adjustment thanks to positioning screw with over-twist protection
- Insulated suspension with swivelling snap hook with screw lock
- Factory equipped with spring fracture safeguard and safety chain as fall protection device
- Integrated load swivel
- Snap hook with screw lock for load suspension
- Also available with automatic ratchet lock

Ratchet lock must not be used to exchange loads!



Version without ratchet lock

Load capacity in kg	Cable length in m	Weight in kg	Item no.
2.0 - 5.0	3.0	3.30	7221080001.C
4.0 - 8.0	3.0	3.70	7221080002.C
7.0 - 10.0	3.0	3.70	7221080003.C
10.0 - 14.0	3.0	3.90	7221080004.C

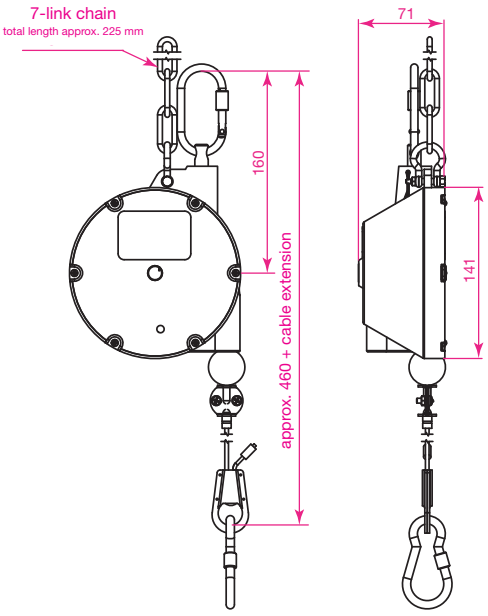
Version with ratchet lock

Load capacity in kg	Item no.
2.0-5.0	7222080001.C
4.0-8.0	7222080002.C
7.0-10.0	7222080003.C
10.0-14.0	7222080004.C

CondorLift Balancer

Your advantages:

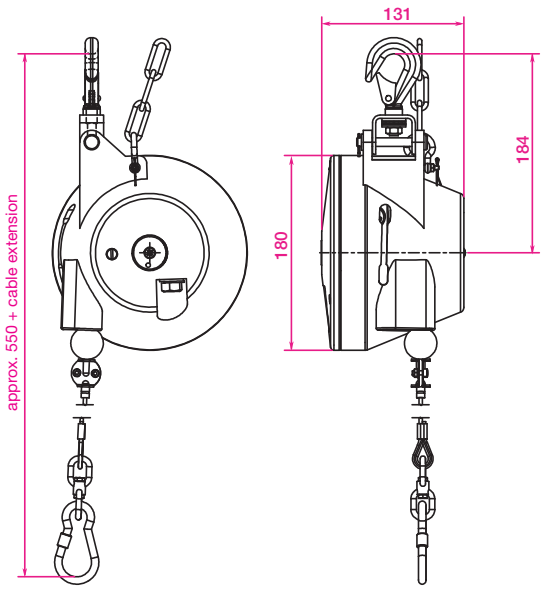
- High-strength, highly abrasion resistant housing
- Easy load adjustment
- Insulated suspension with swivelling snap hook with screw lock
- Factory equipped with spring fracture safeguard (from 3.0 kg load capacity range) and safety chain as fall protection device
- Factory equipped with integrated load swivel
- Lockable rope drum
- Snap hook with screw lock for load suspension



Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.4 -1.2	1.6	1.3	7228000001
1.2 - 2.6	1.6	1.4	7228000002
2.6 - 3.8	1.6	1.5	7228000003
3.8 - 5.2	1.6	1.5	7228000004
5.2 - 6.5	1.6	1.5	7228000005

CondorLift Balancer

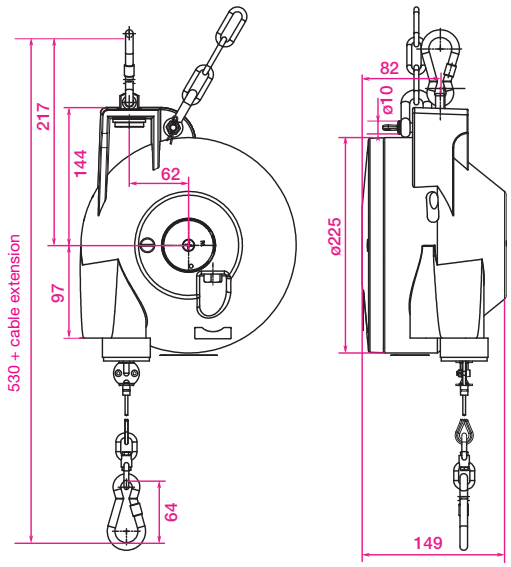
Your advantages:
- High-strength, highly abrasion resistant housing
- Insulated suspension with swivelling and pivoting safety hook
- Snap hook with screw lock for load suspension
- Factory equipped with safety chain as fall protection device
- All load capacities with spring fracture safeguard and integrated drum blocking device.
- Load swivel integrated as standard



Load capacity in kg	Cable length in m	Weight in kg	Item no.
3.0 - 5.0	2.0	2.90	7230000001.C
4.5 - 7.0	2.0	3.10	7230000002.C
6.0 - 10.0	2.0	3.20	7230000003.C
9.0 - 14.0	2.0	3.40	7230000004.C
13.0 - 17.0	2.0	3.60	7230000005.C
16.0 - 21.0	2.0	3.80	7230000006.C

CondorLift Balancer

Your advantages:
- Housing and drum of high-strength aluminium
- Stepless load adjustment by hand screw
- Integrated spring fracture safeguard
- Integrated blocking device
- Load swivel integrated as standard



Load capacity in kg	Cable length in m	Weight in kg	Item no.
15.0 - 25.0	2.0	7.80	7235000001.C
25.0 - 35.0	2.0	8.90	7235000002.C
35.0 - 45.0	2.0	9.50	7235000003.C
45.0 - 55.0	2.0	9.75	7235000004.C

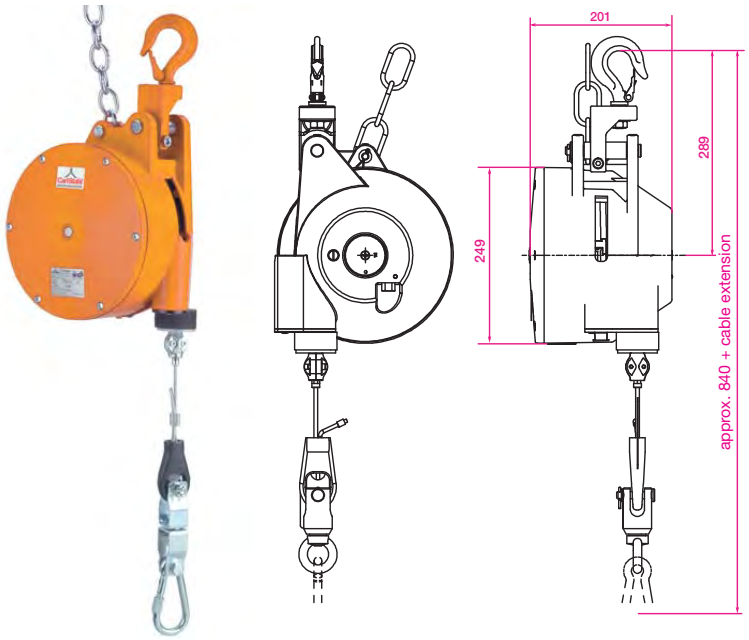
MANUAL LIFTING EQUIPMENT

Balancer and Positioner

CondorLift Balancer

Your advantages:
- High-strength, shock-resistant aluminium housing
- Swivelling and pivoting safety hook
- Overload protection by cable extraction limiter
- Screw snap hook for suspending the load
- Factory equipped with safety chain as fall protection device
- All load capacities with spring fracture safeguard
- Integrated drum blocking device
- Rope clip for securing the cable end included
- With patented freewheel to protect the spring suspension
- Load swivel integrated as standard

Also available as extra safety balancer with double cable!

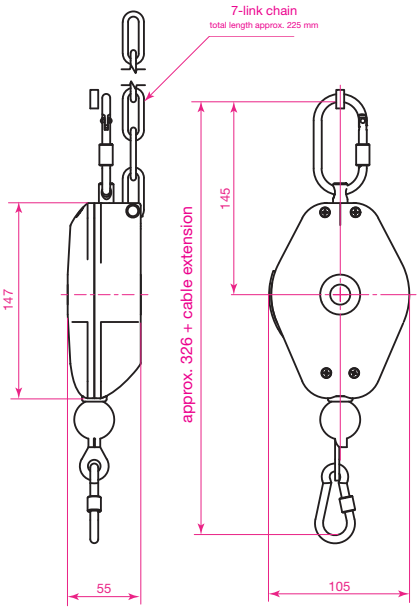


Load capacity in kg	Cable length in m	Weight in kg	Item no.
12.0 - 20.0	2.0	14.80	7241080001.C
20.0 - 30.0	2.0	15.20	7241080002.C
30.0 - 45.0	2.0	16.90	7241080003.C
45.0 - 60.0	2.0	17.30	7241080004.C
60.0 - 75.0	2.0	18.70	7241080005.C
75.0 - 90.0	2.0	19.70	7241080006.C
90.0 - 100.0	2.0	19.90	7241080007.C

CondorLift Positioner

NEW!

Your advantages:
- High-strength, shock-resistant housing
- Braking force adjustable using the positioning screw on the side
- Screw snap hook in swivelling and pivoting version as an isolated suspension point
- Factory equipped with safety chain as fall protection device
- Screw snap hook for suspending the load

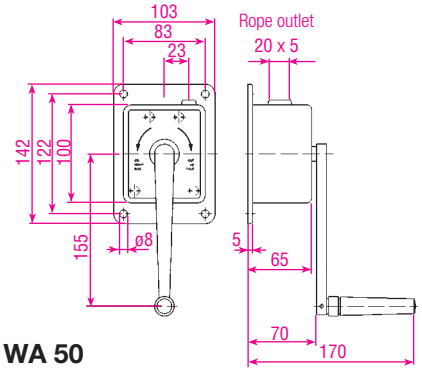


Load capacity in kg	Cable length in m	Weight in kg	Item no.
0.0 - 6.0	1.5	0.7	5250000000
2.0 - 7.0	1.5	0.8	5250000001

MANUAL LIFTING EQUIPMENT
Hand Winches

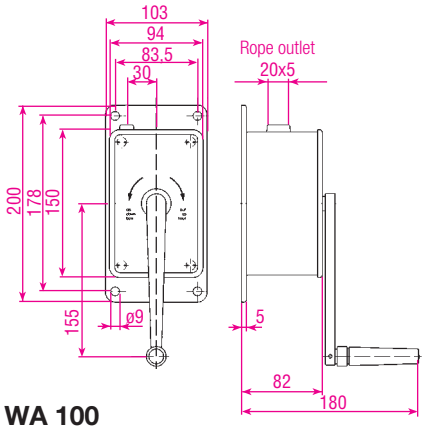
Hand Winch Types WA 50, WA 100

Material: Cast aluminium
- Compact design
- Enclosed housing
- Corrosion resistant
- Low noise level
- Self-locking gear
- Proven safety concept
- Low crank effort
- Detachable crank
- Low weight
- Surface powder coated



WA 50

Item no.	7621.00.50	7621.01.00
Type	**WA 50**	**WA 100**
Permissible load in kg	50	100
Crank Pressure in N	80	60
Lift per crank turn in mm	96	38
Rope capacity in m	12	8
Rope Ø in mm (DIN 3060 FE zn k 1770 sZ)	2	3
Weight without rope in kg	1	2.1



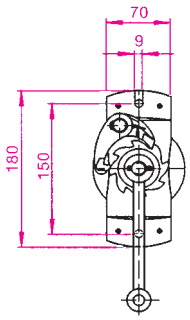
WA 100

Suitable wire rope, one end thimble and safety eye hook, other end pointed

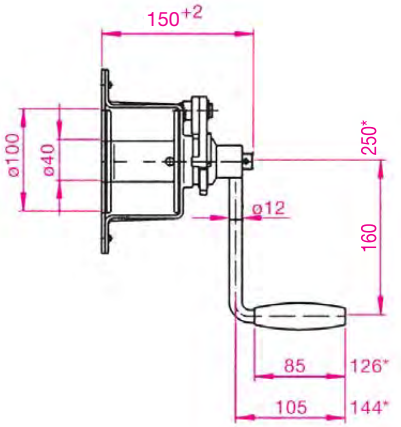
Item no.	1176.02.02	1176.02.03
Rope Ø in mm/length in m	2/12	3/8

Light wall-mounted Winch

Material: Cast alloy or steel galvanised
- Compact design
- Corrosion resistant
- Low noise level
- Self-locking gear
- Proven safety concept
- Low crank effort
- Detachable crank
- Low weight
- Surface powder coated



Item no.	7603.10.80	7603.11.25	7603.00.01
Surface	**galvanised**	**galvanised**	**cast iron varnished**
Permissible load in kg	80	125	125
Crank Pressure in N	170	170	170
Lift per crank turn in mm	135	135	135
Rope capacity in m	20	15	15
Rope Ø (DIN 3060 FE zn k 1770 sZ) in mm	3	4	4
Weight without rope in kg	2.5	2.5	4



*Type 125

Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	1176.01.03	1176.01.04	1176.01.04
Rope Ø in mm/length in m	3/20	4/15	4/15

MANUAL LIFTING EQUIPMENT

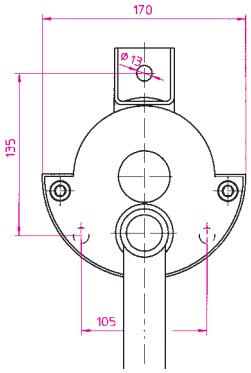
Hand Winches

Wall mounted Winch Type Tango

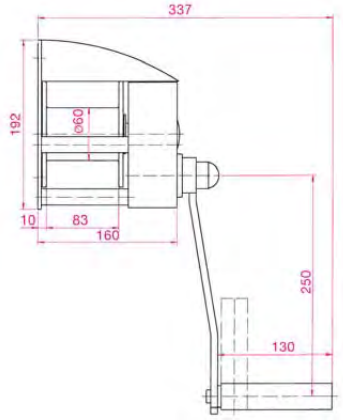
This hand winch offers many advantages:

- Corrosion resistant
- Large rope capacity
- Rope outlet independent of direction
- Encapsulated housing
- Self-locking gear
- Foldable crank handle

Also available with detachable crank handle! Price on request.



Item no.	7622.03.00	7622.05.00	7622.13.00	7622.15.00
Type	**WV 300**	**WV 500**	**WE 300**	**WE 500**
Surface	**galvanised**	**galvanised**	**stainless steel**	**stainless steel**
Permissible load in kg	300	500	300	500
Gear ratio	3.1	4.5	3.1	4.5
Lift per crank turn in mm	65	46	65	46
Rope capacity in m	29	22	29	22
Rope drum Ø in mm	60	60	60	60
Rope Ø in mm	4	5	4	5
Weight without rope in kg	5	5	5	5



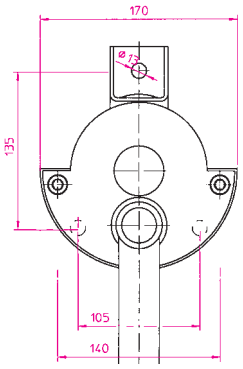
For suitable wire ropes see bottom of this page

Console-mounted Winch Type Tango

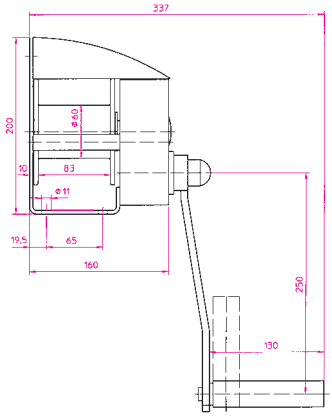
This hand winch offers many advantages:

- Corrosion resistant
- Large rope capacity
- Rope outlet independent of direction
- Encapsulated housing
- Self-locking gear
- Foldable crank handle

Also available with detachable crank handle! Price on request.



Item no.	7624.03.00	7624.05.00	7624.13.00	7624.15.00
Type	**KV 300**	**KV 500**	**KE 300**	**KE 500**
Surface	**galvanised**	**galvanised**	**stainless**	**stainless**
Permissible load in kg	300	500	300	500
Gear ratio	3.1	4.5	3.1	4.5
Lift per crank turn in mm	65	46	65	46
Rope capacity in m	29	22	29	22
Rope drum Ø in mm	60	60	60	60
Rope Ø in mm	4	5	4	5
Weight without rope in kg	5	5	5	5



Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	1176.02.04	1176.02.05	1176.05.04	1176.05.05
Rope Ø in mm/length in m	4/29	5/22	4/29	5/22

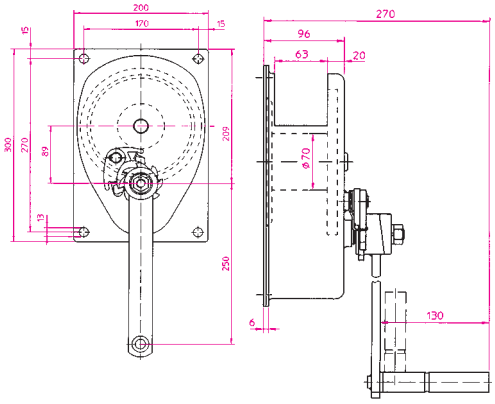
MANUAL LIFTING EQUIPMENT

Hand Winches

Wall-mounted Spur Wheel Winch Type 220

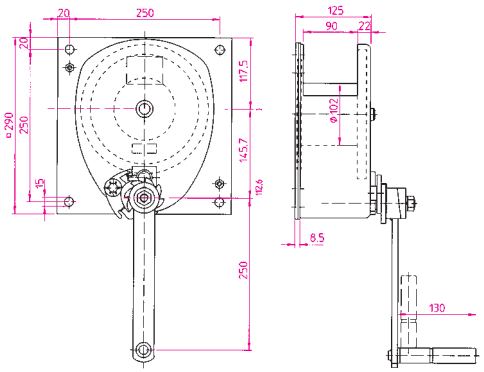
- Robust and safe
- Self-locking, recoil-free safety crank with foldable crank handle
- Load brake to prevent unintentional run-off of the load
- Maintenance-free friction bearings
- Corrosion-protected
- Powder-coated
- Easy and space-saving wall mount
- Corresponds to accident prevention regulations BGV D8

Galvanised version on request



Capacity: 300 + 500 kg

Item no.	7604.00.03	7604.00.05	7604.00.07	7604.00.10
Permissible load 1st rope layer / 4th rope layer in kg	300/203	500/336	750/520	1000/750
Crank Pressure in N	180	210	200	180
Lift per crank turn in mm	74	30	28	19
Rope capacity in m	11	10	12	10
Rope Ø in mm (DIN 3060 FE zn k 1770 sZ)	6	6.5	8	9
Weight without rope in kg	10	10	14	15



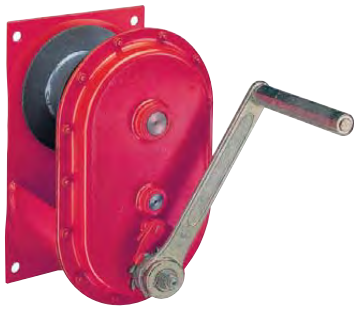
Capacity: 750 + 1,000 kg

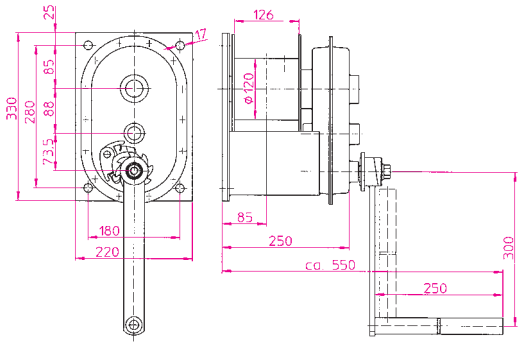
Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	1176.01.06	1176.01.65	1176.01.08	1176.01.09
Rope Ø in mm/length in m	6/11	6.5/10	8/12	9/10

Heavy wall-mounted Winch Type St/W

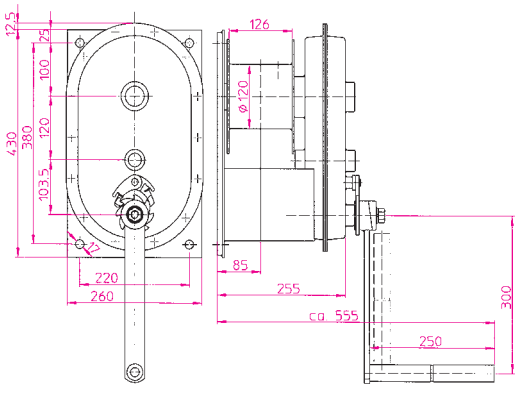
- Robust and safe
- Self-locking, recoil-free safety crank with foldable crank handle
- Load brake to prevent unintentional run-off of the load
- Maintenance-free friction bearings
- Corrosion-protected
- Varnished
- Easy and space-saving wallmount
- Corresponds to accident prevention regulations BGV D8





Capacity: 2,000 kg

Item no.	7605.00.20	7605.00.30
Permissible load 1st rope layer / 4th rope layer in kg	2000/1700	3000/2500
Crank Pressure in N	320	300
Lift per crank turn in mm	16	10
Rope capacity in m	8	7
Rope Ø in mm (DIN 3060 FE zn k 1770 sZ)	12	13
Weight without rope in kg	23	37



Capacity: 3,000 kg

Suitable wire rope, one end thimble and safety eye hook, other end pointed

Item no.	1176.01.12	1176.01.13
Rope Ø in mm/length in m	12/8	13/7

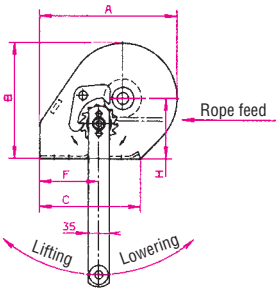
MANUAL LIFTING EQUIPMENT

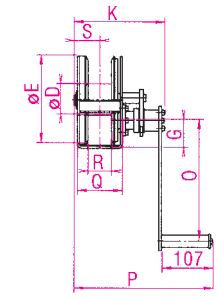
Hand Winches

Console-mounted Winch LB in galvanised Version

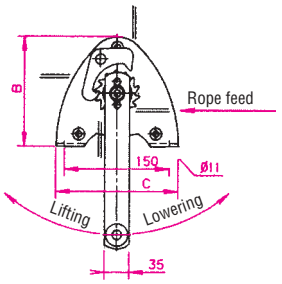
- **Console-mount**
- **Load capacities 150-1.200 kg**
- Outdoor use possible
- Specially suitable to be mounted on boat and auto trailers
- **Easy and safe handling**
- Easy mount on consoles
- Low self weight
- High efficiency due to spur wheel gear
- Smooth-running
- Corrosion resistant (all parts galvanised)
- Integrated load brake to prevent unintentional run-off of the load
- Delivery without rope and accessories

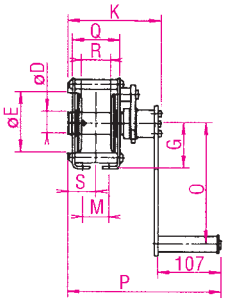
650 - 1.200 kg

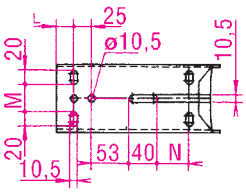




150 - 350 kg







Capacity 1st/ top rope layer in kg	Rope Ø in mm	Usable rope length 1st/top layer in m	Lift per crank turn in mm	Crank pressure in daN	Weight in kg	Dimensions in mm																Item no.
						A	B	C	D	E	F	G	H	K	L	M	N	O	P	Q	R	S	
150/75	4**	0.8/11	125	17	4.2	-	155	175	36	100	-	75	-	189	-	75	-	320	290	111	80	63	7607.00.02
350/170	4**	1.8/20	125	25	4.8	-	155	175	36	100	-	75	-	189	-	75	-	320	290	111	80	63	7607.00.04
650/290	6**	1.0/20	55	22	7.3	232	192	210	63.5	183	100	58	100	192	25	38	-	250	293	95	50	55	7607.00.06
900/400*	7**	0.8/14	58	24	10.0	232	192	210	63.5	183	100	58	100	192	25	38	-	320	293	95	50	55	7607.00.09
1200/430*	7***	1.0/26	45	24	12.1	273	266	240	63.5	255	78	75	138	192	35	30	53	320	293	95	50	65.5	7607.00.13

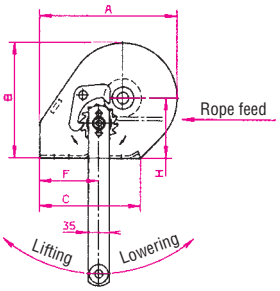
*Also available with declutchable drum. Please contact us for pricing.
**Recommended wire rope: DIN 3060 FE-znk 1770 sZ-spa
***Recommended wire rope: DIN 3069 SE-znk 2160 sZ-spa

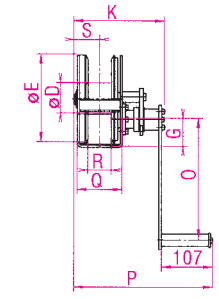
Console-mounted Winch LB in Stainless Steel Version

- **Console-mount**
- **Load capacities 250-900 kg**
- Outdoor use possible
- Specially suitable for construction, sewage plants, chemical industry or off-shore applications
- **Simple and safe use**
- Load brake to prevent unintentional run-off of the load
- Low crank force
- Easy mount
- All parts made of stainless steel, therefore corrosion resistant
- Covered gear wheel
- Rotating crank handle
- Delivery without rope and accessories

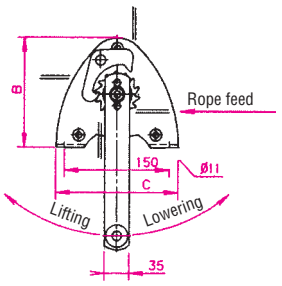
EDELSTAHL Rost frei

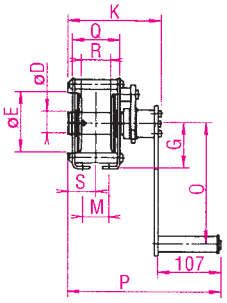
650 - 900 kg

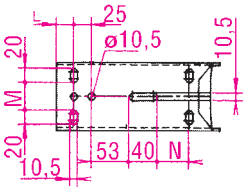




250 kg







Capacity 1st/ top rope layer in kg	Rope Ø in mm	Usable rope length 1st/top layer in m	Lift per crank turn in mm	Crank pressure in daN	Weight in kg	Dimensions in mm																	Item no.
						A	B	C	D	E	F	G	H	K	L	M	N	O	P	Q	R	S	
250/125	4	1.8/19.5	125	20	4.8	-	155	175	36.0	100	-	75	-	191.5	-	75	-	320	292.5	111	80	65.5	7607.10.02
650/290	6	1.0/20	55	22	7.6	232	192	170	63.5	183	100	58	100	190.0	25	38	-	250	291	95	50	55	7607.10.06
900/320	7	1.0/26	45	24	12.1	273	266	240	63.5	255	78	75	138	190.0	35	30	53	250	291	95	50	55	7607.10.10

Recommended wire rope: DIN 3060 FE-znk 1770 sZ-spa

MANUAL LIFTING EQUIPMENT
Hand Winches

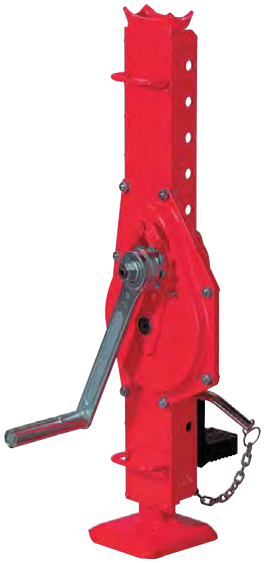
Rack Jack with fixed Claw acc. to DIN 7355

Rack jacks according to DIN and factory standard with lifting housing and fixed claw
- Long service life due to spur wheel gear made from high-grade tempered steel
- Load attachment at claw or on top of housing
- Safe stand thanks to big and strong base plate
- Equipped with safety crank or ratchet crank for confined spaces
- Meets requirements of German Accident Prevention Regulations BGV D8

Load capacity on head or claw in kg	Overall height in mm	Lifting height in mm	Weight in kg	Item no. with safety crank	Item no. with ratchet crank
1500	725	350	12.5	7601.00.01	7601.20.01
3000	725	350	20.0	7601.00.03	7601.20.03
5000	722	300	27.0	7601.00.05	7601.20.05
10000	797	300	42.0	7601.00.10	7601.20.10

Rack Jack with adjustable Claw acc. to DIN 7355

Rack jacks according to DIN and factory standard with lifting housing and adjustable claw
- Long service life due to spur wheel gear made from high-grade tempered steel
- Load attachment at claw or on top of housing
- Claw adjustable in 16 notches
- Safe stand thanks to big and strong base plate
- Equipped with safety crank or ratchet crank for confined spaces
- Meets requirements of German Accident Prevention Regulations BGV D8



Load capacity on head or claw in kg	Overall height in mm	Lifting height in mm	Min. height of claw in mm	Weight in kg	Item no. with safety crank	Item no. with ratchet crank
1500	725	350	60	16.5	7602.00.01	7602.20.01
3000	725	350	65	22.0	7602.00.03	7602.20.03
5000	722	300	75	32.0	7602.00.05	7602.20.05
10000	797	300	75	52.0	7602.00.10	7602.20.10

Spindle Support

Hand-driven spindle support for ergonomic adjusting and supporting, for levelling and dislocating etc.
- Robust rectangular tube construction
- Spindle with self-locking trapezoidal thread
- Maintenance-free bevel gear
- Easy and safe operation
- Easy to mount

Option:
- Tension or tension/pressure load
- Other lifting or overall heights
- Other foot designs
- Other crank versions
- Additional fixing possibilities

Also available as telescopic drop type.

Permissible load in kg	Overall height in mm	Lift in mm	Lift per crank turn in mm	Handle force in N	Weight in kg	Item no.	Item no. with detachable crank handle
500	500	300	3.0	140	4.0	7620.10.05	7620.20.05
1000	525	300	1.9	140	5.5	7620.10.10	7620.20.10
3000	670	350	2.2	260	17	7620.10.30	7620.20.30

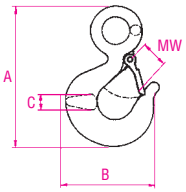
MANUAL LIFTING EQUIPMENT

Manual Rope Pulling Machines

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319

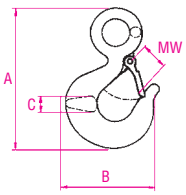
Swiss Quality

Manual Rope Pulling Machine Type HIT 6



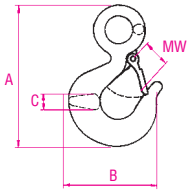
The mini rope pulling machine with great capacity for LIFTING, PULLING and TENSIONING of all kinds of loads. This handy unit comes stowed in a steel case complete with lever tube, special wire rope and wire rope sling.

Manual Rope Pulling Machine Type HIT 10



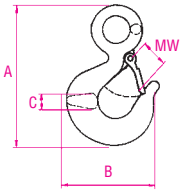
The compact and light unit within the HIT range with lever tube and special wire rope on coil. Ideal for all kinds of assembly work, recovery services, and heavy cargo lashing.

Manual Rope Pulling Machine Type HIT 16



The versatile rope pulling machine with lever tube and special wire rope on coil for light, medium and heavy assembly work. Low weight and high capacity.

Manual Rope Pulling Machine Type HIT 32



The largest hoist of the HIT series with lever tube and special wire rope. For a wide range of applications and its high load capacity it is suitable for heaviest lifting and pulling work.

Type	Nominal capacity in kg	Overload safety device at kg	Special wire rope included length in m	Special wire rope included Ø in mm	Hook dimensions in mm A	B	C	MW	Weight without rope in kg	Item no. with rope	Item no. without rope
HIT 6	600	900	10	6.4	110	76	14	21	4.2	7410.00.06	7410.01.06
HIT 10	1000	1500	20	8.4	130	81	16	21	6.5	7410.00.10	7410.01.10
HIT 16	1600	2400	20	11.2	145	90	23	24	12	7410.00.16	7410.01.16
HIT 32	3200	4800	10	16.2	195	121	36	27	21.5	7410.00.32	7410.01.32

Safety pin for HIT manual rope pulling machines:

For Type	Dimension in mm	Item no.
HIT 6	5.5 x 20	741H.06.12
HIT 10	7 x 22	741H.10.12
HIT 16 / HIT 32	7.5 x 29	741H.16.12

***Prices include lever tube and special wire rope as coil. Any other rope length is available at extra price. Other rope lengths and reels see page 120.**

For powered rope pulling machines see page 88.

MANUAL LIFTING EQUIPMENT

Manual Rope Pulling Machines

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 1131 — Swiss Quality — Carl Stahl®

Basic Equipment Set HIT 6

Consisting of:

- HIT 06 manual rope pulling machine complete with lever tube
- 10 m special wire rope Ø 6.4 mm with eye hook
- 1 m wire rope sling Ø 6.4 mm, length 1 m, both ends pressed eyes
- Steel case for HIT 06

Type	Nominal capacity in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 6	600	900	7410.03.06

Basic Equipment Set HIT 10

Consisting of:

- HIT 10 manual rope pulling machine complete with lever tube
- 20 m special wire rope Ø 8.4 mm with eye hook on reel
- Wire rope sling Ø 8.4 mm, length 2 m, both ends pressed eyes
- Steel case for HIT 10

Type	Nominal capacity in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 10	1000	1500	7410.03.10

Basic Equipment Set HIT 16

Consisting of:

- HIT 16 manual rope pulling machine complete with lever tube
- 20 m special wire rope Ø 11.2 mm with eye hook on reel
- Wire rope sling Ø 11.2 mm, length 2 m, both ends pressed eyes
- Steel case for HIT 16

Type	Nominal capacity in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 16	1600	2400	7410.03.16

Basic Equipment Set HIT 32

Consisting of:

- HIT 32 manual rope pulling machine complete with lever tube
- 10 m special wire rope Ø 16.2 mm with eye hook on reel
- 2 m wire rope sling Ø 16.2 mm, length 2 m, both ends pressed eyes
- Steel case for HIT 32

Type	Nominal capacity in kg	Overload safety device at kg	Item no.
Basic equipment set HIT 32	3200	4800	7410.03.32

Steel Cases for HIT Rope Pulling Machines

Type	Dims. (L x W x H) in mm	Item no.
Case for HIT 6	430 x 280 x 110	7410.81.06
Case for HIT 10	550 x 440 x 125	7410.81.10
Rope pulling case HIT 16	670 x 212 x 360	7410.81.16
Rope pulling case HIT 32	710 x 275 x 455	7410.81.32

MANUAL LIFTING EQUIPMENT
Accessories

HABEGGER Seilzugtechnik ISO 9001 Reg.Nr. 11319 — Swiss Quality

Special Wire Rope on Reel for HIT Manual Rope Pulling Machines

The ropes are fitted with thimble and safety hook at one end, other end fused and tapered. We can only guarantee proper functioning of the rope pulling machines if our specially developed and permanently quality-controlled special wire rope is used.

Other lengths up to 100 m. Over 50 m in 10 m steps

Alternatively, the special wire rope can also be delivered without reel. As we use bulk wire rope, almost any requested rope length is possible.

☐ = in rope basket ☐ = on reel

Ropes are also available as coil without reel

Length		10 m	15 m	20 m	30 m	50 m
Type HIT 6	Item no.	7411.10.06	7411.15.06	7411.20.06	7411.30.06	7411.50.06
Type HIT 10	Item no.	7411.10.10	7411.15.10	7411.20.10	7411.30.10	7411.50.10
Type HIT 16	Item no.	7411.10.16	7411.15.16	7411.20.16	7411.30.16	7411.50.16
Type HIT 32	Item no.	7411.10.32	7411.15.32	7411.20.32	7411.30.32	7411.50.32

Rope Basket (without rope)

An alternative to the conventional rope reel. For easy coiling and uncoiling of the rope. For special wire rope up to Ø 16.2 mm.

Type	Rope capacity in m			Item no.
	Ø 8.4 mm	Ø 11.2 mm	Ø 16.2 mm	
Rope basket (w/o rope)	40	25	10	7410.80.05

Cross Reel without Rope

Durable and sturdy welded construction, galvanised.

Type	Rope capacity in m				Weight	Item no.
	Ø 6.4 mm	Ø 8.4 mm	Ø 11.2 mm	Ø 16.2 mm	in kg	
I	80	60	25	-	1.3	7410.10.06
II	150	120	60	25	2.3	7410.10.10
III	250	200	130	50	3.2	7410.10.16

Rope Coiler with Carrying Skid

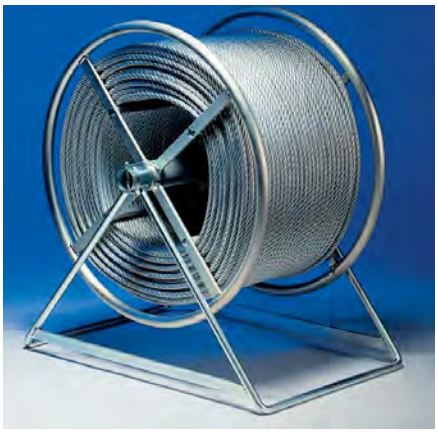
For convenient coiling of wire ropes on the reel. The built-in hub brake ensures that the reel will stop immediately during uncoiling and no unnecessary rope will be unreeled. The rope brake at the base of the skid allows proper coiling without slack rope layers.

Dimensions L x L x H in mm	Max. rope capacity in m	Weight without rope in kg	Item no.
530 x 220 x 650	max. 100	5	7410.40.00

Price does not include cross reel!

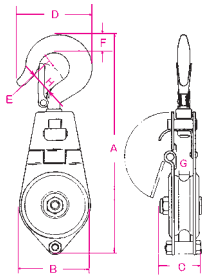
Mobile reel with skid

Ideal for big rope lengths for easy reeling of the special wire rope. Turned over it is easy to move the rope to the next operating site. Good for your back and your damageable wire rope.



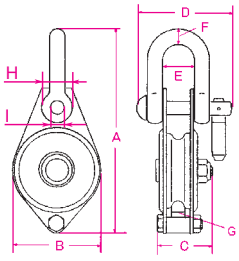
Type	Rope capacity in m				Weight	Item no.
	Ø 6.4 mm	Ø 8.4 mm	Ø 11.2 mm	Ø 16.2 mm	in kg	
IV	1200	600	300	200	15.0	7410.10.32

Rope Pulley with swivelling Hook - Light version, foldable



Type	Load cap. in kg	For wire rope in mm	Sheave Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H		
CSS50	250	8	50	180	58	35	60	10	16	9	15	0.52	7545.00.05
CSS75	350	10	75	240	85	40	73	15	21	12	18	1.25	7545.00.07
CSS100	750	12	100	300	110	50	85	16	27	14	21	2.30	7545.00.10

Rope Pulley with Shackle - Light version



Type	Load cap. in kg	For wire rope in mm	Sheave Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H	I		
CSY50	250	8	50	135	58	35	62	22	10	9	21	9	0.45	7545.10.05
CSY75	350	10	75	185	85	40	70	22	11	12	25	13	1.10	7545.10.07
CSY100	750	12	100	240	110	50	100	32	16	14	32	16	2.20	7545.10.10

LOAD SUSPENSION EQUIPMENT

Load Suspension Equipment in Stainless Steel	**Page 124**
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Grabs and Tongs	**Page 142-149**
Barrel handling	**Page 144-146**
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Beam clamps	**Page 165**
Lifting magnets	**Page 167-174**
Vacuum- and Suction Lifters	**Page 175-186**
Load Measuring Devices	**Page 187-195**

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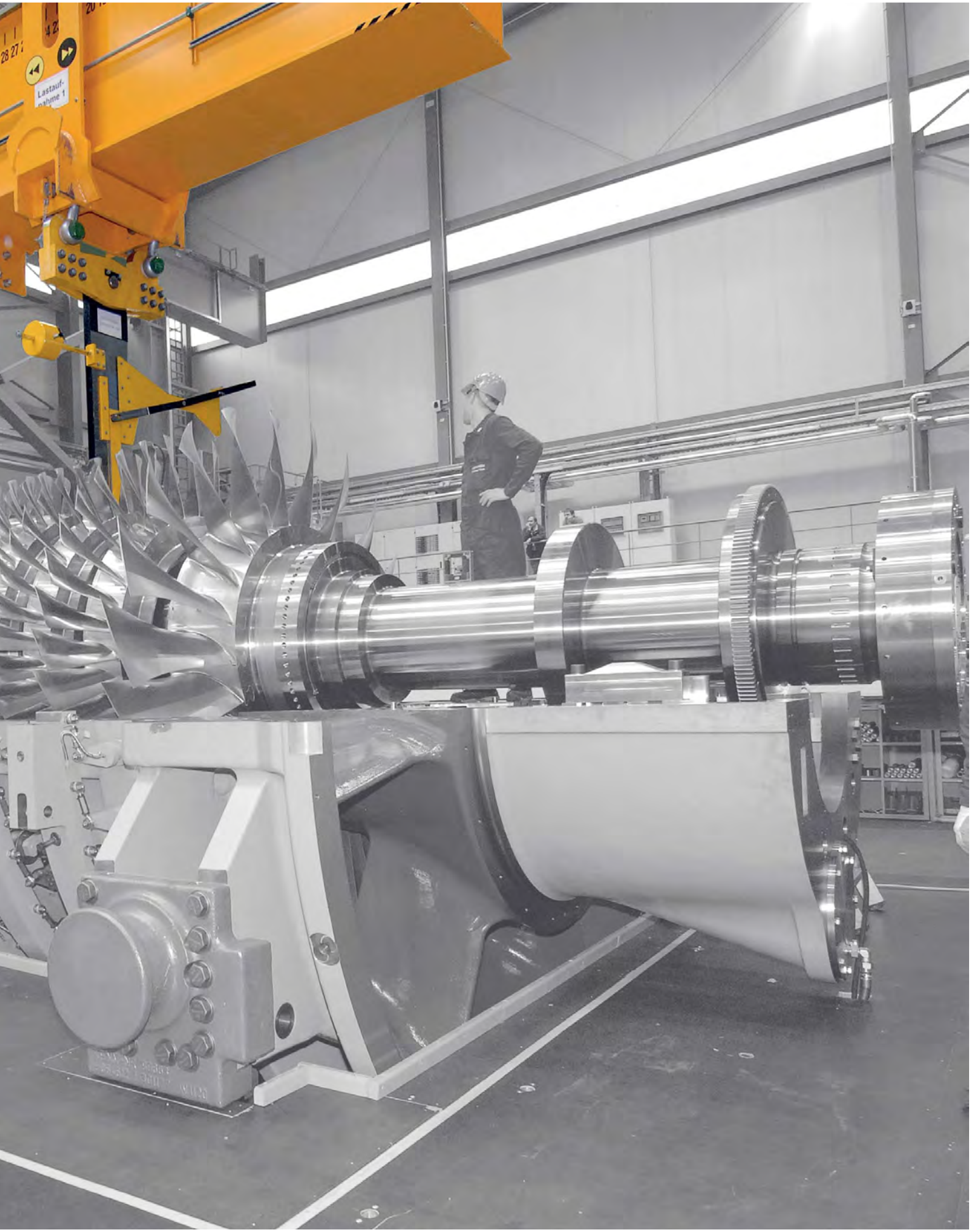
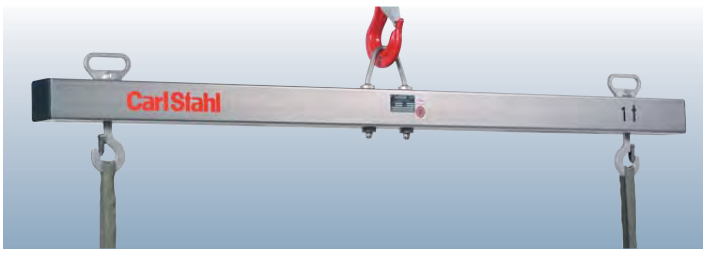


LOAD SUSPENSION EQUIPMENT
in Stainless Steel

The production of load suspension in stainless steel, also known as chromium-nickel steel, offers many advantages as:

- Resistance against corrosion, water, steam, humidity, and food acids
- Limited resistance against weak organic and inorganic acids
- Low temperature tough
- Heat resistant
- Nonmagnetic
- Optically appealing

Due to these properties our stainless steel load suspension equipment may be used in the food industry, beverage industry, pharmaceutical industry, cosmetics industry, medical industry, chemical industry, as well as in clean rooms, and in saline or explosive environments.



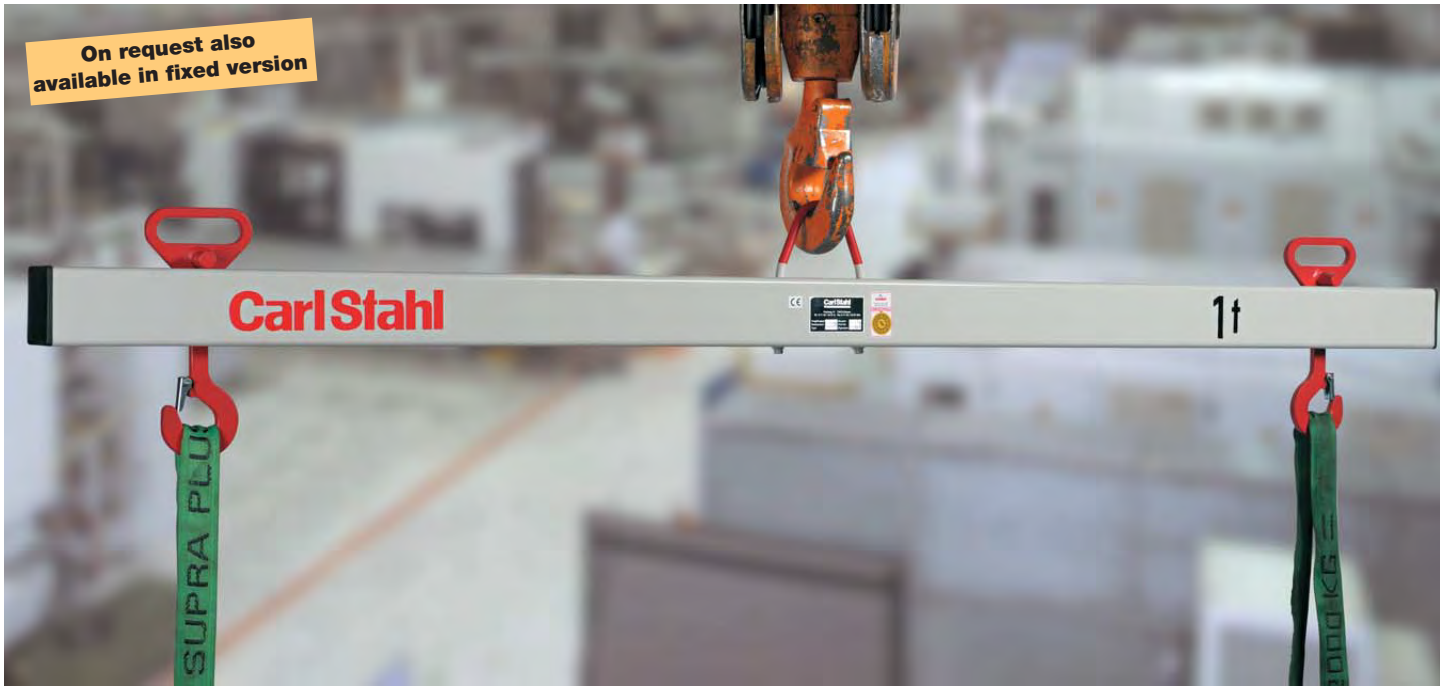
For technical data of our stainless steel load suspension equipment see page 445.

LOAD SUSPENSION EQUIPMENT

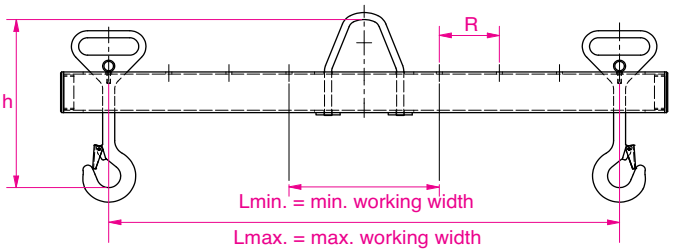
Lifting Beams

CondorLift Lifting Beam in modular Design

Higher or lower load capacities on request. Please contact us for pricing!



With bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with adjustable, flame-cut safety hooks.



Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight ca. in kg	Item no.
500	500 / 370	1 x 65	290	50 x 90	9	8293.05.05
500	850 / 250	3 x 100	290	50 x 90	11	8293.10.05
500	1850 / 850	5 x 100	290	50 x 90	19	8293.20.05
1000	850 / 250	3 x 100	290	50 x 90	12	8293.10.10
1000	1850 / 850	5 x 100	290	50 x 90	24	8293.20.10
1000	2850 / 1350	6 x 125	290	50 x 90	35	8293.30.10

Also available in stainless steel version, see page 445.

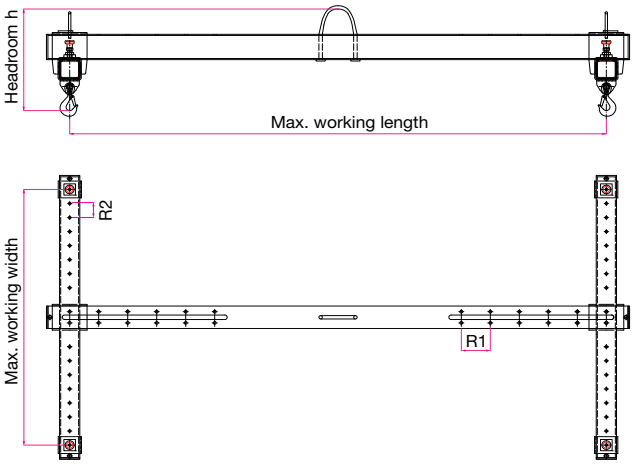
LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift Lifting Beam in modular Design, H-shape

Higher or lower load capacities on request. Please contact us for pricing!

Adjustable, with bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with 4 adjustable swivelling safety hooks.



Load capacity in kg	Max. working length main beam in mm	Max. working width cross beam in mm	Adjustment grid main beam R1 in mm	Adjustm. grid cross beam R2 in mm	Headroom H in mm	Eye size in mm	Weight ca. in kg	Item no.
500	850	510	3 x 100	3 x 50	370	50 x 90	23	8292.10.05
500	1850	910	5 x 100	7 x 50	380	50 x 90	34	8292.20.05
1000	850	510	3 x 100	3 x 50	380	50 x 90	24	8292.10.10
1000	1850	910	5 x 100	7 x 50	390	50 x 90	41	8292.20.10

The pictured roundslings do not belong to the scope of delivery. Our range of roundslings can be found on page 264 et seq.

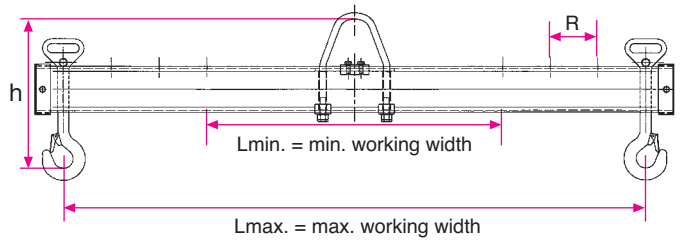
LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift OMEGA Lifting Beam in modular Design

Unmatched in weight and handling – up to 30% weight reduction!

With bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with adjustable, flame-cut safety hooks.



Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight ca. in kg	Item no.
1000	850/250	3 x 100	325	50 x 90	23	8294.10.10
1000	1850/850	5 x 100	325	50 x 90	35	8294.20.10
1000	2850/1350	6 x 125	345	50 x 90	52	8294.30.10
2000	1850/850	5 x 100	425	70 x 130	48	8294.20.20
2000	2850/1350	6 x 125	425	70 x 130	73	8294.30.20
2000	3850/1750	7 x 150	445	70 x 130	95	8294.40.20
3000	1830/830	5 x 100	450	80 x 150	63	8294.20.30
3000	2830/1330	6 x 125	470	80 x 150	98	8294.30.30
3000	3825/1725	7 x 150	510	80 x 150	175	8294.40.30
5000	1820/820	5 x 100	545	90 x 170	102	8294.20.50
5000	2820/1320	6 x 125	565	90 x 170	142	8294.30.50
5000	3820/1720	7 x 150	585	90 x 170	187	8294.40.50

The pictured roundslings do not belong to the scope of delivery. Our range of roundslings can be found on page 264 et seq.

All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

Good reasons for Carl Stahl OMEGA lifting beams:

- Modular design
- Short delivery times
- All parts varnished or galvanised
- Low dead weight
- Full exchangeability of all parts

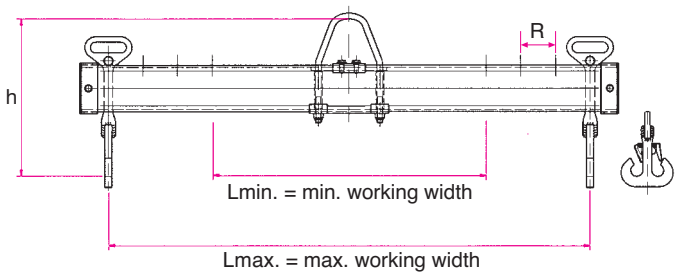
LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift OMEGA Lifting Beam in modular Design

Unmatched in weight and handling – up to 30% weight reduction!

With bent lifting eye as single point-suspension, suitable for crane hook according to DIN 15401 and with adjustable, flame-cut safety hooks.



Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
1000	850/250	3 x 100	335	50 x 90	26	8394.10.10
1000	1850/850	5 x 100	335	50 x 90	41	8394.20.10
1000	2850/1350	6 x 125	355	50 x 90	56	8394.30.10
2000	1850/850	5 x 100	445	70 x 130	53	8394.20.20
2000	2850/1350	6 x 125	445	70 x 130	78	8394.30.20
2000	3850/1750	7 x 150	465	70 x 130	104	8394.40.20
3000	1830/830	5 x 100	470	80 x 150	69	8394.20.30
3000	2830/1330	6 x 125	490	80 x 150	106	8394.30.30
3000	3825/1725	7 x 150	530	80 x 150	186	8394.40.30
5000	1820/820	5 x 100	570	90 x 170	114	8394.20.50
5000	2820/1320	6 x 125	570	90 x 170	153	8394.30.50
5000	3820/1720	7 x 150	595	90 x 170	198	8394.40.50

Good reasons for Carl Stahl OMEGA lifting beams:

- Modular design
- Short delivery times
- All parts varnished or galvanised
- Low dead weight
- Full exchangeability of all parts

The pictured roundslings do not belong to the scope of delivery. Our range of roundslings can be found on page 264 et seq.

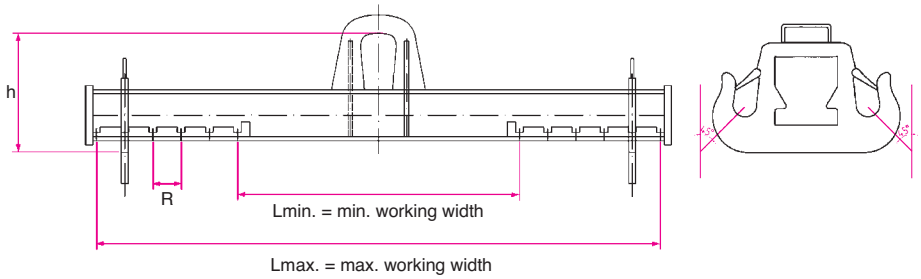
All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

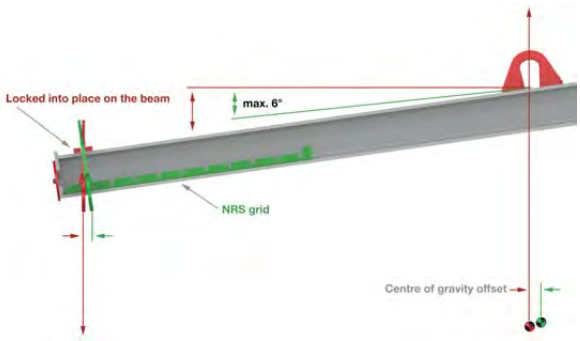
LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift Lifting Beam with fixed or adjustable Double Safety Hooks

- Heavy duty safety latches prevent unintentional unhooking of the load
- Big WLL-marking, type plate with all necessary data. Beams can also be marked with your company name and/or department at no extra cost
- Temperature range: 0°C-80°C (32°F - 176°F) – other temperatures on request
- NRS (Inclination Reducing System) grid for adjustment of working width
- Also available with additional safety hook
- Angles up to 45° are possible without loss of capacity (see drawing)
- Suspension eye to suit your crane hook at no extra cost





NRS (Inclination Reducing System) adjustment grid:

- Reduced inclination of beam due to very low swing point
- Easy and fast working width adjustment

All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost.

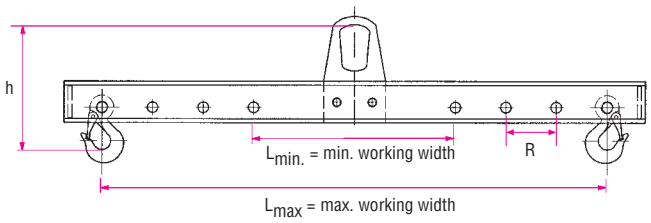
Load capacity in kg	Working width max./min. L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no. adjustable	Item no. fix
1000	1000/600	2 x 100	260	60 x 90	45	8302.10.10	8301.10.10
1000	2000/1000	5 x 100	260	60 x 90	80	8302.20.10	8301.20.10
1000	3000/1600	7 x 100	260	60 x 90	106	8302.30.10	8301.30.10
2000	2000/1000	5 x 100	260	60 x 90	120	8302.20.20	8301.20.20
2000	3000/1600	7 x 100	280	60 x 90	150	8302.30.20	8301.30.20
2000	4000/2000	10 x 100	280	60 x 90	200	8302.40.20	8301.40.20
3000	2000/1000	5 x 100	280	80 x 120	128	8302.20.30	8301.20.30
3000	3000/1600	7 x 100	280	80 x 120	160	8302.30.30	8301.30.30
3000	4000/2000	10 x 100	300	80 x 120	214	8302.40.30	8301.40.30
5000	2000/1000	5 x 100	300	80 x 120	150	8302.20.50	8301.20.50
5000	3000/1600	7 x 100	320	80 x 120	230	8302.30.50	8301.30.50
5000	4000/2000	10 x 100	340	80 x 120	300	8302.40.50	8301.40.50
8000	2000/1000	5 x 100	350	100 x 150	185	8302.20.80	8301.20.80
8000	3000/1600	7 x 100	365	100 x 150	325	8302.30.80	8301.30.80
8000	4000/2000	10 x 100	385	100 x 150	390	8302.40.80	8301.40.80
10000	2000/1000	5 x 100	365	100 x 150	265	8302.21.00	8301.21.00
10000	3000/1600	7 x 100	385	100 x 150	390	8302.31.00	8301.31.00
10000	4000/2000	10 x 100	405	100 x 150	486	8302.41.00	8301.41.00

LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift Lifting Beam with flame-cut Eye as Single-Point Suspension

With flame-cut eye as single-point suspension, suitable for hook according to DIN 15401, and with 2 adjustable safety hooks.



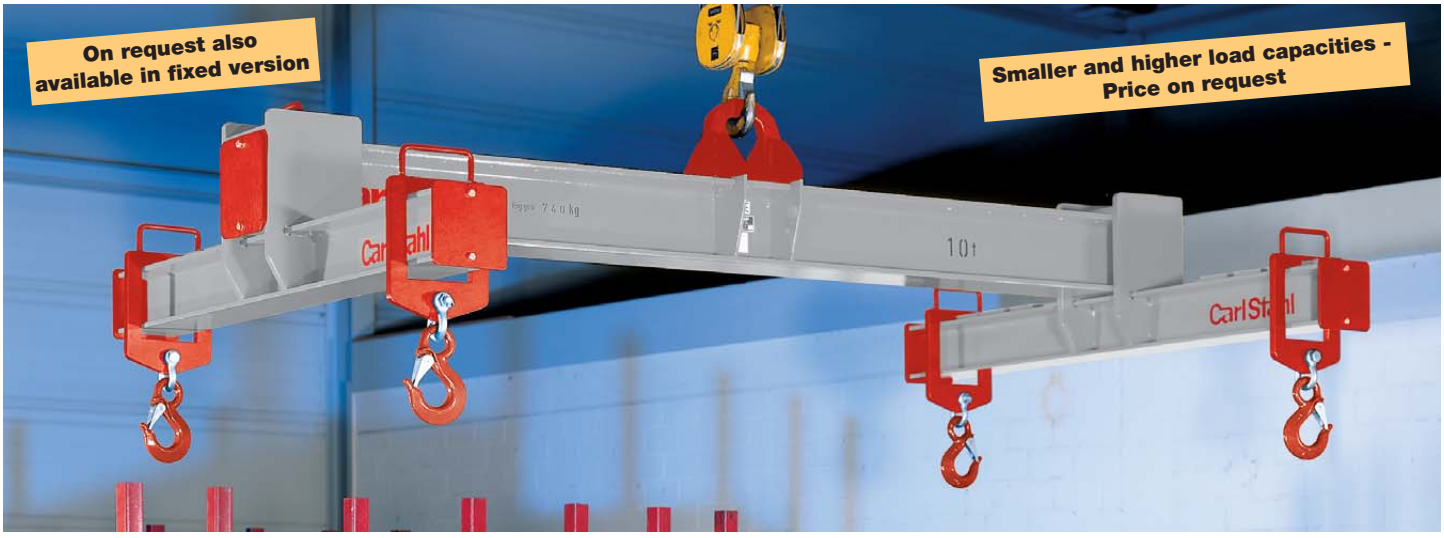
Load capacity in kg	Max./min. working width L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
3000	2000/750	5 x 125	360	80 x 120	85	8200.20.30
3000	3000/1500	5 x 150	380	80 x 120	130	8200.30.30
3000	4000/2250	5 x 175	400	80 x 120	205	8200.40.30
5000	2000/750	5 x 125	420	80 x 120	95	8200.20.50
5000	3000/1500	5 x 150	460	80 x 120	190	8200.30.50
5000	4000/2250	5 x 175	490	80 x 120	275	8200.40.50
8000	2000/500	5 x 150	520	100 x 150	145	8200.20.80
8000	3000/1250	5 x 175	560	100 x 150	250	8200.30.80
8000	4000/2250	5 x 175	580	100 x 180	360	8200.40.80
10000	2000/500	5 x 150	540	100 x 150	180	8200.21.00
10000	3000/1250	5 x 175	580	100 x 150	300	8200.31.00
10000	4000/2250	5 x 175	620	100 x 150	420	8200.41.00

All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

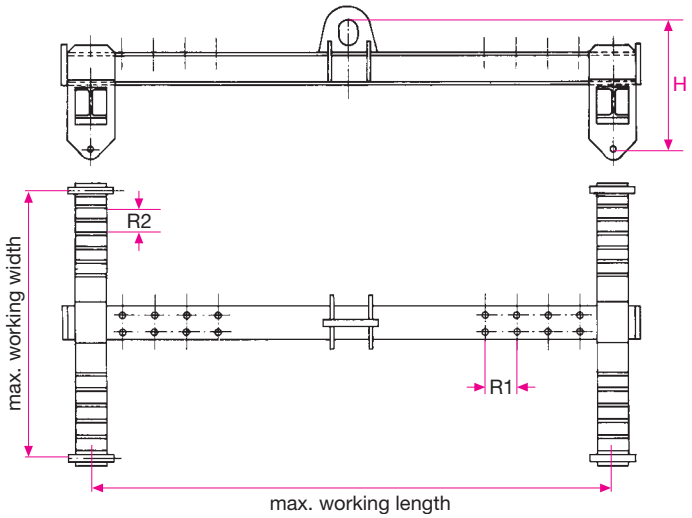
LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift H-shaped lifting beam with fired suspension eye as a single suspension point



Suitable for load hooks according to DIN 15401 and four load suspension points that can be adjusted from all sides within the grid, with pivoting, integrated safety single hooks.



All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost. Also available in a galvanised version for use outdoors or in the food or chemical industries.

Load capacity in kg	Max. working length main beam in mm	Max. working width cross beam in mm	Adjustment grid Main beam R1 in mm	Adjustment grid Cross beam R2 in mm	Headroom H in mm	Eye size in mm	Weight in kg	Item no.
2000	2000	1000	5 x 100	3 x 100	600	60 x 90	140	8702.21.20
2000	3000	2000	4 x 150	4 x 150	620	60 x 90	220	8702.32.20
2000	4000	2000	6 x 150	4 x 150	620	60 x 90	240	8702.42.20
2000	5000	3000	8 x 150	6 x 150	660	60 x 90	390	8702.53.20
3000	2000	1000	5 x 150	2 x 150	600	80 x 120	180	8702.21.30
3000	3000	2000	5 x 150	3 x 150	680	80 x 120	320	8702.32.30
3000	4000	2000	7 x 150	3 x 150	680	80 x 120	350	8702.42.30
3000	5000	3000	10 x 150	5 x 150	710	80 x 120	530	8702.53.30
5000	2000	1000	5 x 100	3 x 100	670	80 x 120	300	8702.21.50
5000	3000	2000	6 x 150	5 x 150	770	80 x 120	400	8702.32.50
5000	4000	2000	7 x 150	3 x 150	770	80 x 120	560	8702.42.50
5000	5000	3000	10 x 150	5 x 150	800	80 x 120	780	8702.53.50
8000	2000	1000	5 x 100	3 x 100	830	100 x 150	370	8702.21.80
8000	3000	2000	6 x 150	3 x 150	930	100 x 150	530	8702.32.80
8000	4000	2000	7 x 150	3 x 150	950	100 x 150	640	8702.42.80
8000	5000	3000	8 x 150	5 x 150	990	100 x 150	1000	8702.53.80
10000	2000	1000	5 x 100	2 x 100	9200	140 x 210	510	8702.21.10
10000	3000	2000	5 x 150	3 x 150	1000	140 x 210	710	8702.32.10
10000	4000	2000	6 x 150	3 x 150	1020	140 x 210	920	8702.42.10
10000	5000	3000	8 x 150	5 x 150	1060	140 x 210	1300	8702.53.10

LOAD SUSPENSION EQUIPMENT

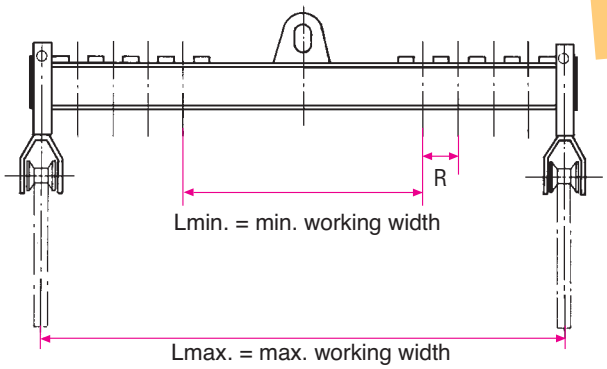
Lifting Beams

CondorLift Load Turning Beam with flame-cut Eye as Single-Point Suspension

Suitable for hooks according to DIN 15401, with 2 adjustable roller segments.

The roller segments can be fitted with endless, galvanised and vulcanised woven wire rope slings. These slings are totally rotation-free to avoid any twisting. The work piece is protected by the vulcanisation.

Please note that the endless slings are not included in the price. They can be custom-made to your requirements.



Woven wire rope slings suitable for the load turning beam can be found on pages 287-292.

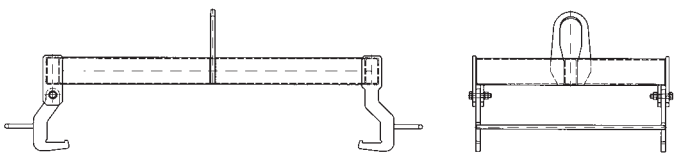
Load capacity in kg	Working width max. / min. L in mm	Adjustment grid R in mm	Eye size in mm	Weight in kg/pce	Item no.
1000	1000 / 400	3 x 100	60 x 90	45	8355.10.10
1000	2000 / 1000	5 x 100	60 x 90	65	8355.20.10
1000	3000 / 1600	7 x 100	60 x 90	80	8355.30.10
3000	2000 / 1000	5 x 100	80 x 120	90	8355.20.30
3000	3000 / 1600	7 x 100	80 x 120	170	8355.30.30
3000	4000 / 1600	8 x 150	80 x 120	205	8355.40.30

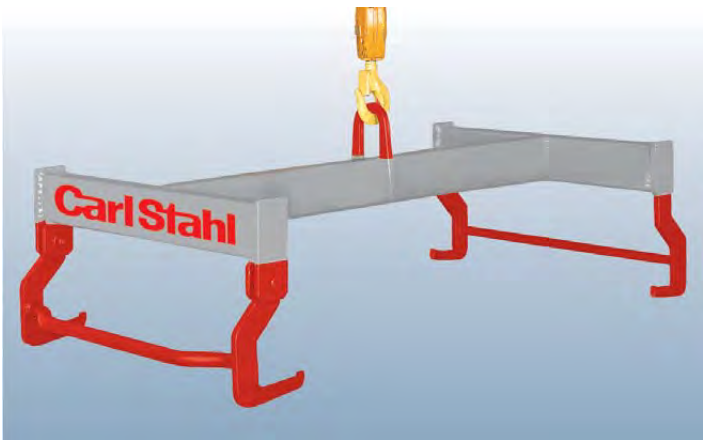
All load suspension equipment is also available in safety yellow (RAL 1004) according to DIN 15026 at no extra cost.

For outdoor use, in the food or chemical industry all load suspension equipment is available in a galvanised version.

CondorLift Lifting Beam with flame-cut Eye as Single-Point Suspension for Lattice Boxes

Suitable for hooks acc. to DIN 15401, with one fixed and one pivoting hook pair.





Load capacity in kg	Suitable for pallet size in mm	Eye size W x H in mm	Dead weight in kg	Item no.
1000	1240 x 810	80 x 150	60	8705.00.10
2000	1240 x 810	80 x 150	70	8705.00.20

LOAD SUSPENSION EQUIPMENT

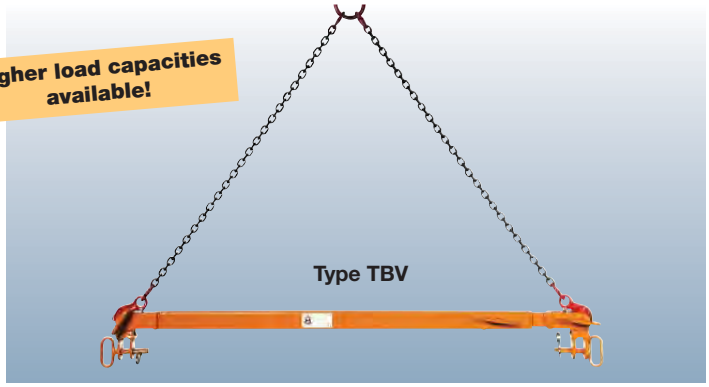
Special beams

Spreader Beam

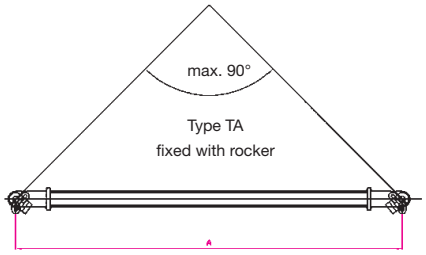
Spreader beams in several designs:

- fixed with rocker
- adjustable with rocker
- fixed with pendulum
- adjustable with pendulum

The chains shown are not part of the scope of delivery.
If necessary, please request the chain sling separately.

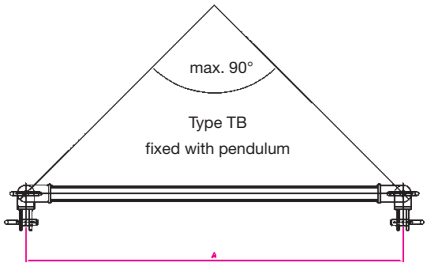


Type TA: Fixed spreader beam with rocker
Non-adjustable spreader with fixed gripping width. The chains run through the rockers at the ends of the spreader. These deflect the force. The spreader acts as a spacer.



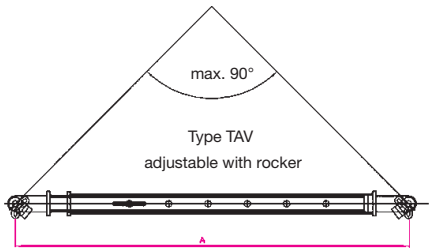
Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TA Rigid version A available from/to	Item no. Type TA
1400	6	1000	NG-TA06
2800	8	1000-1500	NG-TA08100
4500	10	1000-1500	NG-TA10100
7100	13	1000-1500	NG-TA13100
11200	16	1250-2500	NG-TA16125

Type TB: Spreader beam with pendular slider
Non-adjustable spreader with fixed gripping width. The chain sling is attached to the spreader. The pendulum enables the detachable connection of the load to the spreader.



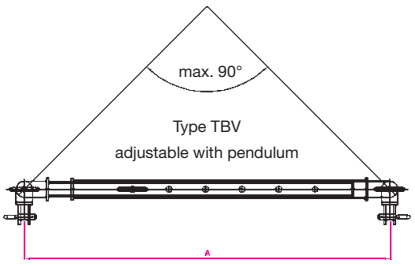
Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TB Rigid version A available from/to	Item no. Type TB
1400	6	1000	NG-TB06100
2800	8	1000-1500	NG-TB08100
4500	10	1000-1500	NG-TB10100
7100	13	1000-1500	NG-TB13100
11200	16	1250-2500	NG-TB16125

Type TAV: Adjustable spreader beam with rocker
Spreader with positioning grid for variable gripping widths. The chain sling is attached to the spreader. The pendulum enables the detachable connection of the load to the spreader. Grommet slings, ropes or chains can be attached. The spreader simply acts as a spacer.



Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TAV adjustable A min.- A max.	Item no. Type TAV
1400	6	1000-1500	NG-TAV06
2800	8	1200-2000	NG-TAV08
4500	10	1200-2000	NG-TAV10
7100	13	1200-2000	NG-TAV13
11200	16	1900-2500	NG-TAV16

Type TBV: Adjustable spreader beam with pendulum
Spreader with positioning grid for variable gripping widths. The chain sling is attached to the spreader. The pendulum enables the detachable connection of the load to the spreader. Grommet slings, ropes or chains can be attached. The spreader simply acts as a spacer.



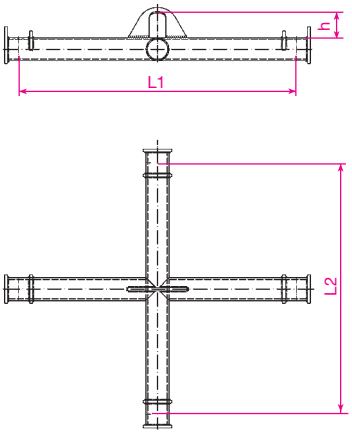
Load capacity at 90° angle	Chain size d in mm	Dimensions in mm Type TBV adjustable A min.- A max.	Item no. Type TBV
1400	6	1000-1500	NG-TBV06
2800	8	1200-2000	NG-TBV08
4500	10	1200-2000	NG-TBV10
7100	13	1200-2000	NG-TBV13
11200	16	1900-2500	NG-TBV16

LOAD SUSPENSION EQUIPMENT

Lifting Beams

CondorLift Lifting Beam for Big Bag Transport

As closed tubular construction in cross-shape, with central flame-cut eye as single-point suspenison suitable for single crane hook acc. to DIN 15401.



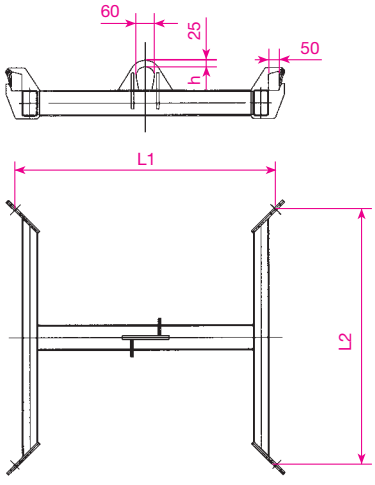
Special versions on request.

For Big Bags see pages 646-647.

Load capacity in kg	Working width L1 in mm	Working width L2 in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
1000	1000	1000	90	60 x 90	30	8706.00.10
1500	1000	1000	90	60 x 90	40	8706.00.15
2000	1000	1000	90	60 x 90	46	8706.00.20

CondorLift Lifting Beam for Big Bag Transport

With flame-cut eye as single-point suspension suitable for single crane hook acc. to DIN 15401, with four load acceptance points with safety latches.



Special versions on request.

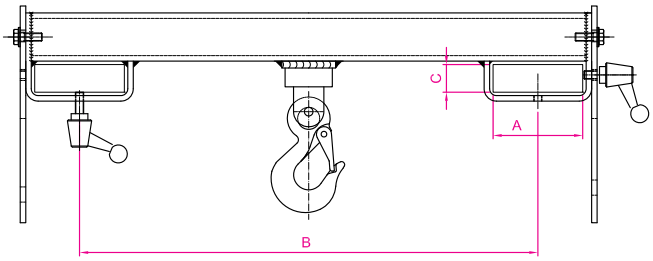
Also available in stainless steel, see page 445.

Load capacity in kg	Working width L1 x L2 in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
1000	1000 x 1000	90	60 x 90	32	8706.10.10
1500	1000 x 1000	90	60 x 90	41	8706.10.15
2000	1000 x 1000	90	60 x 90	47	8706.10.20

CondorLift Forklift Lifting Beam

As accessory equipment for all forklift types. With central pivoting and swivelling hook, lateral storage stands and steel clamp levers for fastening on the prong (side- or bottom-mount available).

Special versions with additional hooks or suspension points for different slings, low headroom versions etc. are available on request.



In case of order please indicate the dimensions of your fork prongs (dimensions A and C) as well as the distance between the prongs (dimension B).

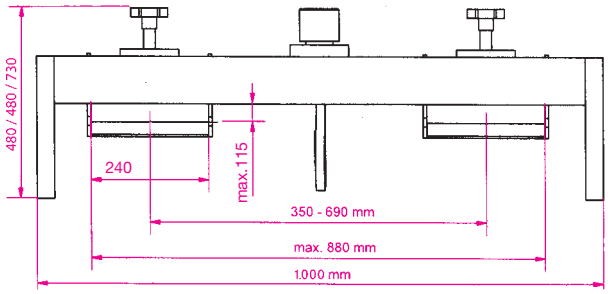
Load capacity in kg	Item no.
500	8451.00.05
1000	8451.00.10
1500	8451.00.15
2000	8451.00.20
3000	8451.00.30
4000	8451.00.40

Standard price applies for B = 1,000 mm max.

Aluminium Forklift Lifting Beam (Hook with axial Bearing for turning under Load)

This new lifting beam stands out by its aluminium construction. It's continuously adjustable to a maximum prong profile of 240 x 115 mm. Maximum outer distance between prongs is 880 mm, so it is suitable for almost all fork prongs. Can also be used with fork extensions.

Load capacity in kg	Max. prong profile in mm	Max. outer distance between prongs in mm	Total weight in kg	Item no.
1500	240 x 115	880	30	8460.00.15
3000	240 x 115	880	30	8460.00.30
6300	240 x 115	880	70	8460.00.60

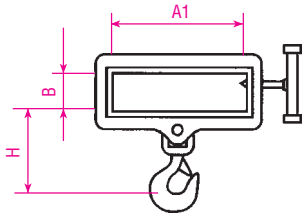


The safety hook (with axial bearing) can be turned 360° under load.

CondorLift Forklift Shoe

Single clip-on shoe with swivel hook. Dimensions A and B are variable.

Load capacity in kg	Dimensions in mm A	B	H	Weight in kg/pce	Item no.
1000	120	50	160	5	NG-T25010
1500	140	60	180	6	NG-T25015
2000	160	60	200	8	NG-T25020
3000	180	80	220	10	NG-T25030



LOAD SUSPENSION EQUIPMENT

Special and turning beams

Special beams for all purposes

If your company requires a particular load suspension task for which the standard beam versions in this catalogue are unsuitable, we can gladly assist you with a customer-specific solution.

Challenge us and send us an enquiry with your specifications.

We specialise in custom solutions for all areas of use and will gladly send you a quotation.

LOAD SUSPENSION EQUIPMENT

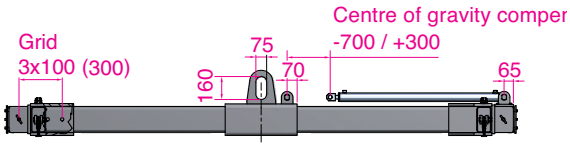
Special Lifting Beams

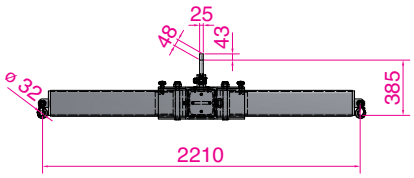
Lifting Beam for Motor Vehicles

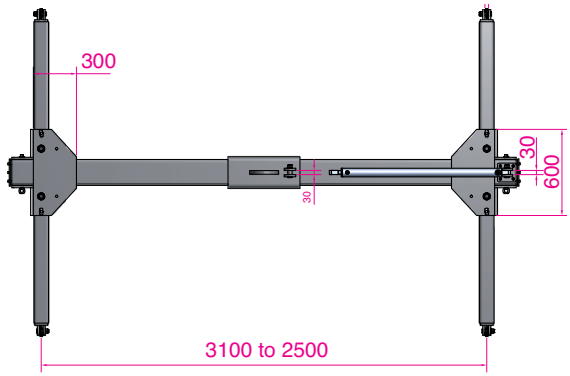
The ideal solution for lifting, lowering and transport of motor vehicles.

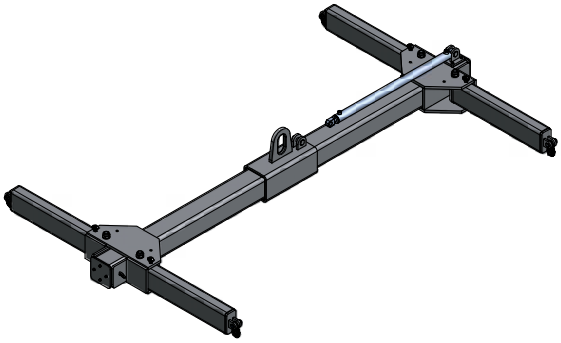
Optimised transport is only guaranteed in connection with genuine Carl Stahl lifting gear.

As all other Carl Stahl load suspension equipment, this lifting beam complies with the current German accident prevention regulations acc. to “Load Suspension Equipment for Lifting Operations BGR 500” as well as with the current EC Machinery Directive and the new EN Standard. The beam is CE-marked and comes with a works test certificate.

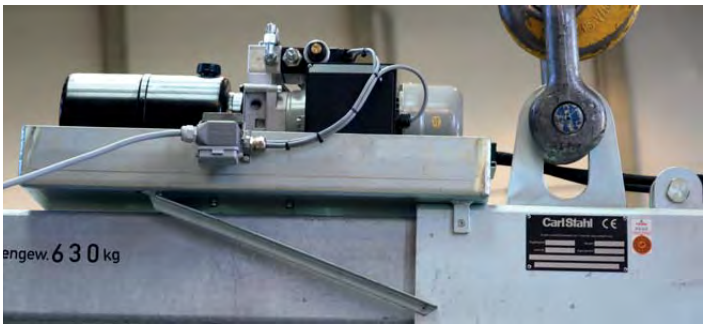








All standard parts/components with a safety chain – captive



Design parameters at a glance:

- Load capacity 3.5 ton
- Working width 2,200 mm
- Working length 2,500 mm - 3,100 mm
- Hydraulically adjustable suspension eye for centre of gravity balance
- Complete with hydraulic unit and all electrial components
- Can be operated with 230 V, 12 V or 24 V power supply

Prices for lifting beam and accessories on request

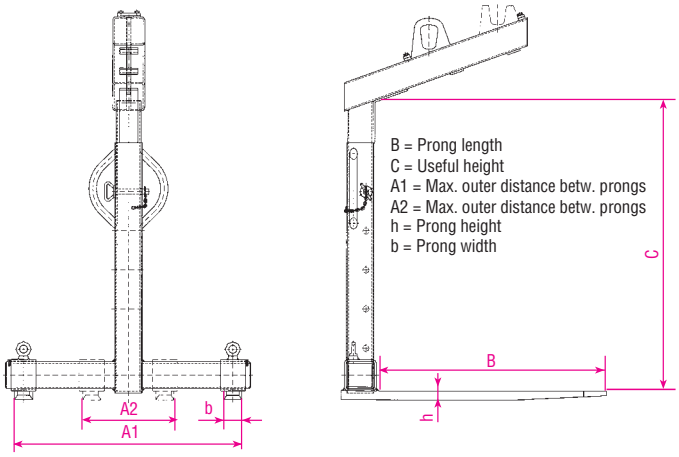
LOAD SUSPENSION EQUIPMENT

Lifting Forks

CondorLift DELTA Lifting Fork

Higher or lower load capacities on request. Please contact us for pricing!

Due to high quality materials these forks are lightweight and slim in construction. Multi-functional thanks to adjustable prongs and useful height, and the choice between manual or automatic centre of gravity.



For fork protections see page 553.

Type 1 with manual centre of gravity

Load capacity in kg	1000	1500	2000	3000
Prong length in mm	1000	1000	1000	1000
Prong cross section in mm	80 x 40	80 x 40	100 x 40	120 x 45
Max. outer prong dist. max. mm	1000	1000	1000	1000
Min. outer prong dist. min. mm	350	400	400	450
Total height ca. in mm	1800	1850	1900	1950
Eye size in mm	75 x 100	75 x 100	75 x 100	75 x 100
Weight in kg	120	150	180	240
With fixed useful height in mm	1300	1300	1300	1300
Item no.	8815.00.10	8815.00.15	8815.00.20	8815.00.30
With adjust. useful height in mm	1300-2000	1300-2000	1300-2000	1300-2000
Item no.	8818.00.10	8818.00.15	8818.00.20	8818.00.30

Type 2 with automatic centre of gravity

Load capacity in kg	1000	1500	2000	3000
Prong length in mm	1000	1000	1000	1000
Prong cross section in mm	80 x 40	80 x 40	100 x 40	120 x 45
Max. outer prong dist. max. mm	1000	1000	1000	1000
Min. outer prong dist. min. mm	350	400	400	450
Total height ca. in mm	1800	1850	1900	1950
Eye size in mm	80 x 110	80 x 110	80 x 110	80 x 110
Weight in kg	120	150	180	240
With fixed useful height in mm	1300	1300	1300	1300
Item no.	8815.10.10	8815.10.15	8815.10.20	8815.10.30
With adjust. useful height in mm	1300-2000	1300-2000	1300-2000	1300-2000
Item no.	8818.10.10	8818.10.15	8818.10.20	8818.10.30

LOAD SUSPENSION EQUIPMENT

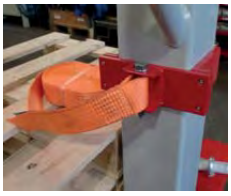
Lifting Forks

Higher or lower load capacities on request. Please contact us for pricing!

CondorLift Lifting Fork

With manually adjustable centre of gravity, fixed useful height and fixed prongs.

Load capacity in kg	750	1500
Useful height in mm	1100	1100
Prong length in mm	1000	1000
Prong cross section in mm	70 x 40	100 x 40
Max. outer dist. betw. prongs min. mm	700	740
Max. inner dist. betw. prongs min. mm	560	540
Total height ca. in mm	1350	1500
Eye size in mm	75 x 110	75 X 110
Weight in kg	90	120
Item no.	**8810.01.07**	**8810.01.15**



Special Lifting Forks

LOAD SUSPENSION EQUIPMENT

C-Hooks

Please contact us for special versions!
Please contact us for pricing.

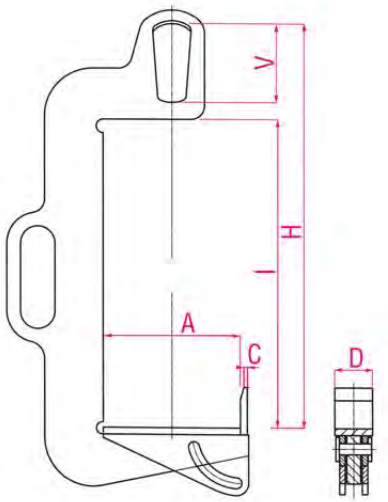
LOAD SUSPENSION EQUIPMENT

C-Hooks

CondorLift Tilting Coil Hook

Suitable for tilting or erecting of steel coils or straps. They have to be well banded and rest on scantlings. Low dead weight due to use of high-grade steel.

All load suspension equipment is also available in safety yellow (RAL 1007) according to DIN 15026 at no extra cost.



Load capacity	Dimensions in mm						Weight	Item no.
in kg	A	C	D	I	H	V	in kg/pce	
500	100 - 200	8	60	400	520	100	12	NG-C33005002
1000	100 - 200	10	70	450	600	120	15	NG-C33010022
1000	200 - 300	10	70	500	650	120	20	NG-C33010003
2500	100 - 200	12	70	500	680	150	25	NG-C33025002
2500	200 - 300	12	70	500	680	150	35	NG-C33025003
3000	250 - 350	15	80	550	730	150	40	NG-C33030003
4000	250 - 400	20	90	600	800	190	55	NG-C33040004
5000	350 - 500	25	100	650	900	190	80	NG-C33050005

Storage solutions for load suspension equipment and chain slings

LOAD SUSPENSION EQUIPMENT

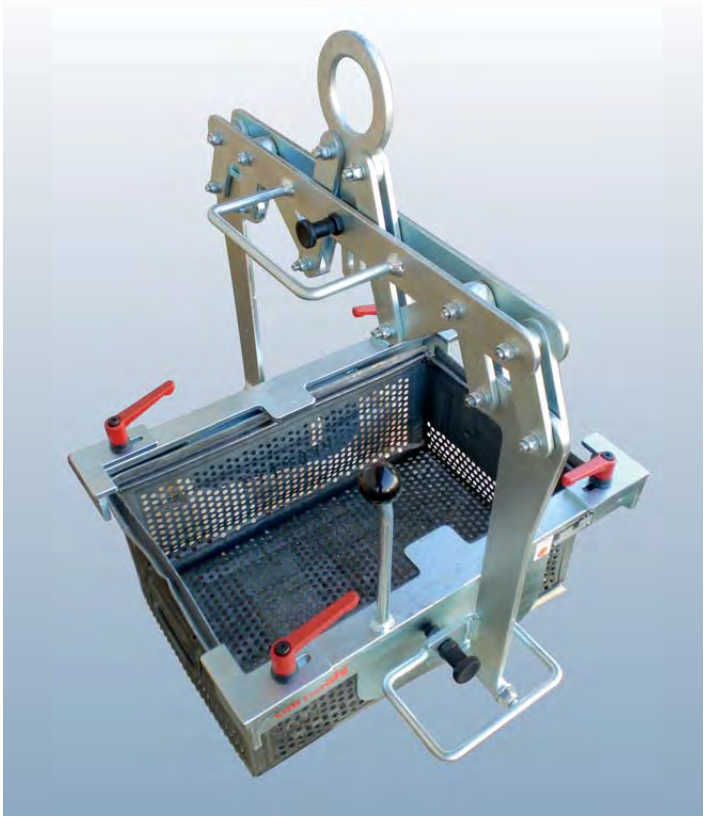
Tongs/Grabs

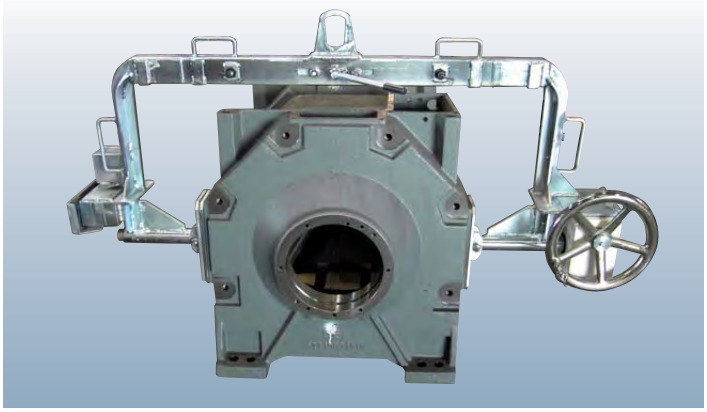
CondorGrip KLT grab in rigid version

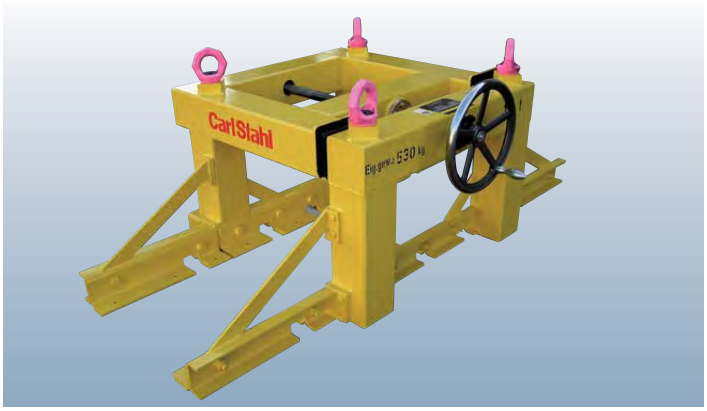
Grabs KLT boxes using the notches at the upper frame.

For KLT type	Load capacity in kg	Eye Ø in mm	Weight in kg/pce	Item no.
C-KLT4314, C-KLT4321, C-KLT4328	80	50	2.6	7151.CG.V1
C-KLT6414, C-KLT6417, C-KLT6421, C-KLT6428	80	50	2.9	7151.CG.V2
R-KLT4315, R-KLT4329, RL-KLT4147, RL-KLT4280	80	50	2.6	7151.CG.V3
R-KLT6415, R-KLT6429, R-KLT6147, R-KLT6280	80	50	2.9	7151.CG.V4

Special versions of tongs, grabs and other load suspension devices

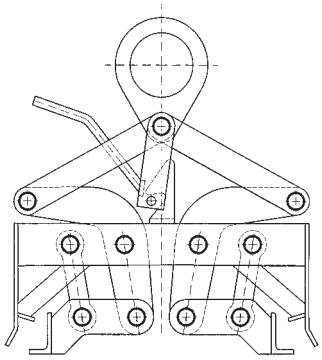






CondorGrip Internal grabs for stacking and transport boxes

Specially suitable for goods receiving, warehouses and production plants. Designed for easy one-handed operation. Compact design with self-locking safety lever.



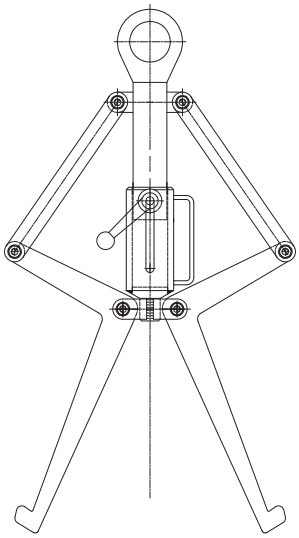
Also available with turning device.
Price on request.

Load capacity in kg	Box width in mm	Eye Ø in mm	Weight in kg/pce	Item no.
50	220	50	8	7120.00.05
100	320	70	9	7120.00.10
150	450	70	12	7120.00.15

CondorGrip 3-arm Internal Grab

For centric pick-up of work pieces with cylindrical bore hole, positive locking by angled grab arms, opening width adjustable by clamping lever. Suspension eye suitable for single crane hook according to DIN 15401.

Special versions on request.



Load capacity in kg	Grab range in mm	Grab arm length in mm	Total height in mm	Eye Ø in mm	Weight in kg/pce	Item no.
300	100-350	300	680-750	60	12	7150.35.03

LOAD SUSPENSION EQUIPMENT

Barrel Handling

CondorGrip Vertical Barrel Grab

For safe transport of standing barrels with rigid bead. Opens and closes automatically with each lift. So barrels can be picked up or set down even at inaccessible areas.

Load capacity in kg	Barrel Ø in mm	Eye Ø in mm	Weight in kg/pce	Item no.
300	580	60	18	7116.20.30

CondorGrip Barrel Grab

For safe transport of standing barrels with rigid bead. Self activating barrel pick-up by clamp hinge claws. Release by lowering of hook and engaging the locking device.

Load capacity in kg	Barrel type	Barrel Ø in mm	Eye Ø in mm	Weight in kg/pce	Item no.
450	Steel	560-620	60	17	7116.10.45

CondorGrip Barrel Clamp

For standing barrels with rigid bead.

Load capacity in kg	Suspension eye size in mm	Weight in kg/pce	Barrel Ø in mm	Item no.
500	70 x 50	6.5	560	NG-Z66005
800	80 x 60	8	560	NG-Z66008

LOAD SUSPENSION EQUIPMENT

Barrel Handling

CondorGrip Barrel Turning Grab

For safe transport of lying or standing barrels, cylindrical containers and other round objects. The opening and closing mechanism is manually controlled using a hand lever.

Load capacity in kg	Barrel Ø in mm	Eye Ø in mm	Weight in kg/pce	Item no.
300	560	80	48	7116.00.30

CondorGrip Barrel Clamping Ring

For transport of standing barrels and drums with cover beading. Safe locking by simple lever turn. Safety lock and adjustment of grab width by set-screw.

Load capacity in kg	For barrel Ø in mm	Headroom in mm	Suspension eye L x W in mm	Weight in kg/pce	Item no.
800	560-600	445	80 x 130	9.7	7140.56.08

CondorGrip Barrel Tong

For standing barrels. This is a simple and robust tong that grabs directly under the upper bead. Equipped with open locking lever.

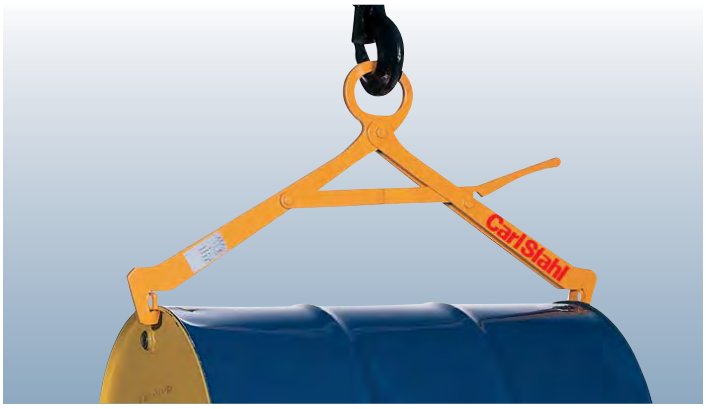
Load capacity in kg	Grab range in mm	Overall width in mm	Total height in mm	Suspension eye Ø in mm	Weight in kg/pce	Item no.
250	470-560	700	400-480	60	10	NG-Z59002056
250	560-640	800	430-530	60	12	NG-Z59002064
500	470-560	700	400-500	80	12	NG-Z59005056
500	560-640	800	430-530	80	15	NG-Z59005064

LOAD SUSPENSION EQUIPMENT

Barrel Handling

CondorGrip Barrel Tong for lying Barrels

Tong for beaded barrels according to DIN 6643 and 6635. Low headroom and self-activating open locking lever.



Load capacity in kg	Grab range in mm	Overall width in mm	Headroom in mm	Suspension eye Ø in mm	Weight in kg/pce	Item no.
250	760-910	930	400-500	60	10	NG-Z63002091
500	760-910	930	400-500	70	12	NG-Z63005091

Barrel turning device

For transport of lying and standing steel barrels of different size. Suitable for diameters 380-600 mm, max. barrel height 900 mm. With suspension eye for single crane hook, equipped with height-adjustable lateral stands with wheels. Clamping effected by horizontal adjusting spindle with hand wheel and safety locking. Horizontal turning (360°) of the barrel can be controlled precisely by a hand wheel in connection with a worm gear.

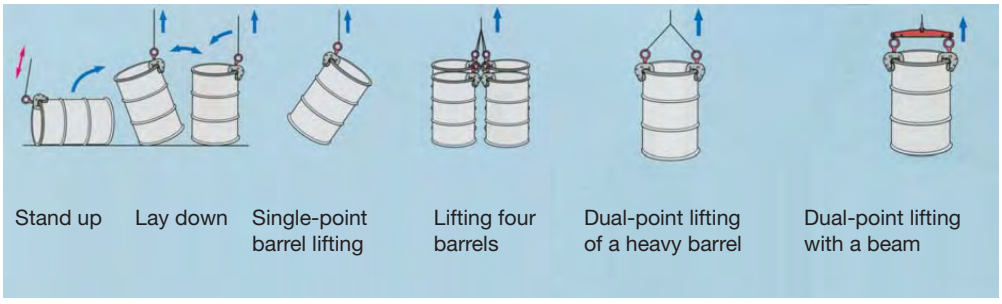
On request also available with 2 m hand chain

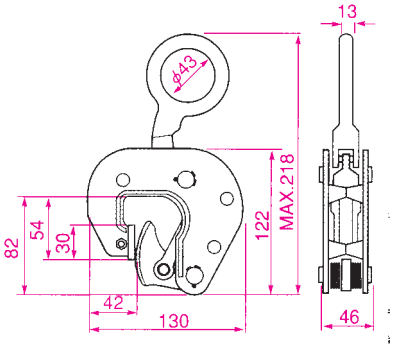
Load capacity in kg	Grab range/ barrel Ø in mm	Dim. of forklift pockets W x H x L in mm	Forklift pocket dist. (centre - centre) in mm	Weight in kg/ pce	Item no. without forklift pockets	Item no. with forklift pockets
250	380 - 600	200x75x150	450	100	8707.00.02	8707.10.02
400	380 - 600	200x75x150	450	110	8707.00.04	8707.10.04

Barrel lifting clamp type DLC

Suitable for all steel barrel types regardless of the barrel diameter and lid rim shape. Low dead weight with high load capacity. Rapid, simple handling. Corrosion resistant thanks to special phosphate coating on all functional parts. Optimum reliability thanks to premium quality materials and continual production controls. Easily legible load capacity details forged into the clamp body.

Load cap. in kg	Grab range in mm	Overall width in mm	Total height in mm	Suspension eye Ø in mm	Weight in kg/pce	Item no.
500	0-15	130	218	41	2	7124.00.05





LOAD SUSPENSION EQUIPMENT

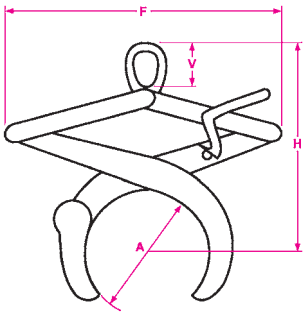
Grabs

A firm grip on safety: Carl Stahl grabs!

Round Profile Grab

Round profile grabs for horizontal transport of round materials of all kind. Equipped with self-actuating open locking device. All round profile grabs are also available as shell grabs with protective pads for sensitive loads. On request all grabs can be supplied with an automatic step mechanism. Intermediate sizes, higher load capacities and other grab widths also available.

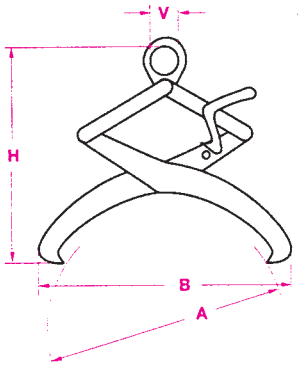
Load capacity in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	F	H	V		
250	40-150	200	400	300-500	65	6	NG-Z50002015
250	60-250	250	600	400-800	65	11	NG-Z50002025
500	40-200	300	500	350-700	75	15	NG-Z50005020
500	100-350	300	700	500-800	75	25	NG-Z50005035
500	200-500	400	900	600-900	75	35	NG-Z50005050
1000	60-250	300	700	450-700	80	28	NG-Z50010025
1000	100-350	300	800	500-800	80	35	NG-Z50010035
1000	200-500	400	950	600-900	80	50	NG-Z50010050
1000	300-800	440	1400	900-1400	80	130	NG-Z50010080
1000	800-1200	500	2400	1400-2400	80	200	NG-Z50010120
2500	60-250	330	700	500-800	95	50	NG-Z50025025
2500	100-350	330	850	550-900	95	60	NG-Z50025035
2500	200-500	400	1000	650-1000	95	72	NG-Z50025050
2500	300-800	440	1400	900-1400	95	240	NG-Z50025080
2500	800-1200	600	2450	1400-2500	95	360	NG-Z50025120



Log Clamps

Clamp with large grab range and small overall dimensions for lifting logs. From load capacity 2,500 kg the grab tips are replaceable. Equipped with open locking device.

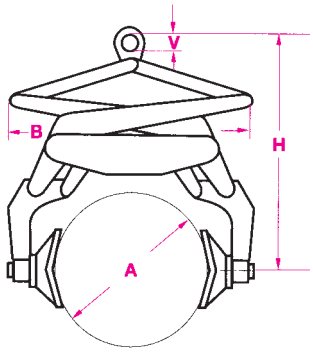
Load capacity in kg	Dimensions in mm				Weight in kg/pce	Item no.
	A	B	H	V		
500	200-500	650	500-700	85	12	NG-Z62005050
1000	300-800	1100	750-900	85	23	NG-Z62010080
2500	300-800	1150	750-900	95	60	NG-Z62025080
2500	400-1000	1400	900-1200	95	85	NG-Z62025100
5000	500-1000	1500	900-1200	95	130	NG-Z62050100



Turning Grab

This turning grab can be used for erecting, turning or rotating of loads. It works as a parallelogram grab with its jaws opening and closing parallel to each other. The jaws can be rotated and are equipped with 90° lock-in notches for best possible adaption to the load. This turning grab comes with an open locking device.

Load capacity in kg	Dimensions in mm				Weight in kg/pce	Item no.
	A	B	H	V		
125	150-250	600	500-900	60	20	NG-Z58001025
125	250-350	600	550-950	60	24	NG-Z58001035
250	150-300	700	600-1050	60	26	NG-Z58002030
250	300-450	700	650-1100	60	28	NG-Z58002045
500	300-450	720	700-1150	70	40	NG-Z58005045
500	450-600	720	800-1250	70	45	NG-Z58005060
1000	450-600	800	850-1300	85	55	NG-Z58010060
1000	650-800	800	950-1500	85	65	NG-Z58010080

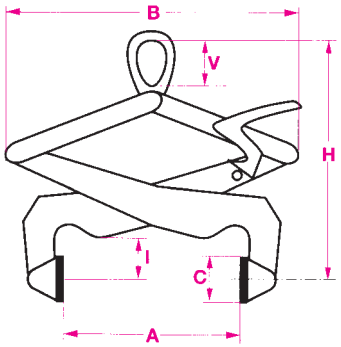


LOAD SUSPENSION EQUIPMENT

Clamps

Rectangular Profile Clamp

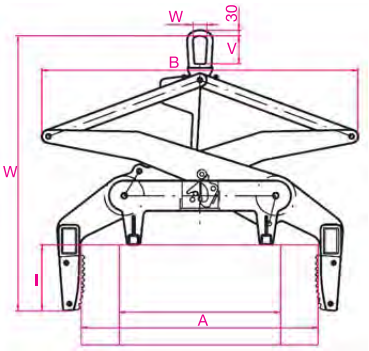
The jaws of the rectangular profile clamp are fitted with wear-resistant protective pads. It is suitable for transport of goods made of steel, concrete and wood. Surfaces must be oil-free to ensure a safe grip. Please note that the friction factor between load and pad must not be less than 0.75 B. Special versions for oily surfaces are available on request. All rectangular profile clamps are equipped with an open locking device. We manufacture all intermediate sizes, also with higher load capacities and other grab ranges. In case of oily or wet surfaces, the grabs can be equipped with specially hardened jaws at extra cost.



Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	C	H	I	V		
250	20-60	370	80	300-360	75	65	7	NG-Z51002006
250	50-125	400	80	300-450	75	65	10	NG-Z51002012
250	150-260	560	100	380-650	75	65	14	NG-Z51002026
250	250-500	850	100	500-1000	75	65	18	NG-Z51002050
500	20-60	380	80	300-360	75	75	10	NG-Z51005006
500	50-125	400	80	300-450	75	75	12	NG-Z51005012
500	150-260	480	100	380-670	75	75	16	NG-Z51005026
500	250-500	850	100	500-1000	80	75	22	NG-Z51005050
1000	50-125	500	100	360-500	90	75	23	NG-Z51010012
1000	150-260	600	100	430-700	90	80	28	NG-Z51010026
1000	250-500	850	120	500-1000	110	80	40	NG-Z51010050
1000	480-750	1000	120	500-1100	110	80	60	NG-Z51010075
1000	730-1000	1000	120	600-1200	110	80	70	NG-Z51010100
2500	150-300	900	150	600-800	150	95	70	NG-Z51025030
2500	250-500	1100	150	700-1200	150	95	90	NG-Z51025050
2500	480-750	1100	150	700-1200	150	95	110	NG-Z51025075

Wire coil outer tongs

Wire coil outer tongs in a solid, torsion-resistant welding/screwing construction with a scissor design for transporting bound wire coils with a vertical axis. The wire coils are securely attached at four points in a combination of force-fitting and positive-locking grabbers with replaceable, reinforced gripper pads. The touchdown supports are used to position the clamps on the coil and ensure a sufficient gripping depth. The movable suspension eye is designed for single hooks in accordance with DIN 1501 and other similarly structured hooks. The automated touchdown function is activated in line with the lifting movement each time placement occurs in the grab or hold-open position. The load must be dry, free of both oil and grease and in the temperature range of 0°C to 80°C.



Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	H	I	V	W		
3000	1250-850	1740-1360	1250-2200	350-430	150	75	350	NG-DCAZ301250

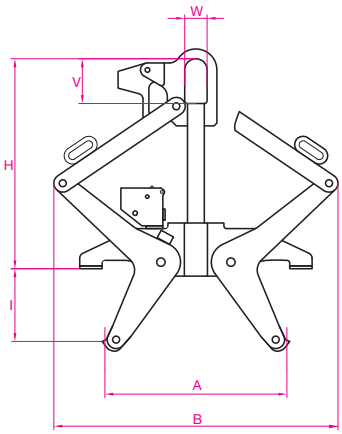
Please note the existing reel heights!

Wire Coil Internal Grab, 2-arm

2-armed wire coil internal grab in a solid, torsion-resistant welding/screwing construction with an angled lift design with 2 grab points for the safe transportation of wire coils. Replaceable, positive-locking grab jaws with a largely abrasion-proof protective coating. The touchdown supports in conjunction with the 2 handles are used to precisely position the clamp on the coil. A guided central tube with a stepping mechanism holds the clamps open at the smallest of widths. Pivoting suspension eye suitable for crane hooks according to DIN 1501 and similar.

Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	H	I	V	W		
3000	650-500	1015-1165	750-430	260-315	160	80	120	NG-DCIZ002650
3000	800-550	1075-1300	975-550	220-315	160	80	150	NG-DCIZ002800
5000	630-550	1000-1200	1190-1420	270-315	190	90	290	NG-DCIZ205630

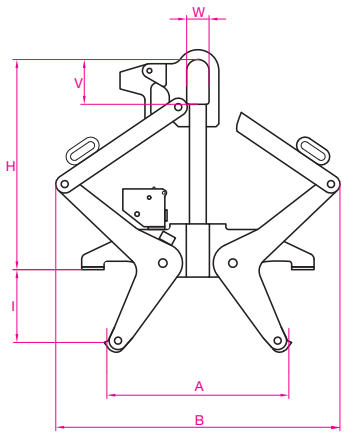
Other capacities and dimensions are available on request!



Wire Coil Internal Grab, 3-arm

3-armed wire coil internal grab in a solid, torsion-resistant welding/screwing construction with an angled lift design with 3 grab points for the safe transportation of wire coils. Replaceable, positive-locking grab jaws with a largely abrasion-proof protective coating. The touchdown supports in conjunction with the 3 handles are used to precisely position the clamp on the coil. A guided central tube with a stepping mechanism holds the clamps open at the smallest of widths. Pivoting suspension eye suitable for crane hooks according to DIN 1501 and similar.

Load capacity in kg	Dimensions in mm						Weight in kg/pce	Item no.
	A	B	H	I	V	W		
3500	650-500	1015-1165	750-430	260-315	160	80	130	NG-DCIZ035650
3500	800-550	1075-1300	975-550	220-315	160	80	180	NG-DCIZ035800
5000	650-500	1015-1165	750-430	260-315	160	80	130	NG-DCIZ0056505



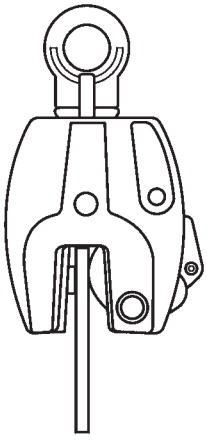
LOAD SUSPENSION EQUIPMENT

How a lifting clamp works

There are three different types of lifting clamps: micro positive locking, force locking and positive locking clamps.

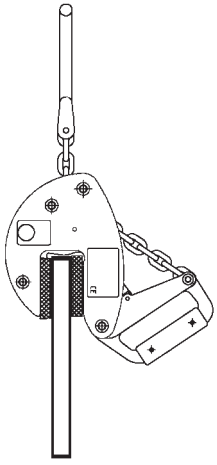
Micro positive locking

Describes the penetration of the grab jaw (toothed segment, counter bearing) in the material to be moved. This creates indentation marks on the material to be lifted. The hardness (HRC, HB, HV) of the grab jaws is important in relation to these clamps. This must be equal to or greater than the surface hardness of the material in order to ensure safe lifting.



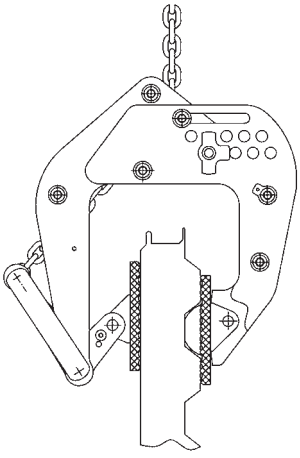
Force fitting

Describes the application of two opposing normal forces to the material to be moved with the aid of grab jaws. This does not damage the material to be lifted as the surface of the grab jaws is usually coated. The adhesive friction of the material to be lifted is important in relation to these lifting clamps. Oil and other lubricants prevent the maximum load capacity from being achieved.



Positive locking

Describes the interlinking of at least two connecting elements, e.g. grab jaws and the material to be lifted. As a result of this positive locking, the connection cannot be severed whether with or without a force bond and safe lifting is thus guaranteed.



LOAD SUSPENSION EQUIPMENT

Lifting clamps matrix

Lifting Clamps Type	Item no.	Page	vertical	horizontal	Application: Steel sheets, steel structures and profiles	Application: Smooth, polished and machined surfaces	Application: Sandwich panels	Application: Stacks of thick and fine sheets	Application: H and I standard profiles	Functional principle: Micro positive locking	Functional principle: Force fitting	Functional principle: Positive locking
CGB CondorGrip	7145.....	152	✓	✓	✓					✓		
CGU CondorGrip	7146.....	152	✓	✓	✓					✓		
CGUK CondorGrip	7145.UK.....	153	✓	✓	✓					✓		
IP 10	7145.....	154	✓	✓	✓					✓		
IPU 10	7146.....	154	✓	✓	✓					✓		
SVC-HE	7121.....	155	✓	✓	✓					✓		
SVC-LE	7122.....	155	✓	✓	✓					✓		
CGS CondorGrip	7112.....	156	✓	✓	✓					✓		
SCC	7112.....	156	✓	✓	✓					✓		
CGSMVZ CondorGrip	7188.....	157	✓	✓	✓					✓		
AZG CondorGrip	7139.....	157	✓	✓	✓					✓		
SVC-EE	7125.....	158	✓	✓	✓					✓		
CGSM CondorGrip	7188.10....	159	✓	✓		✓					✓	
CGSMV CondorGrip	7188.20....	159	✓	✓		✓					✓	
CGSMVS CondorGrip	7188.20....	160	✓	✓			✓					✓
CGSMHT CondorGrip	7188.10....	161	✓	✓		✓						✓
IPNM 10N / IPNM10/p	7NM0....	161	✓	✓		✓					✓	
HKC	7128.....	162		✓	✓					✓		
HLC-HE	7123.....	162		✓	✓					✓		
SUC	7113.....	163		✓	✓					✓		
IPStartec 11	7148.....	163		✓					✓	✓		
IPTKU	7147.20.....	164		✓					✓		✓	
IPTK	7147.00.....	164		✓					✓		✓	
TF CondorGrip	NG-7215....	165		✓					✓		✓	
T CondorGrip	NG-7216....	165		✓					✓		✓	
CGH1 CondorGrip	NG-K150....	166		✓				✓		✓		
CGH2 CondorGrip	NG-K150.....	166		✓				✓		✓		
CGHV CondorGrip	NG-K180....	166		✓				✓		✓		

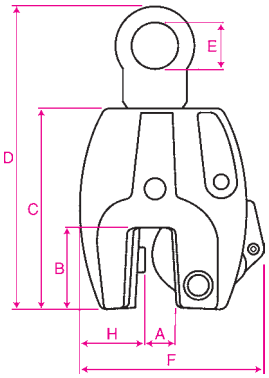
LOAD SUSPENSION EQUIPMENT

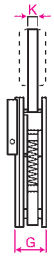
Lifting Clamps for vertical/horizontal Transport

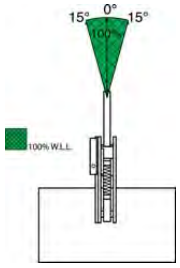
CondorGrip Universal Lifting Clamp Type CGB

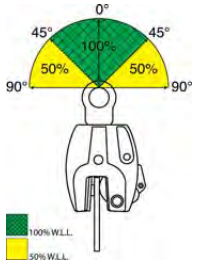
- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Lockable in open and closed position

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 37 HRC (1,155 N/mm²)**







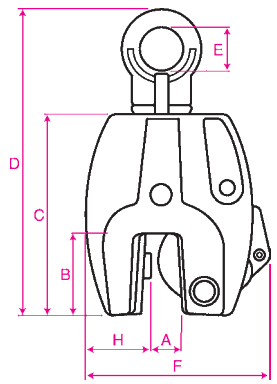


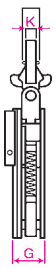
Load capacity in kg	Type	Grab range A in mm	Dimensions in mm B	C	D	E	F	G	H	K	Weight in kg/pce	Item no.
500	CGB 0.5	0-16	53	131	197	30	118	46	42	10	2.0	7145.CGB.05
1000	CGB 1	0-20	62	140	208	30	128	46	42	10	2.2	7145.CGB.10
2000	CGB 2	0-35	93	203	330	70	200	68	65	16	7.1	7145.CGB.20
3000	CGB 3	0-40	120	250	415	75	234	84	70	20	14.2	7145.CGB.30
4500	CGB 4.5	0-40	120	250	415	75	238	88	75	20	15.5	7145.CGB.45

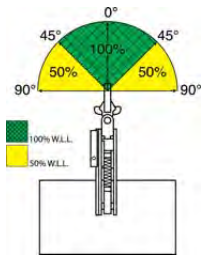
CondorGrip Universal Lifting Clamp with Cardan Joint Type CGU

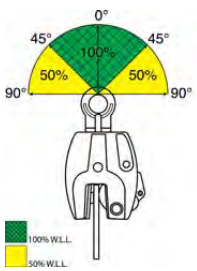
- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Lockable in open and closed position
- This clamp can be used from all angles as it is fitted with a hinged lifting eye which is movable in all directions

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 37 HRC (1,155 N/mm²)**









Load capacity in kg	Type	Grab range A in mm	Dimensions in mm B	C	D	E	F	G	H	K	Weight in kg/pce	Item no.
500	CGU 0.5	0-16	53	131	210	30	118	46	42	10	2.1	7146.CGU.05
1000	CGU 1	0-20	62	140	220	30	128	46	42	10	2.3	7146.CGU.10
2000	CGU 2	0-35	93	203	370	70	200	68	65	16	7.9	7146.CGU.20
3000	CGU 3	0-40	120	250	420	75	234	84	70	20	15.2	7146.CGU.30
4500	CGU 4.5	0-40	120	250	420	75	238	88	75	20	16.5	7146.CGU.45

LOAD SUSPENSION EQUIPMENT

Lifting Clamps for vertical/horizontal Transport

CondorGrip Universal Lifting Clamp Type CGUK

NEW!

The next generation of lifting clamps. The new lifting clamp 'made in Germany' represents ultimate quality.

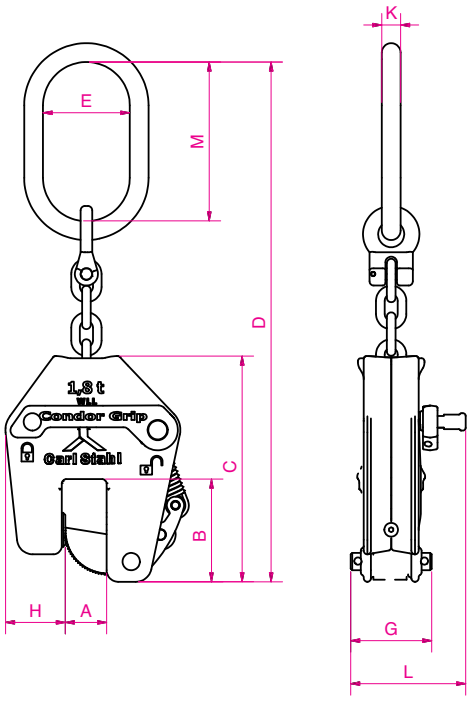
The CondorGrip CGUK universal clamp is an innovative development for horizontal and vertical transportation. The lifting clamp impresses with its unique, patent-pending design, which enables optimum safety in all pull directions.

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Rigid, FEM-optimised forged housing with a low dead weight
- Load capacity and grab range forged into the housing
- Traffic red (RAL 3020), powder-coated housing
- Fewer wear parts thanks to the new and innovative chain guide
- Permissible 360° pull at a 90° angle, therefore suitable for more universal use than comparable models
- Two grab jaws enable optimum connection to the load
- Ergonomically designed safety lever can also be operated when wearing gloves
- The suspension eye can be directly hung on the crane hook (suitable for use up to crane hook size 2.5)
- Version CGUK10 = standard version
- Version CGUK18 = high-strength version

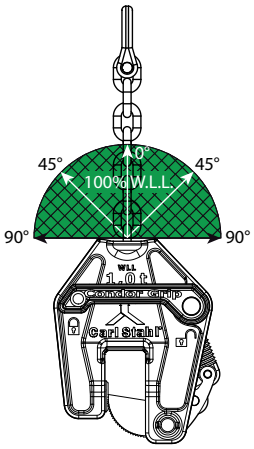
- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 32 HRC (1,030/mm²)**

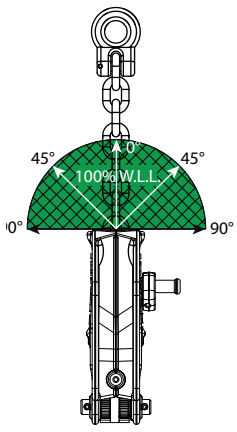
Option:
- Oval ring for larger crane hooks
- Individually adjustable chain length

Type CGUK10



Type CGUK18





Load capacity in kg	Type	Grab range A in mm	Dimensions in mm										Weight in kg/pce	Item no.
			B	C	D	E	F	G	H	K	L	M		
1000	CGUK10	0 - 25	71	156	365	60	125	56	45	13	80	110	2.8	7125.UK.10
1800	CGUK18	0 - 25	71	156	365	60	125	56	45	13	80	110	2.9	7125.UK.18

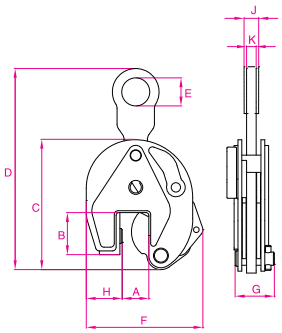
LOAD SUSPENSION EQUIPMENT

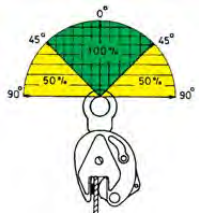
Lifting Clamps for vertical/horizontal Transport

Universal Lifting Clamp Type IP 10

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Lockable in open and closed position

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 37 HRC (1,155 N/mm²)**





Ill. 1

Ill. 2

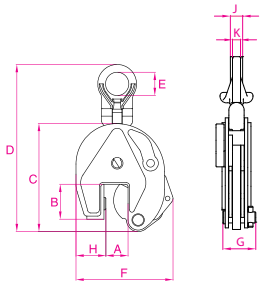
Load capacity in kg	Type	Grab range A in mm	Dimensions in mm B	C	D	E	F	G	H	J	K	Weight in kg	Item no.
500	IP10	0 - 16	44	128	207	30	115	41	28	-	10	1.8	7145.00.05
1000	IP10	0 - 20	45	139	215	30	126	41	38	-	10	2.2	7145.00.10
2000	IP10	0 - 35	78	201	336	70	190	61	55	-	16	7.6	7145.00.20
3000	IP10	0 - 40	100	253	436	75	225	78	60	-	20	13.8	7145.00.30
4500	IP10	0 - 40	100	253	436	75	232	82	65	-	20	15.0	7145.00.45
6000	IP10	0 - 50	126	302	515	80	292	84	95	40	20	23.5	7145.00.60

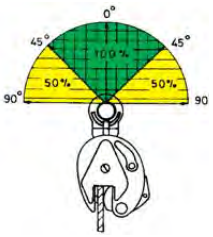
Higher load capacities available.

Universal vertical Lifting Clamp IPU 10 with Cardan joint

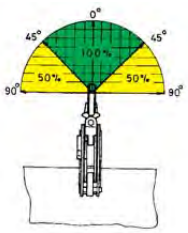
- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- This clamp can be used from all angles as it is fitted with a hinged lifting eye which is movable in all directions
- Lockable in open and closed position

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 37 HRC (1,155 N/mm²)**





Ill. 1



Ill. 2

Load capacity in kg	Type	Grab range A in mm	Dimensions in mm B	C	D	E	F	G	H	J	K	Weight in kg	Item no.
500	IPU10	0 - 16	44	128	228	40	115	41	28	-	11	1.9	7146.00.05
1000	IPU10	0 - 20	45	139	222	40	126	41	38	-	11	2.2	7146.00.10
2000	IPU10	0 - 35	78	201	372	70	190	61	55	-	16	7.6	7146.00.20
3000	IPU10	0 - 40	100	253	445	75	225	78	60	-	20	14.8	7146.00.30
4500	IPU10	0 - 40	100	253	445	75	232	82	65	-	20	16.0	7146.00.45
6000	IPU10	0 - 50	126	302	525	80	292	84	95	44	20	24.0	7146.00.60

Higher load capacities available.

Other options available:

Depending on your individual application, you have the choice between several special versions of the basic types IP10 and IPU10. The most common ones are pictured here. Please contact us with your enquiries.

IPU10/R
remote release by provided rope

IPU10/A
with automatic locking

IPU10/S
for stainless steel material 27-37 HRC

IPU10/H
for hard materials 37-47 HRC

LOAD SUSPENSION EQUIPMENT

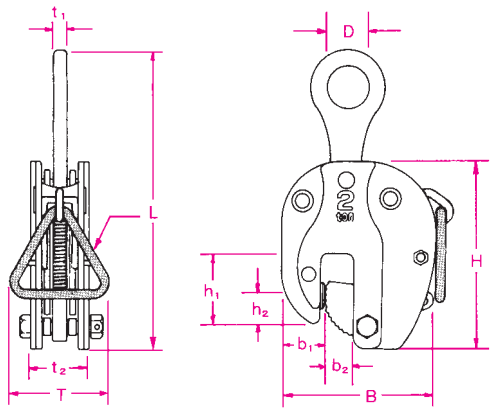
Lifting Clamps for vertical/horizontal Transport

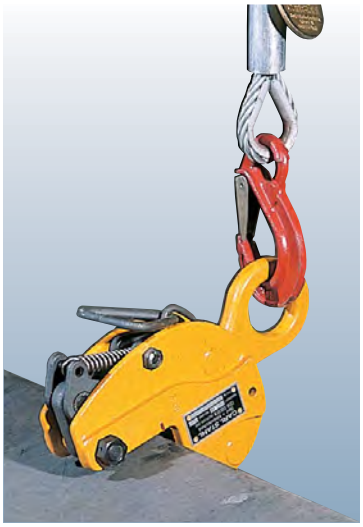
Carl Stahl®

Universal Lifting Clamp Type SVC-HE

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Simple handling, snap bolt locking
- Corrosion resistant
- All parts are replaceable
- Clearly legible indication of load capacity and grab range forged into the body
- Low self weight at high load capacity
- Best safety by use of premium materials and continuous quality controls

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**



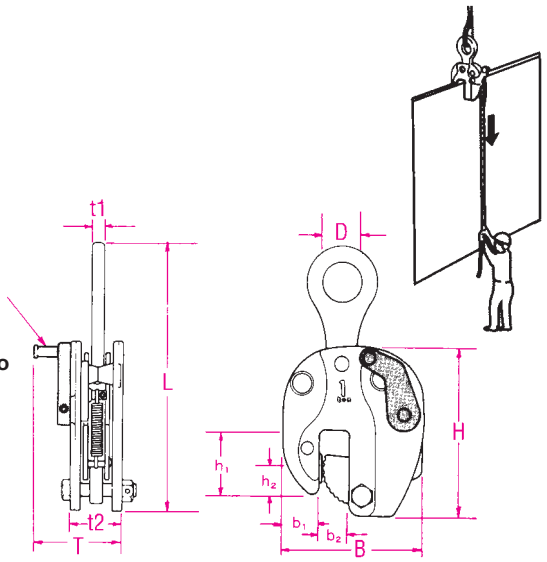


Load capacity in kg	Type	Grab range in mm	Dimensions in mm											Weight in kg/pce	Item no.
			L	t1	t2	T	h1	h2	H	b1	b2	B	D		
1000	SVC - 1 HE	0 - 19	250	12	45	86	60	24	158	36	26	131	36	3	7121.19.01
2000	SVC - 2 HE	0 - 25	310	16	59	86	69	24	185	42	32	152	48	6	7121.25.02
3000	SVC - 3 HE	0 - 30	375	18	71	86	77	30	210	48	39	172	60	10.5	7121.30.03
4000	SVC - 4 HE	0 - 35	405	20	75	86	81	34	225	51	42	182	66	12.5	7121.35.04
6000	SVC - 6 HE	0 - 40	455	22	86	86	94	45	260	60	52	213	84	20.5	7121.40.06

Universal Lifting Clamp Type SVC-LE

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Safety lever that can be unlocked from a distance using the rope supplied
- Corrosion resistant
- All parts are replaceable
- Clearly legible indication of load capacity and grab range forged into the body
- Low self weight at high load capacity
- Best safety by use of premium materials and continuous quality controls

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**



Load capacity in kg	Type	Grab range in mm	Dimensions in mm											Weight in kg/pce	Item no.
			L	t1	t2	T	h1	h2	H	b1	b2	B	D		
1000	SVC - 1 LE	0 - 19	250	12	45	80	34	24	158	36	26	131	36	3.0	7122.19.01
2000	SVC - 2 LE	0 - 25	310	16	59	105	47	24	185	42	32	152	48	6.0	7122.25.02
3000	SVC - 3 LE	0 - 30	375	18	71	118	52	30	210	48	39	172	60	10.5	7122.30.03
4000	SVC - 4 LE	0 - 35	405	20	75	129	59	34	225	51	42	182	66	12.5	7122.35.04
6000	SVC - 6 LE	0 - 40	455	22	86	148	76	45	260	60	52	213	84	23.9	7122.40.06

LOAD SUSPENSION EQUIPMENT

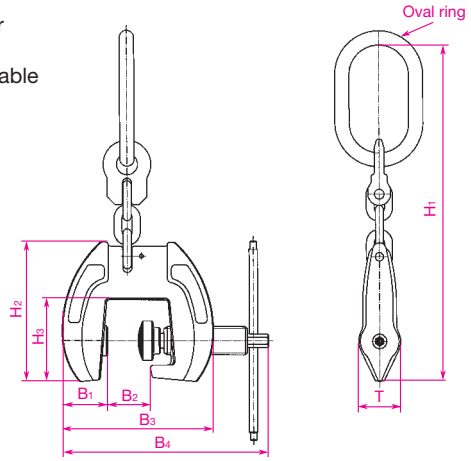
Lifting Clamps for vertical/horizontal Transport

CondorGrip Spindle Lifting Clamp Type CGS

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Forged clamp body
- Suitable for versatile use thanks to large grab range
- Low self weight at high load capacity
- Detachable spindle mandrel

- **For transport goods with surface hardness up to 32 HRC (1,030 N/mm²)**

Option:
- Oval ring for larger crane hooks
- Individually adjustable chain length



The new generation of spindle lifting clamps

Load capacity in kg	Type	Grab range in mm	Dimensions in mm									Weight in kg/pce	Item no.
			B1	B2	B3	B4 max.	Oval ring	H1	H2	H3	T		
750	CGS 0.75	0-22	42	21	125	180	110 x 60 x 13	300	112	80	45	2.76	7112.CG.S07
1500	CGS 1.5	0-32	47.6	32	150	215	110 x 60 x 16	340	142	90	45	4.1	7112.CG.S15
3000	CGS 3.0	0-50	56.5	50	185	275	135 x 75 x 18	420	172	100	50	7	7112.CG.S30

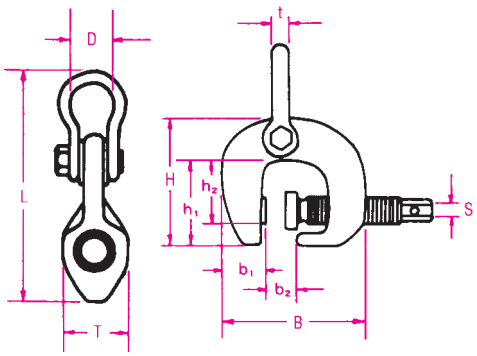
Spindle Lifting Clamp Type SCC

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Spindle lifting clamps with large grab range
- Versions from 500 to 6,000 kg BG-tested
- Detachable spindle mandrel to comply with regulations,
- Clearly legible indication of load capacity and grab range forged into the body

- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**

SCC 500 kg

SCC 1000 kg



Load capacity in kg	Type	Grab range in mm	Dimensions in mm										Weight in kg/pce	Item no.
			H	h1	h2	B	b1	b2	T	t	L	D		
500	SCC - 1/2	0 - 28	76	42	26	104	34	30	30	10	113	17	0.8	7112.28.05
1000	SCC - 1W	50 - 100	190	126	88	225	54	106	46	16	273	45	6	7112.10.10
6000	SCC - 6	0 - 75	214	130	76	255	76	79	69	32	265	80	18	7112.75.60

LOAD SUSPENSION EQUIPMENT

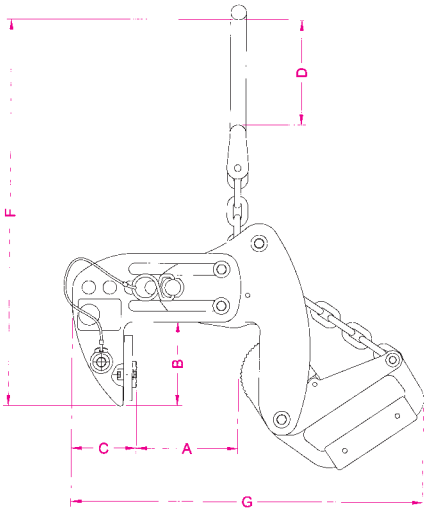
Lifting Clamps for vertical/horizontal Transport

CondorGrip Automatic Safety Lifting Clamp with toothed Segment CGSMVZ, adjustable

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Large grab range (0-100 mm, stepped in 20 mm intervals)
- Easy handling of different plate thicknesses due to wide adjustment range
- The clamp will lock automatically when it touches the load.

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 32 HRC (1,030 N/mm²)**

Option:
- Oval ring for larger crane hooks



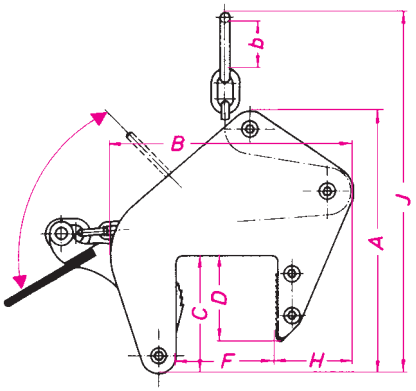
Load cap. in kg	Type	Grab range A in mm	Dimensions in mm B	C	D	F	G	Weight in kg/pce	Item no.
500	CGSMVZ	0-100	75	81	100	368	336	6.3	7188.21.05

CondorGrip Universal Lifting Clamp Type AZG

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- All-purpose grabs with a load capacity of up to 2.0 t are equipped with a round link chain; grabs with a higher load capacity are equipped with flyer chains.
- Versatile use and easy handling
- Automatic slip guard, even with slack in the traction mechanism
- Return bearing can be independently adjusted, ensuring the retention force and safety for longer

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**

Option:
- Up to 1,250 kg, also available with protective cover for the jaws



Compact all-purpose grabs available for use in areas that are difficult to access (e.g. lathes).

Load capacity in kg	Grab range in mm	Dimensions in mm A	B	C	D	F	H	b	J max.	J min.	Weight in kg/pce	Item no.
350	0 - 100	264	259	128	100	100	85	121	800	550	8.7	7139.10.03
350	90 - 200	382	434	195	156	200	120	121	1070	760	16.3	7139.20.03
750	0 - 100	264	259	128	100	100	85	121	800	550	8.6	7139.10.07
750	90 - 200	382	434	195	156	200	120	121	1070	760	16.6	7139.20.07
1250	0 - 100	320	289	128	100	100	85	121	840	550	14.9	7139.10.12
1250	90 - 200	382	434	195	156	200	120	121	1070	760	24.3	7139.20.12
2000	0 - 100	328	415	135	115	100	105	121	840	570	20.8	7139.10.20
2000	90 - 200	375	515	195	165	200	160	121	1055	750	29.1	7139.20.20
3000	5 - 90	297	290	136	106	90	91	111	740	570	26.5	7139.09.30
5000	5 - 90	297	290	136	106	90	91	111	740	570	30.5	7139.09.50
5000	80- 170	354	423	180	155	170	118	111	870	620	43.8	7139.17.50

Other jaw widths and intermediate sizes on request. *Specify 5 t or 16 t crane hook with your order.

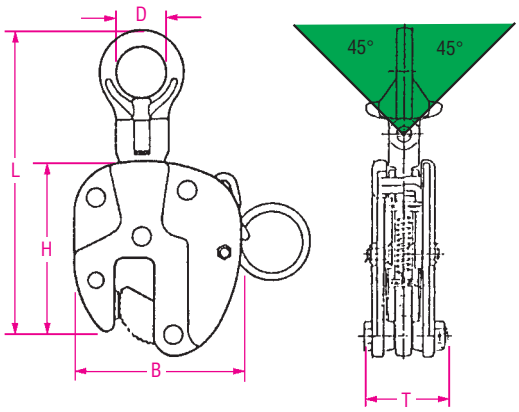
LOAD SUSPENSION EQUIPMENT

Lifting Clamps for vertical/horizontal Transport

Universal Lifting Clamp Type SVC-EE

- For turning and transport of steel sheets, steel profiles and constructions, especially when using 2 or more lifting clamps.
- A suspension eye that is mobile on all sides also ensures the functionality if the clamp position and pull direction differ.
- Versatile and with easy handling thanks to the compact design, low dead weight and large grab range.
- Safety locking thanks to the folding bar mechanism. With a large operating ring. This allows the clamp to be firmly attached to the item to be transported.
- The drop-forged clamp body and high-quality materials ensure excellent durability. Toothed segment and counter bearing plus all other functional parts are made from alloyed special steel.
- Clearly legible indication of load capacity and grab range forged into the surface-coated clamp body.

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**



Caution:
When pulling at an angle of more than 45°, the load capacity reduces by 50%.

Load capacity in kg	Type	Grab range in mm	Dimensions in mm D	L	H	B	T	Weight in kg/pce	Item no.
500	SVC-0.5 EE	0 - 16	26	157 - 176	110	100	49	1.5	7125.16.05
1000	SVC-1.0 EE	0 - 19	30	180 - 204	125	110	54.5	2.1	7125.19.10
1500	SVC-1.5 EE	0 - 25	35	223 - 257	160	130	65	3.7	7125.25.15
2000	SVC-2.0 EE	0 - 28	45	254 - 290	174	150	74	5.5	7125.28.20
3000	SVC-3.0 EE	0 - 32	55	292 - 335	194	162	76	7.0	7125.32.30

Types with higher load capacities also available.

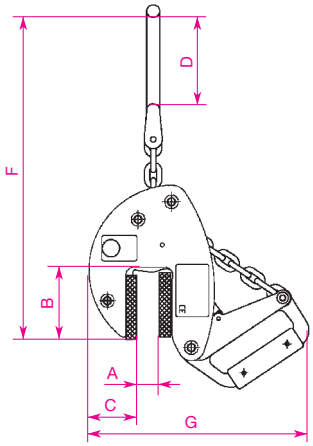
LOAD SUSPENSION EQUIPMENT

Lifting Clamps for vertical/horizontal Transport

CondorGrip Automatic Safety Lifting Clamp Type CGSM

- Suitable for lifting and turning (180°) of smooth, machined or polished parts
- Coated jaws protect the transport goods
- The clamp will lock when attached to the load
- Easy handling

Option:
- Oval ring for larger crane hooks

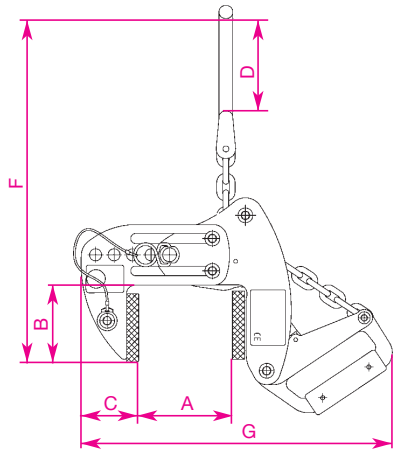


Load capacity in kg	Type	Grab range A in mm	Dimensions in mm					Weight in kg/pce	Item no.
			B	C	D	F	G		
500	CGSM 0.5	0-25	80	55	100	370	240	5.0	7188.10.05
1500	CGSM 1.5	0-30	100	77	125	520	275	12.0	7188.10.15
2000	CGSM 2.0	0-30	100	77	125	520	285	12.5	7188.10.20

CondorGrip Automatic Safety Lifting Clamp Type CGSMV, adjustable

- Suitable for lifting and turning (180°) of smooth, machined or polished parts
- Coated jaws protect the transport goods
- Adjustable grab range
- The clamp will lock when attached to the load
- Easy handling

Option:
- Oval ring for larger crane hooks



Load capacity in kg	Type	Grab range A in mm	Dimensions in mm					Weight in kg/pce	Item no.
			B	C	D	F	G		
500	CGSM 0.5V	0-100	80	55	100	425	295	6.5	7188.20.05
1000	CGSM 1.0V	0-100	80	70	100	485	355	8.0	7188.20.10

Product video:
carlstahl.de/CGSMV

LOAD SUSPENSION EQUIPMENT

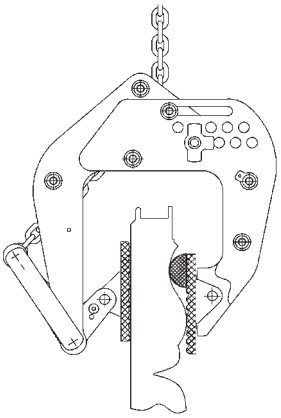
Lifting Clamps for vertical/horizontal Transport

CondorGrip Safety Lifting Clamp Type CGSMVS

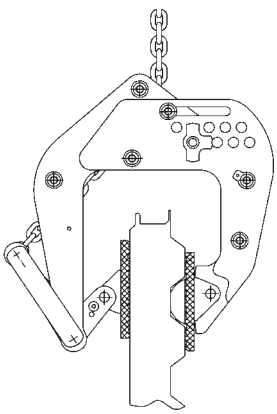
- Suitable for lifting, turning and laying of sandwich panels
- Due to coated jaws no traces or damages on the material
- Adjustable grab range
- Uncomplicated exchange of the jaw for different profiles
- Form-locking transport provides additional safety
- Max. allowable diagonal pull is 30°
- Easy handling thanks to the wide jaw opening
- For longer panels we recommend use of two clamps on a spreader beam or on suitable slings.

Load capacity in kg	Type	Grab range in mm	Opening width in mm	Weight in kg/pce	Item no.
250	CGSMVS-120	30 - 120	160	11	7188.20.02
250	CGSMVS-240	120 - 240	280	12	7188.20.13

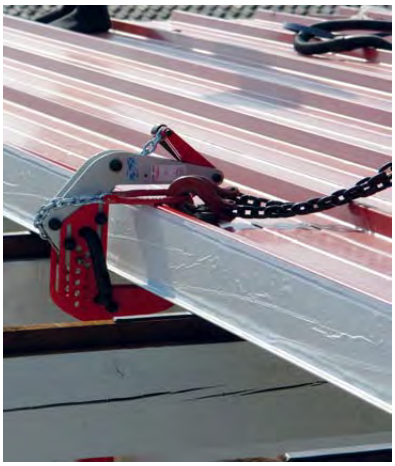
Spare Jaws for Safety Lifting Clamp Type CGSMVS



7188.2S.12



7188.2S.32



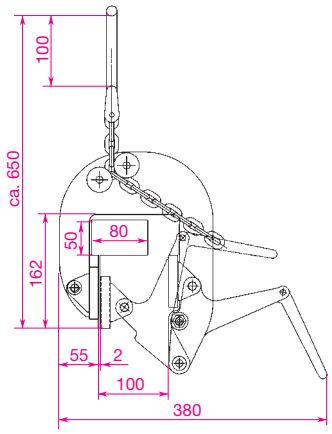
Type	Weight in kg/pce	Item no.
Grab jaw suitable for Metecno G4	2	7188.2S.52
Grab jaw suitable for Metecno H-Wall 8-Wave	2	7188.2S.12
Grab jaw suitable for Metecno H-Wall 10-Trapeze	2	7188.2S.32

LOAD SUSPENSION EQUIPMENT

Lifting Clamps for vertical/horizontal Transport

CondorGrip Safety Lifting Clamp Type CGSMHT

- Suitable for lifting and turning of sign-boards
- Due to coated jaws no traces on the material
- Thanks to the wide jaw opening it is easy to pass the frames of the thin boards.
- Only suitable for form-locking transport

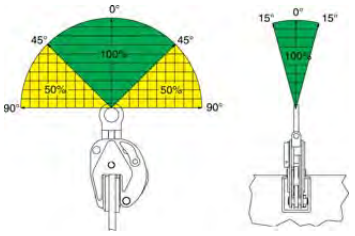


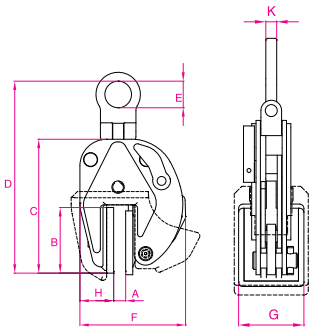
Load capacity in kg	Type	Grab range A in mm	Opening width in mm	Weight in kg/pce	Item no.
350	CGSMHT	0-2	100	6.5	7188.10.03

Universal Lifting Clamp Type IPNM 10N / IPNM 10/P

Lifting, turning and transporting without damaging the load!

- Suitable for lifting and turning (180°) of smooth, machined or polished surfaces
- Load protected by special rubber covers on the jaws
- High coefficient of friction makes it possible to hoist extremely hard and smooth materials without damaging their surfaces
- Extremely user-friendly and easy to handle
- **The model IPNM 10/P is equipped with a protection cap to avoid damage to the load.**





Type IPNM 10 N

Type IPNM 10/P

Load capacity in kg	Type w/o protection cap	Grab range A in mm	Dimensions in mm B	C	D	E	F	G	H	K	Weight in kg/pce	Item no.
500	0.5 IPNM 10N	0-10	74	149	205	40	128	60	38	11	2.5	7NM0.10.05
1000	1 IPNM 10N	0-20	110	209	270	30	134	80	56	10	4.4	7NM0.20.10
1000	1 IPNM 10N/J	20-37	86	196	265	30	177	80	51	10	5.3	7NM0.37.10
1000	1 IPNM 10J1	0-25	86	225	314	30	194	80	59	10	5.5	7NM0.25.10
2000	2 IPNM 10	0-40	153	258	396	70	196	100	161	16	14.5	7NM0.40.20

Load capacity in kg	Type with protection cap	Grab range A in mm	Dimensions in mm B	C	D	E	F	G	H	K	Weight in kg/pce	Item no.
500	0.5 IPNM 10/P	0-10	82	157	213	40	145	68	48	11	2.8	7NM1.10.05
1000	1 IPNM 10/P	0-20	97	195	268	30	205	82	60	10	4.5	7NM1.20.10

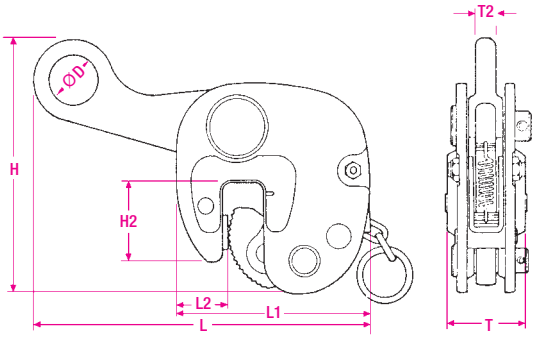
LOAD SUSPENSION EQUIPMENT

Lifting Clamps for horizontal Transport

Universal Lifting Clamp Type HKC

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- The beam hangs horizontally in the clamp without being top-heavy
- Safety lever guarantees pre-tensioned grip on the beam
- Locks in open or closed position

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**

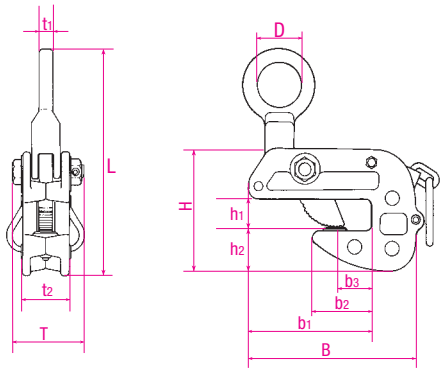


Load capacity in kg	Type	Grab range in mm	Dimensions in mm H	H2	L	L1	L2	T	T2	D	Weight in kg/pce	Item no.
1000	HKC-1E	0 - 20	186	53.5	255	131	31	48	16	40	3.4	7128.20.07
2000	HKC-2E	0 - 25	206	65	280	160	42.5	63	16	40	6.2	7128.25.15

Universal Lifting Clamp Type HLC-HE

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Slim clamp body for frontal attachment of profiles
- Standard safety snap bolt locking (clamping is retained even during brief unloading)
- Corrosion resistant due to special phosphate coating
- Clearly legible indication of load capacity and grab range forged into the body

- **Permissible minimum load 10% of the load capacity/WLL**
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**



Load capacity in kg	Type	Grab range in mm	Dimensions in mm L	t1	t2	T	H	h1	h2	B	b1	b2	b3	D	Weight in kg/pce	Item no.
1000	HLC - 1HE	0 - 25	208	12	41	65	115	27	38	169	118	56	34	40	2.8	7123.25.01
2000	HLC - 2HE	0 - 30	246	16	51	79	135	32	48	188	138	65	40	50	4.5	7123.30.02
3000	HLC - 3HE	0 - 35	292	18	59	92	163	37	58	219	156	74	45	60	7.5	7123.35.03
4000	HLC - 4HE	0 - 40	337	20	67	104	190	42	68	249	174	83	50	70	12	7123.40.04
6000	HLC - 6HE	0 - 45	386	22	75	117	218	47	78	281	193	90	55	80	20	7123.45.06

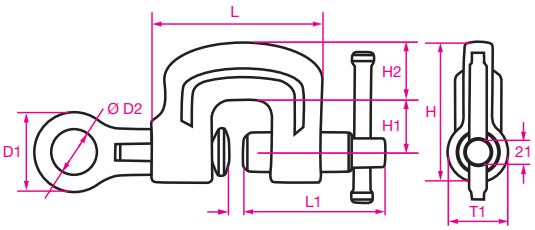
LOAD SUSPENSION EQUIPMENT

Lifting Clamps for horizontal Transport

Spindle Lifting Clamp Type SUC

- For lifting, turning (180°) and transport of steel sheets, steel constructions and standard profiles
- Also suitable for attaching lever hoists and chain blocks
- The suspension eye swivels through 360° and pivots through 180° allowing high flexibility and a wide range of applications
- The spindle and the discoid pad guarantee a stable and effective grip on the work piece
- The discoid pad automatically adjusts in the ideal angle for lifting
- The clamp body consists of heat-treated high grade steel

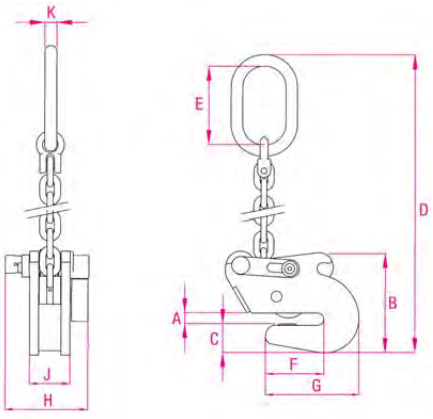
- **For transport goods with surface hardness up to 30 HRC (965 N/mm²)**



Load capacity in kg	Type	Grab range in mm	Dimensions in mm								Weight in kg/pce	Item no.
			L	L1	H	H1	H2	T1	D1	D2		
500	SUC 0.5	0 - 25	120	89	91	30	38	46	60	35	2.0	7113.20.05
1000	SUC 1	0 - 30	130	109	108	40	45	46	60	35	2.8	7113.20.10
1600	SUC 1.6	0 - 30	133	109	110	40	45	50	75	45	3.5	7113.20.16
3200	SUC 3.2	0 - 40	165	136	130	45	55	62	80	50	5.1	7113.20.32

Universal Lifting Clamp Type IPStartec 11

- For lifting, turning and transport of standard profiles
- This clamp has been especially developed for lifting with the body in a vertical position
- Suitable for controlled tilting, transportation and stacking of H- and I-profiles



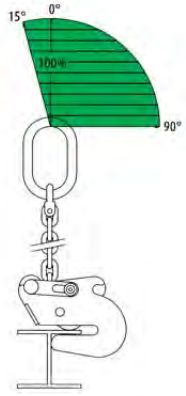


Abb. 1

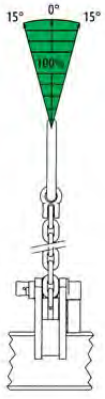


Abb. 2

Load capacity in kg	Type	Grab range A in mm	Dimensions in mm									Weight in kg/pce	Item no.
			B	C	D	E	F	G	H	J	K		
1500	IPStartec 11	6-12	140	39	575	110	81	129	54	126	16	6.6	7148.00.15
2500	IPStartec 11	6-20	210	55	725	135	115	182	74	140	18	14.5	7148.00.25

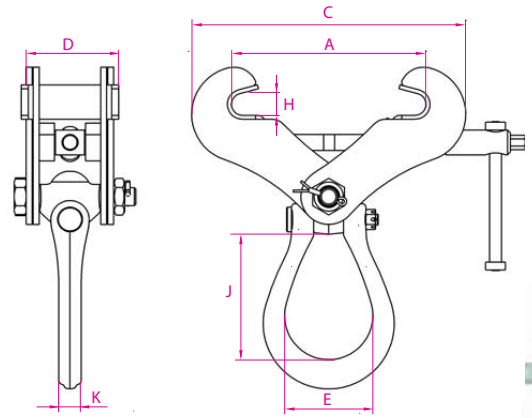
LOAD SUSPENSION EQUIPMENT

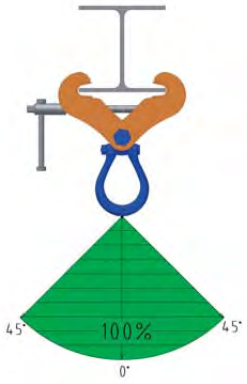
Lifting Clamps for horizontal Transport

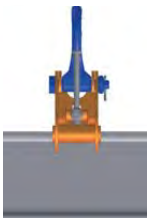
Beam Clamp Type IPTKU with hinged Hoisting Ring

- Beam clamp for lifting or pulling steel beams
- Suitable as temporary tackle eye for a beam
- **With hinged hoisting ring**

- **Option:**
  - Special offshore version (model IPTKO) also available. Comes with 3.1B test certificate.
  - Version with double locking device available (model IPTKU/D).





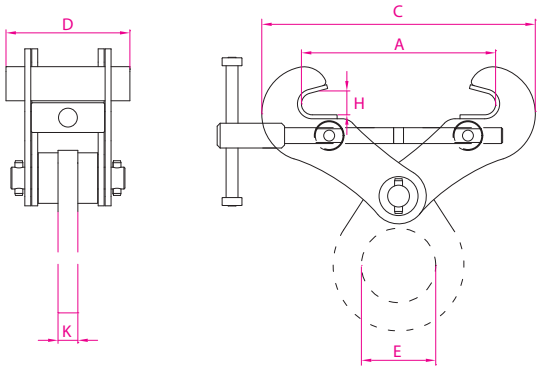


Various options for use as an anchorage point or a lifting clamp

Load capacity in kg	Model with hinged hoisting ring	Grab range A in mm	Dimensions in mm C	D	E	H	J	K	Weight in kg/pce	Item no.
2000	IPTKU	75-190	A+100	121	76	22	99	19	5.8	7147.20.20
3000	IPTKU	75-190	A+100	121	89	22	122	22	6.5	7147.20.30
4000	IPTKU	120-280	A+150	140	89	40	122	22	9.9	7147.20.40
5000	IPTKU	120-350	A+175	140	89	40	122	22	12	7147.20.50
10000	IPTKU	200-460	A+300	200	105	60	152	26	38	7147.21.00

Beam Clamp Type IPTK with Hoisting Ring

- Beam clamp for lifting or transport of steel beams
- Suitable as temporary tackle eye for a beam
- **With hoisting ring**



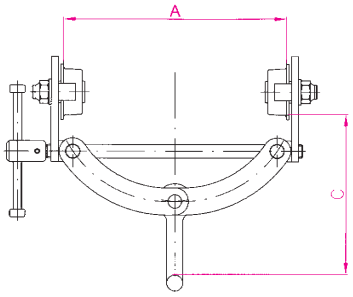
Load capacity in kg	Model with hoisting ring	Grab range A in mm	Dimensions in mm C	D	E	H	K	Weight in kg/pce	Item no.
2000	IPTK	75-190	A+80	125	75	25	20	6	7147.00.20
3000	IPTK	75-190	A+80	125	75	25	20	6.5	7147.00.30
4000	IPTK	150-280	A+100	125	75	35	20	8.5	7147.00.40
5000	IPTK	120-350	A+195	125	75	40	20	11	7147.00.50

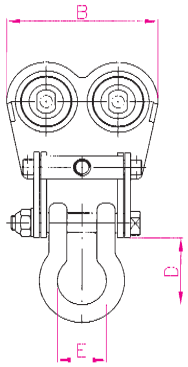
LOAD SUSPENSION EQUIPMENT

Lifting Clamps for horizontal Transport

CondorGrip Beam Clamp Type TF with Trolley

- Beam clamps with a trolley can be quickly and easily attached to a beam without assembly tools or aids
- The castors are pressed onto the beam by the clamping spindle
- Ideal for assembly and repair work – easy to attach and remove
- Castors with precision ball bearings





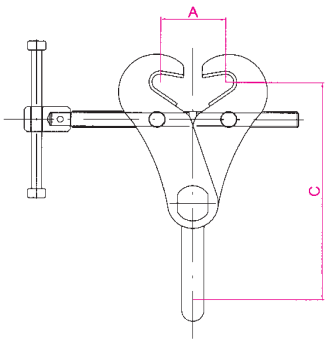
Caution:
Not suitable for lifting

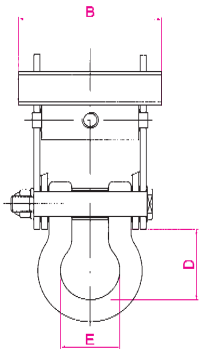
Load capacity in kg	Type	Grab range A in mm	B	Dimensions in mm C	D	E	Weight in kg/pce	Item no.
1000	TF 1	64 - 190	160	225-250	55	45	8	NG-72150010
1500	TF 1.5	64 - 190	160	240-265	60	50	8	NG-72150015
2000	TF 2	64 - 190	160	235-260	65	50	9	NG-72150020
3000	TF 3	64-190	315	295-340	65	55	32	NG-72150030
6000	TF 6	200-300	365	295-380	70	75	53	NG-72150060
10000	TF 10	200-300	260	330-370	75	80	49	NG-72150100

Subject to technical changes.

CondorGrip Beam Clamp Type T

- The simple and secure attachment point
- Beam clamps with adjustable clamp areas can be quickly and easily attached to a beam without assembly tools or aids
- The jaws are pressed onto the beam by a clamping spindle, thus creating a suspension point for lifting equipment, pulleys etc.
- Structures or sections that are difficult to grab can be moved quickly and easily with these clamps





Caution:
Not suitable for lifting

Load capacity in kg	Type	Grab range A in mm	B	Dimensions in mm C	D	E	Weight in kg/pce	Item no.
2000	T 2	64 - 190	130	180-220	60	50	5	NG-72160020
3000	T 3	64 - 190	140	180-220	70	55	6	NG-72160030
4000	T 4	150 - 300	195	240-295	79	65	14	NG-72160040
5000	T 5	150 - 300	195	270-310	85	75	18	NG-7216A050
6000	T 6	200 - 300	195	375-400	85	75	21	NG-72160060
10000	T 10	200 - 300	195	500-520	85	80	38	NG-7216A100
15000	T 15	200 - 300	240	540-560	110	95	65	NG-72160150

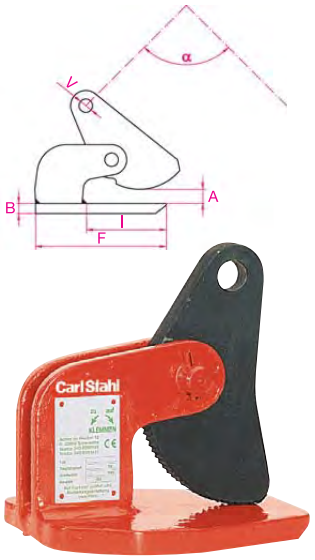
Subject to technical changes.

LOAD SUSPENSION EQUIPMENT

Lifting Clamps for horizontal Transport

CondorGrip Lifting Clamp Type CGH1

- **Designed to be used in pairs**
- Suitable for the horizontal transport of rigid sheet metal, stacks of sheets and steel plates
- The notched grab ensures a safe grip on the sheet metal, even if suspended diagonally.
- For longer pieces of sheet metal we recommend using 2 pairs of lifting clamps together with a spreader beam.
- Max. spread angles 60° - **always observe the user information!**

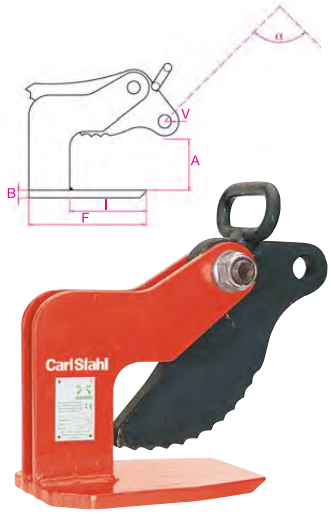


Load capacity per pair in kg	Type	Dimensions ca. in mm A	B	F	I	V	Dead weight in kg/pce	Item no.
1000	CGH1 10/40	0-40	15	150	95	16	3	NG-K15010040
1500	CGH1 15/50	0-50	15	160	100	18	4	NG-K15015050
2500	CGH1 25/50	0-50	15	170	105	18	4.5	NG-K15025050
3000	CGH1 30/70	0-70	20	185	120	22	10	NG-K15030070
5000	CGH1 50/60	0-60	20	205	115	22	12	NG-K15050060
6000	CGH1 60/51	0-51	20	225	140	36	13	NG-K15060051
8000	CGH1 80/65	0-65	55	265	175	36	18	NG-K15080065
12000	CGH1 120/100	0-100	70	280	170	36	35	NG-K15120100

CondorGrip Lifting Clamp Type CGH2

- **Designed to be used in pairs**
- They have a wide grab range and thus are particularly suitable for the horizontal transport of thin and thick metal plates.
- Max. spread angles 60° - **always observe the user information!**

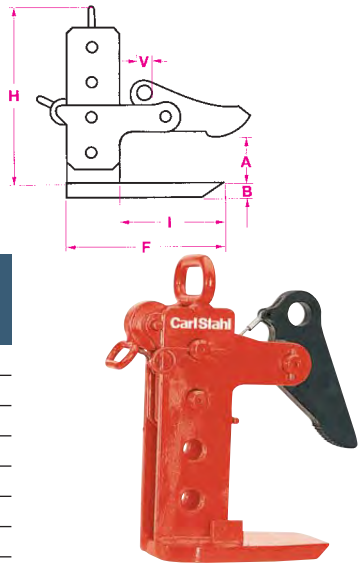
Spread angle	Load capacity
30° - 60°	100%
60° - 90°	70%
90° - 120°	50%



Load capacity per pair in kg	Type	Dimensions ca. in mm A	B	F	I	V	Dead weight in kg/pce	Item no.
2500	CGH2 25/100	5-100	15	230	140	25	13	NG-K15025100
2500	CGH2 25/150	50-150	15	230	140	25	15	NG-K15025150
5000	CGH2 50/100	5-100	20	250	140	31	20	NG-K15050100
5000	CGH2 50/150	50-150	30	270	165	31	25	NG-K15050150
5000	CGH2 50/250	100-250	30	270	165	31	30	NG-K15050250
7500	CGH2 75/250	100-250	50	290	170	36	35	NG-K15075250

CondorGrip Lifting Clamp Type CGHV

- **Designed to be used in pairs**
- Especially suitable for horizontal transport of sheet metal stacks
- Grab range quickly adjustable from 0-420 mm with a socket pin
- Respective clamp area 60 mm
- Maximum permissible diagonal pull 10°
- Max. spread angles 60° - **always observe the user information!**



Load capacity per pair in kg	Type	Dimensions ca. in mm A	B	F	H	I	V	Dead weight in kg/pce	Item no.
1000	CGHV 10/150	0-150	12	170	250	110	25	10	NG-K18010150
1500	CGHV 15/300	0-300	15	180	400	110	25	12	NG-K18015300
3000	CGHV 30/180	0-180	20	200	300	120	30	12	NG-K18030180
3000	CGHV 30/300	0-300	20	200	420	120	30	14	NG-K18030300
3000	CGHV 30/420	0-420	20	200	550	120	30	15	NG-K18030420
6000	CGHV 60/180	0-180	30	230	350	120	30	18	NG-K18060180
6000	CGHV 60/300	0-300	30	230	470	120	30	21	NG-K18060300

LOAD SUSPENSION EQUIPMENT

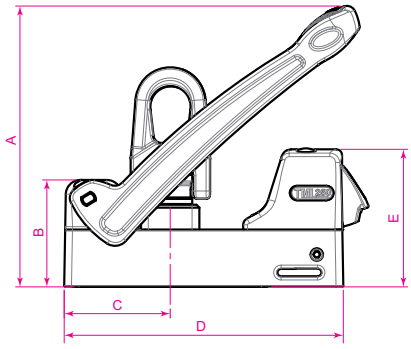
Lifting Magnets

Permanent Lifting Magnet Model Type TML NEW!

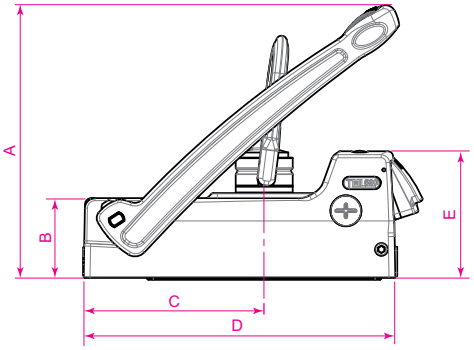
- Suitable for flat contact surfaces
- Brand new operating concept enables a broader action radius
- Magnet activated lengthways along its adhesive surface
- Ergonomic activation with minimum force
- Easy-moving lever with safety lock and additional rebound damper on type TML 500
- Outstanding performance features on thin-walled materials (suitable for use from as little as 2 mm)
- Type TML 500 also suitable for vertical applications, maximum load capacity: 150 kg
- Break-away force is at least 3 times the rated capacity
- Additional magnetic preloading enables enhanced magnet positioning
- Tare weight up to 50% lower than conventional magnets with at least the same power output
- 360° rotating and pivoting suspension eye
- Hardened, TiN-coated magnet adhesive surface
- Compact and sturdy design
- Each magnet comes with a test certificate and operating instructions

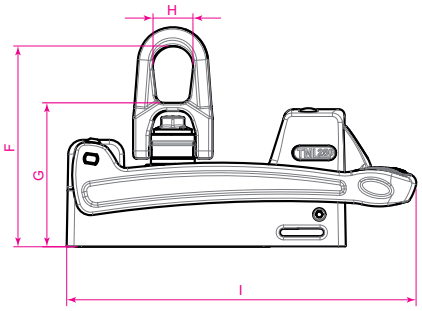
Caution:
- **Specially suited for steel construction profiles and steel sheets**
- **Low dead weight**
- **Suitable for use from material thicknesses of 2 mm**
- **Optimised design and operation**

Type TML 250



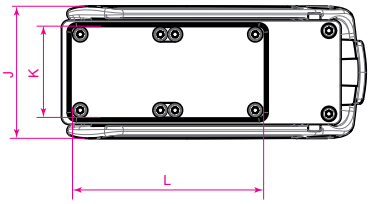
Type TML 500





De-magnetised

Magnetised



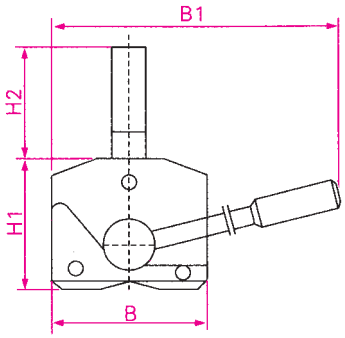
Type	Flat material		Dimensions in mm												Weight	Item no.
	Load capacity in kg at material thickness in mm		A	B	C	D	E	F	G	H	I	J	K	L	in kg/pce	
	Load cap.	Material thickness														
TML 250	250	9	193	73	73	191	94	138	99	27	240	91	65	135	3.7	7630.00.25
TML 500	500	8	216	64.5	143	248	102	175	122	38	301	118	88	185	6.5	7630.00.50

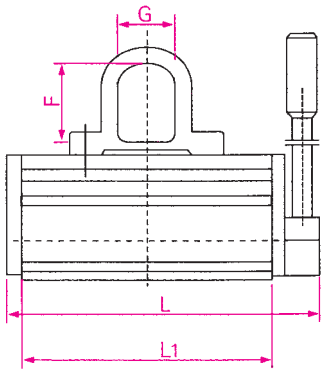
LOAD SUSPENSION EQUIPMENT

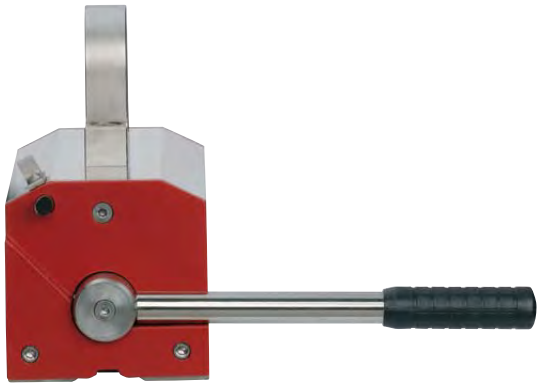
Lifting Magnets

CondorLift Permanent Lifting Magnet Model CSmag

- Powerful permanent lifting magnet from the Condor own brand for maximum load capacity
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Each magnet comes with a test certificate and operating instructions







Type	Flat material Load capacity in kg at material thickness in mm		Round material Load capacity in kg at material ø in mm			Dimensions in mm								Weight in kg/pce	Item no.
	Capacity	Material thickn.	Capacity	Max. material Ø	Min. mat. thickn.	L	L1	B	H1	H2	B1	F	G		
CSmag 100	100	20	50	100	10	135	110	60	65	46	150	32	32	3.5	7631.00.01
CSmag 300	300	20	150	300	12	203	165	87	89	68	223	45	38	10.0	7631.00.03
CSmag 600	600	30	300	400	20	266	226	112	109	86	287	58	45	21.0	7631.00.06
CSmag 1000	1000	40	500	450	28	330	290	148	125	95	364	60	52	40.0	7631.00.10
CSmag 1500	1500	45	750	500	34	385	330	178	145	118	447	70	65	65.0	7631.00.15
CSmag 2000	2000	55	1000	600	40	470	420	178	145	118	487	70	65	83.0	7631.00.20

Caution!
Ensure clean magnet and even work-piece surfaces!

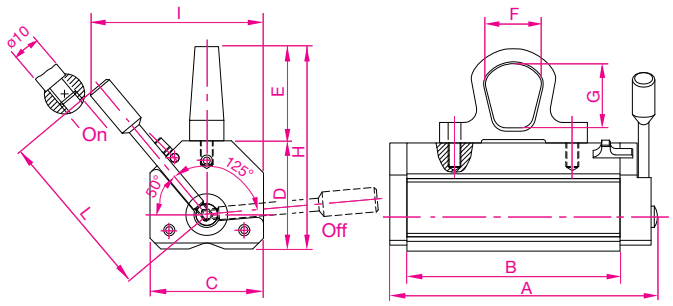
Product video:
carlstahl.de/CSMAG

LOAD SUSPENSION EQUIPMENT
Lifting Magnets

Permanent Lifting Magnet MaxX

- Powerful permanent lifting magnet for maximum load capacity
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Large, screwed-on hook connection eye for load hooks in line with the nominal load capacity.
- Each magnet comes with a test certificate and operating instructions

Option:
- Lifting arm for Permanent Lifting Magnet MaxX



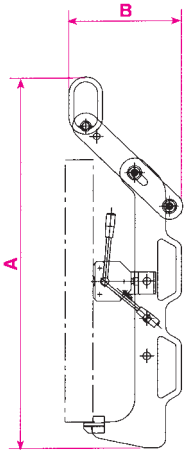
Type	Flat material Load capacity in kg at material thickness in mm		Round material Load capacity in kg at material ø in mm			Dimensions in mm										Weight in kg/pce	Item no.
	Cap.	Material thickn.	Cap.	Max. material Ø	Min. mat. thickn.	A	B	C	D	E	F	G	H	I	L		
MaxX 250	250	20	100	300	10	189	143	79	79	63	35	43	142	130	137	6.0	7643.00.02
MaxX 500	500	25	200	400	15	250	199	106	101	88	52	60	189	165	170	15.0	7643.00.05
MaxX 1000	1000	40	400	450	25	342	284	133	131	88	52	60	219	225	240	36.0	7643.00.10
MaxX 1500	1500	45	600	500	30	383	316	166	171	122	64	87	293	330	377	66.0	7643.00.15

Lifting Arm for MaxX Magnets

- Lifting Arm for MaxX Magnets, to make lifting plates easier.
- Specially adapted to the MaxX permanent lifting magnets
- For vertical lifting

Load cap. in kg	Dimension A in mm	Dimension B in mm	Weight in kg/pce	Item no.
250	803	265	10.0	7643.0A.02
500	976	300	18.0	7643.0A.05
1000	1075	332	19.0	7643.0A.10

Caution! 30% WLL reduction in vertical lift!



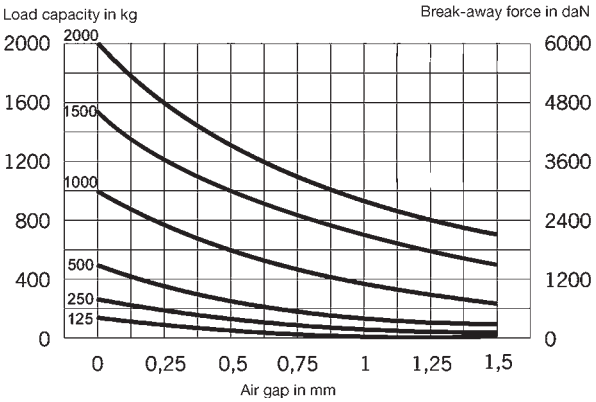
LOAD SUSPENSION EQUIPMENT

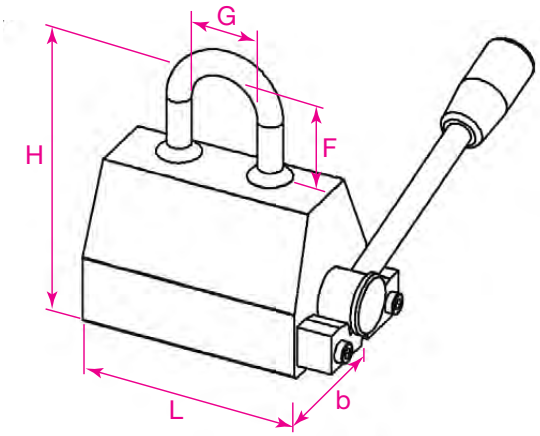
Lifting Magnets

CondorLift Permanent Lifting Magnet Type CSN

- Powerful permanent lifting magnet from the Condor own brand for maximum load capacity with enhanced security
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Each magnet comes with a test certificate and operating instructions

Performance graph





Caution!
Ensure clean magnet and even work-piece surfaces!

Product video:
carlstahl.de/CSN

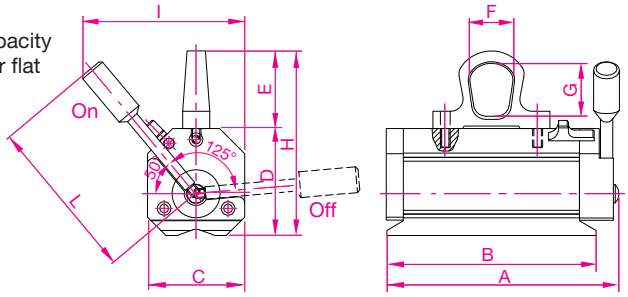
Type	Flat material Load capacity in kg at material thickness in mm		Round material Load capacity in kg at material Ø in mm			Dimensions in mm					Weight in kg	Item no.
	Load capacity	Mat. thickn.	Load capacity	Material Ø	Min. mat. thickn.	L	B	H	F	G		
CSN 125	125	25	40	50-100	10	95	60	110	40	30	3.0	7630.01.04
CSN 250	250	30	125	60-200	12	151	100	164	65	50	10.0	7630.01.08
CSN 500	500	40	250	65-270	20	246	120	168	65	50	19.0	7630.01.14
CSN 1000	1000	60	500	100-300	28	306	146	216	95	64	36.0	7630.01.33
CSN 1500	1500	70	750	150-350	34	375	165	253	92	64	68.0	7630.01.50
CSN 2000	2000	80	1000	150-350	40	480	165	253	92	64	90.0	7630.01.60

LOAD SUSPENSION EQUIPMENT
Lifting Magnets

Permanent Lifting Magnet MaxX TG

- Powerful permanent lifting magnet for thin plates and thin-walled pipes
- With its prismic bottom it is suitable for flat and round material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Easy-moving lever with safety lock
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Each magnet comes with a test certificate and operating instructions

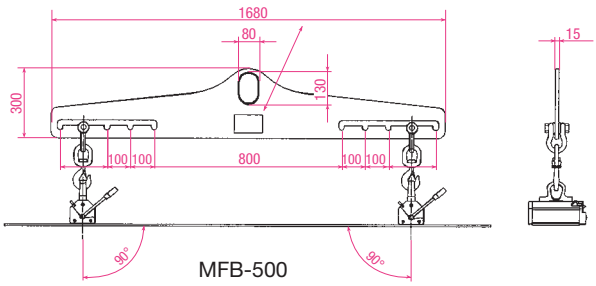
Option:
- Mini Lifting Beam Type MFB



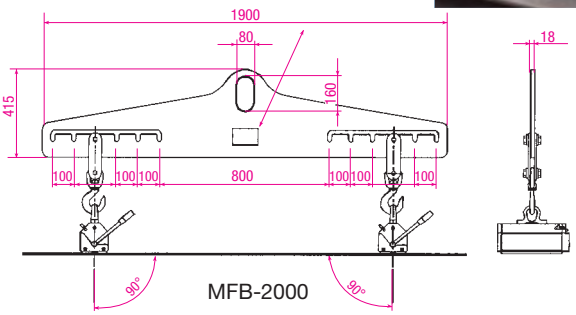
Type	Flat material Load capacity in kg at material thickness in mm		Round material Load capacity in kg at material ø in mm			Dimensions in mm										Weight in kg/pce	Item no.
	Cap.	Mat. thickn.	Cap.	Max. material Ø	Min. mat. thickn.	A	B	C	D	E	F	G	H	I	L		
MaxX TG 150	150	8	60	240	8	189	170	79	87	63	35	43	150	130	137	6.0	76TG.00.01
MaxX TG 300	300	10	120	290	10	250	230	106	101	88	52	60	189	165	170	16.0	76TG.00.03

Mini Lifting Beam Type MFB

- Mini Lifting Beam for Permanent Lifting Magnet MaxX TG to transport huge thin plates and long thin-walled pipes
- Specially adapted to the MaxX TG permanent lifting magnets
- MaxX TG in the following configuration: 2 lifting magnets combined with an MFB beam can handle thin plates of 5 mm and more.
- The pictured magnets and hooks are not included.



MFB-500



MFB-2000

MFB 500

Configuration	Flat material Max. capacity in kg	Flat material Max. length in mm	Flat material Max. width in mm	Round material Max. capacity in kg	Round material Max. length in mm	Weight in kg/pce	Item no.
2 MaxX 250	400	3000	1500	200	3000	37.0	7643.MT.05
2 MaxX TG 150	200	3000	1500	100	3000	37.0	7643.MT.05
2 MaxX TG 300	500	3000	1500	250	3000	37.0	7643.MT.05

MFB 2000

Configuration	Flat material Max. capacity in kg	Flat material Max. length in mm	Flat material Max. width in mm	Round material Max. capacity in kg	Round material Max. length in mm	Weight in kg/pce	Item no.
2 MaxX 500	800	3000	1500	400	3000	75.0	7643.MT.20
2 MaxX 1000	1500	3000	1500	750	3000	75.0	7643.MT.20
2 MaxX 1500	2000	3000	1500	1000	3000	75.0	7643.MT.20

LOAD SUSPENSION EQUIPMENT

Lifting Magnets

Battery Lifting Magnets BM and BMP with Infrared Remote Control

- Powerful permanent lifting magnet for high load capacities
- Model BM for lifting of flat materials
- Model BMP with prismic bottom for lifting of round and flat material
- Break-away force is at least 3 times the rated capacity
- WLL for round material is at least 50% of WLL for flat material
- Robust steel housing with control and charge unit and maintenance free 12 V battery
- Compact and sturdy design
- Big, bolted lifting eye suitable for load hooks according to the nominal load capacity
- Safety switch connected with crane eye avoids switching-off during lifting
- LED display shows battery charge level, acoustic signal, switch lock
- Magnet can be operated either by infrared handheld control (range 4.5 m) or by push-buttons on the magnet.
- Delivery includes 12 V battery and infrared remote control

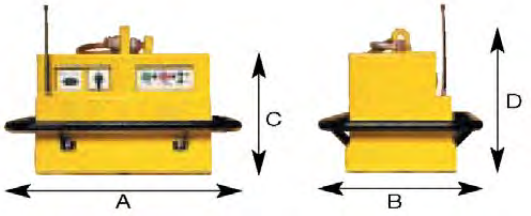
Item no.		7644.00.30	7644.00.55	7644.00.60	7644.00.50	7644.00.25
Type		BM 1350	BM 2500	BM 3600	BM 5000	BMP 1800
Magnet details		flat /1 magnet	flat /1 magnet	flat /1 magnet	flat /2 magnets	prismic /1 magnet
Flat material	Load capacity in kg	1350	2500	3600	5000	1800
	at mat. thickn. in mm	38	50	50	25	50
Round material	Load capacity in kg	-	-	-	-	1130
	at material Ø in mm	-	-	-	-	25-300
Length x Width in mm		272 x 242	400 x 242	1050 x 240	1200 x 300	470 x 242
Height up to crane hook in mm		460	460	460	460	610
Battery capacity in Ah		31	73	73	73	73
Discharge time at 50% duty		8	8	8	8	8
Weight in kg		60.0	72.0	180.0	203.0	167.0

Battery Lifting Magnet Type BAT GRIP with Radio Remote Control

Powerful permanent lifting magnet for ferrous metal loads of different shapes and sizes.

- High performance: The load can be stacked without spacers. It is always picked up from the top, without deformation or other damage to the load.
- Maximum safety: The load is exclusively held by the permanent magnetic force which remains constant without time limit and is independent of electric power supply.
- Long operating time: Over 500 MAG/DEMAG cycles are possible without recharging the battery. Low energy consumption.
- Easy handling: Even in restricted access areas the magnet can be operated by the radio remote control (range 30 m) without intervention of the operator
- Handle bar: A 360° tubular handle bar allows the magnet to be positioned easily and helps to avoid damage or accidents.
- Fast cycles: The MAG/DEMAG cycles take abt. 1 second and can be performed from either the remote control or by push-buttons on the magnet.
- Easy charging: The BAT GRIP is supplied with a built-in battery charger, complete with recharging cable.

- Delivery includes 12 V battery and remote control



Flat material				Round material				Dimensions in mm				Battery capacity in Ah	Weight in kg/pce	Item no.
Max. cap. in kg	Max. length in mm	Max. width in mm	Min. thickness in mm	Max. load in kg	Max. length in mm	Min. Ø in mm	Min. thickn. in mm	A length	B width	C height	D height w/ l. eye			
3000	3000	2500	25	700	2000	150	25	690	328	490	660	30	160.0	7680.00.30

LOAD SUSPENSION EQUIPMENT
Lifting Magnets

Permanent Lifting Magnet Model NEO-AIR

Powerful pneumatically operated permanent magnet for high load capacities

- BBi-stable pneumatic cylinder
- Suitable for flat and round material
- Compact, lightweight design
- Designed for frequent use
- Suitable for use with handling devices and robots

Item no.		7634.03.00	7634.05.00
Type		NEO-AIR 250	NEO-AIR 500
Flat material	Load capacity in kg	250	500
	at material thickness in mm	20	20
Round material	Load capacity in kg	125	250
	at material ø in mm	90-200	90-200
Nominal air pressure in bar		6	6
Dimensions length x width in mm		152 x 120	296 x 120
Height including lifting eye in mm		291/371	285/365
Weight in kg		25.0	47.0

Electro Permanent Lifting Magnet NEO-EP

Powerful pneumatically operated permanent magnet for high load capacities due to high-energy Neodym magnets

- Electrically operated permanent magnet
- Suitable for flat and round material
- Low power consumption after switching-on
- Magnetic force remains in case of power failure
- Strong holding force even on rough or uneven surfaces
- Push buttons for easy operation
- Low maintenance cost, no wearing parts

Typical fields of application:
- Loading and unloading of machine tools
- Lifting and transport in storage facilities
- Lifting and handling of workpieces in assembly and production
- Frequent handling with robots

Option:
- Remote control

Item no.		7633.01.25	7633.02.50	7633.05.00	7633.10.00
Type		NEO-EP 125	NEO-EP 250	NEO-EP 500	NEO-EP 1000
Flat material	Load capacity in kg	125	250	500	1000
	at material thickn. in mm	25	25	25	25
Round material	Load capacity in kg	60	125	250	450
	at material ø in mm	56-120	90-200	90-200	90-200
Power supply in VAC		230	230	230	230
Power consumption in A		2.5	4.7	6.7	8
Dimensions length x width in mm		210 x 65	270 x 125	370 x 125/167	445 x 125/167
Height to crane hook in mm		170	350	425	425
Weight in kg		13.0	40.0	54.0	70.0

Remote control

Item no.	7633.FE.B1	7633.FE.B1	7633.FE.B1	7633.FE.B1

LOAD SUSPENSION EQUIPMENT

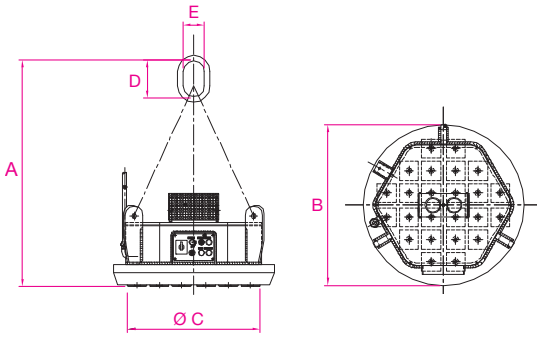
Special Magnets/Manual Magnets

Permanent Magnet Module Type SML

Permanent magnet module for handling single plates or semi-finished blocks

- Electrically switchable permanent magnet
- Ideal solution for handling loads with small air gap
- Excellent weight-capacity ratio
- Uniformly spread magnet force due to multipole circuit

Option:
- Cable drum ACV/1 with 12 m cable, preparation for integration in the remote control of the crane



Load capacity in kg	Length of load in mm	Width of load in mm	Min. load thickness in mm	Dimensions in mm A	B	C	a	E	Weight in kg/pce	Item no.
5000	1000-5000	1000-2500	8	1070	760	620	180	100	500	7643.SM.L50
10000	1000-5000	1000-2500	8	1140	950	830	266	133	700	7643.SM.L100
15000	1000-5000	1000-2500	8	1140	1350	1200	266	133	1000	7643.SM.L150

Permanent Magnet Claws Type MK and MK KS

The hand magnet claws are used for pulling sheets and profiles out of storage shelves and for handling of sharp-edged plates or flame-cut parts.

MK 120
- For hand operation
- Suitable for thin sheet metal and cut-outs with a thickness of 1 to 2 mm
- Capacity up to 120 kg
- Safety factor 1:2

MK 170
- For hand operation
- Suitable for medium-size sheet metal plates with a thickness of 1 to 5 mm
- Capacity up to 170 kg
- Safety factor 1:2

MK 300
- For hand operation
- Suitable for thick plates, heavily scaled sheet metal and small thermally cut parts with a thickness of 2 mm and more
- Capacity up to 300 kg
- Safety factor 1:2

MK 250 KS
MK 500 KS
- For crane operation
- Both types with crane eye
- Preferably for parts with bright or machined or only lightly scaled surfaces with a thickness of 4 mm and more
- Capacity MK 250 KS up to 250 kg
- Capacity MK 500 KS up to 300 kg
- Safety factor 1:3

MK 500 KS in operation

MK 170

MK 500 KS

Type	Operation	Load capacity in kg	Drag capacity in kg	Max.sheet thickness in mm	Contact surface in mm	Weight in kg/pce	Item no.
MK 120	Hand	120	70	1-2	140 x 84	1.4	7650.01.20
MK 170	Hand	170	100	1-4	140 x 116	1.8	7650.01.70
MK 300	Hand	300	180	ab 2	160 x 180	3.5	7650.03.00
MK 250 KS	Crane	250	100	ab 4	290 x 125	7.2	7650.02.50
MK 500 KS	Crane	300	125	ab 4	290 x 180	10.5	7650.05.00

LOAD SUSPENSION EQUIPMENT

Suction lifters with Pump

...play a major role when it comes to handling, transfer and assembly

Single Pad Suction Lifter with Hand Pump

- Special suction pad for curved or highly textured surfaces
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Safety factor 2
- Carrying case included

Specially suitable for highly curved or textured surfaces

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
80	vertical	601.2	curved + textured	220	1.71	8950.60.12

Single Pad Suction Lifter with Hand Pump

- Suction lifter with high load capacity for big loads
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Extra safety due to visual vacuum control
- Ergonomic designed handle with plastic coating
- Safety factor 2
- Carrying case included

Surface must be airtight to generate a vacuum.

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
120	parallel	601	smooth	210	1.63	8950.06.00
110	parallel	601.45	slightly textured, curved	210	1.63	8950.60.14

Single Pad Suction Lifter with Hand Pump

- Ergonomic suction lifter with high load capacity
- Lifter made from robust plastic
- Handle with anti-slip coating and larger gripping space for optimum comfort
- The rounded pump tappet allows quicker and more convenient operation
- TÜV tested and certified with the GS mark
- Ergonomic designed handle with plastic coating
- Safety factor 2
- Carrying case included

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
120	parallel	601BL	smooth	210	1.4	8950.60.13

Single Pad Suction Lifter with Hand Pump und Pressure Gauge

- Safety suction lifter made from strong aluminium with high load capacity for big and heavy loads
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Extra safety due to visual vacuum control
- TÜV tested and certified with the GS mark
- Safety factor 2
- Carrying case included

blue line

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Weight in kg/pce	Item no.
120	parallel	601.1BL	smooth	210	1.97	8950.601.1BL

LOAD SUSPENSION EQUIPMENT

Suction lifters

Single Pad Suction Lifter

- Single pad suction lifter for various load capacities
- Lifter made from strong aluminium
- Bow handle for one-handed use to enable quick, efficient working
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included

Surface must be airtight to generate a vacuum.

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. Ø mm x h	Weight in kg/pce	Item no.
30	vertical	600.0BL	smooth	120	120 x 100	0.51	8950.600.0BL
30	vertical	S0.0BL	smooth	120	120 x 100	1.51	8950.S0.0BL
25	vertical	600.02BL	slightly curved + textured	120	120 x 100	0.51	8950.600.02BL

Two Pad Suction Lifter with integrated Vacuum Indication

- Great carrying comfort due significantly bigger gripping area
- Lifter made from robust plastic
- Rocker lever with integrated vacuum indicator
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Newly designed rubber pad offers better holding performance
- Brief transportation of sand-blasted glass possible
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
50	parallel	602.10BL	smooth	120	343 x 120 x 77	0.24	8950.60.210BL

Two Pad Suction Lifter with lengthwise Handle and integrated Vacuum Indication

- Rocker lever suction pad with integrated vacuum indicator for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Visual control allows permanent surveillance of vacuum
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
50	vertical	602.44BL	smooth	120	345 x 120 x 80	0.98	8950.602.44BL

Two Pad Suction Lifter with lengthwise Handle

- Rocker lever suction pad for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Ergonomic hand grip with plastic coating
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
60	parallel	602.4BL	smooth	120	345 x 120 x 80	0.98	8950.602.4BL
60	parallel	S2.4BL	smooth	120	345 x 120 x 80	2.50	8950.S2.4BL
50	vertical	602.42BL	slightly curved + textured	120	345 x 120 x 80	1.00	8950.602.42BL

LOAD SUSPENSION EQUIPMENT

Suction lifters

Two Pad Suction Lifter with crosswise Handle

- Two pad suction lifter for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
70	parallel	602.0BL	smooth	120	320 x 120 x 90	1.10	8950.602.0BL
70	parallel	S2.0BL	smooth	120	320 x 120 x 90	2.67	8950.S2.0BL
50	vertical	602.02BL	slightly curved + textured	120	320 x 120 x 90	1.10	8950.602.02BL

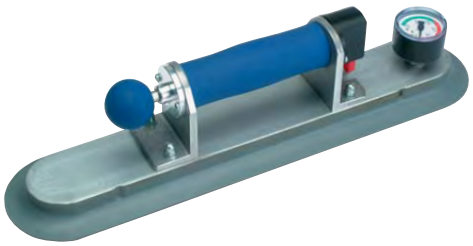
Three Pad Suction Lifter

- Three pad suction lifter for various load capacities
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- TÜV tested and certified with the GS mark
- Safety factor 2
- Robust plastic carrying case included

Load capacity in kg	Carrying direction	Type	Surface of the load	Suction pad Ø in mm	Dimensions ca. in mm	Weight in kg/pce	Item no.
100	parallel	603.0BL	smooth	120	345 x 230 x 80	1.43	8950.603.0BL
100	parallel	S3.0BL	smooth	120	345 x 230 x 80	3.97	8950.S3.0BL

Single Pad Suction Lifter with Hand Pump and Pressure Gauge

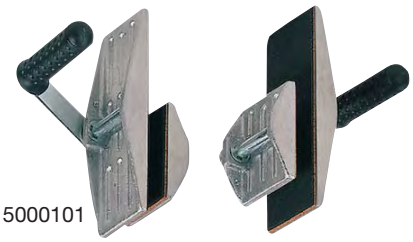
- Slim single pad suction lifter with hand pump and pressure gauge
- Lifter made from strong aluminium
- Suitable for materials with airtight surfaces like glass, plastic, metal, coated wood and marble etc.
- Visual control allows permanent surveillance of vacuum
- Safety factor 2
- Robust plastic carrying case included



Load capacity in kg	Carrying direction	Type	Material	Suction pad Ø in mm	Weight in kg/pce	Item no.
80	vertical	BO 6018	Metal	80 x 380	1.63	8950.60.18

Plate Carrying Device made from Light Alloy

- For gentle and safe transport of metal, wooden, light alloy, glass and plastic plates
- Made from strong aluminium
- The load is held firmly between 2 anti-slip rubber-lined pads: The heavier the load, the tighter the grip


Type 5000101

Type 5000200

Load capacity per pair in kg	Type	Grab range up to mm	Pad size in mm	Number of hand grips	Weight in kg/pce	Item no.
80	5000101	25	200 x 80	1	1.2	8950.50.00101
160	5000200	40	240 x 100	2	1.8	8950.50.00102

LOAD SUSPENSION EQUIPMENT

Vacuum Handling

Safe and ergonomic

Carl Stahl vacuum handling systems rationalise and humanise production processes allowing for effortless and efficient work piece handling. They convince by their fubctionality, safety, and ergonomics e.g. when loading machines. They combine an economic investment and an ergonomic work environment as they help to prevent health damage resulting from lifting and moving heavy loads. Vacuum handling systems rationalise production processes and reduce throughput times. Apart from that, they will improve motivation and productivity of your staff.

Ergonomic control elements for all applications

Handling of stainless steel sheets

Handling of wood and plastic panels

Handling of windows

Handling of solar panels

Handling of sacks

Handling of jerrycans

Handling of buckets

Handling of cardboard boxes

Suction lifters for handling of glass plates etc.

Selection criteria	VacuMaster (page 179)	Jumbo (pages 180-183)	Suction lifters
Work piece	Sheets, coils, wood and plastic panels, windows, glass plates, concrete slabs	Airtight and porous parts such as cardboard boxes, sacks, barrels, furniture, wood panels etc.	Smooth and gastight surfaces, also slightly curved and textured depeding on lifter type
Weight	Work pieces up to 2,000 kg, mainly big and two-dimensional parts	Work pieces up to 300 kg	Work pieces up to 120 kg
Speed	Vacuum lifting device grabs work pieces, chain hoist is used for lifting and lowering	Frequent and quick lifting and moving with only one device	Manual handling
Handling	Horizontal, 90° swivelling, 180° turning, ±90° vertical rotation	Horizontal, 90° swivelling	By hand

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

Vacuum Lifting Device VacuMaster – A ground-breaking new Generation of Vacuum Lifters

VacuMaster vacuum lifters are ideal for sheet metal, glass panels, wooden and concrete slabs with a maximum weight of 2,000 kg.

The VacuMaster holds the load while safe movement is effected by the crane. Up and down movement is carried out by an electric chain hoist.

Jib cranes and crane systems complement a complete custom-built solution for your individual requirements.

VacuMaster Basic, capacity 250 kg, horizontal

VacuMaster Basic – the extensive standard equipment

- Ergonomic handle bar
- Pump size, handle bar length, main and cross beam can be adapted to your individual application
- High variability
- Main beam with integrated vacuum reservoir and distributor
- Electronic warning device, non-return valve

VacuMaster Comfort – the “high end” equipment

- Basic configuration as VacuMaster basic
- Ergonomic operation thanks to integrated push button control
- Solenoid valve with two-hand operation for "vacuum off"
- Regulated vacuum pump with automatic energy-saving function
- Ergonomically integrated push-button control:
  - Hoist “up/down”
  - Vacuum “on/off”
  - For swivelling devices additionally: “vertical/horizontal”

VacuMaster Basic, capacity 250 kg, 90° rotation

The highlights of the new product range:

Main beam fabricated from aluminium profiles with integrated vacuum reservoir and distributor

Unique manual slide valve with non-jamming notch

Simple and easy moving of suction pads and cross beams thanks to state-of-the-art technical plastic material

Ergonomic handle bar with bracket for pendant control of hoist

VacuMaster with 90° and 180° electric rotation are available on request

VacuMaster Basic for horizontal handling

Type	Load capacity in kg	Handle bar length in mm	Delivery volume of pump in m^3/h	Suction pads		Beam length in mm		Selection help for metal sheets Format/thickness in mm	Dead weight in kg	Item no.
				Quantity	Ø in mm	Cross beam	Main beam			
VM Basic 125/2	125	645	4	2	210	-	1600	KF; 5.0-8.0	41	8940.02.01
VM Basic 125/4	125	645	4	4	125	750	1600	KF; 1.5-8.0 and MF; 3.0-5.0	50	8940.04.01
VM Basic 125/6	125	645	4	6	125	750	1600	KF; 0.5-8.0 and MF; 0.5-5.0	59	8940.06.01
VM Basic 250/2	250	645	4	2	250	-	1600	KF; >8.0	42	8940.02.02
VM Basic 250/4	250	645	4	4	210	750	1600	MF; >5.0	52	8940.04.02
VM Basic 250/6	250	645	4	6	160	750	1600	MF; 0.5-3.0 and GF; >0.5	57	8940.06.02
VM Basic 500/6	500	660	8	6	210	750	1600	GF; 0.5-10.0	75	8940.06.05
VM Basic 750/6	750	660	8	6	250	750	2400	GF; 0.5-20.0	89	8940.06.07

KF= small size: 1,000 x 2,000 mm, MF= medium size: 1,250 x 2,500 mm, GF = large size: 1,500 x 3,000 mm

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

Vacuum Tube Lifter JumboErgo and JumboSprint

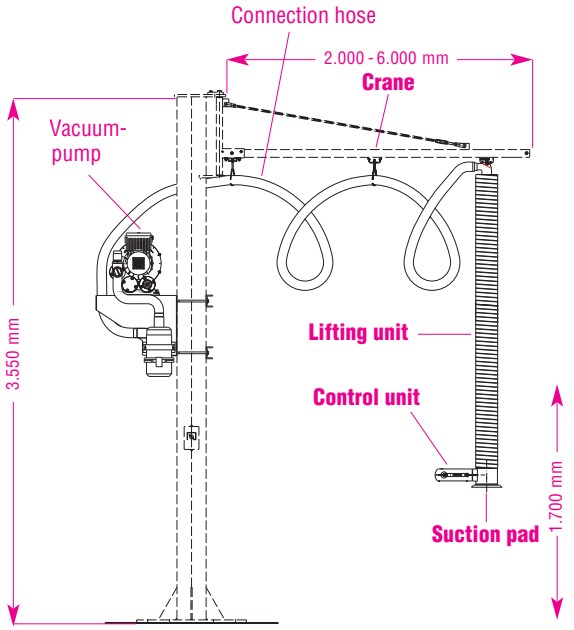
Versatile lifting and handling with a single device

The vacuum tube lifter Jumbo is used for frequent and fast lifting and handling of cardboard boxes, sacks, barrels, wood panels and many more loads up to 300 kg.

Jib cranes and crane systems complement a complete custom-built solution for your individual requirements.

JumboErgo
- Fast and sensitive handling of light and heavy loads using a turning handle (similar to motorcycle accelerator).
- Movable handle bar for load handling at great heights (option)

JumboSprint
- Precise and sensitive handling of heavy and bulky loads in rough environments or outdoors.
- Accurate handling of sacks, stones, slabs, raw rubber bales etc.



Crane, fastening kit for vacuum pump and connection hose suspension are not included.

JumboSprint
for carton handling

Tube lifter Jumbo – basic unit

Type	Load capacity in kg	Lifting speed in m/min	Power output in kW	Dead weight in kg	Item no. Ergo	Item no. Sprint
Jumbo 35	35	0-70	3.0	12	8915.00.35	8916.00.35
Jumbo 45	45	0-70	3.0	12	8915.00.45	8916.00.45
Jumbo 65	65	0-60	3.0	15	8915.00.65	8916.00.65
Jumbo 85	85	0-55	4.0	17	8915.00.85	8916.00.85
Jumbo 110	110	0-45	4.0	20	8915.01.10	8916.01.10
Jumbo 140	140	0-40	4.0	24	8915.01.40	8916.01.40

Scope of delivery: Vacuum pump 230/400 V, 50 Hz (sound pressure level approx.72 dB (A)), lifting unit (lifting height approx.1,700 mm) with control unit, rotation insert for rotating the lifting hose and the handle bar, painted RAL 7035 light grey.

Necessary components

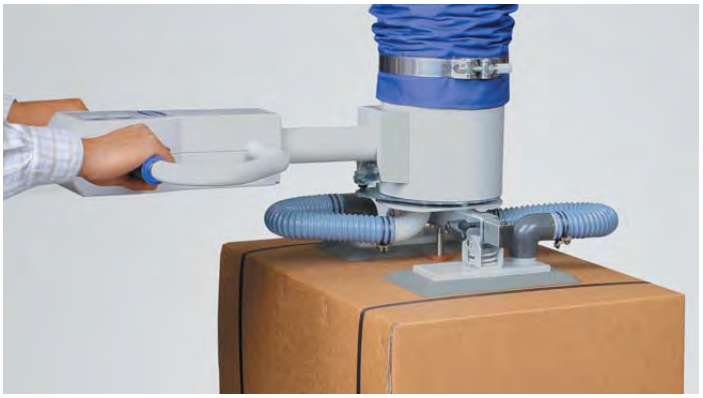
Description	Item no.
Air hose with inner Ø of 50 mm for connection between tube lifter and vacuum pump available in lengths of 9, 12, 15, 20 and 25 m	8917.00.01
Dust filter to protect the pump from damage and dirt	8917.00.04

When placing an order, a decision must be made as to whether the motor protection switch is selected as a built-in or surface switch. We will gladly help you to design your customised device.

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

Single pad EG with control unit Ergo (e.g. for smooth surfaces, big plates, cartons)



Double pad DG with beam and control unit Ergo (e.g. for open or closed cartons)

Sack pad SG with control unit Sprint (for plastic and paper sacks)

Round pad RG with control unit Sprint (for barrel and parts handling)

Suction pads available

Type	Item no. Single pad	Item no. Double pad*	Item no. Sack pad	Item no. Round pad
Jumbo 35	8917.10.35	8917.20.35	8917.30.35	8917.40.35
Jumbo 45	8917.10.45	8917.20.45	8917.30.45	8917.40.45
Jumbo 65	8917.10.65	8917.20.65	8917.30.65	8917.40.65
Jumbo 85	8917.10.85	8917.20.85	8917.30.85	8917.40.85
Jumbo 110	8917.11.10	-	8917.31.10	8917.41.10
Jumbo 140	8917.11.40	-	-	8917.41.40

*Double pads: Jumbo 35-85 has a beam length of 400 mm

On request:

- Quick-change adapter for fast and easy changing of different suction pads or mechanical grabs.
- Swivelling units (also pneumatic) for vertical turning of 2-dimensional loads
- Frequency-controlled air pump: Throughput is adjustable for work pieces of different porosity and also with variable weights
- Pneumatic noise insulation hood to reduce sound level of pump to approx. 65 dB(A)
- Adapter kit for attachment of vacuum pump to pillar jib crane
- Other lifting heights (up to 2,100 mm)
- Compressed air drive
- Country-specific electric versions
- Stainless steel versions
- Remote control SRC for electric vacuum pump integrated in hand-held control

Also available in explosion protected version. For detailed information see pages 68-69.

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

JumboFlex – the innovative Solution!

- Load capacity 20/35/50 kg
- Single-hand control for right- and left-handers
- Fast and sensitive
- High energy efficiency
- Many features like quick change adapter, flexible load suction, unlimited rotation, air filter, and „load balancing“ setting are integrated.
  See description below.

JumboFlex for handling cardboard boxes

Tube lifter JumboFlex – basic unit

Type	Load capacity in kg	Lifting height in mm	Lifting speed in m/min.	Power output in kW	Sound pressure lev. dB (A)	Dead weight in kg	Item no.
JumboFlex 20	20	1500	0-40	0.8	67	4.0	8918.00.01
JumboFlex 20	20	1800	0-40	0.8	67	4.2	8918.00.02
JumboFlex 35	35	1500	0-50	1.25	67	4.7	8918.00.03
JumboFlex 35	35	1800	0-50	1.25	67	4.9	8918.00.04
JumboFlex 50	50	1500	0-60	2.4	72	6.1	8918.00.11
JumboFlex 50	50	1800	0-60	2.4	72	6.5	8918.00.12

Scope of delivery: Vacuum pump 400V/50Hz, lifting tube with control unit, rotating insert for free rotation of the lifting tube and the control unit, protective tube, quick change adapter, rotating unit, slewing unit

Necessary components

Bezeichnung	Item no.
Air hose with inner Ø 25 mm for connection between tube lifter and vacuum pump (Price per m) for JumboFlex 20/35	8918.00.09
Air hose with inner Ø 32 mm for connection between tube lifter and vacuum pump (Price per m) for JumboFlex 50	8918.00.19

When placing an order, a decision must be made as to whether the motor protection switch is selected as a built-in or surface switch. We will gladly help you to design your customised device.

Integrated quick change adapter
- Tube lifter with quick change adapter
- Suction pads can be changed within a second without any tools

Flexible load suction
- The suction pad swivels by 90° and allows lateral load suction
- After being picked up, the load automatically moves into a horizontal position

Unlimited rotation
- The JumboFlex tube lifter rotates through 360°
- The load can also can also be rotated below the control unit and can be locked in 90° steps

Filter and ‘load balancing’ setting
- Filter is easy to remove for cleaning or replacement without any tools
- Easy setting of the floating height without load

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

Round pad RG
- Ideal adaption to different workpieces
- Integrated quick change adapter

Double pad DG
- For handling cardboard boxes, solar panels and other objects
- Integrated quick change adapter

Sack pad SG
- For handling plastic sacks up to 40 kg
- Integrated quick change adapter

Hook EH
- For handling of buckets, jerrycans etc. up to 50 kg
- For mechanical connection of different workpieces
- Integrated quick change adapter

Multiple suction pads

Box grab

Grabs for your specific application on request.
Multiple suction pads and box grabs are shown here as examples of special grabs.
Please contact us with your enquiries.

Suction pads available

Type	Item no. **Round pad RG**	Item no. **Double pad DG**	Item no. **Sack pad SG**	Item no. **Hook EH**
JumboFlex 20	8918.00.05	8918.00.06	-	8918.00.10
JumboFlex 35	8918.00.05	8918.00.06	8918.00.07	8918.00.10
JumboFlex 50	8918.00.13	8918.00.16	8918.00.14	8918.00.17

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

VacuMaster Eco

VacuMaster Eco for handling of sheet metal

Application

Horizontal handling of smooth and airtight work pieces without external energy supply.
- e.g. sheets, metal plates, barrels and stone slabs

Layout and function

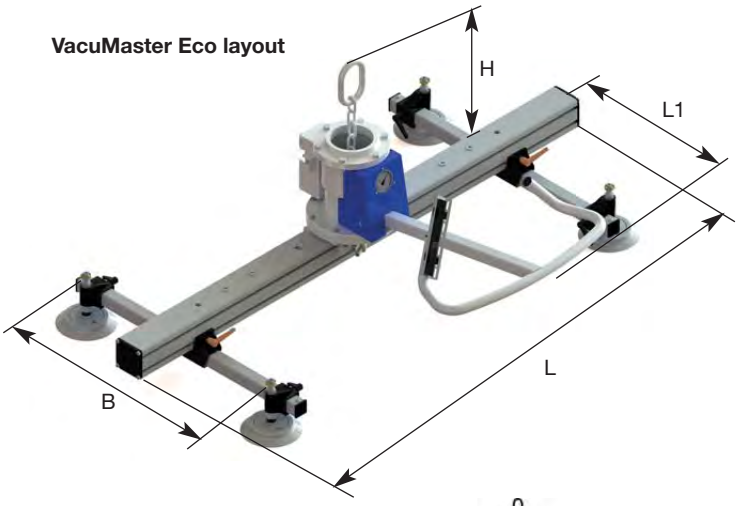
- Modular vacuum lifting device with piston-system for vacuum generation without external energy
- Vacuum generated by lifting movement of the chain hoist (not included)
- Aluminium main beam with integrated vacuum distributor
- Battery-powered warning device with battery test function for vacuum loss
- Suction pads are easily adjustable

Your benefit

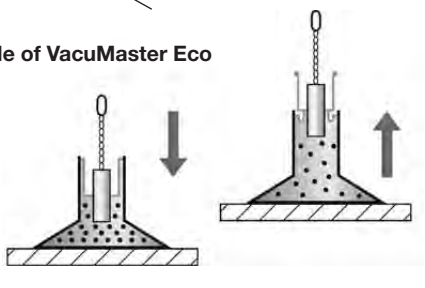
- Gentle and safe vacuum handling
- Flexible use as independent of energy source
- Fast installation and set-up
- Minimised operating costs

Item no. 8940.00.00

VacuMaster Eco layout



Technical principle of VacuMaster Eco



no suction suction

Versions with 1-8 suction pads are available. Prices on request

Please contact our specialists for product details!

Type	Max. load capacity* kg	Work piece size in mm minimum	Work piece size in mm maximum	Dimensions in mm L	Dimensions in mm B	Headroom h mm	Handle bar L1 mm	Number of suction pads	Dead weight in kg
Eco 75	75	220 x 220	1000 x 1000	210	210	368 - 382	-	1	8
Eco 250	250	360 x 360	3000 x 2000	800 - 2400	400 - 1500	450 - 825	400 - 1100	1, 2, 4, 6, 8	33 - 59
Eco 500	500	480 x 480	4000 x 2000	800 - 3200	400 - 1500	605 - 1130	500 - 1200	1, 2, 4, 6, 8	93 - 141
Eco 750	750	900 x620	4000 x 2000	800 - 3200	400 - 1500	735 - 1130	500 - 1200	4, 6, 8	132 - 141

* The minimum weight of the work piece must be at least 10% of the rated capacity.

LOAD SUSPENSION EQUIPMENT

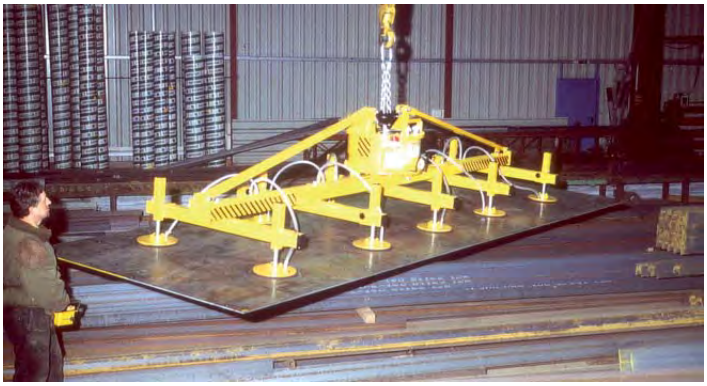
Vacuum Lifting Devices

Self-suction Vacuum Lifting Device for smooth and non porous Loads

Load capacities up to 4,000 kg

- Independent from electric power supply
- Automatic switching mechanism
- Plug and play – immediately ready for use
- Standard and individual solutions for different surfaces
- Largely maintenance-free even under heavy duty conditions.
- Gentle transport of loads with sensitive surfaces.
- Enhanced safety by additional optical and acoustic warning device (according to DIN EN 13155) DIN EN 13155
- Easy operation e.g. by the crane control
- Suitable for in- and outdoor use

All versions of a specific type use the same basic unit. Different beam types, suction pad arrangements and high quality sealing rings are available. If required the devices can be fitted with oil- or heat-resistant sealing rings.



Type	Load capacity in kg	Number of suction pads / Ø D in mm	Pad arrangement	Dimensions in mm Length/Width/Height	Dead weight in kg	Item no.
U 01-E	75	1/ 210	single	- / - / 440	6.7	8911.00.01
U 02-E	270	1 / 350	single	- / - / 615	25	8911.00.03
U 02-2	300	2 / 350	single-row	150 / 815	67	8911.20.03
U 02-4	300	4 / 250	single-row	2000 / 880	68	8911.40.03
U 02-6	270	6 / 210	double-row	2000 / 1000 / 930	86	8911.60.03
U 075-E	640	1 / 480	single	- / - / 850	78	8911.00.07
U 075-6	650	6 / 250	double-row	2250 / 1000 / 1210	175	8911.60.07
U 075-2	750	2 / 415	single-row	1500 / 1070	141	8911.20.07
U 075-3	750	3 / 350	single-row	2000 / 1180	151	8911.30.07
U 125-E	1100	1 / 625	single	- / - / 950	135	8911.00.12
U 125-4K	1000	4 /350	single-row	2500 / 1300	250	8911.40.10
U 125-2	1250	2 / 625	single-row	1500 / 1220	250	8911.20.12
U 125-4L	1250	4 / 415	single-row	4000 / 1320	355	8911.40.12

Available with a load capacity of up to 4,000 kg.
Higher load capacities also possible when combining 2 devices.
Prices on request.

LOAD SUSPENSION EQUIPMENT

Vacuum Lifting Devices

Electric Vacuum Lifting Devices for horizontal and vertical Transport

Load capacities up to 50,000 kg are possible

- Standard and individual solutions
- Flexible configurations for different loads and surfaces
- Easy control by lever valves, on request also cable remote control with key pad, radio remote or automatic control
- 90° or 180° rotation avialable as option
- Safe in case of power outage
- Enhanced safety thanks to optical-acoustic warning device acc. to DIN EN 13155
- Power supply (230 V - 500 V, 24 V, battery-powered on request)

Type	Load capacity in kg	Number suction pads/Ø D in mm	Dimensions L/W/H in mm	Dead weight in kg	Item no.
H-E-150	150	1/ 270	480 / 350 / 700	48	8912.00.01
H-E-750	750	1 / 650	650 / 650 / 700	70	8912.00.02
H-2-150	150	2 / 170	1500 / 350 / 800	90	8912.00.03
H-2-1000	1000	2 / 495	1500 / 500 / 870	140	8912.00.04
H-4Q-150	150	4 / 180	1800 / 800 / 770	110	8912.00.05
H-4Q-500	500	4 / 270	1800 / 800 / 790	130	8912.00.06
H-6Q-150	150	6 / 130	2200 / 1000 / 870	90	8912.00.07
H-6Q-1250	1250	6 / 340	2200 / 1000 / 900	200	8912.00.08
H-8Q-300	300	8/ 210	3200 / 1400 / 900	110	8912.00.09
H-8Q-750	750	8 / 210	3200 / 1400 / 900	130	8912.01.00

Configurations shown are exemplary. Customised versions are available on request.

Available up to 50,000 kg load capacity.
Prices on request.

LOAD SUSPENSION EQUIPMENT

Hanging Scales/Crane Scales

Hanging Dial Scale Type ST 120

Robust, mechanical spring scale with large dial protected by shock-proof Plexiglas

- Accuracy: ± 1 % of full scale
- Sturdy metal construction
- Durable two-component finish
- Mechanical protection for 20% static overload
- Movable suspension eye on top and bottom of scale.

Weighing range in kg	Scale divisions in g	Dial Ø in mm	Item no.
0 - 5	20	150	7931.00.05
0 - 10	50	150	7931.00.10
0 - 20	100	150	7931.00.20
0 - 25	100	150	7931.00.25
0 - 50	200	150	7931.00.50
0 - 100	500	150	7931.01.00
0 - 150	1000	200	7931.01.50
0 - 200	1000	200	7931.02.00
0 - 300	2000	200	7931.03.00

Crane Scale Type 30 H

Robust, mechanical industrial spring scale with large dial protected by shockproof Plexiglas.

- Accuracy: ± 1 % of full scale
- Zero correction ± 5%
- Red maximum indicator
- Water-protected dial housing
- Durable two-component finish
- Mechanical protection for 25% overload
- Safety factor 4 against breaking
- Movable suspension eye (shackle) on top of scale
- Movable load hook (DIN) with safety catch on bottom of scale
- Dial ø approx. 160 mm

Option:
- Version with 2 shackle connections also available

Weighing range in kg	Scale divisions in kg	Overall length A in mm	Dead weight in kg	Item no.
0 - 500	5	550	6.0	7930.20.05
0 - 1000	10	550	6.0	7930.20.10
0 - 2000	20	580	6.0	7930.20.20
0 - 3000	25	640	13.0	7930.20.30
0 - 5000	50	680	14.0	7930.20.50
0 - 6000	50	680	15.0	7930.20.60

Hydraulic Crane Scale Type WS-ZK

Robust, hydraulic industrial spring scale with large dial protected by shockproof Plexiglas.

- Accuracy: ± 1 % of full scale
- Long service life due to sturdy construction
- Dial and housing protected by Plexiglas and shock-absorbing edges
- Dustproof construction
- Accuracy 1% of result
- Low self weight
- With spring loaded safety device

Option:
- Remote reading possible
- Other measuring ranges available

Weighing range in kg	Scale divisions in kg	Overall length A in mm	Dead weight in kg	Item no.
0 - 1250	5	230	5.0	7932.00.05
0 - 2000	10	230	5.0	7932.00.10
0 - 5000	20	300	6.5	7932.00.20

LOAD SUSPENSION EQUIPMENT

Load Measuring Devices

Electronic Dynamometer Type LLZ

Reasonably priced electronic measuring device with digital display for measuring tensile forces and displaying the load

- Precision ± 0.8% of full scale
- LCD digit height 18 mm
- Shock-proof and water-resistant: Protected IP 65
- Safety factor 6
- Operating temperatures -10°C to + 40°C (14°F to +104°F)
- Low energy consumption
- Weather-resistant plastic foil keypad on front below display
- Tare supression for the full measuring range
- Automatic zero when switched on
- Automatic shutdown to save batteries

Suitable shackles (curved) can be found on page 448

Measuring range in to	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg	Item no.	Item no.
0.25	0.5	220 x 90 x 42	1.1	7912.00.02	5650.G0.15
0.5	1.0	220 x 90 x 42	1.1	7912.00.05	5650.G0.15
1	2.0	220 x 90 x 42	1.1	7912.00.10	5650.G0.15
2	5.0	233 x 90 x 48	1.3	7912.00.20	5650.G0.32
3.2	5.0	243 x 97 x 48	1.5	7912.00.32	5650.G0.32
6.4	10.0	275 x 115 x 48	2.3	7912.00.64	5650.G0.65
10	20.0	325 x 110 x 62	4.0	7912.01.00	5650.G1.35
20	50.0	371 x 134 x 72	7.0	7912.02.00	5650.G2.50

Digital Dynamometer and Load Indicator Type LLX1

Electronic dynamometer for precisely measuring tensile forces and displaying the load

- High precision: 0.2% of full scale
- Digit height 18 mm
- Shock-proof and water-resistant: Protected IP 65
- Safety factor 4
- Operating temperatures -20°C to + 40°C (-4°F to +104°F)
- Low energy consumption - up to 450 hrs with 1 set of batteries
- Radio remote control with 40 m range
- Easy operation due to clear menu navigation
- Tare supression for the full measuring range
- Automatic zero when switched on
- Automatic shutdown to save batteries

Option:
- Remote for Indicator Type LLX1 can be found on page 190

Suitable shackles (curved) can be found on page 448

Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg	Item no.	Item no.
0.5	0.2	220 x 196 x 47.5	1.1	7911.30.05	5650.G0.15
1	0.5	220 x 196 x 47.5	1.1	7911.30.10	5650.G0.15
2	1	233 x 207 x 47.5	1.3	7911.30.20	5650.G0.32
3.2	1	243 x 207 x 47.5	1.5	7911.30.32	5650.G0.32
5	2	275 x 217 x 47.5	2.3	7911.30.50	5650.G0.65
6.3	2	275 x 217 x 47.5	2.3	7911.30.63	5650.G0.65
12.5	5	343 x 257 x 66.5	4.3	7911.31.25	5650.G1.35
20	10	371 x 269 x 67	7.0	7911.32.00	5650.G2.50

For loads exceeding 20 tons please use dynamometers type LLXh.

Digital Dynamometer LLX2

Electronic dynamometer with detachable and network-capable remote control/display unit and USB port

- High precision ± 0.2 % of full scale
- LCD digit height 25 mm
- Shock and weather-proof: protected IP 65
- Remote shock and weather-proof: protected IP 54
- Safety factor 4
- Operating temperatures -20°C to + 40°C (-4°F to +104°F)
- Low energy consumption (1,000 hrs depending on application)
- Range of radio control up to 80 m
- Easy operation due to clear menu navigation
- Parallel anchorage points on a single level

Option:
- Also available with IP67 protection
- PC connection kit (see page 190)
- Remote for LLX2 and LLXh (see page 190)

Suitable shackles (curved) can be found on page 448

Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg*	Item no. with remote	Item no. without remote	Item no.
15	5	320 x 110 x 58	3.8	7913.01.50	7914.01.50	5650.G1.70
25	10	360 x 134 x 68	6.6	7913.02.50	7914.02.50	5650.G2.50
50	20	440 x 164 x 98	15.1	7913.05.00	7914.05.00	5650.G5.50
100	50	660 x 260 x 118	46.0	7913.10.00	7914.10.00	5661.G1.200
250	100	905 x 424 x 248	215.0	7913.25.00	7914.25.00	5662.G0.250

Digital Dynamometer Type LLX2

Electronic dynamometer with detachable and network-capable remote control/display unit and USB port

- High precision: 0.1% of full scale
- LCD digit height 25 mm
- Shock and weather-proof: protected IP66
- Remote shock and weather-proof: protected IP 54
- Safety factor 4
- Operating temperatures -20°C to + 40°C (-4°F to +104°F)
- Low energy consumption - up to 1,000 hrs
- Range of radio control up to 80 m
- Easy operation due to clear menu navigation
- Anchorage points on multiple levels, arranged in a cross formation

Option:
- Also available with IP67 protection
- PC connection kit (see page 190)
- Remote for LLX2 and LLXh (see page 190)
- Parallel (coplanar) anchorage points also possible

Suitable shackles (curved) can be found on page 448

Measuring range in t	Min. increment in kg	Dimensions L x W x D in mm	Weight in kg*	Item no. with remote	Item no. without remote	Item no.
0.5	0.1	248 x 100 x 100	2.3	7913.00.05	7914.00.05	5650.G0.32
1.0	0.2	248 x 100 x 100	2.3	7913.00.10	7914.00.10	5650.G0.32
2.0	0.5	248 x 100 x 100	2.3	7913.00.20	7914.00.20	5650.G0.32
3.2	0.5	248 x 100 x 100	2.3	7913.00.32	7914.00.32	5650.G0.32
5.0	1.0	290 x 100 x 100	3.4	7913.00.50	7914.00.50	5650.G0.65
6.3	1.0	290 x 100 x 100	3.4	7913.00.63	7914.00.63	5650.G0.65
10.0	2.0	341 x 100 x 100	6.5	7913.01.00	7914.01.00	5650.G1.20

LOAD SUSPENSION EQUIPMENT

Load Measuring Devices, Accessories

Digital Dynamometer Type handifor

NEW!

Digital dynamometer used to measure forces and indicate loads in a miniature version

- High precision ± 0.5 % of full scale
- Digit height 14 mm
- Dynamometer, protected against foreign bodies: Protected IP 40
- Safety factor 4
- Operating temperatures -10°C to +50°C
- Low energy consumption - up to 100 hrs with 1 set of batteries
- Units can be set to kg/lbs or daN
- Easy operation due to clear menu navigation
- Tare supression for the full measuring range
- Automatic shutdown to save batteries

Suitable shackles (curved) can be found on page 448

Measuring range in kg	Min. value in kg	Dimensions L x W x D in mm	Weight in kg	Item no.	Item no.
20	0.1	152 x 70 x 30	0.5	7971.00.20	5650.G0.15
50	0.2	152 x 70 x 30	0.5	7971.00.50	5650.G0.15
100	0.2	152 x 70 x 30	0.6	7971.01.00	5650.G0.15
200	0.5	152 x 70 x 30	0.9	7971.02.00	5650.G0.15

Remote Control for Dynamometer Type LLX1

Detachable operating unit for remotely reading the measurements

- Digit height: 25 mm
- Range: 40 m
- Remote shock and weather-proof: protected IP 54
- Display only for the dynamometer LLX1!

Measuring range in t	Dimension L x W x D in mm	Weight in kg	Item no.
0.5 - 20	131 x 26.7 x 82	0.2	7911.3G.01

Remote Control for LLX2 & LLXh

Detachable operating unit for remotely reading the measurements

- Digit height: 25 mm
- Range: 80 m
- Remote shock and weather-proof: protected IP 54
- Display suitable for the dynamometers LLX2 and LLXh!
- Integrated alarm function on reaching a configurable measurement
- Suitable for the use of multiple dynamometers at the same time

Measuring range in t	Dimensions L x W x D in mm	Weight in kg	Item no.
0.5 - 250	131 x 26.7 x 82	0.2	7913.B0.01
Attachment set for the operating unit			7913.B0.02

PC connection kit

The PC connection kit allows to record measuring results and process them on the PC.

This software allows parallel display of the measuring results of up to 8 dynamometers. The results can be displayed as numerical values or diagrams. The values can also be saved in Excel format and printed as spreadsheets or diagrams.

LOAD SUSPENSION EQUIPMENT

Hanging Scales

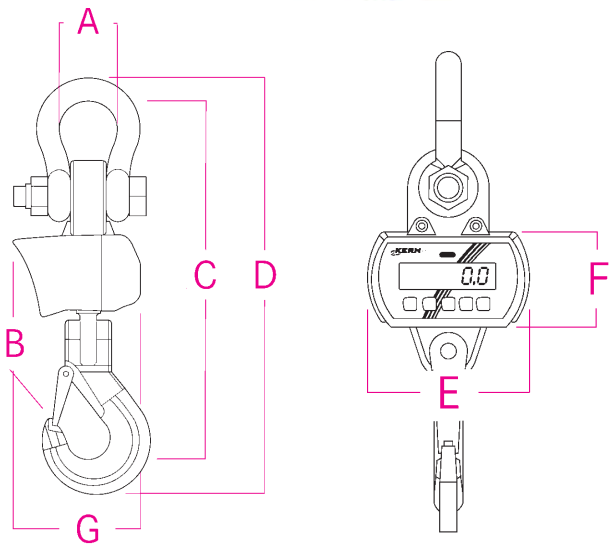
Digital Crane Scale Type HTS, version suitable for calibration NEW!

Professional scale for demanding applications in production, quality control, logistics etc.

Complies with the requirements of standards EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Safety requirements for electrical equipment)

- Precision 0.1% of full scale
- Digit height 25 mm
- Sturdy construction and robust design
- Large display
- Operating temperatures -20° C to + 40° C
- Legibility can be adjusted to adapt the display to tougher ambient conditions
- Range of the infrared remote control: approx. 8 m. All functions can be selected. 9 V battery
- Infrared remote operation as standard. (WxDxH): 65x24x100
- Battery operation for up to 100 hours. Charging period: 12 hours via 230 V mains adapter
- Visual battery status indicator using LEDs
- Swivelling hook with safety latch
- Gross/tare/net indicator using LEDs
- Stand-by function: display switches off automatically after 5 minutes without a change to the load
- Tare range: 100% of the measured value
- Tare: Resets the display to „0“ while scale is loaded. Now removed or added loads will be displayed immediately.

Infrared remote operation



Max. measuring range	Type	Readout in g	Minimum value in in kg	Dimensions in mm							Net weight in kg	Item no.
				A	B	C	D	E	F	G		
1500	HTS 1T-4AM	500	10	33.3	29	314.6	359.3	200	121	181	20	7973.00.15
3000	HTS 3T-3AM	1000	20	42.9	47	346.75	369.25	200	121	181	20	7973.00.30
6000	HTS 6T-3AM	2000	40	58	55	440	518.6	200	121	181	20	7973.00.60
10000	HTS 10T-3AM	5000	100	82.6	61	535.35	628.35	200	121	181	20	7973.01.00

LOAD SUSPENSION EQUIPMENT

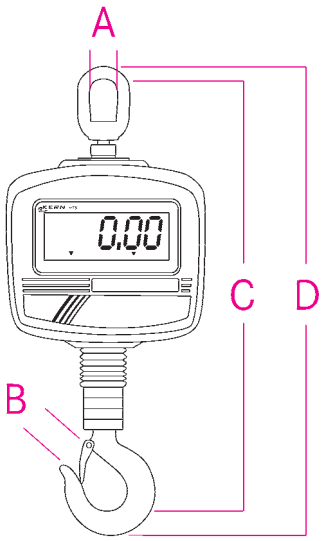
Hanging Scales

Digital Crane Scale Type HFB with Radio Remote Control and second rear-facing Display

Professional scale for demanding applications in production and for permanent use in industrial applications

Complies with the requirements of standards EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Safety requirements for electrical equipment)

- Precision 0.2% of full scale
- Digit height 25 mm
- Display size (WxDxH): 163x126x158.5
- Operating temperatures 0° C to + 40° C
- Range 20 m. All functions (except ON/OFF) can be selected.
- Large remote control unit (WxDxH): 48x10x95
- Battery operation for up to 40 h. Charging period: 14 h via 230 V mains adapter
- Visual battery status indicator using LEDs
- Swivelling hook with safety latch.
- Adjustment using adjustment program CAL
- Data-Hold mode. By pressing the HOLD key the last weighing result can be „frozen“ untill it is pressed again.
- Tare: Resets the display to „0“ while scale is loaded. Now removed or added loads will be displayed immediately.



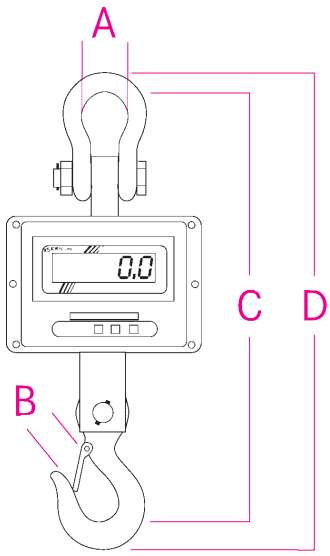
Max. weighing range in kg	Type	Readout in g	Housing dims. (W x D x H)	Dimensions in mm				Net weight in kg	Item no.
				A	B	C	D		
150	HFB 150K50	50	163 x 126 x 158.5	26	25	358	390	3.2	7973.01.50
300	HFB 300K100	100	163 x 126 x 158.5	26	25	358	390	3.2	7973.03.00
600	HFB 600K200	200	163 x 126 x 158.5	26	25	358	390	3.2	7973.06.00

Digital Crane Scale Type HFM with Radio Remote Control

Professional scale for demanding applications in production and for permanent use in industrial applications

Complies with the requirements of standards EN 13155 (Non-fixed load lifting attachments) and EN 61010-1 (Safety requirements for electrical equipment)

- Precision 0.2% of full scale
- Digit height 30 mm
- Display size (WxDxH): 163x126x158.5
- Operating temperatures 0° C to + 40° C
- Legibility can be adjusted to adapt the display to tougher ambient conditions
- Range 20 m. All functions (except ON/OFF) can be selected.
- Large remote control unit (WxDxH): 48x10x95
- Battery operation for up to 50 h. Charging period: 14 h via 230 V mains adapter
- Visual battery status indicator using LEDs
- Swivelling hook with safety latch.
- Adjustment using adjustment program CAL
- Data-hold function. The indicated weight can be "frozen" by pressing the HOLD key until this key is pressed again.
- Tare: Resets the display to "0" while scale is loaded. Now removed or added loads will be displayed immediately.



Max. weighing range in kg	Type	Readout in g	Housing dims. (W x D x H)	Dimensions in mm				Net weight in kg	Item no.
				A	B	C	D		
1000	HFM 1T0.1	100	270 x 175 x 200	80	40	540	610	15.0	7973.00.1000
3000	HFM 3T0.5	500	270 x 175 x 200	75	50	540	610	16.5	7973.00.3000
5000	HFM 5T0.5	500	300 x 190 x 230	75	50	650	730	25.0	7973.00.5000
10000	HFM 10T1	1000	300 x 190 x 230	100	60	750	840	37.0	7973.01.0000

LOAD SUSPENSION EQUIPMENT

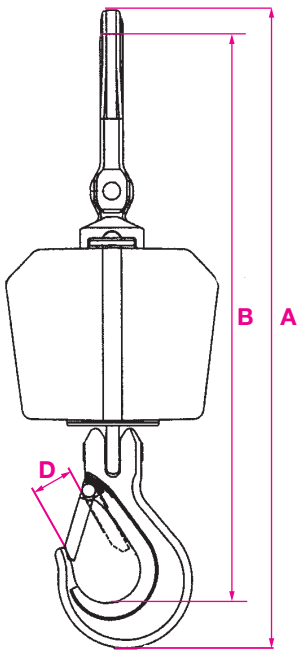
Hanging Scales

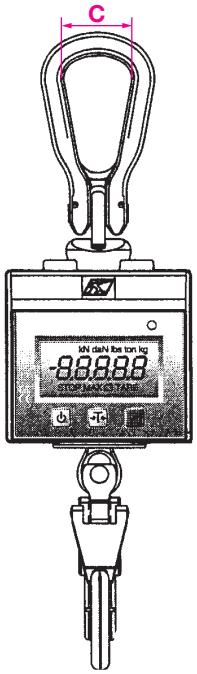
Digital Crane Scale Type MWX++

The new generation of digital Carl Stahl crane scales with a measuring range up to 12.5 ton can be connected with any attachment point.

- Precision 0.1% of full scale
- Shock and weather-proof: protected IP65
- Scale with aluminium housing
- Safety factor 4
- Operating temperatures -10°C to +40°C
- Low energy consumption
- Operated by weather-proof plastic foil keypad located on the front side below the display
- Tare suppression over the whole measuring range
- Automatic zero when switched on
- Automatic shutdown to save batteries
- Made of aluminium

Option:
- PC connection kit (see page 190)





Type MWX++ including batteries

Max. measuring range in t	Minimum value in kg	Weighing unit dimensions (L x W x H) in mm	Digit height in mm	Dimensions in mm A	B	C	D	Weight in kg	Item no.
0.5	0.2	136 x 160 x 126	25	470	423	50	30	4.3	7925.00.05
1.0	0.5	136 x 160 x 126	25	470	423	50	30	4.3	7925.00.10
2.0	1.0	136 x 160 x 126	25	470	423	50	30	4.3	7925.00.20
3.2	1.0	136 x 160 x 126	25	470	423	50	30	4.3	7925.00.32
5.0	2.0	206 x 203 x 167	44	694	620	85	41	9.0	7925.00.50
6.3	2.0	206 x 203 x 167	44	694	620	85	41	9.0	7925.00.63
12.5	5.0	206 x 203 x 167	44	913	800	98	63	20.5	7925.01.25

Type MWX++IR with infrared remote control

Max. measuring range in t	Minimum value in in kg	Weighing unit dimensions (L x W x H) in mm	Digit height in mm	Dimensions in mm A	B	C	D	Weight in kg	Item no.
0.5	0.2	136 x 160 x 126	25	470	423	50	30	4.3	7920.00.05
1.0	0.5	136 x 160 x 126	25	470	423	50	30	4.3	7920.00.10
2.0	1.0	136 x 160 x 126	25	470	423	50	30	4.3	7920.00.20
3.2	1.0	136 x 160 x 126	25	470	423	50	30	4.3	7920.00.32
5.0	2.0	206 x 203 x 167	44	694	620	85	41	9.0	7920.00.50
6.3	2.0	206 x 203 x 167	44	694	620	85	41	9.0	7920.00.63
12.5	5.0	206 x 203 x 167	44	913	800	98	63	20.5	7920.01.25

Type MWX++TR with radio remote control (frequency 433.92 Mhz)

Max. measuring range in t	Minimum value in in kg	Weighing unit dimensions (L x W x H) in mm	Digit height in mm	Dimensions in mm A	B	C	D	Weight in kg	Item no.
0.5	0.2	136 x 160 x 126	25	470	423	50	30	4.3	7921.00.05
1.0	0.5	136 x 160 x 126	25	470	423	50	30	4.3	7921.00.10
2.0	1.0	136 x 160 x 126	25	470	423	50	30	4.3	7921.00.20
3.2	1.0	136 x 160 x 126	25	470	423	50	30	4.3	7921.00.32
5.0	2.0	206 x 203 x 167	44	694	620	85	41	9.0	7921.00.50
6.3	2.0	206 x 203 x 167	44	694	620	85	41	9.0	7921.00.63
12.5	5.0	206 x 203 x 167	44	913	800	98	63	20.5	7921.01.25

LOAD SUSPENSION EQUIPMENT

Hanging Scales

Digital Crane Scale Type LD and LDN

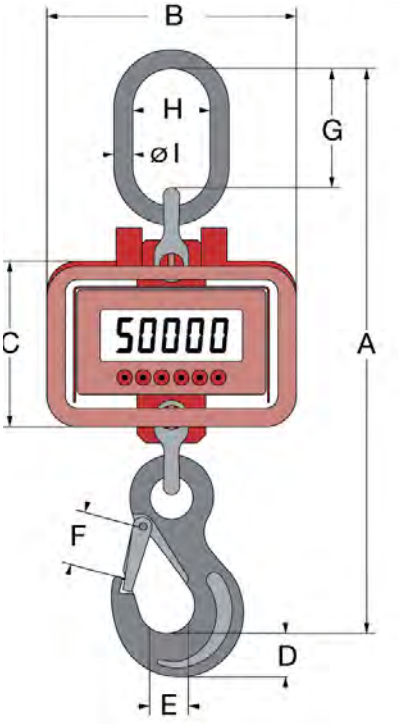
Digital crane scale for use in industrial applications

- 3 years warranty on accuracy and function of load cell
- Precision: 0.03 % of full scale
- Measuring principle: DMS load cell
- Digit height: 42 mm
- Digital display: LED 7-segment/1 indication per second
- Operating temperature: -30° C to + 80° C
- Remote shock and weather-proof: protected IP 54
- Power supply: 6 V maintenance-free rechargeable battery
- Operating time at least 120 hrs
- Rapid display stabilisation through integrated measurement method
- Safety factor 5:1 (mechanical safety of all parts under tensile stress)
- Optical overload indicator
- Protective cage included (≥ 5 ton)
- Calibrated commercial balance LDN class III with EC approval acc. to PTB-OIML R 76, up to 2,500 divisions
- In house calibration facility

Option:

- Radio data transmission to various receiving units

Suitable for weighing and transporting loads



LD/LDN

LD 50

Weighing range	Increments in kg		Weight	LD		LDN calibrated	
in kg	LD	LDN	in kg	Type	Item no.	Type	Item no.
0 - 500	0.1	0.2	12.0	LD 0.5	7902.00.05	LDN 0.5	7902.10.05
0 - 1000	0.2	0.5	12.0	LD 1	7902.00.10	LDN 1	7902.10.10
0 - 2000	0.5	1.0	12.0	LD 2	7902.00.20	LDN 2	7902.10.20
0 - 5000	1.0	2.0	18.0	LD 5	7902.00.50	LDN 5	7902.10.50
0 - 10000	2.0	5.0	35.0	LD 10	7902.01.00	LDN 10	7902.11.00
0 - 20000	10.0	10.0	50.5	LD 20	7902.02.00	LDN 20	7902.12.00
0 - 30000	10.0	20.0	94.0	LD 30	7902.03.00	LDN 30	7902.13.00
0 - 50000	20.0	20.0	182.0*	LD 50	7902.05.00	-	-

*Weight varies depending on the design

Type	A	B	C	D	E	F	G	H	I
LD/LDN 0.5 - 2	484	228	135	35	27	31	97	60	16
LD/LDN 5	654	290	195	51	40	43	138	90	22
LD/LDN 10	798	290	195	58	48	53	170	110	32
LD/LDN 20	1089	290	195	82	60	73	225	140	36
LD/LDN 30	1347	290	195	83	80	95	303	190	50
LD 50	1623	290	195	116	89	124	375	240	63

LOAD SUSPENSION EQUIPMENT
Hanging Scales

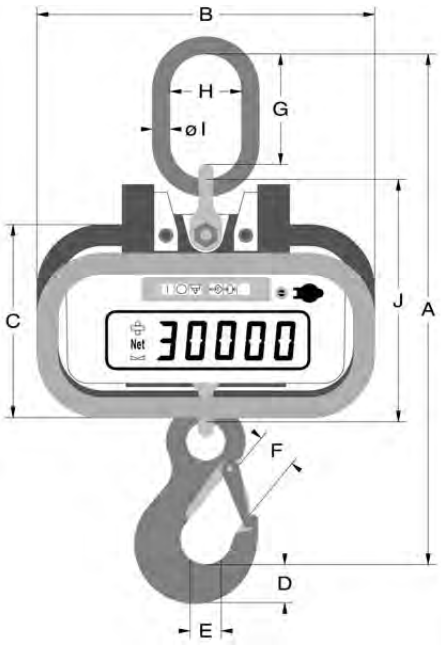
Digital Crane Scale Type LK and LKe

Digital crane scale for tough, industrial conditions

- 3 years warranty on accuracy and function of load cell
- Precision: 0.03 % of full scale
- Measuring principle: DMS load cell
- Digit height: 50 mm, red
- Digital display: LED 7-segment/1 indication per second
- Operating temperature: -30° C to +90° C
- Remote shock and weather-proof: protected IP 54
- Power supply: 12 V maintenance-free rechargeable battery
- Operating time at least 120 hrs
- Rapid display stabilisation through integrated measurement method
- Auto shut-down
- Safety factor 5:1 (mechanical safety of all parts under tensile stress)
- Optical overload indicator
- Cast aluminium housing with impact guard
- Calibrated commercial balance LKe class III wiht EC approval acc. to PTB-OIML R 76, up to 3,000 divisons
- In house calibration facility

Option:
- Radio data transmission to various receiving units

Suitable for weighing and transporting loads



LK/LKE

LK 100

Weighing range	Increments in kg		Weight	Standard version		Calibratable version	
in kg	LK	LKe	in kg	Type	Item no.	Type	Item no.
0 - 1000	0.2	0.5	50.0	LK 1	7908.00.10	LKe 1	7908.10.10
0 - 2000	0.5	1.0	50.0	LK 2	7908.00.20	LKe 2	7908.10.20
0 - 5000	1.0	2.0	50.0	LK 5	7908.00.50	LKe 5	7908.10.50
0 - 10000	2.0	5.0	64.0	LK 10	7908.01.00	LKe 10	7908.11.00
0 - 20000	5.0	10.0	77.0	LK 20	7908.02.00	LKe 20	7908.12.00
0 - 30000	10.0	20.0	123.0	LK 30	7908.03.00	LKe 30	7908.13.00
0 - 100000	20.0	-	295.0*	LK 100	7908.10.00	-	-

*Weight varies depending on the design

Type	A	B	C	D	E	F	G	H	I	J
LK/LKe 1 - 5	652	424	246	51	40	45	138	90	22	309
LK/LKe 10	783	424	246	58	48	54	170	110	32	378
LK/LKe 20	1089	424	246	82	60	73	225	140	36	538
LK/LKe 30	1347	424	246	83	80	95	305	190	50	497
LK 100	-	424	246	-	-	-	-	-	-	1261

SLINGS

Slings - Chains

Chain Slings Grade 12	P. 198-203
Chain Slings Grade 10	P. 214-236
Chain Slings Grade 8	P. 237-251
Accessories for Skip Bin Transport	P. 228
Accessories for Container Transport	P. 229
Bulk Sling Chain	P. 244-245
Accessories	P. 247-251
Special Hooks	P. 252-260
Isolating connectors	P. 257

Slings - Textile/Woven Wire

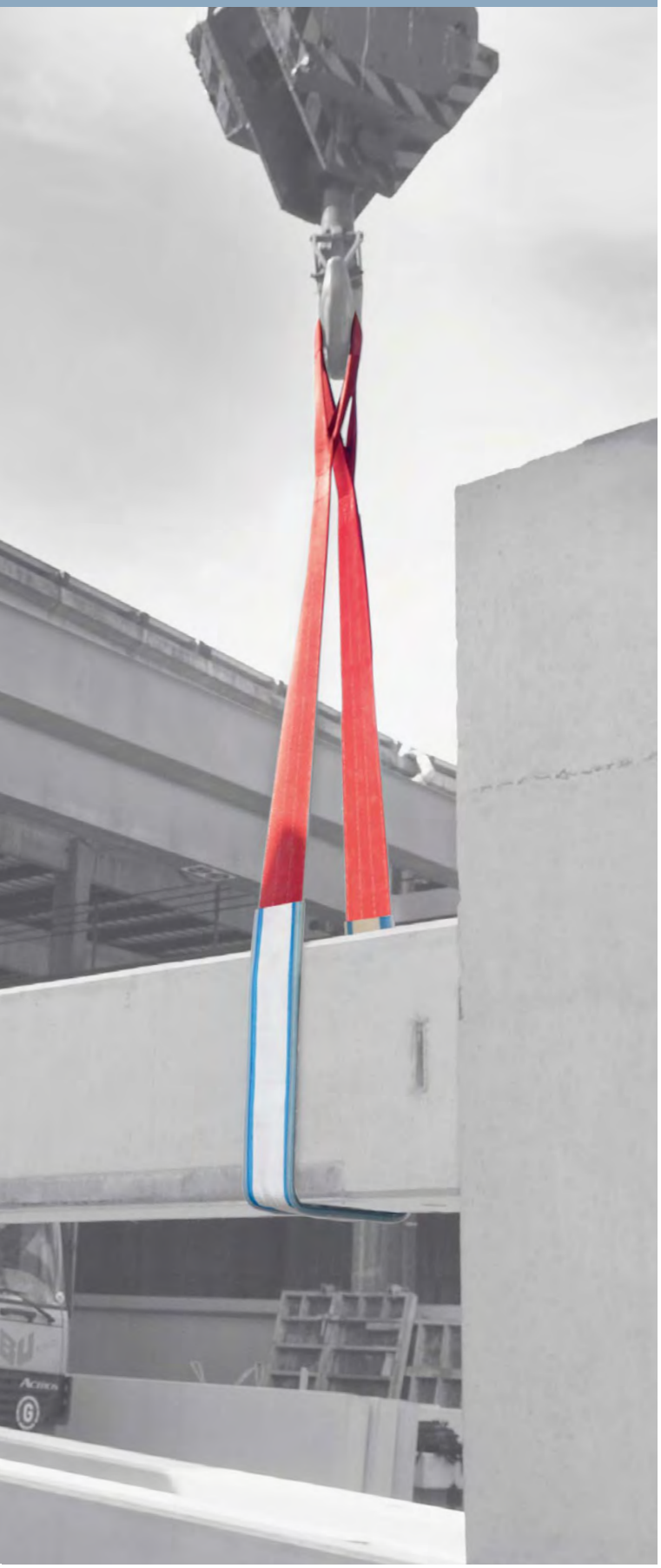
Roundslings + Accessories	P. 264-277
Webbing Slings + Accessories	P. 278-286
Woven Wire Rope Slings	P. 287-292
Edge Protectors	P. 293
Fibre Ropes	P. 294-299

Slings - Steel Wire Ropes

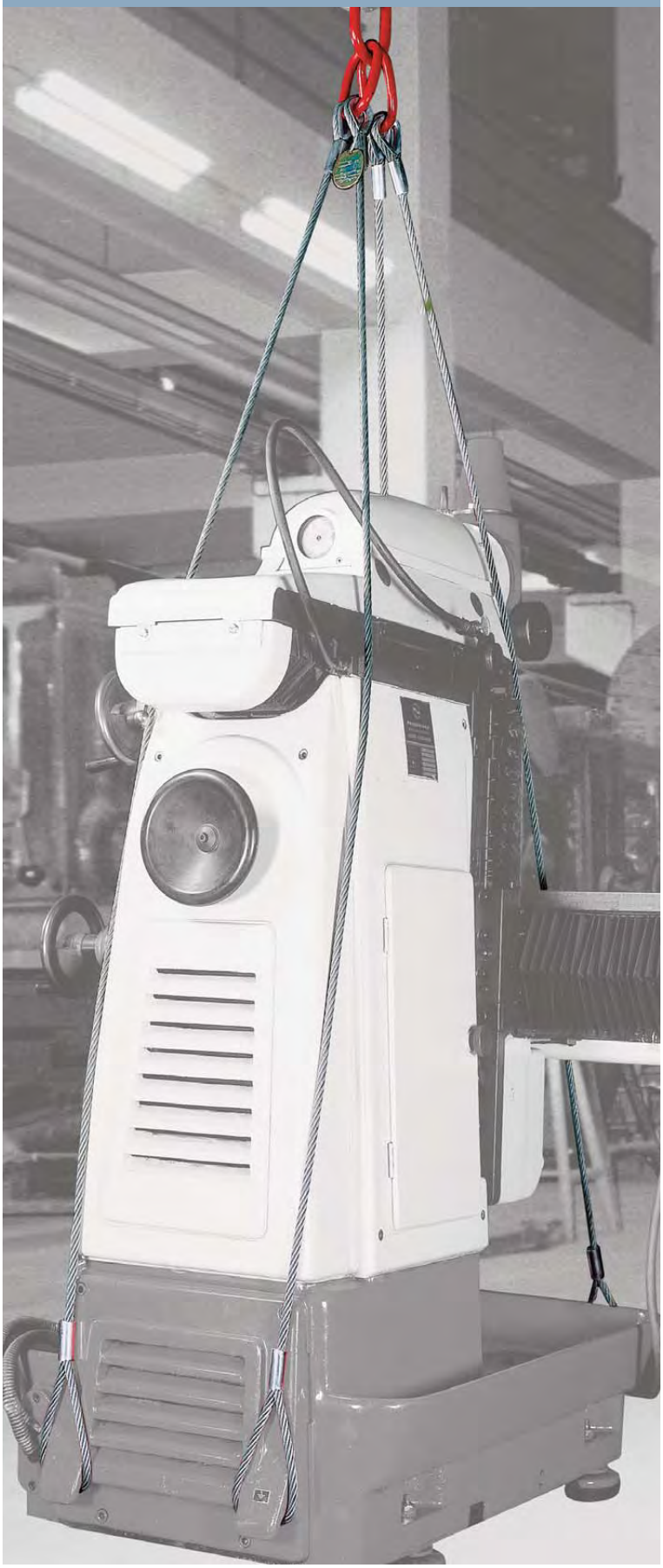
Wire Rope Slings 1-leg	P. 300-309
Wire Rope Slings 2-, 4-leg	P. 310-318
Wire Rope as Piece Goods	P. 319-321
Wire Rope Slings, endless	P. 325-327
Edge Protectors	P. 329-330
Accessories	P. 330-331

Slings - Chains and Accessories acc. to DIN EN 818, PAS 1061 and Accessories acc. to DIN EN 1677

Slings - Textile/Woven Wire acc. to DIN EN 1492



Slings - Steel Wire Ropes acc. to DIN EN 13414-1-3 and FSA recommendations



RUD Chain Slings in Comparison

Chain slings ICE Grade 12 acc. PAS 1061

Chain slings VIP Grade 10 acc. PAS 1061

Chain slings Grade 8 acc. DIN EN 818

Load capacities of 1- and multiple leg chain slings at different inclination angles and with all legs symmetrically loaded (in kg)

Inclination angle β		0	0-45°	45-60°	0-45°	45-60°
Load factor		1	1.4	1.0	2.1	1.5
Nom. chain size	Grade	WLL in kg	WLL in kg	WLL in kg	WLL in kg	WLL in kg
4	VIP-10	630	880	630	1320	950
4	ICE-12	800	1120	800	1700	1180
6	GK-8	1120	1600	1120	2360	1700
6	VIP-10	1500	2100	1500	3150	2250
6	ICE-12	1800	2500	1800	3750	2700
8	GK-8	2000	2800	2000	4250	3000
8	VIP-10	2500	3500	2500	5250	3750
8	ICE-12	3000	4250	3000	6300	4500
10	GK-8	3150	4250	3150	6700	4750
10	VIP-10	4000	5600	4000	8400	6000
10	ICE-12	5000	7100	5000	10600	7500
13	GK-8	5300	7500	5300	11200	8000
13	VIP-10	6700	9500	6700	14000	10000
13	ICE-12	8000	11200	8000	17000	11800
16	GK-8	8000	11200	8000	17000	11800
16	VIP-10	10000	14000	10000	21000	15000
16	ICE-12	12500	17000	12500	26500	19000
18	GK-8	10000	14000	10000	21200	15000
20	VIP-10	16000	22400	16000	33600	24000
22	GK-8	15000	21200	15000	31500	22400
22	VIP-10	20000	28000	20000	42000	30000
26	GK-8	21200	30000	21200	45000	31500
28	VIP-10	31500	45000	31500	67000*	47500*
32	GK-8	31500	45000	31500	67000	47500

According to BGR 500/DGUV rule 100-500 section. 2.8:

- The 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling
- Choker hitch will reduce the capacity by 20%

* Chain slings VIP-10, ND 28 = Load capacity (WLL) when using two 2-leg chain slings

If chain slings are used above temperatures of 200°C (392°F) the load capacity has to be reduced. Load capacities in % at a chain temperature of:

ICE
VIP
Grade 8

-60 to +200° C	over 200 to 250° C	over 250 to 300° C
100 %	90 %	60 %

-40 to +200° C	over 200 to 300° C	over 300 to 380° C
100 %	90 %	60 %

-40 to +200° C	over 200 to 300° C	over 300 to 400° C
100 %	90 %	75 %

SLINGS
Chain slings

ICE 120 — D 1 12

I = Innovative
C = Chain
E = Evolution

The Best in Chain Technology

Because you can't afford to buy „cheap"

Thanks to the outstanding rigidity of the ICE material, the nominal thickness could be consistently increased compared to that of grade 8 chains even with thinner dimensions ≤ NT 16 mm, i.e. when lifting or lashing, an ICE chain sling or lashing chain of any nominal thickness is able to replace a grade 8 chain of the **next nominal thickness up**.

Nominal chain size in mm	WLL-Load capacity kg	
	Grade 8	Grade 12 ICE
6	1120	**1800**
8	2000	**3000**
10	3150	**5000**
13	5300	**8000**
16	8000	**12500**
20	12500	-

Easier handling due to 30% weight reduction

Your advantage

Weight reduction...
... of over 30 %

ICE offers the following advantages compared to a grade 8 chain of the same load capacity:

- Easier handling due to 30% weight reduction
- Up to 60% higher breaking load/load capacity
- Cheaper than a comparable grade 8 RUD chain sling
- Temperature resistant from -60°C to +300°C (-76°F to 572°F)
- Considerably enhanced durability and impact resistance >55 J at -60°C (-76°F)
- Longer service life due to higher resistance against square edges (30% higher surface hardness than grade 8: 460 HV)
- 3-times lower wear of the ICE chain in blasting systems compared to grade 8

RUD - ICE 120

D 1 12

RUD - GK 8
DIN EN 818-4

H 1 8

Comparison chain sling with hook ICE 120 to Grade 8 length = 3000

Load capacity	8 t	8 t
Nominal chain size	**13 mm**	**16 mm**
Components	IAK-RG-13	AK 1-16
	IMVK-13	BSEK
	ICE chain (13 x 39) / length 3 m	Chain GK 8 (16 x 48) / length 3 m
	ICE-STAR hook ND 13	GSH hook GK 8 ND 16
Weight	20.5 kg = 100 %	27 kg = **130 %**

RUD ICE chains and components are suitable for a dynamic load of 20,000 duty cycles at 50% overload according to DIN EN 818 and 1677.
The German BG stipulates: Under high dynamic loads with a high number of duty cycles (non-stop operation) the load strain has to be reduced according to group 1Bm (M3 acc. DIN EN 818-7), e.g. by using a bigger chain diameter.

SLINGS

ICE-Chain Slings Grade 12

The modular ICE system Grade 12

ICE Master Links

- ICE master links have a welded-on ring fork that is movable from all sides
- This enables the unmistakeable connection to the chain diameter and number of legs.
- The master link is supplemented by an identification tag with an integrated chain testing gauge.

ICE Shortening Elements

ICE Shortening Hook IVH

ICE Multi-shortening Claw IMVK

ICE Balancer IVW

ICE mini

The smallest Ø 4 mm round steel chain in grade 12

Terminations

ICE Automatic Clevis Hook IAGH

ICE Star-Hook (safety clevis hook)

ICE Foundry Hook IWH

ICE Connect-ing Link for skip bins IMEG

ICE Automatic Clevis Hook for skip bins IMAGH

Various components

ICE CURT GAKO Ratchet tensioner

ICE CURT-K GAKO Lever tensioner

ICE Endless Chain with H-Connector

ICE Chain Connector

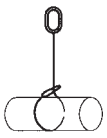
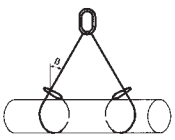
ICE chain slings offer the following load capacites:

	1-leg	2-leg		3- and 4-leg		endless
Nominal chain size of chain sling in mm						Endless chain in choker hitch
Inclination angle β	0°	0-45°	>45-60°	0-45°	>45-60°	-
Load factor	1	1.4	1	2.1	1.5	1.6
Ø 6	1.8	2.5	1.8	3.75	2.7	2.88
Ø 8	3.0	4.25	3.0	6.3	4.5	4.8
Ø 10	5.0	7.1	5.0	10.6	7.5	8.0
Ø 13	8.0	11.2	8.0	17.0	11.8	12.8
Ø 16	12.5	17.0	12.5	26.5	19.0	20.0

Acc. to BGR 500/DGUV rule 100-500 section 2.8, the 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling.

For lower or higher load capacities up to 126 tons please choose the suitable chain

Load capacity reduction of 20% due to sharp egdes has already been considered.

	Endless chain				Choker hitch			
Nominal chain size of chain sling in mm								
	single		double		single		double	
Inclination angle ß	0-45°	>45-60°	0-45°	>45-60°	0°	0-45°	>45-60°	
Load factor	1.1	0.8	1.7	1.2	0.8	1.1	0.8	
Ø 6	2.0	1.44	3.1	2.1	1.44	2.0	1.44	
Ø 8	3.3	2.4	5.1	3.6	2.4	3.3	2.4	
Ø 10	5.5	4.0	8.5	6.0	4.0	5.5	4.0	
Ø 13	8.8	6.4	13.6	9.6	6.4	8.8	6.4	
Ø 16	14.0	10.0	21.2	15.0	10.0	14.0	10.0	

Acc. to BGR 500/DGUV rule 100-500 section 2.8, the 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling.

Load capacities at a chain temperature of:

If chain slings are used above temperatures of 200°C (392°F) the load capacity has to be reduced.

Load capacities in % at a chain temperature of:

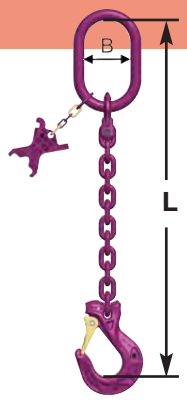
-60 to +200° C	over 200 to 250° C	over 250 to 300° C
100 %	90 %	60 %

SLINGS

ICE-Chain Slings Grade 12

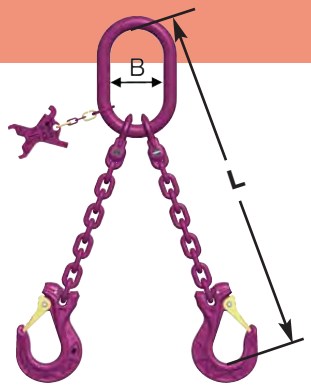
ICE 1-leg Chain Sling, with preassembled Clevis Ring, without shortener, with ICE-Star-Hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.8	60	6101.S0.06
8	3.0	75	6101.S0.08
10	5.0	90	6101.S0.10
13	8.0	100	6101.S0.13
16	12.5	140	6101.S0.16



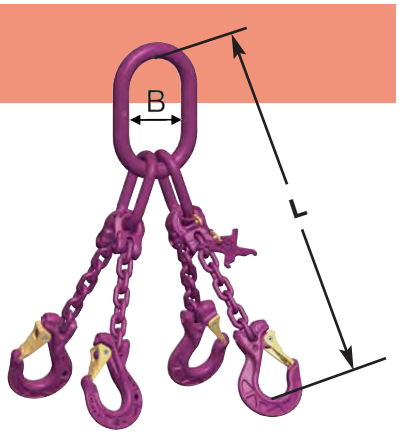
ICE 2-leg Chain Sling, with preassembled Clevis Rings, without shorteners, with ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Item no.
	0 - 45°	45 - 60°		
6	2.5	1.8	75	6201.S0.06
8	4.25	3.0	90	6201.S0.08
10	7.1	5.0	100	6201.S0.10
13	11.2	8.0	110	6201.S0.13
16	17.0	12.5	180	6201.S0.16



ICE 4-leg Chain Sling, with preassembled Clevis Rings, without shorteners, with ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 4-leg at angle		Item no.	Item no.
	0 - 45°	45 - 60°		
6	3.75	2.7	90	6401.S0.06
8	6.3	4.5	100	6401.S0.08
10	10.6	7.5	110	6401.S0.10
13	17.0	11.8	140	6401.S0.13
16	26.5	19.0	190	6401.S0.16



ICE Identification Tag with integrated Chain Gauge (without WLL marking) suitable for all ICE-Chain Slings

Nominal chain size in mm	Designation	Item no.
6	IKZA-6	6601.S0.06
8	IKZA-8	6601.S0.08
10	IKZA-10	6601.S0.10
13	IKZA-13	6601.S0.13
16	IKZA-16	6601.S0.16

3-leg chain slings and endless chains are available at short notice!

Chain slings ICE-Mini ND 4 mm see page 212 et seq.

ICE-Chain Slings Grade 12

ICE 1-leg Chain Sling, with preassembled Clevis Ring, with shortener, with Multi Shortening Claw IMVK and ICE-Star-Hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.8	60	6101.S6.06
8	3.0	75	6101.S6.08
10	5.0	90	6101.S6.10
13	8.0	100	6101.S6.13
16	12.5	140	6101.S6.16

ICE 2-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Multi Shortening Claws IMVK and ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Item no.
	0-45°	45-60°		
6	2.5	1.8	75	6201.S6.06
8	4.25	3.0	90	6201.S6.08
10	7.1	5.0	100	6201.S6.10
13	11.2	8.0	110	6201.S6.13
16	17.0	12.5	180	6201.S6.16

ICE 4-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Multi Shortening Claws IMVK and ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Item no.
	0-45°	45-60°		
6	3.75	2.7	90	6401.S6.06
8	6.3	4.5	100	6401.S6.08
10	10.6	7.5	110	6401.S6.10
13	17	11.8	140	6401.S6.13
16	26.5	19	190	6401.S6.16

! 3-leg chain slings and endless chains are available on request!

! Chain slings ICE-Mini ND 4 mm see page 212 et seq.

SLINGS

ICE-Chain Slings Grade 12

ICE 1-leg Chain Sling, with preassembled Clevis Ring, with shortener, with Shortening Hook IVH and ICE-Star-Hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.8	60	6101.S5.06
8	3.0	75	6101.S5.08
10	5.0	90	6101.S5.10
13	8.0	100	6101.S5.13
16	12.5	140	6101.S5.16

ICE 2-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Shortening Hooks IVH and ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Item no.
	0 - 45°	45 - 60°		
6	2.5	1.8	75	6201.S5.06
8	4.25	3.0	90	6201.S5.08
10	7.1	5.0	100	6201.S5.10
13	11.2	8.0	110	6201.S5.13
16	17	12.5	180	6201.S5.16

ICE 4-leg Chain Sling, with preassembled Clevis Rings, with shorteners, with Shortening Hooks IVH and ICE-Star-Hooks

Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Item no.
	0 - 45°	45 - 60°		
6	3.75	2.7	90	6401.S5.06
8	6.3	4.5	100	6401.S5.08
10	10.6	7.5	110	6401.S5.10
13	17	11.8	140	6401.S5.13
16	26.5	19	190	6401.S5.16

3-leg chain slings and endless chains are available on request!

Chain slings ICE-Mini ND 4 mm see page 212 et seq.

ICE-CURT-K-GAKO Ratchet Tensioner for Lifting and Length Adjustment

- Easy to use tensioner
- Patented and practical unscrewing protection
- Magnetic adherent locking device that can also serve as theft protection
- Innovative design - lightweight and strong
- Easy cleaning and lubricating

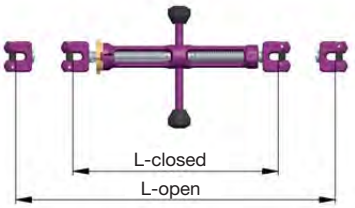
Can also be used for cargo lashing, see page 622.

Must only be adjusted when not subject to a load.

Locking device disengaged

Locking device engaged and protected against theft

Example of an ICE chain sling with tensioner CURT-K-GAKO



Due to the enhanced handling properties (smaller turning circle), we recommend using the ICE-CURT-K-GAKO lever tensioner for length adjustments while lifting.

Nominal chain size in mm	Lifting WLL in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			L-open	L-closed	Adjustment range		
6	1.8	ICE-CURT-K-6-GAKO	400	260	140	1.8	6571.S6.06
8	3.0	ICE-CURT-K-8-GAKO	520	350	170	3.2	6571.S6.08
10	5.0	ICE-CURT-K-10-GAKO	532	362	170	3.6	6571.S6.10
13	8.0	ICE-CURT-K-13-GAKO	830	530	300	6.9	6571.S6.13
16	12.5	ICE-CURT-K-16-GAKO	962	612	350	12.2	6571.S6.16

ICE-CURT-GAKO Ratchet Tensioner for Lifting and Length Adjustment

- Easy to use tensioner
- Patented and practical unscrewing protection
- Magnetic adherent locking device that can also serve as theft protection
- Innovative design - lightweight and strong
- Easy cleaning and lubricating.

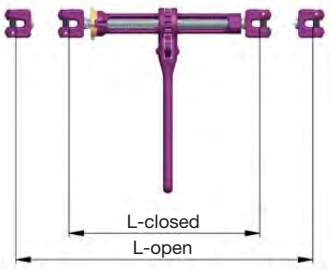
Can also be used for cargo lashing, see page 622.

Must only be adjusted when not subject to a load.

Locking device disengaged

Locking device engaged and protected against theft

Example of an ICE chain sling with tensioner CURT GAKO



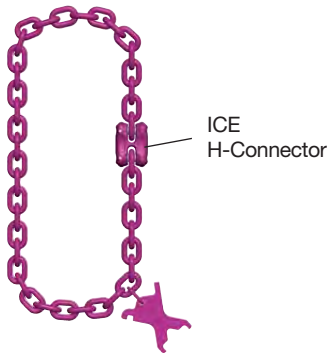
Nominal chain size in mm	Lifting WLL in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			L-open	L-closed	Adjustment range		
6	1.8	ICE-CURT-6-GAKO	400	260	140	1.5	6571.S5.06
8	3.0	ICE-CURT-8-GAKO	520	350	170	3.9	6571.S5.08
10	5.0	ICE-CURT-10-GAKO	532	362	170	4.3	6571.S5.10
13	8.0	ICE-CURT-13-GAKO	830	530	300	7.6	6571.S5.13
16	12.5	ICE-CURT-16-GAKO	962	612	350	13.0	6571.S5.16

Length adjustment VLE for chain sizes 20, 22 and 28 see page 236.

SLINGS
ICE Endless Chain / Connector

ICE endless Chain with H-Connector IKR-H

Load capacity reduction of 20% due to sharp egdes has already been considered.



Nominal chain size in mm	Load capacity in t inclination angle 0 - 45°	45 - 60°	Endless chain in choker hitch Load capacity in t	Item no.
6	2.0	1.44	2.9	6204.S0.06
8	3.3	2.4	4.8	6204.S0.08
10	5.5	4.0	8.0	6204.S0.10
13	8.8	6.4	12.8	6204.S0.13
16	14.0	10.0	20.0	6204.S0.16

ICE/VIP/GK8 H-Connector IH/VH

- Fast, easy and economic assembly of endless chains
- Pitch of H-Connector corresponds to pitch of chain
- Ergonomic shape
- Enhanced gliding over edges
- Highly flexible: Adapts to both, the shape of the chain and the load.

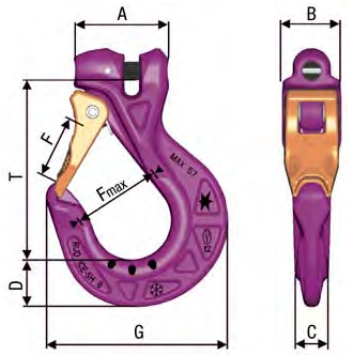
Attention:
Suitable for use with round steel chains DIN 818-2 in GK 8, VIP-GK 10 and ICE-GK 12

Nominal chain size in mm	Load capacity GK 8 in t	Load capacity VIP in t	Load capacity ICE in t	Designation	Dimensions in mm A	B	T	Weight in kg/pce	Item no.
6	1.12	1.5	1.8	IH-6	34	19.6	18	0.11	6206.S0.06
8	2.0	2.5	3.0	IH-8	45	25.5	18	0.11	6206.S0.08
10	3.15	4.0	5.0	IH-10	56	31.5	30	0.55	6206.S0.10
13	5.3	6.7	8.0	IH-13	73	40	39	1.16	6206.S0.13
16	8.0	10.0	12.5	IH-16	89	49	48	2.16	6206.S0.16

ICE-Chain Slings Grade 12

ICE Safety Hook Star Hook ICE-SH

Up to 25% weight reduction compared to a grade 8 hook of the same capacity due to its groundbreaking skeletal design. The unmatched advantages of the VIP Cobra hook have been transferred and further enhanced. Mouth opening is the same like of the proven Granit super hook – of the next higher Nominal chain size.

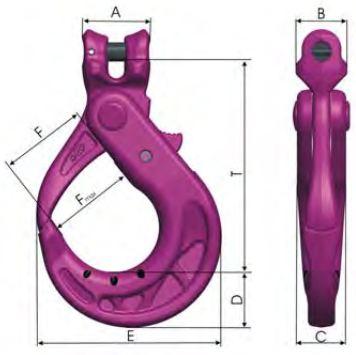


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	F	F max.	G	T		
6	1.8	ICE-SH-6	48	28	18	26	30	51	97	97	0.69	6550.S0.06
8	3.0	ICE-SH-8	45	36	20	29	36	58	112	110	1.1	6550.S0.08
10	5.0	ICE-SH-10	71	43	25	37	41	66	135	127	1.9	6550.S0.10
13	8.0	ICE-SH-13	85	52	31	48	50	80	163	153	3.5	6550.S0.13
16	12.5	ICE-SH-16	94	58	38	56	58	96	196	184	5.5	6550.S0.16

ICE Self-locking Hook ICE-AGH

Up to 30% weight reduction compared to a grade 8 hook of the same capacity due to its skeletal design

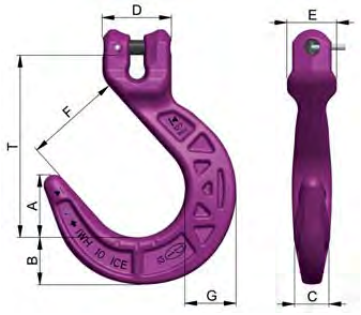
- Wear ribs to protect the first chain link
- Thickened hook tip to prevent potentially dangerous and incorrect loading of the hook tip
- Marker points to check mouth opening
- Patented wear marks indicate the replacement state without measuring!
- Slip-proof operation of the safety button without risk of injury
- Big mouth opening corresponding to a grade 8 hook of the same capacity



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	F max.	T		
6	1.8	ICE-AGH-6	34	24	27	28	97	44	60	113	0.9	6554.S0.06
8	3.0	ICE-AGH-8	45	31	30	31	106	48	66	124	1.3	6554.S0.08
10	5.0	ICE-AGH-10	50	38	36	40	136	61	81	154	2.4	6554.S0.10
13	8.0	ICE-AGH-13	73	50	44	51	173	78	107	201	4.9	6554.S0.13
16	12.5	ICE-AGH-16	90	61	49	53	192	85	121	232	7.4	6554.S0.16

ICE Foundry Hook ICE-WH

- Weight optimised in Sceletto technology
- With unmistakable fork head connector
- Robust cross-section (dimensions C and G) protects against higher bending forces
- Protection and wear edges (dimension E)
- Patented wear marks in the base of the hook
- Only use in areas where accidental detachment is not possible (risk assessment)!



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	T		
6	1.8	ICE-WH-6	41	31	24	42	29	64	32	121	1.03	6559.S0.06
8	3.0	ICE-WH-8	49	37	29	50	36	76	40	143	1.76	6559.S0.08
10	5.0	ICE-WH-10	58	44	31	64	46	90	47	168	3.01	6559.S0.10
13	8.0	ICE-WH-13	66	50	39	75	56	100	55	193	4.7	6559.S0.13
16	12.5	ICE-WH-16	75	56	43	90	58	114	61	208	6.5	6559.S0.16

SLINGS

ICE-Chain Slings Grade 12

ICE Shortening Hook ICE-VH

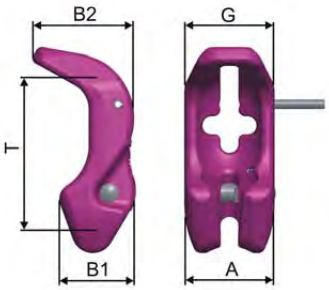
- Broad hook tip to avoid misuse like wrong insertion of the chain.
- Angled hook opening prevents the chain from falling out.
- In compliance with DIN 5692:2011-04

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
6	1.8	ICE-VH-6	34	18	20	44	7.5	22	53	0.27	6551.S0.06
8	3.0	ICE-VH-8	43	24	26	55	9.5	29	67	0.5	6551.S0.08
10	5.0	ICE-VH-10	55	30	34	71	12	38	86	1.2	6551.S0.10
13	8.0	ICE-VH-13	70	38	43	90	15	48	105	2.5	6551.S0.13
16	12.5	ICE-VH-16	86	46	53	110	18.5	59	128	4.4	6551.S0.16

ICE Multi Shortening Claw ICE-MVK

- Can be captively fitted in any position along the chain leg.
- No additional chain or coupling components necessary.
- In compliance with DIN 5692:2011-04 for shortening elements.

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B1	B2	G	T		
6	1.8	ICE-MVK-6	35	34	40	36	66	0.3	6551.S1.06
8	3.0	ICE-MVK-8	46	41	52	48	88	0.55	6551.S1.08
10	5.0	ICE-MVK-10	58	50	64	60	110	1.1	6551.S1.10
13	8.0	ICE-MVK-13	74	64	86	76	143	2.4	6551.S1.13
16	12.5	ICE-MVK-16	91	79	105	98	176	4.4	6551.S1.16

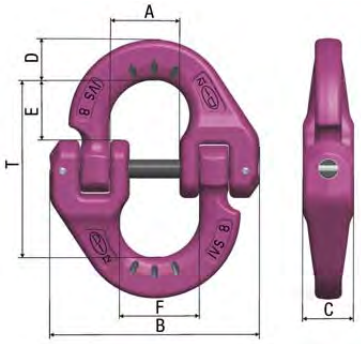


ICE Chain Connector ICE-VS

The universal ICE chain connector
The bracket halves are suitable for attachment of chains, shackles, lifting points, plate clamps or others.

- Patent pending for design and function.
- No kinking of the assembled chain.
- The bracket halves can be combined among each other.
- No movement or damage of the otherwise used locking spring or securing pin of the bolt.
- Patented wear marks.

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
6	1.8	ICE-VS-6	18	55	13	11	17	21	46	0.12	6556.S0.06
8	3.0	ICE-VS-8	24	70	17.5	14	23	27.5	61	0.29	6556.S0.08
10	5.0	ICE-VS-10	28	88	22	17	27	32	74	0.57	6556.S0.10
13	8.0	ICE-VS-13	34	111	28	23	33	40	93	1.2	6556.S0.13
16	12.5	ICE-VS-16	39	130	33	27	37	46	108	2.0	6556.S0.16



ICE Clevis Ring ICE-RG

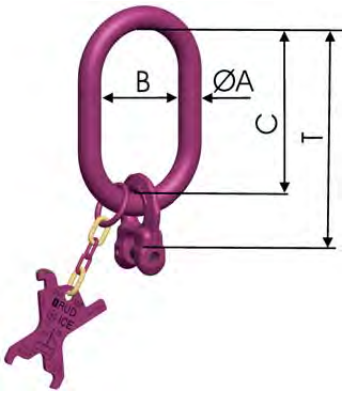
- As separate part with clevis connection for attachment of foreign parts.
- Preassembled with connecting bolt and tensioning sleeve.

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
6	1.8	ICE-RG-6	19	34	44	21	9	12	36	0.12	6552.S1.06
8	3.0	ICE-RG-8	24	45	56	27	12	15	43	0.25	6552.S1.08
10	5.0	ICE-RG-10	30	56	70	32	15	19	53	0.5	6552.S1.10
13	8.0	ICE-RG-13	38	73	88	38	18	25	67	1.0	6552.S1.13
16	12.5	ICE-RG-16	47	90	109	48	23	31	83	2.0	6552.S1.16

IAK-RG Master Links:
useable for crane hook size acc. to DIN 15401

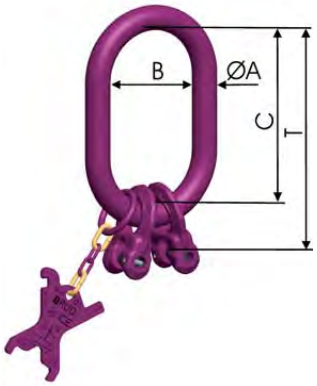
Size	6	8	10	13	16
IAK-RG 1	No 2.5	No. 2.5	No. 6	No. 8	No. 16
IAK-RG 2	No. 5	No. 5	No. 8	No. 10	No. 25
IAK-RG 3/4	No. 6	No. 6	No. 10	No. 16	No. 32

ICE Master Link 1-leg IAK-RG-1, with preassembled Clevis Ring, for Standard Crane Hooks



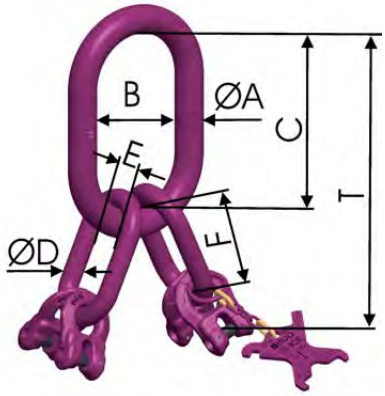
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm				Weight in kg/pce	Item no.
			A	B	C	T		
6	1.8	IAK-RG-1-6	13	**60**	110	144	0.57	6511.S1.06
8	3.0	IAK-RG-1-8	18	**75**	135	178	1.23	6511.S1.08
10	5.0	IAK-RG-1-10	22	**90**	160	213	2.19	6511.S1.10
13	8.0	IAK-RG-1-13	26	**100**	180	247	3.58	6511.S1.13
16	12.5	IAK-RG-1-16	32	**140**	260	343	7.20	6511.S1.16

ICE Master Link 2-leg IAK-RG-1, with preassembled Clevis Ring, for Standard Crane Hooks



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm				Weight in kg/pce	Item no.
	0-45°	45 - 60°		A	B	C	T		
6	2.5	1.8	IAK-RG-2-6	16	**75**	135	171	1.0	6523.S0.06
8	4.25	3.0	IAK-RG-2-8	22	**90**	160	203	2.1	6523.S0.08
10	7.1	5.0	IAK-RG-2-10	26	**100**	180	233	3.5	6523.S0.10
13	11.2	8.0	IAK-RG-2-13	32	**110**	200	267	6.7	6523.S0.13
16	17	12.5	IAK-RG-2-16	36	**180**	340	423	13.0	6523.S0.16

ICE Master Link 4-leg IAK-RG-1, with preassembled Clevis Ring, for Standard Crane Hooks



Nominal chain size in mm	Load capacity in t at angle		Designation	Dimensions in mm							Weight in kg/pce	Item no.
	0-45°	45 - 60°		A	B	C	D	E	F	T		
6	3.75	2.7	IAK-RG-4-6	18	**90**	160	13	34	70	265	2.04	6542.S0.06
8	6.3	4.5	IAK-RG-4-8	26	**100**	180	18	40	85	309	4.59	6542.S0.08
10	10.6	7.5	IAK-RG-4-10	32	**110**	200	22	50	115	369	8.37	6542.S0.10
13	17.0	11.8	IAK-RG-4-13	36	**140**	260	26	65	140	467	14.44	6542.S0.13
16	26.5	19	IAK-RG-4-16	46	**190**	350	32	75	170	603	28.87	6542.S0.16

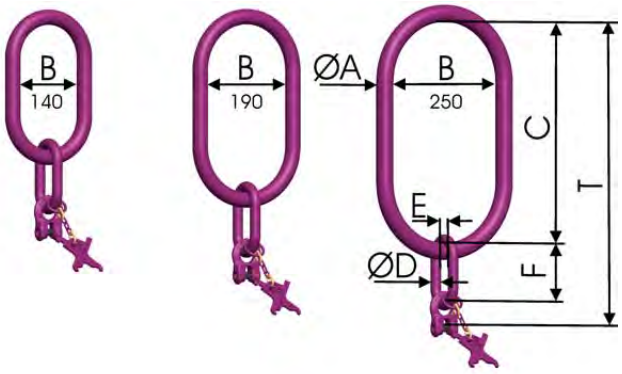
SLINGS

ICE Master Links Grade 12

ISAK-RG-Special Master Links:
useable for crane hook size acc. to DIN 15401

ISAK-RG Dim. B = 140	No. 16
ISAK-RG Dim. B = 190	No. 32
ISAK-RG Dim. B = 250	No. 50

ICE Special Master Link 1-leg ISAK-RG-1/140, 1/190, 1-250 with preassembled Clevis Ring



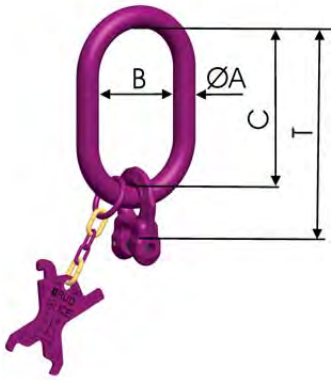
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-1/140
6	1.8	ISAK-RG-1-6/140	18	**140**	260	13	34	70	365	2.29	6516.S3.06
8	3.0	ISAK-RG-1-8/140	22	**140**	260	18	40	85	389	3.94	6516.S3.08
10	5.0	ISAK-RG-1-10/140	26	**140**	260	22	50	115	429	6.34	6516.S3.10
13	8.0	ISAK-RG-1-13/140	32	**140**	260	26	65	140	467	9.44	6516.S3.13

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-1/190
6	1.8	ISAK-RG-1-6/190	22	**190**	350	13	34	70	455	3.82	6517.S3.06
8	3.0	ISAK-RG-1-8/190	26	**190**	350	18	40	85	479	6.03	6517.S3.08
10	5.0	ISAK-RG-1-10/190	32	**190**	350	22	50	115	519	10.02	6517.S3.10
13	8.0	ISAK-RG-1-13/190	36	**190**	350	26	65	140	557	13.90	6517.S3.13

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-1/250
8	3.0	ISAK-RG-1-8/250	36	**250**	460	18	40	85	589	12.86	6518.S3.08
10	5.0	ISAK-RG-1-10/250	36	**250**	460	22	50	115	629	14.32	6518.S3.10
13	8.0	ISAK-RG-1-13/250	36	**250**	460	26	65	140	667	16.33	6518.S3.13
16	12.5	ISAK-RG-1-16/250	40	**250**	460	32	75	170	713	23.14	6518.S3.16

ICE Master Links Grade 12

ICE Master Link 1-leg IBK-RG-1, with preassembled Clevis Ring, for smaller Crane Hooks

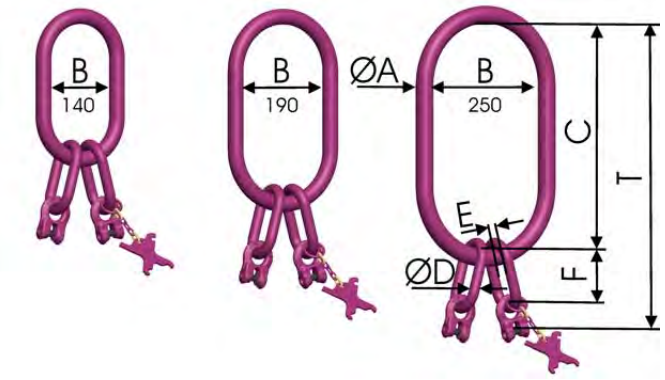


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
6	1.8	IBK-RG-1-6	13	**34**	70	105	0.43	6509.S3.06
8	3.0	IBK-RG-1-8	16	**40**	85	129	0.92	6509.S3.08
10	5.0	IBK-RG-1-10	22	**50**	115	169	1.76	6509.S3.10
13	8.0	IBK-RG-1-13	26	**65**	140	207	3.0	6509.S3.13
16	12.5	IBK-RG-1-16	32	**75**	170	253	5.5	6509.S3.16

ICE Special Master Link 2-leg ISAK-RG-2/140, 2/190, 2/250 with preassembled Clevis Ring

ISAK-RG Special Master Links: useable for crane hook size acc. to DIN 15401

ISAK-RG Dim. B = 140	No. 16
ISAK-RG Dim. B = 190	No. 32
ISAK-RG Dim. B = 250	No. 50



Nominal chain size in mm	Load cap. in t at angle 0-45°	45 - 60°	Designation	A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-2/140
6	2.5	1.8	ISAK-RG-2-6/140	18	**140**	260	13	34	70	365	2.36	6526.S3.06
8	4.25	3.0	ISAK-RG-2-8/140	22	**140**	260	18	40	85	389	4.03	6526.S3.08
10	7.1	5.0	ISAK-RG-2-10/140	26	**140**	260	22	50	115	429	6.63	6526.S3.10
13	11.2	8.0	ISAK-RG-2-13/140	32	**140**	260	26	65	140	467	10.47	6526.S3.13

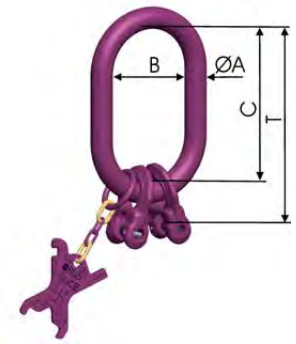
Nominal chain size in mm	Load cap. in t at angle 0-45°	45 - 60°	Designation	A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-2/190
6	2.5	1.8	ISAK-RG-2-6/190	22	**190**	350	13	34	70	455	3.89	6527.S3.06
8	4.25	3.0	ISAK-RG-2-8/190	26	**190**	350	18	40	85	479	6.13	6527.S3.08
10	7.1	5.0	ISAK-RG-2-10/190	32	**190**	350	22	50	115	519	10.30	6527.S3.10
13	11.2	8.0	ISAK-RG-2-13/190	36	**190**	350	26	65	140	557	14.93	6527.S3.13

Nominal chain size in mm	Load cap. in t at angle 0-45°	45 - 60°	Designation	A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-2/250
8	4.25	3.0	ISAK-RG-2-8/250	36	**250**	460	18	40	85	589	12.95	6528.S3.08
10	7.1	5.0	ISAK-RG-2-10/250	36	**250**	460	22	50	115	629	14.61	6528.S3.10
13	11.2	8.0	ISAK-RG-2-13/250	36	**250**	460	26	65	140	667	17.37	6528.S3.13
16	17	12.5	ISAK-RG-2-16/250	40	**250**	460	32	75	170	713	25.16	6528.S3.16

SLINGS

ICE Master Links Grade 12

ICE Master Link 2-leg IBK-RG-2
with preassembled Clevis Ring, for smaller Crane Hooks

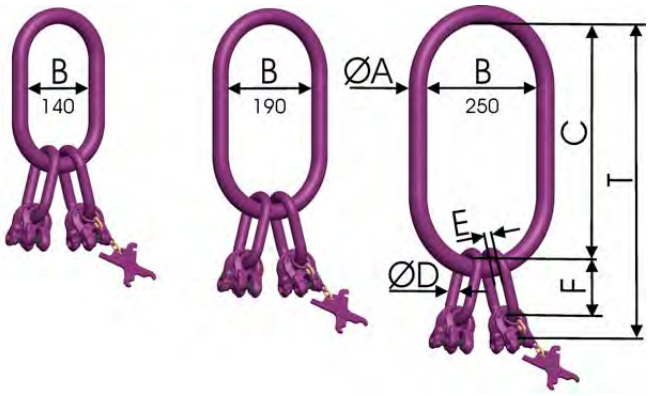


Nominal chain size in mm	Load capacity in t at angle 0-45°	45 - 60°	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
6	2.5	1.8	IBK-RG-2-6	13.5	**34**	70	105	0.68	6519.S3.06
8	4.25	3.0	IBK-RG-2-8	18	**40**	85	129	1.56	6519.S3.08
10	7.1	5.0	IBK-RG-2-10	22	**50**	115	169	2.14	6519.S3.10
13	11.2	8.0	IBK-RG-2-13	26	**65**	140	207	5.1	6519.S3.13
16	17	12.5	IBK-RG-2-16	32	**75**	170	253	9.05	6519.S3.16

ICE Special Master Link 4-leg ISAK-RG-4/140, 4/190, 4/250
with preassembled Clevis Ring

ISAK-RG Special Master Links:
useable for crane hook size acc. to DIN 15401

ISAK-RG Dim. B = 140	No. 16
ISAK-RG Dim. B = 190	No. 32
ISAK-RG Dim. B = 250	No. 50



Nominal chain size in mm	Load capacity in t NW 0-45°	45 - 60°	Designation	Dimensions in mm A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-4/140
6	3.75	2.7	ISAK-RG-4-6/140	22	**140**	260	13	34	70	365	3.24	6546.S3.06
8	6.3	4.5	ISAK-RG-4-8/140	26	**140**	260	18	40	85	389	5.47	6546.S3.08
10	10.6	7.5	ISAK-RG-4-10/140	32	**140**	260	22	50	115	429	9.70	6546.S3.10

Nominal chain size in mm	Load capacity in t NW 0-45°	45 - 60°	Designation	Dimensions in mm A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-4/190
6	3.75	2.7	ISAK-RG-4-6/190	26	**190**	350	13	34	70	455	5.34	6547.S3.06
8	6.3	4.5	ISAK-RG-4-8/190	32	**190**	350	18	40	85	479	9.14	6547.S3.08
10	10.6	7.5	ISAK-RG-4-10/190	36	**190**	350	22	50	115	519	13.16	6547.S3.10
13	17.0	11.8	ISAK-RG-4-13/190	40	**190**	350	26	65	140	557	19.14	6547.S3.13

Nominal chain size in mm	Load capacity in t NW 0-45°	45 - 60°	Designation	Dimensions in mm A	B	C	D	E	F	T	Weight in kg/pce	Item no. ISAK-4/250
8	6.3	4.5	ISAK-RG-4-8/250	36	**250**	460	18	40	85	589	13.45	6548.S3.08
10	10.6	7.5	ISAK-RG-4-10/250	36	**250**	460	22	50	115	629	15.60	6548.S3.10
13	17.0	11.8	ISAK-RG-4-13/250	40	**250**	460	26	65	140	667	22.12	6548.S3.13
16	26.5	19	ISAK-RG-4-16/250	47	**250**	460	32	75	170	713	32.98	6548.S3.16

SLINGS

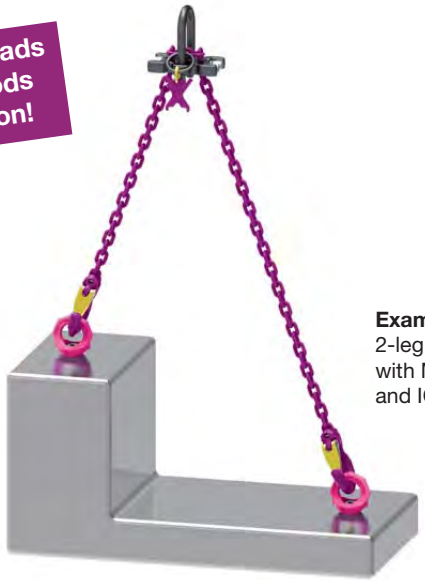
ICE-mini components NEW!

ICE ›mini‹

The smallest Ø 4 mm round steel chain in grade 12 ICE

The ideal assistant for small loads of up to 1.7 t, in incoming goods areas and for tool construction!

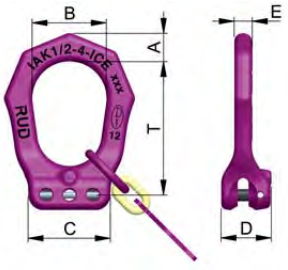
Example:
4-leg w/o shorteners
with Master Link IAK 3/4-4
and ICE Star Hook ISH 4



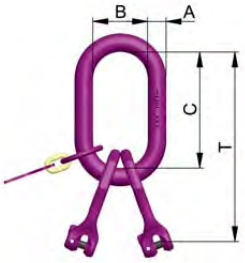
Example:
2-leg w/ shorteners
with Mini Lifter IML-2
and ICE Star Hook ISH-4

ICE Mini Modular System

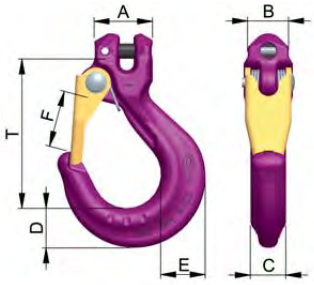
ICE Master Link
IAK 1/2-4



ICE Master Link
IAK 3/4-4



ICE Star Hook
ISH-4

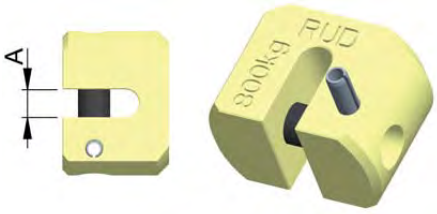


ICE round steel chain

ICE Mini Lifter
IML-2

ICE Mini Lifter
IML-4

ICE end stop
IEA-4



Designation	Nominal chain size in mm	Load capacity in t	Dimensions in mm							Weight in kg	Item no.
			A	B	C	D	E	F	T		
ICE Master Link IAK 1/2-4	4	0.8	13	34	38	22.5	8	-	58	0.2	6510.S0.04
ICE Master Link IAK 3/4-4	4	1.7/1.18	10	35	60	-	-	-	120	0.5	6542.S0.04
ICE Star Hook ISH-4	4	0.8	22	15	13	14.5	16.5	21	55	0.16	6550.S0.04
ICE round steel chain	4	0.8	-	5.2	-	4	-	-	12	0.44 kg/m	6000.S0.04
ICE Mini Lifter IML-2	4	1.12/0.8	10	30	-	-	-	-	66	0.35	6583.S1.04
ICE Mini Lifter IML-4	4	1.7/1.18	10	35	60	-	-	-	150	0.85	6583.S3.04
ICE end stop IEA-4	4	-	-	-	-	-	-	-	-	0.04	6562.S0.04

SLINGS

ICE-Mini Chain Slings

ICE Chain Sling, 1-leg, without shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Item no.
4	0.8	6101.S0.04

IAK 1/2-4

ISH-4

ICE Chain Slings, 2-leg, without shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity in t 2-leg at angle 0-45°	45-60°	Item no.
4	1.12	0.8	6201.S0.04

IAK 1/2-4

ISH-4

ICE Chain Slings, 3- and 4-leg, without shorteners, with clevis sling hook

Nominal chain size in mm	4-leg at angle 0-45°	45-60°	Item no.
4	1.7	1.18	6401.S0.04

IAK 3/4-4

ISH-4

ICE Chain Slings, 2-leg, with shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity in t 2-leg at angle 0-45°	45-60°	Item no.
4	1.12	0.8	6201.S1.04

IML-2

ISH-4

ICE Chain Slings, 3- and 4leg, with shorteners, with clevis sling hook

Nominal chain size in mm	Load capacity in t 4-leg at angle 0-45°	45-60°	Item no.
4	1.7	1.18	6401.S1.04

IML-4

ISH-4

Larger crane hook? No problem!

Combine the master link ICE-Mini-Lifter IML-4 with the ICE Master link IAK-RG 1-10, see page 208.
Master link therefore suitable up to crane hook no. 6 in DIN 15401.

Grade 10

10

VIP Grade 10
approved as first manufacturer according to PAS 1061 – prototype test by German BG (Employers Liability and Insurance Association)

V=Fool-proof / I=in / P=P=Pink + embossing

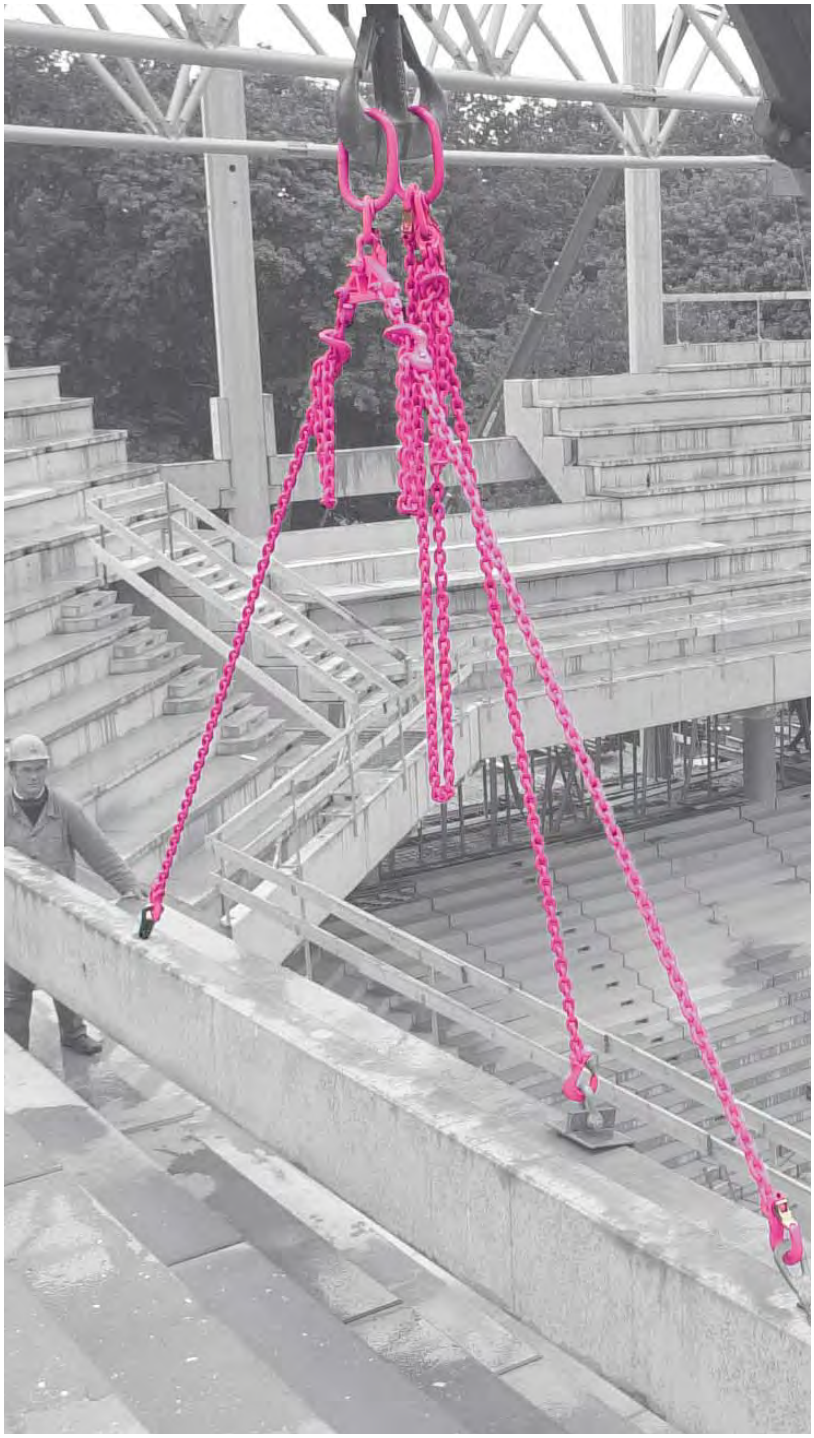
Higher load capacity: Considerably higher load capacity than the formerly highest grade 8.
Material: CrNiMo-specially tempered alloy steel, high durability, minimum breaking elongation ≥25% in natural black. Less sensitive to notching and hydrogen embrittlement than grade 8. Bending tests according to DIN EN 818. Ratio of WLL : proof load : breaking load is given by 1 : 2.5 : 4. Owing to a special heat treatment procedure developed by RUD, the highly dynamic RUD-VIP-chains are less sensitive to mechanical abrasion and damage. Hence an **extended service life** is achieved.

10

BG-tested
The approval of RUD´s special quality VIP by the German BG is documented in short chain link intervals with the following: **H1** referring to the manufacturer`s number i.e 1 = RUD and **10** meaning grade 10.

Verification of quality:
At regular intervals, the chains are stamped with a serial and batch number.

VIP stamp on each chain link:
VIP-stamped chains are powder-coated in the special fluorescent signal colour pink.



Load capacity in relation to temperature

If chain slings are used at temperatures over 200°C, the permissible load capacity must be reduced.
Load capacity in % at chain temperature of:

-40 to +200° C	from 200 to 300° C	from 300 to 380° C
100 %	90 %	60 %

3-leg chain slings and endless chains available on request!

Chain slings VIP-Mini ND 4 mm see pages 230 et seq.

SLINGS

VIP-Chain Slings Grade 10

VIP Chain Sling, 1-leg, with VIP-Cobra Hook

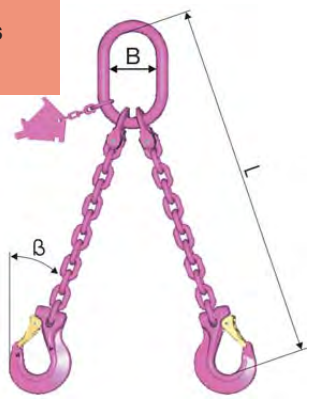
VIP-Cobra Hook

Nominal chain size	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
4	0.63	30	6101.V0.04
6	1.5	60	6101.V0.06
8	2.5	60	6101.V0.08
10	4	75	6101.V0.10
13	6.7	90	6101.V0.13
16	10	100	6101.V0.16
20*	16	180	6101.V0.20
22*	20	180	6101.V0.22
28*	31.5	250	6101.V0.28

* EWL = 2 m

VIP Chain Sling, 2-leg, with VIP-Cobra Hooks

VIP-Cobra Hook

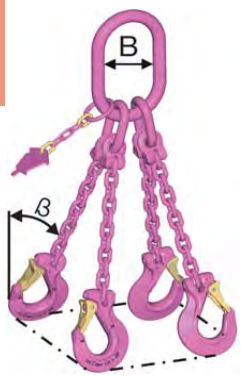


Nominal chain size	Load capacity in t 2-leg at angle		Dimension B in mm	Item no.
	0-45°	45-60°		
4	0.88	0.63	30	6201.V0.04
6	2.1	1.5	60	6201.V0.06
8	3.5	2.5	75	6201.V0.08
10	5.6	4	90	6201.V0.10
13	9.5	6.7	100	6201.V0.13
16	14	10	110	6201.V0.16
20*	22.4	16	180	6201.V0.20
22*	28	20	180	6201.V0.22
28*	45	31.5	250	6201.V0.28

* EWL = 2 m

VIP Chain Sling, 4-leg, with VIP-Cobra Hooks

VIP-Cobra Hook



Nominal chain size	Load capacity in t 4-leg at angle		Dimension B in mm	Item no.
	0-45°	45-60°		
4	1.32	0.95	35	6401.V0.04
6	3.15	2.25	75	6401.V0.06
8	5.25	3.75	90	6401.V0.08
10	8.4	6	100	6401.V0.10
13	14	10	110	6401.V0.13
16	21	15	140	6401.V0.16
20*	33.6	24	190	6401.V0.20
22*	42	30	190	6401.V0.22

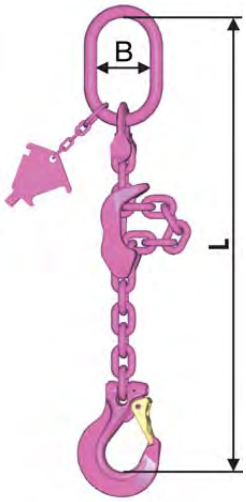
* EWL = 2 m

VIP-Chain Slings Grade 10

VIP Chain Sling, 1-leg, with Multi Shortening Claw VMVK and Cobra Hook

VIP-Cobra Hook

Shortening Claw VMVK
acc. to DIN 5692:2011-04



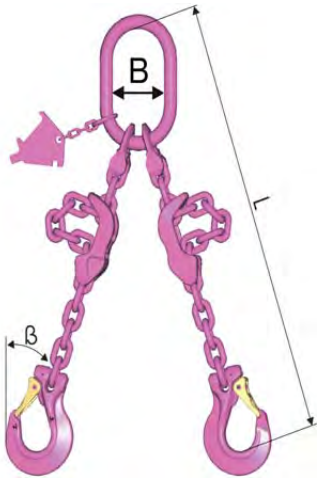
Nominal chain size	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.5	60	6101.V1.06
8	2.5	60	6101.V1.08
10	4	75	6101.V1.10
13	6.7	90	6101.V1.13
16	10	100	6101.V1.16
20*	16	180	6101.V1.20
22*	20	180	6101.V1.22
28*	31.5	250	6101.V1.28

* EWL = 2 m

VIP Chain Sling, 2-leg, with Multi Shortening Claws VMVK and Cobra Hooks

VIP-Cobra Hook

Shortening Claw VMVK
acc. to DIN 5692:2011-04



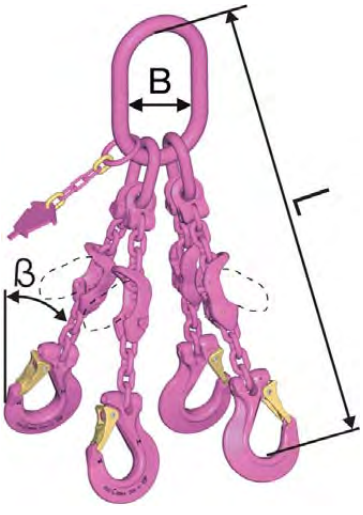
Nominal chain size	Load capacity in t 2-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	2.1	1.5	60	6201.V2.06
8	3.5	2.5	75	6201.V2.08
10	5.6	4	90	6201.V2.10
13	9.5	6.7	100	6201.V2.13
16	14	10	110	6201.V2.16
20*	22.4	16	180	6201.V2.20
22*	28	20	180	6201.V2.22
28*	45	31.5	250	6201.V2.28

* EWL = 2 m

VIP Chain Sling, 4-leg, with Multi Shortening Claw VMVK and Cobra Hook

VIP-Cobra Hook

Shortening Claw VMVK
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity in t 4-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	3.15	2.25	75	6401.V4.06
8	5.25	3.75	90	6401.V4.08
10	8.4	6	100	6401.V4.10
13	14	10	110	6401.V4.13
16	21	15	140	6401.V4.16
20*	33.6	24	190	6401.V4.20
22*	42	30	190	6401.V4.22

* EWL = 2 m

In combination with the VIP rocker (see page 225), 33% higher load capacities are possible.

3-leg chain slings and endless chains available on request!

Chain slings VIP-Mini ND 4 mm see pages 230 et seq.

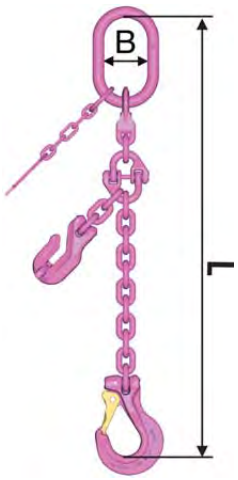
SLINGS

VIP-Chain Slings Grade 10

VIP Chain Sling, 1-leg, with Grab Hook VVH and Cobra Hook

VIP-Cobra Hook

Grab hook VVH
acc. to DIN 5692:2011-04



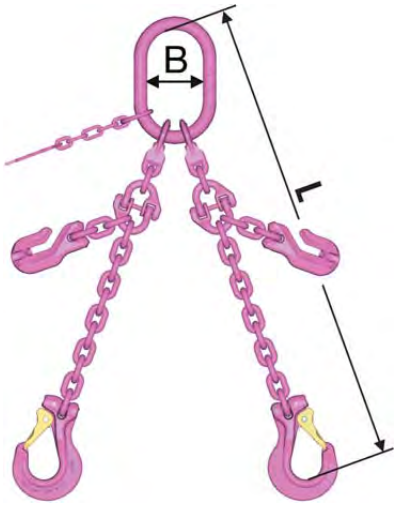
Nominal chain size	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.5	60	6101.V0.0106
8	2.5	60	6101.V0.0108
10	4	75	6101.V0.0110
13	6.7	90	6101.V0.0113
16	10	100	6101.V0.0116
20*	16	180	6101.V0.0120
22*	20	180	6101.V0.0122

* EWL = 2 m

VIP Chain Sling, 2-leg, with Grab Hooks VVH and Cobra Hooks

VIP-Cobra Hook

Grab hook VVH
acc. to DIN 5692:2011-04



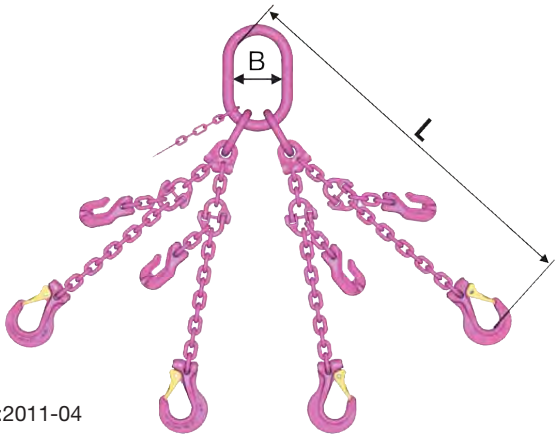
Nominal chain size	Load capacity in t 2-leg at angle 0 - 45°	45 - 60°	Dimension B in mm	Item no.
6	2.1	1.5	60	6201.V0.0206
8	3.5	2.5	75	6201.V0.0208
10	5.6	4	90	6201.V0.0210
13	9.5	6.7	100	6201.V0.0213
16	14	10	110	6201.V0.0216
20*	22.4	16	180	6201.V0.0220
22*	28	20	180	6201.V0.0222

* EWL = 2 m

VIP Chain Sling, 4-leg, with Grab Hooks VVH and Cobra Hooks

VIP-Cobra Hook

Grab hook VVH
acc. to DIN 5692:2011-04



Nominal chain size	Load capacity in t 4-leg at angle 0 - 45°	45 - 60°	Item no.	Item no.
6	3.15	2.25	75	6401.V0.0406
8	5.25	3.75	90	6401.V0.0408
10	8.4	6	100	6401.V0.0410
13	14	10	110	6401.V0.0413
16	21	15	140	6401.V0.0416
20*	33.6	24	190	6401.V0.0420
22*	42	30	190	6401.V0.0422

* EWL = 2 m

3-leg chain slings and endless chains available on request!

Chain slings VIP-Mini ND 4 mm see pages 230 et seq.

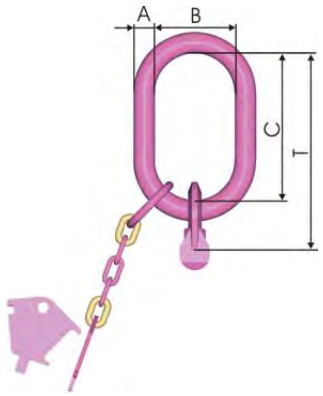
VIP Master Links for Standard Crane Hooks

Master links VAK for standard crane hooks:
VAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.
Dimensions correspond to master link Form A acc. to DIN 5688.
Option:
Also available as master link VBK for smaller crane hooks.

VAK Master Links:
useable for crane hook size acc. to DIN 15401

Dim.	6	8	10	13	16
VAK 1	No.	No. 2.5	No. 6	No. 8	No. 16
VAK 2	2.5	No. 5	No. 8	No. 10	No. 25
VAK 3/4	No.5 6	No. 6	No. 10	No. 16	No. 32

VIP Master Link 1-leg VAK 1

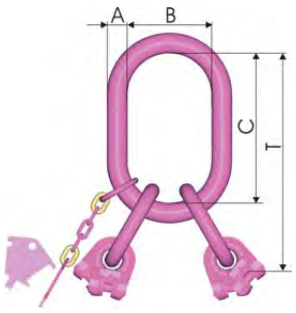


Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
6	1.5	VAK 1-6	13	**60**	110	138	0.6	6510.V0.06
8	2.5	VAK 1-8	16	**60**	110	147	0.9	6510.V0.08
10	4.0	VAK 1-10	18	**75**	135	181	1.4	6510.V0.10
13	6.7	VAK 1-13	22	**90**	160	218	2.4	6510.V0.13
16	10.0	VAK 1-16	26	**100**	180	250	3.7	6510.V0.16
20	16.0	VAK 1-20	41	**180**	340	434	14.7	6510.V0.20
22	20.0	VAK 1-22	45	**180**	340	434	16.5	6510.V0.22

VIP Master Link 2-leg VAK 2

Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
6	2.1	1.5	VAK 2-6	13	**60**	110	138	0.7	6520.V0.06
8	3.5	2.5	VAK 2-8	18	**75**	135	172	1.4	6520.V0.08
10	5.6	4.0	VAK 2-10	22	**90**	160	206	2.3	6520.V0.10
13	9.5	6.7	VAK 2-13	26	**100**	180	238	3.9	6520.V0.13
16	14	10	VAK 2-16	32	**110**	200	270	6.6	6520.V0.16
20	22.4	16	VAK 2-20	41	**180**	340	434	16	6520.V0.20
22	28	20	VAK 2-22	45	**180**	340	434	20	6520.V0.22

VIP Master Link 3- and 4-leg VAK 4



Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
6	3.1	2.2	VAK 4-6	18	**75**	135	217	1.5	6540.V0.06
8	5.2	3.7	VAK 4-8	22	**90**	160	268	2.8	6540.V0.08
10	8.4	6.0	VAK 4-10	26	**100**	180	311	4.6	6540.V0.10
13	14	10	VAK 4-13	32	**110**	200	373	8.3	6540.V0.13
16	21	15	VAK 4-16	36	**140**	260	470	13.7	6540.V0.16
20	33.6	24	VAK 4-20	51	**190**	350	614	39	6540.V0.20
22	42	30	VAK 4-22	51	**190**	350	644	40.1	6540.V0.22

SLINGS

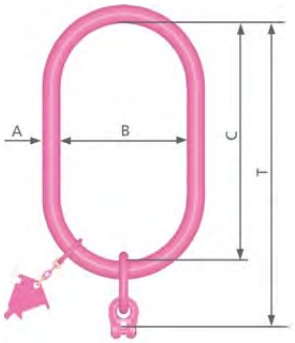
VIP Master Links for bigger Crane Hooks

Master links VSAK with bigger inner width B
VSAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.
The bigger inner width "B" of the VSAK prevents improper use acc. to BGR 500 and excessive wear of the crane hook. No additional components for oversize hooks are necessary.

VSAK-RG Special Master Links:
useable for crane hook size acc. to DIN 15401

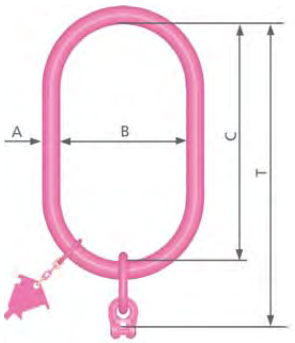
VSAK-RG Dim. B = 140	No. 16
VSAK-RG Dim. B = 190	No. 32
VSAK-RG Dim. B = 250	No. 50

VIP Special Master Link 1-leg VSAK 1 for Single Hook No. 16



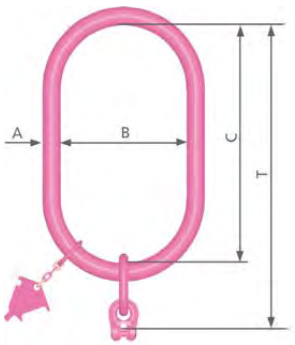
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
6	1.5	VSAK 1-6/140	18	**140**	260	342	1.7	6516.V0.06
8	2.5	VSAK 1-8/140	22	**140**	260	367	3.1	6516.V0.08
10	4.0	VSAK 1-10/140	26	**140**	260	391	4.4	6516.V0.10
13	6.7	VSAK 1-13/140	32	**140**	260	433	7.6	6516.V0.13
16	10.0	VSAK 1-16/140	32	**140**	260	471	8.1	6516.V0.16

VIP Special Master Link 1-leg VSAK 1 for Single Hook No. 32



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
8	2.5	VSAK 1-8/190	22	**190**	350	457	4.0	6517.V0.08
10	4.0	VSAK 1-10/190	26	**190**	350	481	6.0	6517.V0.10
13	6.7	VSAK 1-13/190	32	**190**	350	523	9.9	6517.V0.13
16	10.0	VSAK 1-16/190	36	**190**	350	560	13.5	6517.V0.16

VIP Special Master Link 1-leg VSAK 1 for Single Hook No. 50



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	C	T	Weight in kg/pce	Item no.
10	4.0	VSAK 1-10/250	36	**250**	460	590	12	6518.V0.10
13	6.7	VSAK 1-13/250	36	**250**	460	634	13	6518.V0.13
16	10.0	VSAK 1-16/250	36	**250**	460	670	14	6518.V0.16
20	16.0	VSAK 1-20/250	45	**250**	460	724	25	6518.V0.20
22	20.0	VSAK 1-22/250	51	**250**	460	754	33	6518.V0.22

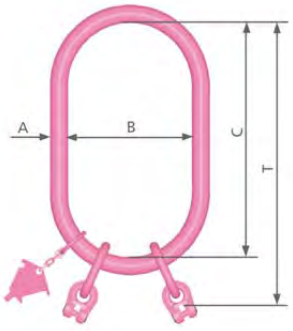
VIP Master Links for bigger Crane Hooks

Master links VSAK with bigger inner width B
VSAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.
The bigger inner width "B" of the VSAK prevents improper use acc. to BGR 500 and excessive wear of the crane hook. No additional components for oversize hooks are necessary.

VSAK Special Master Links:
useable for crane hook size acc. to DIN 15401

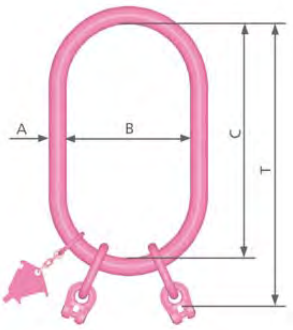
VSAK Dim. B = 140	No. 16
VSAK Dim. B = 190	No. 32
VSAK Dim. B = 250	No. 50

VIP Special Master Link 2-leg VSAK 2 for Single Hook No. 16



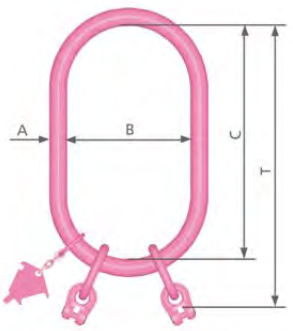
Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	A	B	C	T	Weight in kg/pce	Item no.
6	2.1	1.5	VSAK 2-6/140	18	**140**	260	342	2.7	6526.V0.06
8	3.5	2.5	VSAK 2-8/140	22	**140**	260	367	3.2	6526.V0.08
10	5.6	4.0	VSAK 2-10/140	26	**140**	260	391	4.5	6526.V0.10
13	9.5	6.7	VSAK 2-13/140	32	**140**	260	433	7.8	6526.V0.13
16	14	10	VSAK 2-16/140	32	**140**	260	471	9.5	6526.V0.16

VIP Special Master Link 2-leg VSAK 2 for Single Hook No. 32



Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	A	B	C	T	Weight in kg/pce	Item no.
8	3.5	2.5	VSAK 2-8/190	22	**190**	350	457	4.2	6527.V0.08
10	5.6	4.0	VSAK 2-10/190	26	**190**	350	481	6.2	6527.V0.10
13	9.5	6.7	VSAK 2-13/190	32	**190**	350	523	10.5	6527.V0.13
16	14	10	VSAK 2-16/190	36	**190**	350	560	14.5	6527.V0.16

VIP Special Master Link 2-leg VSAK 2 for Single Hook No. 50



Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	A	B	C	T	Weight in kg/pce	Item no.
10	5.6	4.0	VSAK 2-10/250	36	**250**	460	591	12.8	6528.V0.10
13	9.5	6.7	VSAK 2-13/250	36	**250**	460	634	14.9	6528.V0.13
16	14	10	VSAK 2-16/250	40	**250**	460	671	20	6528.V0.16
20	22.4	16	VSAK 2-20/250	45	**250**	460	724	29	6528.V0.20
22	28	20	VSAK 2-22/250	51	**250**	460	754	42	6528.V0.22

SLINGS

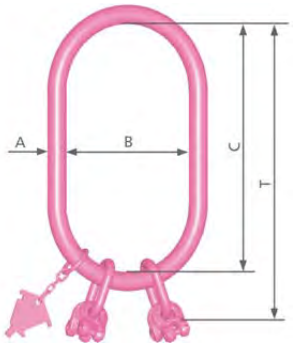
VIP Master Links for bigger Crane Hooks

Master links VSAK with bigger inner width B
VSAK master links with preassembled clevis ring VRG, allowing only the correct chain Ø and number of legs to be connected. Includes identification tag with integrated chain gauge. Connecting bolts and securing sleeve are preassembled.
The bigger inner width "B" of the VSAK prevents improper use acc. to BGR 500 and excessive wear of the crane hook. No additional components for oversize hooks are necessary.

VSAK Special Master Links:
useable for crane hook size acc. to DIN 15401

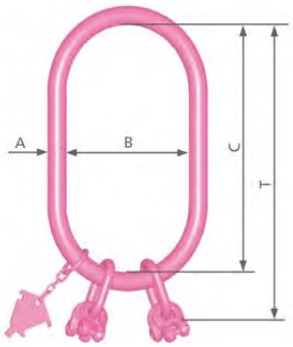
VSAK Dim. B = 140	No. 16
VSAK Dim. B = 190	No. 32
VSAK Dim. B = 250	No. 50

VIP Special Master Link 3- and 4-leg VSAK 4 for Single Hook No. 16



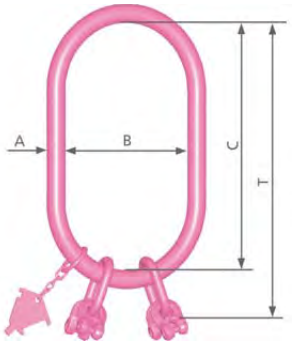
Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	A	B	C	T	Weight in kg/pce	Item no.
6	3.1	2.2	VSAK 4-6/140	22	**140**	260	342	3.3	6546.V0.06
8	5.2	3.7	VSAK 4-8/140	26	**140**	260	367	5.0	6546.V0.08
10	8.4	6.0	VSAK 4-10/140	32	**140**	260	391	7.9	6546.V0.10

VIP Special Master Link 3- and 4-leg VSAK 4 for Single Hook No. 32



Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	A	B	C	T	Weight in kg/pce	Item no.
6	3.1	2.2	VSAK 4-6/190	22	**190**	350	432	3.6	6547.V0.06
8	5.2	3.7	VSAK 4-8/190	26	**190**	350	457	5.5	6547.V0.08
10	8.4	6.0	VSAK 4-10/190	32	**190**	350	481	9.2	6547.V0.10
13	14	10	VSAK 4-13/190	36	**190**	350	523	13.5	6547.V0.13

VIP Special Master Link 3- and 4-leg VSAK 4 for Single Hook No. 50



Nominal chain size in mm	Load capacity in t at angle 0-45°	45-60°	Designation	A	B	C	T	Weight in kg/pce	Item no.
10	8.4	6.0	VSAK 4-10/250	36	**250**	460	591	14.8	6548.V0.10
13	14	10	VSAK 4-13/250	40	**250**	460	634	20.4	6548.V0.13
16	21	15	VSAK 4-16/250	51	**250**	460	671	34.5	6548.V0.16
20*	33.6	24	VSAK 4-20/250	57	**250**	460	724	51	6548.V0.20
22*	42	30	VSAK 4-22/250	57	**250**	460	764	53	6548.V0.22

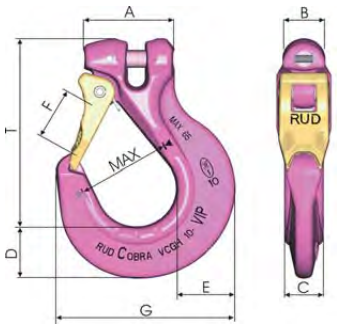
* with VVS connection

SLINGS

VIP Accessories Grade 10

VIP Cobra Clevis Hook with Safety Latch VCGH

- No protruding hook tip
- Broad hook tip to prevent misuse
- Forged and tempered safety latch that locks on the hook tip to avoid lateral bending
- 3-times wound stainless steel double leg spring
- Both sides with wear marks.
- Wear marks for checking the mouth opening!
- Fmax. = Distance of the marker points
- Patented wear marks that indicate discard criteria without measuring



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm									Weight in kg/pce	Item no.
			A	B	C	D	E	F	F_{max}	G	T		
6	1.5	VCGH 6	38	22	16	20	24	25	44.5	71	76	0.4	6550.V0.06
8	2.5	VCGH 8	50	28	20	28	32	30	52	94	97	0.9	6550.V0.08
10	4.0	VCGH 10	60	36	26	36	39	35	64.5	117	108	1.5	6550.V0.10
13	6.7	VCGH 13	76	46	30	37	48	40	72.5	133	126	2.7	6550.V0.13
16	10	VCGH 16	83	56	36	49	58	48	87	157	152	4.3	6550.V0.16
20	16	VCGH 20	112	68	50	69	78	63	114	218	195	10	6550.V0.20
22	20	VCGH 22	117	74	50	74	83	63	114	222	198	11.5	6550.V0.22
28	31.5	VCGH 28	150	101	69	88	109	90	155	295	275	26.4	6550.V0.28

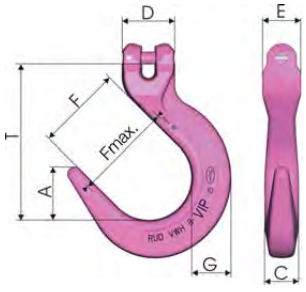
VIP Self-locking Hook VAGH

- Extremely rugged and proven design
- Hook closes automatically when load is lifted
- Unlocks only by pressing the protected unlocking lever on the back of the hook.
- No protruding hook tip
- Broad hook tip - prevents unallowed loading of the hook tip
- Proven marker points for checking the mouth width dimensions (Fmax.)
- Patented wear marks that indicate discard criteria without measuring
- Wear marks >dimension B< protect the connected chain link.
- Ergonomic and robust locking lever
- Complete with preassembled connecting bolt and securing sleeve
- Spare part set available on request

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	F max.	T		
8	2.5	VAGH (S)-8	40	30	27	28	97	44	60	121	1.0	6554.V0.08
10	4.0	VAGH (S)-10	49	37	30	31	107	48	66	135	1.5	6554.V0.10
13	6.7	VAGH (S)-13	61	48	36	40	137	61	81	169	2.9	6554.V0.13

VIP Foundry Hook VWH

- Also called container hook
- With considerably larger opening, but without safety latch
- Only to be used where unintentional unhooking is impossible
- Special care and increased safety is necessary when using this hook and/or a risk analysis must be performed before use
- Robust cross-section (dimensions C and G) protects against higher bending forces
- Chain guard and wear edges (dimension E)
- Marker points for checking the mouth width dimensions (Fmax.)



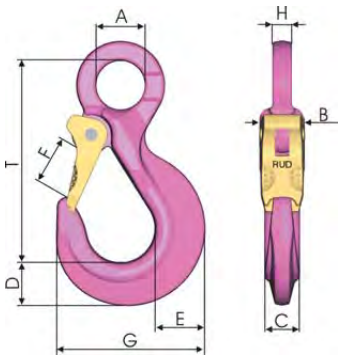
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm									Weight in kg/pce	Item no.
			A	B	C	D	E	F	F max.	G	T		
6	1.5	VWH 6	30	22	18	30	22	50	63	22	87	0.5	6559.V0.06
8	2.5	VWH 8	40	29	26	40	29	64	81	30	115	0.9	6559.V0.08
10	4.0	VWH 10	46	37	30	50	36	76	96	37	130	1.7	6559.V0.10
13*	6.7	VWH 13	58	44	31	64	46	90	127	47	168	3	6559.V0.13
16	10	VWH 16	64	56	40	75	56	100	129	58	190	5.7	6559.V0.16
20*	16	VWH 20	96	80	73	102	80	136	183	80	277	15.1	6559.V0.20
22*	20	VWH 22	96	80	73	102	80	136	183	80	277	15.1	6559.V0.22

* in Sceletto design with patented wear marks in the hook bottom

Not allowed for lifting over persons!

SLINGS
VIP Accessories Grade 10

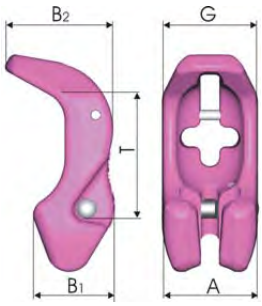
VIP Cobra Eye Hook with Safety Latch VCOH



- **The rugged and compact eye hook without protruding hook tip**
- For VIP chain slings, special wire ropes, PowerPoint components or universal swivels

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm									Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	H	T		
4	0.63	VCÖH 4	18	18	12	13	14	18	52	8	75	0.14	650P.C0.06
6	1.5	VCÖH 6	24	22	16	22	24	25	73	11	98	0.5	650P.C0.15
8	2.5	VCÖH 8	32	28	20	28	31	30	95	13	126	0.8	650P.C0.25
10	4.0	VCÖH 10	38	36	26	36	39	35	118	17	150	1.6	650P.C0.40
13	6.7	VCÖH 13	48	45	30	37	48	40	135	21	170	2.9	650P.C0.67
16	10	VCÖH 16	63	56	36	49	58	50	161	27	208	4.2	650P.C1.00

VIP Multi Shortening Claw VMVK / VV



- Further enchanced version of the proven RUD shortening claw
- Can be captively fitted in any position along the chain leg
- No additional chain or coupling components necessary
- Can be attached to any point on the chain leg or slid onto the chain (only applies to VMVK)
- Ideal support of the chain due to link-shaped pocket – no WLL-reduction
- The robust and spring-loaded safety bolt prevents accidental loosening of the fitted chain in loaded or unloaded condition.
- Attention: When using VMVK or BSEK without safety bolt (securing sleeve) make sure that the chain is completely inserted in the locking notch! During tensioning or lifting of the shortened chain it has to be completely inserted in the locking notch!
- Angled insertion opening prevents the chain from accidentally escaping – in accordance with DIN 5692

100% Load capacity

Type VV

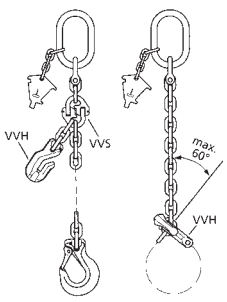
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B1	B2	T	G		
6	1.5	VMVK 6	34	37	44	66	38	0.30	6551.V0.06
8	2.5	VMVK 8	46	46	56	88	69	0.55	6551.V0.08
10	4.0	VMVK 10	58	60	75	110	66	1.1	6551.V0.10
13	6.7	VMVK 13	76	75	92	143	81	2.4	6551.V0.13
16	10	VMVK 16	94	93	115	176	99	4.4	6551.V0.16
20*	16	VV 20	117	101	102	209	123	8.8	6551.V0.20
22*	20	VV 22	117	101	102	140	90	8.5	6551.V0.22
28*	31.5	VV 28	150	130	130	170	130	16.9	6551.V0.28

* Different version

VIP shortening hook VVH

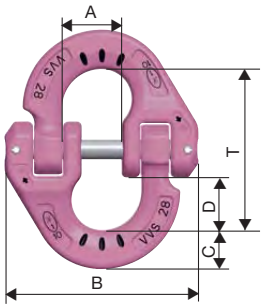
100% Load capacity

- No reduction of the load capacity (WLL)
- Broad hook tip to prevent misuse (e.g. wrong insertion of the chain)
- Ideal support of the chain in the hook bottom due to calibrated tooth lugs
- Angled hook opening prevents the chain from falling out - in accordance with DIN 5692
- Complete with preassembled connecting bolt and securing sleeve



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pc. or kg/pack	Item no.
			A	B	C	D	E	F	T		
6	1.5	VVH 6	34	18	20	44	7.5	23	53	0.25	6613.V0.06
8	2.5	VVH 8	38	22	25	54	9.5	33	64	0.35	6613.V0.08
10	4.0	VVH 10	47	28	31	68	12	42	80	0.80	6613.V0.10
13	6.7	VVH 13	60	36	40	87	15	47	103	2.20	6613.V0.13
16	10	VVH 16	75	45	50	108	18.5	57	125	3.5	6613.V0.16
20	16	VVH 20	92	58	63	138	24	76	162	8.4	6613.V0.20
22	20	VVH 22	102	62	69	151	26	83	179	11	6613.V0.22

VIP Chain Connector VVS

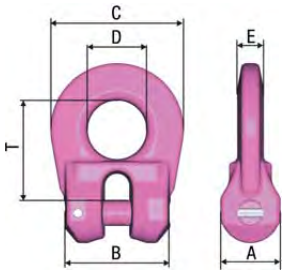


The new and versatile VIP chain connector
The bracket halves are suitable for attachment of chains, shackles, lifting points, plate clamps or others.

- Patent pending for design and function.
- No kinking of the assembled chain.
- The bracket halves can be combined among each other.
- No movement or damage of the otherwise used locking spring or securing pin of the bolt.
- Patented wear marks.

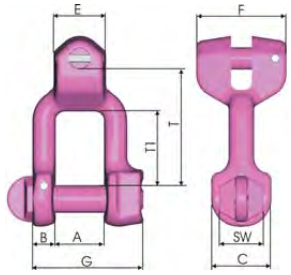
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			A	B	C	D	T		
6	1.5	VVS-6	18	55	13	11	46	0.12	6556.V3.06
8	2.5	VVS-8	24	70	17.5	14	61	0.29	6556.V3.08
10	4.0	VVS-10	28	88	22	17	74	0.57	6556.V3.10
13	6.7	VVS-13	34	111	28	23	93	1.2	6556.V3.13
16	10.0	VVS-16	39	130	33	27	108	2.0	6556.V3.16
20	16.0	VVS-20	42	155	34	41	124	3.7	6556.V3.20
22	20.0	VVS-22	48	172	37	46	138	4.7	6556.V3.22
28	31.5	VVS-28	69	228	47	47	189	10.6	6556.V3.28

VIP Clevis Ring VRG



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm						Weight in kg/pce	Item no.
			A	B	C	D	E	T		
6	1.5	VRG 6	17	30	37	16	7.5	28	0.07	6552.V0.06
8	2.5	VRG 8	23	40	50	22	10	37	0.2	6552.V0.08
10	4.0	VRG 10	28	50	60	26.5	12.5	46	0.3	6552.V0.10
13	6.7	VRG 13	36	64	75	32	16.5	58	0.7	6552.V0.13
16	10	VRG 16	45	75	92	40	20	74	1.1	6552.V0.16
20	16	VRG 20	58	92	118	52	28	94	3.1	6552.V0.20
22	20	VRG 22	62	102	124	52	28	94	3.5	6552.V0.22

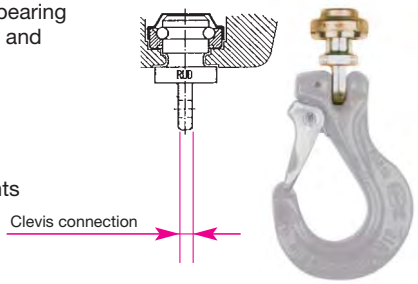
VIP foolproof Clevis Shackle VV-GSCH



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm									Weight in kg/pce	Item no.
			A	B	C	D	E	F	G	T	T1	SW	
6	1.5	VV-GSCH 6	17	8	22	10	16	28	40	36	21	17	0.15	6561.V4.06
8	2.5	VV-GSCH 8	21	10	26	12	24	39	48	48	32	19	0.26	6561.V4.08
10	4.0	VV-GSCH 10	27	13	34	16	28	44	62	61	35	24	0.65	6561.V4.10
13	6.7	VV-GSCH 13	33	17	42	20	38	59	81	78	41	29	1.35	6561.V4.13
16	10	VV-GSCH 16	38	22	49	24	45	69	95	96	49	36	2.5	6561.V4.16
20	16	VV-GSCH 20	47	27	60	30	52	88	119	108	57	46	3.9	6561.V4.20
22	20	VV-GSCH 22	53	30	76	36	62	95	130	122	72	55	6.7	6561.V4.22

Swivel Adapter HWA Lifting Device suitable for Demag Lifting Devices

- Complete with original Demag ball bearing
- Made from high-strength quenched and tempered special steel
- Tested according to EN 1677
- Suitable for
  - Single-leg hook blocks
  - Twin-leg hook blocks
  - All RUD clevis modular components



Clevis connection	Load capacity in t	Designation	Weight in kg/pce	Item no.
6	0.4	HWA 6 DK 400	0.15	6569.V0604
6	0.8	HWA 6 DK 800	0.30	6569.V0608
8	0.8	HWA 8 DK 800	0.40	6569.V0808
8	1.25	HWA 8 DK 1250	0.55	6569.V0812
10	2.5	HWA 10 DK 2500	0.9	6569.V1025
13	5	HWA 13 DK 5000	1.3	6569.V1350

SLINGS

VIP Force-balanced Lifting of Loads Grade 10

VIP Chain Block VCB

- For force-balanced lifting of loads e.g. transport of windmill segments
- Pentagon chain wheel for chain deflection
- Pentagon chain wheel with brake to prevent the unloaded chain from falling down on one side.
- Shackle connection with ball bearing (see table)
- Compact size
- Scope of delivery: connector not included
- **Attention: Unsymmetrical loading is prohibited (see instructions)**

Option:
- Replacement for rope capture pulley

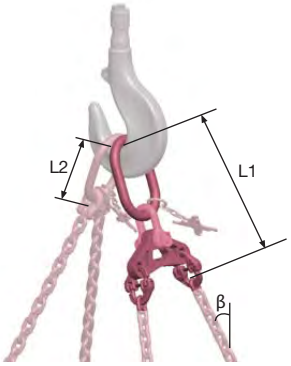
Nominal chain size in mm	Load capacity in t 0-7°	7-20°	20-45°	Designation	Dimensions in mm Division in mm	C	D	Connector (not included)	Weight in kg/pce	Item no.
16	20	18.5	14	VCB-16	ca. 210	50	45	VV-GSCH-22	25	6577.V1.16
22	40	37.5	28	VCB-22	ca. 285	80	68	Welded shackle 42.5 t	56.6	6577.V1.22

VIP Balancer 2-leg, complete VWK-2S

Load capacity can be increased by 33% compared to 4 load-bearing legs, when using two 2-leg slings and one is equipped with a balancer (V-W) (see illustration).

The dimensions of the overall chain sling must be individually adapted to align the two chain slings. We will gladly provide you with advice and support when combining the individual parts.
Please contact us.

Max. inclined position of balancer should not exceed 10°.



Application:
Load capacity increased by 33%

Comparison:

Nominal chain size in mm	WLL in t 4-leg chain sling	2x2-leg chain sling with VWK
6	3.15	**4.2**
8	5.25	**7**
10	8.4	**11.2**
13	14	**19**
16	21	**28**
20	33.6	**45**
22	42	**56**

The table illustrates the higher load capacity of a 2x2-leg chain sling with a rocker head compared to a 4-leg chain sling.

VIP Master Links see page 218 et seq.

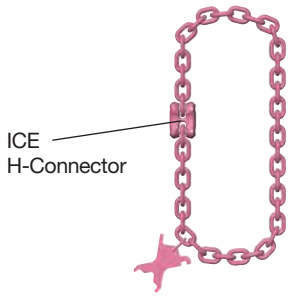
Nominal chain size in mm	WLL overall chain sling in t 2x2-leg ß=0- 45°	Designation Balancer VWK	Designation VAK 2-leg	Dimensions VAK link in mm	Division Balancer L1 in mm	Division VAK 2-leg L2 in mm	Weight Balancer in kg/pce
6	4.2	VWK-2S-6	VAK 2S-6	18x75x135	276	217	1.5
8	7	VWK-2S-8	VAK 2S-8	22x90x160	343	268	2.8
10	11.2	VWK-2S-10	VAK 2S-10	26x100x180	403	311	6.8
13	19	VWK-2S-13	VAK 2S-13	32x110x200	475	373	10.7
16	28	VWK-2S-16	VAK 2S-16	36x140x260	599	470	20.2
20	45	VWK-2S-20	VAK 2S-20	51x190x350	717	614	35.3
22	56	VWK-2S-22	VAK 2S-22	51x190x350	823	644	50

This rocker head is also available in ICE 120.

SLINGS

VIP Endless Chains Grade 10

VIP Endless Chain VKR-H with Connector



Nominal chain size in mm	Load capacity in t inclination angle 0 - 45°	45 - 60°	Endless chain in choker hitch Load capacity in t	Item no.
6	1.65	1.2	2.4	6204.V0.06
8	2.75	2.0	4.0	6204.V0.08
10	4.4	3.2	6.4	6204.V0.10
13	7.5	5.3	10.6	6204.V0.13
16	11.0	8.0	16.0	6204.V0.16

Load capacity reduction of 20% due to sharp egdes has already been considered.

ICE/VIP/GK8 H-Connector IH/VH

- Fast, easy and economic assembly of endless chains
- Pitch of H-Connector corresponds to pitch of chain
- Ergonomic shape
- Enhanced gliding over edges
- Highly flexible: Adapts to both, the shape of the chain and the load.

Attention:
Suitable for use with round steel chains DIN 818-2 in GK 8, VIP-GK 10 and ICE-GK 12

Nom.chain size in mm	Load cap. GK 8 in t	Load cap. VIP in t	Load cap. ICE in t	Designation	Dimensions in mm A	B	T	Weight in kg/pce	Item no.
6	1.12	1.5	1.8	IH-6	34	19.6	18	0.11	6206.S0.06
8	2.0	2.5	3.0	IH-8	45	25.5	18	0.11	6206.S0.08
10	3.15	4.0	5.0	IH-10	56	31.5	30	0.55	6206.S0.10
13	5.3	6.7	8.0	IH-13	73	40	39	1.16	6206.S0.13
16	8.0	10.0	12.5	IH-16	89	49	48	2.16	6206.S0.16

The load capacity must be adapted to the grade of the chain used.

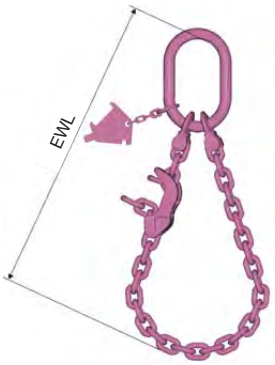
VIP Endless Chain, single, Type VKRE

Nominal chain size in mm	Load capacity in t single 0-45°	45-60°	Item no.
6	1.65	1.2	6204.V0.06
8	2.75	2	6204.V0.08
10	4.4	3.2	6204.V0.10
13	7.5	5.3	6204.V0.13
16	11	8	6204.V0.16
20*	17.6	12.8	6204.V0.20
22*	22	16	6204.V0.22
28*	44.1	31.5	6204.V0.28

***Min. EWL = 2 m**
Nominal chain size 28 will be manufactured from Maxi 28 components (pages 232-235).

Load capacity reduction of 20% due to sharp egdes has already been considered.

VIP Endless Chain, single, with Shortener, Type VKREV



Nominal chain size in mm	Load capacity in t single 0-45°	45-60°	Item no.
6	1.65	1.2	6205.V0.06
8	2.75	2	6205.V0.08
10	4.4	3.2	6205.V0.10
13	7.5	5.3	6205.V0.13
16	11	8	6205.V0.16
20*	17.6	12.8	6205.V0.20
22*	22	16	6205.V0.22
28*	44.1	31.5	6205.V0.28

VIP Endless Chain, double, Type VKRD

Nominal chain size in mm	Load capacity in t single		Item no.
	0-45°	45-60°	
6	2.55	1.8	6404.V0.06
8	4.25	3	6404.V0.08
10	6.8	4.8	6404.V0.10
13	11.2	8	6404.V0.13
16	17	12	6404.V0.16
20*	27.2	19.2	6404.V0.20
22*	34	24	6404.V0.22

***Min. EWL = 2 m**
This endless chain version is only permissible for nominal sizes 6 - 22 mm. Other versions in nominal size 28 (VIP MAXI) see pages 232-235.

Load capacity reduction of 20% due to sharp egdes has already been considered.

VIP Endless Chain, double, with 2 Shorteners, Type VKRDV

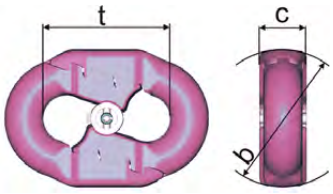
Nominal chain size in mm	Load capacity in t single		Item no.
	0-45°	45-60°	
6	2.55	1.8	6405.V0.06
8	4.25	3	6405.V0.08
10	6.8	4.8	6405.V0.10
13	11.2	8	6405.V0.13
16	17	12	6405.V0.16
20*	27.2	19.2	6405.V0.20
22*	34	24	6405.V0.22

****Min. EWL = 2 m**
This endless chain version is only permissible for nominal sizes 6 - 22 mm. Other versions in nominal size 28 (VIP MAXI) siehe Seite 256-259.

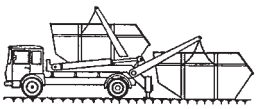
Load capacity reduction of 20% due to sharp egdes has already been considered.

VIP Dominator Coupler Link to make Endless Chains in size 20, 22, and 28 mm

Nominal chain size in mm	Load capacity in t	Dimensions in mm			Weight in kg	Item no.
		t	c	b		
20	16	86	26	85	1.2	6206.V1.20
22	20	92	33	95	1.8	6206.V1.22
28	31.5	126	40	119	4.1	6206.V1.28



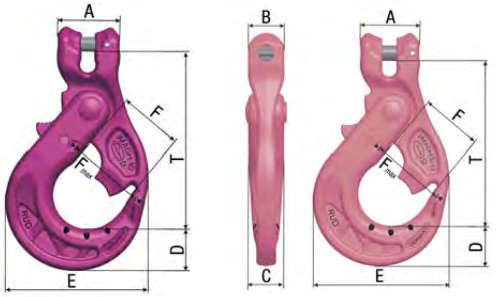
Max. inclination angle for endless chains with Dominator is 0°-7°.



Accessories for Skip Bin Transport acc. to DIN EN 30720

ICE Automatic Clevis Hook IMAGH for Skip Bins

- Suitable for standardised skip bin pins acc. to DIN/EN 30720
- Easy operation of bolt and hook safety devices
- Foolproof chain connection
- Wear marks for checking the mouth opening
- Patented wear marks that indiacte discard criteria without measuring.
- Antislip securing lever without risk of injury

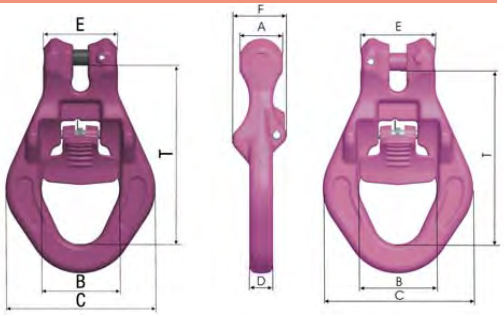


ICE IMAGH-10 VIP VMAGH-13

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	F	$F_{max.}$	T		
10-ICE	5	IMAGH-10	61	37	36	40	137	50	81	171	3	6554.SM.10
13-VIP	6.7	VMAGH (S) -13	61	37	36	40	137	50	81	167	2.2	6554.VM.13

ICE- / VIP Suspension Eye IMEG / VMEG for Skip Bins

- Fast attachment, no need to unlock
- Simplified attachment of the lifting eye thanks to ergonomic locking mechanism
- Antislip locking mechanism
- Protective ribs keep the locking mechanism from being damaged
- Suitable for standardised skip bin pins acc. to DIN/EN 30720

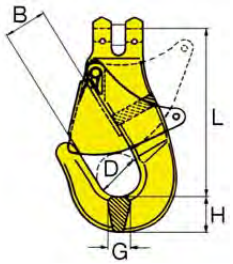


ICE IMEG-10 VIP VMEG-13

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm							Weight in kg/pce	Item no.
			A	B	C	D	E	F	T		
10-ICE	5	IMEG-10	37	66	128	20	64	46	153	2.2	6566.S0.10
13-VIP	6.7	VMEG (S)-13	37	66	128	20	64	46	149	2.6	6566.V1.13

Skip Bin Hook Type GKC

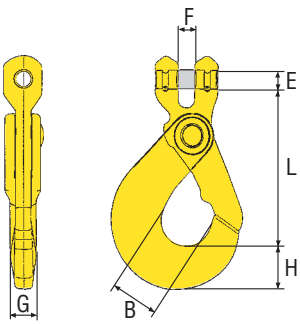
- This safety hook minimises the risk of accident.
- The self-locking mechanism guarantees for safe transport of skip bins.



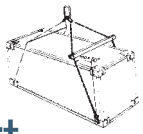
For nominal chain size in mm	Load capacity in kg	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			B	D	G	H	L		
13	5300	GKC-13	54	50	27	42	190	3	6617.00.50

Skip Bin Hook for Chain Slings BKGC

- Designed as a self-locking automatic hook
- When loaded the hook closes automatically and remains locked during the complete lifting procedure
- Accidental unhooking of the bin is excluded
- It is suitable for all standard bins



Nominal chain size in mm	Load capacity in kg	Designation	Dimensions in mm						Weight in kg/pce	Item no.
			L	B	E	F	G	H		
13	5300	BKGC-13-8	164	55	16	14.5	27	43	3.2	6615.00.13
16	8000	BKGC-16-8	160	55	19.5	17.4	27	43	3.4	6615.00.16

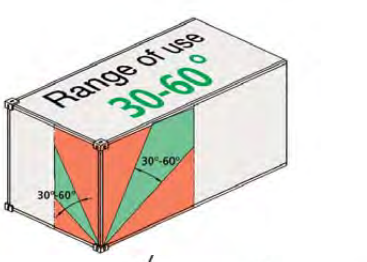


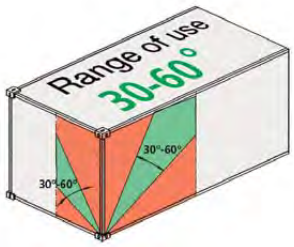
VIP Container Hook VCH

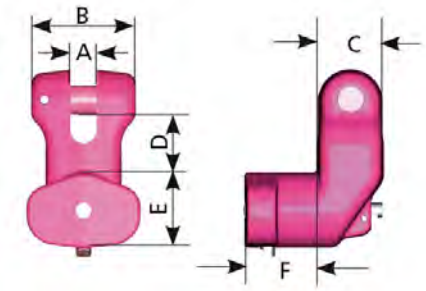
VCH–10 Load capacity 10 t
- VCH–10 suitable for ISO container corners
- Use a VIP chain connector VVS 16 and a VIP foolproof shackle VV-GSCH 16 for permanent attachment to a chain sling
- Separate component for hook suspension
- Suitable for an inclination angle of 30° to max. 60°

VCH SL–16 Load capacity 10 t
- VCH SL–16 suitable for ISO container corners
- With patented safety locking mechanism, accidental unhooking during lifting is thus ruled out
- With clevis connection for VIP chain Nominal chain size 16
- **Attachment:** without pressing the lock due to automatic opening and closing.
- **Detachment:** only possible if the unlocking bolt is pressed
- Suitable for vertical lifting up to an inclination angle of max. 45°

VCH SL–22 Load capacity 20 t
- VCH SL–22 suitable for ISO container corners
- With patented safety locking mechanism, function same as VCH SL-16.
- Accidental unhooking during lifting is thus ruled out
- With clevis connection for VIP chain Nominal chain size 22
- With VRG 16 reduction, the VIP chain 16 can be used
- Suitable for an inclination angle of 30° to max. 60°





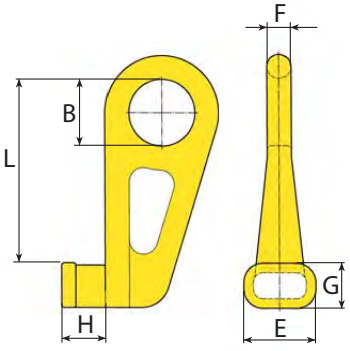


Load capacity in t	Type	Dimensions in mm A	B	C	D	E	F	Weight in kg/pce	Item no.
10	VCH-10	56	70	24	83	76	45	3	6587.V0.10
10	VCH SL-16	18	71	42	40	50	47	2.5	6587.VS.10
20	VCH SL-22	24	62	48	45	76	45	4.2	6587.VS.20

Container Hook Type CH-3

Load capacity in t*	Type	Dimensions in mm L	B	G	H	F	E	Weight in kg/pce	Item no.
12.5	CH-3 straight	187	70	47	46	25	75	4.0	5270.01.25
12.5	CH-3 45° left	187	70	47	46	25	75	4.0	5270.L1.25
12.5	CH-3 45° right	187	70	47	46	25	75	4.0	5270.R1.25

*Safety factor 4:1



Caution:
- CH-3 only suitable for vertical lifting
- CH-3 left and right must be used in pairs
- Observe the inclination angle
- Accidental unhooking not possible with both versions

SLINGS

VIP Mini Components Grade 10

The first and only 4 mm chain in grade 10

The VIP Mini chain is an everyday tool like hammer or vice and belongs to every lifting device. It covers 85% of all lifting operations with hoists up to 1,320 kg load capacity.

VIP Master Link VAK 1/2
for 1- and 2-leg VIP Mini Chain Slings, without Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	0.63	VAK 1/2-4	8	28	55	0.1	6510.V0.04

VIP Master Link VAK 1/2
for 1- and 2-leg VIP Mini Chain Slings, without Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm			Weight in kg/pce	Item no.
			A	B	T		
4	1.32	VAK 3/4-4	10	35	115	0.3	6530.V0.04

VIP Mini Lifter VML 2
for 1- and 2-leg VIP Mini Chain Slings, with Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	T	Weight in kg/pce	Item no.
4	0.88/0.63	VML 2-4	10	30	66	0.26	6583.V1.04

VIP Mini Lifter VML 4
for 3- and 4-leg VIP Mini Chain Slings, with Shortener

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	T	Weight in kg/pce	Item no.
4	1.32/0.95	VML 4-4	10	35	150	0.85	6583.V3.04

VIP Mini Hook with Safety Latch

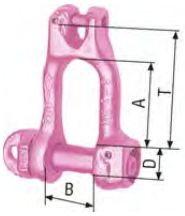
Nominal chain size in mm	Load capacity in t	Designation	Mouth width (MW) in mm	Dimensions in mm T	H	Weight in kg/pce	Item no.
4	0.63	VMH-4	18	56	13	0.12	6550.V0.04

VIP End Stop VEA-4

Nominal chain size in mm	Load capacity in t	Designation	Weight in kg/pce	Item no.
4	0.63	VEA-4	0.05	6562.V0.04

VIP Mini Clevis Shackle

Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	D	T	Weight in kg/pce	Item no.
4	0.63	VMKS-4	30	14	10	42	0.12	6561.V0.04



›MAXI‹ Components

Safely lift heavy loads of up to 126 t.
From crane hooks to heavy loads, always the right aid!

Previously, the weight limit when attaching loads with RUD-VIP chains with a diameter of 22 mm was 42 t.

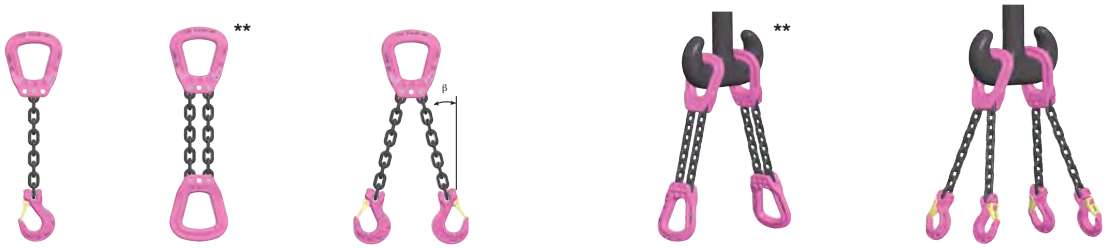
The VIP chain generation with 28 mm NT in grade 100 made from patented special steel was developed for applications in which loads weighing between 50 and 126 t should be moved.

If the various components are suitably combined, loads with a total weight of up to 126 t can be attached.

SLINGS

VIP Maxi Components Grade 10

WLL overview for VIP-Maxi 28 x 84 for symmetric loads



Inclination angle β	90°	90°	0-45°	>45-60°	0-7°	>7-45°	0-45°
Load factor	1	2	1.4	1	4	2.8	2.1
Load capacity in t	31.5	63.0	45.0	31.5	126	88	67.0

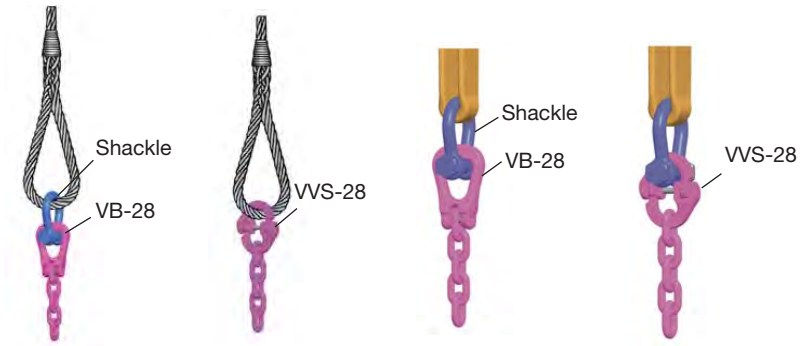
Inclination angle β	0-7°	>7-45°	>45-60°	0-7°	>7-45°	0-7°	>7-45°	0-7°
Load factor	2	1.4	1	4	2.8	4	2.8	2
Load capacity in t	63*	45.0*	31.5*	126*	88*	126*	88*	63*

Important notes:

- Acc. to BGR/DGUV rule 100-500, section. 2.8, the 1-leg load capacity applies for an asymmetric load on a multi-leg chain sling
- *Endless and loop chains: bollard-, bolt- or shackle-diameters must exceed 3 x pitch (>250 mm).
  For smaller diameters (edge load) the load capacity must be reduced by 20%. In case of doubt please contact us.
- **To optimally introduce forces to the suspension heads when using parallel legs, we provide you with paired length-calibrated chains. Please contact us.

For basket hitch make sure that loads cannot shift or fall (German Industrial Safety Regulation, annex 1, § 7).

Connecting possibilities



Sling versions

SLINGS
VIP Maxi

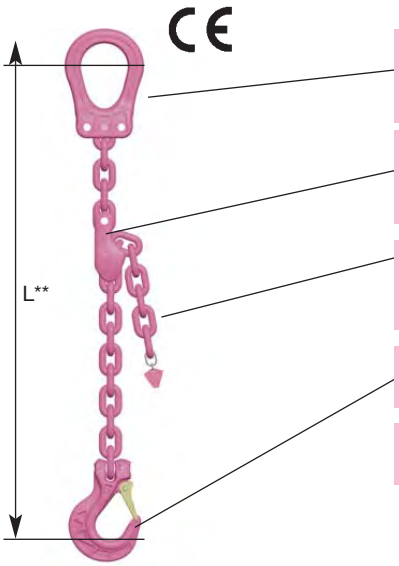
Chain 28 x 84 mm grade 100
Load capacity up to 126 ton

Easy length adjustment

The flexible modular system for capacities up to 126 ton

This new VIP chain generation with a diameter of 28 mm in grade 100 made from patented ICE-steel pushes chain slings to a new limit. For all applications where the load exceeds 50 ton (e.g. heavy turbines, large machinery etc.)

- Safe lifting of heavy loads
- Adjustable length, stabilised edges
- Separable (weight) but lockable slings



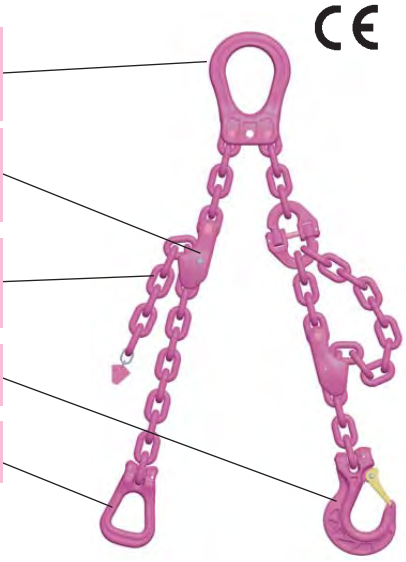
VIP >MAXI< VAK-1/2-28 and VBK-1/2-28 for 1- or 2-leg version with integrated chain connection for crane hooks up to size 50, with forged WLL indication.

VIP >MAXI< shortening claw VV-28 with pocket support to protect the chain link and spring-loaded safety bolt, no accidental loosening

VIP >MAXI< round steel chain 28 x 84, grade 100, extremely robust and wear resistant, surface CRUD-dsl (black) or pink powder-coated

VIP >MAXI< VCGH-28, the proven Cobra clevis hook in lightweight skeletal design

VIP >MAXI< End link VB-28 e.g. for attachment of shackle connection VC-SCH-6



VIP >MAXI< G1-V1-VCGH-28 x L

**L = max. EWL – last chain link in pocket of VV-28

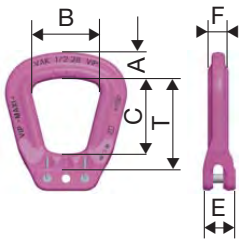
VIP >MAXI< G2-V2-VCGH/VB-28 x L

Designation	Load capacity in t	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	T		
VIP Master link VAK-1/2-28 MAXI*	31.5/45/63	100	250	280	208	120	76	-	360	64.3	6510.V0.28
VIP Master link VBK-1/2-28 MAXI**	31.5/45/63	60	190	265	240	120	55	-	322	35	6510.V0.29
VIP-End link VB 28 MAXI	31.5	62	130	150	130	80	100	52	209	13.7	6569.V0.28
VIP Cobra clevis hook VCGH-28 MAXI	31.5	150	101	69	88	-	90	295	275	26.4	6550.V0.28
VIP Chain connector VVS-28 MAXI	31.5	69	228	58	47	67	81	-	189	10.6	6556.V3.28
VIP Multi shortening claw VV-28 MAXI	31.5	150	130	130	-	-	-	-	170	16.9	6551.V0.28
VIP Roundsling coupler RS-VVS-28	31.5	69	163	100	47	33	-	-	245	20	6556.V4.28
VIP DOMINATOR 28	31.5	-	-	40	-	-	-		126	4.1	6206.V1.28
VIP Length adjustment VLE-28	31.5	650	172	138	120	-	-	-	478	44	6501.V1.28
VIP Universal swivel VUW-28 (under preparation)	31.5	148	-	-	-	-	-	-	183	27.3	6569.V1.31
VIP Universal swivel with link VUW-GLD-28	31.5	153	-	-	46	90	130	-	376	30.8	6569.V1.32
Combination VVS-28 and VC-SCH 6.0	31.5	-	-	-	-	-	-	-	309	16.5	-
Round steel chain VIP-28 x 84-dsl	31.5	28	37	-	-	-	-	-	84	18.6/m	6000.V1.28
Round steel chain VIP-28 x 84-pink	31.5	28	37	-	-	-	-	-	84	18.6/m	6000.V0.28
VIP Foolproof shackle VC-SCH-6	31.5	53	34	78	39	37	34	121	120	5.9	6561.V1.60
Identification tag VKZA 1S-28 with lettering	-	-	-	-	-	-			-	0.18	6601.V1.28B
Identification tag VKZA 1S-28 without lettering	-	-	-	-	-	-			-	0.18	6601.V1.28
MAXI Test scale VG 28	-	-	-	-	-	-			-	0.37	6601.V2.28
Weld-on lifting ring VRBS-Fix 31.5	31.5	160	42	99	130	366	195		202	18.4	5560.VF.30
Weld-on lifting point ABA 31.5	31.5	108	64	320	130	50	204	-	154	18.3	5563.83.15
VIP Weld-on lifting point VWBS-KA-28	31.5	28	-	-	170	-	-	-	147	24.0	651P.63.15
Weld-on lifting point PowerPoint WPPH-KA-28	31.5	28	-	-	148	-	-	-	74	11.0	652P.63.15
VIP Weld-on lifting ring VWBS 40 (50) t	40 (50)	46	170	110	170	-	-	161	380	27.9	651P.74.00
VIP Weld-on lifting point VWBG 31.5 (40) t M72	31.5 (40)	46	130	90	170	-	108	159	338	29.9	5580.V3.15
VIP Weld-on lifting point VWBG-KA-28	31.5	-	-	-	170	-	108	-	146	26.4	5580.V3.17
VIP Bolt-on lifting ring VRBG 31.5	31.5	180	42	-	130	-	-	400	-	67.0	5565.V3.00

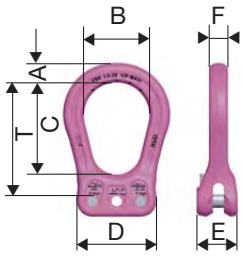
* VIP Master Link VAK suitable for single crane hook (size 50) and double crane hook (size 80) acc. to DIN 15401/15402.
** VIP Master Link VBK suitable for single crane hook (size 12-32) and double crane hook (size 12-32) acc. to DIN 15401/15402.

SLINGS
VIP Maxi

VIP Master link
VAK-1/2-28 MAXI

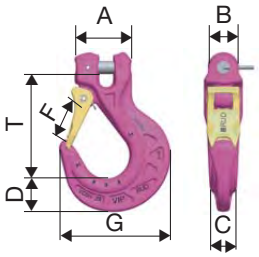


VIP Master link
VBK-1/2-28

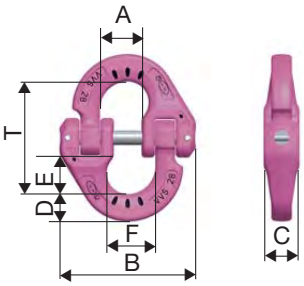


VIP End link
VB 28 MAXI

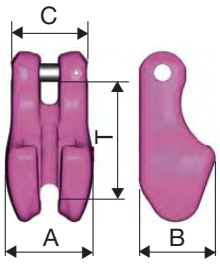
VIP Cobra clevis hook
VCGH-28 MAXI



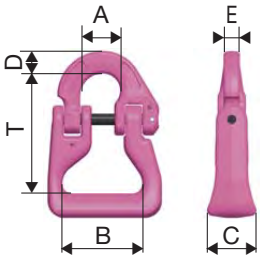
VIP Chain connector
VVS-28 MAXI



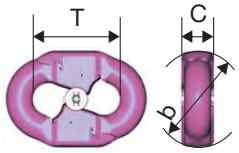
VIP Shortening claw
VV-28 MAXI



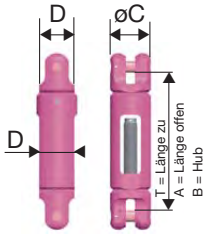
VIP Roundsling coupler
RS-VVS-28



VIP DOMINATOR 28



VIP Length adjustment
VLE-28

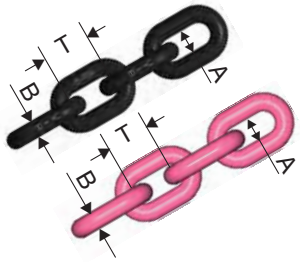


VIP Universal swivel

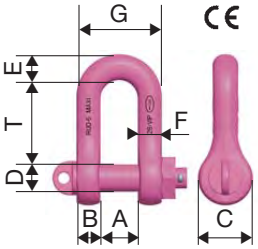
VIP Universal swivel with link
VUW-GLD-28

Combination VVS-28
and VC-SCH 6.0

Round steel chain
VIP-28 x 84-dsl + pink

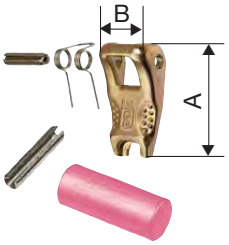


VIP Foolproof shackle
VC-SCH-6

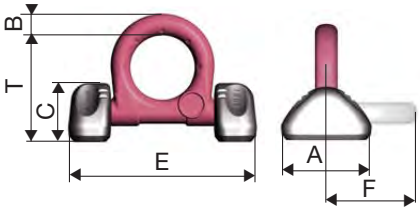


Identification tag
VKZA 1S-28
MAXI Test scale VG 28

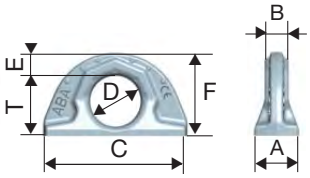
Safety latch VCGH-28
Item no. 6500.V0.28
Replacement bolt VG-28/Sp-28
Item no. 6502.V0.22



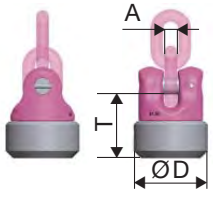
Weld-on lifting ring
VRBS-Fix 31.5



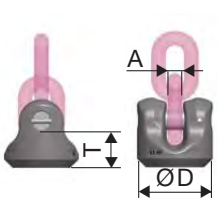
Weld-on lifting point
ABA 31.5



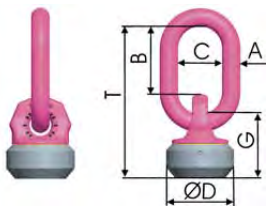
VIP Weld-on lifting point
VWBS-KA-28



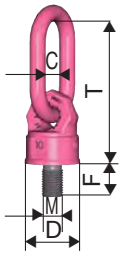
Weld-on lifting point
PowerPoint
WPPH-KA-28



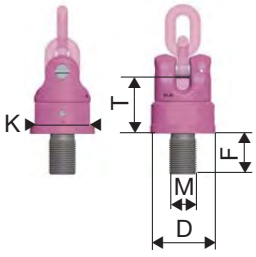
VIP Weld-on lifting ring
VWBS 40 (50) t



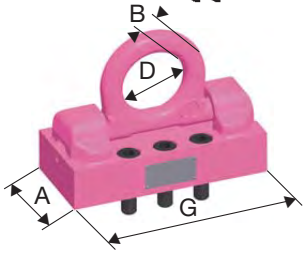
VIP Lifting ring
VWBG 31.5 (40) t M72



VIP Lifting point
VWBG-KA-28

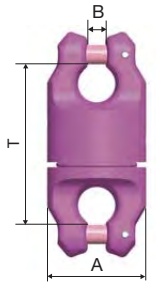


VIP Bolt-on lifting ring
VRBG 31.5



VIP Universal swivel UW-PP

- Patented clevis version
- Universal connection, can be loaded in all directions
- Short assembly lengths possible
- Only approved for use with original RUD components



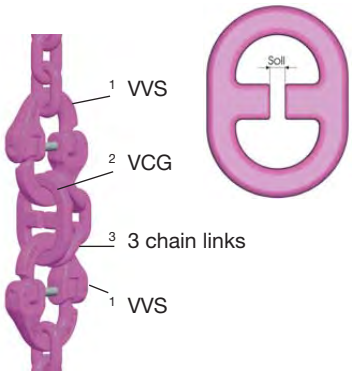
Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm A	B	T	Weight in kg/pce	Item no.
4	0.63	UW PP-4	32	4.8	56	0.22	6569.V1.04
6	1.5	UW PP-6	38	7.0	68	0.41	6569.V1.06
8	2.5	UW PP-8	52	9.1	88	1.0	6569.V1.08
10	4.0	UW PP-10	66	11.0	106	2.0	6569.V1.10
13	6.7	UW PP-13	80	14.4	131	3.7	6569.V1.13
16	10	UW PP-16	86	17.6	141	4.9	6569.V1.16
20	16	VWA 20*	100	21.0	147	6.5	6569.V1.20
22	20	VWA 22*	102	23.0	147	6.8	6569.V1.22
28	31.5	VUW-28	148	-	183	27.3	6569.V1.31

* Deviating form

Overload Control VCG

The Safety Champion!

Immediate permanent optical indication in case of overload – by the specially calibrated control link VCGH. Assembled stationary but easy to replace.



Overload control VCG complete

Nominal chain size in mm	Load capacity in t	Designation of single parts	Length T in mm	Weight in kg	Item no.
6	1.5	VVS[1] VCG[2] 3 chain links[3] VVS[4]	115	0.3	6565.V0.06
8	2.5		151	0.5	6565.V0.08
10	4.0		198	1.0	6565.V0.10
13	6.7		232	2.1	6565.V0.13
16	10.0		291	3.8	6565.V0.16

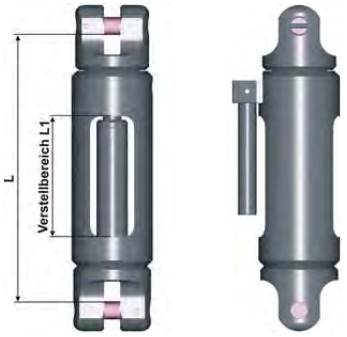
Control link VCG

Nominal chain size in mm	Load capacity in t	Designation of single parts	Initial dimension nom. in mm	Weight in kg	Item no.
6	1.5	VCG-6	4	0.06	6565.V1.06
8	2.5	VCG-8	6	0.10	6565.V1.08
10	4.0	VCG-10	7	0.20	6565.V1.10
13	6.7	VCG-13	10	0.40	6565.V1.13
16	10.0	VCG-16	11	0.80	6565.V1.16

VIP Length adjustment VLE

- Allows exact length adjustment of chain falls
- In case of 4 load-bearing chain falls a precise horizontal alignment is possible.
- With eccentric centre of gravity it makes work much easier.
- Allows fine adjustment by one handle turn corresponding to 4.5 mm

For chain sizes 20, 22, and 28 mm a length adjustment by shortening claw **(see page 223 VMVK)** is only possible in pitch steps:
Size 20 = 60 mm, size 22 = 66 mm and size 28 = 84 mm.



Please note:
No adjustment possible under load!

Nominal chain size	Load capacity in t	L in mm	L1 in mm	Item no.
20	16	300	140	6501.V1.20
22	20	300	140	6501.V1.22
28	31.5	478	170	6501.V1.28

SLINGS
Chain Slings Grade 8

Grade 8

This mark identifies the **highly dynamic, highstrength round steel chain** with manufacturer's number. (1) means here that as first manufacturer RUD received the official approval for production of round steel chains according to DIN 5687-7 from German BG (Employers' Liability Insurance Association) in 1971.

This mark can be found on every tenth chain link. Special product feature: Considerably improved corrosion protection compared with bright DIN versions.

Special marking for **foolproof, highly dynamic chain slings**, which are manufactured with tighter tolerances (dimension bi). Combined with RUD components an absolutely foolproof chain connection is guaranteed.

Special product feature:
longer service life due to improved wear area.

The lot number can be found on every **highly dynamic round steel chain** once per running metre. It indicates the manufacturing and proof test data of the chain.

Special product feature:
Up to 20% harder than a DIN chain sling.

Load capacity in relation to temperature

If chain slings are used at temperatures over 200°C, the permissible load capacity must be reduced.

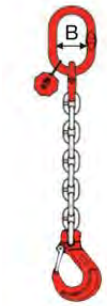
Load capacity in % at chain temperature of:

-40 to +200° C	from 200 to 300° C	from 300 to 400° C
100 %	90 %	75 %

Chain slings in piece goods can be found on pages 244-245.

CS 1-leg Chain Sling Grade 8, without Shortener, with Clevis Hook

Clevis hook



Nominal chain size mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.12	60	6180.10.06
8	2	60	6180.10.08
10	3.15	75	6180.10.10
13	5.3	90	6180.10.13
16	8	100	6180.10.16
26	21.2		6101.J0.26
28	25		6101.J0.28
32	31.5		6101.J0.32
36	40		6101.J0.36

CS 2-leg Chain Sling Grade 8, without Shortener, with Clevis Hooks

Clevis hook

Nominal chain size mm	Load capacity in t 2-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	1.6	1.12	60	6280.10.06
8	2.8	2	75	6280.10.08
10	4.25	3.15	90	6280.10.10
13	7.5	5.3	100	6280.10.13
16	11.2	8	110	6280.10.16
26	30	21.2		6201.J0.26
28	33.5	25		6201.J0.28
32	45	31.5		6201.J0.32
36	56	40		6201.J0.36

CS 4-leg Chain Sling Grade 8, without Shortener, with Clevis Hooks

Clevis hook

Nominal chain size mm	Load capacity in t 4-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	2.36	1.7	75	6480.10.06
8	4.25	3	90	6480.10.08
10	6.7	4.75	100	6480.10.10
13	11.2	8	110	6480.10.13
16	17	11.8	140	6480.10.16
26	45	31.5		6401.J0.26
28	50	37.5		6401.J0.28
32	67	47.5		6401.J0.32
36	85	60		6401.J0.36

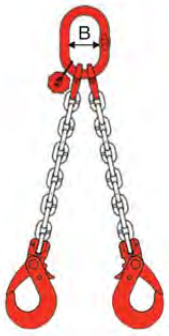
CS 1-leg Chain Sling Grade 8, without Shortener, with self-locking Clevis Hook

Self-locking clevis hook

Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.12	60	6180.20.06
8	2	60	6180.20.08
10	3.15	75	6180.20.10
13	5.3	90	6180.20.13
16	8	100	6180.20.16

CS 1-leg Chain Sling Grade 8, without Shortener, with self-locking Clevis Hooks

Self-locking clevis hook



Nominal chain size in mm	Load capacity in t 2-leg at angle		Dimension B in mm	Item no.
	0-45°	45-60°		
6	1.6	1.12	60	6280.20.06
8	2.8	2	75	6280.20.08
10	4.25	3.15	90	6280.20.10
13	7.5	5.3	100	6280.20.13
16	11.2	8	110	6280.20.16

CS 4-leg Chain Sling Grade 8, without Shortener, with self-locking Clevis Hooks

Self-locking clevis hook

Nominal chain size in mm	Load capacity in t 4-leg at angle		Dimension B in mm	Item no.
	0-45°	45-60°		
6	2.36	1.7	75	6480.20.06
8	4.25	3	90	6480.20.08
10	6.7	4.75	100	6480.20.10
13	11.2	8	110	6480.20.13
16	17	11.8	140	6480.20.16

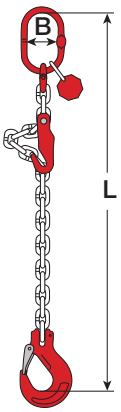
High-strength chain slings are particularly suitable for angular loads and rough surfaces.

If higher load capacities are required, we recommend that you use our ICE 120 and VIP 100 chain sling range on page 198 et seq.

CS 1-leg Chain Sling Grade 8, with Shortener, with Shortening Claw acc. to DIN 5692:2011-04 and self-locking Clevis Hook

Shortening claw

Self-locking clevis hook

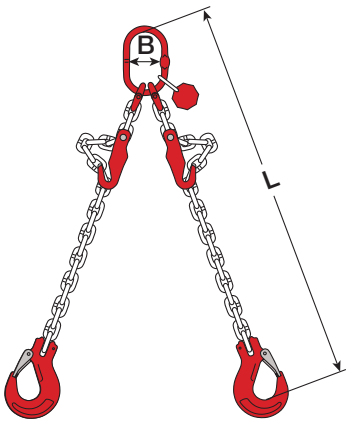


Nominal chain size in mm	Load capacity in t 2-leg at angle	Dimension B in mm	Item no.
6	1.12	60	6180.30.06
8	2	60	6180.30.08
10	3.15	75	6180.30.10
13	5.3	90	6180.30.13
16	8	100	6180.30.16

CS 2-leg Chain Sling Grade 8, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks

Shortening claw

Self-locking clevis hook

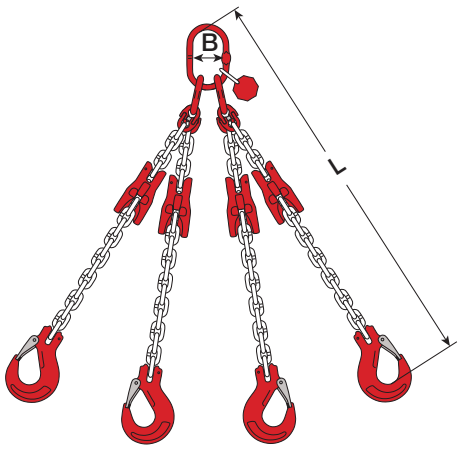


Nominal chain size mm	Load capacity in t 2-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	1.6	1.12	60	6280.30.06
8	2.8	2	75	6280.30.08
10	4.25	3.15	90	6280.30.10
13	7.5	5.3	100	6280.30.13
16	11.2	8	110	6280.30.16

CS 4-leg Chain Sling Grade 8, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks

Shortening claw

Self-locking clevis hook

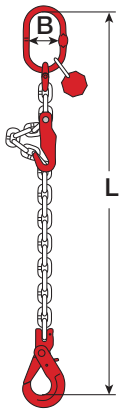


Nominal chain size mm	Load capacity in t 4-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	2.36	1.7	75	6480.30.06
8	4.25	3	90	6480.30.08
10	6.7	4.75	100	6480.30.10
13	11.2	8	110	6480.30.13
16	17	11.8	140	6480.30.16

CS 1-leg Chain Sling Grade 80, with Shortener, with Shortening Claw acc. to DIN 5692:2011-04 and self-locking Clevis Hook

Shortening claw

Self-locking clevis hook

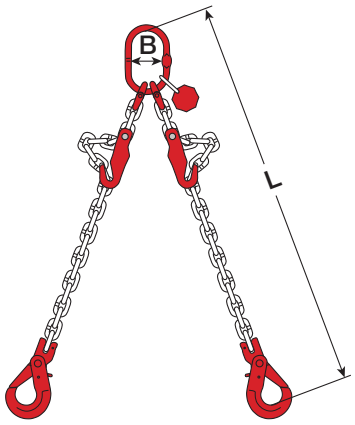


Nominal chain size in mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.12	60	6180.40.06
8	2	60	6180.40.08
10	3.15	75	6180.40.10
13	5.3	90	6180.40.13
16	8	100	6180.40.16

CS 2-leg Chain Sling Grade 80, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks

Shortening claw

Self-locking clevis hook

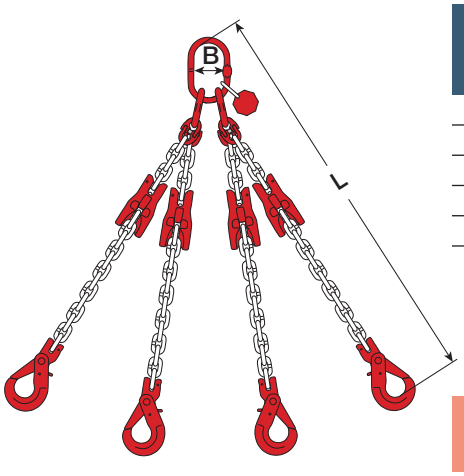


Nominal chain size in mm	Load capacity in t 2-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	1.6	1.12	60	6280.40.06
8	2.8	2	75	6280.40.08
10	4.25	3.15	90	6280.40.10
13	7.5	5.3	100	6280.40.13
16	11.2	8	110	6280.40.16

CS 4-leg Chain Sling Grade 80, with Shortener, with Shortening Claws acc. to DIN 5692:2011-04 and self-locking Clevis Hooks

Shortening claw

Self-locking clevis hook



Nominal chain size in mm	Load capacity in t 4-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	2.36	1.7	75	6480.40.06
8	4.25	3	90	6480.40.08
10	6.7	4.75	100	6480.40.10
13	11.2	8	110	6480.40.13
16	17	11.8	140	6480.40.16

High-strength chain slings are particularly suitable for angular loads and rough surfaces.

If higher load capacities are required, we recommend that you use our ICE 120 and VIP 100 chain sling range on page 198 et seq.

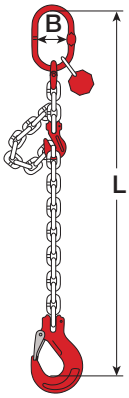
SLINGS

Chain Slings Grade 8

CS 1-leg Chain Sling Grade 80, with Shortener, with Grab Hook acc to DIN 5692:2011-04 and Clevis Hook

Grab hook

Clevis hook

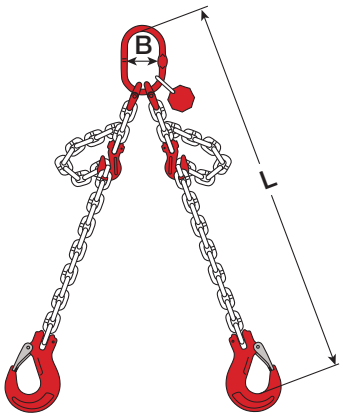


Nominal chain size mm	Load capacity 1-leg single direct in t	Dimension B in mm	Item no.
6	1.12	60	6180.50.06
8	2	60	6180.50.08
10	3.15	75	6180.50.10
13	5.3	90	6180.50.13
16	8	100	6180.50.16

CS 2-leg Chain Sling Grade 80, with Shortener, with Grab Hooks acc. to DIN 5692:2011-04 and Clevis Hooks

Grab hook

Clevis hook

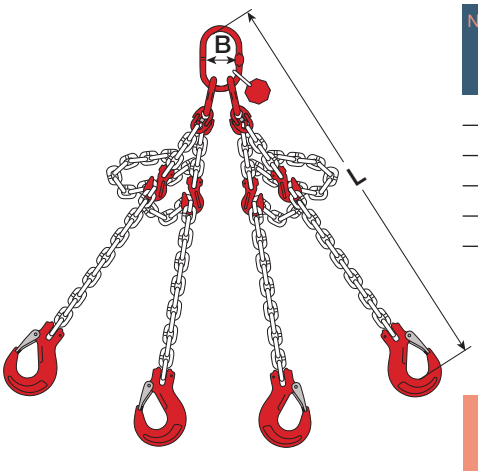


Nominal chain size mm	Load capacity in t 2-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	1.6	1.12	60	6280.50.06
8	2.8	2	75	6280.50.08
10	4.25	3.15	90	6280.50.10
13	7.5	5.3	100	6280.50.13
16	11.2	8	110	6280.50.16

CS 4-leg Chain Sling Grade 80, with Shortener, with Grab Hooks acc. to DIN 5692:2011-04 and Clevis Hooks

Grab hook

Clevis hook



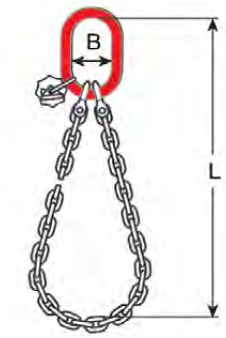
Nominal chain size mm	Load capacity in t 4-leg at angle 0-45°	45-60°	Dimension B in mm	Item no.
6	2.36	1.7	75	6480.50.06
8	4.25	3	90	6480.50.08
10	6.7	4.75	100	6480.50.10
13	11.2	8	110	6480.50.13
16	17	11.8	140	6480.50.16

High-strength chain slings are particularly suitable for angular loads and rough surfaces.

If higher load capacities are required, we recommend that you use our ICE 120 and VIP 100 chain sling range on page 198 et seq.

Endless Chain Grade 8, single with Master Link

- With Master link AK2 with welded ring fork
- Chain sling acc. to EN 818-2, Grade 8
- With load indicator



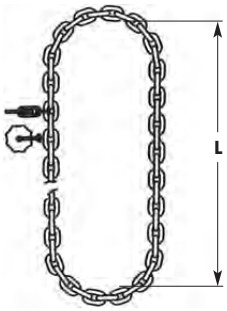
Nominal chain size mm	Load capacity/ WLL in t		Dimension B in mm	Item no.
	0-45°	45-60°		
6	1.23	0.9	60	6204.00.06
8	2.2	1.6	60	6204.00.08
10	3.6	2.5	75	6204.00.10
13	5.8	4.24	90	6204.00.13
16	9.0	6.4	110	6204.00.16

Load capacity reduction of 20% due to sharp egdes has already been considered.

Endless Chain Grade 8, welded

- Endlessly welded from chain slings acc. to EN 818-2, Grade 8
- With test data tag and load indicator

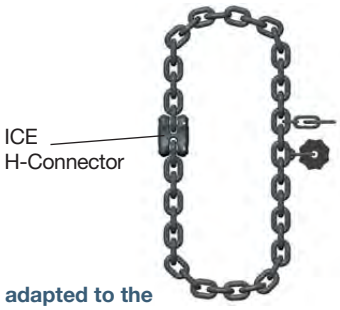
Available up to a nominal chain size of 56.



Nominal chain size mm	Load capacity / WLL in t		Item no.
	simply direct in t	tied in t	
6	2.24	1.8	6207.00.06
8	4.00	3.15	6207.00.08
10	6.30	5	6207.00.10
13	10.60	8.5	6207.00.13
16	16.00	12.5	6207.00.16

Load capacity reduction of 20% due to sharp egdes has already been considered.

Endless chain Grade 8 with Connector



The load capacity must be adapted to the grade of the chain used

Nominal chain size mm	Load capacity / WLL in t		Item no.
	simply direct in t	tied in t	
6	2.24	1.8	6206.00.06
8	4.00	3.15	6206.00.08
10	6.30	5	6206.00.10
13	10.60	8.5	6206.00.13
16	16.00	12.5	6206.00.16

Load capacity reduction of 20% due to sharp egdes has already been considered.

ICE/VIP/GK8 H-Connector IH/VH

- Fast, easy and economic assembly of endless chains
- Pitch of H-Connector corresponds to pitch of chain
- Ergonomic shape
- Enhanced gliding over edges
- Highly flexible: Adapts to both, the shape of the chain and the load

Nominal chain size mm	Cap. GK 8 in t	Cap. VIP in t	Cap. ICE in t	Desig-nation	Dimensions in mm			Weight in kg/pce	Item no.
					A	B	T		
6	1.12	1.5	1.8	IH-6	34	19.6	18	0.11	6206.S0.06
8	2.0	2.5	3.0	IH-8	45	25.5	18	0.11	6206.S0.08
10	3.15	4.0	5.0	IH-10	56	31.5	30	0.55	6206.S0.10
13	5.3	6.7	8.0	IH-13	73	40	39	1.16	6206.S0.13
16	8.0	10.0	12.5	IH-16	89	49	48	2.16	6206.S0.16

Caution:
Suitable for use with round steel chains DIN 818-2 in GK 8, VIP-GK 10 and ICE-GK 12

The load capacity must be adapted to the grade of the chain used.

SLINGS
Bulk Sling Chain

ICE Sling Chain PAS 1061 Grade 12

- Sling chain in accordance to DIN EN 818-2
- Material: patented steel, specially tempered, high durability
- Greater wear resistance
- 30% higher surface hardness than grade 8 therefore longer service lives
- Surface powder-coated in traffic purple

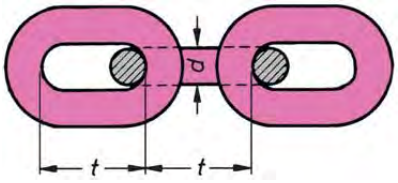
PAS = Publicly Available Specification

Dimensions in mm Nom. chain size d	Pitch t	Load capacity WLL in t	Minimum breaking load in kN	Weight in kg/m	Item no.
4	12	0.8	31	0.44	6000.S0.04
6	18	1.8	71	0.98	6000.S0.06
8	24	3.0	118	1.66	6000.S0.08
10	30	5.0	196	2.62	6000.S0.10
13	39	8.0	314	4.25	6000.S0.13
16	48	12.5	503	6.72	6000.S0.16

According to the BG recommendation, chains and components from different manufacturers should not be combined

VIP Sling Chain PAS 1061 Grade 10

- Sling chain in accordance to DIN EN 818-2
- Material: steel, specially tempered, high durability
- With patented overheating indicator
- Surface powder-coated in flourescent marking colour magenta pink



PAS = Publicly Available Specification

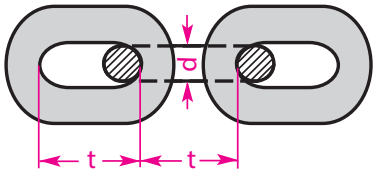
Dimensions in mm Nom. chain size d	Pitch t	Load capacity WLL in t	Minimum breaking load in kN	Weight in kg/m	Item no.
4	12	0.63	25	0.36	6000.V0.04
6	18	1.5	60	0.85	6000.V0.06
8	24	2.5	100	1.5	6000.V0.08
10	30	4.0	160	2.4	6000.V0.10
13	39	6.7	265	4.0	6000.V0.13
16	48	10	400	6.0	6000.V0.16
20	60	16	600	9.5	6000.V0.20
22	66	20	800	12.3	6000.V0.22
28	84	31.5	1236	18.6	6000.V0.28
28*	84	31.5	1236	18.6	6000.V1.28

*Surface in CRUD-dsl (black)

According to the BG recommendation, chains and components from different manufacturers should not be combined.

Sling Chain DIN EN 818-2, Grade 8

- Material: Steel, manufactured acc. to EN 818-2
- Blue matt-finished, oil-polished

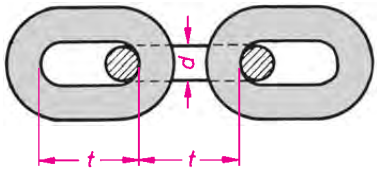


Dimensions in mm Nom. chain size d	Pitch t	Load capacity WLL in t	Minimum breaking load in kN	Weight in kg/m	Item no.
6	18	1.12	45.2	0.8	6002.00.06
7	21	1.5	61.6	1.1	6002.00.07
8	24	2.0	80.4	1.4	6002.00.08
10	30	3.15	126	2.2	6002.00.10
13	39	5.3	212	3.7	6002.00.13
16	48	8.0	322	5.7	6002.00.16
18	54	10.0	407	7.3	6002.00.18
20	60	12.5	503	9	6002.00.20
22	66	15.0	608	10.9	6002.00.22
26	78	21.2	849	15.2	6002.00.26

SLINGS
Bulk Sling Chain

Sling Chain DIN EN 818-2, Grade 8

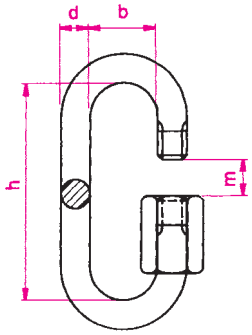
- Material: Steel, manufactured acc. to EN 818-2
- Surface rough



Dimensions		Load capacity	Minimum	Weight	Item no.
Nom. chain size d	Pitch t	WLL in t	breaking load in kN	ca. in kg/m	
18	54	10	400	7.3	6000.J0.18
20	60	12.5	500	9.0	6000.J0.20
22	66	15	600	10.9	6000.J0.22
26	78	21.2	848	15.2	6000.J0.26
28	84	25	985	17.6	6000.J0.28
32	96	31.5	1290	23.0	6000.J0.32
36	108	40	1630	29.0	6000.J0.36
40	120	50	2010	36.0	6000.J0.40
45	135	63	2540	45.5	6000.J0.45
50	150	80	3140	56.0	6000.J0.50
56	168	100	3940	72.5	6000.J0.56

Quick Link

- Safety factor 6
- Dimensions acc. to DIN 56926-A
- Material: Mild steel
- Surface: galvanised



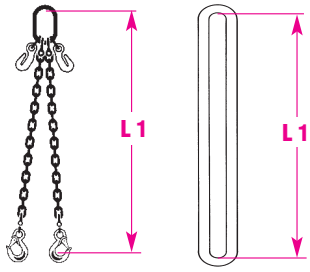
Nom. chain size d	WLL in t	Dimensions in mm b	d	h	m	Weight in kg	Item no.
3.5	0.050	10	3.5	29	5.0	0.014	6580.00.35
4	0.090	11.5	4	31.5	6.0	0.014	6580.00.04
5	0.140	13	5	39.5	6.5	0.020	6580.00.05
6	0.200	14.5	6	45	7.5	0.036	6580.00.06
7	0.275	16	7	52	9.0	0.050	6580.00.07
8	0.350	17.5	8	58	11.0	0.078	6580.00.08
10	0.550	20.5	10	69	12.0	0.138	6580.00.10
12	0.750	23.5	12	80.5	15.0	0.200	6580.00.12

Load capacity (WLL) indicated on the items must not be exceeded.

Lifting Set GK 8 in portable Plastic Case

Contents:

1 x 2-leg chain sling,
- Grade 80, nominal size 6
- with shortening claws
- with clevis hooks
- Load capacity: 0-45° = 1,600 kg
  45-60° = 1,120 kg



1 Liftfix roundsling
- EWL L1:
  1,000 mm = 2,000 mm circumference length
- Load capacity:
  single direct 1,000 kg
  in basket hitch 2,000 kg

1 Plastic case
- colour as available from stock

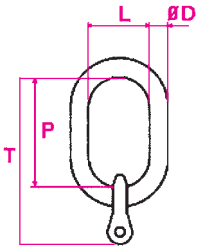
Item no.: 5090.20.00

SLINGS

Master Links Grade 8

Master Link GK 8 with welded ring fork 1-leg

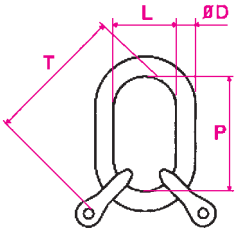
- Grade 8, no flattened section
- With welded ring fork
- For 1-leg chain sling acc. to EN 818



Load capacity / WLL in kg	Nominal chain size	Dimensions in mm				Weight	Item no.
	in mm	Ø D	P	L	T	in kg/pce	
1120	6	13	110	60	140	0.58	6510.10.06
2000	8	16	110	60	151	0.88	6510.10.08
3150	10	18	135	75	185	1.35	6510.10.10
5300	13	22	160	90	223	2.40	6510.10.13

Master Link GK 8 with welded ring fork 2-leg

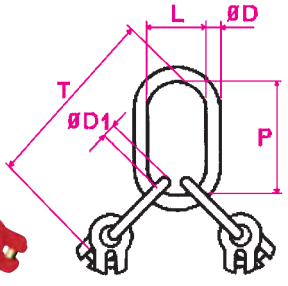
- Grade 8, no flattened section
- With welded ring fork
- For 1- and 2-leg chain slings acc. to EN 818



Load capacity / WLL in kg		Nominal chain size	Dimensions in mm				Weight	Item no.
0-45°	45°- 60°	in mm	Ø D	P	L	T	in kg/pce	
1600	1120	6	13	110	60	140	0.70	6520.10.06
2800	2000	8	18	135	75	176	1.40	6520.10.08
4250	3150	10	22	160	90	210	2.45	6520.10.10
7500	5300	13	26	180	100	243	4.20	6520.10.13

Master Link GK 8 with welded ring fork 4-leg

- Grade 8, no flattened section
- With welded ring fork
- For 3- and 4-leg chain sling acc. to EN 818



Load capacity / WLL in kg		Nominal chain size	Dimensions in mm					Weight	Item no.
0-45°	45°- 60°	in mm	Ø D	P	L	Ø D1	T	in kg/pce	
2360	1700	6	18	135	75	13	219	1.65	6540.10.06
4250	3000	8	22	160	90	16	271	3.20	6540.10.08
6700	4750	10	26	180	100	18	315	5.30	6540.10.10
11200	8000	13	32	200	110	22	378	9.40	6540.10.13

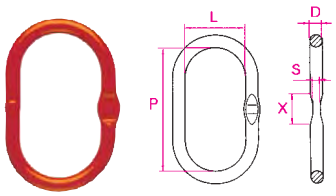
SLINGS
Accessories Grade 8

Master Link

- Grade 80, no flattened section
- surface: red dipped

- For 1- and 2-leg wire rope slings acc. to DIN EN 13414-1

- For 1- and 2-leg chain slings acc. to EN 818



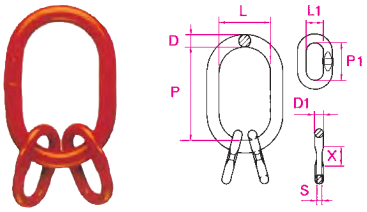
For wire rope slings, type N 1-leg rope Ø	2-leg rope Ø	For chain slings grade 8 1-leg nom. size	2-leg nom. size	Load capacity in kg	Dimensions in mm P	L	D	Weight in kg	Item no.
8, 10, 12	8, 10	7	6	1600	110	60	13	0.3	5020.00.10
14	12	8	7	2120	110	60	16	0.5	5020.00.20
16, 18	14	10	8	3150	135	75	18	0.9	5020.00.32
20, 22	16, 18	13	10	5300	160	90	22	1.6	5020.00.50
24, 26, 28	20, 22	16	13	8000	180	100	26	2.5	5020.00.80
32	24, 26, 28	18	16	11200	200	110	32	4.1	5020.01.00
36, 40	32	22	20	17000	300	160	40	9.0	5020.01.50
44	36	26	22	21200	340	180	45	12.8	5020.02.00
-	40	32	26	31500	350	190	51	16.6	5020.03.20
-	-	36	32	45000	400	200	57	27.0	5020.04.00
-	-	40	36	56000	400	200	57	27.0	5020.05.00
-	-	45	40	71000	460	250	71	44.0	6610.J0.45
-	-	50	45	90000	500	270	80	62.0	6610.J0.50
-	-	56	-	112000	560	300	90	87.0	6610.J0.56

Master Link Assembly

- 3-leg
- Grade 80, no flattened section
- surface: red dipped

- For 3- and 4-leg wire rope slings acc. to DIN EN 13414-1

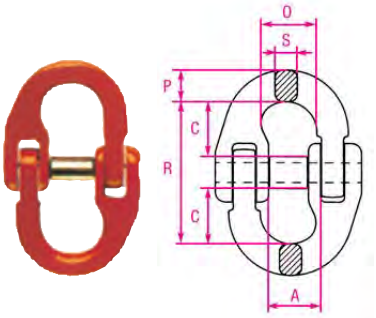
- For 3- and 4-leg chain slings acc. to EN 818



For wire rope slings, type N 3+4-leg rope Ø	For chain slings grade 8 3+4-leg nom. Ø	Load capacity in kg	Dimensions in mm A-link P	L	D	B-link P1	L1	D1	Weight in kg	Item no.
8, 10	6	2360	135	75	18	54	25	13	1.3	6611.00.18
-	7	3150	135	75	18	54	25	13	1.3	6611.00.07
12, 14	8	4250	160	90	22	70	34	16	2.3	6611.00.22
16, 18	10	6700	180	100	26	85	40	18	3.5	6611.00.26
20, 22	13	11200	200	110	32	115	50	22	8.7	6611.00.32
24, 26, 28	16	17000	260	140	36	140	65	26	9.56	6611.00.36
-	18	21200	340	180	45	150	70	32	18.92	6611.00.45
32	20	26500	350	190	51	150	70	32	22.65	6611.00.50
36	22	31500	350	190	51	170	75	36	25.19	6611.00.51
40	26	45000	400	200	57	170	80	40	36.01	6611.00.55
-	32	67000	460	250	70	200	100	50	64.4	6611.00.70

Master links with an inner width up to 250 mm for big crane hooks are available on request. Please indicate size of crane hook (width measured at hook base). Load capacities 1,000 to 45,000 kg.

Chain Connector



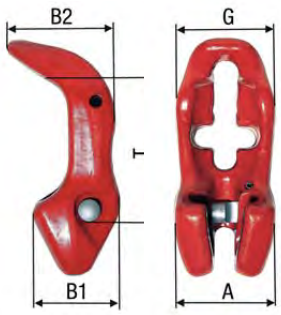
Nominal chain size in mm	Load capacity in kg	Dimensions in mm A	C	O	R	P	S	Weight in kg/pce	Item no.
6	1120	16	18	16.5	43	7.2	6.8	0.07	6556.00.10
7	1500	17.8	20	20.5	50.5	10.2	9	0.10	6556.00.15
8	2000	19	25.5	23.5	62	11.5	10	0.25	6556.00.20
10	3150	23.8	30	27.5	72	12.6	12.6	0.35	6556.00.32
13	5300	28	36	33.3	87.3	19	16.7	0.68	6556.00.50
16	8000	34.3	40.5	39.5	103	20.6	20.6	1.10	6556.00.80
20	12500	44	48	47	116	23	23	1.70	6556.01.25
22	15000	49	51	55	133	26.5	26.5	2.20	6556.01.50
26	21200	60	60	66	148	31.5	31.5	4.20	6556.02.00
32	31500	80	77	86	190	40	32	7.19	6556.03.20

SLINGS

Accessories Grade 8

Multi Shortening Claw BSEK acc. to DIN 5692:2011-04

- Captively built in to the endless chain leg
- Can be fitted in any position along the chain leg
- No reduction of load capacity
- Complies with 5692:2011-04
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Designation	Dimensions in mm A	B1	B2	G	T	Weight in kg/pce	Item no.
1120	6	BSEK-6	38	34	40	38	66	0.3	6589.00.06
2000	8	BSEK-8	46	41	52	48	88	0.55	6589.00.08
3150	10	BSEK-10	58	50	64	60	110	1.1	6589.00.10
5300	13	BSEK-13	74	64	86	76	143	2.4	6589.00.13
8000	16	BSEK-16	91	79	105	98	176	4.4	6589.00.16

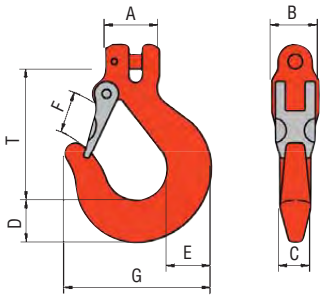
Clevis sling hook SGH

- Grade 8, DIN EN 1677-2
- Galvanized safety latch
- Finish: painted red

Load capacity WLL in kg	Nominal chain size in mm	Designation	Dimensions in mm a	b	g	h	m	Weight in kg/pce	Item no.
1120	6	SGH-6	31	7.2	76	110	19	0.21	5181.00.12K
2000	8	SGH-8	40	9	98	143	26	0.60	5181.00.20K
3150	10	SGH-10	48	11.5	113	167	30	1.15	5181.00.32K
5300	13	SGH-13	60	14.5	143	212	38	2.05	5181.00.50K
8000	16	SGH-16	65	18	157	235	45	3.55	5181.00.80K

Safety Hook GSH

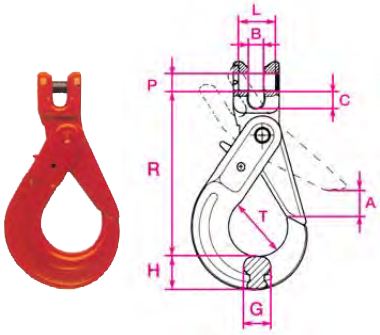
- Forged safety latch
- Locks on the hook tip
- Finish: painted red



Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm A	B	C	D	E	F	G	T	Weight in kg/pce	Item no.
1120	6	27	22	16	20	24	25	74	75	0.37	6550.00.06
2000	8	38	28	20	28	31	30	98	97	0.76	6550.00.08
3150	10	46	36	26	35	38	35	122	108	1.39	6550.00.10
5300	13	58	46	30	37	48	40	139	126	2.38	6550.00.13
8000	16	67	56	36	49	58	48	164	155	4.05	6550.00.16

Self-locking Hook CRF

- Locks automatically under load
- Finish: painted red

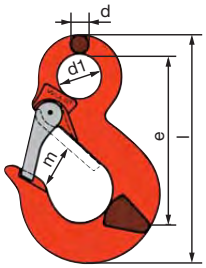


Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm A	B	C	G	H	R	T	PxL	Weight in kg/pce	Item no.
1120	6	28	7	8	16	21	94	35	7.5x17.5	0.496	6554.01.06
2000	7-8	34	9	10	20	26	123	43	9x22.5	0.934	6554.01.08
3150	10	45	12	14	25	30	143	56	13x31.5	1.580	6554.01.10
5300	13	51	15	17	35	40	180	69	16x42	3.200	6554.01.13
8000	16	60	19	19	36	50	215	80	21x51.5	5.950	6554.01.16
12500	20	70	23	26	60	67	253	90	24x73	9.800	6554.01.20
15000	22	80	26	32	62	70	287	100	26x72	14.400	6554.01.22

SLINGS
Accessories Grade 8

Safety Eye Hook

- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red



Load capacity WLL in kg	Dimensions in mm					Weight in kg/pce	Item no.
	d1	d	l	m	e		
2500	34	16	190	34	137	1.5	5180.00.25
3200	34	17	195	34	138	1.6	5180.00.32
4000	40	20	227	40	164	2.8	5180.00.40
6300	52	24	288	50	213	4.5	5180.00.63
8000	54	26	299	57	216	5.4	5180.00.80
10000	60	34	329	61	234	8.1	5180.01.00

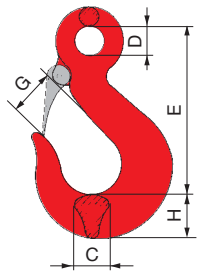
Safety Eye Hook ÖSH

- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red

Load capacity WLL in kg	Nominal chain size in mm	Designation	Dimensions in mm					Weight in kg/pce	Item no.
			d1	d2	e	l	m		
1120	6	SGH-6	12.5	20	85	137	19	0.21	5180.00.12K
2000	8	SGH-8	14	25	110	152	26	0.55	5180.00.20K
3150	10	SGH-10	18	34	135	192	30	1.15	5180.00.32K
5300	13	SGH-13	19	43	165	199	38	2.05	5180.00.50K
8000	16	SGH-16	24.5	50	180	239	45	3.55	5180.00.80K

Safety Eye Hook

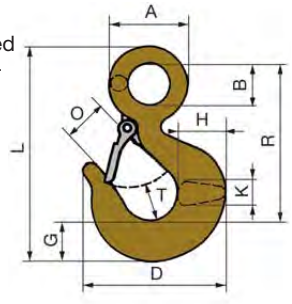
- Grade 8, DIN EN 1677-2
- Safety latch galvanised
- Finish: painted red



Load capacity WLL in kg	Dimensions in mm					Weight in kg/pce	Item no.
	E	D	G	H	C		
21200	277	52	66	73	56	11.13	6550.J0.26
31500	320	64	75	84	64	15.83	6550.J0.32
40000	388	72	90	103	78	32.30	6550.J0.36
50000	442	84	103	116	89	47.00	6550.J0.40
63000	494	90	114	130	99	64.40	6550.J0.45
80000	610	102	131	145	110	81.90	6550.J0.50

Safety Eye Hook

- Forged load capacity details and manufacturer
- Material: SAE 8620
- Safety latch galvanised
- With deformation indicators
- Finish: painted gold



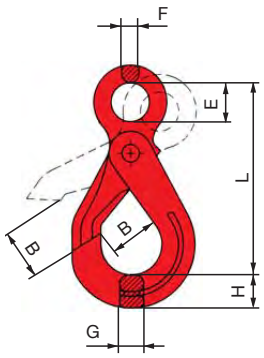
Load capacity WLL in kg	Dimensions in mm										Weight in kg/pce	Item no.
	A	B	D	G	H	K	L	R	T	O		
1250	37.5	19.1	73	19	20.5	16	110	82	20.5	22	0.26	5160.00.12
1600	44.5	23	81	21.5	24	18	125	93	20.5	24.5	0.31	5160.00.16
2500	52	28.6	92	25.5	29.5	22	141	104	21.5	25.5	0.50	5160.00.25
3200	61	32	104	28.5	33.5	24	163	119	30	28.5	0.84	5160.00.32
5400	75	40	125	36.5	41.5	33	201	146	35	34	1.69	5160.00.54
8000	97	51	165	46	52	43	256	187	45	43	3.72	5160.00.80
11500	119	62	192	57	67	48	316	230	54	52	6.50	5160.01.15
16000	137	72	221	66	75	56	354	256	65	57	9.50	5160.01.60
22000	168	89	279	76	89	68	434	318	73	76	17.00	5160.02.20

SLINGS

Accessories Grade 8

Self-locking Eye Hook CRO

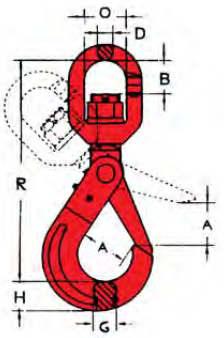
- Locks automatically under load
- Finish: painted red



Load capacity WLL in kg	Nominal chain size	Dimensions in mm L	B	E	F	G	H	Weight in kg/pce	Item no.
1120	6	109	28	21	11	16	21	0.5	5150.00.10
2000	7/8	135	34	25	12	20	26	0.9	5150.00.20
3150	10	168	45	33	16	25	30	1.6	5150.00.32
5300	13	205	51	40	20	35	40	3.25	5150.00.50
8000	16	251	60	50	27	36	50	6.0	5150.00.80
12500	18	290	70	60	30	60	67	9.8	5150.01.20
15000	22	322	80	70	32	62	70	14.4	5150.01.50

Self-locking Swivel Hook CRG

- Locks automatically under load
- Finish: painted red

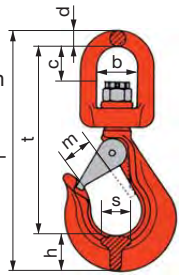


Load capacity WLL in kg	Nominal chain size	Dimensions in mm R	A	B	O	D	G	H	Weight in kg/pce	Item no.
1120	6	149	28	23	33	11	15	21	0.6	5190.00.10
2000	7/8	183	37	27	36	12	17	23	1.1	5190.00.20
3150	10	218	44	36	42	15	21	30	2.0	5190.00.32
5300	13	280	54	47	48	19	30	39	3.8	5190.00.50
8000	16	343	62	67	61	22	37	49	7.1	5190.00.80

Not suitable for rotation under load

Safety Hook with Swivel

- Material: 1.6541 tempered
- With a large mouth width
- With extra sturdy safety latch
- Manufactured according to DIN 5691
- Safety latch galvanised
- Finish: painted red

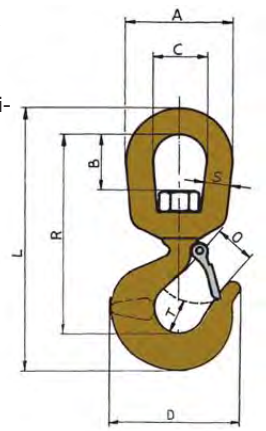


With ball bearings | **With gliding bearings**

Load capacity WLL in kg	Dimensions in mm b	c	m	h	t	l	d	s	Weight in kg/pce	Item no.	Item no.
1120	34	25	19	27	137	177	13	21	0.6	5186.00.10	5187.00.10
1500	36	31	24	30	160	205	15	27	1.2	5186.01.16	5187.01.16
2000	38	31	28	32	178	226	16	30	1.4	5186.00.20	5187.00.20
3150	42	33	33	42	200	260	18	31	2.5	5186.00.32	5187.00.32
5300	64	55	44	47	281	352	23	42	5.5	5186.00.50	5187.00.50

Safety Hook with Swivel

- Material: SAE 8620
- Forged load capacity details and manufacturer
- With deformation indicators
- Finish: painted gold



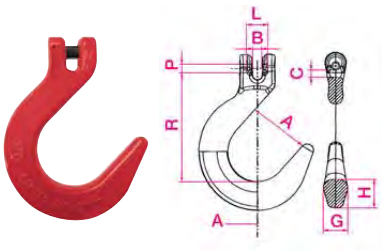
Load capacity WLL in kg	Dimensions in mm A	B	C	D	L	O	R	S	T	Weight in kg/pce	Item no.
1250	50.8	23.8	31.8	73.0	141	22.3	114	9.53	20.6	0.34	5170.00.12
1600	63.5	33.3	38.1	81.0	168	24.6	134	12.70	20.6	0.57	5170.00.16
2500	76.2	41.3	44.5	92.0	194	25.4	153	15.90	21.4	1.02	5170.00.25
3200	76.2	39.7	44.5	104.0	206	28.6	162	15.90	30.2	1.17	5170.00.32
5400	88.9	44.5	51.0	125.0	244	34.1	188	19.10	34.9	2.22	5170.00.54
8000	114.3	59.0	64.0	165.0	315	42.9	244	25.40	45.2	4.67	5170.00.80
11500	127.0	60.0	70.0	192.0	368	52.0	283	28.60	54.0	7.37	5170.01.15
16000	142.9	68.0	79.0	221.0	403	57.0	306	31.80	65.0	10.60	5170.01.60
22000	177.8	106.0	102.0	279.0	535	76.0	421	38.10	73.0	22.60	5170.02.20

Not suitable for rotation under load

SLINGS
Accessories Grade 8

Clevis Foundry Hook CYF

- With clevis connection
- Without safety latch
- Finish: painted red

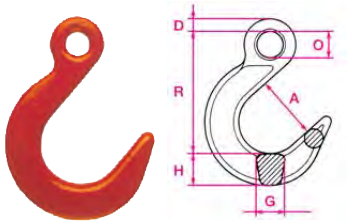


Load capacity WLL in kg	Nominal chain size in mm	Dimensions in mm A	B	C	G	H	R	PxL	Weight in kg/pce	Item no.
1120	6	53.5	8.5	6.5	22	26	91	7.5x17.5	0.7	5210.C0.10
2000	7-8	64	10	11.5	26	31	120.4	9x22.5	1.1	5210.C0.20
3150	10	76	13	15	30	34	131	13x31.5	1.7	5210.C0.30
5300	13	89	17	17.5	40	44.5	148	16x42	3.6	5210.C0.50
8000	16	101	19	21.5	45	50.5	198.5	21x51.5	5.6	5210.C0.80

Also called container hook. With considerable bigger opening but without safety latch. Use only where accidental unhooking is not possible!
Not for overhead lifting! Not suitable for the transportation of people. Does not comply with the EEC Machinery Directive 89/392 EWG I/4.4.1.

Foundry Hook with Eye CY

- With clevis connection
- Without safety latch
- Finish: painted red

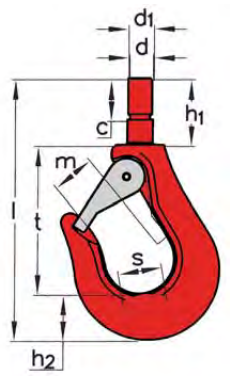


Load capacity WLL in kg	Dimensions in mm A	D	G	H	O	R	Weight in kg/pce	Item no.
2000	64	13.5	25	29	18	125	0.92	5210.00.20
3150	76	14	23	30	32	150	1.77	5210.00.32
5300	89	19	38	40	27	173	2.82	5210.00.50
8000	102	24	45	48	47	210	5.03	5210.00.80
12500	114	28	54	60	56	260	7.6	5210.01.25

Also called container hook. With considerable bigger opening but without safety latch. Use only where accidental unhooking is not possible!
Not for overhead lifting! Not suitable for the transportation of people. Does not comply with the EEC Machinery Directive 89/392 EWG I/4.4.1.

Safety Hook Shank Type

- Safety latch galvanised
- Painted red

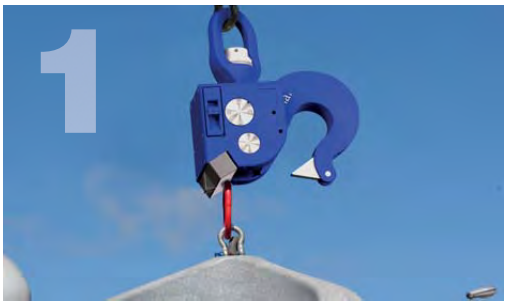


Load capacity WLL in kg	Thread d	Dimensions in mm l	t	c	h1	h2	s	m	d1	Weight in kg/pce	Item no.
1120	M12	140.0	75	25.0	37.0	27	21	19	12.7	0.4	5188.00.11
1500	M14	161.5	89	24.5	39.5	30	27	24	15.0	0.8	5188.00.15
2000	M16	180.0	101	28.7	46.0	32	30	28	17.0	0.9	5188.00.20
3150	M20	210.0	116	33.0	51.0	42	31	33	21.3	1.5	5188.00.32
5300	M24	275.0	152	49.1	75.0	47	42	44	25.5	3.3	5188.00.50

Shank type hooks must only be loaded in straight pull.
During assembly the thread must not be prestressed.

SLINGS
Special Hooks

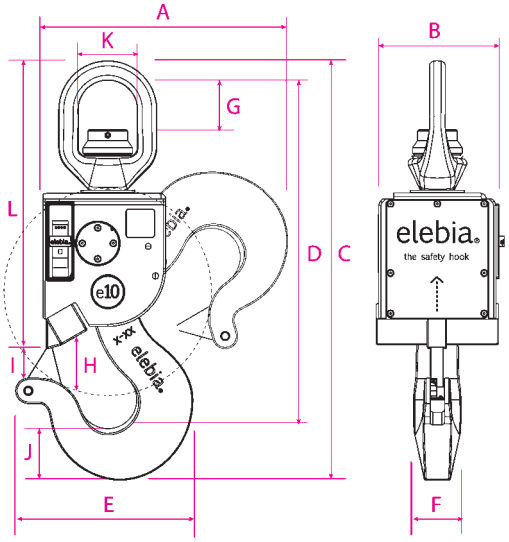
Automatic Safety Hook with digital Remote Control



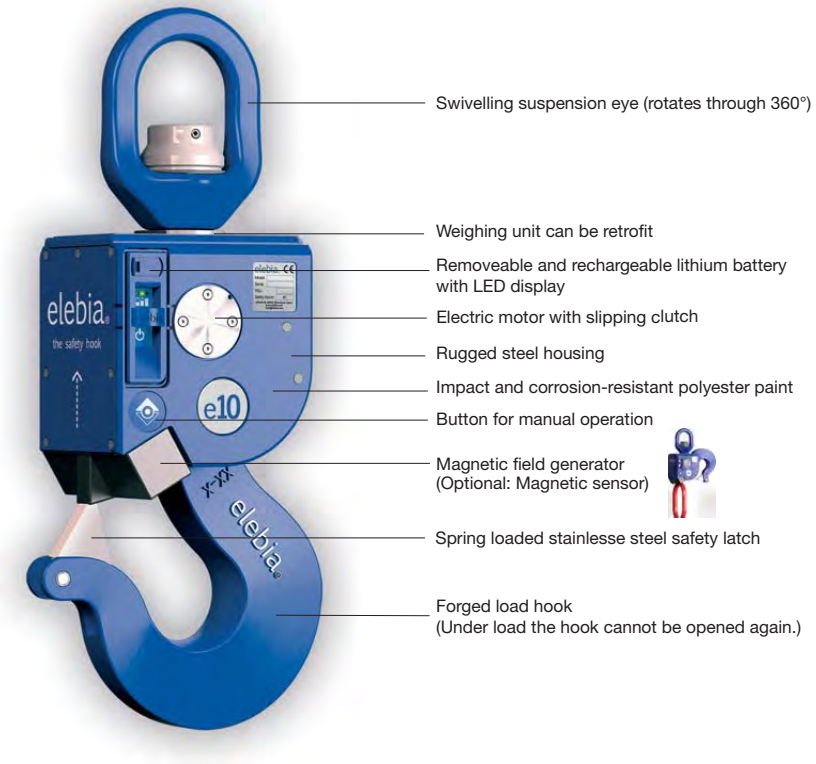
Lifting ring is attacted by the integrated magnet...

... and correctly aligned. The hook closes ...

... and the load can be lifted.



The patented hook generates a magnetic field. As the opened hook approaches the load the hook will automatically align itself in a 90° position to the lifting eye bringing it in the correct position. The (crane) operator can then close the hook by the digital remote control. This is a time-saving way of load attachment, lifting and transport without manual intervention of the operator. Under load the hook cannot be opened again.



Your advantages:
- Saves time through automation
- Load can be attached without manually using the crane guide (greater safety)
- Range of digital remote control: ca. 100 m
- Button on the hook allows manual operation without remote control
- Protected IP65
- Automatic indication of yearly maintenance interval on the remote control
- Operating temperature -20°C (-4°F) to +85°C (185°F)
- Complies with DIN 1677 and MRL 2006/42/EG
- Digital radio frequency 868 MHz (alternative frequenzies available)

Scope of delivery:
- elebia® load hook
- Digital remote control eMini
- Battery charger 230V
- Mutlilingual operating instructions

Arrange a no-obligation presentation appointment. Further practical applications and advance information can be found at www.carlstahl.de/elebia

Load capacity in t	Type	Dimensions in mm												Weight in kg	Item no.
		A	B	C	D	E	F	G	H	I	J	K	L		
5	evo5	276	172.5	469	409	194	43	48.5	48.5	24.2	41.4	58	351	24	5325.11.05
10	evo10	342	182.5	584	485	246	66	67.8	73	41.1	72	82	401	35	5325.11.10
20	evo20	342	182.5	663	553	246	66	105	73	41.1	72	115	480	40	5325.11.20

Accessories for Automatic Safety Hooks

Remote Control

The range includes the mobile remote controls eMINI and eMAX plus a static remote control for direct installation into a crane system. All remote controls can be used to flexibly, precisely and reliably control the hook. A remote control can simultaneously manage one or more hooks. It is also possible for two or more remote controls to manage the same hook.

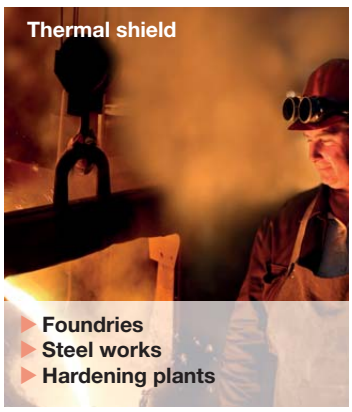
Weighing unit*

All evo devices can be equipped with a weighing unit for weighing the lifted load. This is precise, robust, compact, reliable and fully integrated into the automated hook. The weighing unit works in combination with the eMAX remote control and can also be retrofitted to older models.

The benefits for you:
- Prevents overloads due to visual signals or the vibration of the remote control
- Control of the lifted loads (load changes are stored by the eMAX and can be displayed in an Excel table)
- If the load has been distributed unevenly on the hook an alarm sounds (unless two or more hooks are used)

*Weighing unit available for the evo10 and evo20 on request

Use in special environments



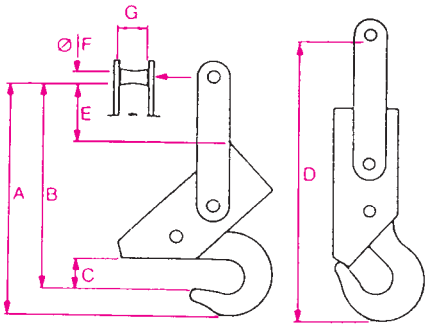
*available on request

SLINGS
Special Hooks

Automatic Safety Hook

Saves time and man-power in crane operation

- Prevents accidents as it fully automatically hooks up the load, safety locks and releases it. Loads can be picked up by the crane operator without helpers.
- Improved safety as no persons need to be close to the load
- Durable due to its rugged design and use of high grade alloy steel
- Easy to operate
- Highly reliable

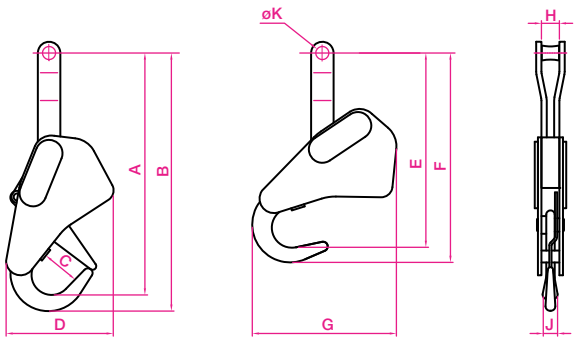


L. cap. in t	Load capacity in t at safety factor 4:1	5:1	Dimensions in mm A	B	C	D	E	F	G	Weight ca. in kg	Item no.
2	2	1.6	310	280	60	340	80	20	42	3	5325.00.20
5	5	4.2	360	325	50	430	90	32	54	6.7	5325.00.50
10	10	8	490	425	65	580	110	44	58	15	5325.01.00
15	15	12	525	460	80	625	115	54	72	24	5325.01.50
20	20	16	580	500	80	700	130	65	83	37	5325.02.00

Automatic Safety Hook CS-matic V

Major time savings and secure load attachment when using cranes

The use of the automated 'CS-matic V' safety hook ensures the quick and secure attachment and detachment of the load over inaccessible areas while still complying with accident prevention regulations. The crane operator can remain outside the load hazard area, meaning fewer risks for both people and materials. The safety hook is manually hung in the crane hook block or built into the existing system crane hook block. The load is manually connected either directly to the load hook or using load suspension equipment. On lifting, the safety hook moves into a vertical position, thereby ensuring that the hook locking mechanism is closed and the load is secure. When the load is set down the hook remains closed and secure. Only when the hook itself is set down does the hook locking mechanism open and release the load suspension equipment or the load.

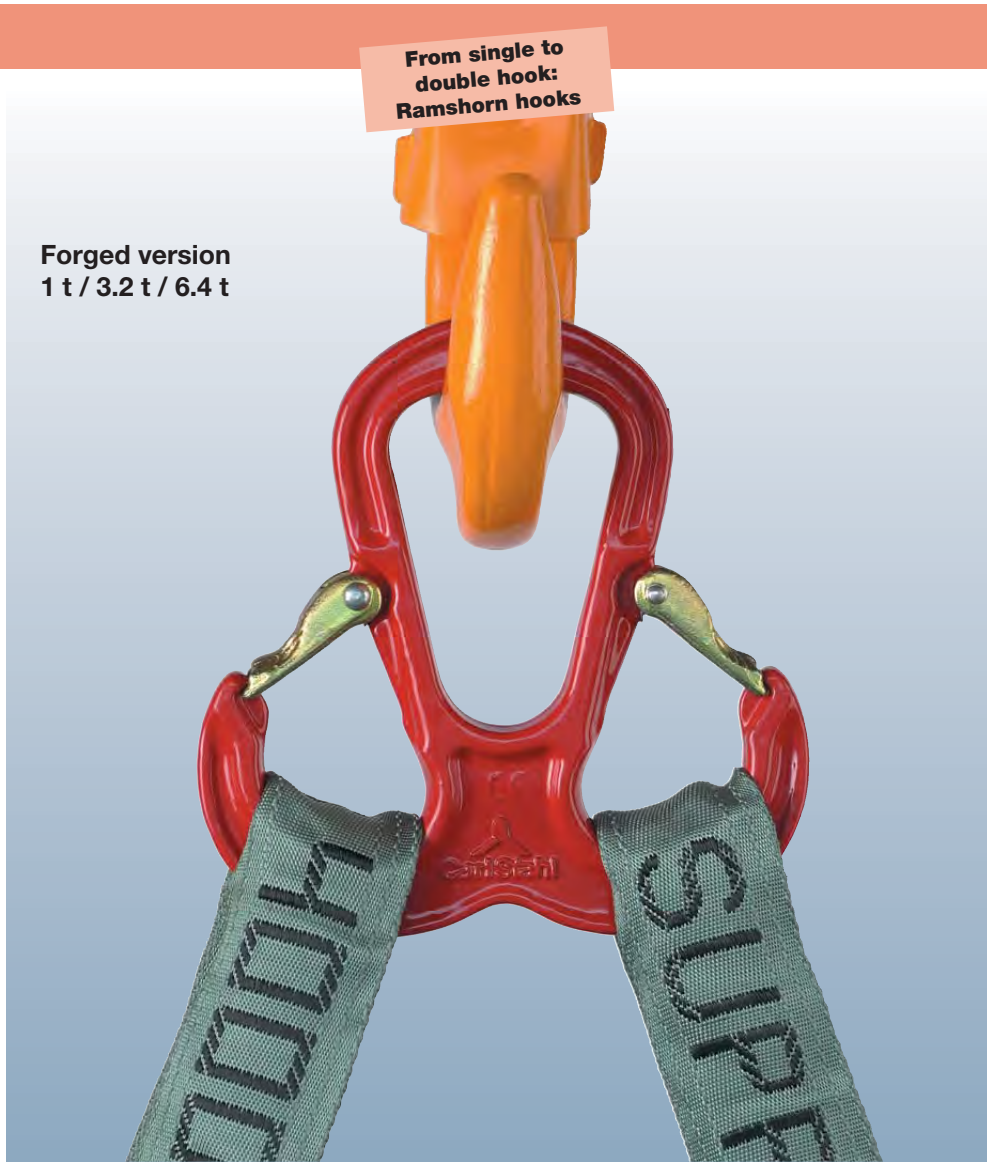


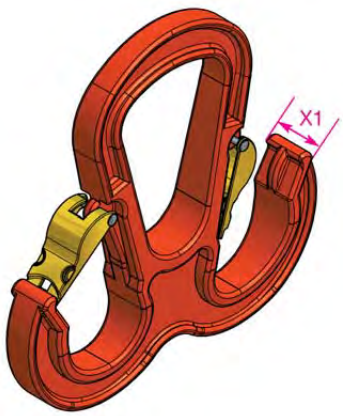
Load capacity in t	Dimensions in mm A	B	C	D	E	F	G	H	J	K	Weight ca. in kg	Item no.
3.2	600	640	84	250	490	525	360	45	40	30	14.5	5325.02.032
5	590	630	84	250	480	515	360	65	40	30	14.8	5325.02.050
6.3	615	655	84	260	505	540	380	77	40	40	18.6	5325.02.063
10	840	900	105	385	670	715	545	97	54	50	48.5	5325.02.100

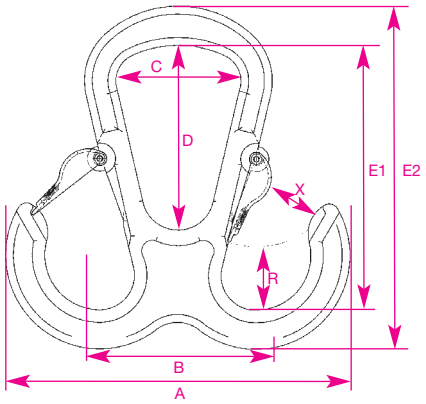
CondorLift Ramshorn Hook

If thick wire or fibre ropes (slings) or thick, large Master links do not fit in the normal single hooks (crane hook), the new CondorLift ramshorn hook offers the following advantages:

- Specially suitable to handle heavy load with synthetic belts or slings
- Greatest possible safety due to drop forged shape with rounded edges manufactured from high strength material
- Uniform load distribution with multistrand slings thanks to pivoting effect
- Rounded support surfaces for optimal placement of textile slings
- 2 forged safety latches with ergonomically formed finger recess. Safety latch engages in the hook tip and thus is protected against lateral bending.







Product video: carlstahl.de/OEDH

Forged version

Load cap. in t	Dimensions in mm A	B	C	D	E1	E2	Opening X in mm	R in mm	Width X1 in mm	Weight in kg/pce	Item no.
1	175	80	55	75	115	150	27	32	20	1.0	5370.CL.0010
3.2	220	100	80	120	160	220	32	37	24	2.6	5370.CL.0032
6.4	255	135	95	120	165	230	40	55	31	3.75	5370.CL.0064
Flamed version											
8.0	594	330	140	230	320	461	51	60	35	36	5370.00.80
10.0	650	355	160	260	355	521	57	65	40	50	5370.01.00

Special versions and higher load capacities on request.

SLINGS

CondorLift Special Hooks

Reducer Assembly for Hooks DIN 15402

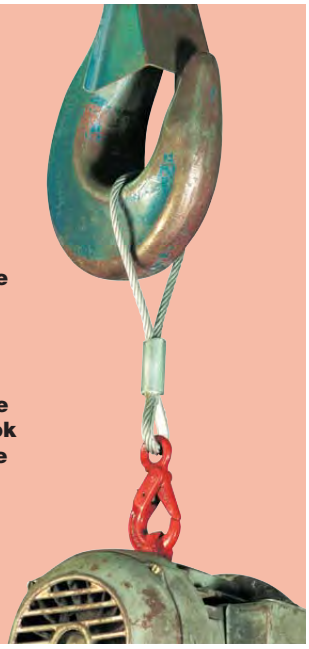
It's prohibited to place single slings in a double crane hook as this would result in a tilted position and involve the danger of the sling slipping out of the hook. In this case the reducer assembly offers 3 unmatched
advantages:

- Easy to attach with 2 Master links or 2 rope loops
- The load is distributed uniformly on the double hook
- The single hook (at the bottom of the reducer assembly) connects safely with the sling

Type	Load capacity in kg	Overall length in mm	Inner clearance of Master link in mm	Weight ca. in kg	Item no.
RD 7/8 -8	2000	312	120 x 70 x 14	1.6	6104.00.08
RD 10 -8	3150	358	120 x 70 x 14	2.6	6104.00.10
RD 13 -8	5300	429	140 x 80 x 17	4.5	6104.00.13
RD 16 -8	8000	511	160 x 95 x 22	9.0	6104.00.16
RD 18/20 -8	12500	617	190 x 110 x 25	19.6	6104.00.18

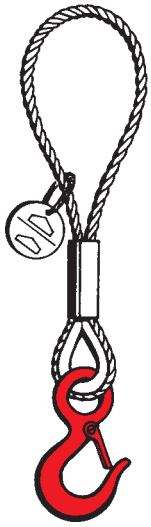
From a large crane hook to a small eye:

Safety hook eyes are used anywhere that the crane hook is too large for eye bolts, eyes or shackles. There is no better connection for such situations!



CondorLift Wire Rope Sling w/ Safety Eye Hook

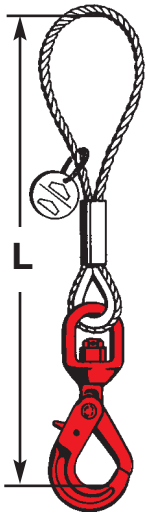
- Wire rope with pressed thimble
- Loop length 15-times the rope diameter



Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	400	1119.01.10
12	1500	450	1119.01.12
16	2700	500	1119.01.16
20	4000	650	1119.01.20

CondorLift Wire Rope Sling w/ autom. Swiv. Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter



Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	470	1127.01.10
12	1500	530	1127.01.12
16	2700	600	1127.01.16
20	4000	780	1127.01.20

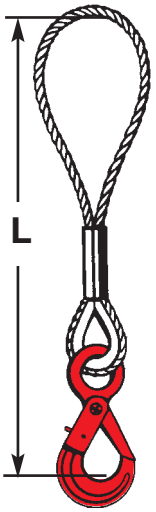
CondorLift Wire Rope Sling w/ Safety Swivel Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter

Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	430	1126.01.10
12	1500	500	1126.01.12
16	2700	540	1126.01.16
20	4000	690	1126.01.20

CondorLift Wire Rope Sling w/ automatic Hook

- Wire rope with pressed thimble
- Loop length 15-times the rope diameter

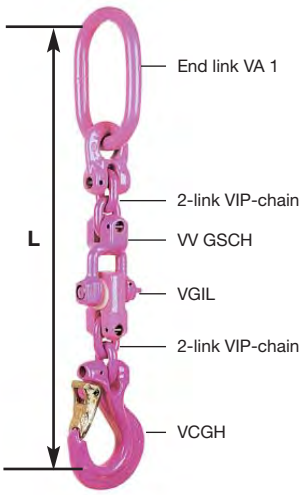


Rope Ø in mm	Load capacity in kg	Length in mm	Item no.
10	1000	430	1120.01.10
12	1500	490	1120.01.12
16	2700	550	1120.01.16
20	4000	710	1120.01.20

SLINGS
Isolating Connectors for Load Hooks

VIP Insulating Sling/VIP Insulating Clevis Shackle VGIL + VVGSCH up to 1000 V

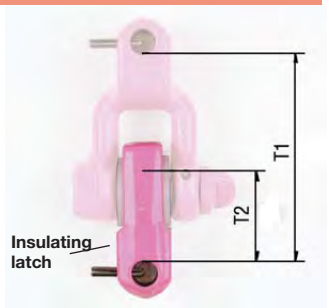
To be used when welding is carried out on suspended loads. It mimimises the danger of current flowing through the sling to the crane; insulating latch: isolation up to max. 1,000 V, using a special plastic bearing for the shackle pin, max. operating temperature +80°C (176°F).



Nominal chain size in mm	Load capacity in t	Type	Dimensions in mm L	Weight in kg/pce	Item no. VIP insulating sling
6	1.5	VGIL-6	350	1.4	6578.V5.06
8	2.5	VGIL-8	425	2.4	6578.V5.08
10	4.0	VGIL-10	517	4.3	6578.V5.10
13	6.7	VGIL-13	632	8.2	6578.V5.13
16	10.0	VGIL-16	760	13.1	6578.V5.16

VIP Insulating Latch VGIL

Welding on suspended loads involves the danger of current flowing to the crane. The VIP insulating clevis latch insulates up to 1,000 V using a special plastic bearing for the shackle pin. Max. operating temperature +80°C (+176°F).



Nominal chain size in mm	Load capacity in t	Designation	Dimensions in mm T1	T2	Weight in kg/pce	Item no.
6	1.5	VGIL-6	64	28	0.15	6578.V1.06
8	2.5	VGIL-8	85	37	0.26	6578.V1.08
10	4.0	VGIL-10	108	47	0.65	6578.V1.10
13	6.7	VGIL-13	132	54	1.35	6578.V1.13
16	10.0	VGIL-16	166	70	2.5	6578.V1.16

Insulated Roller Bearing Swivel Type SKLI

The insulated swivel SKLI with axial roller bearing prevents damage from crane ropes or crane electrics up to a voltage of 1000 V, coming from high amperages when welding suspended loads. This is effected by interrupting the current flow.

Consists of:
- Master link SKG
- Insulated swivel SKLI
- Safety hook SKN

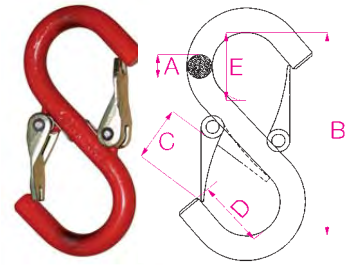
Load capacity in t	Type	Overall length in mm	Weight in kg	Item no.
2.0	SKLI - 7/8 - 8	264	1.4	5SKI.00.20
3.15	SKLI - 10 - 8	338	2.9	5SKI.00.32
5.3	SKLI - 13 - 8	410	5.7	5SKI.00.54
8.0	SKLI - 16 - 8	493	9.9	5SKI.00.80
12.5	SKLI - 18/20 - 8	560	14.8	5SKI.01.25

SLINGS
Special Hooks

Round Steel S-hook with forged safety latch on both sides

NEW!

- High-strength design
- With forged safety latch on both sides
- Both ends chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered

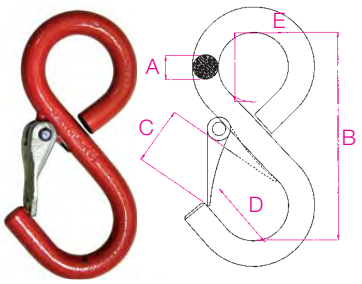


Load capacity per hook in kg	Dimensions in mm A	B	C/E	D	Weight in kg	Item no.
100	8	80	20	15	0.10	5430.10.10
200	10	80	17	20	0.17	5430.10.20
300	14	100	23	20	0.35	5430.10.30
500	16	130	32	22	0.60	5430.10.50
750	18	160	42	27	0.85	5430.10.75
1000	20	180	48	37	1.14	5430.11.00
1250	22	200	51	38	1.60	5430.11.25
1500	26	220	55	50	2.50	5430.11.50
2000	32	260	70	56	4.60	5430.12.00
3000	36	320	84	65	7.00	5430.13.00

Round Steel S-hook with closed Eye and forged safety latch

NEW!

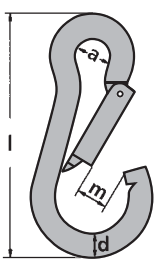
- High-strength design
- With forged safety latch
- Open end chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity per hook in kg	Dimensions in mm A	B	C	D	E	Weight in kg	Item no.
100	8	80	20	15	28	0.10	5431.10.10
200	10	80	17	20	28	0.17	5431.10.20
300	14	100	23	20	35	0.35	5431.10.30
500	16	130	32	22	45	0.60	5431.10.50
750	18	160	42	27	56	0.85	5431.10.75
1000	20	180	48	37	63	1.14	5431.11.00
1250	22	200	51	38	70	1.60	5431.11.25
1500	26	220	55	50	77	2.50	5431.11.50
2000	32	260	70	56	91	4.60	5431.12.00
3000	36	320	84	65	112	7.00	5431.13.00

Snap Hook*

- Similar to DIN 5299, Form C
- WLL and manufacturer embossed
- Surface: galvanised



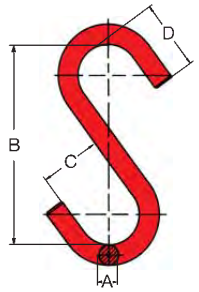
Load capacity in kg	Dimensions in mm l x d Ø	a	m	Weight in kg / 100 pcs	Item no.
100	40 x 4	6	7	1.10	5140.00.40
120	50 x 5	8	7	1.90	5140.00.50
120	60 x 6	9	8	2.70	5140.00.60
180	70 x 7	10	8	4.40	5140.00.70
230	80 x 8	10	10	6.50	5140.00.80
250	90 x 9	12	10	8.80	5140.00.90
350	100 x 10	15	11	12.70	5140.01.00
450	120 x 11	18	16	18.00	5140.01.20
510	140 x 12	20	19	26.00	5140.01.40
600	160 x 13	22	23	35.00	5140.01.60
650	180 x 14	22	33	48.00	5140.01.80

***Firefighting karabiner hooks must not be used in conjunction with slings. Firefighting karabiner hooks are also available with a pressed round thimble.**

SLINGS
Special Hooks

S-hook without safety latch, open

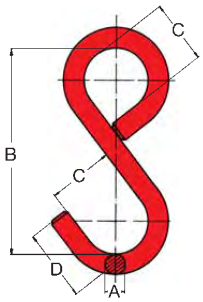
- High-strength design
- Both ends chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity in kg	Dimensions in mm A	B	C	D	Weight in kg/pce	Item no.
130	8	80	25	28	0.07	5430.00.01
200	10	100	30	35	0.14	5430.00.02
350	13	130	40	45	0.30	5430.00.03
500	16	160	50	56	0.57	5430.00.05
700	18	180	55	63	0.80	5430.00.07
850	20	200	60	70	1.10	5430.00.08
1000	22	220	65	77	1.46	5430.00.10
1400	26	260	80	91	2.42	5430.00.14
2000	32	320	95	112	4.50	5430.00.20
2750	36	360	110	126	6.40	5430.00.27
3500	40	400	120	140	8.80	5430.00.35
4300	45	450	135	158	12.50	5430.00.43

S-hook without safety latch, closed Eye

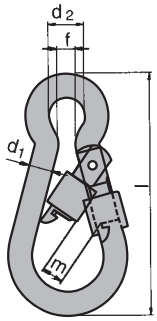
- High-strength design
- Open end chamfered
- Stamped with WLL/manufacturer
- Finish: painted red
- Material: 42 CrMo 4 quenched and tempered



Load capacity in kg	Dimensions in mm A	B	C	D	Weight in kg/pce	Item no.
130	8	80	25	28	0.07	5431.00.01
200	10	100	30	35	0.14	5431.00.02
350	13	130	40	45	0.30	5431.00.03
500	16	160	50	56	0.57	5431.00.05
700	18	180	55	63	0.80	5431.00.07
850	20	200	60	70	1.10	5431.00.08
1000	22	220	65	77	1.46	5431.00.10
1400	26	260	80	91	2.42	5431.00.14
2000	32	320	95	112	4.50	5431.00.20
2750	36	360	110	126	6.40	5431.00.27
3500	40	400	120	140	8.80	5431.00.35
4300	45	450	135	158	12.50	5431.00.43

Snap Hook with Safety Screw*

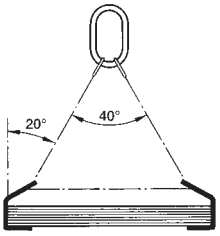
- Similar to DIN 5299, Form C
- WLL and manufacturer embossed
- Surface: galvanised



Load capacity in kg	Nominal size	Dimensions in mm d1	d2	f	l	m	Weight in kg/100 pcs	Item no.
120	60 x 6	6	9	5	60	8	2.90	5141.00.60
180	70 x 7	7	10	8	70	8	4.60	5141.00.70
230	80 x 8	8	12	8	80	10	6.90	5141.00.80
250	90 x 9	9	12	9	90	10	9.70	5141.00.90
350	100 x 10	10	15	10	100	11	13.40	5141.01.00
450	120 x 11	11	18	11	120	16	19.00	5141.01.20
510	140 x 12	12	20	14	140	19	26.50	5141.01.40

***Firefighting karabiner hooks must not be used in conjunction with slings. Firefighting karabiner hooks are also available with a pressed round thimble.**

SLINGS
Special Hooks



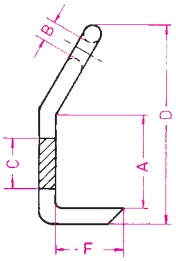
Notice on use for Plate Hook 5471. and Split Hook 5475.

Plate hooks have the following specific features which distinguish them from regular hooks:

- The inclination angle must not exceed or fall below 20°.
- The chain length has to be adapted to the permissible inclination angle and the load.
- For lifting of stacked plates or similar loads at least 3 plate hooks must be used.
- For lifting of dimensionally stable tubes plate hooks may also be used in pairs.
- For lifting of long and slim materials it is advisable to work with a spreader beam and 4 plate hooks.
- The load has to rest on the full length of the hook. The hooks must not be loaded on the tips only!
- The load must be connected in such a way that it cannot slip or spring off the base of the hook when lifted or transported.
- The hooks must only be used to transport sheets, slabs or horizontal rings.
- Keep clear of suspended loads.

Plate Hook

- Simple design
- High tensile steel
- Finish: painted red

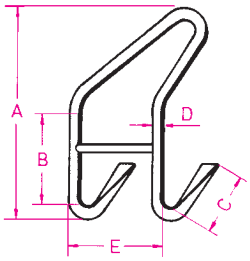


Load capacity per hook in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	C	D	E		
500	80	16	50	170	70	0.8	5471.00.05
1000	90	20	60	210	90	1.4	5471.00.10
1500	110	23	70	240	105	2.5	5471.00.15
2000	125	25	80	275	110	3.5	5471.00.20
2500	145	30	90	300	120	5.7	5471.00.25
3000	185	35	100	380	135	7.4	5471.00.30
4000	220	35	115	450	145	10.2	5471.00.40
5000	260	40	130	520	160	15.0	5471.00.50
7500	300	45	150	600	180	20.0	5471.00.75

Other load capacities and dimensions available. On request also with B link.

Split Hook

- Spread version
- High tensile steel
- Grooved contact surface
- Connecting link
- Finish: painted red



Load capacity per hook in kg	Dimensions in mm					Weight in kg	Item no.
	A	B	C	D	E		
500	180	50	80	18	150	1.30	5475.00.05
1120	210	60	95	20	170	1.80	5475.00.10
1500	240	70	105	22	200	2.20	5475.00.15
2000	280	80	115	26	220	3.30	5475.00.20
2500	340	100	120	32	270	6.50	5475.00.25
3200	400	120	140	32	320	8.30	5475.00.30
4000	530	160	180	36	420	13.50	5475.00.40
5300	660	200	210	40	520	19.00	5475.00.50
6000	800	250	250	50	640	33.00	5475.00.60
7500	980	300	300	60	760	60.00	5475.00.75
10000	1000	400	350	70	800	75.00	5475.01.00

Other load capacities and dimensions available. On request also with B link.

Light Plate Hook (not DIN-compliant)

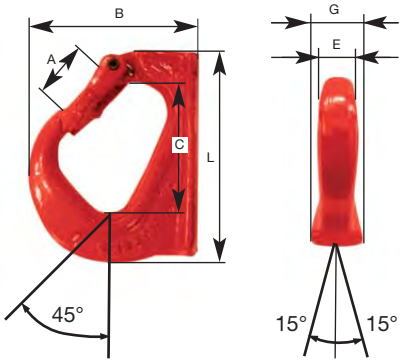
- Forged
- With connector for clevis or thimble
- With WLL specification

Load capacity in kg	Type	Length in mm	Width in mm	Thickness in mm	Pin Ø in mm	Weight in kg/pce	Item no.
1000	CSPH 1	176	80	36	7	0.425	5470.00.10

SLINGS
Accessories Grade 8

Weld-on Hook

Applications:
Hydraulic excavators, lifting and spreader beams

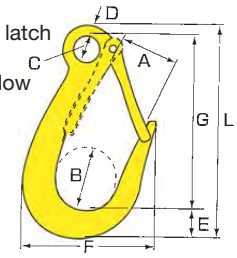


Load capacity in kg up to 45°	Dimensions in mm						Weight ca. in kg/pce	Item no.
	A	B	C	E	G	L		
1120	25	76	59.5	20	25	97	0.48	5320.00.10
2000	26.5	92	65	22	34	114	0.85	5320.00.20
3000	29	106	75	24	36	129	1.12	5320.00.30
5000	34.5	130	92	30	45	171	2.50	5320.00.50
8000	34.5	135	98	39	51	177	3.20	5320.00.80
10000	51	171.5	134.5	39	53	223	5.20	5320.01.00

Range of application: 45°
Permissible load: 15° in lateral direction of pull

Foundry Hook, with Safety Latch (not DIN-compliant)

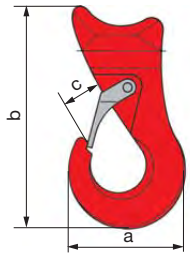
- With eye
- With forged safety latch
- WLL specification
- Finish: painted yellow



Load capacity in kg	Type	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	L		
1500	WHS 1.5	62	65	25	11	28	148	175	214	1.2	5240.00.15
3000	WHS 3	73	80	32	14	33	164	216	263	2.3	5240.00.30

Choker Hook SGHS, with Safety Latch

- Material: grade 8
- Finish: painted red
- Safety factor 2:1

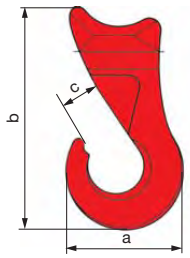


Max. pulling force in dN	Nominal size	For rope Ø in mm	Opening Ø in mm	Dimensions in mm			Weight in kg/pce	Item no.
				a	b	c		
4000	1.25	9-13	17	70	128	16	0.7	5310.00.12
6300	2.00	14-16	22	80	147	21.5	1.0	5310.00.20
8000	3.00	17-19	27	103	174	30	1.9	5310.00.30
10000	5.00	20-26	33	133	210	40	4.2	5310.00.50

Not for lifting - horizontal pulling only!
Indicated max. pulling force (in dN) for horizontal pull only.

Choker Hook SGH, without Safety Latch

- Material: grade 8
- Finish: painted red
- Safety factor 2:1



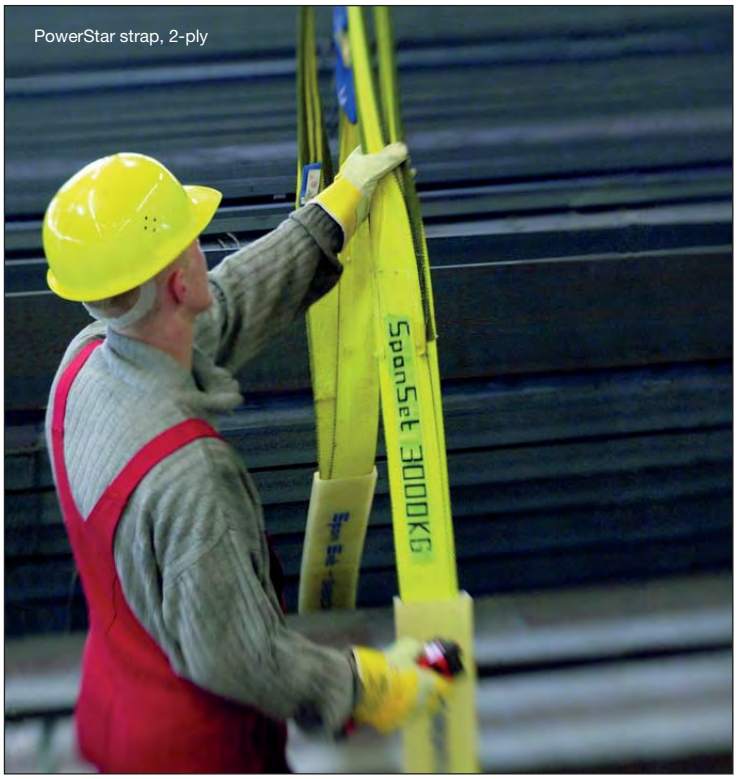
Max. pulling force in dN	Nominal size	For rope Ø in mm	Opening Ø in mm	Dimensions in mm			Weight in kg/pce	Item no.
				a	b	c		
4000	1.25	9-13	17	70	128	24	0.6	5310.01.12
6300	2.00	14-16	22	80	147	28	0.9	5310.01.20
8000	3.00	17-19	27	103	174	36	1.8	5310.01.30
10000	5.00	20-26	33	133	210	47	4.0	5310.01.50

Not for lifting - horizontal pulling only!
Indicated max. pulling force (in dN) for horizontal pull only.

SLINGS
Textile Slings

Roundslings	**Pages 264-277**
Textile Bridle Slings	**Page 277**
Webbing slings	**Pages 278-286**
Woven Wire Rope Slings	**Pages 287-292**
Edge Protectors	**Page 293**
Fibre Ropes	**Pages 294-299**

SupraPlus with NoCut® protective tubing



PowerStar strap, 2-ply

Heavy Duty SpanSet MagnumPlus sling

SupraPlus Roundsling

Polyester roundsling according to DIN EN 1492-2 with extra strong sleeve

All around the globe SupraPlus roundslings prove their quality each and every day. Now this top product has been further developed based on today's know-how. By optimising the manufacturing process the thickness could be reduced by 25% making handling much more comfortable. Also the reinforcement ribs have been improved: For the first time an extra-strong special fibre has been used, further improving the service life of the new SupraPlus.

The new SupraPlus generation – more compact and rubust than ever!!!

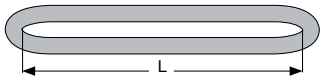
Minimised wrinkling and smaller contact surface due to 20% reduced width makes SupraPlus more compact and durable.

The textile wire enforced tubing protects SupraPlus from damage and tear. Thus SupraPlus resists toughest conditions.

Unique, tear-proof and robust label, which can be retrofitted with an RFID transponder. This enables a longer service life and the storage of inspection and servicing data.

Rib reinforcement on the tubing made from high-performance polyester doubles abrasion resistance and multiplies cut resistance, allowing a much longer service life.

Raised woven in load capacity indication, remains clearly recognisable even under heavy soiling: Prevents mix-ups and enhances work safety.



Type	Load capacity single direct in kg	Thickness under load in mm	Width under load in mm	L min. in m	L max. in m	**Item no.**
Supra Plus 500	500	5	36	0.5	8	4501.00.05
Supra Plus 1000	1000	6	36	0.5	20	4501.00.10
Supra Plus 2000	2000	8	37	0.5	20	4501.00.20
Supra Plus 3000	3000	10	44	0.5	30	4501.00.30
Supra Plus 4000	4000	12	52	0.5	30	4501.00.40
Supra Plus 5000	5000	13	59	0.75	30	4501.00.50
Supra Plus 6000	6000	14	65	1	60	4501.00.60
Supra Plus 8000	8000	17	68	1	60	4501.00.80

SLINGS
Roundslings

Protective Tubings for SupraPlus Roundslings

****Abrasion protection Powerflex also available accord. to fig.5, plant side only

Figure 3:

Figure 5:

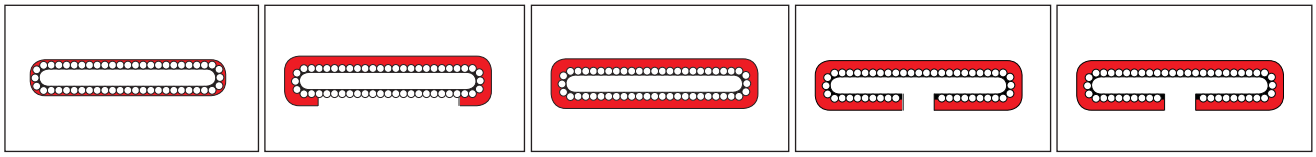
4PRS.
Abrasion protection Powerflex**
for rough surfaces
acc. to figure 3

4S10.
Protective tubing SF-1 one-sided for sharp edges
acc. to figure 3

4S20.
Protective tubing SF-2 two-sided for sharp edges
acc. to figure 3

4SC0.
Protective tubing Clip-SC as clip-on, exchange-able, for sharp edges
acc. to figure 3

4SC0.
Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges
acc. to figure 3



Protective tubing for type	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.
Supra Plus 500	90	2	4PRS.00.05	70	23	4S10.30.50	70	25	4S20.30.50	70	25	4SC0.30.50	70	25	4SC0.50.30
Supra Plus 1000	90	2	4PRS.00.10	70	23	4S10.30.50	70	25	4S20.30.50	70	25	4SC0.30.50	70	25	4SC0.50.30
Supra Plus 2000	90	2	4PRS.00.20	80	23	4S10.30.65	80	25	4S20.30.65	80	25	4SC0.30.65	70	25	4SC0.50.50
Supra Plus 3000	120	2	4PRS.00.30	95	25	4S10.30.75	95	25	4S20.30.75	95	25	4SC0.30.75	80	25	4SC0.50.50
Supra Plus 4000	120	2	4PRS.00.40	125	25	4S10.31.00	125	25	4S20.31.00	125	25	4SC0.31.00	80	25	4SC0.50.60
Supra Plus 5000	120	2	4PRS.00.50	145	25	4S10.31.25	145	25	4S20.31.25	145	25	4SC0.31.25	95	25	4SC0.50.60
Supra Plus 6000	170	2	4PRS.00.60	145	25	4S10.31.25	145	25	4S20.31.25	145	25	4SC0.31.25	95	25	4SC0.50.60
Supra Plus 8000	170	2	4PRS.00.80	175	25	4S10.31.50	175	25	4S20.31.50	175	25	4SC0.31.50	125	25	4SC0.50.60

*Dimensions in mm width x height

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

SLINGS
Roundslings

MagnumPlus Roundsling

Polyester roundsling acc. to DIN EN 1492-2 with rib reinforcement.

The MagnumPlus now features rib reinforcement as standard. An extrastrong special fibre has been used, further improving the service life of the MagnumPlus.

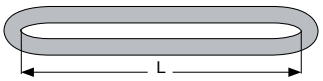
Minimised wrinkling and smaller contact surface due to adaption of tubing and core makes SupraPlus more compact and durable.

The textile wire enforced tubing protects MagnumPlus from damage and tear. Thus MagnumPlus resists toughest conditions.

Raised woven in load capacity indication, remains clearly recognisable even under heavy soiling: Prevents mix-ups and enhances work safety.

Unique, tear-proof and robust label with RFID transponder for longer service life and storage of inspection service data.

Rib reinforcement on the tubing made from high-performance polyester doubles abrasion resistance and multiplies cut resistance, allowing a much longer service life.



Type	Load capacity single direct kg	Thickness under load at WLL mm	Width under load at WLL mm	Weight in kg/m	L min. in m	L max. in m	Item no.
MagnumPlus 10000	10000	18	90	2.2	2.5	60	4501.01.00
MagnumPlus 15000	15000	22	110	3.2	2.5	60	4501.01.50
MagnumPlus 20000	20000	25	120	4.4	2.5	60	4501.02.00
MagnumPlus 25000	25000	28	135	5.6	2.5	60	4501.02.50
MagnumPlus 30000	30000	32	150	7.4	2.5	60	4501.03.00
MagnumPlus 40000	40000	40	170	10.0	2.5	60	4501.04.00
MagnumPlus 50000	50000	45	180	13.0	2.5	60	4501.05.00
MagnumPlus 60000	60000	65	190	14.8	3.5	60	4501.06.00
MagnumPlus 80000	80000	70	210	20.0	3.5	60	4501.08.00
MagnumPlus 100000	100000	80	230	26.0	3.5	60	4501.10.00

Protective Tubings for MagnumPlus Roundslings

**Abrasion protection Powerflex also available accord. to fig. 5, plant side only

Figure 3:

Figure 5:

4PRS.
Abrasion protection Powerflex for rough surfaces**
acc. to figure 3

4S10.
Protective tubing SF-1 one-sided for sharp edges
acc. to figure 3

4S20.
Protective tubing SF-2 two-sided for sharp edges
acc. to figure 3

4SC0.
Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges
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4SC0.
Protective tubing Clip-SC as clip-on, exchangeable, for sharp edges
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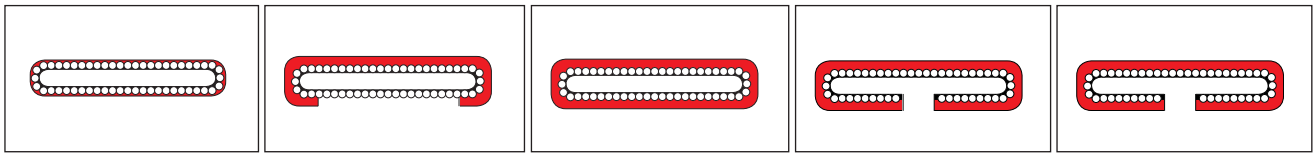


Protective tubing for type	Dimensions*		Item no.	Dimensions*		Item no.	Dimensions*		Item no.	Dimensions*		Item no.	Dimensions*		Item no.
	B	H		B	H		B	H		B	H		B	H	
MagnumPlus 10000	250	3.3	4PRS.01.00	200	20	4S10.32.00	200	20	4S20.32.00	200	20	4SC0.32.00	100	20	4SC0.51.10
MagnumPlus 15000	250	3.3	4PRS.01.50	250	25	4S10.32.50	250	25	4S20.32.50	250	25	4SC0.32.50	125	25	4SC0.51.25
MagnumPlus 20000	310	3.3	4PRS.02.00	300	30	4S10.33.00	300	30	4S20.33.00	300	30	4SC0.33.00	125	30	4SC0.51.26
MagnumPlus 25000	310	3.3	4PRS.02.50	300	35	4S10.33.01	300	35	4S20.33.01	300	35	4SC0.33.01	150	35	4SC0.51.50
MagnumPlus 30000	310	3.3	4PRS.03.00	300	40	4S10.33.02	300	40	4S20.33.02	300	40	4SC0.33.02	150	40	4SC0.51.51
MagnumPlus 40000	370	3.3	4PRS.04.00	350	50	4S10.33.50	250	50	4S20.33.50	350	50	4SC0.33.50	200	50	4SC0.52.00
MagnumPlus 50000	–	–	–	400	50	4S10.34.00	400	50	4S20.34.00	400	50	4SC0.34.00	220	50	4SC0.52.20
MagnumPlus 60000	–	–	–	400	70	4S10.34.01	400	70	4S20.34.01	250	70	4SC1.32.50	250	70	4SC0.52.50
MagnumPlus 80000	–	–	–	450	80	4S10.34.50	450	80	4S20.34.50	250	80	4SC2.32.50	250	80	4SC0.52.51
MagnumPlus 100000	–	–	–	500	90	4S10.35.00	500	90	4S20.35.00	280	90	4SC2.32.80	280	90	4SC0.52.80

*Dimensions in mm width x height

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

SLINGS
Roundslings

X Magnum-X Roundsling

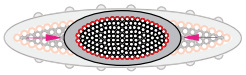
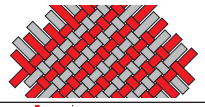
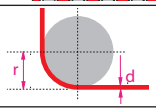
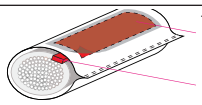
Easy lifting of heavy loads!

Similar to DIN EN 1492-2

1. The core made from high-performance polyester and the compact tubing lead to a width reduction under load of up to 50 % compared to a regular roundsling. Fits easily and with no loss of load capacity in smaller crane hooks; improved handling.
2. Compact tubing with high-performance polyester. Considerably improved wear and cut resistance as well as minimised wrinkling. Longer service life even under toughest conditions.
3. Average reduction of roundsling thickness by a third and weight reduction by 50%. Compared to regular PES roundslings of the same capacity the Magnum-X can be used with much smaller edge radii.
4. Additional movable sleeve with raised woven-in load capacity indication which remains clearly recognisable even from the distance or under heavy soiling. Enhanced work safety by use of the correct load capacity.
5. Tear-proof and abrasion-resistant label including RFID transponder. Avoids data loss and can be read out any time with EPIS (Electronic Product Information System). Longer service life and storage of inspection service data.

A new dimension in lifting technology!

Magnum-X roundsling

1.	**X-tremely compact:** Core madde from high-performance polyester and compact tubing	Width reduction of up to 50% compared with regular roundslings	Fits easily and with no loss of load capacity in smaller crane hooks, improved handling		Cross section under load (WLL) in comparison
2.	**X-tremely wear resistant:** Compact tubing with high-performance polyester	Considerably improved wear and cut resistance and minimised wrinkling	Long service life even under toughest conditions		Compact structure
3.	**X-tremely resistant:** Optimised thickness	Average reduction of roundsling thickness by a third and weight reduction by 50%	Compared with regular PES roundslings the Magnum-X can be used with much smaller edge radiuses		Definition of a sharp edge: Edge radius < tickness of sling
4.	**X-actly recognisable:** Additional movable sleeve with woven-in load capacity indication	Load capacity remains recognisable even from the distance and under heavy soiling	Enhanced work safety by use of the correct load capacity		Woven-in load capacity indication
5.	**X-actly identifiable:** Tear-proof and abrasion-resistant label indicating including RFID transponder	Avoids data loss and can be read out any time with EPIS (Electronic Product Information System)	Longer service life and storage of inspection data		Tear-proof label with RFID trransponder

Type	Load capacity single direct in kg	Thickness at WLL in mm	Width at WLL in mm	Weight in kg/m	L min. in m	L max. in m	**Item no.**
Magnum-X 10000*	10000	12	55	1.0	2.5*	30	4501.X010
Magnum-X 20000*	20000	15	80	2.3	2.5*	30	4501.X020
Magnum-X 30000*	30000	20	90	3.5	2.5*	30	4501.X030
Magnum-X 40000	40000	24	110	5.1	2.5	30	4501.X040
Magnum-X 50000	50000	23	117	5.5	4	30	4501.X050
Magnum-X 60000	60000	30	150	7.9	4	30	4501.X060
Magnum-X 80000	80000	40	200	10.9	4	30	4501.X080
Magnum-X 100000	100000	47	233	16.8	4	30	4501.X100
Magnum-X 125000	125000	53	267	20.4	4	30	4501.X125
Magnum-X 150000	150000	62	308	25.4	4	30	4501.X150

Magnum-X roundslings are available up to 400 ton capacity! Prices on request.

Suitable shackles for these roundslings can be found on pages 417-418 (Green Pin acc. to DIN EN 13889 + ExoSet shackles on page 270).

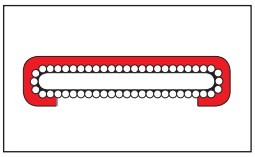
***also available as Magnum-X short in short lengths of 1 m, 1.5 m und 2 m in load capacities 10, 20, and 30 ton.**

Protective Tubings for MagnumPlus Roundslings

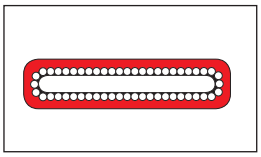
Figure 3:

Figure 5:

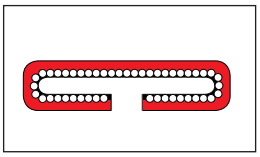
4S13.
Protective tubing SF-1 one-sided for sharp edges
acc. to figure 3



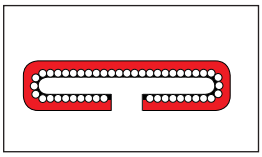
4S23.
Protective tubing SF-2 two-sided for sharp edges
acc. to figure 3



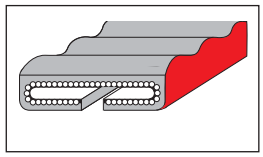
4SC3.
Protective tubing Clip-SC as clip-on, ex-changeable, for sharp edges acc. to figure 3



4SC5.
Protective tubing Clip-SC as clip-on, ex-changeable, for sharp edges acc. to figure 5



4SW5.
Protective tubing se-cuwave as clip-on, ex-changeable for sharp edges acc. to figure 3



Protective tubing for type	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.
MagnumX 10000	60	25	4S13.30.10	60	25	4S23.30.10	60	25	4SC3.30.10	30	25	4SC5.30.10	60	25	4SW5.30.10
MagnumX 20000	110	30	4S13.30.20	110	30	4S23.30.20	110	30	4SC3.30.20	55	30	4SC5.30.20	110	30	4SW5.30.20
MagnumX 30000	140	35	4S13.30.30	140	35	4S23.30.30	140	35	4SC3.30.30	70	35	4SC5.30.30	140	35	4SW5.30.30
MagnumX 40000 MagnumX 50000	170	40	4S13.30.40	170	40	4S23.30.40	170	40	4SC3.30.40	85	40	4SC5.30.40	170	40	4SW5.30.40
MagnumX 60000	255	50	4S13.30.60	255	50	4S23.30.60	255	50	4SC3.30.60	130	50	4SC5.30.60	255	50	4SW5.30.60
MagnumX 80000	380	60	4S13.30.80	380	60	4S23.30.80	380	60	4SC3.30.80	200	60	4SC5.30.80	380	60	4SW5.30.80
MagnumX 100000	515	60	4S13.31.00	515	60	4S23.31.00	515	60	4SC3.31.00	260	60	4SC5.31.00	515	60	4SW5.31.00
MagnumX 125000	515	80	4S13.31.25	515	80	4S23.31.25	515	80	4SC3.31.25	260	80	4SC5.31.25	515	80	4SW5.31.25
MagnumX 150000	675	80	4S13.31.50	675	80	4S23.31.50	675	80	4SC3.31.50	340	80	4SC5.31.50	675	80	4SW5.31.50

*Dimensions in mm width x height

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

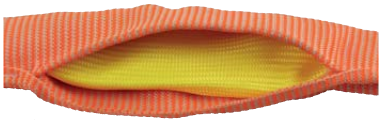
When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

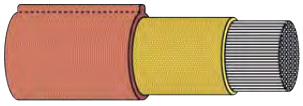
For length adjusters see page 328.

Magnum-X SMART Roundsling

Magnum-X SMART roundsling acc. to DIN EN 1492-2

The high-performance roundsling Magnum-X SMART is specially suitable for wear-intensive applications. The high load capacities of 20, 30 and 40 ton is combined with an unmatched compactness and low weight of the Magnum-X roundslings. On one side, the Magnum-X SMART features a very robust outer tubing made from high-performance fibre material, which can be exchanged in case of damage. On the other side there is the inner, load-bearing tubing in yellow marking colour. As soon as it becomes visible, the outer tubing must be replaced. This is an added safety bonus for the operator. Replacing the outer tubing turns the repaired Magnum-X SMART into a virtually new roundsling. The useful life is extremely extended!





Extremely compact:
Core made from high-performance polyester and innovative tubing design. Considerably smaller cross section and width compared to regular roundslings of the same capacity.

Exactly identifiable:
Tear-proof and abrasion resistant label including RFID transponder. Label cannot get lost.

Extra wear-resistant:
Outer tubing reinforced with high-performance fibre material. Considerably enhanced wear and cut resistance.

Exactly recognisable:
Tubing with load capacity patch. Load capacity recognisable even under heavy soiling.

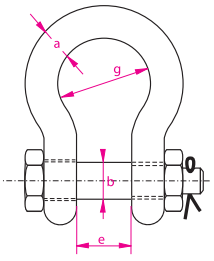
Extremely flexible:
Fitted with extra and exchangeable tubing. Added safety by marking colour of the inner tubing. Cost reduction through exchangeability of outer tubing.

Extremely efficient:
Equipped with RFID transponder for electronic inspection documentation and administration.

Load capacity WLL single direct in kg	Weight in kg/m	Width under load in mm	Thickness under load in mm	L min. in m	L max. in m	Item no.
20000	2.5	80	20	2.5	30	4501.S0.20
30000	3.7	90	30	2.5	30	4501.S0.30
40000	5.3	110	40	2.5	30	4501.S0.40

ExoSet Roundsling Shackle

SpanSet has carried out an extensive series of tests with the ExoSet shackles combined with SpanSet roundslings. The result was a perfect match of the shackle contact surface with the suitable roundsling of the same load capacity. Apart from that, ExoSet shackles are manufactured on a permanent high quality level, all edges and contact surfaces are deburred. In cooperation with DGUV (German Statutory Accident Insurance) SpanSet has tested and approved all shackle/sling combinations. For the first time now, exactly matched shackles and roundslings are available to ensure the highest possible safety level.



Load capacity shackle in kg	Bow diameter (a) in mm	Pin Ø (b) in mm	Contact surface width of shackle pin (e) in mm	Inner width of shackle (g) in mm	Item no.
2000	13.5	16	22	32	5660.E0.02
3250	16	19	27	43	5660.E0.03
4750	19	22	31	51	5660.E0.04
6500	22	25	36	68	5660.E0.06
8500	25	28	43	68	5660.E0.08
12000	32	35	51	83	5660.E0.12
25000	45	50	74	126	5660.E0.25
35000	50	57	83	138	5660.E0.35
55000	65	70	105	180	5660.E0.55
85000	75	83	127	190	5660.E0.85

Protective Tubing NoCut® – made from high-performance fibre for more safety

When handling items such as sharp-edged sheets, people often improvise and use inadequate solutions, such as a pile of gloves or cardboard as edge protection. This breaches legal regulations and can lead to fatal accidents. You should therefore always protect your slings with edge protection specially developed for use with sharp edges. This increases the service life of your slings and the safety of your employees.

High-performance fibres are finding their way into lifting technology

The high cut and wear resistance of HMPE (high-modulus polyethylene) have led to the development of the NoCut®sleeve and pad. A trend in the field of lifting technology! Thanks to their outstanding properties, high-performance fibres are increasingly being used to develop textile cut protection, hose sheaths and slings.

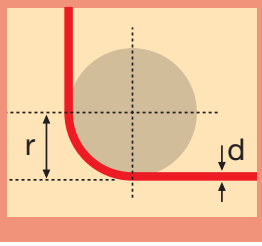
For more safety.

To develop NoCut®, a special testing system was designed and built that can be used to determine the cut resistance of the fabric by testing the cut impact under nominal load. The protective effect of the NoCut®sleeve and NoCut®pad has been determined on several different sharp edges and certified by Dekra. Specific results can therefore be offered that leave no unanswered questions during usage!
NoCut® was naturally adapted to the various widths of the SpanSet lifting slings and round slings. It therefore provides ideal protection for textile slings such as PowerStar lifting slings and SupraPlus round slings, especially against damage from sharp edges when lifting loads.

Definition of a sharp edge:

If the radius ‘r’ of an edge is smaller than the diameter or thickness ‘d’ of a sling, the edge is classed as sharp. See DGUV regulation 100-500.

Sharp edges must be taken into consideration in relation to all slings, including wire rope slings, chain slings, textile slings such as round slings, webbing slings and lashing equipment. Appropriate edge guards and protective hoses must be used to avoid sharp edges and thus damage to slings that poses a high risk of accidents!

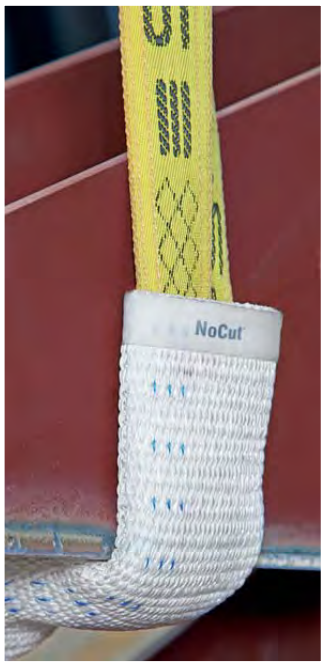


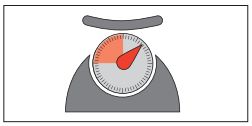
SLINGS
Accessories for Textile Slings

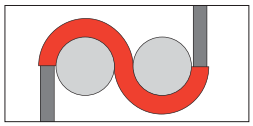
Protective Tubing NoCut® sleeve

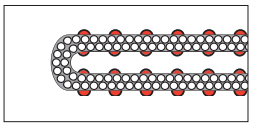
The easy way to achieve maximum safety: NoCut®sleeve

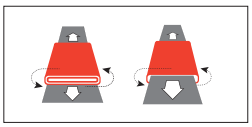
The protective tubing NoCut® is the ideal protection for textile slings in case of sharp edges. The protective tubing NoCut® is the ideal protection for textile slings in case of sharp edges. The unique weaving structure of highperformance fibres with raised woven-in ribs ensures a much better cut resistance. Extensive tests have clearly shown that the new protective tubing is considerably more resistant against the dangerous cutting effect of the load than conventional protective tubings.
Thanks to its lightweight structure, the protective tubing NoCut® is also much more flexible, making it easier to handle and quicker to apply than regular tubings.
The protective tubing NoCut® is available cut to length.

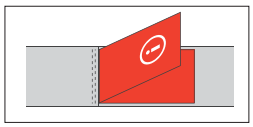



Light


Pliable


Rib-reinforced


Versatile


Labelled

Tested

Application of the protective tubing NoCut®

for roundslings (Double strand)

Fig. 3

for roundslings (Single strand)

Fig. 5 *

for webbing slings

Fig. 1

Weight g/m	Approx. hose inner width in mm	Approx. hose outer width in mm	Approx. hose thickness in mm	Combinable with webbing slings **acc. to fig. 1**	Combinable with round slings **acc. to fig. 3**	Item no.
560	45	55	13	PowerStar 1.000 Liftfix 1.000	-	4SNC.00.45
840	75	85	13	PowerStar 2.000 Liftfix 2.000	SupraPlus 500, 1.000, 2.000 Liftfix 500, 1.000, 2.000	4SNC.00.75
1120	105	115	13	PowerStar 3.000 Liftfix 3.000	Supra Plus 3.000, 4.000 Liftfix 3.000 MagnumX 10.000	4SNC.01.05
1400	135	145	13	PowerStar 4.000 Liftfix 4.000	Supra Plus 5.000, 6.000 Liftfix 4.000	4SNC.01.35
1680	165	175	13	PowerStar 5.000 Liftfix 5.000	Supra Plus 8.000 Liftfix 5.000, 6.000, 8.000	4SNC.01.65
2240	195	205	13	PowerStar 6.000 Liftfix 6.000	Liftfix 10.000 MagnumPlus 10.000 MagnumX 20.000	4SNC.01.95
2800	255	265	13	PowerStar 8.000 Liftfix 8.000	Liftfix 15.000	4SNC.02.55
2800	315	325	13	PowerStar 10.000 Liftfix 10.000	Liftfix 20.000, 25.000	4SNC.03.15

* Special version on request

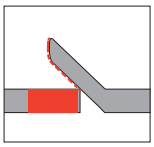
Available in a min. length L of 500 mm. Increasing in 250 mm intervals, i.e.: L = 750 mm, 1,000 mm, 1,250 mm etc.

Protective Tubing NoCut® pad

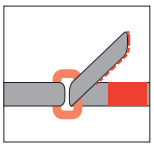
Outstanding cut protection: NoCut®pad

The NoCut®pad is a combination of the NoCut®sleeve and an internal fabric bridge with fasteners at each end. The NoCut®pad is attached at the point where the sling comes into contact with the sharp edge. For the user, this means:

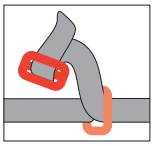
- High flexibility
- Excellent safety when handling sharp-edged loads
- Usage temperature -40°C to +60°C
- 2-ply and 4-ply versions



Velcro



Velcro with frame buckle



Frame with three-bar buckle

Pad outer width in mm	Combinable with webbing slings acc. to fig. 1	Combinable with round slings acc. to fig. 3	Combinable with round slings acc. to fig. 5	Item no. Velcro version	Item no. Velcro with frame buckle version	Item no. Three-bar and frame buckle version
2-ply						
55	PowerStar PB 1.000 Liftfix HB 1.000	No assignment possible	SupraPlus 500, 1.000 Twintex 1.000 Liftfix 500, 1.000,	4SNCP045K	-	4SNCP045S
85	PowerStar PB 2.000 Liftfix HB 2.000 PCS 2.000	No assignment possible	Supra Plus 2.000, 3.000, 4.000, 5.000 Twintex 2.000, 3.000, 4.000, 5.000 Liftfix 2.000, 3.000, 4.000, 5.000	4SNCP075K	-	4SNCP075S
115	PowerStar PB 3.000 Liftfix HB 3.000 PCS 4.000	Supra Plus 500, 1.000, 2.000, 3.000 Twintex 1.000, 2.000 Liftfix 500, 1.000	Supra Plus 6.000, 8.000 Twintex 6.000, 8.000 Liftfix 6.000, 8.000 MagnumX 10.000, 20.000	-	4SNCP105K	4SNCP105S
145	PowerStar PB 4.000 Liftfix HB 4.000 PCS 6.000	SupraPlus 4.000, 5.000, 6.000 Twintex 3.000, 4.000 Liftfix 2.000, 3.000, 4.000 MagnumX 1.000	Liftfix 10.000, 15.000 MagnumPlus 10.000, 15.000 MagnumX 30.000	-	4SNCP135K	4SNCP135S
175	PowerStar PB 5.000 Liftfix HB 5.000 PCS 8.000 PowerStar PB 6.000	SupraPlus 8.000 Twintex 5.000 Liftfix 5.000, 6.000, 8.000 MagnumX 20.000	Liftfix 20.000, 25.000 MagnumPlus 20.000, 25.000	-	4SNCP165K	4SNCP165S
205	Liftfix HB 6.000 PCS 10.000	Twintex 6.000, 8.000, Liftfix 10.000 MagnumPlus 10.000 MagnumX 30.000	Liftfix 30.000 MagnumPlus 30.000	-	4SNCP195K	4SNCP195S
265	PowerStar PB 8.000 Liftfix HB 8.000 PCS 12.000	Liftfix 15.000 MagnumPlus 15.000	Liftfix 40.000, 50.000 MagnumPlus 40.000, 50.000	-	4SNCP255K	4SNCP255S
340	PowerStar PB 10.000 Liftfix HB 10.000 PCS 16.000	Liftfix 20.000, 25.000 MagnumPlus 15.000, 25.000	No assignment possible	-	4SNCP315K	4SNCP315S
4-ply			Liftfix 10.000, 15.000			
145	PowerStar PB 4.000 Liftfix HB 4.000 PCS 6.000	SupraPlus 4.000, 5.000, 6.000 Twintex 3.000, 4.000 Liftfix 2.000, 3.000, 4.000 MagnumX 1.000	MagnumPlus 10.000, 15.000 MagnumX 30.000 Liftfix 20.000, 25.000	-	4SNCP4L135K	4SNCP4L135S
175	PowerStar PB 5.000 Liftfix HB 5.000 PCS 8.000	SupraPlus 8.000 Twintex 5.000 Liftfix 5.000, 6.000, 8.000 MagnumX 20.000	MagnumPlus 20.000, 25.000 Liftfix 30.000	-	4SNCP4L165K	4SNCP4L165S
205	PowerStar PB 6.000 Liftfix HB 6.000 PCS 10.000	Twintex 6.000, 8.000, Liftfix 10.000 MagnumPlus 10.000 MagnumX 30.000	MagnumPlus 30.000	-	4SNCP4L195K	4SNCP4L195S

Available in a min. length L of 500 mm. Increasing in 250 mm intervals, i.e.: L = 750 mm, 1,000 mm to max. 1,500 mm

SLINGS
Roundslings

Liftfix Roundsling

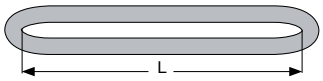
Well-proven standard roundsling

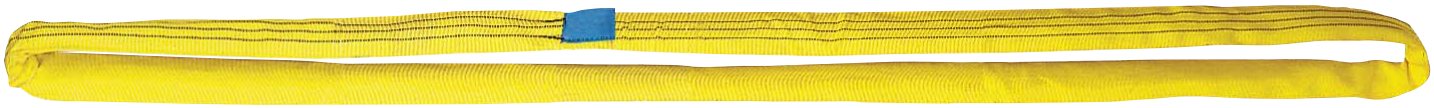
Great value for money!

Liftfix roundslings are manufactured acc. to European Standard 1492-2.

They feature a colour-coded sleeve with woven-in tonnage stripes for easy identification of the correct sling in daily practise.

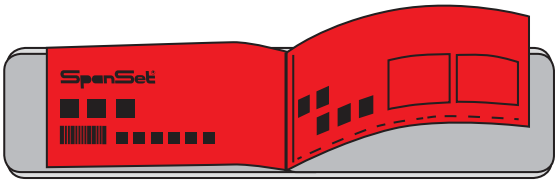
- Complies with current standard DIN EN 1492-2
- Fool-proof colour-coded acc. to DIN 1492-2
- From 10.000 kg load capacity/WLL outer sleeve orange
- Woven tonnage stripes





Tear-proof label, double-layer sewn

**Slings with illegible or missing label have to be discarded. Therefore our fold-out label is double-layer sewn:
Thus it is tear-proof and protected against abrasion.**



Type	Load capacity single direct in kg	Thickness under load in mm	Width under load in mm	L min in m	L max. in m	Item no.
Liftfix 1000	1000	6	45	0.5	10	4RS0.00.10
Liftfix 2000	2000	7	48	0.5	15	4RS0.00.20
Liftfix 3000	3000	8	60	0.75	15	4RS0.00.30
Liftfix 4000	4000	10	65	0.75	15	4RS0.00.40
Liftfix 5000	5000	10	67	1	60	4RS0.00.50
Liftfix 6000	6000	13	75	1	60	4RS0.00.60
Liftfix 8000	8000	15	80	1	60	4RS0.00.80

Type	Load capacity single direct in kg	Thickness under load in mm	Width under load in mm	L min in m	L max. in m	Item no.
Liftfix 10000	10000	15	95	1	60	4RS0.01.00
Liftfix 15000	15000	20.5	110	1	60	4RS0.01.50
Liftfix 20000	20000	22.5	120	1	60	4RS0.02.00
Liftfix 25000	25000	24	135	1	60	4RS0.02.50
Liftfix 30000	30000	27	150	1	60	4RS0.03.00
Liftfix 40000	40000	37	170	2.5	60	4RS0.04.00
Liftfix 50000	50000	65	180	2.5	60	4RS0.05.00
Liftfix 60000	60000	70	200	2.5	60	4RS0.06.00
Liftfix 80000	80000	74	220	2.5	60	4RS0.08.00
Liftfix 100000	100000	84	240	2.5	60	4RS0.10.00

SLINGS
Roundslings

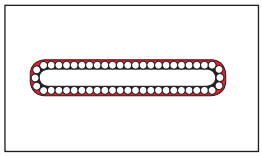
Protective Tubings for Liftfix Roundslings

**Abrasion protection Powerflex also available accord. to fig.5, plant side only

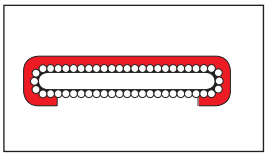
Figure 3:

Figure 5:

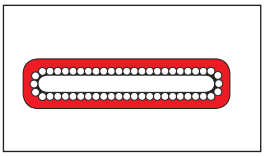
4PRS.
Abrasion protection Powerflex for rough surfaces**
acc. to fig. 3



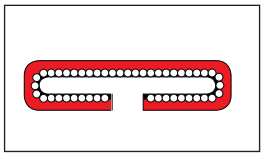
4S10.
Protective tubing SF-1 one-sided for sharp edges
acc. to fig. 3



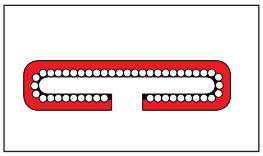
4S20.
Protective tubing SF-2 twoe-sided for sharp edges
acc. to fig. 3



4SC0.
Protective tubing Clip-SC as clip-on, exchange-able, for sharp edges
acc. to fig. 3



4SC0.
Protective tubing Clip-SC as clip-on, exchange-able, for sharp edges
acc. to fig. 5



Protective tubing for type	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.
Liftfix 1000	90	2	4PRS.00.10	70	23	4S10.30.50	70	25	4S20.30.50	70	25	4SC0.30.50	70	25	4SC0.50.30
Liftfix 2000	90	2	4PRS.00.20	80	23	4S10.30.65	80	25	4S20.30.65	80	25	4SC0.30.65	70	25	4SC0.50.50
Liftfix 3000	120	2	4PRS.00.30	95	25	4S10.30.75	95	25	4S20.30.75	95	25	4SC0.30.75	80	25	4SC0.50.50
Liftfix 4000	120	2	4PRS.00.40	125	25	4S10.31.00	125	25	4S20.31.00	125	25	4SC0.31.00	80	25	4SC0.50.60
Liftfix 5000	120	2	4PRS.00.50	145	25	4S10.31.25	145	25	4S20.31.25	145	25	4SC0.31.25	95	25	4SC0.50.60
Liftfix 6000	170	2	4PRS.00.60	145	25	4S10.31.25	145	25	4S20.31.25	145	25	4SC0.31.25	95	25	4SC0.50.60
Liftfix 8000	170	2	4PRS.00.80	175	25	4S10.31.50	175	25	4S20.31.50	175	25	4SC0.31.50	125	25	4SC0.50.60

*Dimensions in mm width x height

Protective tubing for type	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.	Dimensions* B	H	Item no.
Liftfix 10000	250	3.3	4PRS.01.00	200	20	4S10.32.00	200	20	4S20.32.00	200	20	4SC0.32.00	100	20	4SC0.51.10
Liftfix 15000	250	3.3	4PRS.01.50	250	25	4S10.32.50	250	25	4S20.32.50	250	25	4SC0.32.50	125	25	4SC0.51.25
Liftfix 20000	310	3.3	4PRS.02.00	300	30	4S10.33.00	300	30	4S20.33.00	300	30	4SC0.33.00	125	30	4SC0.51.26
Liftfix 25000	310	3.3	4PRS.02.50	300	35	4S10.33.01	300	35	4S20.33.01	300	35	4SC0.33.01	150	35	4SC0.51.50
Liftfix 30000	310	3.3	4PRS.03.00	300	40	4S10.33.02	300	40	4S20.33.02	300	40	4SC0.33.02	150	40	4SC0.51.51
Liftfix 40000	370	3.3	4PRS.04.00	350	50	4S10.33.50	250	50	4S20.33.50	350	50	4SC0.33.50	200	50	4SC0.52.00
Liftfix 50000	–	–	–	400	50	4S10.34.00	400	50	4S20.34.00	400	50	4SC0.34.00	220	50	4SC0.52.20
Liftfix 60000	–	–	–	400	70	4S10.34.01	400	70	4S20.34.01	250	70	4SC1.32.50	250	70	4SC0.52.50
Liftfix 80000	–	–	–	450	80	4S10.34.50	450	80	4S20.34.50	250	80	4SC2.32.50	250	80	4SC0.52.51
Liftfix 100000	–	–	–	500	90	4S10.35.00	500	90	4S20.35.00	280	90	4SC2.32.80	280	90	4SC0.52.80

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

SLINGS

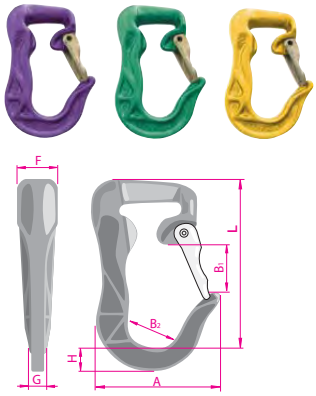
Accessories for Roundslings

Joker Hook

A perfect connection with twice the benefit

A hook with twice the benefit: Joker hooks are the perfect complement to your round- and webbing slings as they are real all-rounders: They can either be used to extend slings or as end hooks providing for a safe hold in the attachment points. In combination with one or more roundslings you can create your own bridle sling within seconds.

- Easy handling
- Turns roundslings into bridle slings
- Perfect connection between 2 slings

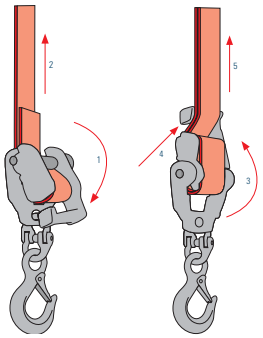


Type	Load capacity in kg	Dimensions in mm							Weight in kg/pce	Item no.
		A	B1	B2	F	G	H	L		
ASH 1t	1000	84	27	32	30	20	25	112	0.6	4109.00.10
ASH 2t	2000	110	33	42	36	20	25	134	1.7	4109.00.20
ASH 3t	3000	132	30	50	46	22	28	145	2.5	4109.00.30
ASH 4t	4000	130	49	60	55	31	35	180	3.2	4109.00.40
ASH 5t	5000	130	49	60	55	31	35	180	3.3	4109.00.50
ASH 6t	6000	130	49	60	55	31	35	180	3.3	4109.00.60

VarioWeb Slings 1-, 2-, and 4-leg

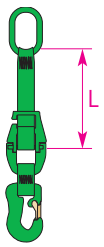
VarioWeb is not only flexible in application but also in maintenance. Should a part of your sling be damaged you can benefit from the modular conception: Only the damaged parts have to be replaced, the other components can be further used – saving costs.

- Continuously adjustable slings
- For lifting of asymmetric loads
- WLL indication according to DIN EN 1492-1
- Parts can be exchanged thanks to modular conception



VarioWeb: fully versatile!

4449. RSG 1-leg sling

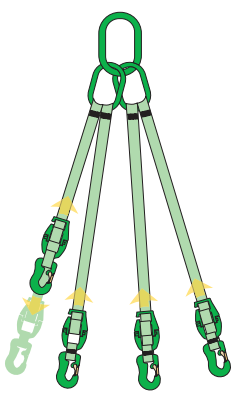


Item no. 1-leg sling	Load capacity / kg 1-leg single direct	Type	L1-min in mm	Can be short. to (mm)	Weight 1. metre in kg	Weight add. metre (kg)
4449.10.10	1000	VW1-1000-1ASH	2000	730	2.62	0.20
4449.10.20	2000	VW1-2000-1ASH	2000	880	5.35	0.30

4449. RSG 2-leg sling

Item no. 2-leg sling	Load capacity / kg 2-leg angle 0-45°	Type	L1-min in mm	Can be short. to (mm)	Weight 1. metre in kg	Weight add. metre (kg)
4449.20.14	1400	VW2-1400-2ASH	2000	730	5.04	0.40
4449.20.28	2800	VW2-2800-2ASH	2000	880	10.30	0.60

4449. RSG 4-leg sling



Item no. 4-leg sling	Load capacity / kg 4-leg angle 0-45°	Type	L1-min in mm	Can be short. to (mm)	Weight 1. metre in kg	Weight add. metre (kg)
4449.40.21	2100	VW4-2100-4ASH	2000	890	10.08	0.80
4449.40.42	4200	VW4-4200-4ASH	2000	1060	20.00	1.20

Other hook versions are available on request

SLINGS

Textile Bridle Slings

SpanSet®

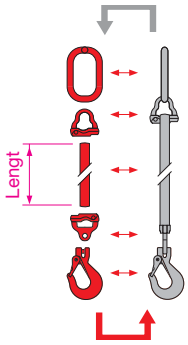
Carl Stahl®

Textile Bridle Slings

Have your load under control!

If your load has fixed attachment points, it is easy to choose the right sling: Without big effort, a textile bridle sling can be adapted to all situations. Be on the safe side when it comes to expensive machinery, customade parts or investment goods. That's why SpanSet textile bridle slings combine reliable textile slings with high-quality forged parts.

- Acc. to DIN EN 1492-2
- A perfect combination with attachment points
- High-strength hardware according to DIN 1677
- Modular design - all components can be exchanged



RSG-1-leg Sling

Item no. Type 1-leg sling	Load capacity 1-leg single direct in kg	Type
4551.00.10	1000	RSG-1-1000-LS
4551.00.20	2000	RSG-1-2000-LS
4551.00.30	3000	RSG-1-3000-LS
4551.00.40	4000	RSG-1-4000-LS
4551.00.50	5000	RSG-1-5000-LS
4551.00.60	6000	RSG-1-6000-LS
4551.00.80	8000	RSG-1-8000-LS
4511.01.00	10000	RSG-1-10000-LS
4511.01.50	15000	RSG-1-15000-LS
4511.02.00	20000	RSG-1-20000-LS
4511.02.50	25000	RSG-1-25000-LS
4511.03.00	30000	RSG-1-30000-LS

Min. length 2.5 m without fittings from type RSG-1-10000-LS and bigger

RSG-2-leg Sling

Item no. Type 2-leg sling	Load capacity 2-leg at angle 0-45°	45-60°	Type
4552.00.10	1400	1000	RSG-2- 1400-LS
4552.00.20	2800	2000	RSG-2- 2800-LS
4552.00.30	4200	3000	RSG-2- 4200-LS
4552.00.40	5600	4000	RSG-2- 5600-LS
4552.00.50	7000	5000	RSG-2- 7000-LS
4552.00.60	8400	6000	RSG-2- 8400-LS
4552.00.80	11200	8000	RSG-2-11200-LS
4512.01.40	14000	10000	RSG-2-14000-LS
4512.02.10	21000	15000	RSG-2-21000-LS
4512.02.80	28000	20000	RSG-2-28000-LS
4512.03.50	35000	25000	RSG-2-35000-LS
4512.04.20	42000	30000	RSG-2-42000-LS

Min. length 2.5 m without fittings from type RSG-2-14000-LS and bigger

RSG-4-leg Sling

Item no. Type 4-leg sling	Load capacity 4-leg at angle 0-45°	45-60°	Type
4554.00.10	2100	1500	RSG-4- 2100-LS
4554.00.20	4200	3000	RSG-4- 4200-LS
4554.00.30	6300	4500	RSG-4- 6300-LS
4554.00.40	8400	6000	RSG-4- 8400-LS
4554.00.50	10500	7500	RSG-4-10500-LS
4554.00.60	12600	9000	RSG-4-12600-LS
4554.00.80	16800	12000	RSG-4-16800-LS
4514.02.10	21000	15000	RSG-4-21000-LS
4514.03.15	31500	22500	RSG-4-31500-LS
4514.04.20	42000	30000	RSG-4-42000-LS
4514.05.20	52500	37500	RSG-4-52500-LS
4514.06.30	63000	45000	RSG-4-63000-LS

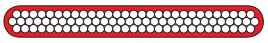
Min. length 2.5 m without fittings from type RSG-4-21000-LS and bigger

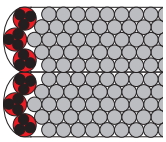
SLINGS
Webbing Slings

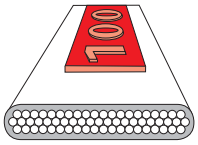
PowerStar Webbing Sling, Two-ply, made from powerful High-Performance Webbing

Robust and reliable – PowerStar webbing slings keep to their promise: They carry up to 10 tons single direct. You can even measure that! The belt's weaving pattern changes every 30 mm, each "stripe" equals 1 ton load capacity. E.g. a 90 mm belt has a WLL of 3 tons.

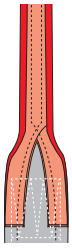
- 2-layer webbing sling according to DIN EN 1492-1
- Highly wear resistant PU coating
- Full surface reinforced loops
- Wear resistant edges
- Raised, woven-in WLL indication
- Load capacity can be "measured"
- Tear-resistant label with RFID transponder

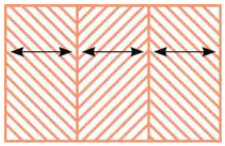

PU coating against wear


Reinforced edges



Raised, woven-in WLL indication


Loop reinforcement


Measurable load capacity

Webbing Sling PowerStar acc. to DIN EN 1492-1 with full-area loop reinforcement

Webbing sling profile in mm	Load capacity single basket kg	Load capacity single direct kg	Type	Loop size	Item no.
30 x 5.6	2000	1000	PB 1000 STAR	300	4430.10.10
60 x 5.6	4000	2000	PB 2000 STAR	300	4430.10.20
90 x 6.0	6000	3000	PB 3000 STAR	400	4430.10.30
120 x 6.2	8000	4000	PB 4000 STAR	400	4430.10.40
150 x 6.4	10000	5000	PB 5000 STAR	500	4430.10.50
180 x 7.6	12000	6000	PB 6000 STAR	700	4430.10.60
240 x 7.6	16000	8000	PB 8000 STAR	800	4430.10.80
300 x 7.6	20000	10000	PB 10000 STAR	900	4430.11.00

Webbing Sling PowerStar acc. to DIN EN 1492-1 with 2 Crane Brackets

The crane brackets offer more handling convenience and fit in every crane hook. They are made from wear-resistant high-grade steel and are perfectly suitable for basket hitch. Just put one bracket through the other and insert in the crane hook – the webbing sling cannot slip out.

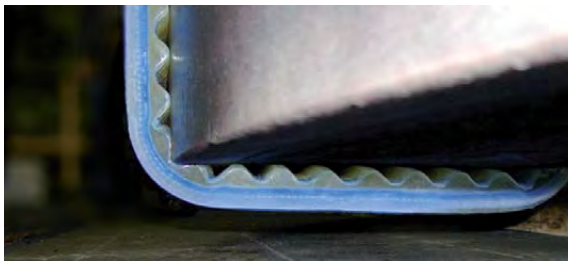
Webbing sling profile in mm	Load capacity single basket kg	Load capacity single direct kg	Type	Bracket size	Item no.
30 x 5.6	2000	1000	PB 1000 DD STAR	65/120	4430.20.10
60 x 5.6	4000	2000	PB 2000 DD STAR	80/140	4430.20.20
90 x 6.0	6000	3000	PB 3000 DD STAR	100/180	4430.20.30
120 x 6.2	8000	4000	PB 4000 DD STAR	152/220	4430.20.40
150 x 6.4	10000	5000	PB 5000 DD STAR	187/250	4430.20.50
180 x 7.6	12000	6000	PB 6000 DD STAR	223/290	4430.20.60
240 x 7.6	16000	8000	PB 8000 DD STAR	290/370	4430.20.80
300 x 7.6	20000	10000	PB 10000 DD STAR	355/440	4430.21.00

Protective Tubing secuwave for PowerStar Webbing Slings

secuwave rounds every edge
Many loads have edges that could damage textile slings. In many cases protective tubings will suffice but if edges are “razor-sharp” they are likely to damage even the high-strength material by abrasion after some time. secuwave tubings can actually be used on difficult edges. Their undulated surface distributes the bearing force uniformly, increases the bending radius and fixes the load at the edge. In this way the sling is protected reliably from being cut by the sharp edge.

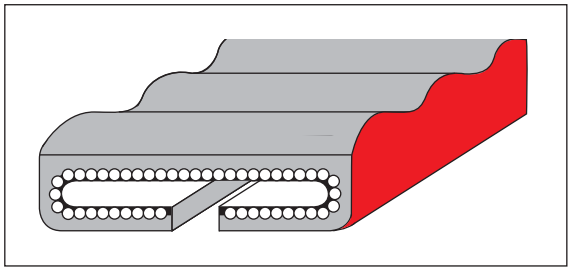
Play it safe – and be quick!
The secuwave protective tubing is applied as a clip on the webbing sling. The protective tubing is open on the back side and can be applied to a roundsling or other lifting sling any time, even if the sling is already in the crane hook. Time-consuming unhooking is not necessary! Thus secuwave is always at hand when you need it.

Special extra coating



For „razor-sharp“ edges

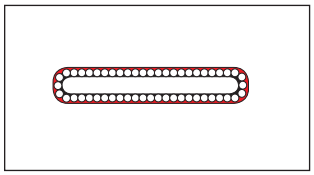
Protective tubing for PowerStar webbing sling	Load capacity WLL in kg	Item no.
1000	1000	4SWS.00.30
2000	2000	4SWS.00.60
3000	3000	4SWS.00.90
4000	4000	4SWS.01.20
5000	5000	4SWS.01.50
6000	6000	4SWS.01.80
8000	8000	4SWS.02.40
10000	10000	4SWS.03.00



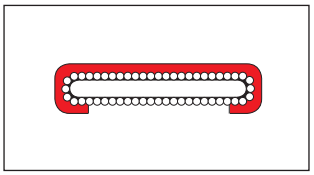
Distribution of bearing force due to undulated surface

Protective Tubings for PowerStar Webbing Slings

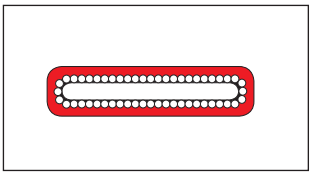
4PHB.
Abrasion protection made from PU / PVC



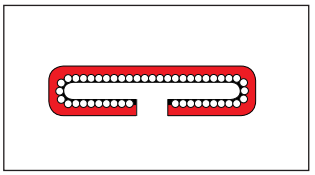
4S10.
Protective tubing SF-1, one-sided, for sharp edges



4S20.
Protective tubing SF-2, two-sided, for sharp edges



4SC0.
Protective tubing SC as clip-on, exchangeable, for sharp edges



Protective tubing for PowerStar sling	Item no.	Dims. mm B	Dims. mm H	Item no.	Dims. mm B	Dims. mm H	Item no.	Dims. mm B	Dims. mm H	Item no.
1000	4PHB.10.10	55	30	4S10.10.30	55	30	4S20.10.30	55	30	4SC0.10.30
2000	4PHB.10.20	85	23	4S10.10.60	85	23	4S20.10.60	85	23	4SC0.10.60
3000	4PHB.10.30	115	25	4S10.10.90	115	25	4S20.10.90	115	25	4SC0.10.90
4000	4PHB.10.40	145	25	4S10.11.20	145	25	4S20.11.20	145	25	4SC0.11.20
5000	4PHB.10.50	175	25	4S10.11.50	175	25	4S20.11.50	175	25	4SC0.11.50
6000	4PHB.10.60	210	30	4S10.11.80	210	30	4S20.11.80	210	30	4SC0.11.80
8000	4PHB.10.80	275	35	4S10.12.40	275	35	4S20.12.40	275	35	4SC0.12.40
10000	4PHB.11.00	340	35	4S10.13.00	340	35	4S20.13.00	340	35	4SC0.13.00

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

SLINGS
Webbing slings

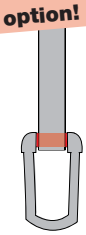
Heavy Duty Webbing Sling “Powerband PCS”, Four-ply

This power-pack is woven out of high-strength PES yarn and sewn in four plies. Thus this webbing sling has a much higher load capacity than one- or two-ply slings of the same width. Therefore PCS slings are perfect for heavy duty applications where slim belts are important e.g. if they have to be pulled under the load of if the only a small contact surface is available.

- Four-ply heavy duty webbing sling
- According to DIN EN 1492-1
- Raised, woven-in WLL indication
- High crosswise stability
- Loop reinforcement

Crane bracket available as option!

The crane brackets offer additional handling convenience e.g. when connecting to the crane hook or to load suspension equipment. Prices on request.

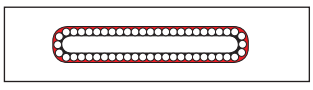


Crane bracket

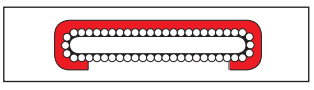
Webbing sling profile in mm	Load capacity single direct in kg	Load capacity basket hitch in kg	Loop size in mm	Type	Item no.
30 x 11.2	2000	4000	350	PCS 2000	4436.00.20
60 x 11.2	4000	8000	400	PCS 4000	4436.00.40
90 x 12.0	6000	12000	600	PCS 6000	4436.00.60
120 x 12.4	8000	16000	800	PCS 8000	4436.00.80
150 x 12.8	10000	20000	900	PCS 10000	4436.01.00
180 x 12.2	12000	24000	1100	PCS 12000	4436.01.20
240 x 15.2	16000	32000	1200	PCS 16000	4436.01.60
300 x 15.2	20000	40000	1400	PCS 20000	4436.02.00

Protective Tubings for Heavy Duty Webbing Sling PCS

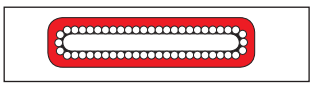
4PUP.
Abrasion protection made from PU / PVC



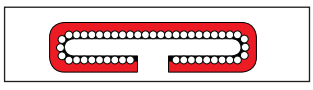
4SF1.
Protective tubing SF-1, one-sided for sharp edges



4SF2.
Protective tubing SF-2 two-sided for sharp edges



4SF3.
Protective tubing Clip-SC exchangeable for sharp edges



Protective tubing for webbing sling PCS	Item no.	Dims. in mm Width	Height	Item no.	Dims. in mm Width	Height	Item no.	Dims. in mm Width	Height	Item no.
2000	4PUPCS020	55	25	4SF1PCS020	55	25	4SF2PCS020	55	25	4SF3PCS020
4000	4PUPCS040	90	35	4SF1PCS040	90	35	4SF2PCS040	90	35	4SF3PCS040
6000	4PUPCS060	110	35	4SF1PCS060	110	35	4SF2PCS060	110	35	4SF3PCS060
8000	4PUPCS080	145	40	4SF1PCS080	145	40	4SF2PCS080	145	40	4SF3PCS080
10000	4PUPCS100	210	40	4SF1PCS100	210	40	4SF2PCS100	210	10	4SF3PCS100
12000	4PUPCS120	230	40	4SF1PCS120	230	40	4SF2PCS120	230	40	4SF3PCS120
16000	4PUPCS160	280	45	4SF1PCS160	280	45	4SF2PCS160	280	45	4SF3PCS160
20000	4PUPCS200	340	40	4SF1PCS200	340	40	4SF2PCS200	340	40	4SF3PCS200

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

SLINGS
Webbing slings

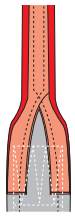
P2 Webbing Slings, 2-ply, with two-sided secutex Coating

The P2 Powerflex webbing slings are made from high-strength fabric and have additional loop reinforcement. The P2 webbing sling is fully coated with secutex® Powerflex, making it highly wear and friction resistant to substantially extend its service life.

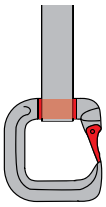
Create choker hitches quickly with the C-bracket. The C-bracket at the end of the Powerflex P2 strap also allows you to use the lifting strap as a choker hitch.

- Webbing sling according to DIN EN 1492-1
- secutex® coating on both sides
- Fabric is protected against dirt and the penetration of foreign particles
- Extremely wear resistant
- Flexible to use

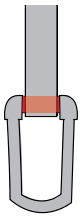
Double protection for the webbing sling



Loop reinforcement

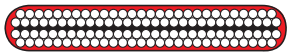


C-bracket



Cran Bracket

The C-bracket can be attached and detached quickly, whereby the forged safety catch prevents the lifting strap from accidentally escaping. If damaged, the safety catch can be easily replaced. The highly robust D-brackets are not only suitable for choker hitches but also fit in any crane hook. Both brackets have a guide channel in which the strap rests fully.



Powerflex coating

P2 Webbing Sling according to DIN EN 1492-1 with Loop and C-bracket

Webbing sling profile in mm	Load capacity single direct in kg	Load capacity in basket hitch in kg	Loop size in mm	Type	Item no.
30 x 7	1000	800	300	PB 1000-P2-C	4641.30.10
60 x 7	2000	1600	300	PB 2000-P2-C	4641.30.20
90 x 7	3000	2400	400	PB 3000-P2-C	4641.30.30
150 x 7	5000	4000	500	PB 5000-P2-C	4641.30.50

P2 Webbing Sling with D- and C-bracket

D-bracket for highly robust use

Webbing sling profile in mm	Load capacity single direct in kg	Load capacity in basket hitch in kg	Bracket size in mm Width B	Bracket size in mm Height H	Type	Item no.
30 x 7	1000	800	65	120	PB 1000-P2-CD	4641.40.10
60 x 7	2000	1600	79	140	PB 2000-P2-CD	4641.40.20
90 x 7	3000	2400	100	180	PB 3000-P2-CD	4641.40.30
150 x 7	5000	4000	187	250	PB 5000-P2-CD	4641.40.50

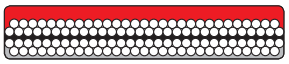
SLINGS
Webbing Slings

SX Webbing Slings, 2-ply, with secuflex and Powerflex Coating

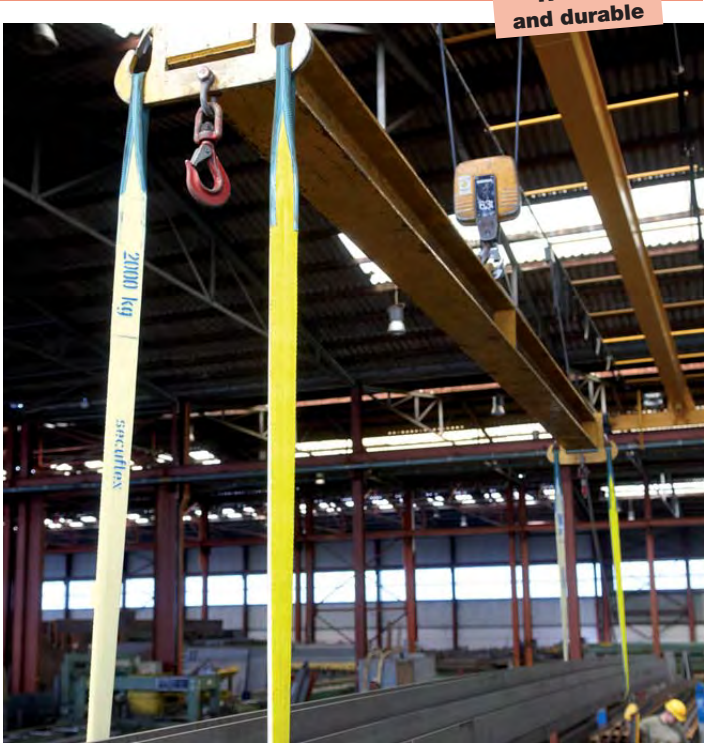
SX webbing slings just hold out longer: The extremely tough secuflex coating protects the contact side of the belt against cuts and abrasion. Additionally the other side is coated with secutex® Powerflex abrasion protection. The standard SX slings have 2 loops with robust webbing reinforcement.

More applications with crane brackets: With crane brackets at both ends you gain a lot of flexibility: Simply put one end of the sling through the bracket at the other end and you can work in perfect choker hitch. Apart from that the crane brackets simplify the connection with lifting beams and crane hooks working in basket hitch as the brackets only have a small contact surface.

- Webbing sling according to DIN EN 1492-1
- secuflex coating on contact side
- secutex® Powerflex coating (yellow) on back side
- Suitable for rough surfaces
- Extremely wear resistant



secuflex® coating
(Powerflex on reverse side)

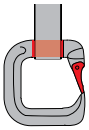


SX Webbing Sling according to DIN EN 1492-1 with secuflex Coating on Contact Side and secutex® Powerflex Coating on Reverse, with 2 reinforced Crane Loops

Webbing sling profile in mm	Load capacity basket hitch kg	Load capacity single direct kg	Type	Loop size	Item no.
30 x 13	2000	1000	PB 1000-SX	300	4651.30.10
60 x 13	4000	2000	PB 2000-SX	300	4651.30.20
90 x 13	6000	3000	PB 3000-SX	400	4651.30.30
120 x 13	8000	4000	PB 4000-SX	400	4651.30.40
150 x 13	10000	5000	PB 5000-SX	500	4651.30.50
180 x 13	12000	6000	PB 6000-SX	700	4651.30.60
240 x 13	16000	8000	PB 8000-SX	800	4651.30.80
300 x 13	20000	10000	PB 10000-SX	1000	4651.31.00

SX Webbing Sling according to DIN EN 1492-1 with secuflex coating on contact side and secutex® Powerflex Coating on Reverse, with 2 Crane Brackets

Also available with C-hook



Webbing sling profile in mm	Load capacity basket hitch kg	Load capacity single direct kg	Type	Bracket size in mm	Item no.
30 x 13	2000	1000	PB 1000-SX/DD	65/120	4654.30.10
60 x 13	4000	2000	PB 2000-SX/DD	80/140	4654.30.20
90 x 13	6000	3000	PB 3000-SX/DD	100/180	4654.30.30
120 x 13	8000	4000	PB 4000-SX/DD	152/220	4654.30.40
150 x 13	10000	5000	PB 5000-SX/DD	187/250	4654.30.50
180 x 13	12000	6000	PB 6000-SX/DD	223/290	4654.30.60
240 x 13	16000	8000	PB 8000-SX/DD	290/370	4654.30.80
300 x 13	20000	10000	PB 10000-SX/DD	355/440	4654.31.00

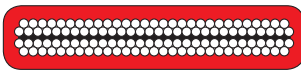
SLINGS
Webbing slings

S2 Webbing Slings, 2-ply, with two-sided secutex Coating

Double protection – far more durable. A real workhorse: SpanSet S2 webbing slings with secutex® protection on both sides. This material has an extremely high structural stability and adapts flexibly to sharp edges e.g. with rolled steel or concrete parts. Thus the pressure is evenly distributed, the belt material is protected and the service life extended.

More applications with crane brackets: With crane brackets at both ends you gain a lot of flexibility: Simply put one end of the sling through the bracket at the other end and you can work in perfect choker hitch. Apart from that the crane brackets simplify the connection with lifting beams and crane hooks working in basket hitch as the brackets only have a small contact surface.

- Webbing sling according to DIN EN 1492-1
- secutex® coating on both sides
- Suitable for severe conditions of use
- Extremely wear resistant



secutex® coating on both sides

S2 Webbing Sling according to DIN EN 1492-1, both Sides S2 coated, with 2 reinforced Crane Loops

Webbing sling profile ca. in mm	Load cap. in basket hitch kg	Load cap. single dir. kg	Type	Loop size in mm	Item no.
40 x 18	2000	1000	PB 1000-S2	300	4632.10.10
70 x 18	4000	2000	PB 2000-S2	300	4632.10.20
100 x 18	6000	3000	PB 3000-S2	400	4632.10.30
130 x 18	8000	4000	PB 4000-S2	400	4632.10.40
160 x 18	10000	5000	PB 5000-S2	500	4632.10.50
190 x 18	12000	6000	PB 6000-S2	700	4632.10.60
250 x 18	16000	8000	PB 8000-S2	800	4632.10.80
310 x 18	20000	10000	PB 10000-S2	1000	4632.11.00

S2 Webbing Sling according to DIN EN 1492-1, both Sides S2 coated, with 2 Crane Brackets

Webbing sling profile ca. in mm	Load cap. in basket hitch kg	Load cap. single dir. kg	Type	Bracket size in mm	Item no.
40 x 18	2000	1000	PB 1000-S2/DD	65/120	4632.20.10
70 x 18	4000	2000	PB 2000-S2/DD	80/140	4632.20.20
100 x 18	6000	3000	PB 3000-S2/DD	100/180	4632.20.30
130 x 18	8000	4000	PB 4000-S2/DD	152/220	4632.20.40
160 x 18	10000	5000	PB 5000-S2/DD	187/250	4632.20.50
190 x 18	12000	6000	PB 6000-S2/DD	223/290	4632.20.60
250 x 18	16000	8000	PB 8000-S2/DD	290/370	4632.20.80
310 x 18	20000	10000	PB 10000-S2/DD	355/440	4632.21.00

S2 Webbing Sling according to DIN EN 1492-1, both Sides S2 coated, with Crane Brackets and C-hooks

Equipped with C-hook for choker hitch.

Webbing sling profile mm	Load capacity single direct in kg	Load cap. in choker hitch in kg	Bracket width in mm	Bracket length in mm	Type	Item no.
30 x 13	1000	800	65	120	PB 1000-SX-CD	4653.30.10
60 x 13	2000	1600	79	140	PB 2000-SX-CD	4653.30.20
90 x 13	3000	2400	100	180	PB 3000-SX-CD	4653.30.30
150 x 13	5000	4000	187	250	PB 5000-SX-CD	4653.30.50

SLINGS
Webbing slings

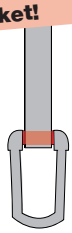
Liftfix Two-ply Webbing Sling with Loop Reinforcement according to EN 1492-1

The Liftfix webbing slings offer nothing less than reliable standard quality: Load capacities up to 10 tons and manufactured according to DIN EN 1492-1. Like all our other slings they come with a tear-resistant sewn label. The sectional reinforcement protects where it is necessary – in the crane hook area. Standard colour-coding avoids mix-ups of load capacities.

- Two-play webbing sling according to DIN EN 1492-1
- Sectional loop reinforcement
- Standard colour-coded

Also available with crane bracket!

The crane brackets offer more handling convenience e.g. when connecting to the crane hook or attachment point. Prices on request.

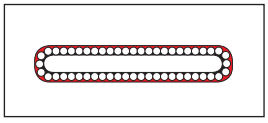


Crane bracket

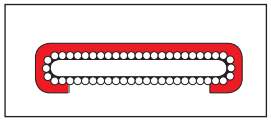
Webbing sling profile in mm	Load capacity single direct in kg	Load capacity in basket hitch in kg	Loop size in mm	Type	Item no.
30 x 5.2	1000	2000	300	HB 1000	4HB0.00.10
50 x 6.8	1500	3000	301	HB 1500	4HB0.00.15
60 x 5.0	2000	4000	302	HB 2000	4HB0.00.20
90 x 5.0	3000	6000	400	HB 3000	4HB0.00.30
120 x 6.8	4000	8000	401	HB 4000	4HB0.00.40
150 x 6.6	5000	10000	500	HB 5000	4HB0.00.50
180 x 7.2	6000	12000	700	HB 6000	4HB0.00.60
240 x 7.2	8000	16000	800	HB 8000	4HB0.00.80
300 x 7.4	10000	20000	1000	HB 10000	4HB0.01.00

Protective Tubings for Liftfix Webbing Slings

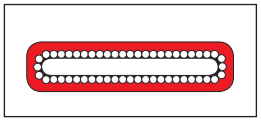
4PHB.
Abrasion protection made from PU / PVC



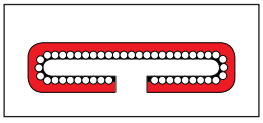
4S10.
Protective tubing SF-1 one-sided for sharp edges



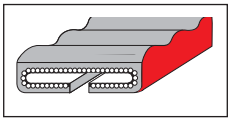
4S20.
Protective tubing SF-2 two-sided for sharp edges



4SC0.
Protective tubing Clip-SC, exchangeable for sharp edges



4SWS.
Protective tubing secuwave, exchangeable for sharp edges



*Dims. in mm.
Width x Height

Protective tubing for Liftfix webbing slings	Item no.	Dims.* B	Dims.* H	Item no.	Dims.* B	Dims.* H	Item no.	Dims.* B	Dims.* H	Item no.	Item no.
1000	4PHB.10.10	55	30	4S10.10.30	55	30	4S20.10.30	55	30	4SC0.10.30	4SWS.00.30
2000	4PHB.10.20	85	23	4S10.10.60	85	23	4S20.10.60	85	23	4SC0.10.60	4SWS.00.60
3000	4PHB.10.30	115	25	4S10.10.90	115	25	4S20.10.90	115	25	4SC0.10.90	4SWS.00.90
4000	4PHB.10.40	145	25	4S10.11.20	145	25	4S20.11.20	145	25	4SC0.11.20	4SWS.01.20
5000	4PHB.10.50	175	25	4S10.11.50	175	25	4S20.11.50	175	25	4SC0.11.50	4SWS.01.50
6000	4PHB.10.60	210	30	4S10.11.80	210	30	4S20.11.80	210	30	4SC0.11.80	4SWS.01.80
8000	4PHB.10.80	275	35	4S10.12.40	275	35	4S20.12.40	275	35	4SC0.12.40	4SWS.02.40
10000	4PHB.11.00	340	35	4S10.13.00	340	35	4S20.13.00	340	35	4SC0.13.00	4SWS.03.00

Protective tubing NoCut® made from high-performance fibre see page 271 et seq.

When calculating interim lengths, the figure must be rounded up to the nearest half a metre.

SLINGS
Webbing slings

Disposable belt slings according to DIN 60005

NEW: Standard safety – these disposable slings are used for heavy or bulky goods which have to be transported over long distances. After the goods have arrived at their destination, the slings are cut and disposed of after use. The advantage: They are cost-saving - as single-use slings they are much cheaper than slings for daily use. To avoid mix-ups with slings for multiple use, disposable slings are not standard colour-coded but normally come in white colour. The label in marking colour orange is another clear indication for a disposable sling.

- Low-cost lifting slings for single-use
- According to DIN 60005
- Label in standardised orange marking colour

More application safety
With these standardised slings we offer you a particularly cheap lifting means for single-use. In practise this means that the sling is only used for transport from the manufacturer to the construction site. As soon as the goods reach their destination they are cut off and disposed of. That's why these slings are specially suitable for use in timber and building construction. The new orange label indicates the load capacity, manufacturer's name, length, production date, WLL factors and more. Disposable belt slings may be used in all industry lines.

Nominal load capacity in kg	Load capacity in basket hitch in kg	Length L1 min. in m	Belt width ca. in mm	Belt thickness ca. in mm
400	800	0.300	25	1.3
750	1500	0.300	45	1.3
1500	3000	0.300	50	2.8

Please contact us for larger quantities.
To ensure on time-delivery we recommend concluding a blanket order.

Prices on request.

SLINGS

Webbing slings ‘de Luxe’

CondorLift Polyester Webbing Sling ‘de Luxe’

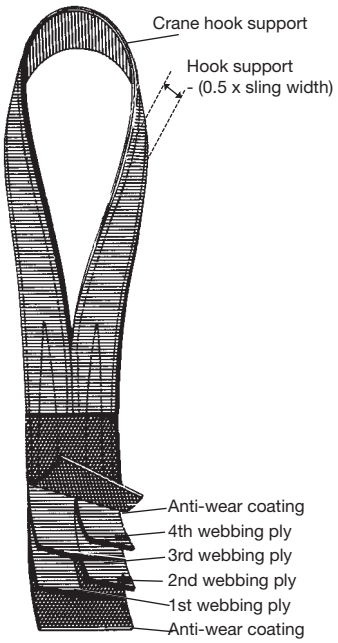
Superkraft polyester webbing slings ‘de Luxe’ rightly bear their name as they are unique in design, construction and workmanship. Due to their virtual unlimited service life (repairable) they offer great value for money!
4-ply webbing sling acc. to DIN EN 1492-1

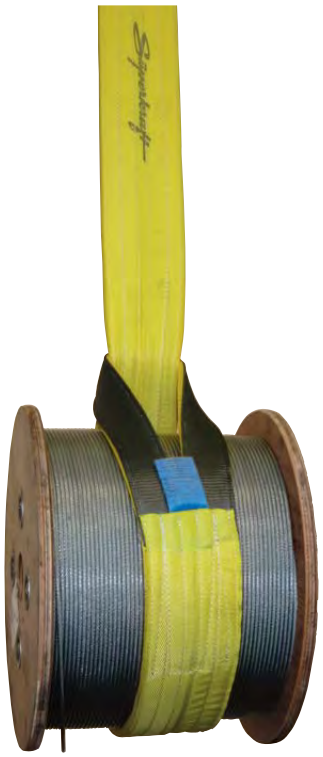
All advantages at a glance:

Long service life due to:

- Endless belt construction (made from 1 piece)
- 4 load-bearing plies
- Anti-wear coating sewn on both sides
- Virtually indestructible as they are:
  - Always repairable
  - Rot-resistant
  - Fade-resistant
- Easy handling due to low weight
- Sufficient stiffness (to be slid under loads)
- Loop width = 0.5 x sling width
- Improved safety thanks to
  - Ideal construction
  - Unmistakeable colour coding
  - Safety factor 7
  - Crane loops are always in crosswise position to crane hook (no twisting of sling)
- Less cost due to
  - Virtually unlimited service life (sling can be repaired)
- On request also available with protective tubing

Construction of webbing sling:





Load capacity single direct in kg	Load capacity in basket hitch in kg	Colour	Webbing		Loop		Item no.
			width in mm	thickness in mm	width in mm	length in mm	
1000	2000	violet	50	11	25	300	4390.00.10
2000	4000	green	80	13	40	300	4390.00.20
3000	6000	yellow	120	16	60	400	4390.00.30

SLINGS
Woven Wire Rope Slings

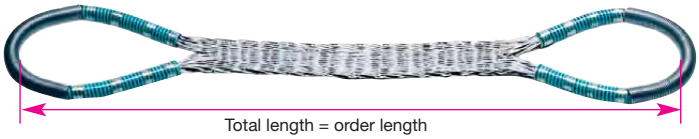
Superkraft

Carl Stahl®

CondorLift Woven Wire Rope Sling

With 2 stranded loops and spring protection, galvanised
Special sizes and widths on request!

- Low dead weight in relation to load
- Customised loop sizes for all applications
- The flexible spring protection allows inspection of the loops for wire breakages



Total length = order length

Direct load capacity up to 100,000 kg

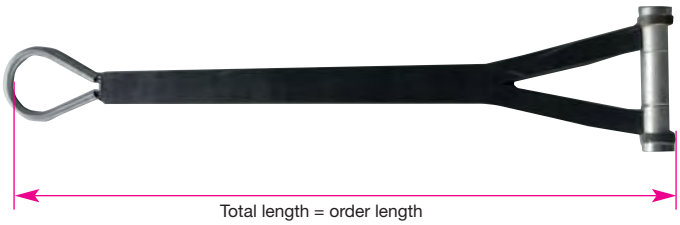
Low dead weight in relation to load

* Protective tubing shown not included

Load capacity in kg direct	Load capacity in kg bask. hitch	Belt width in mm	Belt thickness in mm	Loop length in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
750	1500	30	6	195	4330.00.07	1.6	1.0
1250	2500	40	6	195	4330.00.12	1.9	1.3
2000	4000	50	8	300	4330.00.20	4.1	2.2
3000	6000	70	8	300	4330.00.30	4.5	2.5
6000	12000	90	10	400	4330.00.60	7.2	4.6

CondorLift Woven Wire Rope Sling

With standed loop and light roller bracket, galavnised and vulcanised
- Safe lifting and transport in choker hitch
- Easy handling due to lightweight roller bracket



Total length = order length

Safe lifting and transport in choker hitch!

Load capacity in kg choker hitch	Belt width in mm	Belt thickness in mm	Item no.	Weight 1st metre in kg	Weight add. metre in kg
600	50	10	4341.00.06	1.8	1.0
1000	50	10	4341.00.10	2.1	1.3
1600	70	15	4341.00.16	4.3	2.2
2400	80	15	4341.00.24	4.7	2.5
4800	120	15	4341.00.48	8.0	4.8

SLINGS

Woven Wire Rope Slings

Woven Wire Rope Slings in German Workmanship!
Similar to DIN EN 13414 Parts 1-3
Robust-Durable-Extremely Resistant

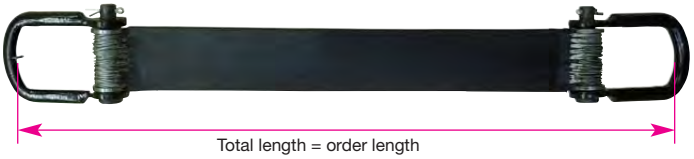
- Made from steel wire
- Absolutely twist-free
- Gentle lifting or sharp-edged goods
- Resistant against acids, leaches and chemical baths
- Economic due to long service life

All versions are available:

- **In V4A stainless steel (see VA product range p. 437)**
- **Galvanised, vulcanised or PU-coated**
- **With protective tubing**
- **With special coating**
  Reinforced → extremely cut-resistant
  Glassfibre interspersion → extremely cut-resistant
  Rubber granules → extreme anti-slip effect

CondorLift Woven Wire Rope Sling

with 2 replaceable crane brackets, galvanised and vulcanised
Special sizes and widths on request!
Suitable for the most common lifting method: basket hitch

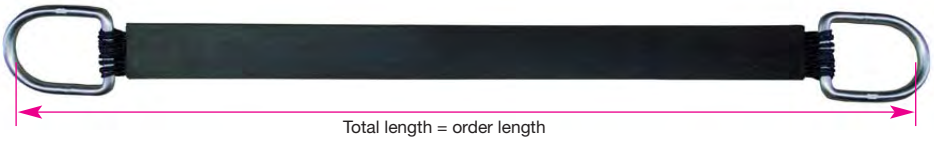


Load capacity in kg		Belt width	Belt thickness	Item no.	Weight 1st metre in kg	Weight add. metre in kg
direct	basket hitch	in mm	in mm			
750	1500	40	12	4301.00.07	2.9	1.3
1250	2500	50	12	4301.00.12	2.9	1.3
2000	4000	70	15	4301.00.20	4.2	2.3
3000	6000	80	15	4301.00.30	4.5	2.5

CondorLift Woven Wire Rope Sling

The low cost alternative

With 2 crane brackets, galvanised and vulcanised.
Special sizes and widths on request!



Load capacity in kg		Belt width	Belt thickness	Item no.	Weight 1st metre in kg	Weight add. metre in kg
direct	choker hitch	in mm	in mm			
1000	2000	40	12	4301.00.KB-KB10	2.6	1.3
2000	4000	70	15	4301.00.KB-KB20	3.7	2.3
3000	6000	80	15	4301.00.KB-KB30	4.0	2.5
4000	8000	85	15	4301.00.KB-KB40	4.9	2.7

SLINGS

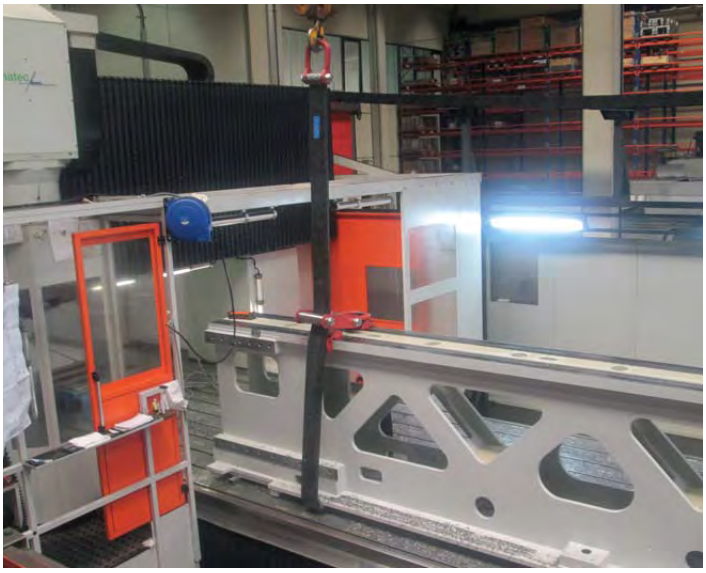
Woven Wire Rope Slings

CondorLift Woven Wire Rope Sling

With replaceable crane and „Kombi“ bracket, galvanised and vulcanised.
Special sizes and widths on request!

The versatile woven wire rope sling suitable for all lifting methods, flexible in use!

Please ask for our special catalogue!



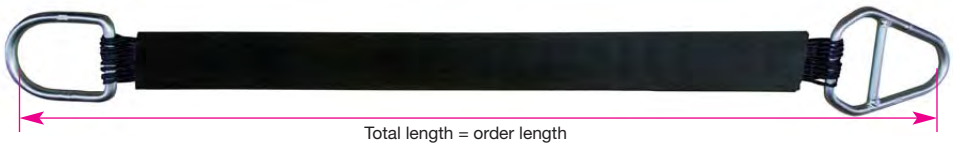
Total length = order length

Load capacity in kg			Belt width	Belt thickness	Item no.	Weight 1st metre in kg	Weight add. metre in kg
direct	bask. hitch	chok. hitch	in mm	in mm			
750	1500	600	40	12	4311.00.07	3.2	1.0
1250	2500	1000	50	12	4311.00.12	3.6	1.3
2000	4000	1600	70	15	4311.00.20	5.8	2.3
3000	6000	2400	80	15	4311.00.30	6.1	2.5

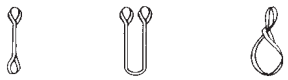
CondorLift Woven Wire Rope Sling

The low cost alternative

With crane and feed-through bracket, galvanised and vulcanised.
Special sizes and widths on request!



Total length = order length



Load capacity in kg			Belt width	Belt thickness	Item no.	Weight 1st metre in kg	Weight add. metre in kg
direct	bask. hitch	chok. hitch	in mm	in mm			
1000	2000	800	40	12	4301.00.KB-DSB10	3.6	2.9
2000	4000	1600	70	15	4301.00.KB-DSB20	5.8	4.2
3000	6000	2400	80	15	4301.00.KB-DSB30	6.1	4.9
4000	8000	3200	85	15	4301.00.KB-DSB40	6.8	5.3

SLINGS

Woven Wire Rope Slings

CondorLift Woven Wire Rope Slings endless with Buckle

- Galvanised and additionally vulcanised or PU-coated
- Totally twist-free version

Woven wire rope slings endless or with buckle for use with load turning devices

Load cap. up to 7° kg	Load cap. 7°-45° kg	Belt width in mm	Belt thickness in mm	Item no. vulcanised	Item no. PU-coated
1500	1050	40	12	4371.00.15	4372.00.15
2500	1750	50	12	4371.00.25	4372.00.25
4000	2800	70	15	4371.00.40	4372.00.40
6000	4200	80	15	4371.00.60	4372.00.60
12000	8400	120	20	4371.01.20	4372.01.20
24000	16800	150	25	4371.02.40	4372.02.40
34000	23800	200	30	4371.03.40	4372.03.40
44000	30800	230	35	4371.04.40	4372.04.40
56000	39200	250	35	4371.05.60	4372.05.60
100000	70000	350	40	4371.10.00	4372.10.00

CondorLift Buckle for Woven Wire Rope Slings

Load capacity in kg	Belt width in mm	Bolt Ø in mm	Item no.
1500	40	14	4373.00.15
2500	50	18	4373.00.25
4000	80	30	4373.00.40
12000	120	40	4373.01.20
24000	150	45	4373.02.40
34000	200	53	4373.03.40
44000	230	65	4373.04.40
56000	250	70	4373.05.60
100000	350	88	4373.10.00

SLINGS

Woven Wire Rope Slings

CondorLift Woven Wire Rope Slings endless closed

- Galvanised and additionally vulcanised or PU-coated
- Totally twist-free version

Load cap. up to 7° kg	Load cap. 7°-45° kg	Belt width in mm	Belt thickness in mm	Item no. vulcanised	Item no. PU-coated
1500	1050	40	12	4361.00.15	4362.00.15
2500	1750	50	12	4361.00.25	4362.00.25
4000	2800	70	15	4361.00.40	4362.00.40
6000	4200	80	15	4361.00.60	4362.00.60
12000	8400	120	20	4361.01.20	4362.01.20
24000	16800	150	25	4361.02.40	4362.02.40
34000	23800	200	30	4361.03.40	4362.03.40
44000	30800	230	35	4361.04.40	4362.04.40
56000	39200	250	35	4361.05.60	4362.05.60
100000	70000	350	40	4361.10.00	4362.10.00

Woven Wire Rope Slings in Use

SLINGS

Woven Wire Rope Slings

CondorLift Woven Wire Rope Sling, galvanised with Loop Ends and Flat Pressed Sleeve

Capacity single bask. hitch kg	Sling profile in mm	Thickness of sleeve in mm	Loop length in mm	Item no.
2000	30 x 6	22	200	4250.10.07
3000	45 x 8	24	200	4250.10.12
4000	55 x 8	26	250	4250.10.20
6000	65 x 8	26	250	4250.10.30

CondorLift Woven Wire Rope Sling, galvanised and vulcanised with Loop Ends and Flat Pressed Sleeve

Capacity single bask. hitch kg	Sling profile in mm	Thickness of sleeve in mm	Loop length in mm	Item no.
2000	40 x 13	22	200	4250.20.07
3000	55 x 16	24	200	4250.20.12
4000	75 x 16	26	250	4250.20.20
6000	85 x 16	26	250	4250.20.30

CondorLift Woven Wire Rope Sling, galvanised and PU-coated with Loop Ends and Flat Pressed Sleeve

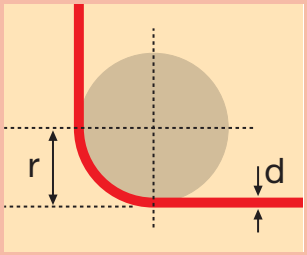
Capacity single bask. hitch kg	Sling profile in mm	Thickness of sleeve in mm	Loop length in mm	Item no.
2000	40 x 16	22	200	4250.30.07
3000	55 x 18	24	200	4250.30.12
4000	75 x 20	26	250	4250.30.20
6000	85 x 20	26	250	4250.30.30

CondorLift Edge protectors from Carl Stahl offer you the following advantages:

Protection of Sling and Load = Safety plus Economy

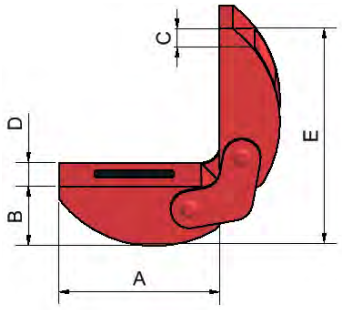
Edge protectors with magnetic adhesion save time, money and trouble. Your valuable slings are protected by smooth contact surfaces and do not touch the load. The smooth contact surfaces with the load reduce load reworking to a minimum.

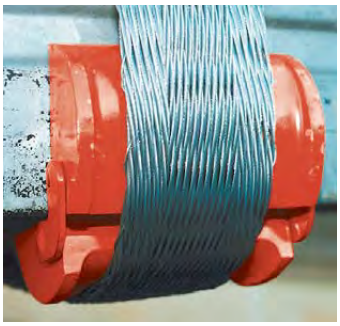
Slings must be protected from **sharp edges**. Acc. to DGUV Rule 100-500 edges are considered as „sharp“ if the edge radius is smaller than
- the diameter of the wire rope sling
- the thickness (d) of the webbing or round sling
- the nominal size of the chain sling



CondorLift Edge Protectors for Webbing Slings and Roundslings

- With magnetic adhesion
- Material: aluminium, painted red
- **Hinged version**
- Attachment angles can be bigger or smaller than 90°





Dimensions in mm					Weight	Item no.
A	B	C	D	E	kg/pce	
110	45	90	100	180	2.4	5080.00.80
102	60	155	182	190	5.1	5080.01.50

For edge protectors for ropes and chains see page 329.

FIBRE ROPES
Notes

Some notes on fibre ropes (instructions for use)

- We are offering fibre ropes made from many different raw materials and in top-quality makes. They comply with the Machinery Directive 2006/42/EC and are made, documented and tested in Germany. Just exactly define the requirements of your application and **choose your fibre rope sling carefully** based on this criteria. We will be pleased to assist you.
- Fibre ropes offer the advantage, that all load-bearing elements are visible from outside. Benefit from this advantage and **inspect your fibre rope sling before every use for visible damage!**
- Our fibre rope slings are marked with printed sleeves. This marking is very durable.
- **Do not use a fibre rope sling without knowing its load capacity (WLL) or which is missing WLL markings!**
- **Observe the lifting method!**
- Observe the general operating temperature limits:
  - Hemp not permanently over 100°C (212°F)
  - Polyamide not over 100°C (212°F)
  - Polyester (Polystar) not over 100°C (212°F)
  - Polyolefin not over 80°C (176°F)
- **Never knot fibre ropes!**
- The splices on our fibre ropes are manufactured and tested acc. to DIN 83319. You can trust them! Therefore:
- **Do not change splices! Do not cut off splice ends!**
- **Do not twist the ropes under load! Ropes with kinks (corkscrew shaped deformations of the strands) must be discarded immediately!**
- **With hemp, polyamide and polyester (Polystar) ropes avoid contact with aggressive chemicals! Before using polypropylene and polyolefin ropes with chemicals, the manufacturer must be consulted!**
- **Protect ropes against sharp edges and corners!**
- **Never use fibre ropes for harnessing or securing of persons! For this purpose we offer approved personal protective equipment.**
- **Do not wrap ropes around body parts – hazard of accident!**
- Refer to instructions DIN EN ISO 9554 , VDI 2500, BGR 500-chapter 2.8

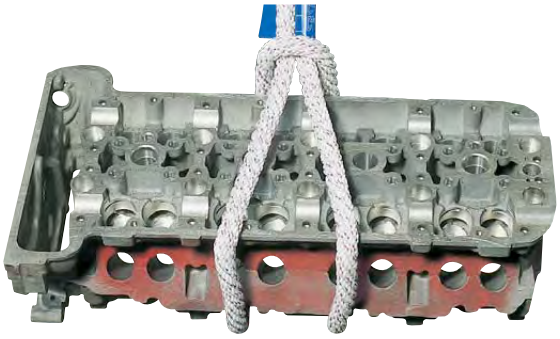
FIBRE ROPES
Rope Slings

Polyester Rope Sling Type Polystar

Universal lifting sling for low and medium duty applications.

The 5 strand construction ensures round and full contact of the rope with the load and offers enhanced edge resistance. In extreme cases edge protectors should be used.

Your advantages:
- Endlessly laid without slub, no outer splice area
- 5-strand cable laid, resistant against twist
- Low elongation
- Cut-proof
- Long service life
- Smooth lifting
- With coloured capacity identification thread



Rope Ø in mm	Load capacity single direct in kg	Item no.
16	500	3900.00.16
20	1000	3900.00.20
24	1500	3900.00.24
28	2000	3900.00.28
32	3000	3900.00.32
40	4000	3900.00.40

Polyamide Rope Slings (PA 6)

Fibre rope slings acc. to DIN EN 1492-4, both ends with spliced loops
Loop length = 15 x rope Ø, made from polyamide rope acc. to ISO 1140, Form A – 3-strand twisted/type 1 – thermically stabilised

Rope Ø in mm	Load capacity with lifting method single direct	choker hitch	Item no.
16	0.68	0.54	3600.00.16
20	1.1	0.88	3600.00.20
24	1.5	1.2	3600.00.24
28	2.1	1.7	3600.00.28
32	2.6	2.1	3600.00.32
36	3.2	2.6	3600.00.36
40	3.8	3.0	3600.00.40
48	5.4	4.3	3600.00.48

Choose polyamide fibre rope slings if
- You have highest requirements regarding tensile strength and durability
- Impacts or blows must be expected
- High abrasive wear must be expected
- The ropes may sink in water
- Under permanent exposure to sunlight the rope is inspected in regular intervals (e.g. embrittlement)
- Under permanent effect of water or heat the residual shrinkage of < 5% is acceptable
- The rope has no contact with chemicals

Note: Polyamide (PA) is also known as „Perlon“ (PA 6) or „Nylon“ (PA 6.6)

FIBRE ROPES
Rope Slings

Polyolefin Slings

Fibre rope slings similar to DIN EN 1492-4, both ends with spliced loops. On request also available in endless version with short splice (with slub).
Loop length = 15 x rope Ø, made from polyolefin compound rope acc. to DIN EN ISO 10572, form A – 3 strands, twisted, colour: black-red, on request also availabe in green or white.

Rope Ø in mm	Load capacity with lifting method		Item no.
	single direct	in choker hitch	
16	0.56	0.45	3700.00.16
20	0.85	0.68	3700.00.20
24	1.2	0.96	3700.00.24
28	1.6	1.3	3700.00.28
32	2.0	1.6	3700.00.32
36	2.5	2.0	3700.00.36
40	3.0	2.4	3700.00.40
48	4.2	3.4	3700.00.48

Choose polyolefin fibre rope slings if
- Ropes are exposed to chemicals (Attention! Contact manufacturer regarding your individual application! Inspect rope in regular intervals for embrittlement!)
- Ropes get wet or should float on water
- High abrasive wear must be expected
- Under permanent exposure to sunlight the black colour is chosen and the rope is inspected in regular intervals for embrittlement

Note: Polyolefin (PO) describes a high-tensile fibre mix of polypropylene and polyethylene

Hemp Rope Slings (Long Manila)

Fibre rope slings acc. to DIN EN 1492-4, both ends with spliced loops
Loop length = 15 x rope Ø, made from long manila acc. to DIN EN 1261, form A – 3 strands, twisted

Rope Ø in mm	Load capacity with lifting method		Item no.
	single direct	in choker hitch	
16	0.25	0.2	3500.00.16
20	0.35	0.28	3500.00.20
24	0.5	0.4	3500.00.24
28	0.7	0.56	3500.00.28
32	0.9	0.72	3500.00.32
36	1.2	0.96	3500.00.36
40	1.4	1.1	3500.00.40
48	2.0	1.6	3500.00.48

Choose fibre rope slings made from hemp if
- Short-term thermal impacts do not exceed 150°C (302°F)
- Ropes are touched with bare hands
- Ropes need to be antistatic
- Contact with stagnant humidity (putrescence) can be ruled out
- Wet ropes can be dried reliably like fire hoses or linen

Polypropylene Ropes

Rope Ø in mm	Length in m	Item no.
8	2.50	23700025.ST2500

Hemp Ropes

Rope Ø in mm	Length in m	Item no.
8	2.50	21500025.002500

FIBRE ROPES

Twisted Hemp Ropes, Polyamide Ropes

Twisted Hemp Rope DIN EN 1261 Form B

- Formerly DIN 83325
- 4-strand, mede from bright, shive-free long long manila, decorative
- Packaging: coils (on request also on spools)
- Smooth handling, splicable
- Renewable raw material: may be burned or composted
- Colour: natural
- Antistatic

RopeØ in mm	Weight in kg/100 m	Minimum breaking load (MBL) in daN	Item no.
6	2.6	256	2100.00.06
8	4.7	450	2100.00.08
10	6.5	700	2100.00.10
12	9.5	1080	2100.00.12
14	12.3	1375	2100.00.14
16	15.8	1825	2100.00.16
18	19.6	2250	2100.00.18
20	24.6	2780	2100.00.20
25	38.4	3980	2100.00.25
30	50.9	6180	2100.00.30

On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

Twisted Polyamide Rope DIN EN ISO 1140 Form A, Typ 1

- Formerly DIN 83330 and EN 696
- 3-strand, made from high-strength PA multifilament, UV-stabilised
- Packaging: coils (on request also on spools)
- Stretchable, impact-absorbing, abrasion-resistant, suitable for hot cutting
- Thermally stabilised
- Colour: white

RopeØ in mm	Weight in kg/100 m	Minimum breaking load (MBL) in daN	Item no.
5	1.4	564	2200.00.05
6	2.0	793	2200.00.06
8	4.0	1380	2200.00.08
10	6.0	2120	2200.00.10
12	8.2	3010	2200.00.12
14	11.2	4000	2200.00.14
16	15.0	5190	2200.00.16
18	19.2	6430	2200.00.18
20	23.6	7920	2200.00.20

On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

FIBRE ROPES

Polypropylene Ropes

Twisted Polypropylene Rope DIN EN ISO 1346 Form A

- Formerly DIN 83333 and EN 699
- 3-strand, made from PP split yarn (soft), UV-stabilised
- Packaging: coils (on request also on spools)
- Floatable, suitable for hot cutting, splicable
- Colour: orange, on request also available in black, white, and blue

Rope Ø in mm	Weight in kg/100 m	Min. break load (MBL) in daN	Item no.
5	1.0	423	2310.00.05
6	1.5	592	2310.00.06
8	2.7	1010	2310.00.08
10	4.2	1540	2310.00.10
12	6.0	2160	2310.00.12
14	8.2	2890	2310.00.14
16	11.0	3700	2310.00.16
18	13.9	4620	2310.00.18
20	17.2	5610	2310.00.20
24	24.7	7880	2310.00.24
26	29.0	9150	2310.00.26
28	33.6	10500	2310.00.28
30	38.7	11900	2310.00.30
32	44.0	13400	2310.00.32
36	55.7	16700	2310.00.36
40	68.7	20400	2310.00.40

On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

Polypropylene Rope, multifil Form E

- DIN 83307, Form E, PP3 (high-strength)
- UV-stabilised
- 8 x braided
- Packaging: Spools (cross reels and coils available on request)
- Floatable, suitable for hot cutting, easy to knot
- Versatile in use
- Colour: white, other colours on request

Rope Ø in mm	Weight in kg/100 m	Min. break. load (MBL) in daN	Item no.
2	0.16	70	2310.10.02
3	0.4	125	2310.10.03
4	0.7	225	2310.10.04
5	1.1	400	2310.10.05
6	1.5	500	2310.10.06
8	2.6	900	2310.10.08
10	4.0	1300	2310.10.10
12	5.5	1800	2310.10.12

On request, also available with spliced loops pursuant to DIN 83319 and with a large range of terminals (splice produces at least 90% of the minimum rope breaking strength).

FIBRE ROPES

Polyamide Rope, Elevator Rope

High-performance Polyamide Rope/Kernmantle Fabric

- Better than DIN 83307, form K, PA
- UV-stabilised
- Meets highest demands
- Packaging: Spools (cross reels and coils available on request)
- Stretchable, impact-absorbing, abrasion-resistant, suitable for hot cutting, easy to knot
- Suitable e.g. as motor starter rope or for flag hoisting systems
- Colour: red-white

Rope Ø in mm	Weight in kg/100 m	Minimum breaking load (MBL) in daN	Item no.
2	0.3	100	2241.00.02
3	0.6	280	2241.00.03
4	1.0	385	2241.00.04
5	1.6	630	2241.00.05
6	2.4	920	2241.00.06
7	3.1	1220	2241.00.07
8	4.0	1600	2241.00.08
10	6.5	2500	2241.00.10
12	8.8	3600	2241.00.12

Construction Pulley

Outer pulley Ø in mm	Groove Ø in mm	Axle length in mm	Overall length in mm	Hook opening in mm	Max. suitable rope Ø max. in mm	Load capacity in kg	Weight ca. in kg	Item no.
220	174	90	350	25	28	250	4.00	7531.00.10

Other pulley diameters are available on request.

Construction Elevator Rope ø 20 mm, Material Polypropylen

- New: safely sewed loops, printed sleeve over seam
- Wear-and rotation resistant
- As coil (on request also on spools)
- Terminal: Carbine hook 160 x 13;
  other terminals like shackles or master links on request
- Colour: beige-red

Rope ø in mm	Assembled length in m	Item no.
20	10	2391.10.20.010000
20	15	2391.10.20.015000
20	20	2391.10.20.020000
20	25	2391.10.20.025000
20	30	2391.10.20.030000
20	40	2391.10.20.040000
20	50	2391.10.20.050000
20	75	2391.10.20.075000
20	100	2391.10.20.100000

Only for manually lifting loads of up to 50 kg (minimum breaking load of the sewn rope 3,500 daN)

CondorLift Wire Rope Slings, 1-leg

CondorLift Wire rope slings, galvanised with fibre core

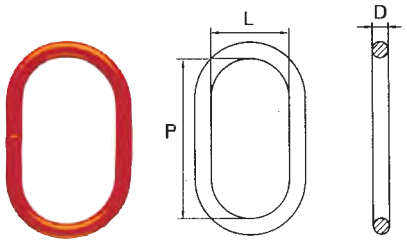
1-leg and multi-leg wire rope slings according to DIN EN 13414-1 and FSA recommendations

The wire rope slings offered on the next few pages are made from galvanised standard ropes with a fibre core, 6x36 WS-FC

- The load capacities comply with the recommendation of the FSA load capacity table based on the master links and end fittings used.
- The load capacities are specified in kg.
- For all rope diameters not listed in combination with rope class, core types, rope strength classes and rope end connections, the load capacity is calculated in accordance with standard DIN EN 13414-1 and indicated on the wire rope sling.

Carl Stahl wire rope slings in 1-leg version

- **Master Links, no flattened section, Grade 80**
- **Load capacity acc. DIN EN 818-4**
- **Red dipped**

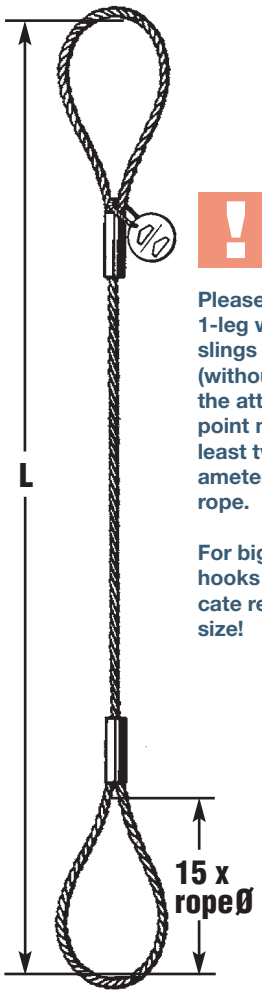


For rope Ø mm	Load capacity kg	Dimensions in mm D	L	P	Weight kg/pce	Item no.
8	1600	13	60	110	0.34	50200010
10	1600	13	60	110	0.34	50200010
12	2120	16	60	110	0.53	50200020
14	2120	16	60	110	0.53	50200020
16	3150	18	75	135	0.915	50200032
18	3150	18	75	135	0.915	50200032
20	5300	22	90	160	1.60	50200050
22	5300	22	90	160	1.60	50200050
24	8000	26	100	180	2.46	50200080
26	8000	26	100	180	4.14	50200080
28	8000	26	100	180	6.22	50200080
32	11200	32	110	200	8.95	50200100
36	14000	36	140	260	12.82	50200125
40	17000	40	160	300	16.55	50200150
44	21200	45	180	340	27.01	50200200

Wire Rope Sling, 1-leg, galvanised, with Pressed Loops

Wire Rope Sling, 1-leg, galvanised, with Pressed Loops and Thimbles

Wire Rope Sling, 1-leg, galv., one side with Pressed Loop, Pressed Thimble and Green Pin shackle on the other side



Please note that for 1-leg wire rope slings with loops (without thimbles) the attachment point must have at least twice the diameter of the wire rope.

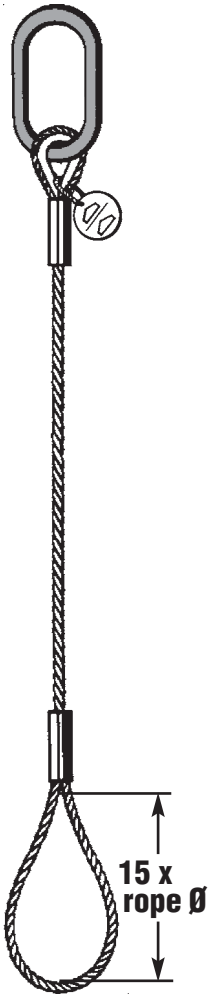
For bigger crane hooks please indicate required loop size!

Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.
8	700	1102.01.08	1105.01.08	1106.01.08
10	1000	1102.01.10	1105.01.10	1106.01.10
12	1500	1102.01.12	1105.01.12	1106.01.12
14	2000	1102.01.14	1105.01.14	1106.01.14
16	2700	1102.01.16	1105.01.16	1106.01.16
18	3150	1102.01.18	1105.01.18	1106.01.18
20	4000	1102.01.20	1105.01.20	1106.01.20
22	5000	1102.01.22	1105.01.22	1106.01.22
24	6300	1102.01.24	1105.01.24	1106.01.24
26	7000	1102.01.26	1105.01.26	1106.01.26
28	8000	1102.01.28	1105.01.28	1106.01.28
32	11000	1102.01.32	1105.01.32	1106.01.32
36	14000	1102.01.36	1105.01.36	1106.01.36
40	17000	1102.01.40	1105.01.40	1106.01.40
44	21000	1102.01.44	1105.01.44	1106.01.44
48	25000	1102.01.48	1105.01.48	1106.01.48

Higher load capacities available on request. Please contact us.

Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble and Safety Eye Hook on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Master Link, Pressed Thimble and Pressed Loop on the other side



Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble with Self-locking Eye Hook on the other side

Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.
8	700	1112.01.08	1113.01.08	1115.01.08
10	1000	1112.01.10	1113.01.10	1115.01.10
12	1500	1112.01.12	1113.01.12	1115.01.12
14	2000	1112.01.14	1113.01.14	1115.01.14
16	2700	1112.01.16	1113.01.16	1115.01.16
18	3150	1112.01.18	1113.01.18	1115.01.18
20	4000	1112.01.20	1113.01.20	1115.01.20
22	5000	1112.01.22	1113.01.22	1115.01.22
24	6300	1112.01.24	1113.01.24	1115.01.24
26	7000	1112.01.26	1113.01.26	1115.01.26
28	8000	1112.01.28	1113.01.28	1115.01.28
32	11000	1112.01.32	1113.01.32	1115.01.32
36	14000	1112.01.36	1113.01.36	1115.01.36
40	17000	1112.01.40	1113.01.40	1115.01.40
44	21000	1112.01.44	1113.01.44	-
48	25000	1112.01.48	1113.01.48	-

Higher load capacities available on request. Please contact us.

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Self-locking Eye Hook on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble and Foundry Hook on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Foundry Hook on the other side

Please note that for 1-leg wire rope slings with loops (without thimbles) the attachment point must have at least twice the diameter of the wire rope.

For larger crane hooks please indicate loop size with your order!

Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.
8	700	1116.01.08	1117.01.08	1118.01.08
10	1000	1116.01.10	1117.01.10	1118.01.10
12	1500	1116.01.12	1117.01.12	1118.01.12
14	2000	1116.01.14	1117.01.14	1118.01.14
16	2700	1116.01.16	1117.01.16	1118.01.16
18	3150	1116.01.18	1117.01.18	1118.01.18
20	4000	1116.01.20	1117.01.20	1118.01.20
22	5000	1116.01.22	1117.01.22	1118.01.22
24	6300	1116.01.24	1117.01.24	1118.01.24
26	7000	1116.01.26	1117.01.26	1118.01.26
28	8000	1116.01.28	1117.01.28	1118.01.28
32	11000	1116.01.32	1117.01.32	1118.01.32
36	14000	1116.01.36	1117.01.36	1118.01.36
40	17000	1116.01.40	1117.01.40	1118.01.40
44	21000	-	1117.01.44	1118.01.44
48	25000	-	1117.01.48	1118.01.48

Higher load capacities available on request. Please contact us.

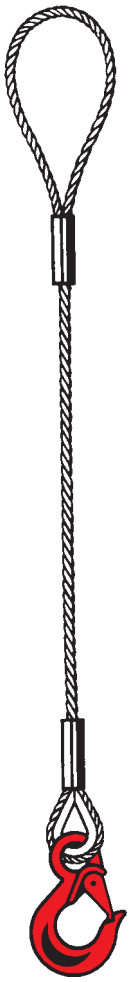
SLINGS

CondorLift Wire rope slings

Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble and Safety Eye Hook on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Safety Eye Hook on the other side

Wire Rope Sling, 1-leg, galvanised, on both sides with spliced Loops



Choker hitch will reduce load capacity by 20%.

For larger crane hooks please indicate loop size with your order!

Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.	**Min. length in m**
8	700	1121.01.08	1122.01.08	1123.01.08	1.10
10	1000	1121.01.10	1122.01.10	1123.01.10	1.10
12	1500	1121.01.12	1122.01.12	1123.01.12	1.35
14	2000	1121.01.14	1122.01.14	1123.01.14	1.70
16	2700	1121.01.16	1122.01.16	1123.01.16	1.70
18	3150	1121.01.18	1122.01.18	1123.01.18	1.95
20	4000	1121.01.20	1122.01.20	1123.01.20	2.30
22	5000	1121.01.22	1122.01.22	1123.01.22	2.30
24	6300	1121.01.24	1122.01.24	1123.01.24	2.60
26	7000	1121.01.26	1122.01.26	1123.01.26	3.00
28	8000	1121.01.28	1122.01.28	1123.01.28	3.00
32	11000	1121.01.32	1122.01.32	1123.01.32	3.30
36	14000	-	1122.01.36	1123.01.36	4.00
40	17000	-	-	1123.01.40	4.35
44	21000	-	-	1123.01.44	5.00
48	25000	-	-	1123.01.48	5.25

Higher load capacities available on request. Please contact us.

Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble and Swivel Hook on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble and Safety Eye Hook with Swivel on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Automatic Swivel Hook on the other side

Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.
8	700	1133.01.08	1134.01.08	1141.01.08
10	1000	1133.01.10	1134.01.10	1141.01.10
12	1500	1133.01.12	1134.01.12	1141.01.12
14	2000	1133.01.14	1134.01.14	1141.01.14
16	2700	1133.01.16	1134.01.16	1141.01.16
18	3150	1133.01.18	1134.01.18	1141.01.18
20	4000	1133.01.20	1134.01.20	1141.01.20
22	5000	1133.01.22	1134.01.22	1141.01.22
24	6300	1133.01.24	1134.01.24	1141.01.24
26	7000	1133.01.26	1134.01.26	1141.01.26
28	8000	1133.01.28	1134.01.28	1141.01.28
32	11000	-	1134.01.32	-
36	14000	-	1134.01.36	-
40	17000	-	1134.01.40	-
44	21000	-	1134.01.44	-
48	25000	-	1134.01.48	-

Higher load capacities available on request. Please contact us.

CondorLift Wire rope slings

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Safety Eye Hook on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Safety Eye Hook with Swivel on the other side

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble and Green Pin straight Shackle on the other side

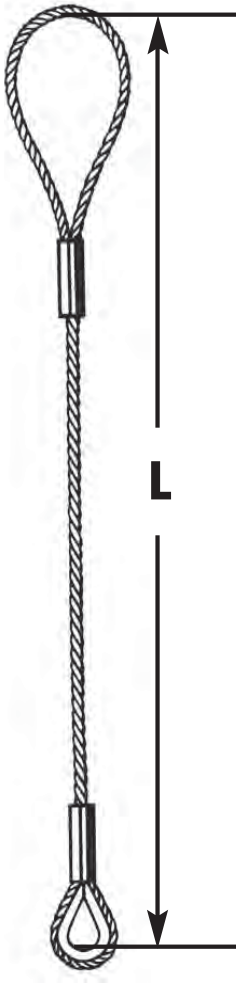
Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.	**Min. length in m**
8	700	1142.01.08	1143.01.08	1146.01.08	1.10
10	1000	1142.01.10	1143.01.10	1146.01.10	1.10
12	1500	1142.01.12	1143.01.12	1146.01.12	1.35
14	2000	1142.01.14	1143.01.14	1146.01.14	1.70
16	2700	1142.01.16	1143.01.16	1146.01.16	1.70
18	3150	1142.01.18	1143.01.18	1146.01.18	1.95
20	4000	1142.01.20	1143.01.20	1146.01.20	2.30
22	5000	1142.01.22	1143.01.22	1146.01.22	2.30
24	6300	1142.01.24	1143.01.24	1146.01.24	2.60
26	7000	1142.01.26	1143.01.26	1146.01.26	3.00
28	8000	1142.01.28	1143.01.28	1146.01.28	3.00
32	11000	1142.01.32	1143.01.32	1146.01.32	3.30
36	14000	1142.01.36	1143.01.36	1146.01.36	4.00
40	17000	1142.01.40	1143.01.40	1146.01.40	4.35
44	21000	1142.01.44	1143.01.44	1146.01.44	5.00
48	25000	1142.01.48	1143.01.48	1146.01.48	5.25

Higher load capacities available on request. Please contact us.

Wire Rope Sling, 1-leg, galvanised, one side with Master Link and Pressed Thimble, Pressed Thimble on the other side

Wire Rope Sling, 1-leg, galvanised, both sides with Master Links and Pressed Thimbles

Wire Rope Sling, 1-leg, galvanised, one side with Pressed Loop, Pressed Thimble on the other side



For exact length adjustment each leg can be equipped with a turnbuckle acc. to DIN 1480.

Rope Ø in mm	Load capacity single direct in kg	Item no.	Item no.	Item no.
8	700	1148.01.08	1149.01.08	1170.01.08
10	1000	1148.01.10	1149.01.10	1170.01.10
12	1500	1148.01.12	1149.01.12	1170.01.12
14	2000	1148.01.14	1149.01.14	1170.01.14
16	2700	1148.01.16	1149.01.16	1170.01.16
18	3150	1148.01.18	1149.01.18	1170.01.18
20	4000	1148.01.20	1149.01.20	1170.01.20
22	5000	1148.01.22	1149.01.22	1170.01.22
24	6300	1148.01.24	1149.01.24	1170.01.24
26	7000	1148.01.26	1149.01.26	1170.01.26
28	8000	1148.01.28	1149.01.28	1170.01.28
32	11000	1148.01.32	1149.01.32	1170.01.32
36	14000	1148.01.36	1149.01.36	1170.01.36
40	17000	1148.01.40	1149.01.40	1170.01.40
44	21000	1148.01.44	1149.01.44	1170.01.44
48	25000	1148.01.48	1149.01.48	1170.01.48

Higher load capacities available on request. Please contact us.

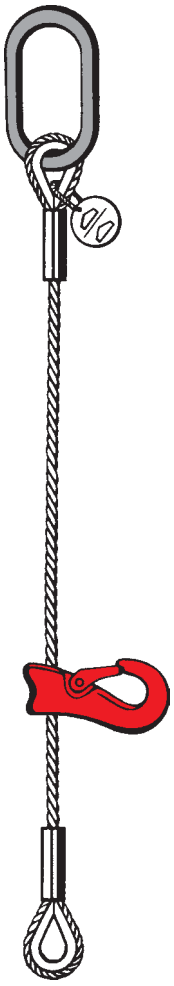
SLINGS
Wire Rope Slings

Pulling Sling with Pressed Loop, Pressed Thimble and Choker Hook

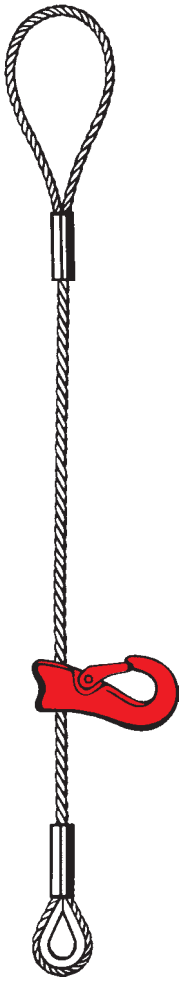
These pulling slings must not be used for lifting!
The indicated pulling forces (dN) are only valid for horizontal pull (safety factor 2:1).

Admissible pulling force in dN	Item no.	Item no.
1120	1109.01.08	1144.01.08
1600	1109.01.10	1144.01.10
2400	1109.01.12	1144.01.12
2800	1109.01.14	1144.01.14
3300	1109.01.16	1144.01.16
5000	1109.01.18	1144.01.18
6400	1109.01.20	1144.01.20
8000	1109.01.22	1144.01.22

Pulling sling, one side with Master Link, Choker Hook



Pulling sling, one side with Pressed Loop, Thimble and Choker Hook



Kombi-Quick-Set, consisting of wire rope and chain

- For rough daily use equipped with high-strength chain in the wear area.
- The wire **rope loops/master links** at each end can be easily slid under the load and make this sling very easy to handle.
- Useful length 4 m = 2 x 1.5 m rope + 1 m of chain Grade 8

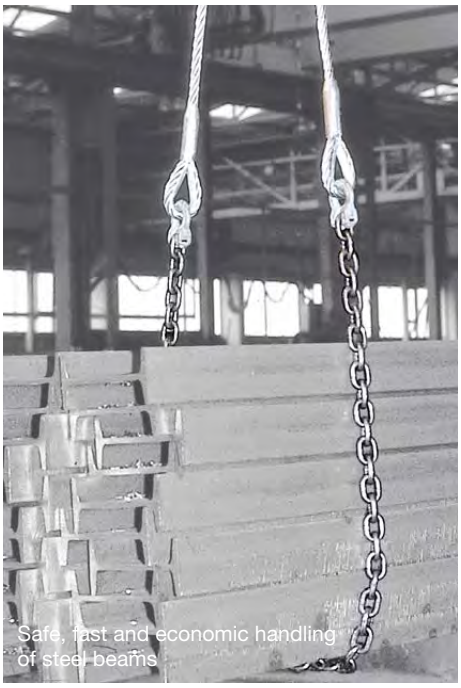
Option: Other lengths available at short notice. The wire rope and sling can be adapted depending on the use. Price on request.

Kombi-Quick-Set on both sides with pressed wire rope loop

Rope Ø in mm	Nominal chain size in mm	Load capacity in basket hitch at inclination angle in kg 0-45°	45-60°	Item no. with **wire rope loops**
10	6	1400	1000	1128.01.10
14	8	2800	2000	1128.01.14
18	10	4400	3150	1128.01.18
22	13	7000	5000	1128.01.22

Kombi-Quick-Set on both sides with Master links

Rope Ø in mm	Nominal chain size in mm	Load capacity in basket hitch at inclination angle in kg 0-45°	45-60°	Item no. with **Master link**
10	6	1400	1000	1129.01.10
14	8	2800	2000	1129.01.14
18	10	4400	3150	1129.01.18
22	13	7000	5000	1129.01.22

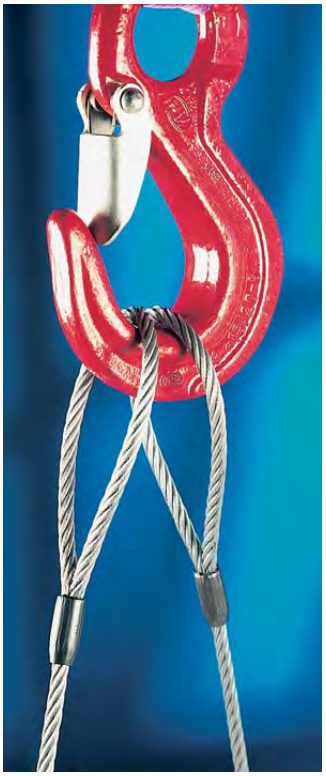


Safe, fast and economic handling of steel beams

SLINGS
Wire Rope Slings

Wire Rope Sling with Flemish Eye, according to DIN EN 13414-1

- The loops are a nice combination of splice and pressed steel sleeve
- Loop length = 15 x d
- Little wear of steel clamps compared with aluminium sleeves
- Longer service life and enhanced efficiency due to conical sleeve



Higher load capacity than standard slings!

Rope Ø in mm	Load capacity single direct in kg	Load capacity in choker hitch in kg	Min. length in m	Item no.
8	750	600	0.56	1193.01.08
10	1150	900	0.70	1193.01.10
12	1700	1300	0.84	1193.01.12
14	2250	1800	0.98	1193.01.14
16	3000	2400	1.12	1193.01.16
18	3700	2900	1.26	1193.01.18
20	4600	3600	1.40	1193.01.20
24	6700	5300	1.68	1193.01.24
26	7800	6200	1.82	1193.01.26
28	9000	7200	1.96	1193.01.28
32	11800	9400	2.24	1193.01.32
36	15000	12000	2.52	1193.01.36

Threaded Lifting Loops

Metric thread for machine transport and prefabricated concrete parts

Thread size	Load capacity* in kg	Dimensions in mm E	H	Rope Ø	Weight in kg/pce	Item no.
M12	900	22	130	6	0.06	109M.00.12
M14	1400	25	150	7	0.10	109M.00.14
M16	1700	27	170	8	0.13	109M.00.16
M20	3100	35	210	10	0.26	109M.00.20
M24	3900	43	260	12	0.43	109M.00.24
M27	4900	48	280	13	0.67	109M.00.27
M30	5000	56	340	16	1.05	109M.00.30
M36	7900	68	380	18	1.52	109M.00.36
M42	10200	80	420	20	2.18	109M.00.42
M52	17500	97	550	26	4.75	109M.00.52

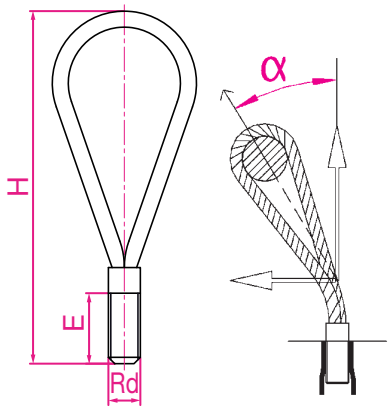
*Load capacity based on safety factor 1:4

Max. allowable angle for diagonal pull α=45°

Round thread for prefabricated concrete parts

Thread size	Load capacity in kg	Dimensions in mm E	H	Rope Ø	Weight in kg/pce	Item no.
Rd 12	500	22	130	6	0.06	109R.D0.12
Rd 14	800	25	150	7	0.10	109R.D0.14
Rd 16	1200	27	170	8	0.13	109R.D0.16
Rd 18	1600	34	190	9	0.19	109R.D0.18
Rd 20	2000	35	210	10	0.26	109R.D0.20
Rd 24	2500	43	260	12	0.43	109R.D0.24
Rd 30	4000	56	340	16	1.05	109R.D0.30
Rd 36	6300	68	380	18	1.52	109R.D0.36
Rd 42	8000	80	420	20	2.18	109R.D0.42
Rd 52	12500	97	550	26	4.75	109R.D0.52

Max. allowable angle for diagonal pull α=45°



SLINGS

CondorLift 2-leg Wire Rope Slings

CondorLift Wire rope slings, galvanised with fibre core

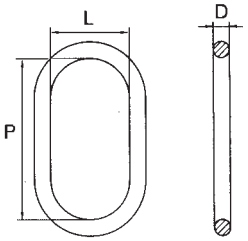
1-leg and multi-leg wire rope slings according to DIN EN 13414-1 and FSA recommendations

The wire rope slings offered on the next few pages are made from galvanised standard ropes with a fibre core, 6x36 WS-FC

- The load capacities comply with the recommendation of the FSA load capacity table based on the master links and end fittings used.
- The load capacities are specified in kg.
- For all rope diameters not listed in combination with rope class, core types, rope strength classes and rope end connections, the load capacity is calculated in accordance with standard DIN EN 13414-1 and indicated on the wire rope sling.

Carl Stahl Wire Rope Slings in 2-leg version

- **Master Links, no flattened section, Grade 80**
- **Load capacity acc. DIN EN 818-4**
- **Red dipped**



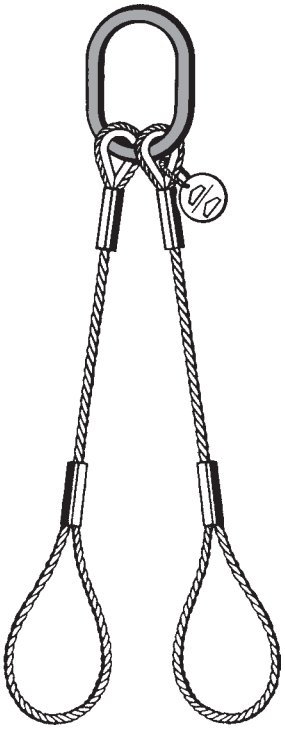
For Rope Ø mm	Load capacity kg	Dimensions in mm D	L	P	Weight kg/pce	Item no.
8	1600	13	60	110	0.34	50200010
10	1600	13	60	110	0.34	50200010
12	2120	16	60	110	0.53	50200020
14	3150	18	75	135	0.915	50200032
16	5300	22	90	160	1.60	50200050
18	5300	22	90	160	1.60	50200050
20	8000	26	100	180	2.46	50200080
22	8000	26	100	180	2.46	50200080
24	11200	32	110	220	4.14	50200100
26	11200	32	110	220	4.14	50200100
28	14000	36	140	260	6.22	50200125
32	17000	40	160	300	8.95	50200150
36	19000	45	180	340	27.01	50200200
40	23500	50	190	350	16.55	50200320
44	31500	50	190	350	16.55	50200320

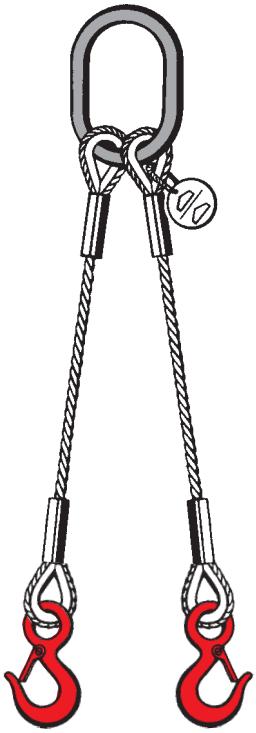
CondorLift 2-leg Wire Rope Slings

2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles on the other side

2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Safety Eye Hooks on the other side

2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Green Pin Shackles on the other side





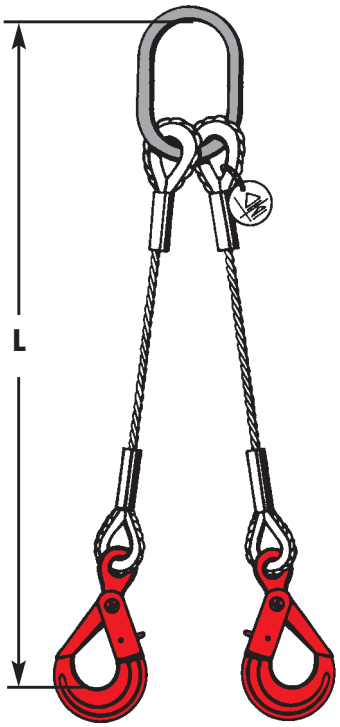
Rope Ø in mm	Load capacity 2-leg in kg at angle 0-45°	45-60°	Item no.	Item no.	Item no.
8	950	700	1214.01.08	1215.01.08	1216.01.08
10	1400	1000	1214.01.10	1215.01.10	1216.01.10
12	2100	1500	1214.01.12	1215.01.12	1216.01.12
14	2800	2000	1214.01.14	1215.01.14	1216.01.14
16	3800	2700	1214.01.16	1215.01.16	1216.01.16
18	4400	3150	1214.01.18	1215.01.18	1216.01.18
20	5600	4000	1214.01.20	1215.01.20	1216.01.20
22	7000	5000	1214.01.22	1215.01.22	1216.01.22
24	8800	6300	1214.01.24	1215.01.24	1216.01.24
26	9800	7000	1214.01.26	1215.01.26	1216.01.26
28	11200	8000	1214.01.28	1215.01.28	1216.01.28
32	15400	11000	1214.01.32	1215.01.32	1216.01.32

Higher load capacities available on request. Please contact us.

SLINGS

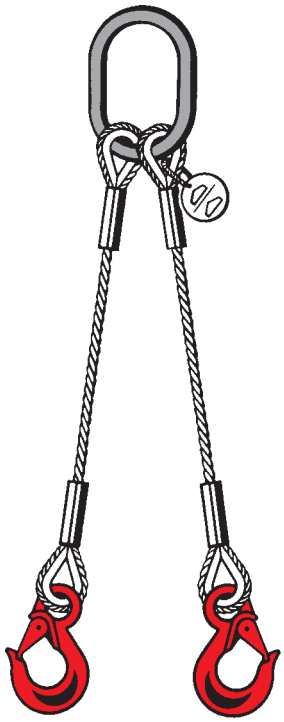
CondorLift 2-leg Wire Rope Slings

2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Automatic Safety Hooks on the other side



2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Foundry Hooks on the other side

2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Safety Eye Hooks on the other side



Rope Ø in mm	Load capacity 2-leg in kg at angle 0-45°	45-60°	Item no.	Item no.	Item no.
8	950	700	1217.01.08	1218.01.08	1219.01.08
10	1400	1000	1217.01.10	1218.01.10	1219.01.10
12	2100	1500	1217.01.12	1218.01.12	1219.01.12
14	2800	2000	1217.01.14	1218.01.14	1219.01.14
16	3800	2700	1217.01.16	1218.01.16	1219.01.16
18	4400	3150	1217.01.18	1218.01.18	1219.01.18
20	5600	4000	1217.01.20	1218.01.20	1219.01.20
22	7000	5000	1217.01.22	1218.01.22	1219.01.22
24	8800	6300	1217.01.24	1218.01.24	1219.01.24
26	9800	7000	1217.01.26	1218.01.26	1219.01.26
28	11200	8000	1217.01.28	1218.01.28	1219.01.28
32	15400	11000	1217.01.32	1218.01.32	1219.01.32

Calculation of load capacity for 2 load-bearing legs and symmetric load attachment =

Nominal capacity of single leg x 2

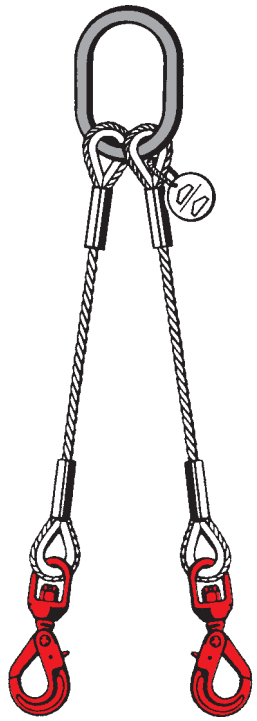
Reduction of load capacity depending on angle:

0-45°	30 %
45-60°	50 %

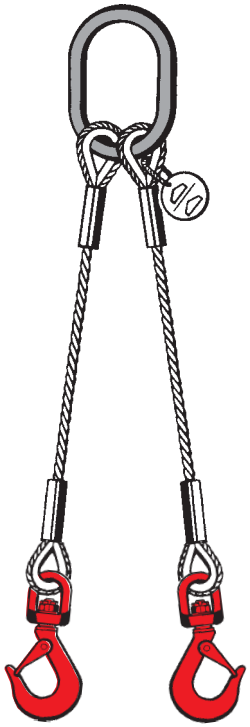
SLINGS

CondorLift 2-leg Wire Rope Slings

2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Automatic Swivel Hooks on the other side



2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Safety Eye Hooks with Swivel on the other one



2-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles with Master Links on the other side

Rope Ø in mm	Load capacity 2-leg in kg at angle		Item no.	Item no.	Item no.
	0-45°	45-60°			
8	950	700	1224.01.08	1225.01.08	1226.01.08
10	1400	1000	1224.01.10	1225.01.10	1226.01.10
12	2100	1500	1224.01.12	1225.01.12	1226.01.12
14	2800	2000	1224.01.14	1225.01.14	1226.01.14
16	3800	2700	1224.01.16	1225.01.16	1226.01.16
18	4400	3150	1224.01.18	1225.01.18	1226.01.18
20	5600	4000	1224.01.20	1225.01.20	1226.01.20
22	7000	5000	1224.01.22	1225.01.22	1226.01.22
24	8800	6300	1224.01.24	1225.01.24	1226.01.24
26	9800	7000	1224.01.26	1225.01.26	1226.01.26
28	11200	8000	1224.01.28	1225.01.28	1226.01.28
32	15400	11000	1224.01.32	1225.01.32	1226.01.32

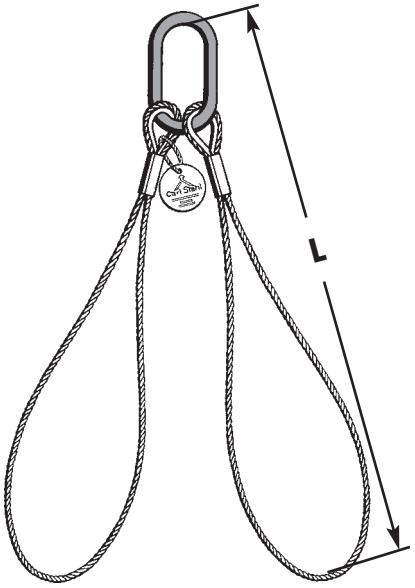
For your individual application we will also manufacture 3-leg wire rope slings.

SLINGS

CondorLift 2-leg Wire Rope Slings

2-leg Wire Rope Sling, galvanised, consisting of 1 Master Link and 2 Pressed Wire Rope Loops

Rope Ø in mm	Load capacity in kg at angle		Dimensions of master link Ø x clear width in mm	Item no.
	0-45°	45-60°		
8	1375	950	16 x 110 x 60	1230.01.08
10	1950	1400	16 x 110 x 60	1230.01.10
12	2900	2100	18 x 135 x 75	1230.01.12
14	3900	2800	22 x 160 x 90	1230.01.14
16	5250	3750	22 x 160 x 90	1230.01.16
18	6150	4400	26 x 180 x 100	1230.01.18
20	7800	5600	32 x 180 x 110	1230.01.20
22	9800	7000	32 x 200 x 110	1230.01.22
24	12300	8800	36 x 260 x 140	1230.01.24
26	13700	9800	36 x 260 x 140	1230.01.26
28	15650	11200	40 x 300 x 160	1230.01.28
32	21550	15400	45 x 340 x 180	1230.01.32



Wire Rope Loops for Double Hook

- For use with double hooks master links of wire rope or chain slings can be fitted with these wire rope loops as connecting link.
- Consists of 2 wire rope loops, Loop length = 15 x rope Ø

Other loop lengths are available.

Rope Ø in mm	Load capacity of 2 wire rope loops in kg at angle		Item no.
	0-45°	45-60°	
8	1375	950	1231.01.08
10	1950	1400	1231.01.10
12	2900	2100	1231.01.12
14	3900	2800	1231.01.14
16	5250	3750	1231.01.16
18	6150	4400	1231.01.18
20	7800	5600	1231.01.20
22	9800	7000	1231.01.22
24	12300	8800	1231.01.24
26	13700	9800	1231.01.26
28	15650	11200	1231.01.28
32	21550	15400	1231.01.32

Chain sling with 2 wire rope loops for double crane hook

CondorLift Wire rope slings, galvanised with fibre core

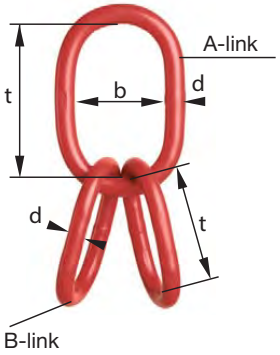
1-leg and multi-leg wire rope slings according to DIN EN 13414-1 and FSA recommendations

The wire rope slings offered on the next few pages are made from galvanised standard ropes with a fibre core, 6x36 WS-FC

- The load capacities comply with the recommendation of the FSA load capacity table based on the master links and end fittings used.
- The load capacities are specified in kg.
- For all rope diameters not listed in combination with rope class, core types, rope strength classes and rope end connections, the load capacity is calculated in accordance with standard DIN EN 13414-1 and indicated on the wire rope sling.

Carl Stahl Wire Rope Slings in 4-leg version

- **Master Links, no flattened section, Grade 80**
- **Load capacity acc. DIN EN 818-4**
- **Red dipped**



Rope Ø in mm	Load capacity 4-leg in kg at angle β=45°	β=60°	Leg	Dimensions in mm d	t	b	Weight kg/pce	Item no.
8	3150	2240	A	16	110	60	1.60	50300010
			B	16	110	60		
10	3150	2240	A	16	110	60	1.60	50300010
			B	16	110	60		
12	4250	3000	A	18	135	75	1.90	50300020
			B	16	110	60		
14	4250	3000	A	18	135	75	1.90	50300020
			B	16	110	60		
16	6700	4750	A	22	160	90	3.12	50300032
			B	18	135	75		
18	6700	4750	A	22	160	90	3.12	50300032
			B	18	135	75		
20	10500	7500	A	26	180	100	5.30	50300050
			B	22	160	90		
22	10500	7500	A	26	180	100	5.30	50300050
			B	22	160	90		
24	14700	10500	A	32	200	110	8.50	50300063
			B	26	180	100		
26	14700	10500	A	32	200	110	8.50	50300063
			B	26	180	100		

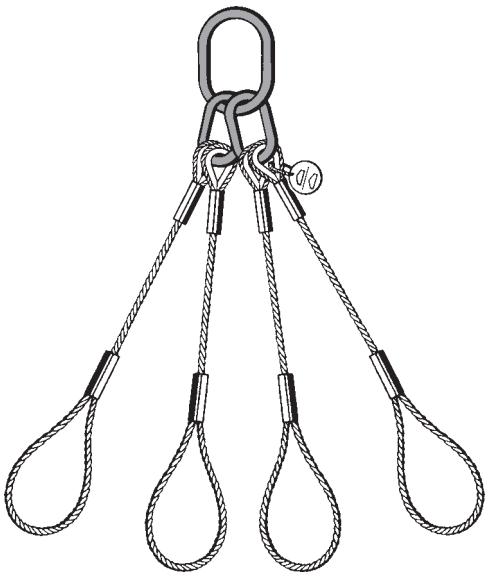
Higher load capacities available on request. Please contact us.

For your individual application we will also manufacture 3-leg wire rope slings.

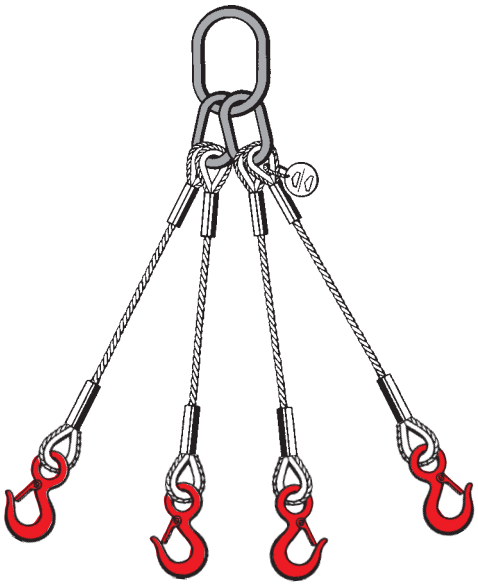
SLINGS

CondorLift 4-leg Wire Rope Slings

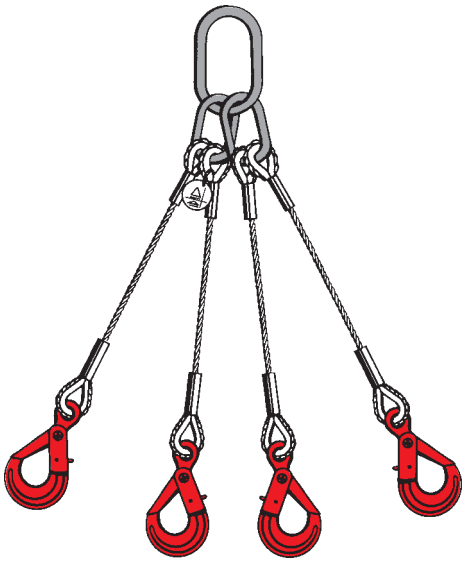
4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles on the other side



4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Safety Eye Hooks on the other side



4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Automatic Safety Hooks on the other side



Rope Ø in mm	Load capacity 4-leg in kg at angle		Item no.	Item no.	Item no.
	0-45°	45-60°			
8	1450	1050	1414.01.08	1415.01.08	1417.01.08
10	2100	1500	1414.01.10	1415.01.10	1417.01.10
12	3200	2300	1414.01.12	1415.01.12	1417.01.12
14	4200	3000	1414.01.14	1415.01.14	1417.01.14
16	5700	4000	1414.01.16	1415.01.16	1417.01.16
18	6600	4700	1414.01.18	1415.01.18	1417.01.18
20	8400	6000	1414.01.20	1415.01.20	1417.01.20
22	10500	7500	1414.01.22	1415.01.22	1417.01.22
24	13200	9400	1414.01.24	1415.01.24	1417.01.24
26	14700	10500	1414.01.26	1415.01.26	1417.01.26
28	16800	12000	1414.01.28	1415.01.28	1417.01.28
32	23000	16500	1414.01.32	1415.01.32	1417.01.32

CondorLift 4-leg Wire Rope Slings

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Foundry Hooks on the other side

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Safety Eye Hooks on the other side

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Automatic Swivel Hooks on the other side

Rope Ø in mm	Load capacity 4-leg in kg at angle		Item no.	Item no.	Item no.
	0-45°	45-60°			
8	1450	1050	1418.01.08	1419.01.08	1424.01.08
10	2100	1500	1418.01.10	1419.01.10	1424.01.10
12	3200	2300	1418.01.12	1419.01.12	1424.01.12
14	4200	3000	1414.01.14	1419.01.14	1424.01.14
16	5700	4000	1418.01.16	1419.01.16	1424.01.16
18	6600	4700	1418.01.18	1419.01.18	1424.01.18
20	8400	6000	1418.01.20	1419.01.20	1424.01.20
22	10500	7500	1418.01.22	1419.01.22	1424.01.22
24	13200	9400	1418.01.24	1419.01.24	1424.01.24
26	14700	10500	1418.01.26	1419.01.26	1424.01.26
28	16800	12000	1418.01.28	1419.01.28	1424.01.28
32	23000	16500	1418.01.32	1419.01.32	1424.01.32

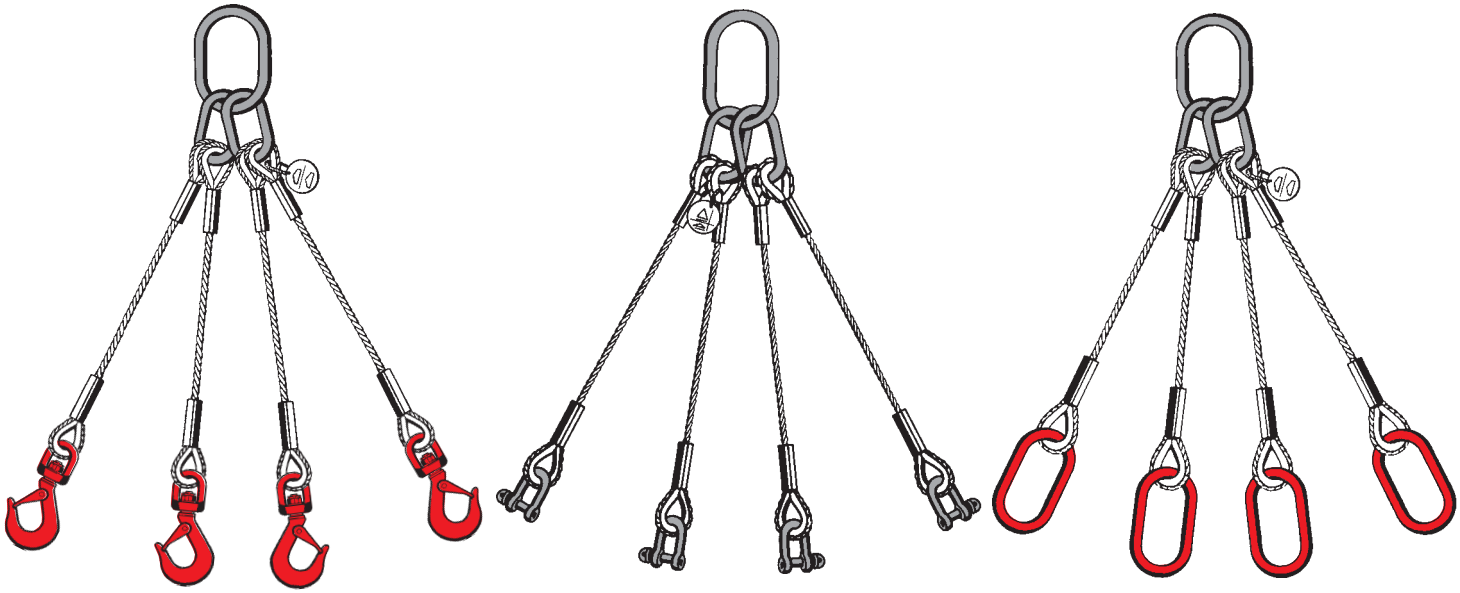
SLINGS

CondorLift 4-leg Wire Rope Slings

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Swivel Eye Hooks on the other side

4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Green Pin Shackles on the other side

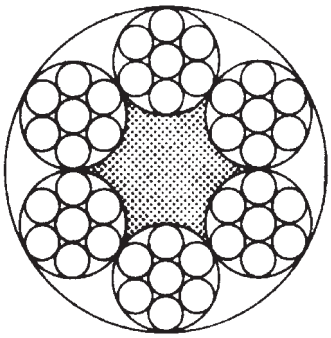
4-leg Wire Rope Sling, galvanised, one side with Master Link, Pressed Thimbles and Master Links on the other side



Rope Ø in mm	Load capacity 4-leg in kg at angle		Item no.	Item no.	Item no.
	0-45°	45-60°			
8	1450	1050	1425.01.08	1416.01.08	1426.01.08
10	2100	1500	1425.01.10	1416.01.10	1426.01.10
12	3200	2300	1425.01.12	1416.01.12	1426.01.12
14	4200	3000	1425.01.14	1416.01.14	1426.01.14
16	5700	4000	1425.01.16	1416.01.16	1426.01.16
18	6600	4700	1425.01.18	1416.01.18	1426.01.18
20	8400	6000	1425.01.20	1416.01.20	1426.01.20
22	10500	7500	1425.01.22	1416.01.22	1426.01.22
24	13200	9400	1425.01.24	1416.01.24	1426.01.24
26	14700	10500	1425.01.26	1416.01.26	1426.01.26
28	16800	12000	1425.01.28	1416.01.28	1426.01.28
32	23000	16500	1425.01.32	1416.01.32	1426.01.32

Higher load capacities available on request. Please contact us.
For your individual application we will also manufacture 3-leg wire rope slings.

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x7-FC



Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm²) kN	t	Weight in kg/m	Item no.
2	2.60	0.265	0.014	0552.30.20
3	5.80	0.597	0.032	0552.30.30
4	10.40	1.060	0.057	0552.30.40
5	16.30	1.661	0.089	0552.30.50
6	23.40	2.385	0.129	0552.30.60
8	41.60	4.239	0.229	0552.30.80

Rope class / Number of outer strands:
6x7 / 6

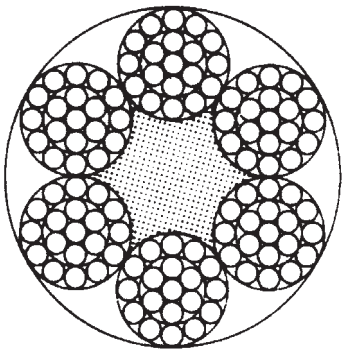
Surface available in:
B (galvanised)

Lay / Lay direction available in:
sZ

Categories:
not rotation-resistant

Swivel:
not allowed

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x19M-FC



Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm²) kN	t	Weight in kg/m	Item no.
3	5.42	0.552	0.031	0602.30.30
4	9.63	0.981	0.055	0602.30.40
5	15.10	1.539	0.086	0602.30.50
6	21.70	2.211	0.125	0602.30.60
8	38.50	3.923	0.221	0602.30.80
10	60.20	6.135	0.346	0602.31.00
12	86.60	8.825	0.498	0602.31.20
14	117.90	12.015	0.678	0602.31.40
16	154.02	15.696	0.886	0602.31.60

Rope class / Number of outer strands:
6x19M / 6

Surface available in:
B (galvanised)

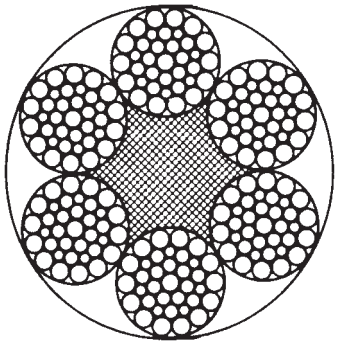
Lay / Lay direction available in:
sZ

Categories:
not rotation-resistant

Swivel:
not allowed

STEEL WIRE ROPES

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x36WS-FC



Rope class / Number of outer strands:
6x36 / 6

Surface available in:
B (galvanised)

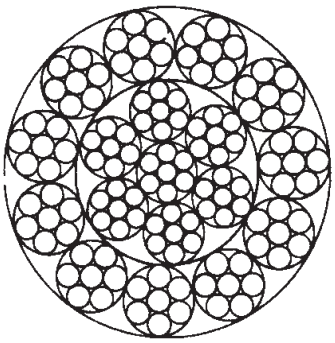
Lay / Lay direction available in:
sZ

Categories:
not rotation-resistant

Swivel:
not allowed

Rope Ø in mm	Minimum breaking load (Tensile strength 1,770 N/mm²)		Minimum breaking load (Tensile strength 1,960 N/mm²)		Weight in kg/m	Item no.
	kN	t	kN	t		
8	37.40	3.81	-	-	0.235	0642.20.80
10	-	-	64.70	6.59	0.380	0642.31.00
12	84.0	8.56	-	-	0.547	0642.21.20
14	-	-	127.00	12.94	0.745	0642.31.40
16	-	-	165.60	16.88	0.973	0642.31.60
18	-	-	210.00	21.40	1.230	0642.31.80
20	-	-	256.70	26.16	1.520	0642.32.00
22	-	-	313.00	31.90	1.840	0642.32.20
24	336.00	34.24	-	-	2.190	0642.22.40
26	-	-	437.20	44.55	2.570	0642.32.60
28	-	-	507.00	51.67	2.980	0642.32.80
30	-	-	582.00	59.31	3.490	0642.32.80
32	-	-	662.00	67.46	3.890	0642.33.20
36	-	-	883.00	85.40	4.930	0642.33.60

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 17x7-WSC



Rope class / Number of outer strands:
18x7 / 11

Surface available in:
B (galvanised)

Lay / Lay direction available in:
sZ

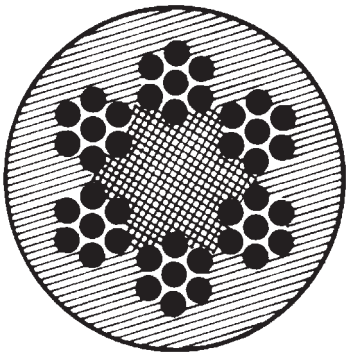
Categories:
not rotation-resistant

Swivel:
not allowed

Rope Ø in mm	Minimum breaking load (Tensile strength 1,960 N/mm²)		Weight in kg/m	Item no.
	kN	t		
4	10.70	1.09	0.064	1692.30.40
5	16.67	1.70	0.100	1692.30.50
6	23.45	2.40	0.145	1692.30.60
8	41.67	4.25	0.257	1692.30.80
10	65.74	6.70	0.402	1692.31.00

STEEL WIRE ROPES

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x7-FC with plastic sheath (transparent PVC)



Rope Ø in mm	Minimum breaking load (Tensile strength 1,770 N/mm²) kN	t	Weight in kg/m	Item no.
2.0 / 3.0	2.35	0.240	0.020	0310.20.30
2.5 / 3.5	3.63	0.370	0.030	0310.25.35
3.0 / 4.0	5.29	0.530	0.040	0310.30.40
3.0 / 5.0	5.29	0.530	0.049	0310.30.50
4.0 / 5.0	9.41	0.950	0.067	0310.40.50
4.0 / 6.0	19.41	0.950	0.078	0310.40.60
5.0 / 7.0	14.70	1.470	0.114	0310.50.70
6.0 / 8.0	21.10	2.120	0.158	0310.60.80

Rope class / Number of outer strands:
6x7 / 6

Surface available in:
B (galvanised)

Lay / Lay direction available in:
sZ

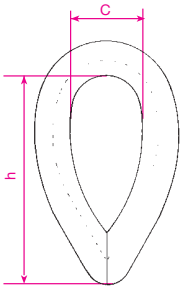
Categories:
not rotation-resistant

Swivel:
not allowed

ACCESSORIES
Thimbles

Thimble acc. to DIN EN 13411-1

Material: St 37-2
Surface: galvanised

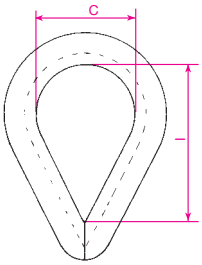


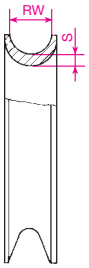
Nominal size	Dimensions in mm RW	c	h	s	Weight in kg/100 pcs	Item no.
4	5	10	29	2.1	1.20	5960.00.04
6	7	15	42	2.6	2.80	5960.00.06
8	9	20	46	4.0	5.70	5960.00.08
10	11	25	70	5.0	15.20	5960.00.10
12	13	30	85	6.0	24.00	5960.00.12*
14	16	35	102	8.0	38.00	5960.00.14
16	18	40	113	8.0	52.00	5960.00.16
18	20	45	127	9.0	66.00	5960.00.18
20	22	50	141	10.0	88.00	5960.00.20
22	24	55	153	10.0	104.00	5960.00.22*
24	26	60	165	10.0	129.00	5960.00.24*
26	29	65	181	12.0	260.00	5960.00.26
28	31	70	193	12.0	277.00	5960.00.28
32	35	80	223	15.0	440.00	5960.00.32*
36	40	90	247	15.0	460.00	5960.00.36

*Similar to DIN EN 13411-1

Thimble, similar to DIN 6899, Form B

Medium-weight, with deep groove
Surface: galvanised



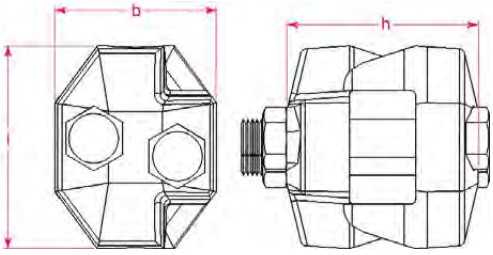


Nominal size	Dimensions in mm RW	c	l	s	Weight in kg/100 pcs	Item no.
2.5	3	12	19	1.2	0.50	5910.00.03
3.5	4	13	21	1.2	0.80	5910.00.04
4	5	14	23	1.7	1.00	5910.00.05
5	6	16	25	2.2	1.60	5910.00.06
6	7	18	28	2.2	1.90	5910.00.07
7	8	20	32	2.7	3.00	5910.00.08
9	10	24	38	2.9	4.70	5910.00.10
11	12	28	45	3.2	6.80	5910.00.12
13	14	32	51	3.5	10.00	5910.00.14
15	16	36	58	3.8	14.50	5910.00.16
16	18	40	64	4.2	20.00	5910.00.18
18	20	45	72	5.2	29.00	5910.00.20
20	22	50	80	5.2	32.00	5910.00.22
22	24	56	90	6.2	47.00	5910.00.24
24	26	62	99	6.5	59.00	5910.00.26
26	28	70	112	7.3	80.00	5910.00.28
28	30	75	120	8.0	110.00	5910.00.30
30	32	80	128	8.0	123.00	5910.00.32
32	34	95	152	8.0	156.00	5910.00.34
34	36	100	160	8.0	176.00	5910.00.36
36	38	110	176	8.5	192.00	5910.00.38

ACCESSORIES
Wire Rope Clips

Wire Rope Clip Type BG, similar to DIN EN 13411-3

IRONGRIP™



The BG type wire rope clips meet today's high demands regarding a longer service life of steel wire ropes and simple attachment of the clamp. It is not only the safest but also an economic solution as only 2 clips per fixation are required. This clamp is also approved for general lifting purposes.

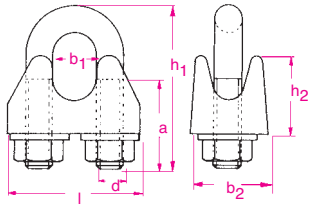
- Only 2 wire rope clips per fixation are required
- Approved for lifting with wire ropes of a tensile strength of up to 1,960 N/mm2
- Approved for wire ropes acc. to EN 12385-4, but not for compacted or special wire ropes
- The 2 clip halves are fully symmetric - allows mounting in all directions
- Temperature range from -50°C (-58°F) to 250°C (482°F)
- Tested acc. to DIN EN 13411-3
- Galvanised

Type	Nom. size Rope Ø mm	Dimensions in mm l	b	h (max.)	Weight in kg/100 pcs	Bolt size	Item no.
BG-600	5-6	32	26	28	9	M6 x 35	5830.10.06
BG-800	6.5-8	36	28	34	12	M6 x 40	5830.10.08
BG-1000	8.5-10	44	34	42	20	M8 x 50	5830.10.10
BG-1200	11-12.5	54	42	48	39	M10 x 60	5830.10.12
BG-1600	13-16	68	52	64	72	M12 x 75	5830.10.16
BG-2000	17-20	82	60	78	120	M14 x 90	5830.10.20
BG-2500	21-25	122	80	94	280	M18 x 110	5830.10.25
BG-3400	26-34	214	94	126	770	M20 x 150	5830.10.34

Type	Tightening torque in Nm	Clips per fixation
BG-600	9.5	2
BG-800	9.5	2
BG-1000	22	2
BG-1200	44	2
BG-1600	75	2
BG-2000	120	2
BG-2500	260	2
BG-3400	350	2

Wire Rope Clip, acc. to DIN EN 13411-5

Clamping jaws galvanised
Bracket + nut yellow chromated

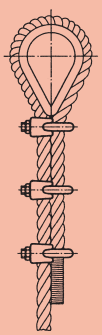


Nom. size Rope Ø mm	Dimensions in mm a	b1	b2	d	h1	h2	l	Weight in kg/100 pcs	Item no.
5.0	13	7	13	M 5	25	13	25	2.10	5830.00.50
6.5	17	8	16	M 6	32	14	30	4.00	5830.00.65
8.0	20	10	20	M 8	41	18	39	8.20	5830.00.80
10.0	24	12	20	M 8	46	21	40	9.20	5830.01.00
12.0	24	14	24	M10	56	25	50	17.10	5830.01.20
13.0	30	15	28	M 12	64	29	55	27.50	5830.01.30
14.0	31	16	28	M12	66	30	59	27.70	5830.01.40
16.0	35	18	32	M 14	76	35	64	43.00	5830.01.60
19.0	36	22	32	M 14	83	40	68	49.00	5830.01.90
22.0	40	24	34	M 16	96	44	74	68.00	5830.02.20
26.0	50	26	38	M 20	118	51	84	117.00	5830.02.60

Please note: Wire rope clips acc. to DIN EN 13411-5 are only approved for suspension of static loads or for a single lifting operation. **Available up to nominal size 40.**

Usage of wire rope clips

The first clip has to be mounted close to the thimble. The distance between the wire rope clips has to be at least 1.5-times the width of a wire rope clip. The brackets have to be on the unstressed rope end.



Nominal size	Tightening torque in Nm	Required number of wire rope clips
5	2	3
6.5	3.5	4
8	6	4
10	9	4
12	20	4
13	33	4
14	33	4
16	49	4
19	68	4
22	107	5
26	147	5

ACCESSORIES
Wire Rope Clips

Wire Rope Clip, formerly DIN 741

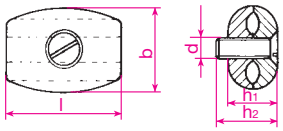
Light version
Wire rope clip for rope terminations.
Only for secondary applications
Surface: galvanised

Nominal size Rope Ø mm	Nominal size in inches	Weight in kg/100 pcs	Item no.
3	1/8''	1.40	5820.00.03
5	3/16''	1.50	5820.00.05
6.5	1/4''	2.10	5820.00.06
8	5/16''	4.10	5820.00.08
9.5	3/8''	6.80	5820.00.10
11	7/16''	7.20	5820.00.11
13	1/2''	13.00	5820.00.13
14	9/16''	13.50	5820.00.14
16	5/8''	21.00	5820.00.16

Available up to nominal size 50.

Egg shaped Wire Rope Clip

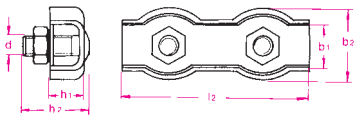
Material: malleable cast iron
Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm b	d	h1	h2	l	Weight in kg/100 pcs	Item no.
2	15	M 5	11	13	28	2.20	5840.00.02
3	15	M 5	12	13	28	2.30	5840.00.03
4	20	M 6	14	18	34	4.00	5840.00.04
5	21	M 6	15	18	34	4.00	5840.00.05
6	25	M 6	15	18	35	5.00	5840.00.06

Duplex Wire Rope Clip with 2 Bolts

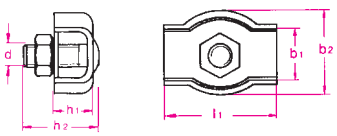
Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm b1	b2	d	h1	h2	l2	Weight in kg/100 pcs	Item no.
2	4	12	M 4.0	5	14	30	0.90	5860.00.02
3	6	14	M 4.0	7	14	35	1.40	5860.00.03
4	8	18	M 5.0	7	18	40	2.50	5860.00.04
5	10	20	M 5.0	8	18	50	3.40	5860.00.05
6	12	24	M 6.0	9	23	60	5.00	5860.00.06
7	15	26	M 8.0	11	24	64	5.60	5860.00.07
8	17	35	M 8.0	13	25	75	10.00	5860.00.08
10	21	37	M 10.0	16	32	84	18.00	5860.00.10

Simplex Wire Rope Clip with 1 Bolt

Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm b1	b2	d	h1	h2	l1	Weight in kg/100 pcs	Item no.
2	4	12	M 4	5	14	15	0.46	5850.00.02
3	6	14	M 4	7	14	17	0.72	5850.00.03
4	8	18	M 5	7	18	20	1.27	5850.00.04
5	10	20	M 5	8	18	25	1.46	5850.00.05
6	12	24	M 6	9	23	30	2.52	5850.00.06
7	15	28	M 8	11	25	32	2.80	5850.00.07
8	17	35	M 8	13	25	37	5.42	5850.00.08

Cable laid sling with spliced loops in use. **Photo: Voith Hydro, 89522 Heidenheim.**

SLINGS

Wire Rope Slings

CondorLift Highly flexible cable laid Wire Rope Sling with spliced Loops DIN 13414-3

Wire rope construction with steel core, Tensile strength 1,960 N/mm²

Advantages only cable laid slings can offer:

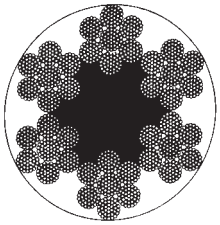
- Absolutely indispensable when it comes to lifting of heavy loads
- Endless version offers highest load capacities and safety
- Easy handling due to flexible construction even with biggest diameters
- Diameters up to 470 mm can be produced
- Load capacities up to 5,000 tons are available
- When producing 2 or more wire rope slings of the same length production occurs in narrow length tolerances

Rope Ø 24-60 mm: **Safety factor 5**

Rope Ø 66-132 mm: **Safety factor 3.5 acc. to DIN EN 13414-3 and depends on technical design respectively**

Rope Ø in mm	Load capacity single direct in kg	Min.length in m	Weight in kg for min. length	Weight in kg per additional m	Item no.
24	3.940	2.52	8.9	1.6	1194.01.24
27	5.000	2.84	13.0	2.0	1194.01.27
30	6.100	3.15	17.0	2.6	1194.01.30
33	7.440	3.47	25.2	3.2	1194.01.33
36	8.800	3.78	32.5	3.8	1194.01.36
39	10.400	4.10	41.6	4.5	1194.01.39
42	12.000	4.41	51.1	5.2	1194.01.42
48	15.770	5.04	77.9	6.8	1194.01.48
54	19.900	5.67	110	8.6	1194.01.54
60	24.580	6.30	150	10.6	1194.01.60
66	30.500	6.93	198.5	12.9	1194.01.66
72	37.330	7.56	259.7	15.3	1194.01.72
78	45.000	8.19	332.3	18	1194.01.78
84	53.760	8.82	409	20.8	1194.01.84
90	63.600	9.45	506	24	1194.01.90
96	74.670	10.08	612	27.2	1194.01.96
102	87.000	10.71	732	30.8	1194.11.02
108	100.700	11.34	873	34.5	1194.11.08
114	116.180	11.97	1024	38.4	1194.11.14
120	133.700	12.60	1200	42.5	1194.11.20
126	156.000	13.23	1374	47	1194.11.26
132	173.980	13.86	1599	51.5	1194.11.32

Cross section of a cable laid rope



Cross section of a round strand rope

Option:
Splice protection
Wire rope slings with plastic splice protection prevent injuries und offer a condierably longer service life. Thanks to the conical shape slings can be easily pulled under loads. **Item no. 1195.....**

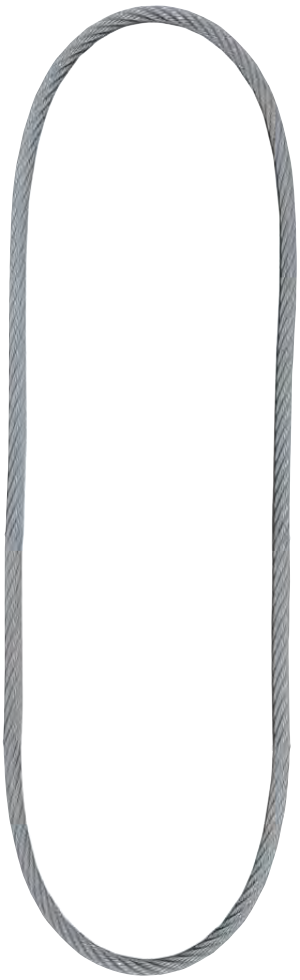
CondorLift Highly flexible cable laid Wire Rope Sling as endless Grommet, with 2 tied loops, according to DIN EN 13414-3

Rope Ø in mm	Load capacity single direct in kg	Min.length in m	Weight per m circumference in kg	Item no.
24	9.800	0.84	1.92	1199.01.24
27	12.400	0.95	2.43	1199.01.27
30	15.300	1.05	3.1	1199.01.30
33	18.600	1.16	3.7	1199.01.33
36	22.100	1.26	4.4	1199.01.36
39	25.900	1.37	5.2	1199.01.39
42	30.100	1.47	6.0	1199.01.42
48	39.300	1.68	7.9	1199.01.48
54	49.800	1.89	9.9	1199.01.54
60	61.500	2.10	12.3	1199.01.60
66	76.250	2.31	14.9	1199.01.66
72	93.250	2.52	17.7	1199.01.72
78	112.600	2.73	20.7	1199.01.78

SLINGS
Wire Rope Slings

CondorLift Highly flexible cable laid Wire Rope Sling as endless Grommet, according to DIN EN 13414-3

Rope Construction with steel core, Tensile strength 1,960 N/mm², Minimum bending radius: 2 x Ø

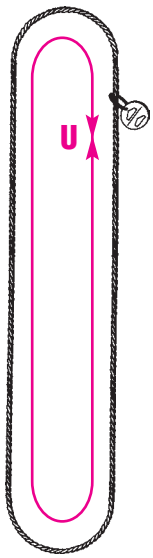


Rope Ø in mm	Load capacity single direct in kg	Min. circumference length in m	Weight per m circumference in kg	Item no.
24	9.800	0.84	1.92	1197.01.24
27	12.400	0.95	2.43	1197.01.27
30	15.300	1.05	3.1	1197.01.30
33	18.600	1.16	3.7	1197.01.33
36	22.100	1.26	4.4	1197.01.36
39	25.900	1.37	5.2	1197.01.39
42	30.100	1.47	6.0	1197.01.42
48	39.300	1.68	7.9	1197.01.48
54	49.800	1.89	9.9	1197.01.54
60	61.500	2.10	12.3	1197.01.60
66	76.250	2.31	14.9	1197.01.66
72	93.250	2.52	17.7	1197.01.72
78	112.600	2.73	20.7	1197.01.78
84	134.400	2.94	24.0	1197.01.84
90	159.000	3.15	27.6	1197.01.90
96	186.550	3.36	31.4	1197.01.96
102	217.400	3.57	35.5	1197.11.02
108	251.800	3.78	39.8	1197.11.08
114	290.300	3.99	44.3	1197.11.14
120	333.200	4.20	49.0	1197.11.20
126	381.000	4.41	54.1	1197.11.26
132	434.200	4.62	59.4	1197.11.32

Rope Ø 24-60 mm: Safety factor 5
Rope Ø 66-132 mm: Safety factor 3.5 acc. to DIN EN 13414-3 and depends on technical design respectively
Rope Ø up 470 mm: Available, please contact us for details.

Braided Wire Rope Sling, as endless Grommet, acc. to DIN EN 13414-3

Rope Ø in mm	Load capacity single direct in kg	Min. circumference length in m	Item no.
8	1400	0.31	1110.01.08
10	2200	0.38	1110.01.10
12	3000	0.46	1110.01.12
14	4200	0.54	1110.01.14
16	5500	0.61	1110.01.16
18	6900	0.69	1110.01.18
20	8500	0.77	1110.01.20
22	10300	0.84	1110.01.22
24	12300	0.92	1110.01.24
26	14400	1.00	1110.01.26
28	16700	1.07	1110.01.28
32	21800	1.23	1110.01.32
36	27600	1.38	1110.01.36
40	34000	1.53	1110.01.40



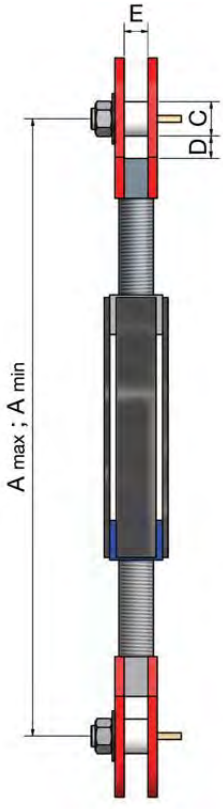
SLINGS
Length Adjuster

Photo: © Siemens AG

Length Adjuster for Slings

Equipped with fine thread. Suitable for roundslings or wire rope slings up to 100 tons capacity.

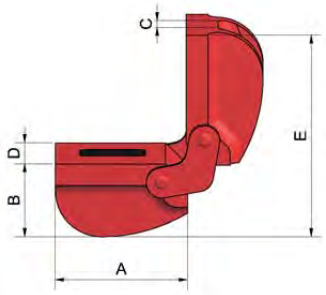
Fine thread allows exact length adjustment. The length adjuster can also be used with lifting beams as centre of gravity equilibrator or it can be connected directly to the crane hook. The adjustment range can be adapted to the customer's needs.



Load capacity in t	Dimensions in mm						Weight	Item no.
	A max.	A min.	C	D	E	F	in kg	
60	2100	1500	110	90	80	300	300	5735.00.60
80	2200	1600	120	85	85	320	450	5735.00.80
100	2300	1700	130	85	85	360	600	5735.01.00

CondorLift Edge Protectors for Ropes and Chains

- With magnetic adhesion
- Material: aluminium, painted red
- **Hinged version**
- Attachment angles can be bigger or smaller than 90°



for ropes up to Ø 25 mm and chains up to nominal size 6

Dimensions in mm					Groove depth	Weight	Item no.
A	B	C	D	E	in mm	kg/pce	
115	48	25	72	165	10	2.20	5081.00.25

for ropes up to Ø 50 mm and chains up to nominal size 13

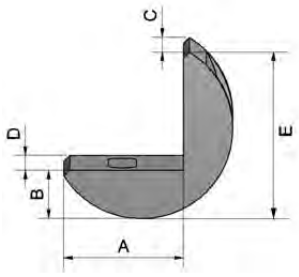
Dimensions in mm					Groove depth	Weight	Item no.
A	B	C	D	E	in mm	kg/pce	
100	68	50	112	192	25	3.50	5081.00.50

for ropes up to Ø 70 mm and chains up to nominal size 22

Dimensions in mm					Groove depth	Weight	Item no.
A	B	C	D	E	in mm	kg/pce	
105	102	85	162	225	47	6.40	5081.00.70

CondorLift Edge Protectors for Ropes up to Ø 25 mm and Chains up to nominal size 6

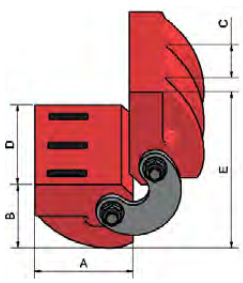
- With magnetic adhesion
- Material: **abrasion-resistant hard rubber**
- **Rigid version**



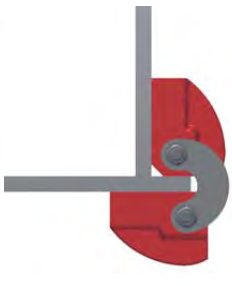
Dimensions in mm					Weight	Item no.
A	B	C	D	E	kg/pce	
105	45	25	72	150	1.00	5082.00.25

CondorLift Special Edge Protectors with double Guide Channels

- For ropes up to ø 70 mm
- For chains up to nominal size 18
- With magnetic adhesion
- Material: aluminium, painted red
- Suitable for 2 legs
- Special construction for 20 mm metal sheet overhang
- Attachment angles can be bigger or smaller than 90°



Version for shipbuilding



Use with protruding sheet

Dimensions in mm					Weight	Item no.
A	B	C	D	E	kg/pce	
110	95	85	255	230	15.50	5086.00.70

For an explanation of the term ‘sharp edge’ see page 271.

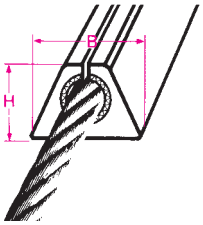
SLINGS

Edge Protection and Carl Stahl Load Charts

Wire Rope clip-on Protective Tubing SDC

With fabric reinforecment
- Protects the load
- Protects the rope
- Protects the operator
- Very flexible, wear-resistant, easy to mount, easily moveable

Max. length 3 m



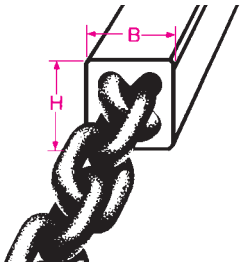
Rope Ø max. in mm	Type	Dimensions in mm H	B	Weight in kg/m	Item no.
8	SDC 10	23	36	0.60	4SDC.00.10
10	SDC 12	23	36	0.60	4SDC.00.12
12	SDC 14	29	44	0.85	4SDC.00.14
14	SDC 16	29	44	0.85	4SDC.00.16
16	SDC 18	35	52	0.85	4SDC.00.18
18	SDC 20	35	52	1.20	4SDC.00.20
20	SDC 22	39	59	1.45	4SDC.00.22
22	SDC 24	39	59	1.45	4SDC.00.24

Also available for other rope diameters

Chain Edge Protection RSK

Flexible in all directions.
Moveable on the chain by hand.

Max. length 2.0 m.
Only 1 and 2 m lengths available

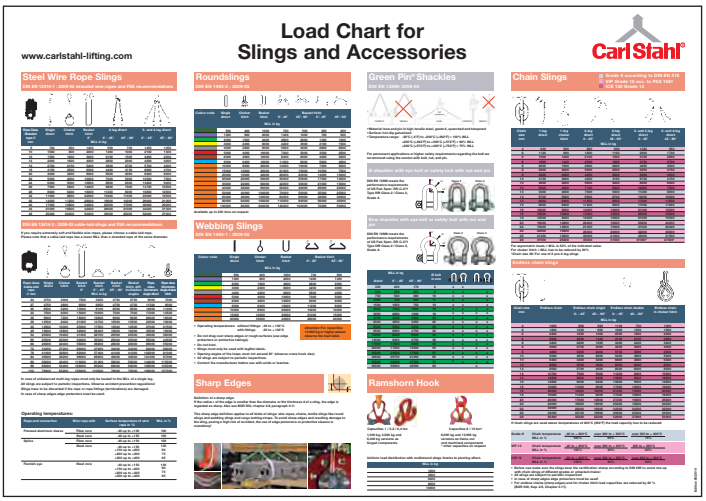


Nominal chain size in mm	Designation	Dimensions in mm H	B	Item no.
6	RSK 6	27	27	6040.00.06
8	RSK 8	33	33	6040.00.08
10	RSK 10	38	38	6040.00.10
13	RSK 13	50	50	6040.00.13
16	RSK 16	70	70	6040.00.16
18	RSK 18	74	74	6040.00.18
22	RSK 22	89	89	6040.00.22

Carl Stahl Load Chart add to your Safety!

In case of illegible or missing load labels or identification tags it is sometimes only possible to estimate the load capacity. Our poster-size load charts are of great help in this situation. The load capacities for wire rope slings, textile slings, high-strength chain slings or lifting points are very easy to read. Load capacity reductions caused by different angles and lifting methods have been considered.

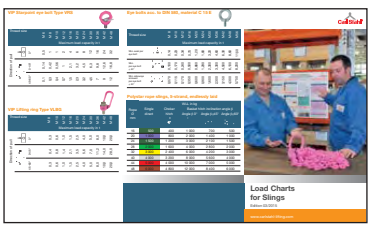
A useful benefit for the safety of man and material!



Load chart for	Size in cm	Item no.
Wire rope slings, textile slings, high strength chain slings, lifting points	841 x 594 mm (DIN A1 landscape))	5100.10.21

Pocket-size load chart for	Size in cm	Item no.
Wire rope and chain slings, eye bolts, webbing slings, round slings	27 x 16 open	5100.10.17

Safety for man and material with Carl Stahl load charts!

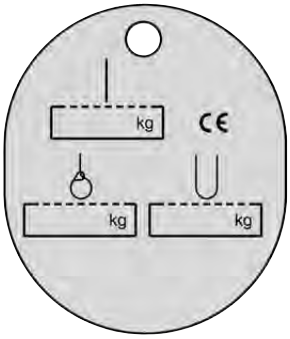


SLINGS
Product labelling and Accessories

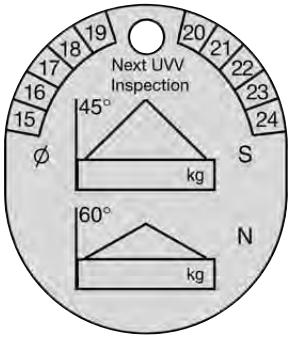
Identification Tag, galvanised

Required to label multi-leg rope slings according to current standards, but also for 1-leg slings if the capacity is not determinable at site. The blank version allows retrofitting existing slings with the required information.

Item no.: 9900.01.60



Front



Reverse

Identification Tag in Stainless Steel

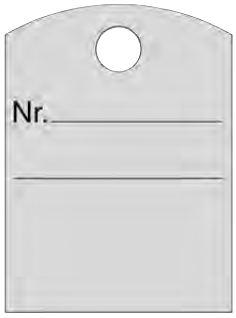
Item no.: 9900.E1.61

EDELSTAHL Rostfrei

Inspection Data Tag

Item no.: 6600.01.67

Front

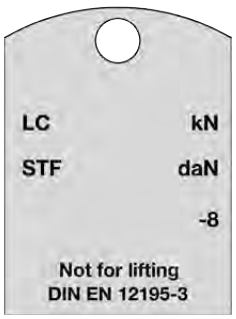


Reverse

Lashing chain identification

Item no.: 6600.01.66

Front



Reverse

Marking Set

If you are using slings without load labels, they can easily be retrofitted with identification tags. This marking set comes with a carrying case of impact-resistant polystyrene.

A load chart for clear determination of the load capacity is included.

Contents Type A:
50 pcs blank identification tags
50 pcs wire rope segments
50 pcs wire rope sleeves
1 pce swaging tool
1 pce load chart
1 set punch numbers 0-9

Item no. 5090.05.00

Contents Type B:
100 pcs blank identification tags
100 pcs wire rope segments
100 pcs wire rope sleeves
1 pce swaging tool
1 pce load chart
1 set punch numbers 0-9

Item no. 5090.10.00

1 set punch numbers 0-9

Item no. 5090.03.00

STEEL WIRE ROPES

DIN Ropes	Pages 336-341
Special Wire Ropes	Pages 342-371
Forest Ropes	Page 372
Accessories	Pages 375-405, 423
Rope and Chain Lubricants	Pages 406-410
Cablegrips	Page 411-422

Carl Stahl®

Photo: Wolffkran Group

STEEL WIRE ROPES

Performance Overview and Standard Terms

Equipment and services

- Our warehouse constantly contains around 600 reels with special and stranded ropes in original manufacturer quality or high-quality CondorRope ropes in various diameters.
- Force pressing to Z 56/XL 76.
- Annealing and slicing machines for rope diameters 3-60 mm.
- Mobile rolling machines for rope diameters 2.5-28 mm.
- Casting platform with a height of 3 m. Casting possible up to a diameter of approx. 90 mm.
- Winding machines for winding wire ropes with a weight of up to 8 to.

CondorRope Diepa BRIDON WireCo WorldGroup CASAR A WireCo® WorldGroup Brand OLIVEIRA A WireCo® WorldGroup Brand drumet A WireCo® WorldGroup Brand

Important technical terms from standard DIN EN 12385

Abbreviations for core-types of parallel laid ropes and rotation-resistant ropes

Term	Abbrev.
Single layer ropes:	
Fibre core	FC
- Natural fibre core	NFC
- Synthetic fibre core	SFC
- Massive polymer core	SPC
Steel core	WC
- Wire strand core	WSC
- Independent wire rope core	IWRC
- Independent wire rope core, compacted, separately stranded	IWRC (K)
- Independent wire rope core, polymer-coated, separately stranded	EPIWRC
Parallel laid ropes:	
Wire rope core in parallel lay	PWRC
Wire rope core in parallel lay, compacted	PWRC (K)
Rotation-resistant ropes:	
Core element	
- Fibre core	FC
- Wire strand core	WSC
- Wire strand core, compacted	KWSC

Lay and lay direction

z	=	right hand lay
s	=	left hand lay
sZ	=	right hand ordinary lay
zS	=	left hand ordinary lay
zZ	=	right hand lang's lay
sS	=	left hand lang's lay
aZ	=	right hand alternate lay
aS	=	left hand alternate lay

Compacting

K	=	in front of rope or strand construction indicates a compacted strand or rope

Strand types

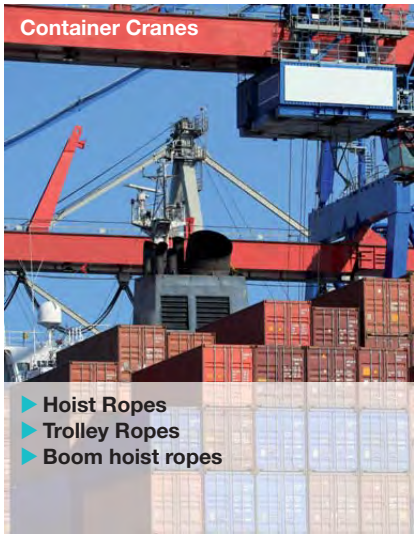
S	=	Seale
W	=	Warrington
F	=	Filler
WS	=	Warrington Seale
M	=	Cross lay
N	=	Compound lay

Special Wire Ropes for:

Harbor Cranes

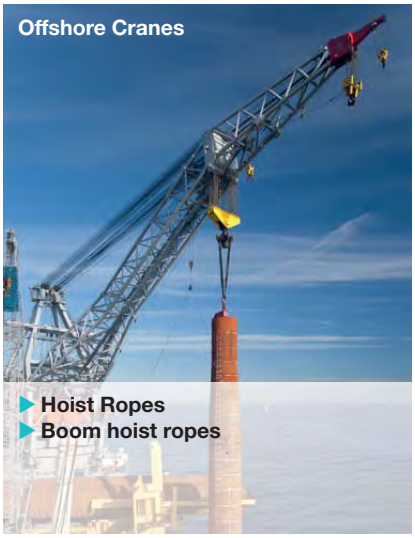
- Hoist Ropes
- Boom hoist ropes
- Bracing Ropes

Container Cranes



- Hoist Ropes
- Trolley Ropes
- Boom hoist ropes

Offshore Cranes



- Hoist Ropes
- Boom hoist ropes

Unloading cranes

- Hoist Ropes
- Boom hoist ropes
- Racking ropes
- Grab closing ropes

Foundry Cranes

- Hoist Ropes

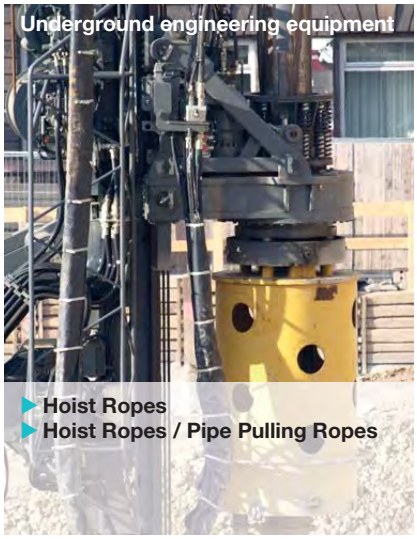
Gantry Cranes

- Hoist Ropes

Mobile Cranes

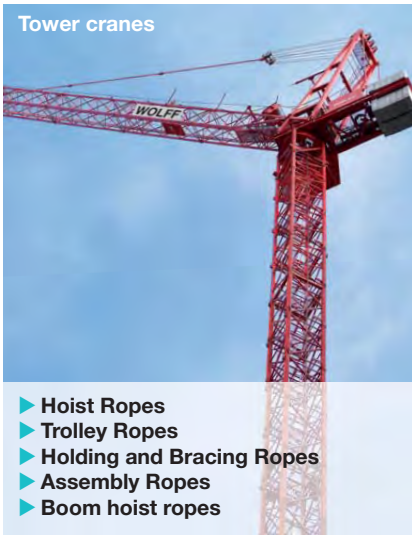
- Hoist Ropes
- Bracing Ropes
- Boom hoist ropes

Underground engineering equipment



- Hoist Ropes
- Hoist Ropes / Pipe Pulling Ropes

Tower cranes

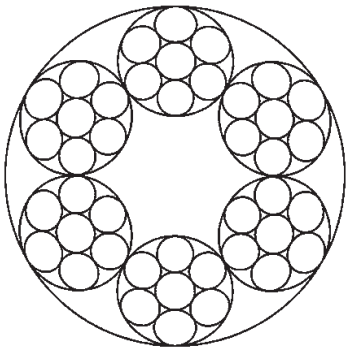


- Hoist Ropes
- Trolley Ropes
- Holding and Bracing Ropes
- Assembly Ropes
- Boom hoist ropes

STEEL WIRE ROPES

Stranded Ropes

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x7-FC



Rope class / Number of outer strands:
6x7 / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

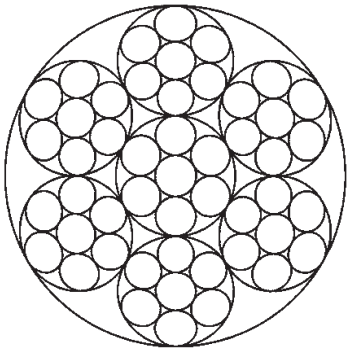
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
2	1.38	2.35	WR0000139B	2.60	WR0000323B
3	3.11	5.29	WR0000140B	5.86	WR0000324B
4	5.52	9.40	WR0000141B	10.40	WR0000325B
5	8.63	14.70	WR0000142B	16.30	WR0000326B
6	12.4	21.20	WR0000143B	23.40	WR0000327B
7	16.9	28.80	WR0000144B	31.90	WR0000328B
8	22.1	37.60	WR0000145B	41.60	WR0000329B
9	27.9	47.60	WR0000146B	52.70	WR0000330B
10	34.5	58.80	WR0000147B	65.10	WR0000331B
11	41.7	71.10	WR0000148B	78.70	WR0000332B
12	49.7	84.60	WR0000149B	93.70	WR0000333B
13	58.3	99.30	WR0000150B	110.00	WR0000334B
14	67.6	115.00	WR0000151B	128.00	WR0000335B
16	88.3	150.00	WR0000152B	167.00	WR0000336B
18	112	190.00	WR0000153B	211.00	WR0000337B
20	138	235.00	WR0000154B	260.00	WR0000338B
22	167	284.00	WR0000155B	315.00	WR0000339B
24	199	338.00	WR0000156B	375.00	WR0000340B
26	233	397.00	WR0000157B	440.00	WR0000341B
28	270	461.00	WR0000158B	510.00	WR0000342B
32	353	602.00	WR0000159B	666.00	WR0000343B
36	447	762.00	WR0000160B	843.00	WR0000344B

Other rope diameters available on request.

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x7-WSC



Rope class / Number of outer strands:
6x7 / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

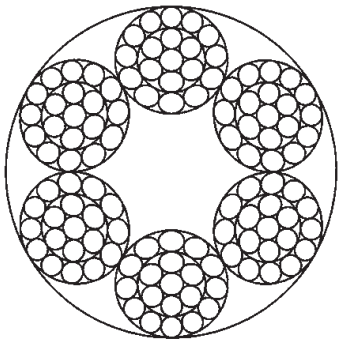
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
2	1.54	2.54	WR0000507B	2.81	WR0000691B
3	3.46	5.72	WR0000508B	6.33	WR0000692B
4	6.14	10.20	WR0000509B	11.30	WR0000693B
5	9.6	15.90	WR0000510B	17.60	WR0000694B
6	13.8	22.90	WR0000511B	25.30	WR0000695B
7	18.8	31.10	WR0000512B	34.50	WR0000696B
8	24.6	40.70	WR0000513B	45.00	WR0000697B
9	31.1	51.50	WR0000514B	57.00	WR0000698B
10	38.4	63.50	WR0000515B	70.40	WR0000699B
11	46.5	76.90	WR0000516B	85.10	WR0000700B
12	55.3	91.50	WR0000517B	101.00	WR0000701B
13	64.9	107.00	WR0000518B	119.00	WR0000702B
14	75.3	125.00	WR0000519B	138.00	WR0000703B
16	98.3	163.00	WR0000520B	180.00	WR0000704B
18	124	206.00	WR0000521B	228.00	WR0000705B
20	154	254.00	WR0000522B	281.00	WR0000706B
22	186	308.00	WR0000523B	341.00	WR0000707B
24	221	366.00	WR0000524B	405.00	WR0000708B
26	260	430.00	WR0000525B	476.00	WR0000709B
28	301	498.00	WR0000526B	552.00	WR0000710B
32	393	651.00	WR0000527B	721.00	WR0000711B
36	498	824.00	WR0000528B	912.00	WR0000712B

Other rope diameters available on request.

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x19M-FC



Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
3	3.11	4.89	WR0018905B	5.42	WR0018945B
4	5.54	8.69	WR0018906B	9.63	WR0018946B
5	8.65	13.60	WR0018907B	15.00	WR0018947B
6	12.5	19.60	WR0018908B	21.70	WR0018948B
7	17	26.60	WR0018909B	29.50	WR0018949B

Rope class / Number of outer strands:
6x19M / 6

Surface available in:
U (ungalvanised) / B (galvanised)

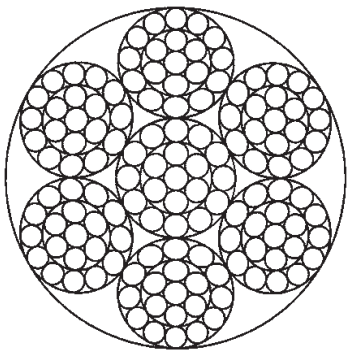
Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x19M-WSC



Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
3	3.43	5.77	WR0018985B	6.39	WR0019025B
4	6.1	10.30	WR0018986B	11.40	WR0019026B
5	9.53	16.00	WR0018987B	17.70	WR0019027B
6	13.7	23.10	WR0018988B	25.50	WR0019028B
7	18.7	31.40	WR0018989B	34.80	WR0019029B

Rope class / Number of outer strands:
6x19M / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

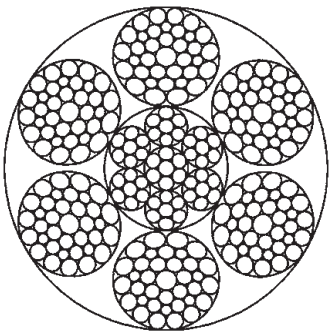
Swivel:
not allowed

Plastic inlay:
no

STEEL WIRE ROPES

Stranded Ropes

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x36WS-IWRC



Rope class / Number of outer strands:
6x36 / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

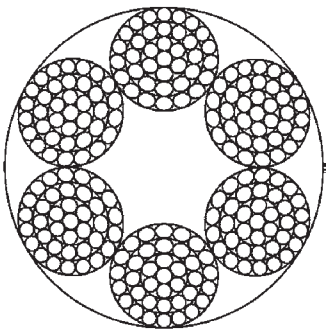
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26.2	40.30	WR0015047B	44.70	WR0015223B	49.20	WR0015399B
9	33.1	51.00	WR0015048B	56.50	WR0015224B	62.30	WR0015400B
10	40.9	63.00	WR0015049B	69.80	WR0015225B	76.90	WR0015401B
11	49.5	76.20	WR0015050B	84.40	WR0015226B	93.00	WR0015402B
12	58.9	90.70	WR0015051B	100.00	WR0015227B	111.00	WR0015403B
13	69.1	106.00	WR0015052B	118.00	WR0015228B	130.00	WR0015404B
14	80.2	124.00	WR0015053B	137.00	WR0015229B	151.00	WR0015405B
16	105	161.00	WR0015054B	179.00	WR0015230B	197.00	WR0015406B
18	133	204.00	WR0015055B	226.00	WR0015231B	249.00	WR0015407B
20	164	252.00	WR0015056B	279.00	WR0015232B	308.00	WR0015408B
22	198	305.00	WR0015057B	338.00	WR0015233B	372.00	WR0015409B
24	236	363.00	WR0015058B	402.00	WR0015234B	443.00	WR0015410B
26	276	426.00	WR0015059B	472.00	WR0015235B	520.00	WR0015411B
28	321	494.00	WR0015060B	547.00	WR0015236B	603.00	WR0015412B
32	419	645.00	WR0015061B	715.00	WR0015237B	787.00	WR0015413B
36	530	817.00	WR0015062B	904.00	WR0015238B	997.00	WR0015414B
40	654	1,010.00	WR0015063B	1,120.00	WR0015239B	1,230.00	WR0015415B
44	792	1,220.00	WR0015064B	1,350.00	WR0015240B	1,490.00	WR0015416B
48	942	1,450.00	WR0015065B	1,610.00	WR0015241B	1,770.00	WR0015417B
52	1,110.00	1,700.00	WR0015066B	1,890.00	WR0015242B	2,080.00	WR0015418B
56	1,280.00	1,980.00	WR0015067B	2,190.00	WR0015243B	2,410.00	WR0015419B
60	1,470.00	2,270.00	WR0015068B	2,510.00	WR0015244B	2,770.00	WR0015420B

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x37M-FC



Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
5	8.65	13.10	WR0019163B	14.50	WR0019227B
6	12.5	18.80	WR0019164B	20.80	WR0019228B
7	17	25.60	WR0019165B	28.30	WR0019229B
8	22.1	33.40	WR0019166B	37.00	WR0019230B
9	28	42.30	WR0019167B	46.80	WR0019231B
10	34.6	52.20	WR0019168B	57.80	WR0019232B
11	41.9	63.20	WR0019169B	70.00	WR0019233B
12	49.8	75.20	WR0019170B	83.30	WR0019234B

Rope class / Number of outer strands:
6x37M / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

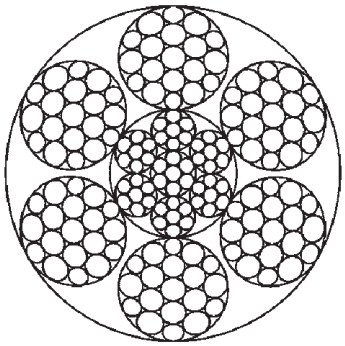
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

STEEL WIRE ROPES
Stranded Ropes

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x19W-IWRC



Rope class / Number of outer strands:
6x19 / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

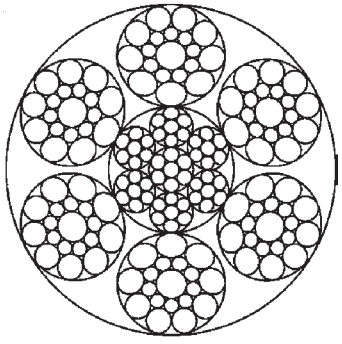
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	14.4	22.70	WR0005067B	25.10	WR0005259B	27.70	WR0005451B
7	19.6	30.90	WR0005068B	34.20	WR0005260B	37.70	WR0005452B
8	25.6	40.30	WR0005069B	44.70	WR0005261B	49.20	WR0005453B
9	32.4	51.00	WR0005070B	56.50	WR0005262B	62.30	WR0005454B
10	40	63.00	WR0005071B	69.80	WR0005263B	76.90	WR0005455B
11	48.4	76.20	WR0005072B	84.40	WR0005264B	93.00	WR0005456B
12	57.6	90.70	WR0005073B	100.00	WR0005265B	111.00	WR0005457B
13	67.6	106.00	WR0005074B	118.00	WR0005266B	130.00	WR0005458B
14	78.4	124.00	WR0005075B	137.00	WR0005267B	151.00	WR0005459B
16	102	161.00	WR0005076B	179.00	WR0005268B	197.00	WR0005460B
18	130	204.00	WR0005077B	226.00	WR0005269B	249.00	WR0005461B
20	160	252.00	WR0005078B	279.00	WR0005270B	308.00	WR0005462B
22	194	305.00	WR0005079B	338.00	WR0005271B	372.00	WR0005463B
24	230	363.00	WR0005080B	402.00	WR0005272B	443.00	WR0005464B
26	270	426.00	WR0005081B	472.00	WR0005273B	520.00	WR0005465B
28	314	494.00	WR0005082B	547.00	WR0005274B	603.00	WR0005466B
32	410	645.00	WR0005083B	715.00	WR0005275B	787.00	WR0005467B
36	518	817.00	WR0005084B	904.00	WR0005276B	997.00	WR0005468B
40	640	1,010.00	WR0005085B	1,120.00	WR0005277B	1,230.00	WR0005469B
44	774	1,220.00	WR0005086B	1,350.00	WR0005278B	1,490.00	WR0005470B
48	922	1,450.00	WR0005087B	1,610.00	WR0005279B	1,770.00	WR0005471B
52	1,080.00	1,700.00	WR0005088B	1,890.00	WR0005280B	2,080.00	WR0005472B
56	1,250.00	1,980.00	WR0005089B	2,190.00	WR0005281B	2,410.00	WR0005473B

Other rope diameters available on request.

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 6x19S-IWRC



Rope class / Number of outer strands:
6x19 / 6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

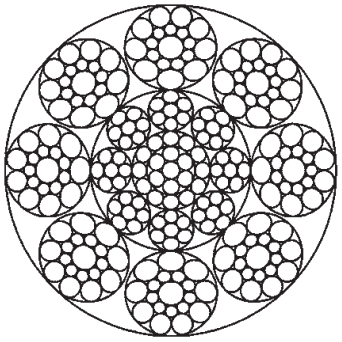
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	14.4	22.70	WR0002001B	25.10	WR0002193B	27.70	WR0002385B
7	19.6	30.90	WR0002002B	34.20	WR0002194B	37.70	WR0002386B
8	25.6	40.30	WR0002003B	44.70	WR0002195B	49.20	WR0002387B
9	32.4	51.00	WR0002004B	56.50	WR0002196B	62.30	WR0002388B
10	40	63.00	WR0002005B	69.80	WR0002197B	76.90	WR0002389B
11	48.4	76.20	WR0002006B	84.40	WR0002198B	93.00	WR0002390B
12	57.6	90.70	WR0002007B	100.00	WR0002199B	111.00	WR0002391B
13	67.6	106.00	WR0002008B	118.00	WR0002200B	130.00	WR0002392B
14	78.4	124.00	WR0002009B	137.00	WR0002201B	151.00	WR0002393B
16	102	161.00	WR0002010B	179.00	WR0002202B	197.00	WR0002394B
18	130	204.00	WR0002011B	226.00	WR0002203B	249.00	WR0002395B
20	160	252.00	WR0002012B	279.00	WR0002204B	308.00	WR0002396B
22	194	305.00	WR0002013B	338.00	WR0002205B	372.00	WR0002397B
24	230	363.00	WR0002014B	402.00	WR0002206B	443.00	WR0002398B
26	270	426.00	WR0002015B	472.00	WR0002207B	520.00	WR0002399B
28	314	494.00	WR0002016B	547.00	WR0002208B	603.00	WR0002400B
32	410	645.00	WR0002017B	715.00	WR0002209B	787.00	WR0002401B
36	518	817.00	WR0002018B	904.00	WR0002210B	997.00	WR0002402B
40	640	1,010.00	WR0002019B	1,120.00	WR0002211B	1,230.00	WR0002403B
44	774	1,220.00	WR0002020B	1,350.00	WR0002212B	1,490.00	WR0002404B
48	922	1,450.00	WR0002021B	1,610.00	WR0002213B	1,770.00	WR0002405B
52	1,080.00	1,700.00	WR0002022B	1,890.00	WR0002214B	2,080.00	WR0002406B
56	1,250.00	1,980.00	WR0002023B	2,190.00	WR0002215B	2,410.00	WR0002407B

Other rope diameters available on request.

STEEL WIRE ROPES

Stranded Ropes

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 8x19S-IWRC



Rope class / Number of outer strands:
8x19 / 8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

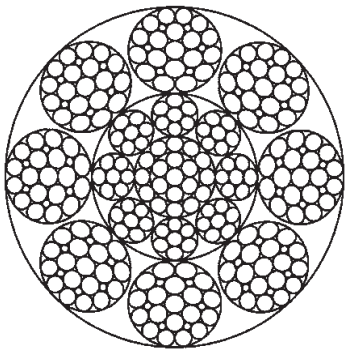
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26	40.30	WR0008007B	44.70	WR0008183B	49.20	WR0008359B
9	33	51.00	WR0008008B	56.50	WR0008184B	62.30	WR0008360B
10	40.7	63.00	WR0008009B	69.80	WR0008185B	76.90	WR0008361B
11	49.2	76.20	WR0008010B	84.40	WR0008186B	93.00	WR0008362B
12	58.6	90.70	WR0008011B	100.00	WR0008187B	111.00	WR0008363B
13	68.8	106.00	WR0008012B	118.00	WR0008188B	130.00	WR0008364B
14	79.8	124.00	WR0008013B	137.00	WR0008189B	151.00	WR0008365B
16	104	161.00	WR0008014B	179.00	WR0008190B	197.00	WR0008366B
18	132	204.00	WR0008015B	226.00	WR0008191B	249.00	WR0008367B
20	163	252.00	WR0008016B	279.00	WR0008192B	308.00	WR0008368B
22	197	305.00	WR0008017B	338.00	WR0008193B	372.00	WR0008369B
24	234	363.00	WR0008018B	402.00	WR0008194B	443.00	WR0008370B
26	275	426.00	WR0008019B	472.00	WR0008195B	520.00	WR0008371B
28	319	494.00	WR0008020B	547.00	WR0008196B	603.00	WR0008372B
32	417	645.00	WR0008021B	715.00	WR0008197B	787.00	WR0008373B
36	527	817.00	WR0008022B	904.00	WR0008198B	997.00	WR0008374B
40	651	1.010.00	WR0008023B	1,120.00	WR0008199B	1,230.00	WR0008375B
44	788	1,220.00	WR0008024B	1,350.00	WR0008200B	1,490.00	WR0008376B
48	938	1,450.00	WR0008025B	1,610.00	WR0008201B	1,770.00	WR0008377B
52	1,100.00	1,700.00	WR0008026B	1,890.00	WR0008202B	2,080.00	WR0008378B
56	1,280.00	1,980.00	WR0008027B	2,190.00	WR0008203B	2,410.00	WR0008379B
60	1,470.00	2,270.00	WR0008028B	2,510.00	WR0008204B	2,770.00	WR0008380B

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 8x25F-IWRC



Rope class / Number of outer strands:
8x19 / 8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

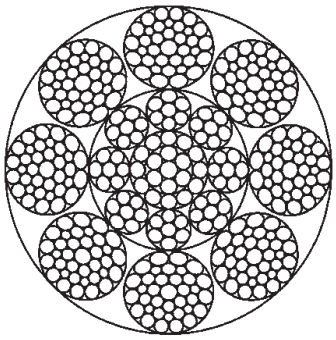
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26	40.30	WR0009415B	44.70	WR0009591B	49.20	WR0009767B
9	33	51.00	WR0009416B	56.50	WR0009592B	62.30	WR0009768B
10	40.7	63.00	WR0009417B	69.80	WR0009593B	76.90	WR0009769B
11	49.2	76.20	WR0009418B	84.40	WR0009594B	93.00	WR0009770B
12	58.6	90.70	WR0009419B	100.00	WR0009595B	111.00	WR0009771B
13	68.8	106.00	WR0009420B	118.00	WR0009596B	130.00	WR0009772B
14	79.8	124.00	WR0009421B	137.00	WR0009597B	151.00	WR0009773B
16	104	161.00	WR0009422B	179.00	WR0009598B	197.00	WR0009774B
18	132	204.00	WR0009423B	226.00	WR0009599B	249.00	WR0009775B
20	163	252.00	WR0009424B	279.00	WR0009600B	308.00	WR0009776B
22	197	305.00	WR0009425B	338.00	WR0009601B	372.00	WR0009777B
24	234	363.00	WR0009426B	402.00	WR0009602B	443.00	WR0009778B
26	275	426.00	WR0009427B	472.00	WR0009603B	520.00	WR0009779B
28	319	494.00	WR0009428B	547.00	WR0009604B	603.00	WR0009780B
32	417	645.00	WR0009429B	715.00	WR0009605B	787.00	WR0009781B
36	527	817.00	WR0009430B	904.00	WR0009606B	997.00	WR0009782B
40	651	1,010.00	WR0009431B	1,120.00	WR0009607B	1,230.00	WR0009783B
44	788	1,220.00	WR0009432B	1,350.00	WR0009608B	1,490.00	WR0009784B
48	938	1,450.00	WR0009433B	1,610.00	WR0009609B	1,770.00	WR0009785B
52	1.100.00	1,700.00	WR0009434B	1,890.00	WR0009610B	2,080.00	WR0009786B
56	1.280.00	1,980.00	WR0009435B	2,190.00	WR0009611B	2,410.00	WR0009787B
60	1.470.00	2,270.00	WR0009436B	2,510.00	WR0009612B	2,770.00	WR0009788B

STEEL WIRE ROPES
Stranded Ropes

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 8x36WS-IWRC



Rope class / Number of outer strands:
8x36 / 8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

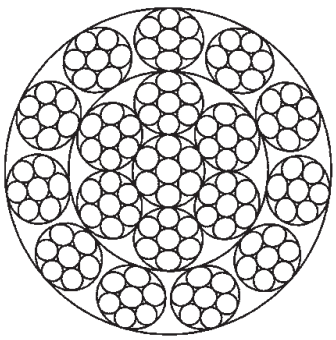
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26.7	40.30	WR0017863B	44.70	WR0018039B	49.20	WR0018215B
9	33.8	51.00	WR0017864B	56.50	WR0018040B	62.30	WR0018216B
10	41.7	63.00	WR0017865B	69.80	WR0018041B	76.90	WR0018217B
11	50.5	76.20	WR0017866B	84.40	WR0018042B	93.00	WR0018218B
12	60	90.70	WR0017867B	100.00	WR0018043B	111.00	WR0018219B
13	70.5	106.00	WR0017868B	118.00	WR0018044B	130.00	WR0018220B
14	81.7	124.00	WR0017869B	137.00	WR0018045B	151.00	WR0018221B
16	107	151.00	WR0017870B	179.00	WR0018046B	197.00	WR0018222B
18	135	204.00	WR0017871B	226.00	WR0018047B	249.00	WR0018223B
20	167	252.00	WR0017872B	279.00	WR0018048B	308.00	WR0018224B
22	202	305.00	WR0017873B	338.00	WR0018049B	372.00	WR0018225B
24	240	363.00	WR0017874B	402.00	WR0018050B	443.00	WR0018226B
26	282	426.00	WR0017875B	472.00	WR0018051B	520.00	WR0018227B
28	327	494.00	WR0017876B	547.00	WR0018052B	603.00	WR0018228B
32	427	645.00	WR0017877B	715.00	WR0018053B	787.00	WR0018229B
36	540	817.00	WR0017878B	904.00	WR0018054B	997.00	WR0018230B
40	667	1,010.00	WR0017879B	1,120.00	WR0018055B	1,230.00	WR0018231B
44	807	1,220.00	WR0017880B	1,350.00	WR0018056B	1,490.00	WR0018232B
48	961	1,450.00	WR0017881B	1,610.00	WR0018057B	1,770.00	WR0018233B
52	1,130.00	1,700.00	WR0017882B	1,890.00	WR0018058B	2,080.00	WR0018234B
56	1,310.00	1,980.00	WR0017883B	2,190.00	WR0018059B	2,410.00	WR0018235B
60	1,500.00	2,270.00	WR0017884B	2,510.00	WR0018060B	2,770.00	WR0018236B

Rope Type: Stranded Rope acc. to EN 12385-4
Rope Construction: 17x7-WSC



Rope class / Number of outer strands:
18x7 / 11

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
rotation-resistant

Swivel:
not allowed

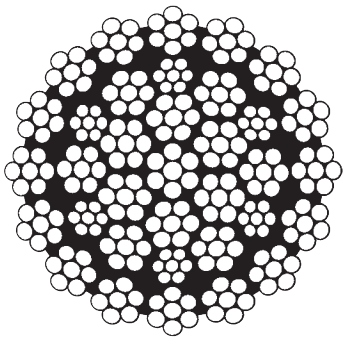
Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	13.8	20.90	WR0019851B	23.10	WR0019979B
7	18.7	28.40	WR0019852B	31.50	WR0019980B
8	24.4	37.20	WR0019853B	41.10	WR0019981B
9	30.9	47.00	WR0019854B	52.10	WR0019982B
10	38.2	58.10	WR0019855B	64.30	WR0019983B
11	46.2	70.20	WR0019856B	77.80	WR0019984B
12	55	83.60	WR0019857B	92.60	WR0019985B
13	64.6	98.10	WR0019858B	109.00	WR0019986B
14	74.9	114.00	WR0019859B	126.00	WR0019987B
16	97.8	149.00	WR0019860B	165.00	WR0019988B
18	124	188.00	WR0019861B	208.00	WR0019989B
20	153	232.00	WR0019862B	257.00	WR0019990B
22	185	281.00	WR0019863B	311.00	WR0019991B
24	220	334.00	WR0019864B	370.00	WR0019992B
26	258	392.00	WR0019865B	435.00	WR0019993B
28	299	455.00	WR0019866B	504.00	WR0019994B

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Starlift



Number of outer strands:
16

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
non-rotating

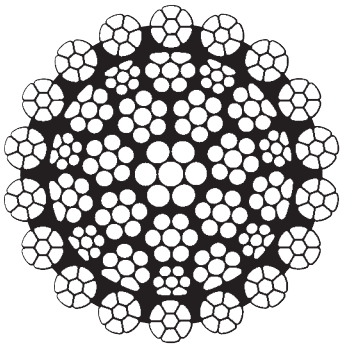
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
7	22.5	34.1	SR0002723	37.8	SR0003091
8	29.5	44.5	SR0002724	49.3	SR0003092
9	36.7	55.4	SR0002725	61.3	SR0003093
10	46.5	69.2	SR0002726	76.6	SR0003094
11	56	83.1	SR0002727	92.1	SR0003095
12	66.5	99.9	SR0002728	110.7	SR0003096
13	78.2	117.3	SR0002730	129.8	SR0003098
14	90.4	135.9	SR0002731	150.5	SR0003099
15	104.4	156.3	SR0002732	173.0	SR0003100
16	119.1	178.1	SR0002733	197.2	SR0003101
17	133	200.1	SR0002734	221.6	SR0003102
18	149	222.6	SR0002735	246.5	SR0003103
19	167.9	250.9	SR0002736	277.8	SR0003104
20	184.5	277.7	SR0002737	307.5	SR0003105
21	204	306.3	SR0002738	339.2	SR0003106
22	225	337.0	SR0002739	373.2	SR0003107
23	244.1	366.5	SR0002740	405.9	SR0003108
24	266.4	400.5	SR0002741	443.5	SR0003109
25	287.9	431.9	SR0002742	478.3	SR0003110
26	312.3	469.2	SR0002743	519.5	SR0003111
27	335.6	508.3	SR0002744	562.9	SR0003112
28	361.9	548.8	SR0002745	607.7	SR0003113

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Eurolift



Number of outer strands:
18

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

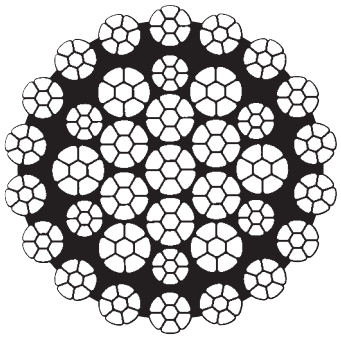
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	48.9	89.6	SR0001880	97.4	SR0002176
11	59.7	108.8	SR0001881	118.4	SR0002177
12	71.3	130.8	SR0001882	139.9	SR0002178
13	82.8	152.7	SR0001884	165.4	SR0002180
14	96.1	179.1	SR0001885	190.9	SR0002181
15	109.9	204.0	SR0001886	219.5	SR0002182
16	126.7	230.6	SR0001887	249.1	SR0002183
17	142.1	257.9	SR0001888	280.6	SR0002184
18	159.8	293.9	SR0001889	317.5	SR0002185
19	177.5	329.0	SR0001890	352.8	SR0002186
20	197.9	362.2	SR0001891	391.7	SR0002187
21	216.6	396.1	SR0001892	430.9	SR0002188
22	238.3	441.4	SR0001893	472.0	SR0002189
23	260.6	471.8	SR0001894	513.2	SR0002190
24	284.3	524.3	SR0001895	564.1	SR0002191
25	303.5	567.9	SR0001896	609.4	SR0002192
26	328.8	614.9	SR0001897	657.4	SR0002193
27	357.1	654.2	SR0001898	711.7	SR0002194
28	385	712.9	SR0001899	765.6	SR0002195
29	411.8	754.6	SR0001900	821.0	SR0002196
30	439.7	817.4	SR0001901	877.9	SR0002197
32	504	930.0	SR0001902	1,002.8	SR0002198
34	567.3	1,045.0	SR0001903	1,130.9	SR0002199
36	640	1,185.0	SR0001904	1,262.3	SR0002200

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Powerplast



Number of outer strands:
18

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
non-rotating

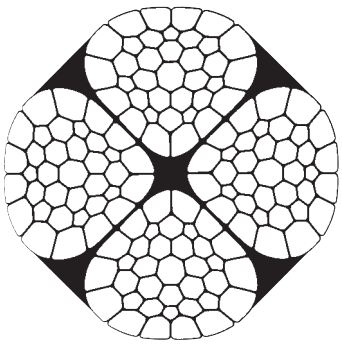
Swivel:
allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
12	72	130.8	SR0002544
13	85.6	152.7	SR0002545
14	98.3	179.1	SR0002546
15	112.3	204.0	SR0002547
16	129.4	230.6	SR0002548
18	164.3	293.9	SR0002549
19	182.4	329.0	SR0002550
20	200.4	362.2	SR0002551
22	243	441.4	SR0002552
24	287.2	524.3	SR0002553
25	315.3	567.9	SR0002554
26	342.5	614.9	SR0002555
28	393	712.9	SR0002556
30	452.7	817.4	SR0002557
32	514.7	930.0	SR0002558
34	578.1	1,045.0	SR0002559
36	650	1,185.0	SR0002560
38	727.3	1,319.0	SR0002561
40	815.4	1,462.0	SR0002562
42	891.8	1,611.2	SR0002563
44	974.6	1,767.0	SR0002564
46	1,074.10	1,935.0	SR0002565
48	1,164.90	2,113.3	SR0002566

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Quadrolift



Number of outer strands:
4

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

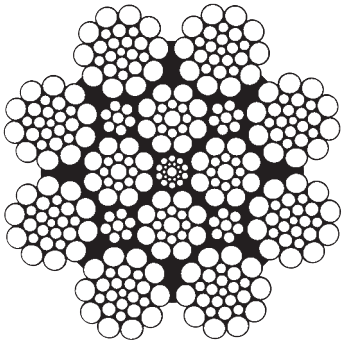
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
6	15.3	31.9	SR0004798	34.4	SR0004922
7	21.2	43.5	SR0004799	46.8	SR0004923
8	27.6	56.1	SR0004800	60.4	SR0004924
9	35.1	71.3	SR0004801	76.7	SR0004925
10	42.6	87.9	SR0004802	94.6	SR0004926
11	51.9	106.7	SR0004803	114.8	SR0004927
12	63.1	127.1	SR0004804	136.7	SR0004928
13	72.8	149.0	SR0004806	160.3	SR0004930
14	85.4	173.0	SR0004807	186.2	SR0004931
15	97.5	198.4	SR0004808	213.4	SR0004932
16	110.5	228.4	SR0004809	245.7	SR0004933
17	126.4	254.2	SR0004810	273.5	SR0004934
18	139.5	286.6	SR0004811	308.4	SR0004935
19	156.2	320.4	SR0004812	344.7	SR0004936
20	172.9	351.8	SR0004813	378.5	SR0004937
21	189.8	386.2	SR0004814	415.5	SR0004938
22	207.7	424.6	SR0004815	456.8	SR0004939
23	230.5	470.0	SR0004816	505.7	SR0004940
24	248.3	512.7	SR0004817	551.6	SR0004941
25	271.1	548.9	SR0004818	590.5	SR0004942
26	293.6	601.1	SR0004819	646.7	SR0004943
27	315.7	649.2	SR0004820	698.4	SR0004944
28	339.1	689.7	SR0004821	742.0	SR0004945

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Alphalift



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

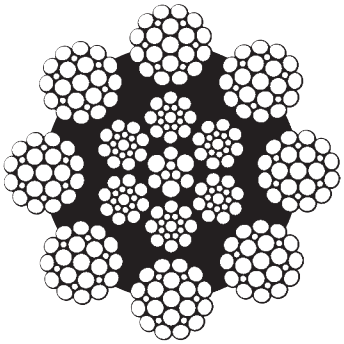
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	6.8	13.0	SR0003491	14.3	SR0003615
4.5	8.6	16.7	SR0003492	18.4	SR0003616
5	10.6	21.1	SR0003493	23.2	SR0003617
5.5	12.8	26.1	SR0003494	28.8	SR0003618
6	15.7	31.5	SR0003495	34.7	SR0003619
6.5	19.2	37.9	SR0003496	41.8	SR0003620
7	21.4	42.6	SR0003497	47.0	SR0003621
7.5	24.5	49.6	SR0003498	54.6	SR0003622
8	28.4	55.0	SR0003499	60.6	SR0003623
8.5	31.9	58.7	SR0003500	64.6	SR0003624
9	35.6	72.0	SR0003501	79.3	SR0003625
10	43.2	87.3	SR0003502	92.5	SR0003626
11	52.2	107.2	SR0003503	117.0	SR0003627
12	62.2	126.3	SR0003504	137.8	SR0003628
13	72.9	146.6	SR0003506	159.9	SR0003630
14	84.6	168.7	SR0003507	184.1	SR0003631
15	97.1	197.0	SR0003508	214.9	SR0003632
16	110.5	222.5	SR0003509	242.8	SR0003633
17	124.7	250.3	SR0003510	273.1	SR0003634
18	139.8	282.8	SR0003511	308.5	SR0003635
19	155.8	319.9	SR0003512	349.0	SR0003636
20	172.7	352.0	SR0003513	384.0	SR0003637
21	190.4	391.6	SR0003514	427.2	SR0003638

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Stratoplast



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

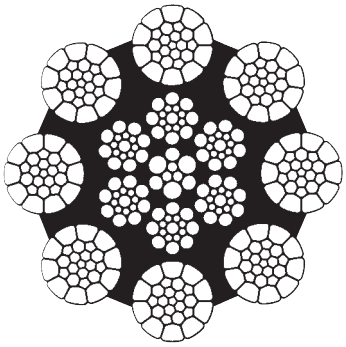
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	27.3	47.2	SR0005831	52.3	SR0006215
9	34.5	60.0	SR0005832	66.4	SR0006216
10	43.4	74.0	SR0005833	82.0	SR0006217
11	53	88.5	SR0005834	98.0	SR0006218
12	60.8	106.6	SR0005835	118.0	SR0006219
13	72.7	125.5	SR0005837	138.9	SR0006221
14	84.6	144.6	SR0005838	160.1	SR0006222
15	98.6	166.3	SR0005839	184.1	SR0006223
16	111.6	189.0	SR0005840	209.3	SR0006224
17	124.8	211.5	SR0005841	234.2	SR0006225
18	140.4	239.8	SR0005842	265.5	SR0006226
19	159	264.5	SR0005843	292.9	SR0006227
20	176.4	295.3	SR0005844	327.0	SR0006228
21	193.2	324.2	SR0005845	359.0	SR0006229
22	218.4	356.2	SR0005846	394.5	SR0006230
23	229.7	386.8	SR0005847	428.3	SR0006231
24	249.2	423.4	SR0005848	468.9	SR0006232
25	268.8	464.3	SR0005849	514.2	SR0006233
26	290.8	504.7	SR0005850	558.8	SR0006234
27	314.3	535.8	SR0005851	593.3	SR0006235
28	333.9	576.2	SR0005852	638.0	SR0006236
29	362.9	618.0	SR0005853	684.3	SR0006237

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Turboplast



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

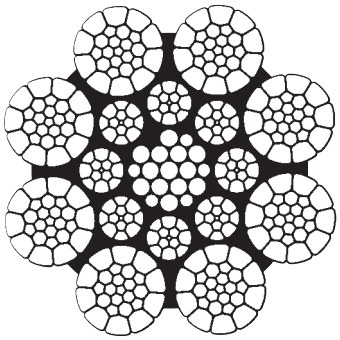
Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
8	29	56.6	SR0008822
9	37.2	73.0	SR0008823
10	46.1	88.7	SR0008824
11	55.5	107.5	SR0008825
12	65.8	127.4	SR0008826
13	77.8	151.3	SR0008828
14	89.7	174.8	SR0008829
15	103.5	202.7	SR0008830
16	117.9	229.4	SR0008831
17	132.6	255.4	SR0008832
18	146.9	288.2	SR0008833
19	164.4	323.5	SR0008834
20	183.3	355.5	SR0008835
21	197.4	388.5	SR0008836
22	219.1	433.7	SR0008837
23	239.3	471.4	SR0008838
24	260.6	514.3	SR0008839
25	282	558.2	SR0008840
26	306.6	607.8	SR0008841
27	330.9	647.7	SR0008842
28	352.5	697.3	SR0008843
29	379.3	736.9	SR0008844
30	409.6	789.3	SR0008845

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Paraplast



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

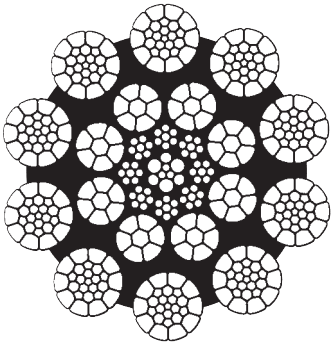
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
10	46.1	93.5	SR0004093	100.7	SR0004405
11	55.9	113.4	SR0004094	122.1	SR0004406
12	67.6	137.2	SR0004095	147.8	SR0004407
13	78.7	159.7	SR0004097	172.0	SR0004409
14	91.1	184.8	SR0004098	199.0	SR0004410
15	104.6	212.3	SR0004099	228.6	SR0004411
16	118.5	240.4	SR0004100	258.9	SR0004412
17	134.7	273.3	SR0004101	294.4	SR0004413
18	150	304.3	SR0004102	327.7	SR0004414
19	168.8	342.0	SR0004103	368.4	SR0004415
20	187.1	379.7	SR0004104	408.9	SR0004416
21	204.3	414.7	SR0004105	446.6	SR0004417
22	225.1	456.8	SR0004106	491.9	SR0004418
23	254.8	517.1	SR0004107	556.9	SR0004419
24	276.9	561.8	SR0004108	605.0	SR0004420
25	300.1	609.0	SR0004109	655.9	SR0004421
26	326.3	662.2	SR0004110	713.1	SR0004422
27	350.4	711.0	SR0004111	765.8	SR0004423
28	374.8	760.6	SR0004112	819.1	SR0004424
29	404.3	820.3	SR0004113	883.5	SR0004425

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Superplast 8



Number of outer strands:
10

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

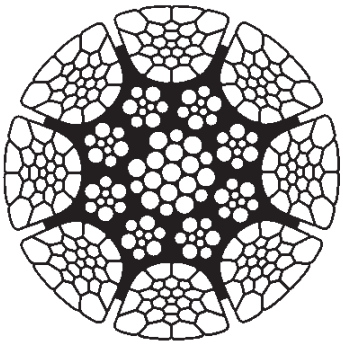
Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	46.9	90.9	SR0007694	99.6	SR0008070
11	56.7	108.9	SR0007695	119.3	SR0008071
12	66.2	127.2	SR0007696	139.4	SR0008072
13	78.2	151.8	SR0007698	166.2	SR0008074
14	89.3	173.8	SR0007699	190.4	SR0008075
15	103	199.8	SR0007700	218.9	SR0008076
16	117.8	226.5	SR0007701	248.1	SR0008077
17	134.7	260.0	SR0007702	284.8	SR0008078
18	151.4	292.8	SR0007703	320.8	SR0008079
19	166.8	320.4	SR0007704	351.0	SR0008080
20	185.3	358.2	SR0007705	394.8	SR0008081
21	204.4	396.8	SR0007706	434.7	SR0008082
22	223.6	432.2	SR0007707	473.5	SR0008083
23	246.3	473.0	SR0007708	518.2	SR0008084
24	268.5	517.4	SR0007709	566.9	SR0008085
25	289.4	559.6	SR0007710	613.4	SR0008086
26	312.8	604.9	SR0007711	662.7	SR0008087
27	336	646.8	SR0007712	708.6	SR0008088
28	361.4	698.9	SR0007713	762.0	SR0008089
29	383.4	737.8	SR0007714	808.3	SR0008090
30	413.2	796.8	SR0007715	872.9	SR0008091
31	438	846.7	SR0007716	927.5	SR0008092
32	481.8	925.9	SR0007717	1,014.3	SR0008093
33	503.2	968.4	SR0007718	1,060.9	SR0008094

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Parafit



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

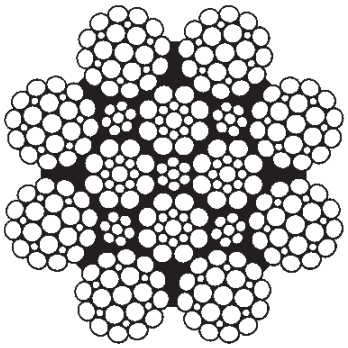
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
10	48.5	97.3	SR0010593	106.0	SR0010725
11	60.6	121.5	SR0010594	132.4	SR0010726
12	70.3	141.0	SR0010595	153.6	SR0010727
13	83.2	166.9	SR0010596	181.8	SR0010728
14	97.6	195.8	SR0010597	213.4	SR0010729
15	111.2	223.2	SR0010598	243.1	SR0010730
16	127.1	255.1	SR0010599	277.9	SR0010731
17	145.4	291.8	SR0010600	317.8	SR0010732
18	160.8	322.7	SR0010601	351.5	SR0010733
19	181.6	364.4	SR0010602	397.0	SR0010734
20	198.6	398.5	SR0010603	434.1	SR0010735
21	218.1	437.5	SR0010604	476.5	SR0010736
22	241.8	485.2	SR0010605	528.5	SR0010737
23	263.3	528.3	SR0010606	575.5	SR0010738
24	287.2	576.1	SR0010607	627.6	SR0010739
25	311.2	624.4	SR0010608	680.2	SR0010740
26	334.8	671.7	SR0010609	731.7	SR0010741
27	362.5	727.2	SR0010610	792.2	SR0010742
28	390.2	782.8	SR0010611	852.7	SR0010743
29	417.7	838.0	SR0010612	912.9	SR0010744
30	449.7	902.2	SR0010613	982.9	SR0010745
32	507.9	1,018.9	SR0010614	1,110.0	SR0010746

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Stratolift



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

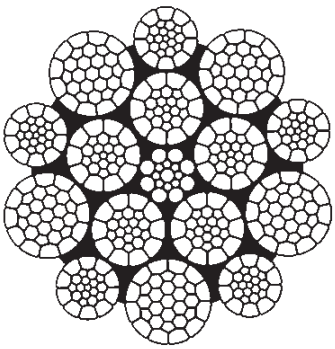
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
29	377	666.4	SR0005112	738.0	SR0005480
30	402	711.9	SR0005113	788.4	SR0005481
31	428	756.5	SR0005114	837.7	SR0005482
32	455	805.5	SR0005115	892.0	SR0005483
33	482	853.2	SR0005116	944.8	SR0005484
34	509	901.1	SR0005117	997.9	SR0005485
35	578	1,022.3	SR0005118	1,132.0	SR0005486
36	649	1,149.0	SR0005119	1,272.3	SR0005487
38	715	1,265.3	SR0005120	1,401.1	SR0005488
40	792	1,401.2	SR0005121	1,551.6	SR0005489
42	866	1,533.0	SR0005122	1,697.6	SR0005490
44	948	1,677.8	SR0005123	1,857.9	SR0005491
46	1.033	1,827.7	SR0005124	2,023.9	SR0005492
48	1.115	1,972.8	SR0005125	2,184.5	SR0005493
50	1.206	2,127.9	SR0005126	2,356.3	SR0005494
52	1.293	2,302.8	SR0005127	2,550.0	SR0005495
54	1.400	2,475.7	SR0005128	2,741.5	SR0005496
56	1.502	2,653.7	SR0005129	2,938.5	SR0005497
58	1.607	2,813.5	SR0005130	3,115.5	SR0005498
60	1.716	3,028.9	SR0005131	3,354.0	SR0005499
62	1.828	3,074.6	SR0005132	3,404.7	SR0005500
64	1.944	3,266.7	SR0005133	3,617.3	SR0005501
66	2.064	3,488.7	SR0005134	3,863.2	SR0005502

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Superlift



Number of outer strands:
10

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

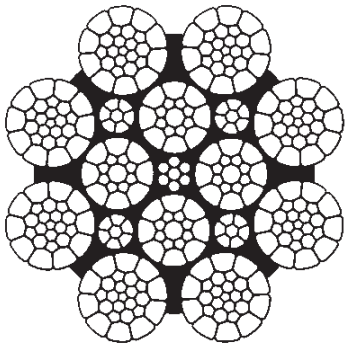
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
28	394.3	768.4	SR0006911	846.8	SR0007151
29	422.9	826.5	SR0006912	910.8	SR0007152
30	452.6	876.5	SR0006913	966.0	SR0007153
31	483.3	943.1	SR0006914	1,039.3	SR0007154
32	515	1,001.8	SR0006915	1,104.1	SR0007155
33	547.6	1,064.4	SR0006916	1,173.0	SR0007156
34	581.3	1,127.9	SR0006917	1,234.0	SR0007157
36	651.7	1,267.2	SR0006918	1,396.5	SR0007158
38	726.1	1,411.3	SR0006919	1,555.3	SR0007159
40	804.6	1,577.1	SR0006920	1,738.0	SR0007160
42	887.1	1,720.5	SR0006921	1,896.0	SR0007161
44	973.5	1,889.9	SR0006922	2,082.7	SR0007162
46	1,064.00	2,074.1	SR0006923	2,285.8	SR0007163
48	1,158.60	2,264.6	SR0006924	2,495.7	SR0007164
50	1,257.20	2,438.5	SR0006925	2,687.3	SR0007165
52	1,359.70	2,658.9	SR0006926	2,930.3	SR0007166
54	1,466.30	2,855.7	SR0006927	3,147.1	SR0007167
56	1,577.00	3,078.3	SR0006928	3,392.4	SR0007168
58	1,691.60	3,303.0	SR0006929	3,640.0	SR0007169
60	1,810.30	3,537.3	SR0006930	3,898.2	SR0007170
62	1,933.00	3,749.2	SR0006931	4,131.8	SR0007171
64	2,059.70	4,001.6	SR0006932	4,409.9	SR0007172
66	2,190.50	4,234.5	SR0006933	4,666.6	SR0007173
68	2,325.20	4,496.3	SR0006934	4,955.1	SR0007174

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Turbolift



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

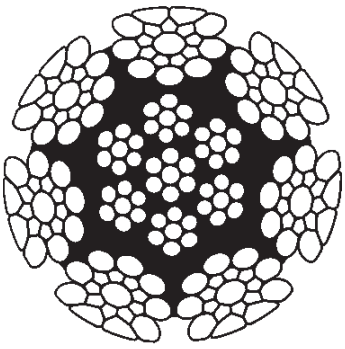
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
10	47.8	94.0	SR0009961	103.6	SR0010321
11	58	113.6	SR0009962	125.2	SR0010322
12	69.3	135.5	SR0009963	149.3	SR0010323
13	81.6	158.4	SR0009965	174.5	SR0010325
14	94.6	184.1	SR0009966	202.8	SR0010326
15	108.7	212.4	SR0009967	234.1	SR0010327
16	123.7	241.9	SR0009968	266.5	SR0010328
17	139.6	274.8	SR0009969	302.8	SR0010329
18	155.7	308.4	SR0009970	339.8	SR0010330
19	174.3	340.3	SR0009971	375.0	SR0010331
20	192.9	379.0	SR0009972	417.7	SR0010332
21	211	415.2	SR0009973	457.6	SR0010333
22	233.9	458.9	SR0009974	505.7	SR0010334
23	255.5	501.7	SR0009975	552.8	SR0010335
24	277.6	542.8	SR0009976	598.2	SR0010336
25	300.1	589.9	SR0009977	650.1	SR0010337
26	328.9	636.0	SR0009978	700.9	SR0010338
27	356.2	691.8	SR0009979	762.4	SR0010339
28	379.8	742.4	SR0009980	818.1	SR0010340
29	408.6	799.0	SR0009981	880.5	SR0010341
30	436.4	855.3	SR0009982	942.6	SR0010342
31	470.4	911.3	SR0009983	1,004.3	SR0010343
32	498.4	968.2	SR0009984	1,067.0	SR0010344

Rope Type: Special Wire Rope
Rope Construction: Ultrafit



Number of outer strands:
7

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

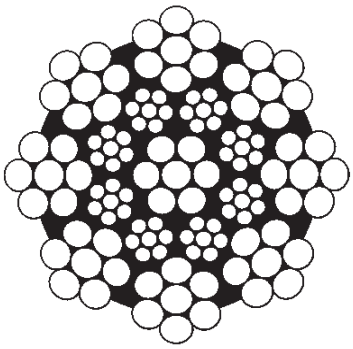
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
8	30.1	57.0	SR0009247	62.1	SR0009379
9	40.3	76.3	SR0009248	83.1	SR0009380
10	49.9	94.5	SR0009249	102.9	SR0009381
11	59	111.7	SR0009250	121.7	SR0009382
12	68.7	130.1	SR0009251	141.7	SR0009383
13	82.3	155.7	SR0009252	169.6	SR0009384
14	94.8	179.4	SR0009253	195.4	SR0009385
15	108.8	205.9	SR0009254	224.2	SR0009386
16	126.9	240.2	SR0009255	261.6	SR0009387
17	141.3	267.6	SR0009256	291.4	SR0009388
18	159.1	301.2	SR0009257	328.1	SR0009389
19	174.5	330.4	SR0009258	359.8	SR0009390
20	196.7	372.4	SR0009259	405.5	SR0009391
21	212.6	402.5	SR0009260	438.8	SR0009392
22	235.2	445.3	SR0009261	485.0	SR0009393
23	256.9	486.4	SR0009262	529.7	SR0009394
24	283.8	537.2	SR0009263	585.1	SR0009395
25	311.9	590.4	SR0009264	643.0	SR0009396
26	329	622.9	SR0009265	678.4	SR0009397
27	351.6	665.6	SR0009266	724.9	SR0009398
28	378.9	717.4	SR0009267	781.3	SR0009399
29	401.8	760.6	SR0009268	828.3	SR0009400
30	435	823.6	SR0009269	897.0	SR0009401
32	496.7	940.3	SR0009270	1,024.1	SR0009402

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Unilift



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

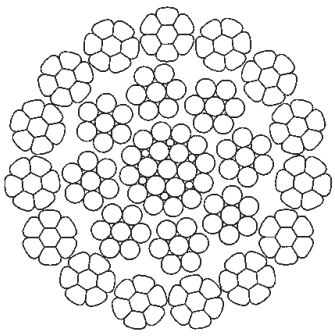
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	15.7	29.2	SR0009151	32.3	SR0009199
7	21.5	40.7	SR0009152	45.1	SR0009200
8	28.2	49.9	SR0009153	55.3	SR0009201
9	35	64.4	SR0009154	71.3	SR0009202
10	44	79.9	SR0009155	88.5	SR0009203
11	52.9	98.1	SR0009156	108.6	SR0009204
12	63.2	116.5	SR0009157	129.0	SR0009205
13	74.8	136.7	SR0009159	151.3	SR0009207
14	85.9	158.6	SR0009160	175.6	SR0009208
15	99.2	181.9	SR0009161	201.5	SR0009209
16	113.5	207.0	SR0009162	229.2	SR0009210

Rope Type: Special Wire Rope
Rope Construction: C 45 (D 915 CZ)



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
zZ / sS

Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

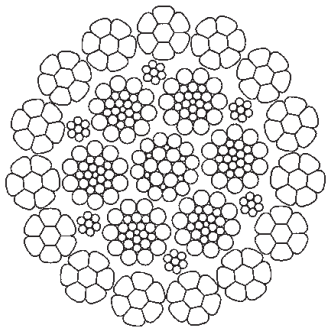
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	17	26.80	SR0017161	29.60	SR0017317
6.5	20	31.40	SR0017162	34.80	SR0017318
7	23	36.40	SR0017163	40.30	SR0017319
7.5	26	41.80	SR0017164	46.30	SR0017320
8	30	47.60	SR0017165	52.70	SR0017321
8.5	34	53.70	SR0017166	59.50	SR0017322
9	38	60.20	SR0017167	66.70	SR0017323
9.5	42	67.10	SR0017168	74.30	SR0017324
10	47	74.30	SR0017169	82.30	SR0017325
11	56	89.90	SR0017170	99.60	SR0017326
12	67	107.00	SR0017171	119.00	SR0017327
13	79	126.00	SR0017172	139.00	SR0017328
14	91	146.00	SR0017173	161.00	SR0017329
15	105	167.00	SR0017174	185.00	SR0017330
16	119	190.00	SR0017175	211.00	SR0017331
17	135	215.00	SR0017176	238.00	SR0017332
18	151	241.00	SR0017177	267.00	SR0017333
19	168	268.00	SR0017178	297.00	SR0017334
20	186	297.00	SR0017179	329.00	SR0017335
21	205	328.00	SR0017180	363.00	SR0017336
22	225	360.00	SR0017181	398.00	SR0017337
23	246	393.00	SR0017182	435.00	SR0017338
24	268	428.00	SR0017183	474.00	SR0017339
25	291	464.00	SR0017184	514.00	SR0017340

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: B 55 (D 1315 CZ)



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
zZ / sS

Categories:
non-rotating

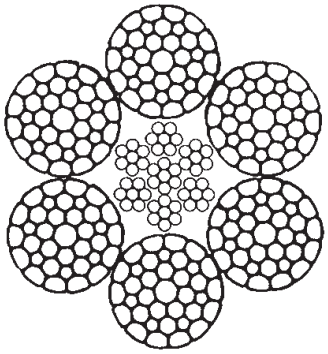
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	17	29.90	SR0018321	33.10	SR0018797	35.60	SR0019273
6.5	21	35.00	SR0018322	38.80	SR0018798	41.70	SR0019274
7	24	40.60	SR0018323	45.00	SR0018799	48.40	SR0019275
7.5	27	46.70	SR0018324	51.70	SR0018800	55.60	SR0019276
8	31	53.10	SR0018325	58.80	SR0018801	63.20	SR0019277
8.5	35	59.90	SR0018326	66.40	SR0018802	71.40	SR0019278
9	39	67.20	SR0018327	74.40	SR0018803	80.00	SR0019279
9.5	44	74.90	SR0018328	82.90	SR0018804	88.80	SR0019280
10	49	82.40	SR0018329	91.70	SR0018805	98.60	SR0019281
11	59	101.00	SR0018330	112.00	SR0018806	120.00	SR0019282
12	70	119.00	SR0018331	132.00	SR0018807	142.00	SR0019283
13	83	141.00	SR0018332	156.00	SR0018808	168.00	SR0019284
14	95	162.00	SR0018333	181.00	SR0018809	194.00	SR0019285
15	109	186.00	SR0018334	207.00	SR0018810	222.00	SR0019286
16	126	214.00	SR0018335	238.00	SR0018811	256.00	SR0019287
17	141	240.00	SR0018336	267.00	SR0018812	287.00	SR0019288
18	159	271.00	SR0018337	301.00	SR0018813	323.00	SR0019289
19	176	300.00	SR0018338	333.00	SR0018814	358.00	SR0019290
20	196	334.00	SR0018339	371.00	SR0018815	398.00	SR0019291
21	218	371.00	SR0018340	412.00	SR0018816	442.00	SR0019292
22	238	406.00	SR0018341	451.00	SR0018817	485.00	SR0019293
23	260	442.00	SR0018342	491.00	SR0018818	528.00	SR0019294
24	282	481.00	SR0018343	534.00	SR0018819	573.00	SR0019295
25	301	512.00	SR0018344	569.00	SR0018820	611.00	SR0019296

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: Z 299



Number of outer strands:
6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

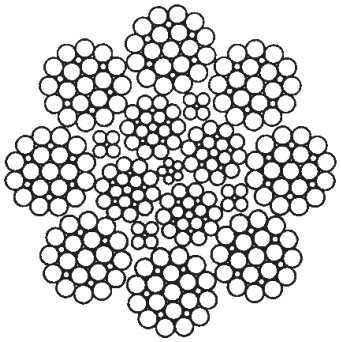
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	7	12.20	SR0026383	13.50	SR0026627	14.70	SR0026871
5	11	19.10	SR0026384	21.10	SR0026628	22.90	SR0026872
6	16	27.50	SR0026385	30.50	SR0026629	33.20	SR0026873
6.5	19	32.20	SR0026386	35.70	SR0026630	38.80	SR0026874
7	22	37.30	SR0026387	41.30	SR0026631	45.00	SR0026875
7.5	26	42.90	SR0026388	47.50	SR0026632	51.70	SR0026876
8	29	48.80	SR0026389	54.00	SR0026633	58.80	SR0026877
8.5	33	55.10	SR0026390	61.00	SR0026634	66.40	SR0026878
9	37	61.70	SR0026391	68.30	SR0026635	74.40	SR0026879
9.5	41	68.80	SR0026392	76.20	SR0026636	82.90	SR0026880
10	46	76.20	SR0026393	84.00	SR0026637	92.10	SR0026881
11	55	92.40	SR0026394	102.00	SR0026638	111.00	SR0026882
12	66	110.00	SR0026395	122.00	SR0026639	132.00	SR0026883
13	77	129.00	SR0026396	143.00	SR0026640	155.00	SR0026884
14	89	150.00	SR0026397	165.00	SR0026641	180.00	SR0026885
15	103	171.00	SR0026398	190.00	SR0026642	207.00	SR0026886
16	117	195.00	SR0026399	216.00	SR0026643	235.00	SR0026887
17	132	220.00	SR0026400	244.00	SR0026644	266.00	SR0026888
18	148	247.00	SR0026401	274.00	SR0026645	298.00	SR0026889
19	165	275.00	SR0026402	305.00	SR0026646	332.00	SR0026890
20	182	305.00	SR0026403	338.00	SR0026647	368.00	SR0026891
21	201	336.00	SR0026404	372.00	SR0026648	405.00	SR0026892

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: S 417



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

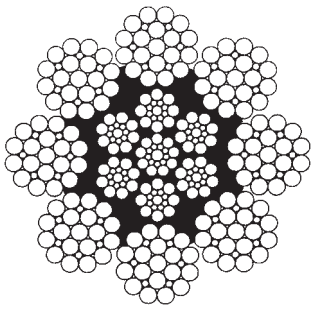
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	12.70	SR0023034	14.10	SR0023338	14.80	SR0023642
5	12	19.90	SR0023035	22.00	SR0023339	23.10	SR0023643
6	17	28.60	SR0023036	31.70	SR0023340	33.30	SR0023644
6.5	20	33.60	SR0023037	37.20	SR0023341	39.10	SR0023645
7	23	38.90	SR0023038	43.10	SR0023342	45.30	SR0023646
7.5	26	44.70	SR0023039	49.50	SR0023343	52.00	SR0023647
8	30	50.00	SR0023040	55.40	SR0023344	57.90	SR0023648
8.5	34	57.40	SR0023041	63.60	SR0023345	66.80	SR0023649
9	38	63.30	SR0023042	70.10	SR0023346	73.60	SR0023650
9.5	42	71.70	SR0023043	79.40	SR0023347	83.60	SR0023651
10	47	78.00	SR0023044	86.80	SR0023348	91.20	SR0023652
11	58	97.60	SR0023045	108.00	SR0023349	114.00	SR0023653
12	69	116.00	SR0023046	129.00	SR0023350	135.00	SR0023654
13	80	133.00	SR0023047	148.00	SR0023351	156.00	SR0023655
14	95	159.00	SR0023048	177.00	SR0023352	185.00	SR0023656
15	107	180.00	SR0023049	199.00	SR0023353	209.00	SR0023657
16	123	207.00	SR0023050	230.00	SR0023354	241.00	SR0023658
17	138	232.00	SR0023051	258.00	SR0023355	270.00	SR0023659
18	153	258.00	SR0023052	286.00	SR0023356	301.00	SR0023660
19	173	291.00	SR0023053	324.00	SR0023357	339.00	SR0023661
20	190	319.00	SR0023054	355.00	SR0023358	373.00	SR0023662
21	204	343.00	SR0023055	382.00	SR0023359	401.00	SR0023663
22	234	393.00	SR0023056	437.00	SR0023360	458.00	SR0023664

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: X 43 (P 825)



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

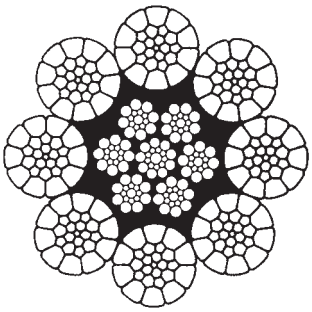
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	7	11.70	SR0021210	13.00	SR0021514	14.10	SR0021818
5	11	18.30	SR0021211	20.20	SR0021515	22.00	SR0021819
6	16	26.30	SR0021212	29.20	SR0021516	31.70	SR0021820
6.5	19	30.90	SR0021213	34.20	SR0021517	37.30	SR0021821
7	22	35.80	SR0021214	39.70	SR0021518	43.20	SR0021822
7.5	25	41.10	SR0021215	45.60	SR0021519	49.60	SR0021823
8	27	43.70	SR0021216	48.60	SR0021520	53.40	SR0021824
8.5	33	52.80	SR0021217	58.50	SR0021521	63.70	SR0021825
9	35	56.90	SR0021218	63.30	SR0021522	69.30	SR0021826
9.5	41	66.00	SR0021219	73.10	SR0021523	79.60	SR0021827
10	42	68.20	SR0021220	76.00	SR0021524	83.00	SR0021828
11	54	86.30	SR0021221	96.10	SR0021525	105.00	SR0021829
12	65	106.00	SR0021222	118.00	SR0021526	129.00	SR0021830
13	76	122.00	SR0021223	136.00	SR0021527	148.00	SR0021831
14	85	137.00	SR0021224	152.00	SR0021528	166.00	SR0021832
15	103	166.00	SR0021225	184.00	SR0021529	201.00	SR0021833
16	116	187.00	SR0021226	208.00	SR0021530	227.00	SR0021834
17	130	210.00	SR0021227	233.00	SR0021531	254.00	SR0021835
18	146	236.00	SR0021228	262.00	SR0021532	286.00	SR0021836
19	161	260.00	SR0021229	289.00	SR0021533	316.00	SR0021837
20	178	288.00	SR0021230	320.00	SR0021534	348.00	SR0021838
21	195	315.00	SR0021231	351.00	SR0021535	382.00	SR0021839
22	223	361.00	SR0021232	401.00	SR0021536	437.00	SR0021840

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: X 53 (PZ 371)



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

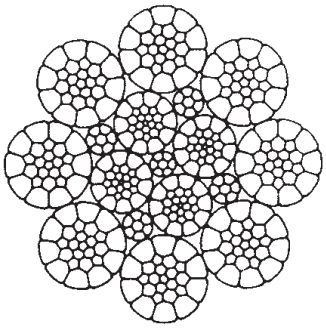
Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	12.80	SR0022122	14.10	SR0022426	15.40	SR0022730
5	12	19.90	SR0022123	22.10	SR0022427	24.00	SR0022731
6	17	28.70	SR0022124	31.80	SR0022428	34.60	SR0022732
6.5	20	33.70	SR0022125	37.30	SR0022429	40.60	SR0022733
7	23	39.10	SR0022126	43.30	SR0022430	47.10	SR0022734
7.5	27	44.90	SR0022127	49.70	SR0022431	54.10	SR0022735
8	30	51.00	SR0022128	56.50	SR0022432	61.60	SR0022736
8.5	34	57.60	SR0022129	63.80	SR0022433	69.50	SR0022737
9	38	64.60	SR0022130	71.50	SR0022434	77.90	SR0022738
9.5	43	72.00	SR0022131	79.70	SR0022435	86.50	SR0022739
10	47	79.80	SR0022132	88.40	SR0022436	96.60	SR0022740
11	57	96.90	SR0022133	107.00	SR0022437	117.00	SR0022741
12	68	115.00	SR0022134	128.00	SR0022438	139.00	SR0022742
13	80	135.00	SR0022135	150.00	SR0022439	163.00	SR0022743
14	92	156.00	SR0022136	173.00	SR0022440	188.00	SR0022744
15	106	179.00	SR0022137	199.00	SR0022441	217.00	SR0022745
16	121	204.00	SR0022138	226.00	SR0022442	246.00	SR0022746
17	136	230.00	SR0022139	255.00	SR0022443	278.00	SR0022747
18	153	258.00	SR0022140	286.00	SR0022444	312.00	SR0022748
19	170	288.00	SR0022141	319.00	SR0022445	347.00	SR0022749
20	189	319.00	SR0022142	354.00	SR0022446	385.00	SR0022750
21	208	352.00	SR0022143	389.00	SR0022447	424.00	SR0022751
22	228	386.00	SR0022144	428.00	SR0022448	465.00	SR0022752

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: H 43 (SKZ 8 P)



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

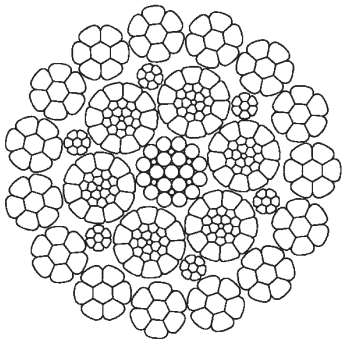
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.80	SR0023946	15.30	SR0024250	16.90	SR0024554
5	13	21.60	SR0023947	23.90	SR0024251	26.40	SR0024555
6	18	31.10	SR0023948	34.50	SR0024252	38.00	SR0024556
6.5	21	36.50	SR0023949	40.40	SR0024253	44.60	SR0024557
7	25	42.40	SR0023950	46.90	SR0024254	51.70	SR0024558
7.5	28	48.60	SR0023951	53.80	SR0024255	59.30	SR0024559
8	32	55.30	SR0023952	61.30	SR0024256	67.50	SR0024560
8.5	36	62.50	SR0023953	69.20	SR0024257	76.20	SR0024561
9	40	70.00	SR0023954	77.50	SR0024258	85.70	SR0024562
9.5	45	78.00	SR0023955	86.50	SR0024259	94.90	SR0024563
10	49	86.50	SR0023956	95.80	SR0024260	106.00	SR0024564
11	60	105.00	SR0023957	116.00	SR0024261	128.00	SR0024565
12	71	123.00	SR0023958	136.00	SR0024262	150.00	SR0024566
13	83	143.00	SR0023959	159.00	SR0024263	175.00	SR0024567
14	98	168.00	SR0023960	187.00	SR0024264	206.00	SR0024568
15	111	191.00	SR0023961	212.00	SR0024265	233.00	SR0024569
16	128	221.00	SR0023962	245.00	SR0024266	270.00	SR0024570
17	144	248.00	SR0023963	275.00	SR0024267	302.00	SR0024571
18	163	281.00	SR0023964	311.00	SR0024268	343.00	SR0024572
19	179	308.00	SR0023965	343.00	SR0024269	377.00	SR0024573
20	200	344.00	SR0023966	383.00	SR0024270	421.00	SR0024574
21	225	387.00	SR0023967	430.00	SR0024271	474.00	SR0024575
22	245	422.00	SR0023968	469.00	SR0024272	516.00	SR0024576

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: B 60



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
non-rotating

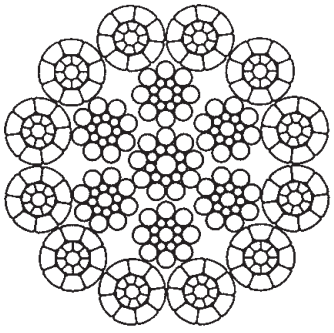
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
12	72	123.00	SR0012265	137.00	SR0012501	148.00	SR0012737
13	85	147.00	SR0012266	162.00	SR0012502	175.00	SR0012738
14	98	169.00	SR0012267	188.00	SR0012503	202.00	SR0012739
15	112	194.00	SR0012268	215.00	SR0012504	232.00	SR0012740
16	130	223.00	SR0012269	248.00	SR0012505	266.00	SR0012741
17	145	250.00	SR0012270	278.00	SR0012506	299.00	SR0012742
18	163	281.00	SR0012271	313.00	SR0012507	337.00	SR0012743
19	181	312.00	SR0012272	347.00	SR0012508	373.00	SR0012744
20	201	347.00	SR0012273	386.00	SR0012509	416.00	SR0012745
21	224	386.00	SR0012274	428.00	SR0012510	461.00	SR0012746
22	245	422.00	SR0012275	470.00	SR0012511	505.00	SR0012747
23	267	460.00	SR0012276	512.00	SR0012512	550.00	SR0012748
24	290	500.00	SR0012277	556.00	SR0012513	598.00	SR0012749
25	309	532.00	SR0012278	592.00	SR0012514	637.00	SR0012750
26	334	577.00	SR0012279	640.00	SR0012515	689.00	SR0012751
27	360	620.00	SR0012280	689.00	SR0012516	740.00	SR0012752
28	394	678.00	SR0012281	754.00	SR0012517	811.00	SR0012753
29	417	719.00	SR0012282	800.00	SR0012518	860.00	SR0012754
30	446	770.00	SR0012283	856.00	SR0012519	919.00	SR0012755
31	474	818.00	SR0012284	909.00	SR0012520	977.00	SR0012756
32	509	877.00	SR0012285	975.00	SR0012521	1,048.00	SR0012757
33	540	931.00	SR0012286	1,035.00	SR0012522	1,113.00	SR0012758
34	575	990.00	SR0012287	1,100.00	SR0012523	1,183.00	SR0012759
35	612	1,054.00	SR0012288	1,171.00	SR0012524	1,258.00	SR0012760

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: D 1200 Z



Number of outer strands:
12

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
rotation-resistant

Swivel:
not allowed

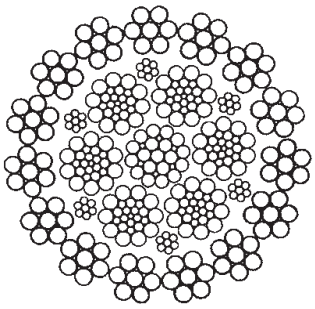
Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	17	27.50	SR0017974	30.40	SR0018050	32.70	SR0018126
6.5	20	32.30	SR0017975	35.70	SR0018051	38.40	SR0018127
7	23	37.40	SR0017976	41.40	SR0018052	44.50	SR0018128
7.5	27	43.00	SR0017977	47.60	SR0018053	51.10	SR0018129
8	30	48.90	SR0017978	54.10	SR0018054	58.10	SR0018130
8.5	34	55.20	SR0017979	61.10	SR0018055	65.70	SR0018131
9	38	61.90	SR0017980	68.50	SR0018056	73.60	SR0018132
9.5	43	69.00	SR0017981	76.40	SR0018057	81.90	SR0018133
10	47	76.40	SR0017982	84.60	SR0018058	90.90	SR0018134
11	57	92.40	SR0017983	102.00	SR0018059	110.00	SR0018135
12	68	110.00	SR0017984	122.00	SR0018060	131.00	SR0018136
13	80	129.00	SR0017985	143.00	SR0018061	154.00	SR0018137
14	93	150.00	SR0017986	166.00	SR0018062	178.00	SR0018138
15	107	172.00	SR0017987	190.00	SR0018063	205.00	SR0018139
16	122	196.00	SR0017988	217.00	SR0018064	233.00	SR0018140
17	137	221.00	SR0017989	245.00	SR0018065	263.00	SR0018141
18	154	248.00	SR0017990	274.00	SR0018066	295.00	SR0018142
19	171	276.00	SR0017991	305.00	SR0018067	328.00	SR0018143
20	190	306.00	SR0017992	338.00	SR0018068	364.00	SR0018144

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: B 40 (D 1315)



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
non-rotating

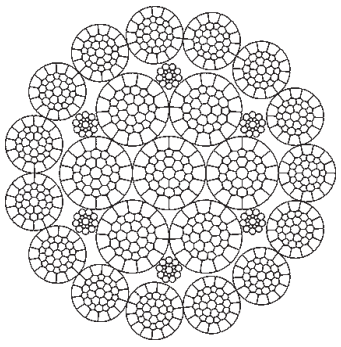
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	7	11.30	SR0015489	12.50	SR0015773	13.30	SR0016057
5	11	17.70	SR0015490	19.10	SR0015774	20.70	SR0016058
6	16	25.40	SR0015491	28.10	SR0015775	29.80	SR0016059
6.5	19	29.80	SR0015492	33.00	SR0015776	35.00	SR0016060
7	22	34.60	SR0015493	38.30	SR0015777	40.60	SR0016061
7.5	25	39.70	SR0015494	44.00	SR0015778	46.60	SR0016062
8	28	45.20	SR0015495	49.50	SR0015779	53.00	SR0016063
8.5	32	51.00	SR0015496	56.50	SR0015780	59.90	SR0016064
9	36	57.20	SR0015497	62.80	SR0015781	67.00	SR0016065
9.5	40	63.70	SR0015498	70.60	SR0015782	74.80	SR0016066
10	44	70.60	SR0015499	78.00	SR0015783	82.90	SR0016067
11	55	86.80	SR0015500	97.10	SR0015784	103.00	SR0016068
12	65	103.00	SR0015501	115.00	SR0015785	122.00	SR0016069
13	75	120.00	SR0015502	133.00	SR0015786	140.00	SR0016070
14	87	139.00	SR0015503	154.00	SR0015787	163.00	SR0016071
15	99	158.00	SR0015504	176.00	SR0015788	185.00	SR0016072
16	113	179.00	SR0015505	199.00	SR0015789	210.00	SR0016073
17	128	203.00	SR0015506	226.00	SR0015790	238.00	SR0016074
18	143	227.00	SR0015507	252.00	SR0015791	266.00	SR0016075
19	160	255.00	SR0015508	283.00	SR0015792	300.00	SR0016076
20	177	282.00	SR0015509	313.00	SR0015793	332.00	SR0016077
21	196	311.00	SR0015510	346.00	SR0015794	366.00	SR0016078
22	214	340.00	SR0015511	379.00	SR0015795	400.00	SR0016079

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: B 50 (D 1315 Z)



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
non-rotating

Swivel:
allowed

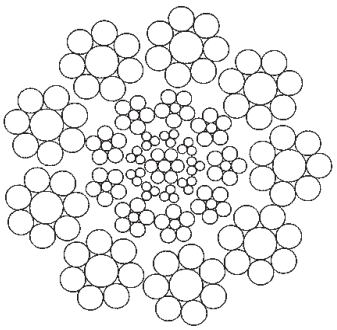
Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.30	SR0012914	14.70	SR0013398	15.80	SR0013882
5	12	20.70	SR0012915	23.00	SR0013399	24.70	SR0013883
6	17	29.90	SR0012916	33.10	SR0013400	35.60	SR0013884
6.5	21	35.00	SR0012917	38.80	SR0013401	41.70	SR0013885
7	24	40.60	SR0012918	45.00	SR0013402	48.40	SR0013886
7.5	27	46.70	SR0012919	51.70	SR0013403	55.60	SR0013887
8	31	53.10	SR0012920	58.80	SR0013404	63.20	SR0013888
8.5	35	59.90	SR0012921	66.40	SR0013405	71.40	SR0013889
9	39	67.20	SR0012922	74.40	SR0013406	80.00	SR0013890
9.5	44	74.90	SR0012923	82.90	SR0013407	88.80	SR0013891
10	49	82.40	SR0012924	91.70	SR0013408	98.60	SR0013892
11	59	101.00	SR0012925	112.00	SR0013409	120.00	SR0013893
12	70	119.00	SR0012926	132.00	SR0013410	142.00	SR0013894
13	83	141.00	SR0012927	156.00	SR0013411	168.00	SR0013895
14	95	162.00	SR0012928	181.00	SR0013412	194.00	SR0013896
15	109	186.00	SR0012929	207.00	SR0013413	222.00	SR0013897
16	126	214.00	SR0012930	238.00	SR0013414	256.00	SR0013898
17	141	240.00	SR0012931	267.00	SR0013415	287.00	SR0013899
18	159	271.00	SR0012932	301.00	SR0013416	323.00	SR0013900
19	176	300.00	SR0012933	333.00	SR0013417	358.00	SR0013901
20	196	334.00	SR0012934	371.00	SR0013418	398.00	SR0013902
21	218	371.00	SR0012935	412.00	SR0013419	442.00	SR0013903
22	238	406.00	SR0012936	451.00	SR0013420	485.00	SR0013904

Other rope diameters available on request.

STEEL WIRE ROPES
Stranded Ropes

Rope Type: Special Wire Rope
Rope Construction: K 114



Number of outer strands:
9

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

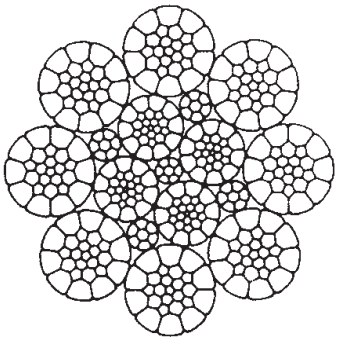
Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
6	16	24.50	SR0021058	27.70	SR0021134
6.5	19	30.70	SR0021059	34.00	SR0021135
7	24	36.50	SR0021060	41.00	SR0021136
7.5	26	40.90	SR0021061	45.30	SR0021137
8	29	44.80	SR0021062	49.50	SR0021138
8.5	33	52.50	SR0021063	58.20	SR0021139
9	39	59.90	SR0021064	67.30	SR0021140
9.5	41	65.60	SR0021065	72.70	SR0021141
10	46	72.30	SR0021066	81.30	SR0021142
11	59	91.60	SR0021067	103.00	SR0021143
12	66	102.00	SR0021068	115.00	SR0021144
13	76	116.00	SR0021069	133.00	SR0021145
14	89	133.00	SR0021070	157.00	SR0021146
15	101	155.00	SR0021071	178.00	SR0021147
16	117	181.00	SR0021072	206.00	SR0021148
17	133	210.00	SR0021073	233.00	SR0021149
18	149	235.00	SR0021074	261.00	SR0021150
19	166	263.00	SR0021075	291.00	SR0021151
20	184	291.00	SR0021076	322.00	SR0021152

Rope Type: Special Wire Rope
Rope Construction: H 40 (SKZ 8)



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

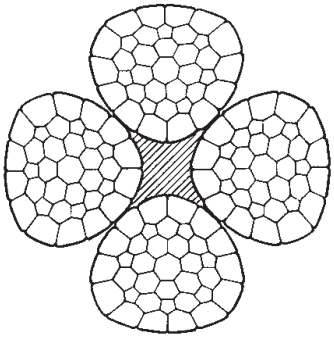
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.80	SR0024858	15.30	SR0025162	16.90	SR0025466
5	13	21.60	SR0024859	23.90	SR0025163	26.40	SR0025467
6	18	31.10	SR0024860	34.50	SR0025164	38.00	SR0025468
6.5	21	36.50	SR0024861	40.40	SR0025165	44.60	SR0025469
7	25	42.40	SR0024862	46.90	SR0025166	51.70	SR0025470
7.5	28	48.60	SR0024863	53.80	SR0025167	59.30	SR0025471
8	32	55.30	SR0024864	61.30	SR0025168	67.50	SR0025472
8.5	36	62.50	SR0024865	69.20	SR0025169	76.20	SR0025473
9	40	70.00	SR0024866	77.50	SR0025170	85.70	SR0025474
9.5	45	78.00	SR0024867	86.50	SR0025171	94.90	SR0025475
10	49	86.50	SR0024868	95.80	SR0025172	106.00	SR0025476
11	60	105.00	SR0024869	116.00	SR0025173	128.00	SR0025477
12	71	123.00	SR0024870	136.00	SR0025174	150.00	SR0025478
13	83	143.00	SR0024871	159.00	SR0025175	175.00	SR0025479
14	98	168.00	SR0024872	187.00	SR0025176	206.00	SR0025480
15	111	191.00	SR0024873	212.00	SR0025177	233.00	SR0025481
16	128	221.00	SR0024874	245.00	SR0025178	270.00	SR0025482
17	144	248.00	SR0024875	275.00	SR0025179	302.00	SR0025483
18	163	281.00	SR0024876	311.00	SR0025180	343.00	SR0025484
19	179	308.00	SR0024877	343.00	SR0025181	377.00	SR0025485
20	200	344.00	SR0024878	383.00	SR0025182	421.00	SR0025486
21	225	387.00	SR0024879	430.00	SR0025183	474.00	SR0025487
22	245	422.00	SR0024880	469.00	SR0025184	516.00	SR0025488
23	265	456.00	SR0024881	507.00	SR0025185	559.00	SR0025489

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Super 4



Number of outer strands:
4

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

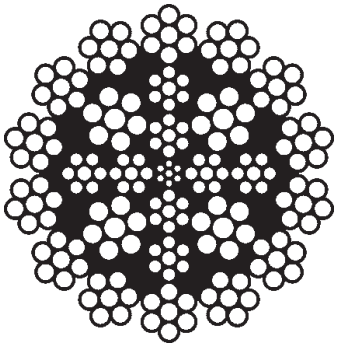
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,770 N/mm²		Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
4	8	13.50	SR0025805	14.90	SR0025945	16.00	SR0026085
5	12	21.00	SR0025806	23.30	SR0025946	25.10	SR0026086
6	17	28.90	SR0025807	32.40	SR0025947	34.80	SR0026087
6.5	21	35.60	SR0025808	39.40	SR0025948	42.40	SR0026088
7	24	40.70	SR0025809	45.10	SR0025949	49.10	SR0026089
7.5	27	47.30	SR0025810	52.40	SR0025950	56.40	SR0026090
8	31	53.50	SR0025811	58.90	SR0025951	63.80	SR0026091
8.5	35	60.80	SR0025812	67.30	SR0025952	72.40	SR0026092
9	39	66.70	SR0025813	74.60	SR0025953	80.40	SR0026093
9.5	44	76.00	SR0025814	84.00	SR0025954	90.20	SR0026094
10	50	84.90	SR0025815	94.70	SR0025955	102.00	SR0026095
11	57	98.60	SR0025816	109.00	SR0025956	118.00	SR0026096
12	69	119.00	SR0025817	132.00	SR0025957	142.00	SR0026097
13	81	140.00	SR0025818	155.00	SR0025958	167.00	SR0026098
14	94	162.00	SR0025819	181.00	SR0025959	194.00	SR0026099
15	109	188.00	SR0025820	209.00	SR0025960	225.00	SR0026100
16	125	214.00	SR0025821	238.00	SR0025961	256.00	SR0026101
17	140	242.00	SR0025822	268.00	SR0025962	288.00	SR0026102
18	159	275.00	SR0025823	305.00	SR0025963	328.00	SR0026103
19	177	305.00	SR0025824	339.00	SR0025964	364.00	SR0026104
20	194	334.00	SR0025825	371.00	SR0025965	398.00	SR0026105
21	219	378.00	SR0025826	420.00	SR0025966	451.00	SR0026106
22	239	411.00	SR0025827	457.00	SR0025967	491.00	SR0026107
23	258	444.00	SR0025828	494.00	SR0025968	530.00	SR0026108

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Endurance 50 DB



Number of outer strands:
14

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
zZ / sS

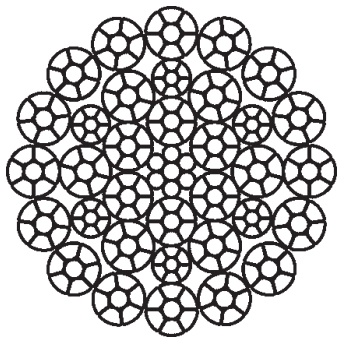
Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
8	27.6	56.00	SR0000249
9	34.4	68.60	SR0000250
10	42.5	86.00	SR0000251
11	51.8	104.00	SR0000252
12	61.9	124.00	SR0000253
13	72.8	145.00	SR0000254
14	83.6	167.00	SR0000255
15	96	190.00	SR0000256
16	110	220.00	SR0000257
17	121	240.00	SR0000258
18	136	275.00	SR0000259
19	156	310.00	SR0000260
20	168	335.00	SR0000261
21	185	368.00	SR0000262
22	205	410.00	SR0000263

Rope Type: Special Wire Rope
Rope Construction: Endurance Dyform 34 LR/PI



Number of outer strands:
16

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
zZ / sS

Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
yes

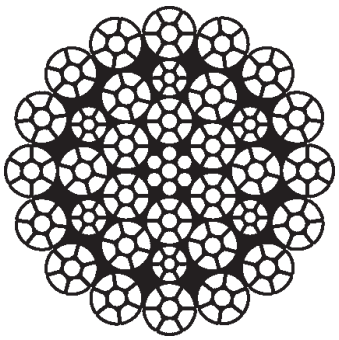
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
10	51.4	90.00	SR0000368	98.10	SR0000472
12	72.9	130.00	SR0000369	140.00	SR0000473
13	84.6	154.00	SR0000370	166.00	SR0000474
14	97.1	179.00	SR0000371	191.00	SR0000475
15	114	205.00	SR0000372	220.00	SR0000476
16	130	232.00	SR0000373	251.00	SR0000477
17	140	260.00	SR0000374	284.00	SR0000478
18	159	298.00	SR0000375	319.00	SR0000479
19	178	329.00	SR0000376	356.00	SR0000480
20	197	370.00	SR0000377	397.00	SR0000481
21	222	400.00	SR0000378	432.00	SR0000482
22	240	442.00	SR0000379	482.00	SR0000483
23	261	480.00	SR0000380	525.00	SR0000484
24	286	528.00	SR0000381	569.00	SR0000485
25	312	572.00	SR0000382	620.00	SR0000486
26	340	618.00	SR0000383	658.00	SR0000487
27	356	662.00	SR0000384	718.00	SR0000488
28	391	716.00	SR0000385	784.00	SR0000489
29	425	765.00	SR0000386	829.00	SR0000490
30	445	823.00	SR0000387	900.00	SR0000491
32	505	940.00	SR0000388	1,030.00	SR0000492
34	574	1,060.00	SR0000389	1,150.00	SR0000493
35	602	1,120.00	SR0000390	1,210.00	SR0000494
36	644	1,180.00	SR0000391	1,280.00	SR0000495

Other rope diameters available on request.

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Endurance Dyform 34 LR



Number of outer strands:
16

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
zZ / sS

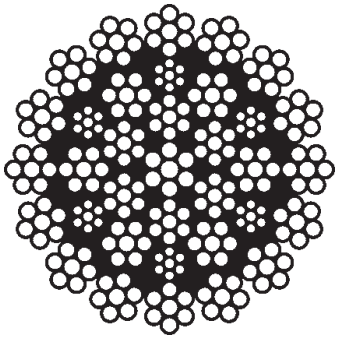
Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
14	97.1	179.00	SR0001138	191.00	SR0001210
16	114	232.00	SR0001139	251.00	SR0001211
18	130	298.00	SR0001140	319.00	SR0001212
20	140	370.00	SR0001141	397.00	SR0001213
22	159	442.00	SR0001142	482.00	SR0001214
24	178	528.00	SR0001143	569.00	SR0001215
26	197	618.00	SR0001144	658.00	SR0001216
28	222	716.00	SR0001145	784.00	SR0001217
30	240	823.00	SR0001146	900.00	SR0001218
32	261	940.00	SR0001147	1,030.00	SR0001219
34	286	1,060.00	SR0001148	1,150.00	SR0001220
36	312	1,120.00	SR0001149	1,210.00	SR0001221
38	340	1,180.00	SR0001150	1,280.00	SR0001222
40	356	1,320.00	SR0001151	1,430.00	SR0001223
42	391	1,470.00	SR0001152	1,580.00	SR0001224
44	425	1,770.00	SR0001153	1,580.00	SR0001225
48	445	2,110.00	SR0001154	1,580.00	SR0001226
50	505	2,290.00	SR0001155	1,580.00	SR0001227

Rope Type: Special Wire Rope
Rope Construction: Endurance 35 LS



Number of outer strands:
16

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
non-rotating

Swivel:
allowed

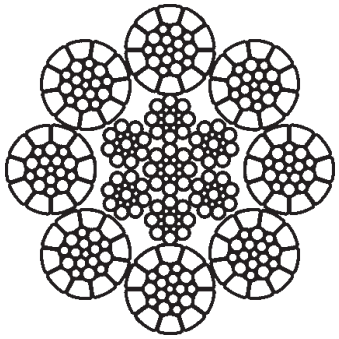
Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.
16	116	193.00	SR0000290
17	130	216.00	SR0000291
18	145	241.00	SR0000292
19	165	275.00	SR0000293
20	180	299.00	SR0000294
21	200	333.00	SR0000295
22	222	368.00	SR0000296
23	240	398.00	SR0000297
24	264	439.00	SR0000298
25	284	471.00	SR0000299
26	309	514.00	SR0000300
27	329	546.00	SR0000301
28	359	596.00	SR0000302

STEEL WIRE ROPES

Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: Endurance Dyform 8 PI



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

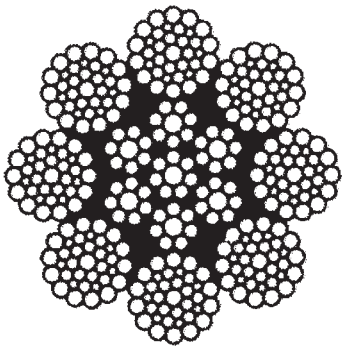
Categories:
rotating / not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
14	88.8	171.00	SR0000694	182.00	SR0000762
16	116	224.00	SR0000695	238.00	SR0000763
18	150	283.00	SR0000696	303.00	SR0000764
20	184	350.00	SR0000697	374.00	SR0000765
22	222	424.00	SR0000698	452.00	SR0000766
24	265	505.00	SR0000699	539.00	SR0000767
26	315	592.00	SR0000700	633.00	SR0000768
28	367	687.00	SR0000701	735.00	SR0000769
30	425	789.00	SR0000702	843.00	SR0000770
32	485	897.00	SR0000703	958.00	SR0000771
34	543	1,010.00	SR0000704	1,079.00	SR0000772
36	606	1,138.00	SR0000705	1,216.00	SR0000773
38	678	1,265.00	SR0000706	1,353.00	SR0000774
40	755	1,402.00	SR0000707	1,500.00	SR0000775
42	842	1,530.00	SR0000708	1,648.00	SR0000776
44	925	1,697.00	SR0000709	1,814.00	SR0000777
48	1,110.00	2,020.00	SR0000710	2,157.00	SR0000778

Rope Type: Special Wire Rope
Rope Construction: Endurance 8 PI



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

Swivel:
not allowed

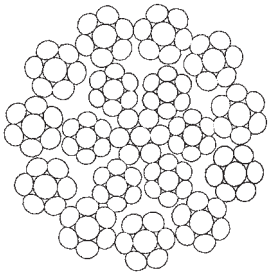
Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
14	84.4	140.00	SR0000922	157.00	SR0001066
16	110	184.00	SR0000923	206.00	SR0001067
18	143	237.00	SR0000924	266.00	SR0001068
20	177	294.00	SR0000925	329.00	SR0001069
22	214	354.00	SR0000926	397.00	SR0001070
24	255	422.00	SR0000927	473.00	SR0001071
26	301	498.00	SR0000928	559.00	SR0001072
28	345	571.00	SR0000929	641.00	SR0001073
30	394	652.00	SR0000930	732.00	SR0001074
32	449	744.00	SR0000931	835.00	SR0001075
34	507	840.00	SR0000932	943.00	SR0001076
36	562	932.00	SR0000933	1,050.00	SR0001077
38	629	1,040.00	SR0000934	1,170.00	SR0001078
40	703	1,160.00	SR0000935	1,310.00	SR0001079
42	784	1,300.00	SR0000936	1,460.00	SR0001080
44	866	1,440.00	SR0000937	1,610.00	SR0001081
48	1.010.00	1,680.00	SR0000938	1,880.00	SR0001082
50	1.110.00	1,830.00	SR0000939	2,060.00	SR0001083

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS310



Number of outer strands:
11

Surface:
B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
rotation-resistant up to 60 m lifting height

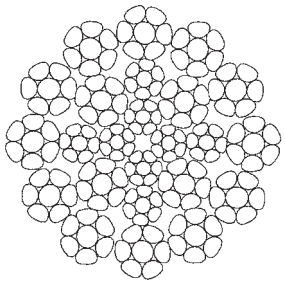
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
6	14.9	29.10	SR0000167
6.7	18.3	37.00	SR0000168
7	20	40.40	SR0000169
7.5	22.2	44.90	SR0000170
8	26.9	54.80	SR0000171
9	31.9	64.90	SR0000172
10	40.7	82.00	SR0000173
10.5	44.4	88.40	SR0000174
11	51.2	101.00	SR0000175
12	57.1	114.80	SR0000176
13	69.2	142.00	SR0000177
14	81.9	165.00	SR0000178
14.5	89.8	182.00	SR0000179
16	111	223.00	SR0000180
18	131.6	264.00	SR0000181

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS311



Number of outer strands:
12

Surface:
U (bk)

Lay / Lay direction available in:
zZ / sS

Categories:
non-rotating up to 70 m lifting height

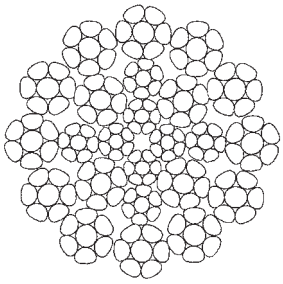
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
7.5	24.1	43.50	SR0000115
8	27	49.00	SR0000116
9	35.2	61.00	SR0000117
10	45.5	77.00	SR0000118
11	52	92.00	SR0000119
12	61.5	111.00	SR0000120
13	73	130.00	SR0000121
14	85.4	150.00	SR0000122
15	97.1	173.00	SR0000123
16	110.7	197.00	SR0000124
17	123.4	223.00	SR0000125
18	138.3	250.00	SR0000126
20	171.8	310.00	SR0000127
21	189.4	342.00	SR0000128
22	207.5	375.00	SR0000129
23	226.7	410.00	SR0000130
27	324.4	586.00	SR0000131
28	347.2	628.00	SR0000132

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS311



Number of outer strands:
12

Surface:
B (galvanised)

Lay / Lay direction available in:
zZ / sS

Categories:
non-rotating up to 70 m lifting height

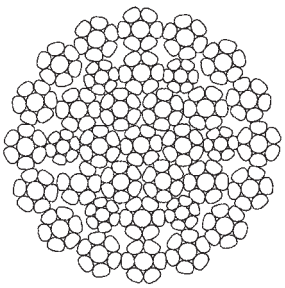
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
7.2	21	42.00	SR0000150
8	27	56.00	SR0000151
9	34	68.50	SR0000152
10	42.6	86.00	SR0000153
11	51	104.00	SR0000154
12	60.8	124.50	SR0000155
13	70.9	145.00	SR0000156
14	85.7	175.00	SR0000157
15	94	190.00	SR0000158
16	108.1	220.00	SR0000159
18	136.1	275.00	SR0000160
19	153.5	310.00	SR0000161
20	167	335.00	SR0000162
22	203	410.00	SR0000163
24	250.1	495.00	SR0000164
25.4	274.5	560.00	SR0000165
28	342	675.00	SR0000166

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS312



Number of outer strands:
16

Surface:
U (bk)

Lay / Lay direction available in:
zZ / sS

Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
10	48.7	90.00	SR0000078
11	58.1	107.50	SR0000079
12	68.6	126.50	SR0000080
13	82	150.00	SR0000081
14	95.1	173.95	SR0000082
15	110	200.00	SR0000083
16	124.5	230.60	SR0000084
17	141.7	260.00	SR0000085
18	159.7	295.00	SR0000086
19	178	329.00	SR0000087
20	195.5	356.00	SR0000088
21	215	400.00	SR0000089
22	236	434.00	SR0000090
23	259.3	481.00	SR0000091
24	282.5	512.00	SR0000092
26	331.8	609.00	SR0000093
27	352	643.50	SR0000094
28	384	706.00	SR0000095
32	502	915.00	SR0000096

STEEL WIRE ROPES

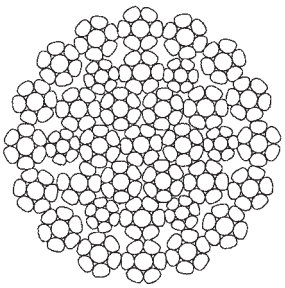
Special Wire Ropes

Special Wire Ropes for Foundry Crane

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS312



Number of outer strands:
16

Surface:
B (galvanised)

Lay / Lay direction available in:
zZ / sS

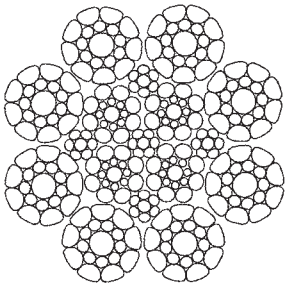
Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
10	48.6	99.00	SR0000043
11	58.1	118.50	SR0000044
12	68.6	139.50	SR0000045
14	95.5	191.50	SR0000046
15	109.7	219.50	SR0000047
16	124.7	250.00	SR0000048
17	141.5	282.50	SR0000049
18	158.1	316.50	SR0000050
19	176.7	353.00	SR0000051
20	195	391.50	SR0000052
22	235.9	472.00	SR0000053
24	282.4	563.00	SR0000054
26	330.9	661.00	SR0000055
28	382.6	752.00	SR0000056
30	438	863.00	SR0000057
32	502	930.00	SR0000058

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS301



Number of outer strands:
8

Surface:
B (galvanised)

Lay / Lay direction available in:
sZ / zS

Categories:
not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

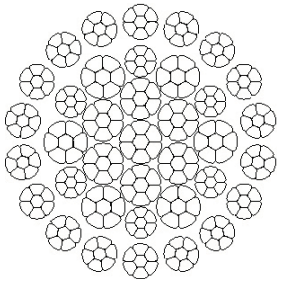
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
6.2	16.9	36.40	SR0000197
6.4	19.3	41.80	SR0000198
8	29.7	65.60	SR0000199
9	36	76.80	SR0000200
10	46.2	98.50	SR0000201
11	56	126.40	SR0000202
12	67.5	145.00	SR0000203
13	77	165.50	SR0000204
14	90	194.80	SR0000205
15	103	221.60	SR0000206
16	117	253.90	SR0000207
18	148	320.90	SR0000208
19	162.5	347.70	SR0000209
20	182	396.30	SR0000210
22	222.1	484.00	SR0000211
24	264	568.00	SR0000212
26	312	667.50	SR0000213
28	363	767.90	SR0000214
29	386	818.70	SR0000215
30	410	856.00	SR0000216
32	475.3	1,008.70	SR0000217
34	530	1,120.00	SR0000218
36	596	1,250.00	SR0000219
38	665	1,400.00	SR0000220

Other rope diameters available on request.

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 815



Number of outer strands:
18

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
non-rotating

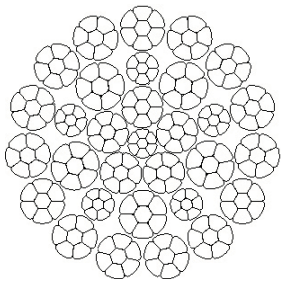
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
13	81.6	157.8	on request	165.7	on request
14	94.9	183.3	on request	192.5	on request
15	108.8	209.6	on request	220.6	on request
16	124.5	239.4	on request	251.4	on request
17	139.8	269.7	on request	283.4	on request
18	156.2	302.5	on request	317.7	on request
19	175.7	338.9	on request	355.9	on request
20	193.0	374.2	on request	393.0	on request
21	213.9	412.2	on request	432.9	on request
22	234.2	452.0	on request	474.7	on request
23	256.0	494.8	on request	519.6	on request
24	279.0	540.3	on request	567.4	on request
25	304.3	587.1	on request	616.6	on request
26	327.0	634.2	on request	666.1	on request
27	354.4	683.6	on request	717.9	on request
28	380.2	734.0	on request	770.9	on request
30	439.1	846.3	on request	888.8	on request
32	497.7	959.6	on request	1,007.8	on request
34	558.6	1,079.3	on request	1,133.0	on request
36	631.4	1,221.5	on request	1,282.8	on request
38	701.4	1,352.4	on request	1,418.4	on request
40	774.4	1,495.0	on request	1,569.0	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 813



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

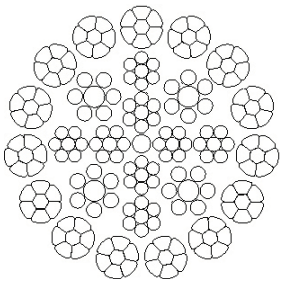
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
10	48.0	92.2	on request	96.9	on request
11	56.3	108.4	on request	113.9	on request
12	68.3	130.8	on request	137.3	on request
13	79.3	152.4	on request	160.0	on request
14	92.9	178.8	on request	187.7	on request
15	107.5	206.3	on request	216.6	on request
16	121.9	234.1	on request	245.8	on request
17	138.3	265.4	on request	278.7	on request
18	155.3	298.4	on request	313.4	on request
19	171.8	329.5	on request	346.1	on request
20	190.9	370.0	on request	388.6	on request
21	210.7	406.3	on request	426.7	on request
22	231.5	446.3	on request	468.7	on request
23	251.9	487.0	on request	511.4	on request
24	275.7	531.5	on request	558.1	on request
25	298.8	576.3	on request	605.2	on request
26	322.9	624.1	on request	655.4	on request
27	346.8	669.1	on request	702.6	on request
28	373.7	721.0	on request	757.2	on request
30	429.9	828.8	on request	870.4	on request
32	484.8	935.5	on request	982.4	on request
34	551.2	1,063.9	on request	1,117.3	on request

Other rope diameters available on request.

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 812



Number of outer strands:
15

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
non-rotating

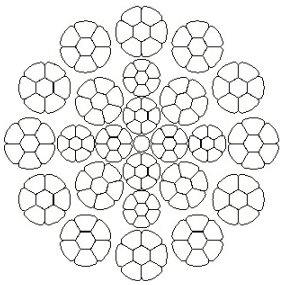
Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	26	-	-	53.5	on request
9	33	-	-	67.5	on request
10	43	83.7	on request	87.8	on request
11	52	101.5	on request	106.4	on request
12	62	120.8	on request	126.6	on request
13	74	142.4	on request	149.3	on request
14	85	164.7	on request	172.7	on request
15	100	193.4	on request	202.8	on request
16	113	218.9	on request	229.6	on request
17	128	247.7	on request	259.8	on request
18	143	277.4	on request	290.9	on request
19	160	310.2	on request	325.4	on request
20	176	339.6	on request	356.2	on request
21	196	377.2	on request	395.6	on request
22	218	421.4	on request	441.9	on request
23	238	459.8	on request	482.2	on request
24	258	496.9	on request	521.2	on request
25	280	540.9	on request	567.2	on request
26	299	578.0	on request	606.2	on request
27	329	634.6	on request	665.5	on request
28	355	684.6	on request	717.9	on request
29	405	782.1	on request	820.3	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 811



Number of outer strands:
12

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sS / zZ

Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

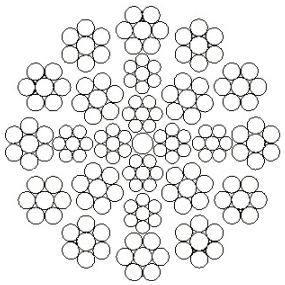
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.
7.2	22.9	43.7	on request
8	28.0	55.1	on request
9	35.6	69.6	on request
10	46.4	88.2	on request
11	56.0	108	on request
12	66.9	128	on request
12.7	74.8	142	on request
13	77.9	149	on request
14	90.7	174	on request
15	105.4	198	on request
16	120.4	230	on request
17	133.6	256	on request
18	150.8	294	on request
19	169.4	324	on request
20	188.3	354	on request
21	210.0	402	on request
22	228.4	433	on request
24	275.1	526	on request
26	320.3	610	on request
28	371.3	706	on request
30	424.3	808	on request
32	480.1	935	on request

Other rope diameters available on request.

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 810



Number of outer strands:
12

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

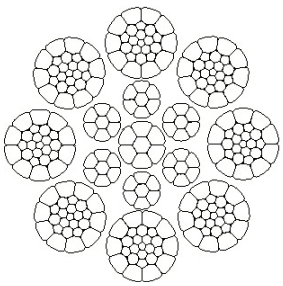
Categories:
non-rotating

Swivel:
allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
7.2	20.9	39.5	on request	42.5	on request
8	26.6	50.1	on request	53.9	on request
9	33.3	62.7	on request	67.4	on request
10	43.3	80.5	on request	87.4	on request
11	52.7	98.8	on request	106	on request
12	61.4	116	on request	125	on request
13	72.7	136	on request	147	on request
14	82.9	156	on request	167	on request
15	95.6	180	on request	194	on request
16	110.5	207	on request	223	on request
17	123.5	232	on request	249	on request
18	138.5	260	on request	279	on request
19	156.1	293	on request	315	on request
20	171.5	322	on request	347	on request
22	206.0	386	on request	415	on request
24	244.9	460	on request	495	on request

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 825



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

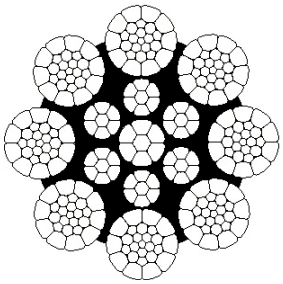
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	28.4	-	-	58.0	on request
9	36.2	-	-	73.6	on request
10	45.8	-	-	92.4	on request
11	55.3	-	-	112	on request
12	64.9	126	on request	133	on request
13	76.9	149	on request	156	on request
14	89.6	173	on request	182	on request
15	103.4	201	on request	211	on request
16	114.8	221	on request	232	on request
18	147.9	285	on request	299	on request
19	163.2	314	on request	330	on request
20	183.8	354	on request	372	on request
22	217.3	419	on request	439	on request
24	254.8	510	on request	535	on request
26	305.4	589	on request	618	on request
28	412.8	686	on request	719	on request
30	469.4	794	on request	833	on request
32	526.1	905	on request	949	on request
34	596.9	1,018	on request	1,067	on request
36	661.2	1,148	on request	1,204	on request
38	729.8	1,271	on request	1,332	on request
40	757.9	1,410	on request	1,479	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 818



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

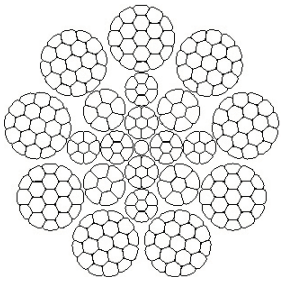
Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
8	28.4	-	-	58.0	on request
9	36.2	-	-	73.6	on request
10	45.8	-	-	92.4	on request
11	55.3	-	-	112	on request
12	64.9	126	on request	133	on request
13	76.9	149	on request	156	on request
14	89.6	173	on request	182	on request
15	103.4	201	on request	211	on request
16	114.8	221	on request	232	on request
18	147.9	285	on request	299	on request
19	163.2	314	on request	330	on request
20	183.8	354	on request	372	on request
22	217.3	419	on request	439	on request
24	254.8	510	on request	535	on request
26	305.4	589	on request	618	on request
28	412.8	686	on request	719	on request
30	469.4	794	on request	833	on request
32	526.1	905	on request	949	on request
34	596.9	1,018	on request	1,067	on request
36	661.2	1,148	on request	1,204	on request
38	729.8	1,271	on request	1,332	on request
40	757.9	1,410	on request	1,479	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 826



Number of outer strands:
9

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

Swivel:
not allowed

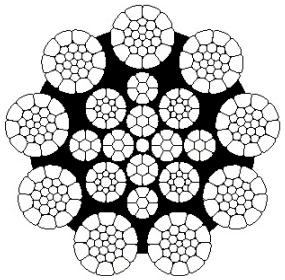
Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
9	37.3	69.5	on request	74.9	on request
10	45.9	86.0	on request	92.2	on request
11	55.4	104	on request	111	on request
12	65.0	122	on request	132	on request
13	79.0	148	on request	159	on request
14	89.9	168	on request	181	on request
15	105.2	198	on request	213	on request
16	118.8	223	on request	240	on request
18	149.1	280	on request	301	on request
19	169.8	318	on request	343	on request
20	185.6	349	on request	375	on request
22	224.9	423	on request	455	on request
24	268.8	505	on request	543	on request
25	290.7	546	on request	587	on request
26	316.3	593	on request	638	on request
28	364.2	683	on request	734	on request
30	420.7	807	on request	848	on request
32	482.6	929	on request	975	on request
34	547.2	1,050	on request	1,102	on request
35	573.0	1,103	on request	1,159	on request
36	611.8	1,173	on request	1,232	on request
38	679.1	1,307	on request	1,372	on request

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 817



Number of outer strands:
9

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

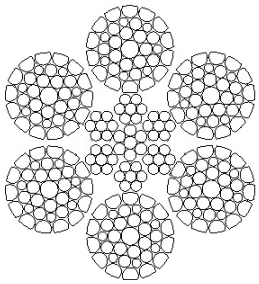
Categories:
rotating / not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²		Tensile strength 2,160 N/mm²	
		Minimum breaking load in kN	Item no.	Minimum breaking load in kN	Item no.
9	37.3	69.5	on request	74.9	on request
10	45.9	86.0	on request	92.2	on request
11	55.4	104	on request	111	on request
12	65.0	122	on request	132	on request
13	79.0	148	on request	159	on request
14	89.9	168	on request	181	on request
15	105.2	198	on request	213	on request
16	118.8	223	on request	240	on request
18	149.1	280	on request	301	on request
19	169.8	318	on request	343	on request
20	185.6	349	on request	375	on request
22	224.9	423	on request	455	on request
24	268.8	505	on request	543	on request
25	290.7	546	on request	587	on request
26	316.3	593	on request	638	on request
28	364.2	683	on request	734	on request
30	420.7	807	on request	848	on request
32	482.6	929	on request	975	on request
34	547.2	1,050	on request	1,102	on request
35	573.0	1,103	on request	1,159	on request
36	611.8	1,173	on request	1,232	on request
38	679.1	1,307	on request	1,372	on request

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 824



Number of outer strands:
6

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

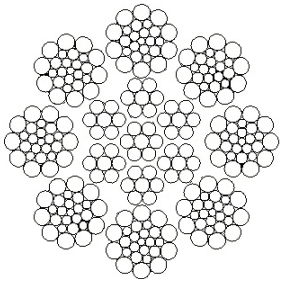
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm²	
		Minimum breaking load in kN	Item no.
10	44.4	87.7	on request
11	54.4	107	on request
12	63.6	126	on request
13	76.3	150	on request
14	87.4	169	on request
15	98.5	191	on request
16	112.9	219	on request
17	128.9	251	on request
18	142.8	277	on request
19	160.4	311	on request
20	178.1	345	on request
22	216.3	419	on request
24	261.4	504	on request
25	279.6	543	on request
26	308.7	598	on request
28	352.5	682	on request
29	380.7	738	on request
30	405.3	787	on request
32	460.6	891	on request
34	522.2	1,012	on request
35	555.9	1,076	on request
36	584.7	1,132	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 819



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

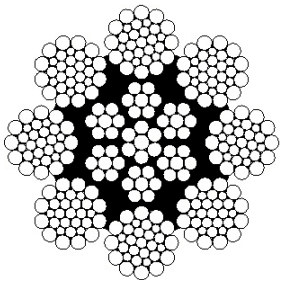
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
8	26.2	49.7	on request
9	33.4	63.3	on request
10	41.2	78.1	on request
11	50.3	95.4	on request
12	60.4	115	on request
13	71.1	134	on request
14	83.0	157	on request
15	95.0	180	on request
16	110.7	209	on request
18	138.6	262	on request
19	153.1	289	on request
20	172.0	325	on request
22	206.6	391	on request
24	246.6	469	on request
26	286.0	541	on request
28	336.9	637	on request
30	386.8	733	on request
32	435.0	824	on request
34	490.1	925	on request
35	533.5	1,008	on request
36	620.5	1,052	on request
38	682.9	1,173	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 820



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

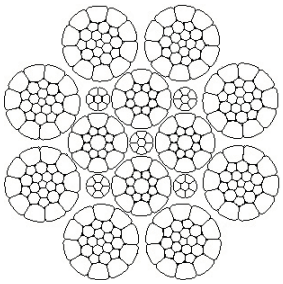
Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
8	26.2	49.7	on request
9	33.4	63.3	on request
10	41.2	78.1	on request
11	50.3	95.4	on request
12	60.4	115	on request
13	71.1	134	on request
14	83.0	157	on request
15	95.0	180	on request
16	110.7	209	on request
18	138.6	262	on request
19	153.1	289	on request
20	172.0	325	on request
22	206.6	391	on request
24	246.6	469	on request
26	286.0	541	on request
28	336.9	637	on request
30	386.8	733	on request
32	435.0	824	on request
34	490.1	925	on request
35	533.5	1,008	on request
36	620.5	1,052	on request
38	682.9	1,173	on request

Other rope diameters available on request.

STEEL WIRE ROPES

CondorRope Special Wire Ropes

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 821



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

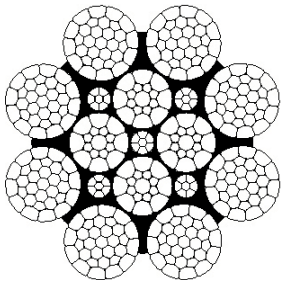
Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
6.4	19.1	41.4	on request
7	23.3	50.5	on request
7.2	24.5	53.2	on request
8	30.1	64.1	on request
8.5	34.1	73.3	on request
9	38.8	82.3	on request
10	47.5	102	on request
11	56.7	123	on request
12	67.8	147	on request
13	81.4	176	on request
14	93.5	203	on request
15	109.2	237	on request
16	121.6	264	on request
17	139.8	303	on request
18	154.2	335	on request
19	172.9	376	on request
20	189.6	411	on request
22	230.8	501	on request
24	281.0	606	on request
26	322.9	701	on request
28	374.0	810	on request
30	433.8	942	on request

Other rope diameters available on request.

Rope Type: Special Wire Rope
Rope Construction: CondorRope CS 822



Number of outer strands:
8

Surface available in:
U (ungalvanised) / B (galvanised)

Lay / Lay direction available in:
sZ / zS / sS / zZ

Categories:
rotating / not rotation-resistant

Swivel:
not allowed

Plastic inlay:
yes

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 2,160 N/mm² Minimum breaking load in kN	Item no.
6.4	19.1	41.4	on request
7	23.3	50.5	on request
7.2	24.5	53.2	on request
8	30.1	64.1	on request
8.5	34.1	73.3	on request
9	38.8	82.3	on request
10	47.5	102	on request
11	56.7	123	on request
12	67.8	147	on request
13	81.4	176	on request
14	93.5	203	on request
15	109.2	237	on request
16	121.6	264	on request
17	139.8	303	on request
18	154.2	335	on request
19	172.9	376	on request
20	189.6	411	on request
22	230.8	501	on request
24	281.0	606	on request
26	322.9	701	on request
28	374.0	810	on request
30	433.8	942	on request

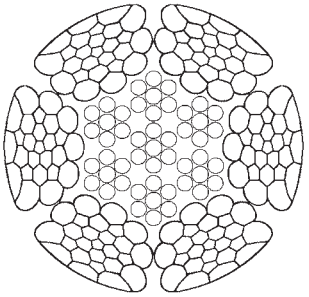
Other rope diameters available on request.

Special Wire Ropes for Harbor Cranes

STEEL WIRE ROPES

CondorRope Forestry Ropes

Rope Type: Stranded Rope
Rope Construction: CondorRope Forest K626



Number of outer strands:
6

Surface:
U (bk)

Lay / Lay direction:
sZ

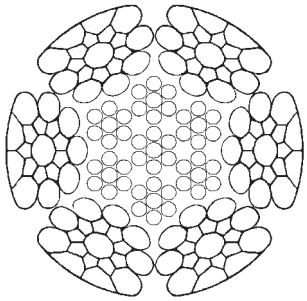
Categories:
rotating / not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
6	22.5	41.9	on request
7	28.9	53.9	on request
8	36.1	67.4	on request
9	44.1	82.3	WR0021952A
10	52.9	98.8	WR0021953A
11	62.5	117	WR0021954A
12	72.9	136	WR0021955A
13	84.1	157	WR0021956A
14	96.1	180	WR0021957A
16	108.9	203	WR0021958A

Rope Type: Stranded Rope
Rope Construction: CondorRope Forest K619



Number of outer strands:
6

Surface:
U (bk)

Lay / Lay direction:
sZ

Categories:
rotating / not rotation-resistant

Swivel:
not allowed

Plastic inlay:
no

Rope Ø in mm	Weight in kg/ 100 m	Tensile strength 1,960 N/mm² Minimum breaking load in kN	Item no.
6	22.5	41.9	on request
7	28.9	53.9	on request
8	36.1	67.4	WR0085715A
9	44.1	82.3	WR0085716A
10	52.9	98.8	WR0085717A
11	62.5	117	WR0085718A
12	72.9	136	WR0085719A

Drilling ropes in special 3-strand construction made from bright steel wires with a tensile strength of 1,770 N/mm² (180 kp/mm²) are also available at short notice!

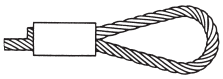
STEEL WIRE ROPES

Additional costs

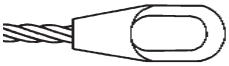
Table for additional costs without rope section

Seized end

Swaged loop



Casting of rope socket including synthetic resin casting material



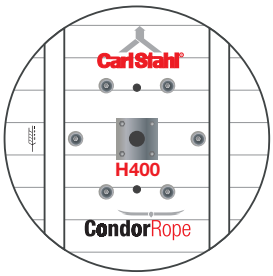
Pointed end (thermically turned off)

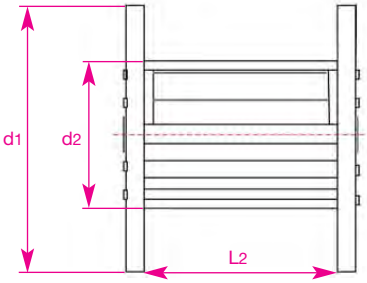
Cutting costs for fixed lengths

Rope Ø in mm	Item no. Seizing	Item no. Swaged loop	Item no. Casting of socket	Item no. Pointing	For rope Ø in mm	Item no.	Length up to m
5	1131.00.50	PSZ0.00.50	-	1130.00.50	4-12	1150.04.01	100
6	1131.00.60	PSZ0.00.60	-	1130.00.60	4-12	1150.04.02	200
7	1131.00.70	PSZ0.00.70	-	1130.00.70	4-12	1150.04.03	300
8	1131.00.80	PSZ0.00.80	-	1130.00.80	4-12	1150.04.04	400
9	1131.00.90	PSZ0.00.90	-	1130.00.90	4-12	1150.04.05	500
10	1131.01.00	PSZ0.01.00	VE00.01.00	1130.01.00	4-12	1150.04.06	600
11	1131.01.10	PSZ0.01.10	VE00.01.10	1130.01.10	4-12	1150.04.07	700
12	1131.01.20	PSZ0.01.20	VE00.01.20	1130.01.20	4-12	1150.04.08	800
13	1131.01.30	PSZ0.01.30	VE00.01.30	1130.01.30	4-12	1150.04.09	900
14	1131.01.40	PSZ0.01.40	VE00.01.40	1130.01.40	4-12	1150.04.10	1000
15	1131.01.50	PSZ0.01.50	VE00.01.50	1130.01.50	13-30	1150.13.01	100
16	1131.01.60	PSZ0.01.60	VE00.01.60	1130.01.60	13-30	1150.13.02	200
17	1131.01.70	PSZ0.01.70	VE00.01.70	1130.01.70	13-30	1150.13.03	300
18	1131.01.80	PSZ0.01.80	VE00.01.80	1130.01.80	13-30	1150.13.04	400
19	1131.01.90	PSZ0.01.90	VE00.01.90	1130.01.90	13-30	1150.13.05	500
20	1131.02.00	PSZ0.02.00	VE00.02.00	1130.02.00	13-30	1150.13.06	600
21	1131.02.10	PSZ0.02.10	VE00.02.10	1130.02.10	13-30	1150.13.07	700
22	1131.02.20	PSZ0.02.20	VE00.02.20	1130.02.20	13-30	1150.13.08	800
23	1131.02.30	PSZ0.02.30	VE00.02.30	1130.02.30	13-30	1150.13.09	900
24	1131.02.40	PSZ0.02.40	VE00.02.40	1130.02.40	13-30	1150.13.10	1000
25	1131.02.50	PSZ0.02.50	VE00.02.50	1130.02.50	over 30	1150.31.01	100
26	1131.02.60	PSZ0.02.60	VE00.02.60	1130.02.60	over 30	1150.31.02	200
27	1131.02.70	PSZ0.02.70	VE00.02.70	1130.02.70	over 30	1150.31.03	300
28	1131.02.80	PSZ0.02.80	VE00.02.80	1130.02.80	over 30	1150.31.04	400
29	1131.02.90	PSZ0.02.90	VE00.02.90	1130.02.90	over 30	1150.31.05	500
30	1131.03.00	PSZ0.03.00	VE00.03.00	1130.03.00	over 30	1150.31.06	600
31	1131.03.10	PSZ0.03.10	VE00.03.10	1130.03.10	over 30	1150.31.07	700
32	1131.03.20	PSZ0.03.20	VE00.03.20	1130.03.20	over 30	1150.31.08	800
33	1131.03.30	PSZ0.03.30	VE00.03.30	1130.03.30	over 30	1150.31.09	900
34	1131.03.40	PSZ0.03.40	VE00.03.40	1130.03.40	over 30	1150.31.10	1000
35	1131.03.50	PSZ0.03.50	VE00.03.50	1130.03.50			
36	1131.03.60	PSZ0.03.60	VE00.03.60	1130.03.60			
37	1131.03.70	PSZ0.03.70	VE00.03.70	1130.03.70			
38	1131.03.80	PSZ0.03.80	VE00.03.80	1130.03.80			
39	1131.03.90	PSZ0.03.90	VE00.03.90	1130.03.90			
40	1131.04.00	PSZ0.04.00	VE00.04.00	1130.04.00			
41	1131.04.10	PSZ0.04.10	VE00.04.10	1130.04.10			
42	1131.04.20	PSZ0.04.20	VE00.04.20	1130.04.20			
43	1131.04.30	PSZ0.04.30	VE00.04.30	1130.04.30			
44	1131.04.40	PSZ0.04.40	VE00.04.40	1130.04.40			
45	1131.04.50	PSZ0.04.50	VE00.04.50	1130.04.50			
46	1131.04.60	PSZ0.04.60	VE00.04.60	1130.04.60			
47	1131.04.70	PSZ0.04.70	VE00.04.70	1130.04.70			
48	1131.04.80	PSZ0.04.80	VE00.04.80	1130.04.80			
49	1131.04.90	PSZ0.04.90	VE00.04.90	1130.04.90			
50	1131.05.00	PSZ0.05.00	VE00.05.00	1130.05.00			

1X42 Carl Stahl Disposable Wooden Reels

Wooden reels from pine or spruce,
heat-treated with IPPC certification



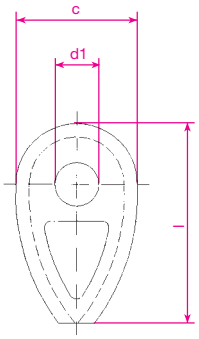


Reel type		400	500	600	700	800	900	1000	1200	1400	1600
Dimensions	d1 in mm	400	500	600	700	800	900	1000	1200	1400	1600
	L2 in mm	300	300	400	400	500	550	600	800	900	900
	d2 in mm	200	200	250	300	350	400	500	600	800	800
Weight in kg/pce		6.2	8.8	18.2	25.8	37.0	47.6	73.8	130	220	286
Item no.		1X420400	1X420500	1X420600	1X420700	1X420800	1X420900	1X421000	1X421200	1X421400	1X421600
Rope Ø in mm		max. rope length in m									
	5	712	1478	2803	3897	6081	8591	10925	21326	27395	33297
	6	466	996	1954	2702	4246	6000	7600	15042	19002	23123
	7	356	723	1442	1954	3027	4383	5565	11042	13796	16829
	8	251	560	1099	1520	2363	3343	4234	8396	10689	13007
	9	196	431	855	1203	1815	2599	3330	6505	8234	9957
	10	178	348	677	974	1479	2127	2708	5193	6809	8324
	11	137	297	562	769	1251	1777	2235	4337	5404	6601
	12	106	249	488	676	1027	1457	1846	3673	4751	5781
	13	98	205	406	569	863	1247	1592	3064	3919	4747
	14	89	166	343	489	757	1081	1391	2656	3421	4177
	15	-	158	286	415	657	955	1203	2370	3009	3700
	16	-	131	275	362	565	836	1059	2099	2672	3252
	17	-	116	224	332	527	725	896	1845	2309	2833
	18	-	-	214	285	445	621	796	1607	2059	2489
	19	-	-	178	271	385	579	746	1421	1781	2168
	20	-	-	169	229	370	506	633	1246	1702	2081
	21	-	-	-	217	301	487	611	1181	1488	1788
	22	-	-	-	179	288	421	529	1022	1287	1554
	23	-	-	-	169	274	386	509	992	1221	1481
	24	-	-	-	169	240	343	434	875	1188	1445
	25	-	-	-	136	228	327	416	820	1009	1236
	26	-	-	-	-	216	312	398	713	980	1171
	27	-	-	-	-	175	259	333	689	845	1012
	28	-	-	-	-	175	245	317	664	792	983
	29	-	-	-	-	164	245	301	568	765	954
	30	-	-	-	-	164	232	301	547	739	925
	31	-	-	-	-	-	199	244	525	624	784
	32	-	-	-	-	-	187	244	525	624	759
	33	-	-	-	-	-	187	231	440	600	733
	34	-	-	-	-	-	175	217	421	577	708
	35	-	-	-	-	-	-	217	402	475	585
	36	-	-	-	-	-	-	181	402	475	564
	37	-	-	-	-	-	-	-	383	455	542
	38	-	-	-	-	-	-	-	328	435	542
	39	-	-	-	-	-	-	-	312	435	520
	40	-	-	-	-	-	-	-	312	416	520
	42	-	-	-	-	-	-	-	295	330	397
	44	-	-	-	-	-	-	-	-	313	379
	46	-	-	-	-	-	-	-	-	297	361
	48	-	-	-	-	-	-	-	-	297	361
	50	-	-	-	-	-	-	-	-	224	275

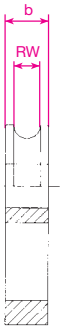
STEEL WIRE ROPES
Accessories

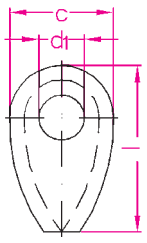
Solid Thimble acc. to DIN 3091

With standard bore hole (d1)
Surface: standard uncoated
Version: galvanised or hot-dipped galvanised on request



Nominal size: 16-80





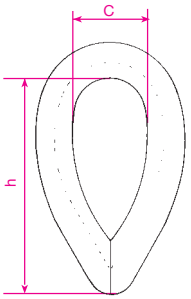
Nominal size: 8-14

RW	Dimensions in mm					Weight in kg/pce	Item no.
	RW	b	d1	c	l		
8	9	15.0	14	40	66	0.181	5980.00.08
10	11	17.5	18	50	82	0.318	5980.00.10
12	13	20.0	21	60	98	0.515	5980.00.12
14	16	23.5	25	70	114	0.799	5980.00.14
16	18	26.0	28	80	130	0.895	5980.00.16
18	20	28.5	31	90	145	1,211	5980.00.18
20	22	31.0	35	100	161	1,610	5980.00.20
22	24	33.5	38	110	177	2,110	5980.00.22
24	26	36.0	41	120	193	2,710	5980.00.24
26	29	39.5	44	130	209	3,550	5980.00.26
28	31	42.0	47	140	224	4,200	5980.00.28
32	35	47.0	53	160	256	6,300	5980.00.32

Available up to nominal size 80.
Option: bore hole with tolerance zone acc. to DIN ISO 286

Thimble acc. to DIN EN 13411-1

Material: St 37-2
Surface: hot-dipped galvanised

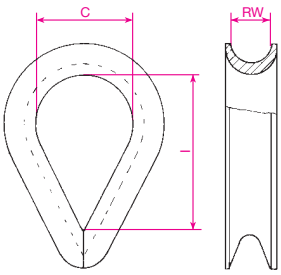


RW	Dimensions in mm				Weight in kg/100 pcs	Item no.
	RW	c	h	s		
4	5	10	29	2.1	1.20	5960.00.04
6	7	15	42	2.6	2.80	5960.00.06
8	9	20	46	4.0	5.70	5960.00.08
10	11	25	70	5.0	15.20	5960.00.10
12	13	30	85	6.0	24.00	5960.00.12*
14	16	35	102	8.0	38.00	5960.00.14
16	18	40	113	8.0	52.00	5960.00.16
18	20	45	127	9.0	66.00	5960.00.18
20	22	50	141	10.0	88.00	5960.00.20
22	24	55	153	10.0	104.00	5960.00.22*
24	26	60	165	10.0	129.00	5960.00.24*
26	29	65	181	12.0	260.00	5960.00.26
28	31	70	193	12.0	277.00	5960.00.28
32	35	80	223	15.0	440.00	5960.00.32*
36	40	90	247	15.0	460.00	5960.00.36
40	44	100	281	20.0	700.00	5960.00.40
44	48	110	305	20.0	1,000.00	5960.00.44*
48	53	120	329	25.0	1,200.00	5960.00.48

*Similar to DIN EN 13411-1

Polyamide Thimble

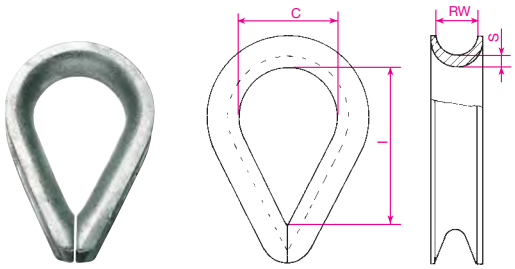
Material: Polyamide



RW	Dimensions in mm			Weight in kg/pce	Item no.
	RW	c	l		
2.5	3	6	9	0.004	5950.00.03
3.5	4	9	13	0.006	5950.00.04
5	6	12	18	0.018	5950.00.06
6	7	14	21	0.027	5950.00.07
8	9	20	29	0.046	5950.00.09
11	12	24	42	0.100	5950.00.12
12	13	26	45	0.126	5950.00.13
15	16	30	49	0.170	5950.00.16
16	18	36	53	0.280	5950.00.18

Thimble, similar DIN 6899, Form B

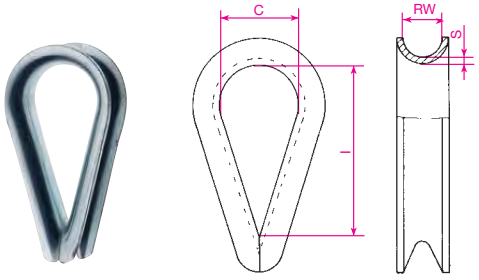
Medium-weight, with deep groove
Surface: galvanised



RW	Dimensions in mm				Weight	Item no.
	RW	c	l	s	in kg/100 pcs	
2.5	3	12	19	1.2	0.50	5910.00.03
3.5	4	13	21	1.2	0.80	5910.00.04
4	5	14	23	1.7	1.00	5910.00.05
5	6	16	25	2.2	1.60	5910.00.06
6	7	18	28	2.2	1.90	5910.00.07
7	8	20	32	2.7	3.00	5910.00.08
9	10	24	38	2.9	4.70	5910.00.10
11	12	28	45	3.2	6.80	5910.00.12
13	14	32	51	3.5	10.00	5910.00.14
15	16	36	58	3.8	14.50	5910.00.16
16	18	40	64	4.2	20.00	5910.00.18
18	20	45	72	5.2	29.00	5910.00.20
20	22	50	80	5.2	32.00	5910.00.22
22	24	56	90	6.2	47.00	5910.00.24
24	26	62	99	6.5	59.00	5910.00.26
26	28	70	112	7.3	80.00	5910.00.28
28	30	75	120	8.0	110.00	5910.00.30
30	32	80	128	8.0	123.00	5910.00.32
32	34	95	152	8.0	156.00	5910.00.34
34	36	100	160	8.0	176.00	5910.00.36
36	38	110	176	8.5	192.00	5910.00.38
38	40	115	184	10.5	292.00	5910.00.40
40	42	120	192	10.5	320.00	5910.00.42
42	45	150	240	10.5	364.00	5910.00.45

Thimble acc. to DIN 65457

Surface: galvanised



RW	Dimensions in mm				Weight	Item no.
	RW	c	l	s	in kg/100 pcs	
2	2.5	9	20.0	0.5	0.13	5930.00.02
2.5	3	10	21.5	0.5	0.14	5930.00.03
3	3.5	11	23.5	1.0	0.35	5930.00.35
3.5	4	12	26.5	1.0	0.38	5930.00.04
4	5	13	28.5	1.0	0.42	5930.00.05
5	6	14	30.0	1.0	0.80	5930.00.06
6	7	15	33.0	1.0	0.81	5930.00.07
7	8	16	35.0	1.2	1.10	5930.00.08
8	9	18	39.0	1.2	1.70	5930.00.09
9	10	20	43.0	1.5	2.10	5930.00.10
10	11	22	47.5	1.5	3.50	5930.00.11
11	12	24	51.0	1.5	3.70	5930.00.12
12	13	26	56.0	1.8	5.25	5930.00.13
13	14	28	61.0	2.5	7.25	5930.00.14
15	16	32	69.0	3.0	8.33	5930.00.16
16	18	35	78.0	3.0	17.90	5930.00.18
18	20	40	86.0	4.0	27.00	5930.00.20
20	22	44	95.0	5.0	35.50	5930.00.22
24/26	26	48	105.0	6.0	52.00	5930.00.26

STEEL WIRE ROPES

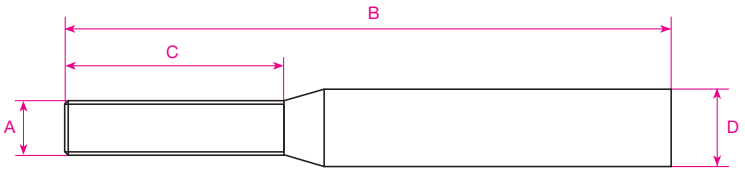
Accessories

CondorRope Threaded Terminal acc. to EN 13411-8

- Terminals forged from special steel
- Soft-annealed and ideal for cold forming due to fine grain structure
- Hexagonal swage
- Bright surface

Important note:

- Rope terminals can be used within a temperature range of -40°C (-40°F) and 150°C (302°F) without loss of load capacity
- Correctly swaged rope terminals reach a minimum of 90% of the minimum breaking load acc. to EN 13411-8 based on the indications in this catalogue.
- These rope terminals are not recommended for lang's lay ropes and steel wire ropes with fibre core.



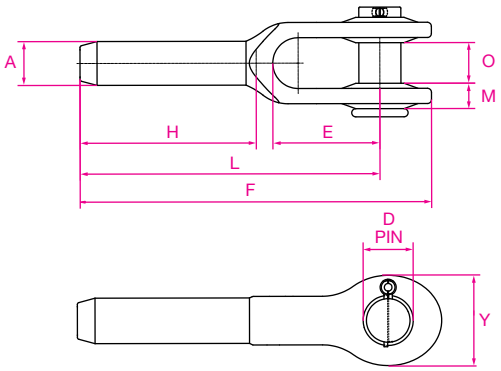
Nominal size	Rope Ø min	Rope Ø max	W accross flats D*	Dimensions after swage in mm B	C	A	Weight in kg/pce	Item no. threaded terminal
1/4	5.8	6.7	10.7	111.0	40.0	M10	0.1	5786.00.06
5/16	6.8	8.3	16.6	162.0	56.0	M14	0.3	5786.00.08
3/8	8.4	10.0	16.6	170.9	64.0	M16	0.3	5786.00.10
7/16	10.1	11.7	21.3	204.2	64.0	M20	0.5	5786.00.11
1/2	11.8	13.3	21.3	222.0	80.0	M20	0.5	5786.00.13
9/16	13.4	15.0	27.0	273.0	96.0	M24	1.1	5786.00.14
5/8	15.1	16.7	27.0	286.3	108.0	M27	1.2	5786.00.16
3/4	16.8	19.8	33.4	332.9	120.0	M30	2.0	5786.00.19
7/8	19.9	23.3	36.3	366.2	120.0	M30	2.5	5786.00.22
1	23.4	26.6	42.4	426.1	144.0	M36	4.0	5786.00.25
1 1/8	26.7	29.8	48.4	486.1	168.0	M42	6.0	5786.00.28
1 3/8	33.4	36.5	60.5	614.8	224.0	M56	12.4	-

* tolerance nominal size 1/4-7/8: +0.4 / -0 mm
* tolerance nominal size 1-1 1/8: +0.6 / -0 mm

CondorRope Fork Terminal acc. to EN 13411-8

- Terminals forged from special steel
- Soft-annealed and ideal for cold forming due to fine grain structure
- Hexagonal swage
- Bright surface

Important note:
- Rope terminals can be used within a temperature range of -40°C (-40°F) and 150°C (302°F) without loss of load capacity
- Correctly swaged rope terminals reach a minimum of 90% of the minimum breaking load acc. to EN 13411-8 based on the indications in this catalogue.
- These rope terminals are not recommended for lang's lay ropes and steel wire ropes with fibre core.



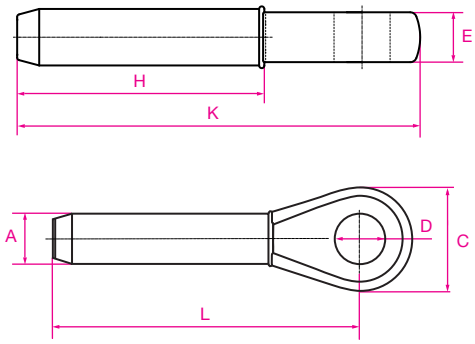
RW	Rope Ø		Dimensions after swage in mm									Weight	Item no.
	min	max	A*	D	E	F	H	L	M	O	Y	in kg/pce	fork terminal
1/4	5.8	6.7	10.7	17.5	38.1	127.2	60.5	108.1	7.9	17.5	34.9	0.3	5766.00.06
5/16	6.8	8.3	16.6	20.6	44.5	168.5	90.7	144.6	10.3	20.6	41.3	0.6	5766.00.08
3/8	8.4	10.0	16.6	20.6	44.5	168.5	90.7	144.6	10.3	20.6	41.3	0.5	5766.00.10
7/16	10.1	11.7	21.3	25.4	50.8	211.4	121.0	182.9	12.7	25.4	50.8	1.1	5766.00.11
1/2	11.8	13.3	21.3	25.4	50.8	211.4	121.0	182.9	12.7	25.4	50.8	1.1	5766.00.13
9/16	13.4	15.0	27.0	30.2	57.2	259.1	151.1	222.6	15.9	31.8	63.5	2.2	5766.00.14
5/8	15.1	16.7	27.0	30.2	57.2	259.1	151.1	222.6	15.9	31.8	63.5	2.0	5766.00.16
3/4	16.8	19.8	33.4	35.1	69.9	316.3	181.3	273.4	19.1	38.1	76.2	3.5	5766.00.19
7/8	19.9	23.3	36.3	41.4	82.6	368.8	211.6	318.0	23.8	44.5	85.7	5.4	5766.00.22
1	23.4	26.6	42.4	50.8	95.3	422.8	241.8	365.6	26.2	50.8	101.6	8.1	5766.00.25
1 1/8	26.7	29.8	48.4	57.2	108.0	473.6	272.0	410.1	30.2	57.2	114.3	13.1	5766.00.29

* Width across flats: tolerance nominal size 1/4-7/8: +0.4 / -0 mm
* Width across flats: tolerance nominal size 1-1 1/8: +0.6 / -0 mm

CondorRope Eye Terminal acc. to EN 13411-8

- Terminals forged from special steel
- Soft-annealed and ideal for cold forming due to fine grain structure
- Hexagonal swage
- Bright surface

Important note:
- Rope terminals can be used within a temperature range of -40°C (-40°F) and 150°C (302°F) without loss of load capacity
- Correctly swaged rope terminals reach a minimum of 90% of the minimum breaking load acc. to EN 13411-8 based on the indications in this catalogue.
- These rope terminals are not recommended for lang's lay ropes and steel wire ropes with fibre core.



Nominal	Rope Ø		Dimensions after swage in mm							Weight	Item no.
size	min	max	A*	C	D	E	H	K	L	in kg/pce	eye terminal
1/4	5.8	6.7	10.7	38.1	19.1	12.7	60.5	117.6	95.4	0.2	5767.00.06
5/16	6.8	8.3	16.6	42.9	22.2	17.5	90.7	149.4	124.0	0.3	5767.00.08
3/8	8.4	10.0	16.6	42.9	22.2	17.5	90.7	149.4	124.0	0.3	5767.00.10
7/16	10.1	11.7	21.3	50.8	27.0	22.2	121.0	189.2	159.1	0.7	5767.00.11
1/2	11.8	13.3	21.3	50.8	27.0	22.4	121.0	189.2	159.1	0.6	5767.00.13
9/16	13.4	15.0	27.0	63.5	31.8	28.6	151.1	238.5	200.4	1.3	5767.00.14
5/8	15.1	16.7	27.0	63.5	31.8	28.6	151.1	238.5	200.4	1.3	5767.00.16
3/4	16.8	19.8	33.4	76.2	36.5	33.3	181.3	282.9	238.5	2.3	5767.00.19
7/8	19.9	23.3	36.3	88.9	42.9	38.1	211.6	330.7	279.9	3.4	5767.00.22
1	23.4	26.6	42.4	101.6	52.4	44.5	241.8	375.2	318.0	5.1	5767.00.25
1 1/8	26.7	29.8	48.4	114.3	58.8	50.8	272.0	416.5	353.0	7.3	5767.00.29

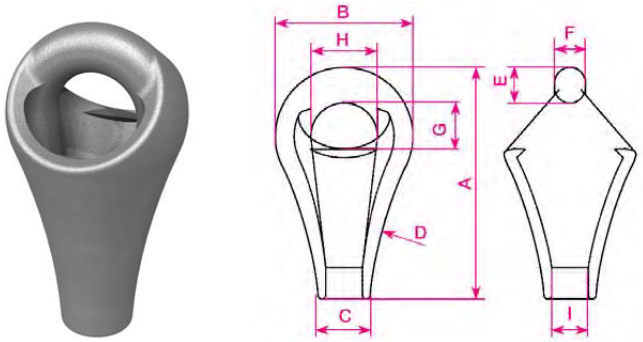
* Width across flats: tolerance nominal size 1/4-7/8: +0.4 / -0 mm
* Width across flats: tolerance nominal size 1-1 1/8: +0.6 / -0 mm

NEMAG Rope Pear

The Nemag rope pear socket is a rope termination that has been specially developed for use with steel wire ropes. Use of the Nemag rope pear socket guarantees for the best possible connection with other ropes or chains - especially in combination with the Nemag quick release link. The Nemag rope pear socket is manufactured from high-grade austenic manganese steel and generally lasts longer than the wire rope itself. The austenic manganese steel combines great toughness and high wear resistance.

NEMAG Rope Pear Socket

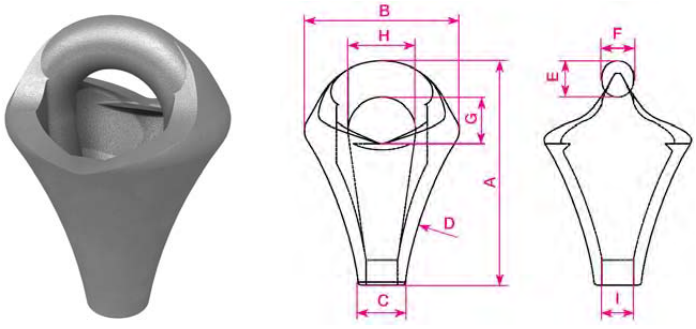
- Minimum breaking loads from 10,000 up to 240,000 kg
- Load capacities from 1,500 up to 42,500 kg (for use with grabs)
- Extremely robust design
- High-grade, wear-resistant cast steel
- Ideal fit, also suitable to run over pulleys or rope sheaves
- Reusable
- Easy handling, high safety and reliability and long useful life



Nominal size	Load capacity in kg	Minimum breaking load in kg	Rope Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H	I		
2	2000	14000	12-13	95	56	25	195	15.5	13.5	22	25	14	0.5	5571.00.20
3	2500	17500	14-15	109	64	28	220	17.5	15.5	24	29	16	0.6	5571.00.30
4	3000	22500	16-17	123	70	31	220	19.5	17.5	26	31	18	0.9	5571.00.40
5	4500	27500	18-19	135	84	33	245	21	19	30	42	20	1.3	5571.00.50
6	5000	35000	20-21	152	84	36	310	23	21	33	38	23	1.7	5571.00.60
7	7000	42500	22-24	166	100	40	310	26	23	37	48	26	2.3	5571.00.70
8	8000	52500	25-27	186	100	43	350	28	25	39	44	29	3.2	5571.00.80
9	11000	70000	28-30	202	120	45	350	31	27	40	58	32	4.1	5571.00.90
10	13000	85000	31-33	222	120	52	445	32	28.5	45	56	37	5.2	5571.01.00
11	15000	95000	34-36	239	142	55	445	36	31.5	50	70	40	6.4	5571.01.10
12	17000	110000	37-39	264	142	60	495	39	34.5	51	64	41	7.9	5571.01.20
13	21000	125000	40-42	285	166	63	555	43	36.5	59	80	44	9.5	5571.01.30
14	26000	155000	43-45	312	166	68	595	47	40	62	72	48	11.2	5571.01.40
15	30000	180000	46-48	337	170	75	595	51	44	66	68	53	13	5571.01.50
17	42500	240000	52-56	400	220	84	880	60	54	75	90	59	23	5571.01.70

NEMAG Rope Pear Socket Type S

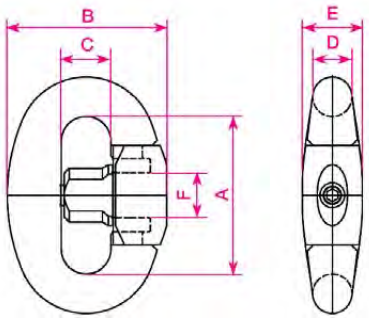
- Specially suitable for compacted steel wire ropes
- Minimum breaking loads from 70,000 up to 215,000 kg
- Load capacities from 11,000 up to 36,000 kg (for use with grabs)
- Extremely robust design
- High-grade, wear-resistant cast steel
- Ideal fit, also suitable to run over pulleys or rope sheaves
- Reusable
- Easy handling, high safety and reliability and long useful life



Nominal size	Load capacity in kg	Minimum breaking load in kg	Rope Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
				A	B	C	D	E	F	G	H	I		
924	11000	7000	22-24	192	133	40	325	31	27	40	58	27	4	5572.00.10
1026	13000	85000	25-27	212	143	43	375	35	30.5	43	60	30	5	5572.00.20
1130	15000	95000	28-30	239	156	45	400	36	31.5	50	70	33	7	5572.00.30
1232	17000	110000	31-33	249	165	52	450	39	34.5	57	72	36	8.5	5572.00.40
1336	21000	125000	34-36	285	184	62	450	43	36.5	60	80	40	9.5	5572.00.50
1440	26000	155000	37-40	297	192	60	475	47	40	62	80	44	12	5572.00.60
3221	32500	189000	42-44	314	204	66	425	53	46	70	80	47	13.5	5572.00.70
1548	30000	180000	46-48	329	192	67	575	51	44	66	80	52	12.5	5572.00.80
1648	36000	215000	46-48	343	218	70	500	56	50	75	80	52	18	5572.00.90

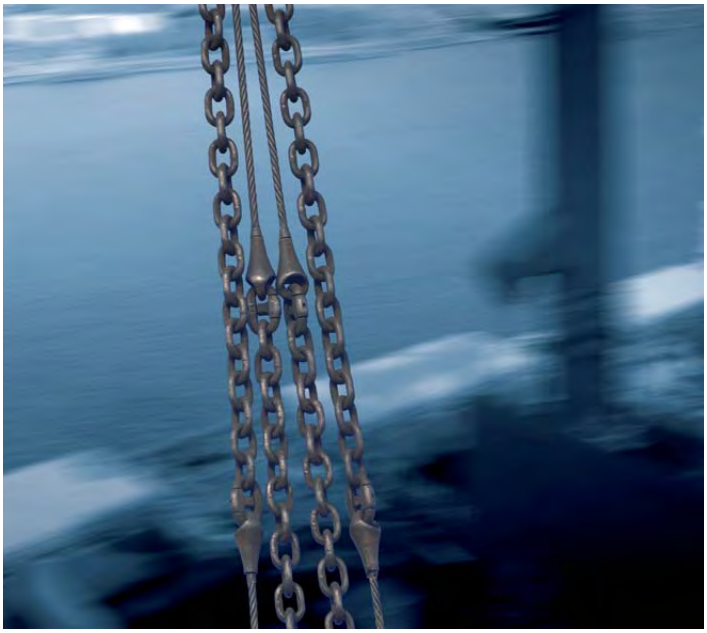
NEMAG Quick Release Link

The Nemag quick release link has been developed for quick and efficient coupling and uncoupling of grabs on cranes. Since many years the Nemag quick release link is also used in other applications, especially where loads have to be frequently coupled or uncoupled using steel wire ropes or chains. The Nemag quick release link consists of a C-section and a locking piece which are both manufactured from special steel. To increase useful life, the contact surfaces of the C-section have been specially hardened. The sealed locking piece is weel protected against damage and dirt.



- Minimum breaking loads from 25,000 up to 260,000 kg
- Load capacities from 3,000 up to 42,500 kg (for use with grabs)
- C-section forged from high-grade steel with a tensile strength of 1,000-1,100 N/mm²
- Locking piece forged from high-grade steel with a tensile strength of 800-1,000 N/mm²
- Locking piece with safety lock
- Contact surfaces are specially hardened
- Safe locking mechanism, no accidential loosening during operation is possible
- Mounted in seconds
- Grab exchange possible within 10 minutes by just 1 person
- Also suitable as chain connecting link
- C-sections and locking pieces are interchangeable
- Individual test certificate for each quick release link

Nominal size	Load capacity in kg	Minimum breaking load in kg	Dimensions in mm						Weight in kg/pce	Item no.
			A	B	C	D	E	F		
4	3000	25000	76	76	24.5	19	30	21	0.9	5576.00.40
5	4500	33000	84	84	27	21	32.5	23	1.2	5576.00.50
6	5000	37500	92	92	29.5	23	35	25	1.5	5576.00.60
7	7000	49000	100	100	32	25	38	28	2.0	5576.00.70
8	8000	54000	108	108	34.5	27	40.5	31	2.5	5576.00.80
9	9500	60000	116	116	37	29	43.5	34	3.1	5576.00.90
10	12000	75000	128	128	40.5	32	48	37	4.4	5576.01.00
11	15000	95000	140	140	44	35	53	40	5.7	5576.01.10
12	17000	110000	152	152	47.5	38	57	43	7.2	5576.01.20
13	21000	135000	164	164	51	41	61.5	46	8.7	5576.01.30
14	26000	160000	176	173	54	44	66	50	11	5576.01.40
15	30000	175000	188	188	58	47	70.5	52	13.5	5576.01.50
17	42500	260000	222	222	68	56	84	62	23	5576.01.70

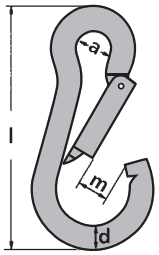


STEEL WIRE ROPES

Accessories

Firefighting Snap Hook*

Similar DIN 5299, Form C
Surface: galvanised

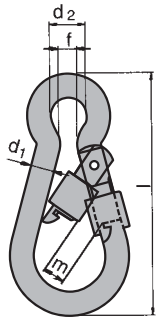


Load capacity in kg	Dimensions in mm l x d Ø	a	m	Weight in kg/100 pcs	Item no.
100	40 x 4	6	7	1.10	5140.00.40
120	50 x 5	8	7	1.90	5140.00.50
120	60 x 6	9	8	2.70	5140.00.60
180	70 x 7	10	8	4.40	5140.00.70
230	80 x 8	10	10	6.50	5140.00.80
250	90 x 9	12	10	8.80	5140.00.90
350	100 x 10	15	11	12.70	5140.01.00
450	120 x 11	18	16	18.00	5140.01.20
510	140 x 12	20	19	26.00	5140.01.40
600	160 x 13	22	23	35.00	5140.01.60
650	180 x 14	22	33	48.00	5140.01.80

***These snap hooks must not be used for lifting purposes.**

Firefighting Snap Hook with Safety Screw*

Surface: galvanised



Load capacity in kg	Nominal size	Dimensions in mm d1	d2	f	l	m	Weight in kg/100 pcs	Item no.
120	60 x 6	6	9	5	60	8	2.90	5141.00.60
180	70 x 7	7	10	8	70	8	4.60	5141.00.70
230	80 x 8	8	12	8	80	10	6.90	5141.00.80
250	90 x 9	9	12	9	90	10	9.70	5141.00.90
350	100 x 10	10	15	10	100	11	13.40	5141.01.00
450	120 x 11	11	18	11	120	16	19.00	5141.01.20
510	140 x 12	12	20	14	140	19	26.50	5141.01.40

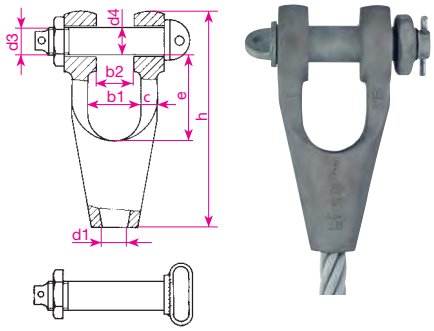
***These snap hooks must not be used for lifting purposes.**

Open Spelter Socket Form B acc. to DIN 83313 without Bolt

Material: GS-45.1
Finish: natural

Open Spelter Socket Form C acc. to DIN 83313 with Bolt, Nut, and Pin

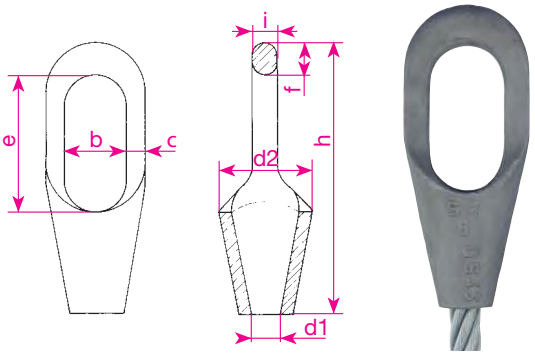
Material: GS-45.1
Finish: natural



Load cap. in kg	Nominal size	For rope Ø in mm	Dimensions in mm							Weight in kg		Item no.	Item no.
			b1	b2	c	d3	d4	e	h	5891	5892		
1600	1.6	12-14	37	27	12	M20	20	55	147	0.9	1.1	5891.00.16	5892.00.16
2500	2.5	14-18	45	33	14	M24	24	67	175	1.4	1.8	5891.00.25	5892.00.25
3150	3.0	16-20	50	38	16	M27	27	73	195	1.8	2.4	5891.00.31	5892.00.31
4000	4.0	18-22	54	42	18	M30	30	81	212	2.4	3.2	5891.00.40	5892.00.40
5000	5.0	20-24	60	47	20	M36	36	88	237	3.7	5	5891.00.50	5892.00.50
6300	6.0	22-28	67	53	23	M39	39	94	262	5.0	6.7	5891.00.63	5892.00.63
8000	8.0	26-30	73	60	26	M45	45	104	289	7.0	9.5	5891.00.80	5892.00.80
10000	10.0	28-34	80	66	29	M48	48	116	320	10.0	13	5891.01.00	5892.01.00
12500	12.0	32-38	89	73	32	M52	52	130	356	13.0	17	5891.01.25	5892.01.25
16000	16.0	36-44	100	81	35	M60	60	143	397	18.0	24	5891.01.60	5892.01.60
20000	20.0	40-50	110	90	40	M68	68	157	435	23.0	31	5891.02.00	5892.02.00
25000	25.0	44-54	120	100	43	M72x6	72	179	480	31.0	41	5891.02.50	5892.02.50
31500	32.0	50-62	132	110	48	M80x6	80	191	525	42.0	55	5891.03.15	5892.03.15
40000	40.0	58-72	150	125	54	M90x6	90	218	595	60.0	80	5891.04.00	5892.04.00
50000	50.0	61-76	165	140	60	M100x6	100	238	655	80.0	105	5891.05.00	5892.05.00

Closed Spelter Socket Form A acc. to DIN 83313

Form A
Material: GS-45.1
Finish: natural



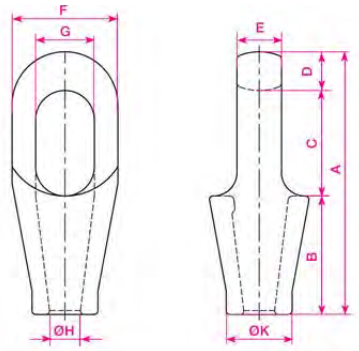
Load cap. in kg	Nominal size	For rope Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
			b	c	d1	d2	e	f	h	l		
1600	1.6	12-14	37	12	17	55	76	19	155	15	0.7	5890.00.16
2500	2.5	14-18	45	14	20	62	89	24	182	19	1.2	5890.00.25
3150	3.0	16-20	50	16	22	69	98	26	202	21	1.5	5890.00.31
4000	4.0	18-22	54	18	24	76	106	30	220	24	2.0	5890.00.40
5000	5.0	20-24	60	20	27	85	117	34	245	27	3.1	5890.00.50
6300	6.0	22-28	67	23	30	94	131	38	275	30	4.2	5890.00.63
8000	8.0	26-30	73	26	33	103	143	42	300	33	5.8	5890.00.80
10000	10.0	28-34	80	29	36	112	160	45	330	36	8.0	5890.01.00
12500	12.0	32-38	89	32	40	125	179	51	370	41	11.0	5890.01.25
16000	16.0	36-44	100	35	45	140	200	56	415	46	15.0	5890.01.60
20000	20.0	40-50	110	40	50	156	224	62	460	50	20.0	5890.02.00
25000	25.0	44-54	120	43	55	173	246	69	505	55	27.0	5890.02.50
31500	32.0	50-62	132	48	60	188	270	76	555	61	35.0	5890.03.15
40000	40.0	58-72	150	54	68	212	308	85	630	68	50.0	5890.04.00
50000	50.0	62-76	165	60	75	235	339	94	695	75	67.0	5890.05.00

STEEL WIRE ROPES

Accessories

SILVERLINE Closed Spelter Socket

SILVERLINE closed spelter socket, galvanised
For rope Ø 6 to 102 mm

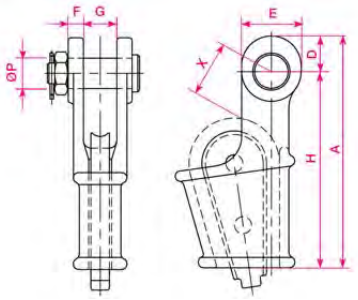


Type	Min. breaking load in kg	For rope Ø in mm	Dimensions in mm A	B	C	D	E	F	G	ØH	ØK	Weight in kg/pce	Item no.
CSS296	8000	6-7	102	46	45	11	14	38	22	10	20	0.3	5896.00.10
CSS297	12000	8-10	120	54	52	14	17.5	44	24	13.5	26	0.5	5896.00.20
CSS298	20000	11-13	140	64	59	17	23	53	30	15	30	0.7	5896.00.30
CSS299	25000	14-16	162	76	65	21	26	64	36	18.5	38.5	1.3	5896.00.40
CSS200	40000	18-19	194	89	78	27	32	75	42	22.5	46	2.1	5896.00.50
CSS201	55000	20-22	224	101	90	33	38	90	50	26.8	55	3.6	5896.00.60
CSS204	75000	23-26	253	114	103	36	45	101	57	29.5	62	5.1	5896.00.70
CSS207	90000	27-30	282	127	116	39	51	114	65	34	70	7	5896.00.80
CSS212	125000	31-36	312	139	130	43	57	127	71	40	83	10.4	5896.00.90
CSS215	150000	37-39	358	152	155	51	63	140	80	44.5	90	15	5896.01.00
CSS217	170000	40-42	390	165	171	54	70	148	84	48	97	18.5	5896.01.10
CSS219	225000	43-48	443	190	198	55	76	171	95	53	112	27.5	5896.01.20
CSS222	280000	49-54	502	216	224	62	82	193	111	58.5	125	39.5	5896.01.30
CSS224	360000	55-60	550	229	248	73	92	219	125	68.5	135	51	5896.01.40
CSS226	425000	61-68	597	248	270	79	102	241	140	77.5	150	67	5896.01.50
CSS227	460000	69-75	644	279	286	79	124	273	159	83	160	96	5896.01.60
CSS229	560000	76-80	689	305	298	86	133	292	171	89	170	118	5896.01.70
CSS222	625000	81-86	736	330	311	95	146	311	184	95	180	142	5896.01.80
CSS230	720000	87-93	788	356	330	102	159	330	197	99	200	175	5896.01.90
CSS231	875000	94-102	845	381	356	108	178	362	216	110	215	230	5896.02.00

SILVERLINE Wedge Socket

SILVERLINE wedge socket, galvanised
for rope Ø from 7 to 76 mm

Available with:
- Bolt and pin
- Bolt, nut, and pin

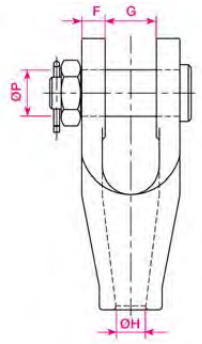


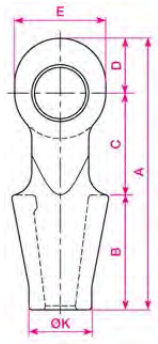
Type	Min. breaking load in kg	For rope Ø in mm	Dimensions in mm A	D	E	F	G	H	ØH	X	Weight in kg/pce	Item no. with bolt and pin	Item no. with bolt, nut and pin
OWS025	8000	7-8	130	20	34	9	18	110	17.5	40	0.7	5884.A0.10	5884.B0.10
OWS0.5	12000	9-10	150	23	40	11	20.5	125	20.6	45	1.2	5884.A0.20	5884.B0.20
OWS1	20000	11-13	183	27	48	12.7	25.6	156	25.4	60	2.3	5884.A0.30	5884.B0.30
OWS2	25000	14-16	224	32	56	14.5	32	192	30	65	3.6	5884.A0.40	5884.B0.40
OWS3	40000	17-19	272	40	70	16.5	38	232	35	70	6.3	5884.A0.50	5884.B0.50
OWS4	55000	20-22	312	48	80	20.5	45	264	41	80	10.3	5884.A0.60	5884.B0.60
OWS5	75000	23-26	370	58	100	22.5	51	312	51	90	16	5884.A0.70	5884.B0.70
OWS6	90000	27-29	413	65	110	25	57	348	57	100	21.5	5884.A0.80	5884.B0.80
OWS7	110000	30-32	455	71	122	28	63	384	63	110	30	5884.A0.90	5884.B0.90
OWS8	125000	34-36	508	76	132	28	70	432	63	125	36	5884.A1.00	5884.B1.00
OWS9	150000	37-39	548	80	140	30	76	468	70	140	50	5884.A1.10	5884.B1.10
OWS10	170000	40-42	589	85	150	33	76	504	76	155	60	5884.A1.20	5884.B1.20
OWS11	225000	43-48	674	98	170	39	89	576	89	175	90	5884.A1.30	5884.B1.30

SILVERLINE Open Spelter Socket

SILVERLINE open spelter socket, galvanised for rope Ø 6 to 102 mm

Available with:
- Bolt and pin
- Bolt, nut, and pin





Type	Min. breaking load in kg	For rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no. with bolt and pin	Item no. with bolt, nut and pin
			A	B	C	D	E	F	G	ØH	ØK	ØP			
OSS196	8000	6-7	105	46	40	19	34	9	18	10	20	17.5	0.4	5897.A0.10	5897.B0.10
OSS197	12000	8-10	122	57	45	23	40	11.2	20.6	13.5	26	20.6	0.8	5897.A0.20	5897.B0.20
OSS198	20000	11-13	142	64	51	27	48	12.7	25.6	15	30	25.4	1.1	5897.A0.30	5897.B0.30
OSS199	25000	14-16	171	76	63	32	56	14.5	32	18.5	38.5	30	1.9	5897.A0.40	5897.B0.40
OSS100	40000	18-19	205	89	76	40	68	16.5	38	22.5	46	35	3.2	5897.A0.50	5897.B0.50
OSS104	55000	20-22	238	101	89	48	80	20.5	45	26.8	55	41	5.3	5897.A0.60	5897.B0.60
OSS108	75000	23-26	273	114	101	58	98	22.5	51	29.5	62	51	8.4	5897.A0.70	5897.B0.70
OSS111	90000	27-30	306	127	114	65	110	25	57	34	70	57	11.3	5897.A0.80	5897.B0.80
OSS115	125000	31-36	337	139	127	71	122	28	63	40	83	63	16	5897.A0.90	5897.B0.90
OSS118	150000	37-39	394	152	162	80	140	30	76	44.5	90	70	23	5897.A1.00	5897.B1.00
OSS120	170000	40-42	415	165	165	85	148	33.5	76	48	97	76	29	5897.A1.10	5897.B1.10
OSS125	225000	43-48	467	191	178	98	170	39	89	53	112	89	43	5897.A1.20	5897.B1.20
OSS128	280000	49-54	552	216	228	108	186	46	101	58.5	125	195	64	5897.A1.30	5897.B1.30
OSS130	360000	55-60	603	229	254	120	210	53	113	68.5	135	108	86	5897.A1.40	5897.B1.40
OSS132	425000	61-68	554	248	273	133	230	60	127	77.5	150	121	118	5897.A1.50	5897.B1.50
OSS135	460000	69-75	696	279	279	138	240	73	133	83	160	127	160	5897.A1.60	5897.B1.60
OSS138	560000	76-80	736	305	286	145	250	76	146	89	170	133	186	5897.A1.70	5897.B1.70
OSS140	625000	81-86	790	330	300	160	275	79	159	95	180	140	225	5897.A1.80	5897.B1.80
OSS142	720000	87-93	849	356	318	175	300	82	172	99	200	152	280	5897.A1.90	5897.B1.90
OSS144	875000	94-102	922	381	343	198	336	89	191	110	215	178	375	5897.A2.00	5897.B2.00

STEEL WIRE ROPES
Accessories

Wedge Socket acc. to DIN 43148 / DIN EN 13411-6

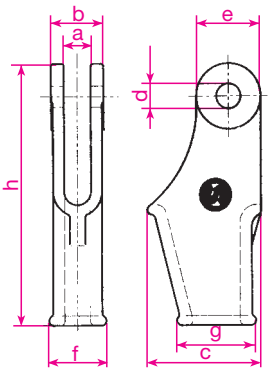
Finish: hot-dip galvanised

Suitable for passenger transportation

The eye screw strength must be tailored to the strength of the rope that is used.

Nominal size/rope Ø 2 - 15 mm acc. to DIN 43148 (not suitable for forestry use)

Nominal size/rope Ø 16 - 26 mm acc. to DIN EN 13411-6



Load capacity in kg	Nominal size Rope Ø in mm	Dimensions in mm a	b	c	d	e	f	g	h	Weight in kg	Item no.
50	2-3*	8	15	27	7.5	16	13	16.5	66	0.08	5880.02.04
250	4-5*	12	23	37	12	31	23	27.5	108	0.36	5880.04.05
500	6-7	14	26	61.5	14	35	30	39	150	0.75	5880.06.07
500	8	14	26	61.5	14	35	30	39	150	0.69	5880.00.08
500	9-12	14	26	61.5	14	35	30	39	150	0.65	5880.09.12
1000	10-12	17	31	66	17	37	32	47	163	0.82	5880.10.12
1000	12-14	17	31	66	17	37	32	47	163	0.78	5880.12.14
2500	12-15*	20	40	99	20	54	44	65	220	2.56	5880.12.15
5500	16-17	24	52	138	25	76	54	89	275	6.30	5880.16.17
5500	18	24	52	138	25	76	54	89	275	6.30	5880.16.20
8000	19-20	29	63	138	25	77	67	97	276	7.50	5880.19.20
10000	21	30	66	175	33.5	80	69	124	370	12.90	5880.21.26
10000	22-25	30	66	175	33.5	80	69	124	370	12.90	5880.24.26
12000	26-32	38	92	200	48.5	112	78	135	486	27.00	5880.27.32

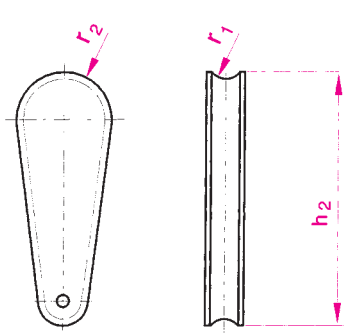
* off standard

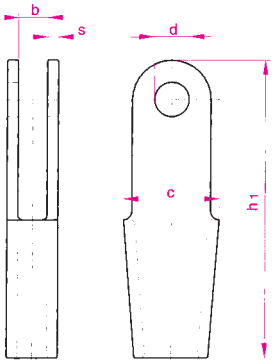
Wedge Socket acc. to DIN EN 13411-7

Finish: galvanised

Suitable for passenger transportation

The eye screw strength must be tailored to the strength of the rope that is used.





Rope Ø in mm	Dimensions in mm b	c	d	h1	s	r1	r2	h2	Weight in kg/pce	Item no.
4-5	12	33	10	110	3	2.5	9.5	68	0.17	5885.00.05
5-6.5	10	35	10	100	4	3.25	9	58	0.21	5885.00.06
6-8	14	45	12	150	4	4	12.5	92	0.50	5885.00.08
9-11	17	60	16	190	6	5.5	16	117	1.04	5885.00.11
12-14	22	78	18	230	8	7	19	141	2.07	5885.00.14
15-17	25	92	22	260	10	8.5	23	162	3.66	5885.00.17
18-20	27	106	25	300	12	10	26	186	5.35	5885.00.20
21-25*	32	108	42.5	284	12	13	30	182	6.22	5885.00.25
26-30**	38	127	52	335	14	15	30	180	10.10	5885.00.30
31-35**	44	174	55	390	27	18	34	203	23.64	5885.00.35
36-40**	50	189	60	460	29	21	35	227	33.22	5885.00.40

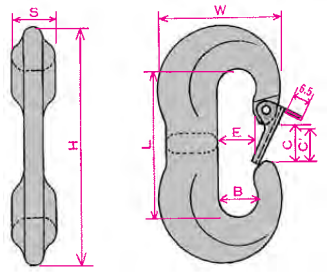
*cast version similar DIN EN 13411-7

**similar DIN EN 13411-7, must only be used for minor requirements

Wedge sockets acc. to DIN EN 13411-7 are not suitable for ropes with higher tensile strength than 1,770 N/mm².

STEEL WIRE ROPES
Accessories

Rope Connecting Hook (C hook)

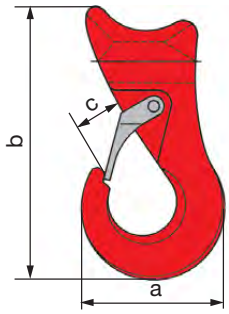


For wire rope Ø in mm	Type	Load cap. in kg factor 6:1	Load cap. in kg factor 4:1	Dimensions in mm								Weight in kg/pce	Item no.
				B	C	C'	E	H	L	S	W		
8	C8SL	500	750	18	18	15	17	100	68	12	50	0.2	5115.00.05
12	C12SL	1000	1500	18	18	15	17	110	68	20	58	0.4	5115.00.10
16	C16SL	2000	3000	26	23	19	21	144	89	28	71	0.8	5115.00.20
20	C20SL	4000	6000	34	30	25	25	170	110	32	88	1.7	5115.00.40

Choker Hook

Material: grade 8
Finish: painted red
Safety factor 2:1

Option:
Choker hook w/o safety latch

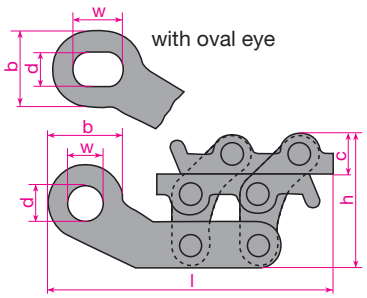


Max. pulling force in dN	Nominal size	For rope Ø in mm	Dimensions in mm			Weight in kg/pce	Item no.
			a	b	c		
4000	1.25	9-13	70	128	16	0.7	5310.00.12
6300	2.00	14-16	80	147	21.5	1.0	5310.00.20
8000	3.00	17-19	103	174	30	1.8	5310.00.30
10000	5.00	20-26	133	210	40	3.4	5310.00.50

Not for lifting - horizontal pulling only!
Indicated max. pulling force (in dN) for horizontal pull only.

Rope Tensioning Clamp for Wire Ropes

Forged steel, galvanised version
Nominal size 4-10 with round eye
Nominal size 16-38 with oval eye

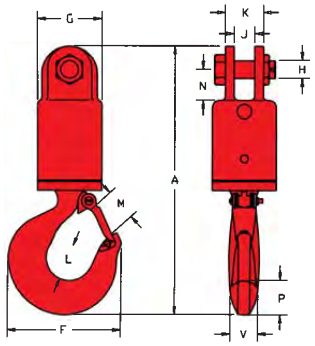


Rope Ø in mm	Eye type	Nominal size	WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
				b	c	d	h	l	w		
1-4	round	4	0.5	36	16	19	52	126	19	0.25	5802.00.04
3-8	round	8	1.0	38	24	22	76	166	21	0.85	5802.00.08
5-10	round	10	1.7	44	26	27	84	202	27	1.10	5802.00.10
8-16	oval	16	3.0	54	24	29	83	250	38	1.80	5802.00.16
12-26	oval	26	3.5	62	34	29	108	275	38	3.50	5802.00.26
20-38	oval	38	4.0	62	35	29	120	300	38	6.50	5802.00.38

STEEL WIRE ROPES

Accessories

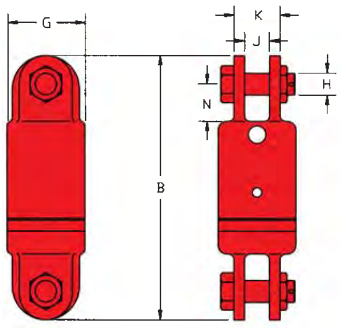
Swivel with Jaw and Hook



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		F	G	H	J	K	L	M	N	P	V		
3	13	125	70	19.1	22.4	41.2	35.1	34.0	33.3	36.6	28.5	4.31	5501.00.30
5	16	165	76	22.4	25.4	57.0	45.2	42.9	41.2	46.0	35.1	7.48	5501.00.50
8.5	19	192	102	25.4	39.6	71.5	54.0	52.5	54.0	57.0	41.2	15.20	5501.00.85
10	22	221	114	38.1	44.5	86.0	65.0	57.0	89.0	66.0	49.3	21.21	5501.01.00
15	26	279	127	38.1	44.5	86.0	73.0	76.0	89.0	76.0	60.5	33.45	5501.01.50
25	-	346	152	51.0	51.0	117	87.5	92.0	94.0	93.0	76.0	63.50	5501.02.50
35	-	357	165	51.0	51.0	117	98.5	95.5	94.0	116	81.0	99.79	5501.03.50
45	-	392	178	57.0	63.5	127	121	108	102	129	82.5	113.40	5501.04.50

***Individually proof tested to twice the working load limit.**
Minimum breaking load is 5 times the working load limit.

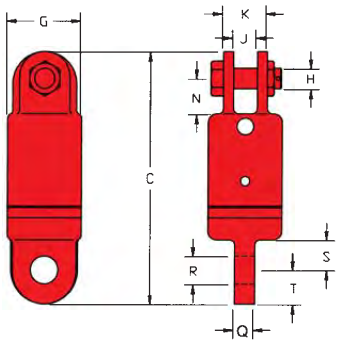
Swivel with 2 Jaws



Load cap.* in t	Rope Ø in mm	Dimensions in mm						Weight in kg/pce	Item no.
		D	G	Q	R	S	T		
3	13	239	70	19.1	26.2	28.5	31.8	4.20	5502.00.30
5	16	249	76	25.4	32.5	31.8	31.8	6.46	5502.00.50
8.5	19	302	102	31.8	35.8	41.2	38.1	13.27	5502.00.85
10	22	394	114	42.9	42.9	70.0	47.8	20.75	5502.01.00
15	26	416	127	49.3	51.5	70.0	54.0	33.45	5502.01.50
25	-	565	152	57.0	58.5	98.5	60.5	63.50	5502.02.50
35	-	556	165	57.0	58.5	98.5	60.5	70.31	5502.03.50
45	-	673	178	63.5	64.5	102	76.0	106.59	5502.04.50

***Individually proof tested to twice the working load limit.**
Minimum breaking load is 5 times the working load limit.

Swivel with Jaw and Eye

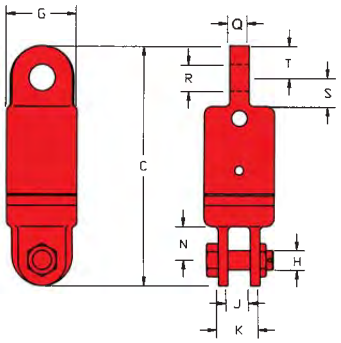


Load cap.* in t	Rope Ø in mm	Dimensions in mm									Weight in kg/pce	Item no.
		G	H	J	K	N	Q	R	S	T		
3	13	70	19.1	22.4	41.2	33.3	19.1	26.2	28.5	31.8	4.08	5503.00.30
5	16	76	22.4	25.4	57.0	41.2	25.4	32.5	31.8	31.8	6.12	5503.00.50
8.5	19	102	25.4	39.6	71.5	54.0	31.8	35.8	41.2	38.1	13.27	5503.00.85
10	22	114	38.1	44.5	86.0	89.0	42.9	42.9	70.0	47.8	19.73	5503.01.00
15	26	127	38.1	44.5	86.0	89.0	49.3	51.5	70.0	54.0	28.46	5503.01.50
25	-	152	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	61.23	5503.02.50
35	-	165	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	68.04	5503.03.50
45	-	178	57.0	63.5	127	102	63.5	64.5	102	76.0	102.06	5503.04.50

***Individually proof tested to twice the working load limit.**
Minimum breaking load is 5 times the working load limit.

STEEL WIRE ROPES
Accessories

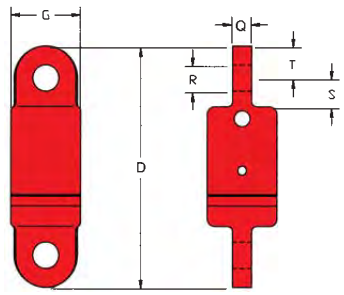
Swivel with Eye and Jaw



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		C	G	H	J	K	N	Q	R	S	T		
3	13	237	70	19.1	22.4	41.2	33.3	19.1	26.2	28.5	31.8	4.08	5504.00.30
5	16	256	76	22.4	25.4	57.0	41.2	25.4	32.5	31.8	31.8	6.24	5504.00.50
8.5	19	311	102	25.4	39.6	71.5	54.0	31.8	35.8	41.2	38.1	13.15	5504.00.85
10	22	409	114	38.1	44.5	86.0	89.0	42.9	42.9	70.0	47.8	19.96	5504.01.00
15	26	525	127	38.1	44.5	86.0	89.0	49.3	51.5	70.0	54.0	27.67	5504.01.50
25	-	546	152	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	61.23	5504.02.50
35	-	546	165	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	68.04	5504.03.50
45	-	657	178	57.0	63.5	127	102	63.5	64.5	102	76.0	102.06	5504.04.50

***Individually proof tested to twice the working load limit.**
Minimum breaking load is 5 times the working load limit.

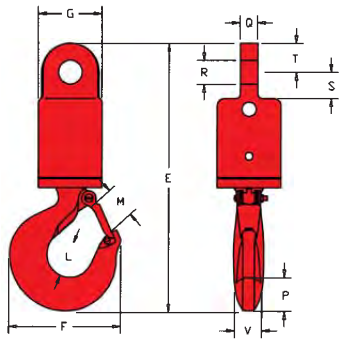
Swivel with 2 Eyes



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		C	G	H	J	K	N	Q	R	S	T		
3	13	237	70	19.1	22.4	41.2	33.3	19.1	26.2	28.5	31.8	3.86	5505.00.30
5	16	256	76	22.4	25.4	57.0	41.2	25.4	32.5	31.8	31.8	5.56	5505.00.50
8.5	19	311	102	25.4	39.6	71.5	54.0	31.8	35.8	41.2	38.1	13.27	5505.00.85
10	22	409	114	38.1	44.5	86.0	89.0	42.9	42.9	70.0	47.8	19.05	5505.01.00
15	26	525	127	38.1	44.5	86.0	89.0	49.3	51.5	70.0	54.0	27.67	5505.01.50
25	-	546	152	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	58.97	5505.02.50
35	-	546	165	51.0	51.0	117	94.0	57.0	58.5	98.5	60.5	65.77	5505.03.50
45	-	657	178	57.0	63.5	127	102	63.5	64.5	102	76.0	97.52	5505.04.50

***Individually proof tested to twice the working load limit.**
Minimum breaking load is 5 times the working load limit.

Swivel with Eye and Hook



Load cap.* in t	Rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		F	G	L	M	P	Q	R	S	T	V		
3	13	125	70	35.1	34.0	36.6	19.1	26.2	28.5	31.8	28.5	4.08	5506.00.30
5	16	165	76	45.2	42.9	46.0	25.4	32.5	31.8	31.8	35.1	6.92	5506.00.50
8.5	19	192	102	54.0	52.5	57.0	31.8	35.8	41.2	38.1	41.2	14.51	5506.00.85
10	22	221	114	65.0	57.0	66.0	42.9	42.9	70.0	47.8	49.3	20.64	5506.01.00
15	26	279	127	73.0	76.0	76.0	49.3	51.5	70.0	54.0	60.5	33.57	5506.01.50
25	-	346	152	87.5	92.0	93.0	57.0	58.5	98.5	60.5	76.0	61.23	5506.02.50
35	-	357	165	98.5	95.5	116	57.0	58.5	98.5	60.5	81.0	97.52	5506.03.50
45	-	392	178	121	108	129	63.5	64.5	102	76.0	82.5	122.17	5506.04.50

***Individually proof tested to twice the working load limit.**
Minimum breaking load is 5 times the working load limit.

Swivels with tapered roller thrust bearing

- Suitable for frequent rotation under load
- All swivels individually proof tested with certification
- All hooks furnished with latches assembled
- All jaws complete with bolts, nuts and cotter pins
- Pressure lube fitting provided
- Not to be used on demolition (wrecking) balls

STEEL WIRE ROPES
Accessories

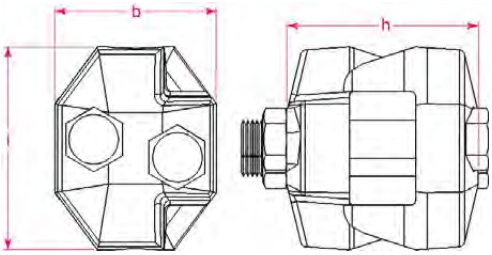
Wire Rope Clip Type BG, similar DIN EN 13411-3

IRONGRIP

The BG type wire rope clips meet today's high demands regarding a longer service life of steel wire ropes and simple attachment of the clamp. It is not only the safest but also an economic solution as only 2 clips per fixation are required. This clamp is also approved for general lifting purposes.

- Only 2 wire rope clips per fixation are required
- Approved for lifting with wire ropes of a tensile strength of up to 1,960 N/mm²
- Approved for wire ropes acc. to EN 12385-4, but not for compacted or special wire ropes
- The 2 clip halves are fully symmetric - allows mounting in all directions
- Temperature range from -50°C (-58°F) to 250°C (482°F)
- Tested acc. to DIN EN 13411-3
- Galvanised

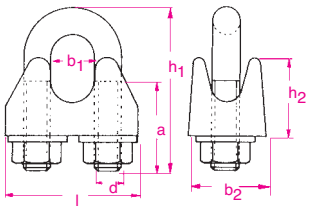
Type	Nominal size Rope Ø in mm	Dimensions in mm l	b	h (max.)	Weight in kg/100 pcs	Bolt size	Item no.
BG-600	5-6	32	26	28	9	M6 x 35	5830.10.06
BG-800	6.5-8	36	28	34	12	M6 x 40	5830.10.08
BG-1000	8.5-10	44	34	42	20	M8 x 50	5830.10.10
BG-1200	11-12.5	54	42	48	39	M10 x 60	5830.10.12
BG-1600	13-16	68	52	64	72	M12 x 75	5830.10.16
BG-2000	17-20	82	60	78	120	M14 x 90	5830.10.20
BG-2500	21-25	122	80	94	280	M18 x 110	5830.10.25
BG-3400	26-34	214	94	126	770	M20 x 150	5830.10.34



Type	Tightening torque in Nm	Clips per fixation
BG-600	9.5	2
BG-800	9.5	2
BG-1000	22	2
BG-1200	44	2
BG-1600	75	2
BG-2000	120	2
BG-2500	260	2
BG-3400	350	2

Wire Rope Clip, similar DIN EN 13411-5

Clamping jaw galvanised
Bracket + nut yellow chromated

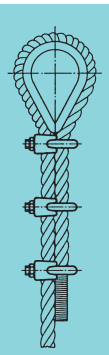


Nominal size Rope Ø in mm	Dimensions in mm a	b1	b2	d	h1	h2	l	Weight in kg/100 pcs	Item no.
5.0	13	7	13	M 5	25	13	25	2.10	5830.00.50
6.5	17	8	16	M 6	32	14	30	4.00	5830.00.65
8.0	20	10	20	M 8	41	18	39	8.20	5830.00.80
10.0	24	12	20	M 8	46	21	40	9.20	5830.01.00
12.0	24	14	24	M10	56	25	50	17.10	5830.01.20
13.0	30	15	28	M 12	64	29	55	27.50	5830.01.30
14.0	31	16	28	M12	66	30	59	27.70	5830.01.40
16.0	35	18	32	M 14	76	35	64	43.00	5830.01.60
19.0	36	22	32	M 14	83	40	68	49.00	5830.01.90
22.0	40	24	34	M 16	96	44	74	68.00	5830.02.20
26.0	50	26	38	M 20	118	51	84	117.00	5830.02.60

Please note: Wire rope clips acc. to DIN EN 13411-5 are only approved for suspension of static loads or for a single lifting operation. **Available up to nominal size 40.**

Usage of wire rope clips

The first clip has to be mounted close to the thimble. The distance between the wire rope clips has to be at least 1.5-times the width of a wire rope clip. The brackets have to be on the unstressed rope end.



Nominal size	Tightening torque in Nm	Required number of wire rope clips
5	2	3
6.5	3.5	4
8	6	4
10	9	4
12	20	4
13	33	4
14	33	4
16	49	4
19	68	4
22	107	5
26	147	5

Wire Rope Clip, formerly DIN 741

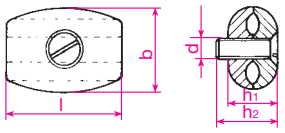
Light version
Wire rope clip for rope terminations.
Only for secondary applications
Surface: galvanised

Nominal size Rope Ø in mm	Nominal size in inches	Weight kg/100 pcs	Item no.
3	1/8''	1.40	5820.00.03
5	3/16''	1.50	5820.00.05
6.5	1/4''	2.10	5820.00.06
8	5/16''	4.10	5820.00.08
9.5	3/8''	6.80	5820.00.10
11	7/16''	7.20	5820.00.11
13	1/2''	13.00	5820.00.13
14	9/16''	13.50	5820.00.14
16	5/8''	21.00	5820.00.16

Available up to nominal size 40.

Egg shaped Wire Rope Clip

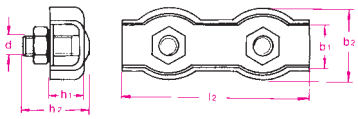
Material: malleable cast iron
Surface: galvanised



Nominal size Rope Ø in mm	Dimensions in mm b	d	h1	h2	l	Weight in kg/100 pcs	Item no.
2	15	M 5	11	13	28	2.20	5840.00.02
3	15	M 5	12	13	28	2.30	5840.00.03
4	20	M 6	14	18	34	4.00	5840.00.04
5	21	M 6	15	18	34	4.00	5840.00.05
6	25	M 6	15	18	35	5.00	5840.00.06

Duplex Wire Rope Clip with 2 Bolts

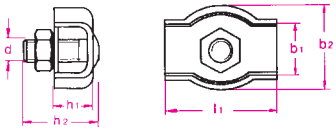
Surface: galvanised



Nominal size Rope Ø mm	Dimensions in mm b1	b2	d	h1	h2	l2	Weight in kg/100 pcs	Item no.
2	4	12	M 4.0	5	14	30	0.90	5860.00.02
3	6	14	M 4.0	7	14	35	1.40	5860.00.03
4	8	18	M 5.0	7	18	40	2.50	5860.00.04
5	10	20	M 5.0	8	18	50	3.40	5860.00.05
6	12	24	M 6.0	9	23	60	5.00	5860.00.06
7	15	26	M 8.0	11	24	64	5.60	5860.00.07
8	17	35	M 8.0	13	25	75	10.00	5860.00.08
10	21	37	M 10.0	16	32	84	18.00	5860.00.10

Simplex Wire Rope Clip with 1 Bolt

Surface: galvanised



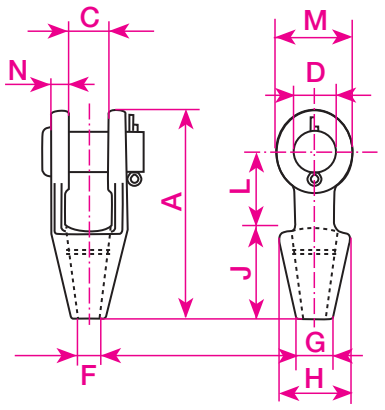
Nominal size Rope Ø mm	Dimensions in mm b1	b2	d	h1	h2	l1	Weight kg/100 pcs	Item no.
2	4	12	M 4	5	14	15	0.46	5850.00.02
3	6	14	M 4	7	14	17	0.72	5850.00.03
4	8	18	M 5	7	18	20	1.27	5850.00.04
5	10	20	M 5	8	18	25	1.46	5850.00.05
6	12	24	M 6	9	23	30	2.52	5850.00.06
7	15	28	M 8	11	25	32	2.80	5850.00.07
8	17	35	M 8	13	25	37	5.42	5850.00.08

Spelter sockets with fork type G-416

- Spelter sockets made from forged steel up to 38 mm and from alloyed cast steel from 40 to 100 mm.
- Based on the nominal breaking strength of the wire rope, spelter socket terminations have an efficiency rating of 100%. This is based on the use of the recommended wire ropes 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC. Strand made from minimum number of wires (e.g. 1 x 7). It must be ensured that the basket is five times (5 times) the strand diameter or fifty times (50 times) the wire diameter, depending on which is greater.

Note:
All cast steel spelter sockets from 40 mm are subjected to magnetic particle inspection and ultrasound testing. Acceptance testing possible on request.

The figure shows a groove for spelter sockets measuring 6 mm to 18 mm. There are 2 spelter sockets for sizes 20 mm to 38 mm. Sizes from 40 mm have 3 spelter sockets.



Spelter sockets with a fork fulfil the performance requirements established by RR-S-550E, type A, but with the exception of the provisions that must be fulfilled by the client.

The spelter sockets with a fork are supplied with a bolt, nut and cotter pin.

Breaking strength in t	For rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no. Uncoated version
		A	C	D	F	G	H	J	L	M	N		
4.5	6-7	116	19.1	17.5	9.65	17.5	39.6	57.0	39.6	33.3	9.1	0.50	5892.10.04
12	8-10	123	20.6	20.6	12.7	20.6	42.9	57.0	44.5	38.1	11.2	0.59	5892.10.12
20	11-13	141	25.4	25.4	14.2	23.9	47.8	63.5	51.0	47.8	12.7	1.02	5892.10.20
27	14-16	171	31.8	30.2	17.5	28.7	57.0	76.0	63.5	57.0	14.2	1.63	5892.10.27
43	18	202	38.1	35.1	20.6	31.8	66.5	89.0	76.0	66.5	15.7	2.64	5892.10.43
55	20-22	235	44.5	41.4	23.9	38.1	82.5	102	89.0	79.5	20.3	4.38	5892.10.55
78	24-26	268	51.0	51.0	28.7	44.5	95.5	114	102	95.5	22.4	7.03	5892.10.78
92	28-30	300	57.0	57.0	31.8	51.0	105	127	117	105	25.4	9.75	5892.10.92
136	32-35	335	63.5	63.5	38.1	57.0	121	140	127	121	28.7	14.1	5892.11.36
170	38	384	76.0	70.0	41.4	70.0	133	152	152	137	30.2	21.4	5892.11.70
188	40-42*	413	76.0	76.0	44.5	76.0	140	165	165	146	33.3	24.9	5892.11.88
268	44-48*	464	89.0	89.0	51.0	79.5	162	191	178	165	39.6	37.2	5892.12.68
291	50-54*	546	102	95.5	57.0	95.5	187	216	229	178	46.0	59	5892.12.91
360	56-60*	597	114	108	63.5	102	210	229	254	197	54.0	76	5892.13.60
424	64-67*	648	127	121	73.0	114	235	248	274	216	60.5	114	5892.14.24
511	70-73*	692	133	127	79.0	124	267	279	279	229	73.0	143	5892.15.11
563	75-80*	737	146	133	86.0	133	282	305	287	241	76.0	172	5892.15.63
722	82-86*	784	159	140	92.0	146	302	330	300	254	79.0	197	5892.17.22
779	88-92*	845	171	152	98.5	165	314	356	318	274	82.5	255	5892.17.79
875	94-102*	921	191	178	108	184	346	381	343	318	89.0	355	5892.18.75

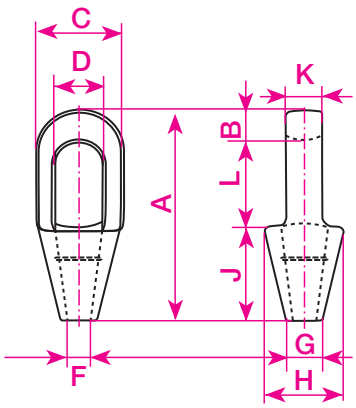
*Alloyed cast steel

Closed spelter sockets type G-417

- Spelter sockets made from forged steel up to 38 mm and from alloyed cast steel from 40 to 100 mm.
- Based on the nominal breaking strength of the wire rope, spelter socket terminations have an efficiency rating of 100%. This is based on the use of the recommended wire ropes 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC. Strand made from minimum number of wires (e.g. 1 x 7). It must be ensured that the basket is five times (5 times) the strand diameter or fifty times (50 times) the wire diameter, depending on which is greater.

Note:
All cast steel spelter sockets from 40 mm are subjected to magnetic particle inspection and ultrasound testing. Acceptance testing possible on request.

The figure shows a groove for spelter sockets measuring 6 mm to 18 mm. There are 2 spelter sockets for sizes 20 mm to 38 mm. Sizes from 40 mm have 3 spelter sockets.



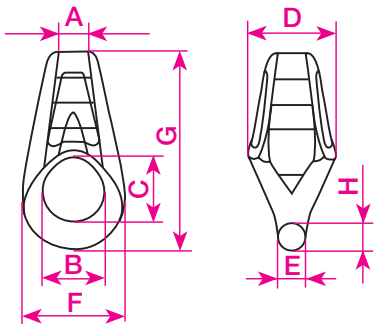
Spelter sockets with an eyelet fulfil the performance requirements established by RR-S-550E, type B, but with the exception of the provisions that must be fulfilled by the client.

Breaking strength	For rope Ø	Dimensions in mm										Weight	Item no.
in t	in mm	A	B	C	D**	F	G	H	J	K	L	in kg/pce	Uncoated version
4.50	6-7	116	12.7	39.6	22.4	9.65	17.5	39.6	57.2	12.7	46.0	0.23	5894.00.04
12.0	8-10	125	15.8	42.9	24.6	12.7	20.6	42.9	57.2	17.5	52.3	0.34	5894.00.12
20.0	11-13	140	17.5	51.0	29.5	14.2	23.9	51.0	63.5	22.4	58.7	0.68	5894.00.20
30.8	14-16	162	20.6	67.0	35.8	17.5	30.2	67.0	76.2	25.4	65.0	1.13	5894.00.30
43.5	18	194	26.9	76.2	42.2	22.4	33.3	70.0	89.0	31.8	77.7	1.92	5894.00.43
65.3	20-22	226	33.3	92.0	49.3	25.4	38.1	82.5	102	38.1	90.5	3.28	5894.00.65
81.6	24-26	254	36.6	105	58.5	28.7	44.5	95.5	114	44.5	103	4.76	5894.00.81
100	28-30	283	39.6	114	65.0	31.8	51.0	105	127	51.0	116	6.46	5894.01.00
136	32-35	309	41.4	127	71.0	38.1	58.5	119	138	56.5	129	8.95	5894.01.36
170	38	355	49.3	137	81.0	41.4	70.5	132	151	62.5	155	13.24	5894.01.70
188	40-42*	390	54.0	146	82.5	44.5	76.2	140	165	70.0	171	16.32	5894.01.88
268	44-48*	445	55.5	171	95.5	51.0	79.5	162	191	76.2	198	25.96	5894.02.68
309	50-54*	505	62.0	194	111	57.2	95.5	187	216	82.5	224	35.83	5894.03.09
360	56-60*	546	70.0	216	127	66.8	105	210	229	92.0	248	47.62	5894.03.60
424	64-67*	597	79.5	241	140	74.5	114	235	248	102	270	63.50	5894.04.24
549	70-73*	645	79.5	273	159	79.5	124	259	279	124	286	99.79	5894.05.49
656	75-80*	689	85.6	292	171	86.0	133	292	305	133	298	125	5894.06.56
750	82-86*	743	102	311	184	92.0	146	311	330	146	311	142	5894.07.50
820	88-92*	787	102	330	197	98.5	160	330	356	159	330	181	5894.08.20
1005	94-102*	845	108	362	216	108	184	362	381	178	356	246	5894.10.05

**Alloyed cast steel
**The bolt must not be larger than that on the spelter socket with a fork. See dimension specifications in column ‘D’, Diameter.

Mooring spelter sockets type G-517 'M-Line'

- Available in several sizes: Wire rope diameter 32 to 102 mm.
- Based on the nominal breaking strength of the wire rope, 'M-Line' spelter sockets have an efficiency rating of 100%. This is based on the use of the recommended wire ropes 6 x 7, 6 x 19 or 6 x 36, IPS or XIP (EIP), XXIP (EEIP), RRL, FC or IWRC. Strand made from minimum number of wires (e.g. 1 x 7). It must be ensured that the basket is five times (5 times) the strand diameter or fifty times (50 times) the wire diameter, depending on which is greater.
- Galvanised finish
- Developed for modern, high-strength wire ropes
- Eyelet shape for easy connection with shackles and other connecting links
- Socket design prevents the cone from rotating

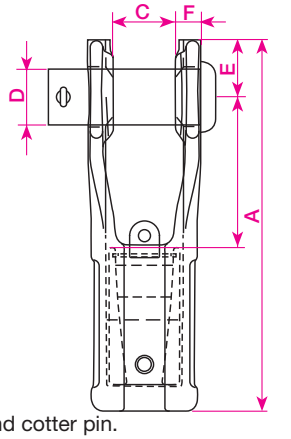


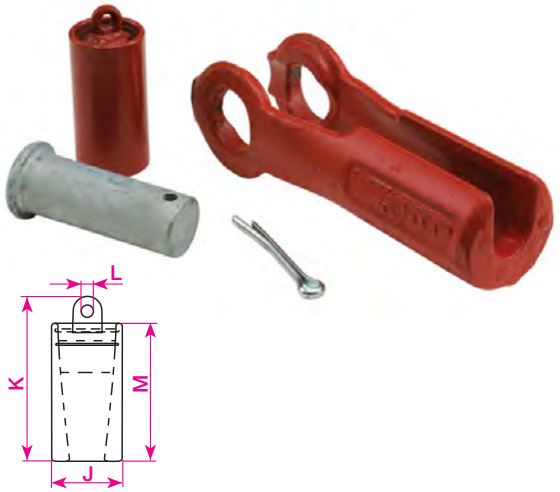
Note:
All mooring spelter sockets made from cast steel are individually subjected to magnetic particle inspection and ultrasound testing.

Breaking strength in t	For rope Ø in mm	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	F	G	H		
113	32-35	41.4	78.5	92.2	113	36.6	130	277	38.9	7.7	5571.10.10
136	38-41	49.5	93.7	110	138	40.6	160	330	46.0	13.6	5571.10.20
181	44-48	56.6	106	115	160	46.7	183	358	53.1	19.5	5571.10.30
227	50-54	63.5	121	134	178	53.1	210	407	56.9	25.9	5571.10.40
277	57-60	70.6	133	146	196	58.7	233	455	66.6	34.5	5571.10.50
363	64-67	77.5	149	170	217	68.3	257	505	67.6	48.1	5571.10.60
454	70-73	84.6	165	181	237	76.2	282	549	63.0	62.6	5571.10.70
544	76-79	89.9	184	197	262	82.6	313	597	82.3	87.5	5571.10.80
635	82-86	96.8	194	224	278	88.9	334	654	87.1	104	5571.10.90
735	88-92	105	203	230	298	93.7	355	703	105	127	5571.11.00

Button spelter sockets type SB-427

- Available in six sizes from 13 mm to 38 mm.
- Based on the nominal breaking strength of the wire rope, button spelter sockets have an efficiency rating of 100%.
- Developed for use on mobile cranes. Suitable for use terminating high-performance, rotation-resistant ropes and standard six-strand ropes.
- Simple attachment using a Crosby® WIRELOCK® socketing resin.
- Socket and button are re-usable.
- Replacement buttons and sockets are available.
- Locking feature available to prevent the rope from rotating.
- Button cap with eye that can be used to attach and pull the rope during the reeving process.



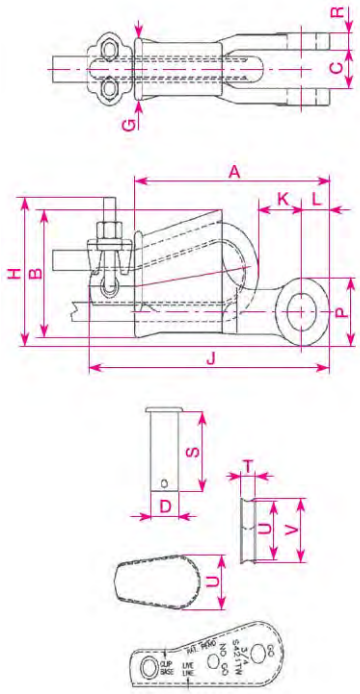


The button spelter sockets are supplied with a bolt, nut and cotter pin.

Breaking strength in t	For rope Ø in mm	Dimensions in mm										Weight in kg/pce	Item no.
		A	B	C	D	E	F	J	K	L	M		
27	13-16	202	82	33	30	31	14	38	89	6	74	2.76	5883.00.10
45	16-19	240	99	39	35	37	17	44	109	10	87	4.67	5883.00.20
57	19-22	275	112	45	41	43	19	52	121	10	101	7.75	5883.00.30
82	22-26	327	139	52	51	51	23	62	143	16	115	13.24	5883.00.40
136	28-32	378	144	64	57	64	28	75	180	19	145	20.86	5883.00.50
161	35-38	459	182	77	70	70	31	92	205	19	172	35.38	5883.00.60

Wedge socket type S-421T

- Based on the minimum breaking load of the XXIP wire rope, wedge sockets have an efficiency rating of 80%.
- Fulfils or exceeds all requirements established by the standard ASME B30.26, including labelling, ductility, safety factor, test load and temperature. These wedge sockets also meet other critical performance requirements that are not addressed in standard ASME B30.26 including fatigue strength, impact toughness and material batch traceability.
- Type approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7 and ABS Guide for Certification of Cranes.
- Basket is made from cast steel and individually subjected to magnetic particle inspection
- The bolt diameter and mouth width enable the use of the wedge and lock in conjunction with spelter or swaged sockets.
- The dead end of the wire rope is secured in the wedge in such a manner that prevents the wedge from being pressed out or lost.
- Additional piece of rope no longer required. Simple assembly.
- The TERMINATOR™ wedge prevents the dead end from breaking off due to fatigue.
- The end, which the clamp holds away from the socket and the wedge, is not deformed and can be re-used.
- Patented Crosby QUIC-CHECK® dimension inspection of the wedge ('Go' and 'No-Go'). The suitable rope diameter is determined as follows:
  1.) The wire rope must fit through the 'Go' hole.
  2.) The wire rope must NOT fit through the 'No-Go' hole in the wedge.
- Equipped with the Crosby Red-U-Bolt® standard wire rope clamp.
- The standard wedge sockets S-421 in sizes 9-28 mm can be retrofitted with the new TERMINATOR™ wedge.
- Protected by the US patent 5.553.360, the Canadian patent 2.217.004 and their international counterparts.
- Complies with standard EN 13411-6: 2003.



Wedge sockets fulfil the performance requirements established by RR-S-550E, type C, but with the exception of the provisions that must be fulfilled by the client.

The wedge sockets comprise the socket, wedge, bolt and wire rope clamp.

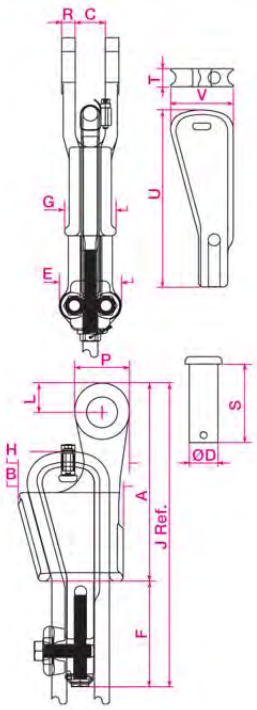
Rope Ø in mm	Dimensions in mm															Weight in kg/pce	Item no.
	A	B	C	D	G	H	J*	K*	L	P	R	S	T	U	V		
9-10	145	69.1	20.6	20.6	35.1	77.7	198	47.8	22.4	39.6	11.2	54.1	11.2	31.8	35.1	1.44	5884.00.10
11-13	175	88.1	25.4	25.4	41.1	95.5	226	32.0	26.9	49.3	12.7	65.0	13.5	44.5	47.8	2.79	5884.00.20
14-16	210	109	31.8	30.2	53.8	114	273	50.5	31.0	57.2	14.2	82.6	17.5	51.0	55.5	4.40	5884.00.30
18-19	251	130	38.1	35.1	62.0	134	314	61.2	35.6	66.8	16.8	92.2	19.8	59.5	65.0	6.58	5884.00.40
20-22	286	149	44.5	41.4	68.5	156	365	63.0	42.4	79.5	19.1	109	22.4	68.5	74.5	9.75	5884.00.50
24-26	325	161	51.0	51.0	74.7	177	414	77.2	51.0	95.5	22.4	119	26.2	73.0	83.5	13.9	5884.00.60
28	365	176	57.0	57.0	84.0	194	466	65.0	57.0	108	25.4	138	27.9	82.6	90.5	20.5	5884.00.70
30-32	415	222	66.5	63.5	90.5	239	520	74.7	59.5	114	26.9	156	30.2	117	125	29.4	5884.00.80

*Nominal value – note: for non-listed wire rope diameters between two listed values, use the next largest socket. The S-423T Super TERMINATOR™ wedge has been specially developed for installation into the Crosby S-421T TERMINATOR™ wedge socket. Important: the S-423TW will only fit in the standard Crosby S-421T basket for sizes 14 mm to 28 mm. The 30-32 mm S-423TW will only fit the Crosby S-421T 30-32 mm basket labelled TERMINATOR™.

Wedge socket Super TERMINATOR™ type S-423T

- Wedge sockets offer high-density crane ropes an efficiency rating of 80% of the minimum breaking strength.**
- The patent-pending design makes it easier to insert a high-performance rope into a wedge socket.
- The proper application of the Super TERMINATOR™ eliminates the first load requirements in relation to conventional wedge sockets.
- The S-423TW wedge socket can be retrofitted to the existing Crosby S-421T TERMINATOR™ wedge sockets.
- Wedge and accessories with zinc finish.
- Complies with standard EN 13411-6: 2003.
- Fulfils or exceeds all requirements established by the standard ASME B30.26, including labelling, ductility, safety factor, test load and temperature. These wedge sockets also meet other critical performance requirements that are not addressed in standard ASME B30.26 including fatigue strength, impact toughness and material batch traceability.
- Basket is made from cast steel and individually subjected to magnetic particle inspection
- The bolt diameter and mouth width enable the use of the wedge and lock in conjunction with spelter or swaged sockets.
- The dead end of the wire rope is secured in the wedge in such a manner that prevents the wedge from being pressed out or lost.
- Additional piece of rope no longer required. Simple assembly.
- The TERMINATOR™ wedge prevents the dead end from breaking off due to fatigue.
- The end, which the clamp holds away from the socket and the wedge, is not deformed and can be re-used.

**Note: due to the unique structure of many ropes, Crosby is unable to make a broad general statement that all current and future ropes types will achieve a minimum 80% termination efficiency even if properly connected to the Super TERMINATOR™.



Wedge sockets fulfil the performance requirements established by RR-S-550E, type C, but with the exception of the provisions that must be fulfilled by the client.

S-423T wedge sockets: design comprises spelter socket, wedge, cotter pin, wire rope clip, spanner and a second retention wire.

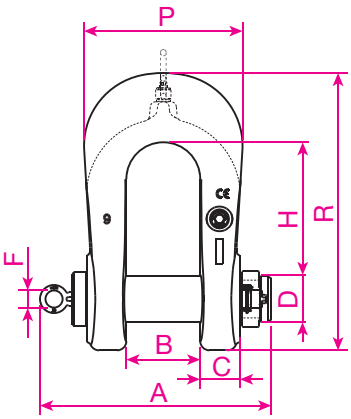
Rope Ø in mm	Dimensions in mm																Weight in kg/pce	Item no.
	A	B	C	D	E	F	G	H	J*	L	P	R	S	T	U	V		
14-16	210	114	31.8	30.2	76.2	103	54.1	117	313	31.0	57.2	14.2	82.6	19.1	175	66.0	5.8	5884.10.10
18-19	251	132	38.1	35.1	82.6	122	62.0	136	373	35.6	66.5	16.8	92.2	22.4	194	76.7	8.8	5884.10.20
20-22	286	149	44.5	41.4	96.8	146	68.3	156	431	42.4	79.5	19.1	109	25.4	241	88.1	13.1	5884.10.30
24-26	325	167	50.8	50.8	96.8	146	74.7	179	471	51.1	95.3	22.4	119	28.7	264	97.0	17.8	5884.10.40
28	365	176	57.2	57.2	102	174	85.9	198	539	57.4	108	25.4	138	31.8	300	107	25.9	5884.10.50
30-32	415	219	66.5	63.5	114	197	90.7	238	612	59.4	114	26.9	168	35.1	352	148	40.2	5884.10.60

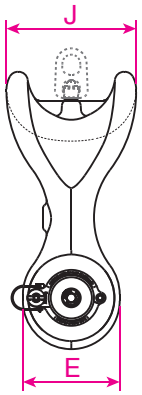
*Nominal

The S-423T Super TERMINATOR™ wedge has been specially developed for installation into the Crosby S-421T TERMINATOR™ wedge socket. Important: the S-423TW will only fit in the standard Crosby S-421T basket for sizes 14 mm to 28 mm. The 30-32 mm S-423TW will only fit the Crosby S-421T 30-32 mm basket labelled TERMINATOR™.

Grommet shackle Type G-2170

- All sizes quenched and tempered for maximum strength.
- All sizes made from cast alloy steel.
- The sizes with a load capacity of 300 tonnes and less have been overload tested to 200% of the maximum load capacity.
- The sizes with a load capacity of 500 tonnes have been overload tested to 133% of the maximum load capacity.
- The maximum load capacity in tonnes is embossed on the side of the stirrup.
- The shackle's stirrup and bolt are coated with Dimetcote and also painted red.
- All sizes come with RFID on the stirrup and bolt.
- Designed for use with eyelets with single or double diameters.
- Extra-large sling contact area improved the efficiency of the grommet sling.
- Use of a new Crosby Easy-Loc® shackle bolt system
- Large, machined area on the flaps can be adapted to other accessories by being drilled and tapped.
- Bearing surface is at least 5 times larger than that of a round shackle.
- Increases the usable sling strength by at least 60% and greatly improves the service life of grommet slings.
- The stirrup and bolt are certified to meet the Charpy impact test with 42 joules min. average at -20°C.
- All 2,170 shackles have been individually overload tested and electromagnetic crack tested.
- Shackles requiring certified to ABS, Lloyds and other standards are available upon special request and must be specified at the time of order.
- Upon special request, all 2,170 shackles can meet the requirements of the DNV standard for the certification of lifting appliances if this is specified at the time of order.





The new Crosby Easy-Loc® shackle bolt system

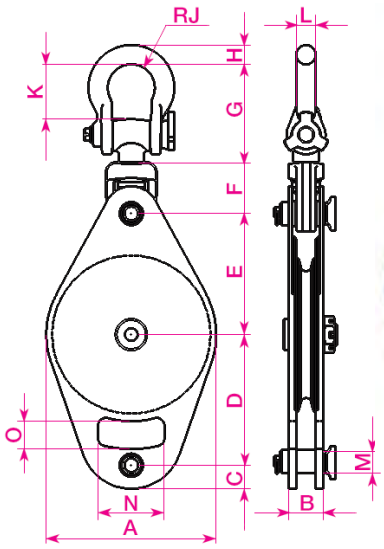
Load capacity in t*	Effective body diameter in mm	Dimensions in mm									Weight in kg/ pce	Item no.
		A	B +/-0.02	C	D +/-0.02	E	H	J	P	R		
75	286	358	105	60.7	69.9	140	197	191	241	411	51.26	5680.C0.75
125	343	408	130	69.9	80	171	236	229	279	489	79.83	5680.C1.25
200	469	486	150	86.1	105	229	296	328	346	635	166.9	5680.C2.00
300	578	570	187	109	133	283	386	394	432	808	311.1	5680.C3.00
500	762	772	250	152	180	349	501	508	584	1053	756.6	5680.C5.00

*The sizes with a load capacity of 75-300 tonnes have been overload tested to 200% of the maximum load capacity. The breaking strength is 500% of the maximum load capacity. The sizes with a load capacity of 500 tonnes have been overload tested to 133% of the maximum load capacity. The breaking strength is 450% of the maximum load capacity.

McKissick® blocks for oil extraction types M-491S and M-491G

The new design provides the dependability of standard McKissick® snatch blocks and makes this range the ideal choice for high requirements, for example for use on tugger winches or drilling rigs.

- Finish painted or galvanised.
- 203 mm and 254 mm blocks suitable for two rope thicknesses.
- Swivels, connecting pieces, yokes and shackles make from hardened and tempered forged steel.
- Simple maintenance thanks to the sheave lubrication over the centrally positioned nipple.
- Safety factor of 4:1.
- All blocks measuring 356 mm and above are furnished with McKissick® Roll Forged™ sheaves with flame-hardened grooves.
- Recessed side plate design reduces the gaps between the sheave rim and the side plate, preventing the sheave from escaping from the block even if the central pin is lost.
- Sealed tapered roller bearings extend the life of the pins and bearings, while also allowing for faster rope speeds than with conventional snatch blocks.
- Shackle fitting swivels for easy positioning.
- Suitable for transporting people, providing that all employees, including the winch operator, have been trained to follow all applicable national, local and industry regulations.
  1.) Uses on tuggers/load cranes: API RP54
  2.) Uses on drilling rigs: OSHA regulation CPL 2-1.36
- Openings in the side plates for attaching a second device for securing the block.
- Produced in a factory certified to API Q1.
- Type approval and certification in accordance with ABS 2006 Steel Vessel Rules 1-1-17.7 and ABS Guide for Certification of Cranes.
- All sizes are RFID equipped.



M-491S

M-491G

Load capacity in t*	For wire rope in mm	Sheave diameter in inches	Item no. Painted Type M-491S	Item no. Galvanised Type M-491G
4	10-13	8	7542.S0.10	7542.G0.10
8	10-13	10	7542.S0.20	7542.G0.20
8	13-14	10	7542.S0.30	7542.G0.30
12	13-14	10	7542.S0.40	7542.G0.40
12	16	14	7542.S0.50	7542.G0.50
12	19	14	7542.S0.60	7542.G0.60
15	22	16	7542.S0.70	7542.G0.70
15	25	16	7542.S0.80	7542.G0.80
25	28.6	18	7542.S0.90	7542.G0.90
30	32	20	-	7542.G1.00

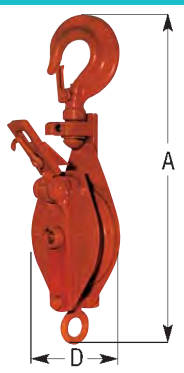
Load capacity in t*	For wire rope in mm	Sheave diameter in inches	Dimensions in mm														Weight in kg/ pce
			A	B	C	D	E	F	G	H	J	K	L	M	N	O	
4	10-13	8	225.6	47.8	28.5	171.5	158.8	81.1	101.6	17.6	21.6	50.8	15.8	19.1	82.6	35.1	16
8	10-13	10	276.4	57.2	38.1	212.9	196.9	84.1	158.8	31.8	38.1	85.9	31.8	25.4	108.0	45.3	25
8	13-14	10	276.4	57.2	38.1	212.9	196.9	84.1	158.8	31.8	38.1	85.9	31.8	25.4	108.0	45.3	25
12	13-14	10	276.4	57.2	38.1	212.9	196.9	82.6	158.8	31.8	38.1	85.9	31.8	25.4	108.0	45.3	25
12	16	14	378.0	57.2	38.1	263.7	247.7	82.6	158.8	31.8	38.1	85.9	31.8	25.4	114.3	44.8	43
12	19	14	378.0	57.2	38.1	263.7	247.7	82.6	158.8	31.8	38.1	85.9	31.8	25.4	114.3	44.8	43
15	22	16	431.8	77.5	60.5	304.8	298.5	96.8	170.0	44.5	39.7	79.3	38.1	31.8	114.3	45.3	68
15	25	16	431.8	77.5	60.5	304.8	298.5	96.8	170.0	44.5	39.7	79.3	38.1	31.8	114.3	45.3	48
25	28.6	18	482.6	102.4	63.5	384.1	365.3	170.5	246.2	79.3	44.5	122.2	50.8	44.5	177.8	76.2	118
30	32	20	533.4	134.2	88.9	444.5	419.1	260.4	325.4	100.1	71.4	179.4	63.5	57.2	177.8	76.2	306

*The breaking strength is 400% of the maximum load capacity.

Wire rope block

Single pulley, foldable with load hook and suspension eyelet, pulley with red bronze bushing

Load capacity in t	Pulley outer Ø (D) in mm	For rope Ø mm 1 Em max.	Pulley Ø in the base of the groove	Structural length A in mm	Weight in kg	Item no.
0.5	75	8	62	315	1.5	7501.00.64
1	100	10	86	355	2.6	7501.00.86
1.5	125	13	105	430	4.8	7501.01.05
2	150	16	126	495	7.4	7501.01.26
3	178	19	150	555	11.9	7501.01.49



STEEL WIRE ROPES
Accessories

Snatch block

- Forged and rotatable hook
- Hinged design enables the rope to be seamlessly inserted
- High load capacity with low tare weight
- Bronze gliding bearing

Option:
- With hook safety flap
- Special version for up to -40°C possible

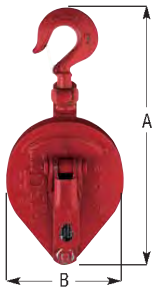
Load capacity in t	For wire rope in mm	Pulley Ø (B) in mm	Structural length (A) in mm	Weight in kg	Item no.
2	8 - 10	76	242	2	7541.00.07
4	10 - 13	114	356	5	7541.00.11
8	16 - 19	152	478	12	7541.00.15
8	16 - 19	203	529	15	7541.00.20
8	16 - 19	254	581	19	7541.00.25
8	19	305	653	22	7541.00.30
8	19	356	691	25	7541.00.35
15	22	406	810	59	7541.00.40
15	26	457	842	68	7541.00.45

Version with shackle also available.

Snatch block

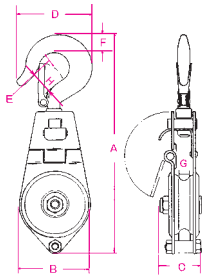
- Forged and rotatable hook
- Hinged
- Self-lubricating bronze gliding bearing

Option:
- With hook safety flap
- Special version for up to -40°C possible



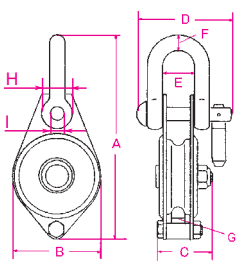
Load capacity in t	For wire rope in mm	Pulley Ø in mm	Structural length (A) in mm	Outer width (B) in mm	Weight in kg	Item no.
2	10 - 13	152	409	185	5.4	7542.00.15
3	13 - 16	203	513	235	8.4	7542.00.20

Rope capture pulley with rotatable load hook, lightweight, hinged design



Type	Load capacity in kg	For wire rope in mm	Pulley Ø in mm	Dimensions in mm A	B	C	D	E	F	G	H	Weight in kg/pce	Item no.
CSS50	250	8	50	180	58	35	60	10	16	9	15	0.52	7545.00.05
CSS75	350	10	75	240	85	40	73	15	21	12	18	1.25	7545.00.07
CSS100	750	12	100	300	110	50	85	16	27	14	21	2.30	7545.00.10

Rope capture pulley with rotatable load hook, lightweight



Type	Load cap. in kg	For wire rope in mm	Pulley Ø in mm	Dimensions in mm A	B	C	D	E	F	G	H	I	Weight in kg/pce	Item no.
CSY50	250	8	50	135	58	35	62	22	10	9	21	9	0.45	7545.10.05
CSY75	350	10	75	185	85	40	70	22	11	12	25	13	1.10	7545.10.07
CSY100	750	12	100	240	110	50	100	32	16	14	32	16	2.20	7545.10.10

Components of a premium quality sheave

Every McKissick® Roll-Forged™ sheave starts out as a single piece of AISI C-1035 carbon steel plate. A time-proven and protected forging process is used to give the sheave extra rigidity in the critical groove area. The sheave is cut by a precision flame. The hub is press-fitted so that it comes into contact with the metal all round. The deeper positioning of the weld seam also ensures a longer service life.

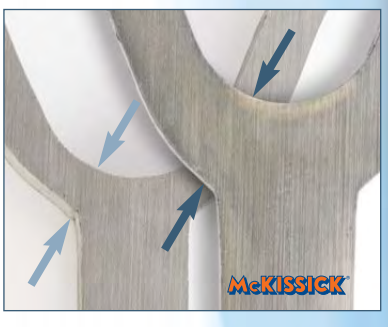
Before the name McKissick® is added, every sheave undergoes a thorough inspection in order to meet industry standards for usage and Crosby quality standards.

McKissick® Roll-Forged™ sheaves offer the following features in order to meet your application requirements:

1 A smooth radius on the edge provides an outstanding transition between the outer diameter and the groove – eliminating any sharp-edged areas that could damage the rope.
- Following production, cold-formed steel sheaves can still have sharp areas along the groove. This also cuts into the material fabric and can vastly impair the service life and fatigue resistance.

2 Size for size, McKissick® Roll-Forged™ sheaves have a thicker section under the groove and therefore offer additional strength in relation to changing loads.
- Cold formed steel sheaves are limited to a thinner section thickness under the groove, which reduces the service life of the sheave, especially under tough usage conditions and fatigue.

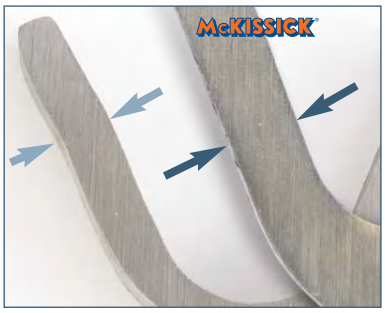
- Thin areas create sharp-edged areas, which can potentially result in load peaks.



3 Thick web on the sheave offers the necessary rigidity to support a stronger sheave with thicker flange sections.
- The thin web on cold-formed steel sheaves, which is inherent to the workmanship process, does not support thicker flange sections.

- The sharp-edged areas formed when milling the groove during the cold-formed splitting process can lead to concealed cracks in the lower section of the groove.

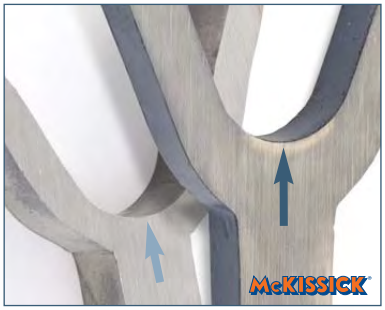
	McKissick®	cold-formed and split sheaves
Smooth radius edge – better hold, less wire rope wear	X	
Thicker groove walls – better support, thicker profile	X	
Deeper positioning of the weld seam on the hub – longer life	X	
Flame-hardened groove – higher Rockwell C rating	35Rc	14Rc
Forging process – provides an outstanding material structure	X	



4 **Heavier flange sections – offer a far stronger wire rope/groove connection and maintain the proper groove angle to ensure a longer wire rope service life.**

- Cold-formed steel wire ropes generally have thinner flange sections as well as variations in the sheave thickness, which restricts their performance, especially in tough applications.

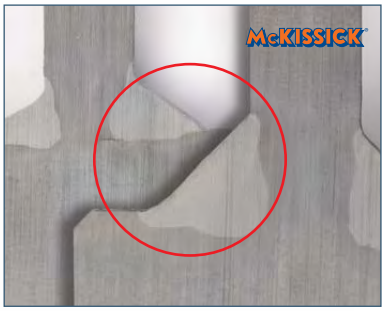
- Cold-formed steel sheaves are restricted to 50% of the sheave flange thickness.



5 **Minimum 35Rc for greater hardness in the base of the groove, resulting in less wear to the sheave and thus a longer wire rope service life**

- Unless otherwise specified when ordering, cold-formed steel sheaves have an extremely low hardness rating (approx. 14Rc).

- The standard material used for cold forming must not be harder than in the groove.



6 **The precise alignment of the hub with the subsequent addition of a deep weld seam ensures a proper fit, longer service life and good reliability even in the most extreme of applications.**

Further key features of the McKissick® Roll-Forged™ sheaves

- **The material structure combined with the McKissick® Roll-Forged™ forging process results in outstanding performance properties.**
- **Every sheave is labelled with a McKissick® Roll-Forged™ sheave outer diameter, wire rope size and product identification code (PIC) to ensure complete material traceability.**

Crosby® and McKissick® Roll-Forged™ sheaves
Reliability that you can depend on

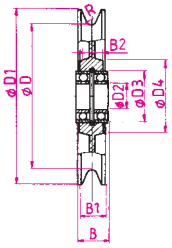
The Crosby® sheave calculator can be found at http://eu.crosbyshvconfig.net/

STEEL WIRE ROPES
Accessories

Rope Sheave with maintenance-free Ball Bearing

Machined rope groove, considerably lower rope wear due to high quality surface.
Drive group 1Em, designed according to DIN 15020

Also available in stainless steel!



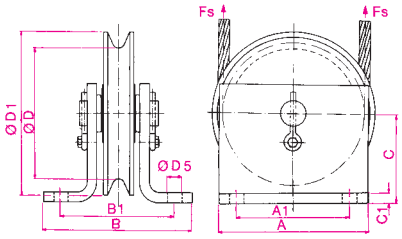
Rope sheave

Max. rope pulling force in kg	Max. rope ø (1 Em) in mm	Sheave Ø D in mm	Dimensions in mm								Weight ca. in kg	Item no.
			D1	B	B1	B2	D2	D3	D4	R		
250	6	60	85	17.5	21	-	12	28	-	3.2	0.7	7533.00.02
500	9	90	125	30	30	-	20	47	-	4.8	1.9	7533.00.05
1000	13	135	180	33	38	32	25	52	118	7	5.4	7533.00.10
2000	18	185	240	45	50	44	35	80	165	9.5	12.8	7533.00.20
3200	23	230	300	54	60	52	45	100	202	12.5	24	7533.00.32
5000	27	280	360	67	70	64	60	130	254	15	40	7533.00.50

Rope Sheave Block with maintenance-free Ball Bearing

Side plates of bent sheet steel. This rope sheave allows to deflect the rope in any direction or alter the direction of pull. Rope sheave details as above.
Drive group 1 Em, desgined according to DIN 15020

Also available in stainless steel!



Rope sheave block

Max. rope pulling force in kg	Load capacity in kg	Max. rope Ø (1 Em) in mm	Dimensions in mm									Weight ca. in kg	Item no.
			A	A1	B	B1	C	C1	D	D1	D5		
250	500	6	80	60	86	66	60	5	60	85	9	1.4	7533.10.02
500	1000	9	110	80	127	97	71	6	90	125	13	5.0	7533.10.05
1000	2000	13	170	130	162	127	95	10	135	180	17	10.2	7533.10.10
2000	4000	18	210	160	216	166	125	15	185	240	21	23.8	7533.10.20
3200	6400	23	270	210	252	192	155	15	230	300	25	44	7533.10.32
5000	10000	27	320	260	294	234	185	20	280	360	32	75	7533.10.50

Rope Guide Sheave for Wall and Hand Winches

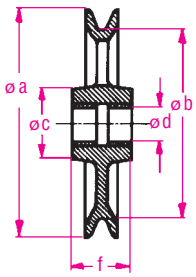
Varnished steel housing, wire rope sheave of grey cast iron, turned rope grooves (115-260 mm sheave Ø), drilled hub hole.
On request also available with roller bearing.

Item no.	7514.00.11	7514.00.15	7514.00.22	7514.00.26	7514.00.31
Sheave Ø in mm	115	155	220	260	310*
Up to rope Ø in mm	10	10	16	18	26
Permissible load in t	0.5	1	2	3	5
Size of baseplate in mm	125 x 65	150 x 115	175 x 165	255 x 200	270 x 240
Ø of screw holes in mm	12	14	17	21	21
Height to centre of axle in mm	69	85	126	148	184
Total height in mm	126	163	236	278	339
Weight in kg	1.5	3	6.5	12	23

*Rough groove

Rope Sheave made of grey cast iron

Made of grey cast iron, with turned groove and bored hub hole, suitable for wire rope guide sheaves for wall-mounted and manual installation winches
Item no. 7514.00.....

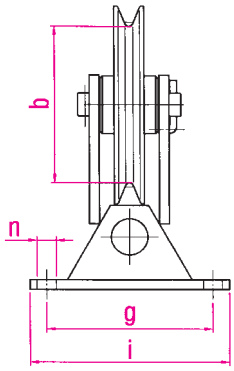


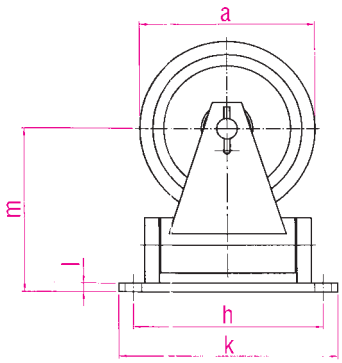
Item no.	7514.01.11	7514.01.15	7514.01.22	7514.01.26	7514.01.32
Sheave Ø in mm	115	155	220	260	310
Up to rope Ø in mm	89	129	184	222	250
Permissible load in t	500	1.000	2.000	3.000	5.000
Groove width / Rope Ø in mm	10	10	16	18	26
Groove depth in mm	13	13	18	19	30
Bore for axle in mm	14	19	22	25	35
Hub length f in mm	26	28	35	43	56
Hub Ø c in mm	36	48	54	65	85
Weight ca. in kg	0.9	1.4	3.3	5.2	10.0

Slewable Rope Pulley, single Sheave

Mount and sheave frame made of steel. Sheave made of grey cast iron with self-lubricating bearing with grease chamber.

The slewable rope pulley is also available in a 2-sheave version. Please contact us for pricing.





Max. rope load at manual use in kg*		250	500	750	1000	1500	2000
Max. rope load at powered use in kg**		125	250	375	500	750	1000
For rope Ø in mm		4-5	5-6	6-8	8-10	10-12	12-14
Outer sheave Ø in mm	Ø a	120	150	190	235	280	325
Groove Ø in mm	Ø b	100	125	160	200	240	280
Hole distance width in mm	g	100	140	140	160	180	220
Hole distance height in mm	h	130	200	210	260	310	330
Baseplate width in mm	i	120	170	170	200	220	270
Baseplate height in mm	k	150	230	240	300	350	380
Baseplate thickness in mm	l	6	8	10	12	14	16
Height axle centre in mm	m	112	142	165	199	239	227
Screw hole Ø in mm	Ø n	11.5	11.5	14	18	18	22
Weight per piece in kg		4	6.2	12	19	26.2	47
Item no.		7515.00.12	7515.00.15	7515.00.19	7515.00.23	7515.00.28	7515.00.32

* 180° rope deflection ** 90° rope deflection

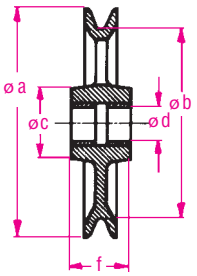
STEEL WIRE ROPES

Accessories

Wire Rope Sheave

Made of grey cast iron, turned groove
60 - 325 mm Ø : Self-lubricating bearing with grease chamber
375 - 470 mm Ø : Bronze bushing with lubricating pockets

Suitable for wire rope guide sheaves for wall-mounted and manual installation winches
Item no. 7515.00.....



Item no.	7513.00.06	7513.00.09	7513.00.12	7513.00.15	7513.00.19	7513.00.23	7513.00.28	7513.00.32	7513.00.37	7513.00.47
Sheave Ø a in mm	60	90	120	150	190	235	280	325	375	470
Sheave Ø b in mm	48	72	100	125	160	200	240	280	320	400
Load capacity in kg	200	300	500	1.000	1.500	2.000	3.000	4.000	6.400	10.000
Groove width / rope Ø in mm	3	4	5	6	8	10	12	14	16	20
Groove depth in mm	6	9	10	12	15	17	20	22	27	35
Bore for axle Ø d in mm	8	14	14	22	32	40	50	60	70	70
Hub length f in mm	24	32	35	40	42	50	62	70	85	90
Hub Ø c in mm	22	32	35	46	62	78	92	108	120	140
Weight ca. in kg	0.3	0.52	0.85	1.45	2.6	4.5	6.8	10.8	16.5	34.7

Wire rope block sheave

Steel, painted housing, grey cast iron sheave,
rope grooves (80 - 130 mm pulley Ø), bored hub hole

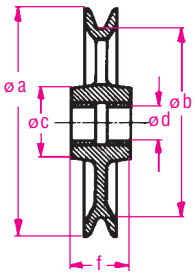
When ordering, please specify type A or type B
Type A = with horizontal plate
Type B = with transverse plate

Item no.	7517.00.08	7517.00.10	7517.00.13
Pulley Ø in mm	80	100	130
For rope Ø up to in mm	8	10	12
Load capacity in t	125	130	150
Dimensions of baseplate in mm	130 x 40	142 x 40	190 x 45
Diameter of the mounting holes in mm	10.5	10.5	10.5
Dimensions to the centre of the axis in mm	96	108	156
Overall height in mm	94	115	149
Weight ca. in kg	0.57	0.73	1.4

Lightweight Rope Sheave made of grey cast iron

Made of grey cast iron, turned, narrow groove, rope grooves (80-130 mm pulley Ø), bored hub hole

Suitable for wire rope block sheave
Item no. 7517.00...



Item no.	7517.01.08	7517.01.10	7517.01.13
Pulley Ø a in mm	80	100	130
Pulley Ø b in mm	67	83	108
Load capacity in kg	125	130	150
Groove width / Rope Ø in mm	8	10	12
Groove depth in mm	6.5	8.5	11
Bore for axle Ø in mm	8	10	12
Hub length f in mm	17	19	23
Hub Ø c in mm	20	22	28
Weight ca. in kg	0.18	0.3	0.48

Polyamide Rope Pulley

Item no.	7510.00.48	7510.00.60	7510.00.76	7510.01.00	7510.01.50
Pulley Ø in mm	48	60/2	76	100/2	150/1
Groove width / max. rope Ø in mm	8	9	10	16	25
Groove depth in mm	4	4	5	12	20
Bore for axle in mm	8	8	11	15	20
Hub length in mm	15	27	17	27	42
Hub Ø in mm	17	20	20	38	46
Load capacity in kg	42	50	90	210	410

STEEL WIRE ROPES

Rope and Chain Lubricants

CondorLube Environmentally friendly Rope and Chain Lubricant

- Excellent lubrication, penetration, conservation, and corrosion protection
- Nontoxic, bio-degradable, without harmful propellant
- According to HOCNF (Harmonised Offshore Chemical Notification Format) suitable for use in marine environments
- For use with moveable parts like ropes and chains but also for machine parts, hinges, padlocks etc.

Product Application Chart

Application area	CondorLube Wire Grease 50 70G NEW + CLASSIC	CondorLube Coating 10 15 G	CondorLube Universal Grease 54	CondorLube Coating 20 10 G	CondorLube EP Grease 53	CondorLube Wire & Chain Spray	CondorLube Bio Spray 2 in 1 81-10 G	CondorLube Storage Spray	CondorLube Paste 51 70 G	CondorLube Metal Polish 80-05 G
Machine Parts	*	**	***	**	***	**	*	**	**	
Anchors & shackles, hinges etc.	*	*	*	*		**	*	**	***	
Battery terminals							*			
Tools	*	**	***	**	**	**	**	**	***	**
Chains	*	**		**		*	*	*		
Auto Rustproofing	**	*		*		**		**		
Heavy Machinery	**	*	***	*	***	*		*		
Wire rope preservation / lubrication	***	**	*	**		***		*	**	
Irrigation plant & pipes		*					*		**	
Propellers & skegs		*		*		*		*		
Rubber gaskets & seals	*	**	*	*		*	*	*	*	**
Stabilizer Tank & Ballast Tank		*							***	
Rustproofing & preservation	**	***	*	**	*	**	*	***	**	
Trailers / trains / railways	*	**	***	**	***	**	*	**	***	**
Steel Preservations / Polish	***	***		**		*	*	**	***	***
Yacht Standard Rigging	*	*	**	*		*		*		
Leather									*	
Low / high volt connections									*	
Outboard motors	*	*	***	*	***	**		**	***	
Components vulnerable for corrosion	**	***	*	***		*		*	***	
Sporting equipment		*		*					*	**
Roller-bearing			***		***					
Stern drive legs	*		***		***	*		*	**	
Heavy gears and transmission	*				*				*	
Cleaning, rinse and protection							***			***

Excellent	***
Good	**
Suitable	*

CondorLube Wire Grease 50–70 G

CondorLube Wire Grease 50-70 G is a biodegradable lubrication and protection for steel wire ropes. It lubricates between the individual wires to avoid friction that can damage the steel wire rope.

Application
For all kinds of steel wire ropes, lead-in wires, seismological cables and yacht rigging.

Type	Package size	Type of packaging	Item no.
CondorLube Wire Grease 50-70G NEW	5 kg	Tin bucket	1XCLLP15
CondorLube Wire Grease 50-70G NEW	18 kg	Tin bucket	1XCLLP12
CondorLube Wire Grease 50-70G NEW	180 kg	Tin bucket	1XCLLP13

CondorLube Coating 10-15 G

CondorLube Coating 10-15 G is a light brown thin coating. It penetrates to the pores of the material and has excellent corrosion resisting properties.

Application
For machine parts, anchors, shackles, hinges, tools, chains, irrigation plants and pipes it offers excellent corrosion protection.

Type	Package size	Type of packaging	Item no.
CondorLube Coating 10-15 G	5 L	Plastic canister	1XCLLP01
CondorLube Coating 10-15 G	20 L	Plastic canister	1XCLLP02
CondorLube Coating 10-15 G	196 L	Metal drum	1XCLLP03
CondorLube Coating 10-15 G	1000 L	Metal drum	1XCLLP04

STEEL WIRE ROPES

Rope and Chain Lubricants

CondorLube Corrosion Protection and Lubrication 20-10 G

CondorLube 20-10 G is a light brown and semi-dry thin coating. It has excellent penetration and corrosion resisting properties. It was developed for maximum corrosion protection.

Application
For machine parts, anchors, shackles, hinges, tools, chains, irrigation plants and pipes. Ideal for all corrosion protection applications.

Type	Package size	Type of packaging	Item no.
CondorLube Coating 20-10 G	5 L	Plastic canister	1XCLLP08
CondorLube Coating 20-10 G	20 L	Plastic canister	1XCLLP09
CondorLube Coating 20-10 G	196 L	Metal drum	1XCLLP10
CondorLube Coating 20-10 G	1000 L	Metal drum	1XCLLP11

CondorLube Metal Polish 80-05 G

CondorLube Metal Polish 80-05 G is a polish and protection product with excellent penetration and cleaning properties. It removes stains of dirt or other impurities and develops a thin protective film on the surface.

Application
Suitable for cleaning, maintenance and industrial applications (workshops, cranes, commercial vehicle and automotive industry). Also suitable for cleaning and protection of aluminium surfaces.

Type	Package size	Type of packaging	Item no.
CondorLube Metal Polish 80-05 G	0.5 L	Spray can	1XCLLP25
CondorLube Metal Polish 80-05 G	5 L	Plastic canister	1XCLLP26
CondorLube Metal Polish 80-05 G	20 L	Plastic canister	1XCLLP27
CondorLube Metal Polish 80-05 G	196 L	Metal drum	1XCLLP28

CondorLube Wire and Chain Spray 52-10 G

CondorLube Wire & Chain Spray 52-10 G is oily coating product which is completely non-toxic and leaves no environmental footprint. It is a premium grade coating and lubrication agent whic has been specially devloped for frequent use under extreme conditions. It also minimises lubricant build-up and contamination with abrasive particles.

Application
Chains, protection of steel wire ropes and parts, anchors, shackles, hinges, machine parts etc.

Type	Package size	Type of packaging	Item no.
CondorLube Wire & Chain Spray 52-10 G	510 ml	Spray can	1XCLLP18

CondorLube Storage Spray 11-10 G

CondorLube Storage Spray 11-10 G is an aerosol spray which leaves a thin brown protective film. It penetrates deeply into the pores of the material and has excellent corrosion protection properties. It is completely non-toxic and leves no environmental footprint.

Application
Suitable for trailers, railway rolling stock, machine parts, outboard motors, yacht rigging, for protection of steel parts, rubber seals, irrigation plants and pipes.

Type	Package size	Type of packaging	Item no.
CondorLube Storage Spray 11-10 G	510 ml	Spray can	1XCLLP05

CondorLube Bio Spray 81-10 G

CondorLube Bio Spray 81-10 G is an aerosol spray which can be used for ceaning, rinsing and protection of surfaces. It penetrates deeply into the pores of the material and has excellent celaning properties. It is a very versatile spray that has been specially developed for frequent use under extrem conditions. It dissolves oil and grease in may different areas and leves a thin protective film.

Application
For cleaning, rinsing and corrosion protection

Type	Package size	Type of packaging	Item no.
CondorLube Bio Spray 2 in 1 81-10 G	510 ml	Spray can	1XCLLP29

STEEL WIRE ROPES

Rope and Chain Lubricants

CondorLube EP Grease 53

Together with the thickener, biodegradable esters make this product perfect for excellent lubrication of heavily stressed bearings and under wet and corrosive conditions.

Application
For use in seawater, for agricultural, forestry, and construction vehicles.

Type	Package size	Type of packaging	Item no.
CondorLube EP Grease 53	400 g	Plastic cartridge	1XCLLP19
CondorLube EP Grease 53	18 kg	Tin bucket	1XCLLP20
CondorLube EP Grease 53	180 kg	Metal drum	1XCLLP21

CondorLube Universal Grease 54

This is a modern, high-performance biodegradable grease for both industrial and automotive applications. The product's excellent all-round properties make it fisrt choice for all kinds of bearings.

Application
For industral and automotive applications as well as for all kinds of bearings.

Type	Package size	Type of packaging	Item no.
CondorLube Universal Grease 54	400 g	Plastic cartridge	1XCLLP22
CondorLube Universal Grease 54	18 kg	Tin bucket	1XCLLP23
CondorLube Universal Grease 54	180 kg	Metal drum	1XCLLP24

CondorLube Lube Paste 51-70 G

CondorLube Lube Paste 51-70 G is a biodegradable lubricating grease with amorphous silica gel compund which has excellent greasing, penentration and corrosion protection properties.

Application
Suitable for all moveable parts, which are not subject to high stress (e.g. doors, hatches, slowly moving parts etc.) or as sliding agent. Suitable also for chains, steel wire ropes, drilling tools etc.

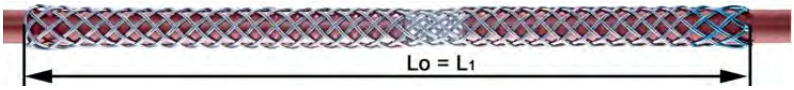
Type	Package size	Type of packaging	Item no.
CondorLube Paste 51-70 G	400 g	Plastic cartridge	1XCLLP17
CondorLube Paste 51-70 G	18 kg	Tin bucket	1XCLLP16

STEEL WIRE ROPES
Cablegrips

Cablegrips for cables and ropes

Cablegrips – also known as cable socks, cable pulling sleeves or „Chinese Fingers“ - are used to pull and support electrical cables, pipes or hoisting ropes. The prerequisite for this is that the ropes are not subjected to a high level of torsion.

101Z1-
101Z6-



CondorGrip Cablegrip, Type K0, Double Mesh, Galvanised or Stainless Steel, open ended on both sides, soldered on one side, Material Strand 1 x 19

The use of strands makes these types particularly suitable for cable laying in the ground and in channels. Other mesh lengths are available on request.

Colour code		Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
		6 - 10	900	900	3	2.8	0.090	101Z1010.S	101Z6010.S
		10.1 - 15	1000	1000	3	4.7	0.160	101Z1015.S	101Z6015.S
		15.1 - 20	1200	1200	3	5.7	0.220	101Z1020.S	101Z6020.S
		20.1 - 25	1300	1300	3	8.9	0.370	101Z1025.S	101Z6025.S
		25.1 - 30	1500	1500	3	12.6	0.600	101Z1030.S	101Z6030.S
		30.1 - 40	1500	1500	3	16.6	0.800	101Z1040.S	101Z6040.S
		40.1 -50	1500	1500	3	23.2	1.310	101Z1050.S	101Z6050.S
		50.1 - 60	2000	2000	3	23.2	1.740	101Z1060.S	101Z6060.S
		60.1 - 70	2000	2000	3	28.6	2.060	101Z1070.S	101Z6070.S
		70.1 - 80	2000	2000	3	34.3	2.480	101Z1080.S	101Z6080.S
		80.1 - 90	2500	2500	3	40.0	3.670	101Z1090.S	101Z6090.S
		90.1 - 100	2500	2500	3	46.0	4.270	101Z1100.S	101Z6100.S
		100.1 - 130	2500	2500	3	51.0	4.880	101Z1130.S	101Z6130.S
		130.1 - 170	2500	2500	3	75.9	8.600	101Z1170.S	101Z6170.S
		160.1 - 200	2500	2500	3	79.7	9.580	101Z1200.S	101Z6200.S

101Z3-
101Z8-

CondorGrip Flex-Cablegrip, Type K0, Material Rope 7 x 7, Galvanised or Stainless Steel, open ended on both sides, soldered on one side, Material Rope 7 x 7

The use of ropes makes these cable grips highly flexible and enables good grip in relation to metal cables and hoisting ropes. This makes them particularly suited for changes to hoisting ropes that run over pulleys. Other mesh lengths are available on request.

Single Mesh

Colour code		Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
		6 - 10	1200	1200	3	1.8	0.070	101Z3010.S	101Z8010.S
		10.1 - 15	1300	1300	3	2.8	0.130	101Z3015.S	101Z8015.S

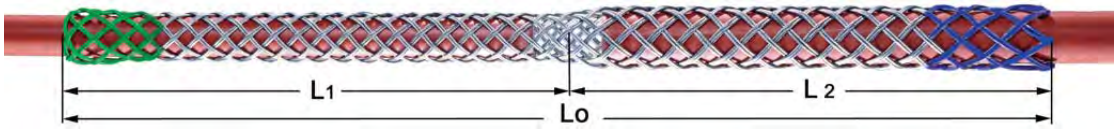
Double Mesh

Colour code		Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
		15.1 - 20	1400	1400	3	6.7	0.310	101Z3020.S	101Z8020.S
		20.1 - 25	1600	1600	3	9.5	0.500	101Z3025.S	101Z8025.S
		25.1 - 30	1650	1650	3	9.5	0.520	101Z3030.S	101Z8030.S
		30.1 - 35	1650	1650	3	15.8	0.870	101Z3035.S	101Z8035.S

STEEL WIRE ROPES

Cablegrips

102Z1-



CondorGrip Stepped cable grip, Type K0-2, Galvanised, Double Mesh with 2 diameters, open ended on both sides, soldered on one side, Material Strand 1 x 19

These connection sleeves are used if the pull rope and the cable have different diameters so that both have an optimum grip. Other diameters, lengths and stainless steel designs are available on request.

Colour code	Cable/Rope Ø Da 1 mm	Cable/Rope Ø Da 2 mm	Mesh length L1 mm	Mesh length L2 mm	Overall length L0 mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no.
	10.1 - 15	15.1 - 20	1200	1200	2400	3	4.7	0.380	102Z101520.S
	10.1 - 15	25.1 - 30	1200	1500	2700	3	4.7	0.570	102Z101530.S
	10.1 - 15	30.1 - 40	1200	1500	2700	3	4.7	0.700	102Z101540.S
	15.1 - 20	25.1 - 30	1200	1500	2700	3	8.9	0.750	102Z102030.S
	15.1 - 20	30.1 - 40	1200	1500	2700	3	8.9	0.890	102Z102040.S
	15.1 - 20	40.1 -50	1500	1500	3000	3	8.9	1.280	102Z102050.S

Cablegrips for Cables and Ropes

For quick and flexible fastening of cables, ropes or pipes free of damage to a traction or winch rope for pulling in cable trenches, pipes etc., usually with swivel connectors if twisting is to be expected.

10101-
10106-

101K1-
101K6-

CondorGrip Cablegrip, Type K I and K I-K, Galvanised or Stainless Steel, Double Mesh, open ended on one side, on the other side with Pressed Loop or Thimble, Material Strand 1 x 19

The use of steel strands makes it possible to achieve high tensile forces and good wear values. Other lengths are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	10101- and 10106-		101K1- and 101K6-		Safety factor	Per- missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 in mm	Clear loop dimensions in mm	Overall length L0 in mm	Clear thimble dimensions in mm					
	6 - 10	600	700	60	675	14	3	2.8	0.080	10101010.S 101K1010.S	10106010.S 101K6010.S
	10.1 - 15	700	825	75	800	16	3	4.7	0.150	10101015.S 101K1015.S	10106015.S 101K6015.S
	15.1 - 20	800	925	75	900	16	3	5.7	0.190	10101020.S 101K1020.S	10106020.S 101K6020.S
	20.1 - 25	900	1050	90	1025	18	3	8.9	0.330	10101025.S 101K1025.S	10106025.S 101K6025.S
	25.1 - 30	1000	1175	105	1125	20	3	12.6	0.510	10101030.S 101K1030.S	10106030.S 101K6030.S
	30.1 - 40	1100	1300	120	1250	20	3	16.6	0.710	10101040.S 101K1040.S	10106040.S 101K6040.S
	40.1 -50	1200	1450	150	1375	24	3	23.2	1.300	10101050.S 101K1050.S	10106050.S 101K6050.S

Continued on page 413

STEEL WIRE ROPES

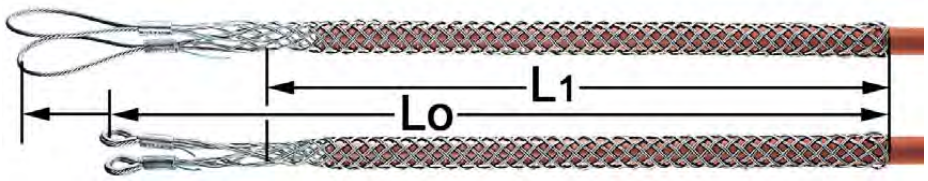
Cablegrips

Continued from page 412

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	10101- and 10106- Overall length L0 in mm	10101- and 10106- Clear loop dimensions in mm	101K1- and 101K6- Overall length L0 in mm	101K1- and 101K6- Clear thimble dimensions in mm	Safety factor	Per-missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	50.1 - 60	1300	1550	150	1475	24	3	23.2	1.390	10101060.S 101K1060.S	10106060.S 101K6060.S
	60.1 - 70	1400	1650	150	1575	24	3	28.6	1.710	10101070.S 101K1070.S	10106070.S 101K6070.S
	70.1 - 80	1500	1800	180	1700	28	3	34.3	2.250	10101080.S 101K1080.S	10106080.S 101K6080.S
	80.1 - 90	1500	1800	180	1700	28	3	40.0	2.710	10101090.S 101K1090.S	10106090.S 101K6090.S
	90.1 - 100	1500	1850	210	1725	32	3	46.0	3.260	10101100.S 101K1100.S	10106100.S 101K6100.S
	100.1 - 130	1500	1850	210	1725	32	3	51.0	3.650	10101130.S 101K1130.S	10106130.S 101K6130.S
	130.1 - 170	1600	2050	270	1900	45	3	75.9	7.160	10101170.S 101K1170.S	10106170.S 101K6170.S
	160.1 - 200	1600	2050	270	1900	45	3	79.7	7.810	10101200.S 101K1200.S	10106200.S 101K6200.S

10201-
10206-

102K1-
102K6-



CondorGrip Cablegrip, Type K II and K II-K, Galvanised or Stainless Steel, Double Mesh, open ended on both sides, on one side with 2 Pressed Loops or Thimbles, Material Strand 1 x 19

For gripping a cable or rope at a desired distance from the end. Other lengths are available on request. Can also be used as a tensioning grip to a limited extent.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	10201- and 10206- Overall length L0 in mm	10201- and 10206- Clear loop dimensions in mm	102K1- and 102K6- Overall length L0 in mm	102K1- and 102K6- Clear thimble dimensions in mm	Safety factor	Per-missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	6 - 10	600	700	45	700	12	3	2.8	0.080	10201010.S 102K1010.S	10206010.S 102K6010.S
	10.1 - 15	700	850	60	825	14	3	4.7	0.160	10201015.S 102K1015.S	10206015.S 102K6015.S
	15.1 - 20	800	950	60	925	14	3	5.7	0.200	10201020.S 102K1020.S	10206020.S 102K6020.S
	20.1 - 25	900	1075	60	1050	14	3	8.9	0.330	10201025.S 102K1025.S	10206025.S 102K6025.S
	25.1 - 30	1000	1200	75	1175	16	3	12.6	0.510	10201030.S 102K1030.S	10206030.S 102K6030.S
	30.1 - 40	1100	1325	90	1275	18	3	16.6	0.730	10201040.S 102K1040.S	10206040.S 102K6040.S
	40.1 -50	1200	1450	105	1425	20	3	23.2	1.290	10201050.S 102K1050.S	10206050.S 102K6050.S

Continued on page 414

STEEL WIRE ROPES

Cablegrips

Continued from page 413

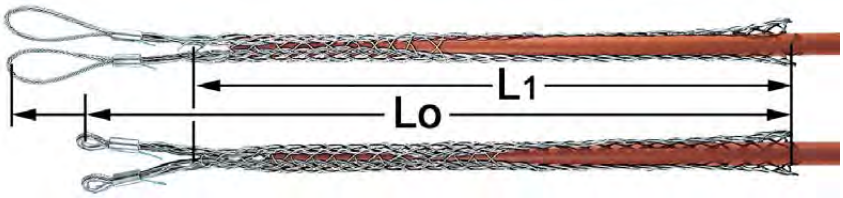
Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	10201- and 10206-		102K1- and 102K6-		Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 in mm	Clear loop dimensions in mm	Overall length L0 in mm	Clear thimble dimensions in mm					
	50.1 - 60	1300	1575	105	1525	20	3	23.2	1.400	10201060.S 102K1060.S	10206060.S 102K6060.S
	60.1 - 70	1400	1700	120	1650	20	3	28.6	1.790	10201070.S 102K1070.S	10206070.S 102K6070.S
	70.1 - 80	1500	1800	120	1750	20	3	34.3	2.220	10201080.S 102K1080.S	10206080.S 102K6080.S
	80.1 - 90	1500	1825	150	1750	24	3	40.0	2.800	10201090.S 102K1090.S	10206090.S 102K6090.S
	90.1 - 100	1500	1825	150	1750	24	3	46.0	3.220	10201100.S 102K1100.S	10206100.S 102K6100.S
	100.1 - 130	1500	1850	150	1750	24	3	51.0	3.620	10201130.S 102K1130.S	10206130.S 102K6130.S
	130.1 - 170	1600	2000	180	1900	28	3	75.9	6.840	10201170.S 102K1170.S	10206170.S 102K6170.S
	160.1 - 200	1600	2025	180	1925	28	3	79.7	7.540	10201200.S 102K1200.S	10206200.S 102K6200.S

Cablegrips for Cables and Ropes

For the quick, flexible and damage-free gripping of cables, ropes or pipes in the middle of a strand by lashing an open grip braid for connection to a traction or winch rope when pulling in cable trenches, pipes etc., usually with swivel connectors if twisting is to be expected.

102N1-
102N6-

102M1-
102M6-



CondorGrip Cablegrip, Type K II-N and K II-M, Galvanised or Stainless Steel, Double Mesh, open ended on both sides, on one side with 2 Pressed Loops or Thimbles, open-sided with lace-up Strand, Material Strand 1 x 19

Grips are used to grip and tighten the cable or rope at a great distance from the end. Other lengths are available on request. On grips that are open longitudinally, lace-up ropes are used, covered with a PU or PA hose at the most vulnerable point. These greatly reduce the Hertzian stress.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	102N1- and 102N6-		102M1- and 102M6-		Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 in mm	Clear loop dimensions in mm	Overall length L0 in mm	Clear thimble dimensions in mm					
	6 - 10	600	700	45	700	12	3	2.4	0.090	102N1010.S 102M1010.S	102N6010.S 102M6010.S
	10.1 - 15	700	850	60	825	14	3	4.0	0.190	102N1015.S 102M1015.S	102N6015.S 102M6015.S
	15.1 - 20	800	950	60	925	14	3	4.8	0.230	102N1020.S 102M1020.S	102N6020.S 102M6020.S
	20.1 - 25	900	1075	60	1050	14	3	7.5	0.370	102N1025.S 102M1025.S	102N6025.S 102M6025.S
	25.1 - 30	1000	1200	75	1175	16	3	10.7	0.580	102N1030.S 102M1030.S	102N6030.S 102M6030.S

Continued on page 415

STEEL WIRE ROPES
Cablegrips

Continued from page 414

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	102N1- and 102N6- Overall length L0 in mm	102N1- and 102N6- Clear loop dimensions in mm	102M1- and 102M6- Overall length L0 in mm	102M1- and 102M6- Clear thimble dimensions in mm	Safety factor	Per-missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
	30.1 - 40	1100	1325	90	1275	18	3	14.1	0.820	102N1040.S 102M1040.S	102N6040.S 102M6040.S
	40.1 -50	1200	1450	105	1425	20	3	19.7	1.430	102N1050.S 102M1050.S	102N6050.S 102M6050.S
	50.1 - 60	1300	1575	105	1525	20	3	19.7	1.540	102N1060.S 102M1060.S	102N6060.S 102M6060.S
	60.1 - 70	1400	1700	120	1650	20	3	24.3	1.940	102N1070.S 102M1070.S	102N6070.S 102M6070.S
	70.1 - 80	1500	1800	120	1750	20	3	29.2	2.520	102N1080.S 102M1080.S	102N6080.S 102M6080.S
	80.1 - 90	1500	1825	150	1750	24	3	34.0	3.090	102N1090.S 102M1090.S	102N6090.S 102M6090.S
	90.1 - 100	1500	1825	150	1750	24	3	39.1	3.510	102N1100.S 102M1100.S	102N6100.S 102M6100.S
	100.1 - 130	1500	1850	150	1750	24	3	43.4	3.910	102N1130.S 102M1130.S	102N6130.S 102M6130.S
	130.1 - 170	1600	2000	180	1900	28	3	64.5	7.140	102N1170.S 102M1170.S	102N6170.S 102M6170.S
	160.1 - 200	1600	2025	180	1925	28	3	67.8	7.84	102N1200.S 102M1200.S	102N6200.S 102M6200.S

Practical tips and advice

- **How can I read the colour coding for working diameter Da1?**
  Regardless of additional markings, the colour coding in line with the catalogue and operating instructions is binding. Two tracer threads indicate the max. working diameter of the cable grip. There must always be 2 tracer threads (from manufacture date 01/01/2014). If a thread is missing, the grip must be discarded or re-classified by a qualified person. Spliced and interim grips are colour coded.

- **What can I do to prevent the pulling grip from slipping?**
  On certain cables or greased ropes with a very open structure, pulling grips can slip. This is dangerous! The following options exist in such situations:
  - Ask us for a grip with a larger mesh length, indicating the pulling material.
  - Simply use additional plastic or sheet metal hose clamps on the construction site to secure the cable grip at the end. This noticeably improves the force closure of the grip.
  - Specify the item to be pulled and ask us for a more flexible mesh design. This particularly applies for support grips and in situations where greater safety is required.

- **How and when do pulling grips have to be checked?**
  In line with the regulations established by the professional associations for slings/ropes, pulling grips must be checked for mechanical wear (wire breaks etc.) before every use and at least once a year according to the same principles and discarded if necessary. Contact our service staff for assistance.

- **What do the specified safety factors mean and who determines these?**
  The minimum breaking strengths of the cable grip calculated by the manufacturer (minimum tensile force required for destruction) divided by the specified safety factor results in the maximum permissible tensile forces. The manufacturer stipulates safety factors for the various usage situations on the basis of technical safety regulations. For a standard horizontal winch, we apply the safety factors for winch systems. For vertical static and dynamic loads, such as those with support grips and assembly grips, we use the same safety factors as for rope slings. For other grips, the safety factors are determined by the usage situations.
  In practice, the user can increase the safety factors accordingly for specific situations but never reduce them!

STEEL WIRE ROPES

Cablegrips

3-way Cablegrips for Cables and Ropes

For the parallel, flexible, force-pressed and low-damage gripping and pulling of multiple cables, ropes or pipes using a traction or winch rope for pulling in cable trenches, pipes, etc. Usually with swivel connectors to prevent the individual strands from twisting.

10131-

CondorGrip 3-way Cablegrip, Type K I-V, Galvanised, Double Mesh, open ended on one side, on the other side with Pressed Loop

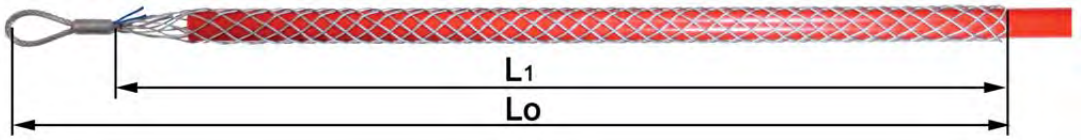
Multi-grips can be produced upon customer request, including with a different number of grips and different mesh lengths in line with the application on the construction site. This enables cables to be effectively laid.

Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Clear loop dimensions in mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no. Version
	6 - 10	600	750	90	3	8.3	0.220	10131010.S
	10.1 - 15	700	900	120	3	13.8	0.430	10131015.S
	15.1 - 20	800	1000	120	3	16.6	0.560	10131020.S
	20.1 - 25	900	1150	150	3	25.2	1.030	10131025.S
	25.1 - 30	1000	1300	180	3	34.8	1.620	10131030.S
	30.1 - 40	1100	1450	210	3	44.4	2.440	10131040.S
	40.1 -50	1200	1575	240	3	59.1	4.170	10131050.S
	50.1 - 60	1300	1675	240	3	59.1	4.450	10131060.S

Cablegrips for Fibre Optic Cables

For the flexible, fast, force-pressed and low-damage gripping a fibre optic cable using a traction or winch rope.

101L1-



CondorGrip Cablegrip, Type K I-L, Galvanised, Single Mesh, open ended on one side, on the other side with Pressed Loop for Fibre Optic Cable, Material Strand 1 x 19

Pulling grips for fibre glass are made from a single mesh due to the sensitivity of the cable and the low loads. Other mesh lengths, the use of flexible ropes due to force locking and stainless steel grips are available on request.

Colour code	Cable/Rope Ø Da 1 mm	Mesh length L1 mm	Overall length L0 mm	Clear loop dimensions in mm	Safety factor	Permissible tensile strength kN	Weight/ pce kg	Item no.
	10.1 - 15	600	675	45	3	2.4	0.060	101L1015.S
	15.1 - 20	600	700	60	3	2.9	0.080	101L1020.S
	20.1 - 25	700	800	60	3	4.5	0.130	101L1025.S
	25.1 - 30	700	825	75	3	6.4	0.180	101L1030.S
	30.1 - 40	700	875	105	3	12.1	0.380	101L1040.S

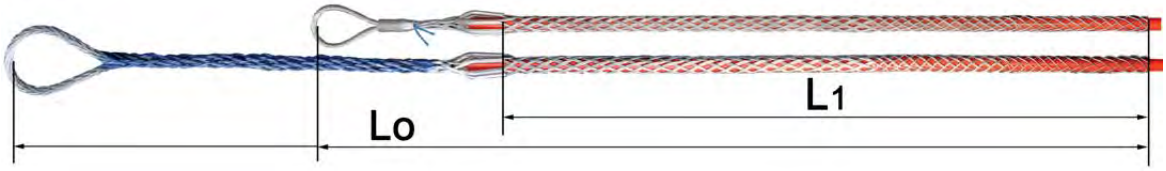
STEEL WIRE ROPES
Cablegrips

Cablegrips for Stringing of Overhead Lines

The KF cable grips are specially suited for stringing overhead lines (copper, aluminium or steel cables). They are characterised by a large mesh length and a three-stage mesh structure. This creates a highly secure force-locking grip on the lines. Permissible tensile forces are specified for the different lines. Intended for use at voltages of up to 1 kV.

1F1P1-

1F1S1-



CondorGrip Cablegrip for Stringing of Overhead Lines up to 1 kV ,Type KF I-P and KF I-S, Galvanised, 3-stage Mesh, open ended on one side, Pressed or Spliced Loop on the other, Material Strand 1 x 19

The spliced loop design is particularly suited for smooth running over sheaves. The pressed loop design can also be used for overhead line construction providing the specified sheaves are used. Both versions have a fixed strand guard made from aluminium tubing at the closed end. When pulling lines over 1 kV, please consult with us to clarify further technical details. Other mesh lengths are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Cable/ Rope Ø Da 1 Inches	Mesh length L1 mm	1F1P-		1F1S-		Safety factor	Per-missible tensile strength kN	Weight/ pce		Item no. Pressed version	Item no. Spliced version
				Overall length L0 mm	Clear loop dimension in mm	Overall length L0 mm	Clear loop dimension in mm			Pressed version	Spliced version		
	10.1 - 15	3/8 - 9/16	900	1075	90	1225	90	3	7.1	0.210	0.210	1F1P1015.S	1F1S1015.S
	15.1 - 20	9/16 - 13/16	1100	1350	150	1450	105	3	13.1	0.460	0.460	1F1P1020.S	1F1S1020.S
	20.1 - 25	13/16 - 1	1500	1825	180	1950	150	3	18.4	0.870	0.870	1F1P1025.S	1F1S1025.S
	25.1 - 30	1 - 1 3/16	1600	1925	180	2100	180	3	25.8	1.330	1.330	1F1P1030.S	1F1S1030.S
	30.1 - 35	1 3/16 - 1 3/8	1700	2025	180	2225	180	3	36.1	1.980	1.980	1F1P1035.S	1F1S1035.S
	35.1 - 40	3/16 - 1 9/16	1800	2175	210	2400	210	3	40.0	2.280	2.280	1F1P1040.S	1F1S1040.S
	40.1 - 50	1 9/16 - 2	1900	2275	210	2575	240	3	40.0	2.510	2.510	1F1P1050.S	1F1S1050.S
	50.1 - 60	2 - 2 3/8	2000	2400	210	2700	250	3	58.0	4.060	4.060	1F1P1060.S	1F1S1060.S

STEEL WIRE ROPES

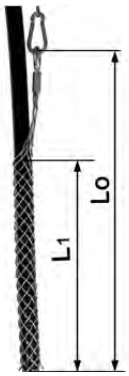
Cablegrips

Cable Support Grips

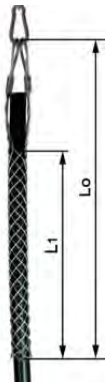
Cable support grips are reliable tools for the installation, attachment and strain relief of electric cables or similar. Various designs can be used in line with the usage situation. As cable support grips hold cables and lines vertically and have to be lifted during installation, a safety factor of 5 is specified.

1H101-1H106-

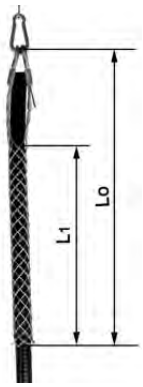
1H1K1-1H1K6-



1H201-1H206-



1H2K1-1H2K6-



CondorGrip Cable Support Grip, Type KH I, KH I-K, KH II, KH II-K, Galvanised or Stainless Steel, Single Mesh, open ended on one side, Pressed Single Eyelet, Eyelets or Thimble(s) on the other, Strand 1 x 19

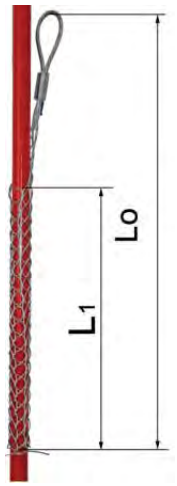
Due to reduced loads, support grips are braided from a single-stranded wire union and have shorter braid lengths. Support grips with other braid lengths or design versions, higher holding forces and flexible braids from ropes with a particularly effective force closure are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	1H101- and 1H106-		1H1K1- and 1H1K6-		1H201- and 1H206-		1H2K1- and 1H2K6-		Safety factor	Per-missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 mm	Clear loop dimensions in mm	Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear loop di-mensions in mm	Overall length L0 mm	Clear thimble dim. in mm					
	6 - 10	150	325	120	300	12	300	45	275	12	5	1.4	0.040	1H101010.S 1H1K1010.S 1H201010.S 1H2K1010.S	1H106010.S 1H1K6010.S 1H206010.S 1H2K6010.S
	10.1 - 15	180	375	120	350	14	350	45	325	12	5	2.2	0.050	1H101015.S 1H1K1015.S 1H201015.S 1H2K1015.S	1H106015.S 1H1K6015.S 1H206015.S 1H2K6015.S
	15.1 - 20	200	400	120	400	14	375	45	375	12	5	2.7	0.080	1H101020.S 1H1K1020.S 1H201020.S 1H2K1020.S	1H106020.S 1H1K6020.S 1H206020.S 1H2K6020.S
	20.1 - 25	250	475	150	475	16	450	45	450	12	5	2.7	0.080	1H101025.S 1H1K1025.S 1H201025.S 1H2K1025.S	1H106025.S 1H1K6025.S 1H206025.S 1H2K6025.S
	25.1 - 30	300	550	150	525	16	550	60	525	14	5	3.8	0.140	1H101030.S 1H1K1030.S 1H201030.S 1H2K1030.S	1H106030.S 1H1K6030.S 1H206030.S 1H2K6030.S
	30.1 - 40	350	650	200	600	18	600	60	575	14	5	5.1	0.190	1H101040.S 1H1K1040.S 1H201040.S 1H2K1040.S	1H106040.S 1H1K6040.S 1H206040.S 1H2K6040.S
	40.1 -50	450	750	200	750	20	750	75	700	16	5	7.2	0.360	1H101050.S 1H1K1050.S 1H201050.S 1H2K1050.S	1H106050.S 1H1K6050.S 1H206050.S 1H2K6050.S
	50.1 - 60	500	825	200	825	20	825	90	800	18	5	8.8	0.470	1H101060.S 1H1K1060.S 1H201060.S 1H2K1060.S	1H106060.S 1H1K6060.S 1H206060.S 1H2K6060.S

STEEL WIRE ROPES

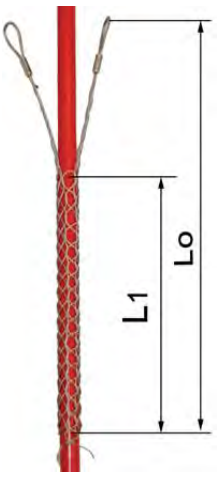
Cablegrips

**1H1N1-
1H1N6-**

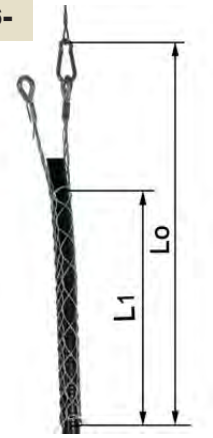


**1H1M1-
1H1M6-**

**1H2N1-
1H2N6-**



**1H2M1-
1H2M6-**



CondorGrip Cable Support Grip, Type KH I-N, KH I-M, KH II-N, KH II-M, Single Mesh, Galvanised or Stainless Steel, open ended on both sides, open-sided with lace-up Strand, on one side Pressed Eye-let(s) or Thimble(s), Material Strand 1 x 19

Support grips of the types KH I-N, KH II-N, KH I-M, KH II-M are open lengthwise and fastened with a binding wire at any point of the cable or rope to create a secure hold for the cable. They can also be attached retrospectively. Support grips with other braid lengths or design versions, higher holding forces and flexible braids from ropes with a particularly effective force closure are available on request.

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	1H1N1- and 1H1N6-		1H1M1- and 1H1M6-		1H2N1- and 1H2N6-		1H2M1- and 1H2M6-		Safety factor	Per-missible tensile strength kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
			Overall length L0 mm	Clear loop di-mensions in mm	Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear loop di-mensions in mm	Overall length L0 mm	Clear thimble dim. in mm					
	6 - 10	150	300	45	300	12	300	45	275	12	5	1.2	0.030	1H1N1010.S 1H1M1010.S 1H2N1010.S 1H2M1010.S	1H1N6010.S 1H1M6010.S 1H2N6010.S 1H2M6010.S
	10.1 - 15	180	375	60	350	14	350	45	325	12	5	1.9	0.050	1H1N1015.S 1H1M1015.S 1H2N1015.S 1H2M1015.S	1H1N6015.S 1H1M6015.S 1H2N6015.S 1H2M6015.S
	15.1 - 20	200	400	60	400	14	375	45	375	12	5	2.3	0.080	1H1N1020.S 1H1M1020.S 1H2N1020.S 1H2M1020.S	1H1N6020.S 1H1M6020.S 1H2N6020.S 1H2M6020.S
	20.1 - 25	250	500	75	475	16	450	45	450	12	5	2.3	0.100	1H1N1025.S 1H1M1025.S 1H2N1025.S 1H2M1025.S	1H1N6025.S 1H1M6025.S 1H2N6025.S 1H2M6025.S
	25.1 - 30	300	575	75	525	16	550	60	525	14	5	3.3	0.140	1H1N1030.S 1H1M1030.S 1H2N1030.S 1H2M1030.S	1H1N6030.S 1H1M6030.S 1H2N6030.S 1H2M6030.S
	30.1 - 40	350	625	90	600	18	600	60	575	14	5	4.3	0.200	1H1N1040.S 1H1M1040.S 1H2N1040.S 1H2M1040.S	1H1N6040.S 1H1M6040.S 1H2N6040.S 1H2M6040.S
	40.1 -50	450	775	105	750	20	750	75	700	16	5	6.2	0.390	1H1N1050.S 1H1M1050.S 1H2N1050.S 1H2M1050.S	1H1N6050.S 1H1M6050.S 1H2N6050.S 1H2M6050.S
	50.1 - 60	500	875	120	825	20	825	90	800	18	5	7.5	0.510	1H1N1060.S 1H1M1060.S 1H2N1060.S 1H2M1060.S	1H1N6060.S 1H1M6060.S 1H2N6060.S 1H2M6060.S

STEEL WIRE ROPES

Cablegrips

Support grips for Wind Turbines

Support grips in wind turbines are proven tools for the attachment and strain relief of electric cables when routing cables in turbines. As cable support grips hold cables and lines vertically, a safety factor of 5 is specified. These support grips are not suitable for assembly in the wind power sector.

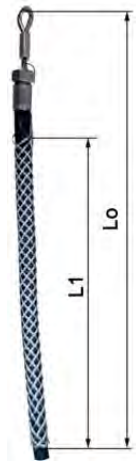
CondorGrip Cable Support Grip (especially for Wind Turbines), Type KW I-K, Galvanised, Double Mesh, open ended on both sides, one side flat, extra-long Braided and Pressed Thimble, Material Strand 1 x 19

Colour code		Cable/ Rope Ø Da 1 mm	Cable/ Rope Ø Da 1 inches	Mesh length L1 mm	Overall length L0 mm	Clear thimble dimensions in mm	Safety factor	Perm. tensile str. at x-times safety kN	Weight/ pce kg	Item no. Galvanised version	Item no. Stainless steel version 1.4401
		6 - 10	1/4 - 3/8	500	825	14	5	1.7	0.090	1W1K1010.S	1W1K6010.S
		10.1 - 15	3/8 - 9/16	500	850	16	5	2.8	0.150	1W1K1015.S	1W1K6015.S
		15.1 - 20	5/8 - 13/16	500	850	16	5	3.4	0.170	1W1K1020.S	1W1K6020.S
		20.1 - 25	13/16 - 1	500	875	18	5	5.3	0.270	1W1K1025.S	1W1K6025.S
		25.1 - 30	1 - 1 3/16	500	875	20	5	7.6	0.390	1W1K1030.S	1W1K6030.S
		30.1 - 40	1 3/16 - 1 9/16	500	900	20	5	9.9	0.510	1W1K1040.S	1W1K6040.S
		40.1 -50	1 9/16 - 2	600	1025	24	5	13.9	0.960	1W1K1050.S	1W1K6050.S
		50.1 - 60	2 - 2 3/8	600	1125	24	5	13.9	1.020	1W1K1060.S	1W1K6060.S
		60.1 - 70	2 3/8 - 2 3/4	600	1125	24	5	17.2	1.190	1W1K1070.S	1W1K6070.S
		70.1 - 80	2 3/4 - 3 1/8	600	1150	28	5	20.6	1.510	1W1K1080.S	1W1K6080.S
		80.1 - 90	3 1/8 - 3 1/2	800	1350	28	5	24.0	2.070	1W1K1090.S	1W1K6090.S
		90.1 - 100	3 1/2 - 4	800	1375	32	5	27.6	2.530	1W1K1100.S	1W1K6100.S
		100.1 - 130	4 - 5 1/8	800	1375	32	5	30.6	2.800	1W1K1130.S	1W1K6130.S

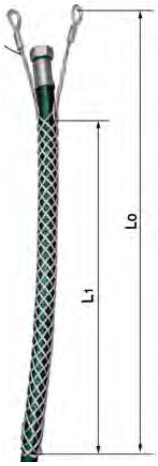
Hose Securing Grips

Hose securing grips provide safety in pneumatic and hydraulic systems. As well as acting as a static assembly aid and being suitable for attachment, they secure pressure-prone lines against accidental loosening of the fittings or protect against dangerous, uncontrolled movements in the case of defective cables. Due to the high expected forces, we apply a safety factor of 4.

1S1K1-



1S2K1-



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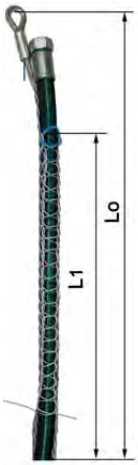
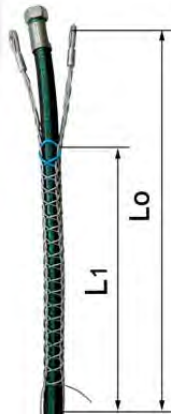


1S2M1-



CondorGrip Hose securing grip, Type KS I-K, KS I-M; KS II-K, KS II-M, Galvanised, Double Mesh, open ended on both sides, on one side (2) Braided and (2) Pressed Thimble(s), Cablegrips Type -M open-sided with lace-up Strand, Material Strand 1 x 19

Colour code		Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	1S1K1-		1S2K1-		1S1M1-		1S2M1-		Safety factor	Perm. tens. str. kN		Weight/ pce kg	Item no. Galvanised version
				Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear thimble dim. in mm	Overall length L0 mm	Clear thimble dim. in mm		1S1K1- and 1S2K1-	1S1M1- and 1S2M1-		
		6 - 10	600	750	14	725	12	750	14	725	12	4	2.1	1.8	0.083	1S1K1010.S 1S2K1010.S 1S1M1010.S 1S2M1010.S
		10.1 - 15	600	775	16	750	12	775	16	750	12	4	3.5	3.0	0.144	1S1K1015.S 1S2K1015.S 1S1M1015.S 1S2M1015.S
		15.1 - 20	600	800	16	775	14	800	16	775	14	4	4.3	3.6	0.165	1S1K1020.S 1S2K1020.S 1S1M1020.S 1S2M1020.S
		25.1 - 30	600	850	18	800	14	825	18	800	14	4	6.6	5.6	0.274	1S1K1025.S 1S2K1025.S 1S1M1025.S 1S2M1025.S
		25.1 - 30	600	875	20	825	16	875	20	825	16	4	9.4	8.0	0.398	1S1K1030.S 1S2K1030.S 1S1M1030.S 1S2M1030.S
		30.1 - 40	600	875	20	850	18	875	20	850	18	4	12.4	10.6	0.520	1S1K1040.S 1S2K1040.S 1S1M1040.S 1S2M1040.S
		40.1 -50	600	925	24	900	20	925	24	900	20	4	17.4	14.8	0.911	1S1K1050.S 1S2K1050.S 1S1M1050.S 1S2M1050.S
		50.1 - 60	600	950	24	925	20	950	24	925	20	4	17.4	14.8	0.933	1S1K1060.S 1S2K1060.S 1S1M1060.S 1S2M1060.S

Continued on page 422

STEEL WIRE ROPES

Cablegrips

Continued from page 421

Colour code	Cable/ Rope Ø Da 1 mm	Mesh length L1 mm	1S1K1- Overall length L0 mm	1S1K1- Clear thimble dim. in mm	1S2K1- Overall length L0 mm	1S2K1- Clear thimble dim. in mm	1S1M1- Overall length L0 mm	1S1M1- Clear thimble dim. in mm	1S2M1- Overall length L0 mm	1S2M1- Clear thimble dim. in mm	Safety factor	Perm. tens. str. kN 1S1K1- and 1S2K1-	Perm. tens. str. kN 1S1M1- and 1S2M1-	Weight/ pce kg	Item no. Galvanised version
	60.1 - 70	600	950	24	925	20	950	24	925	20	4	21.5	18.2	1.081	1S1K1070.S 1S2K1070.S 1S1M1070.S 1S2M1070.S
	70.1 - 80	600	1000	28	950	20	1000	28	950	20	4	25.8	21.9	1.397	1S1K1080.S 1S2K1080.S 1S1M1080.S 1S2M1080.S
	80.1 - 90	600	975	28	950	24	975	28	950	24	4	30.0	25.5	1.654	1S1K1090.S 1S2K1090.S 1S1M1090.S 1S2M1090.S
	90.1 - 100	600	1000	32	950	24	1000	32	950	24	4	34.5	29.3	2.036	1S1K1100.S 1S2K1100.S 1S1M1100.S 1S2M1100.S

There are countless applications for flexible, tensile-loaded round braids. Contact us. We will find you a solution for your application.

The expanded Condor Grip range includes many customer-related application options for cable pulling grips.
- Pulling grips for cable installations for homes 4-15 mm with special adapter heads
- Single, round braids by the metre for the electrostatic shielding of plastic pipes in sensitive buildings and rooms
- Special strain relief grips for electrical devices
- etc.

Swivel Connector with Slide Bearing for Underground Cable Laying

For use between pulling rope and cablegrip

Important: Slide bearings avoid twist, but do not untwist pull ropes. Do not use swivels with ball bearing for non rotation-free pull ropes!

Ø in mm	Length in mm	Clevis width in mm	Max. perm. tens. str. s.fact. 3 kN	Weight in kg	Item no.
20	86	7	7	0.150	5887.20.07
25	120	9	10	0.320	5887.25.10
35	130	12	20	0.600	5887.35.20
45	180	16	50	1.500	5887.45.50
55	190	18	60	2.300	5887.55.60
60	217	20	75	3.100	5887.60.75
65	235	23	100	3.500	5887.65.10
75	270	26	170	6.700	5887.75.17
85	315	30	240	9.000	5887.85.24

Swivel Connector for Overhead Lines

Must only be used with non-rotating pull ropes!

Equipped with ball bearing, which eliminates the torsion of the soft aluminium or CU-conductors.

To discharge induction currents this swivel has an increased conductivity.

Ø in mm	Length in mm	Clevis width in mm	Max. perm. tens. str. s.fact. 3 kN	Weight in kg	Item no.
18	80	6.5	7	0.110	5888.18.07
25	109	9	15	0.300	5888.25.15
30	128	12	20	0.500	5888.30.20
35	137	12	30	0.700	5888.35.30
40	160	14	40	1.100	5888.40.40
55	190	14	60	2.300	5888.55.60
60	220	20	75	3.100	5888.60.75
65	235	23	100	4.000	5888.65.10
75	270	30	170	6.700	5888.75.17

Wire Rope and Cable Cutter

Material is cut smoothly without crushing. Handles forged of light alloy, hand grips plastic coated.
Application: For cutting wire ropes, steel rods, wires of all kind and wiremesh.

Type	Max. cutting capacity ø in mm		Length in cm	Weight in kg	Item no.
	Steel wire ropes up 1,700 N/mm²	Electrical cables with steel core (aluminium or copper)			
7	5	7	19	0.270	5090.00.20
9	7	9	32.5	0.750	5090.00.30
12	8	12	50	1.500	5090.00.31
16	14	16	63	2.300	5090.00.32

Model 7 Model 9 Model 12 Model 16

Hand Swaging Tools for mechanical swaging of Aluminium Sleeves

Rope Ø in mm	Length in mm	Weight in kg	Item no.
1	625	2.5	5090.00.40
1.5	625	2.5	5090.00.41
2.0	625	2.5	5090.00.42
2.5	625	2.5	5090.00.43
3.0	625	2.5	5090.00.44
3.5	625	2.5	5090.00.45
4	1000	8	5090.00.46
4.5	1000	8	5090.00.47

* Includes 1 swaging die

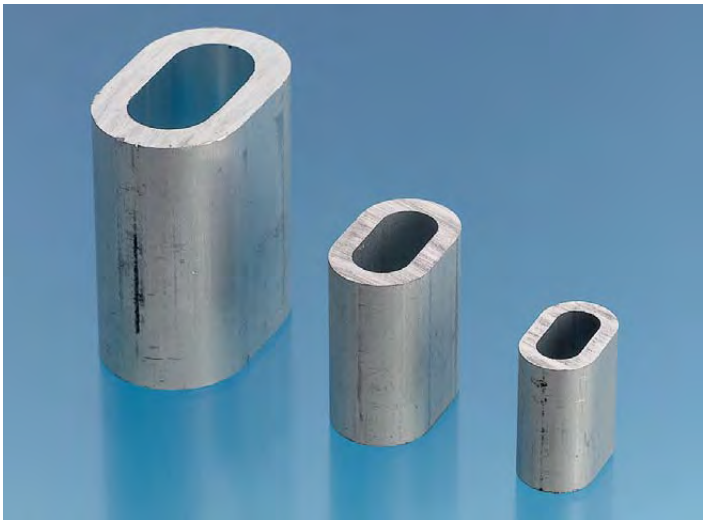
Replacement Swaging Dies

Rope Ø in mm	Item no.
1	5090.01.40
1.5	5090.01.41
2	5090.01.42
2.5	5090.01.43
3	5090.01.44
3.5	5090.01.45
4	5090.01.46
4.5	5090.01.47

* Includes 1 swaging die

Aluminium Sleeves

Rope Ø in mm	Item no.
1	T100.54.30
1.2-1.5	T151.20.42
1.6-2.0	T201.60.42
2.5	P500.00.25
3	P500.00.30
3.5	P500.00.35
4	P500.00.40
4.5	P500.00.45
5	P500.00.50
6	P500.00.60
8	P500.00.80
10	P500.01.00
12	P500.01.20



STAINLESS STEEL PRODUCTS

industrial INOX

EDELSTAHL Rostfrei

Stainless steel, for a longer service life!

Chain Slings and Accessories	**Pages 427-434**
Wire Rope Slings	**Page 435**
Ropes as Piece Goods	**Page 436**
Accessories, Turnbuckles, Thumbles etc.	**Pages 437-441**
Lifting Points screw-on / weld-on	**Pages 442-443**
Chain Hoists, Lifting Beams	**Pages 444-445**

STAINLESS STEEL PRODUCTS

Corrosion resistance

Stainless steel slings and load suspension equipment for industrial use

- Chain Slings
- Wire Ropes and Accessories
- Safety Hooks
- Lifting Beams
- Pallet Trucks
- Superkraft Woven Wire Rope Slings

For use in the
- Food Industry
- Chemical Industry
- Dyeing Plants, Pickling Plants, Hardening Shops
- Navigation

and any place where corrosion is a problem!

Corrosion resistance of stainless steel materials

Corrosive agent	Concentration	Temperature	1.4307	1.4401	1.4404	1.4462
Chloride	-	-	1 L	1 L	1 L	1 L
Acetic acid $C_2H_2O_2$	-	-	1	0	0	0
Fatty acid $C_{18}H_{34}O_2$	-	150 °C	1	0	0	0
Fluorine	40%	-	1-2	1-2	1-2	1-2
Gallic acid $C_6H_{20}O_2H$	-	-	0	0	0	0
Hydroxyde (alkaline)	20%	-	0	0	0	0
	20%	boiling	1	1	1	1
Lactic acid	10%	boiling	1	0	0	0
Nitrosulphuric acids	1-2%	boiling	2	0	0	0
Phosphoric acid	60%	boiling	2	1	1	1
Nitric acid HNO_3	1-66%	20%	0	0	0	0
	1-40%	boiling	0	0	0	0
	40-99%	boiling	1-2	1-2	1-2	1-2
Hydrochloric acid HCl	0-5%	20%	1 L	1 L	1 L	1 L
	1-2%	-	2 - 3 L	2 - 3 L	2 - 3 L	2 - 3 L
	1-2%	50°C	2 - 3 L	2 - 3 L	2 - 3 L	2 - 3 L
Sulphuric acid H_2SO_4	1-50%	20°C	1-2	1	1	1
	1-50%	70°C	1-2	0-2	0-2	0-2
	1-50%	boiling	2-3	2-3	2-3	2-3
Seawater*	-	< 60°C	0 - 2 L	0 - 1 L	0 - 1 L	0 L**
Sulphate	-	boiling	0-3	0-3	0-3	0-3
Tartaric acid	50%	boiling	2	1	1	1

0 = Resistant against erosive surface corrosion
1 = Slight attack by erosive surface corrosion
2 = Little resistance against erosive surface corrosion
3 = Not resistant against erosive surface corrosion
L = Pitting, crevice or stress corrosion might occur
*No accumulation or concentration of chloride ions

**Generally highly resistant against seawater

Working load limit depending on the chain temperature

	-40°C to +250°C	above 250°C to 350°C*	above 350°C to 450°C
W.L.L.	100 %	75 %	50 %

*1.4462 (AISI 318LN) max. 350°C allowed

Under unfavourable conditions corrosive attacks may occur in tight crevices.

The selection of the above-mentioned corrosive agents has been made according to their frequency of occurrence but may be extended in many areas. These indications result from laboratory tests of the material manufacturers and may only serve as a rough guide as practical application conditions cannot be compared with laboratory results.

STAINLESS STEEL PRODUCTS

Chain Slings, Welded/Modular System cromox

1-leg Chain Sling CWH1, with welded ring clevis and eyelet hook

Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.
4	400	6104.0E.04
5	630	6104.0E.05
6	900	6104.0E.06
7	1250	6104.0E.07
8	1550	6104.0E.08
10	2450	6104.0E.10
13	3850	6104.0E.13
16 (G5)	5000	6104.0E.16
18 (G5)	7000	6104.0E.18

2-leg Chain Sling CWH2, with welded ring clevis and eyelet hook

Load capacity 2-leg in kg at angle 0-45°	45-60°	Item no.
550	400	6204.0E.04
850	630	6204.0E.05
1250	900	6204.0E.06
1750	1250	6204.0E.07
2150	1550	6204.0E.08
3450	2450	6204.0E.10
5400	3850	6204.0E.13
7000	5000	6204.0E.16
9800	7000	6204.0E.18

4-leg Chain Sling CWH4, with welded ring clevis and eyelet hook

Load capacity 4-leg in kg at angle 0-45°	45-60°	Item no.
800	600	6404.0E.04
1300	900	6404.0E.05
1900	1350	6404.0E.06
2650	1850	6404.0E.07
3250	2300	6404.0E.08
5150	3650	6404.0E.10
8150	5750	6404.0E.13
10500	7500	6404.0E.16
-	-	-

1-leg Chain Sling with Safety Hook CML1, Modular system

Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.
6	900	6101.0E.06
7	1250	6101.0E.07
8	1550	6101.0E.08
10	2450	6101.0E.10

2-leg Chain Sling with Safety Hook CML2, Modular system

Load capacity 2-leg in kg at angle 0-45°	45-60°	Item no.
1250	900	6201.0E.06
1750	1250	6201.0E.07
2150	1550	6201.0E.08
3450	2450	6201.0E.10

4-leg Chain Sling with Safety Hook CML4, Modular system

Load capacity 4-leg in kg at angle 0-45°	45-60°	Item no.
1900	1350	6401.0E.06
2650	1850	6401.0E.07
3250	2300	6401.0E.08
5150	3650	6401.0E.10

On request, nominal sizes 13 and 16 mm are also available with eye hook

STAINLESS STEEL PRODUCTS

Chain Slings in Modular Design

cromox

1-leg Chain Sling with Master Link CME1

2-leg Chain Sling with Master Link CME2

4-leg Chain Sling with Master Link CME4

Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle 0 - 45°	Load capacity 2-leg in kg at angle 45 - 60°	Item no.	Load capacity 4-leg in kg at angle 0 - 45°	Load capacity 4-leg in kg at angle 45 - 60°	Item no.
6	900	6102.0E.06	1250	900	6202.0E.06	1900	1350	6402.0E.06
7	1250	6102.0E.07	1750	1250	6202.0E.07	2650	1850	6402.0E.07
8	1550	6102.0E.08	2150	1550	6202.0E.08	3250	2300	6402.0E.08
10	2450	6102.0E.10	3450	2450	6202.0E.10	5150	3650	6402.0E.10
13	3850	6102.0E.13	5400	3850	6202.0E.13	8150	5750	6402.0E.13
16 (G5)	5000	6102.0E.16	7000	5000	6202.0E.16	10500	7500	6402.0E.16

Other end fittings like shackles or eye hooks are available on request.

1-leg Chain Sling, with shortener CMVL1, with Safety Hook

2-leg Chain Sling, with shortener CMVL2, with Safety Hook

4-leg Chain Sling, with shortener CMVL4, with Safety Hook

Nominal chain size in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle 0-45°	Load capacity 2-leg in kg at angle 45-60°	Item no.	Load capacity 4-leg in kg at angle 0-45°	Load capacity 4-leg in kg at angle 45-60°	Item no.
5	630	6103.0E.05	850	630	6203.0E.05	1300	900	6403.0E.05
6	900	6103.0E.06	1250	900	6203.0E.06	1900	1350	6403.0E.06
7	1250	6103.0E.07	1750	1250	6203.0E.07	2650	1850	6403.0E.07
8	1550	6103.0E.08	2150	1550	6203.0E.08	3250	2300	6403.0E.08
10	2450	6103.0E.10	3450	2450	6203.0E.10	5150	3650	6403.0E.10

STAINLESS STEEL PRODUCTS

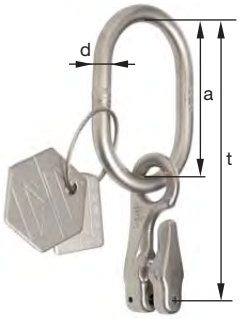
Shortening systems and shortener

cromox® Carl Stahl®

Niro shortening system CVK, 1-leg, stainless

NEW!

Grade 6,
Material: 1.4462
Surface: blasted

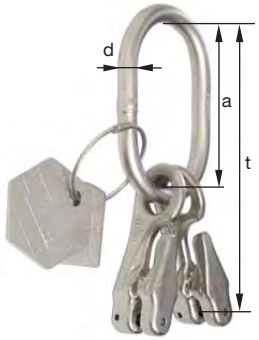


Type	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		d	t	a		
CVK 1 - 5	630	10	165	80	0.55	5030.E1.05
CVK 1 - 6	900	13	202	110	0.83	5030.E1.06
CVK 1 - 7	1250	13	186	110	1.20	5030.E1.07
CVK 1 - 8	1550	13	190	110	1.27	5030.E1.08
CVK 1 - 10	2450	16	185	110	2.07	5030.E1.10

Niro shortening system CVK, 2-leg, stainless

NEW!

Grade 6,
Material: 1.4462
Surface: blasted

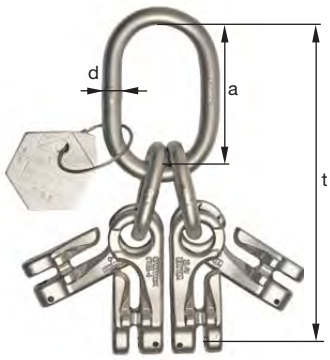


Type	Load capacity (WLL) in kg		Dimensions in mm			Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°	d	t	a		
CVK 2 - 5	850	630	13	195	110	1.09	5030.E2.05
CVK 2 - 6	1250	900	13	202	110	1.17	5030.E2.06
CVK 2 - 7	1750	1250	16	186	110	2.08	5030.E2.07
CVK 2 - 8	2150	1550	16	190	110	2.22	5030.E2.08
CVK 2 - 10	3450	2450	18	210	135	3.73	5030.E2.10

Niro shortening system CVK, 4-leg, stainless

NEW!

Grade 6,
Material: 1.4462
Surface: blasted



Type	Load capacity (WLL) in kg		Dimensions in mm			Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°	d	t	a		
CVK 4 - 5	1300	900	13	239	110	1.87	5030.E4.05
CVK 4 - 6	1900	1350	16	256	110	2.48	5030.E4.06
CVK 4 - 7	2650	1850	16	240	110	3.92	5030.E4.07
CVK 4 - 8	3250	2300	18	285	135	4.83	5030.E4.08
CVK 4 - 10	5150	3650	22	320	160	8.47	5030.E4.10

Niro shortener CVE, stainless

NEW!

Grade 6,
Material: 1.4462
Surface: blasted

Nominal size	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		d	t	a		
5	630	25	85.50	39.80	0.30	6612.E1.05
6	900	25	92.00	40.00	0.37	6612.E1.06
7	1250	32	113.00	50.50	0.70	6612.E1.07
8	1550	32	119.80	50.50	0.77	6612.E1.08
10	2450	38	149.00	61.00	1.39	6612.E1.10

Scope of delivery: Shortener (w/o chain and Master link)

STAINLESS STEEL PRODUCTS

Master Links in Modular Design

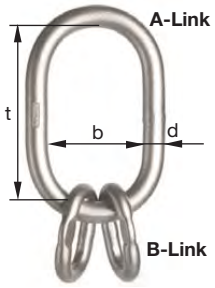
cromox

Niro Stainless Steel Master Link CAKF, 3- and 4-leg, with flattened Section on B-links

NEW!

Grade 6
Material: 1.4462
Surface: blasted

All master links and master link assemblies have a flattened section for fitting of connecting elements (e.g. clevis shackle type CGS).



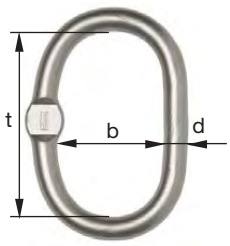
Type	Load capacity (WLL) in kg		Chain size	Dimensions in mm d x t x b		Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°		A-Link	B-Link		
CAKF 13/10	1300	900	5	13 x 110 x 60	10 x 44 x 25	0.52	5040.E0.13
CAKF 16/13	2650	1850	6	16 x 110 x 60	13 x 54 x 25	0.97	5040.E0.16
CAKF 18/16	3250	2300	7/8	18 x 135 x 75	16 x 70 x 34	1.60	5040.E0.26
CAKF 22/18	5150	3650	10	22 x 160 x 90	18 x 85 x 40	2.76	5040.E0.42
CAKF 26/22	8150	5750	13	26 x 180 x 100	22 x 115 x 50	4.45	5040.E0.67
CAKF 32/26	10500	7500	16	32 x 200 x 110	26 x 140 x 65	7.55	5040.E1.00

Niro Stainless Steel Master Link CAGF, 1- and 2-leg with flattened Section

NEW!

Grade 6,
Material: 1.4462
Surface: blasted

All master links and master link assemblies have a flattened section for fitting of connecting elements (e.g. clevis shackle type CGS).



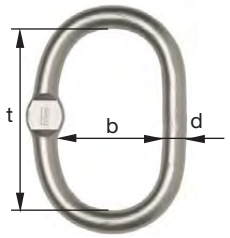
Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CAGF 10	630	5	4	10	80	50	0.15	5020.E0.06
CAGF 13	1550	6/7/8	5/6	13	110	60	0.34	5020.E0.07
CAGF 16	2450	10	7/8	16	110	60	0.53	5020.E0.12
CAGF 18	3550	-	10	18	135	75	0.80	5020.E0.20
CAGF 22	6000	13/16	13	22	160	90	1.50	5020.E0.32
CAGF 26	8000	18	16	26	180	100	2.30	5020.E0.50
CAGF 32	12000	20	18	32	200	110	3.90	5020.E0.71
CAGF 36	16000	-	20	36	260	140	6.35	5020.E0.75

Niro Stainless Steel Master Link CBGF, 1- and 2-leg with flattened Section

NEW!

Grade 6,
Material: 1.4462
Surface: blasted

All master links and master link assemblies have a flattened section for fitting of connecting elements (e.g. clevis shackle type CGS).



Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CBGF 13	2450	-	-	13	54	25	0.195	5020.E1.13
CBGF 16	3850	-	-	16	70	34	0.370	5020.E1.16
CBGF 18	6000	-	-	18	85	40	0.530	5020.E1.18
CBGF 22	7600	-	-	22	115	50	1.065	5020.E1.22
CBGF 26	9600	-	-	26	140	65	1.825	5020.E1.26

STAINLESS STEEL PRODUCTS

Welded Master Links

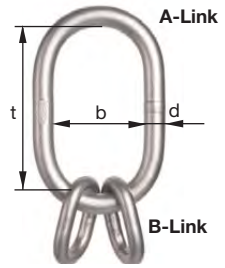
cromox

Carl Stahl®

Niro Stainless Steel Master Link CAK, 3- and 4-leg without flattened section with welded B-Links

NEW!

Grade 6,
Material: 1.4404
Surface: blasted

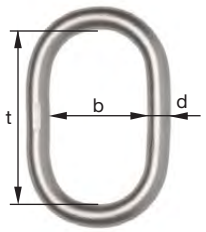


Type	Load capacity (WLL) in kg		Chain size	Dimensions in mm d x t x b		Weight in kg/pce	Item no.
	Inclination angle 0-45°	Inclination angle 45-60°		A-Link	B-Link		
CAK 10/8	750	550	4	10 x 80 x 50	8 x 35 19	0.24	5021.E1.10
CAK 13/10	1250	900	5	13 x 110 x 60	10 x 44 x 25	0.52	5021.E1.13
CAK 16/13	2500	1800	6/7	16 x 110 x 60	13 x 54 x 25	0.97	5021.E1.16
CAK 18/16	3150	2250	8	18 x 135 x 75	16 x 70 x 34	1.60	5021.E1.18
CAK 22/18	5000	3600	10	22 x 160 x 90	18 x 85 x 40	2.76	5021.E1.22
CAK 26/22	8000	5700	13	26 x 180 x 100	22 x 115 x 50	4.45	5021.E1.26
CAK 32/26	10000	7500	16	32 x 200 x 110	26 x 140 x 65	7.55	5021.E1.32

Niro Stainless Steel Master Links CAG, 1- and 2-leg Chain Slings without flattened section, A-Link

NEW!

Grade 6,
Material: 1.4404
Surface: blasted

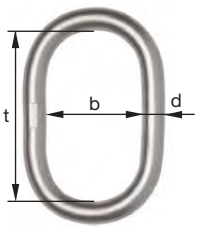


Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CAG 8	350	4	-	8	54	30	0.07	5021.E0.03
CAG 10	600	5	4	10	80	50	0.15	5021.E0.05
CAG 13	1500	6/7/8	5/6	13	110	60	0.34	5021.E0.10
CAG 16	2400	10	7/8	16	110	60	0.53	5021.E0.12
CAG 18	3350	-	10	18	135	75	0.80	5021.E0.20
CAG 22	6000	13/16	13	22	160	90	1.50	5021.E0.32
CAG 26	8000	18	16	26	180	100	2.30	5021.E0.50
CAG 32	12000	20	18	32	200	110	3.90	5021.E0.71
CAG 36	16000	-	20	36	260	140	6.35	5021.E0.80

Niro Stainless Steel Master Links CBG, 1- and 2-leg Chain Slings without flattened section, B-Link

NEW!

Grade 6,
Material: 1.4404
Surface: blasted



Type	Load capacity (WLL) in kg	Suitable for chain size		Dimensions in mm			Weight in kg/pce	Item no.
		1-leg	2-leg 0-45°	d	t	b		
CBG 5	350	-	-	5	22	9	0.012	5021.E2.05
CBG 6	600	-	-	6	26	13	0.018	5021.E2.06
CBG 8	1200	-	-	8	35	19	0.046	5021.E2.08
CBG 10	1500	-	-	10	44	25	0.092	5021.E2.10
CBG 13	2400	-	-	13	54	25	0.195	5021.E2.13
CBG 16	3850	-	-	16	70	34	0.370	5021.E2.16
CBG 18	6000	-	-	18	85	40	0.530	5021.E2.18
CBG 22	7600	-	-	22	115	50	1.065	5021.E2.22
CBG 26	9600	-	-	26	140	65	1.825	5021.E2.26

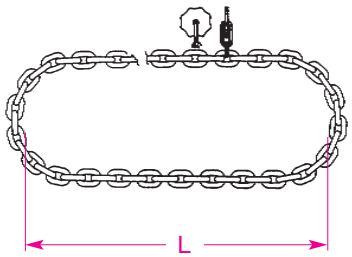
STAINLESS STEEL PRODUCTS

Chains and Components

cromox

Niro Endless Stainless Steel Chain, welded CELK

Grade 6,
Material: 1.4404
Surface: blank

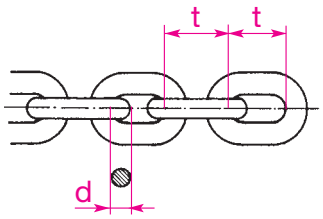


Standard length „L“ = 1 m
Length „L“ 1 m = Circumference 2 m

Nominal chain size in mm	Load capacity (WLL) in kg at angle of			Item no.
	direct	0 - 45°	45 - 60°	
4 x 12	800	450	300	6207.0E.04
5 x 15	1260	700	500	6207.0E.05
6 x 18	1800	1000	700	6207.0E.06
7 x 21	2500	1400	1000	6207.0E.07
8 x 24	3100	1700	1200	6207.0E.08
10 x 30	4900	2700	1950	6207.0E.10
13 x 39	7700	4300	3050	6207.0E.13
16 x 48 (G5)	10000	5600	4000	6207.0E.16

Niro Stainless steel round steel chain (sling chain)

Grade 6,
Material: 1.4404
similar DIN 5687
Surface: blank



Chain size d x t in mm	Load capacity (WLL) in kg	Weight ca. kg/m	Item no.
4 x 12	400	0.35	6000.E0.04
5 x 15	630	0.54	6000.E0.05
6 x 18	900	0.80	6000.E0.06
7 x 21	1250	1.10	6000.E0.07
8 x 24	1550	1.40	6000.E0.08
10 x 30	2450	2.20	6000.E0.10
13 x 39	3850	3.80	6000.E0.13
16 x 48 (G5)	5000	5.70	6000.E0.16
18 x 54 (G5)	7000	7.30	6000.E0.18

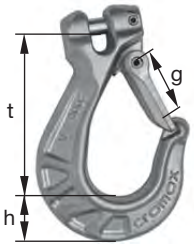
Niro Stainless Steel Clevis Shackle CGS

ND 6 - ND 13 Grade 6,
ND 16 Grade 5
Material: 1.4462
Surface: blasted

Nominal size	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		t	b	a		
6	900	26	20	7	0.160	6561.E0.06
7/8	1550	30	23	9	0.230	6561.E0.08
10	2450	40	28	11	0.460	6561.E0.10
13	3850	48	38	14	0.675	6561.E0.13
16 (G5)	5000	50	44	17	1.130	6561.E0.16

Niro Stainless Steel Clevis Hook CGHF, with Safety Latch

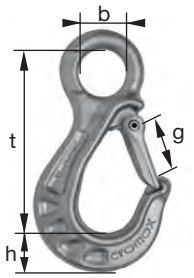
Grade 6,
Material: 1.4462
Surface: blasted



Nominal size	Load capacity (WLL) in kg	Dimensions in mm			Weight in kg/pce	Item no.
		t	g	h		
5	630	79	25	22	0.400	6550.E0.05
6	900	78	25	22	0.400	6550.E0.06
7/8	1550	97	32	28	0.760	6550.E0.08
10	2450	121	40	34	1.440	6550.E0.10

Niro Stainless Steel Eye Hook COHF, with Safety Latch

NG 4 - NG 13 Grade 6,
NG 16 - NG 18 Grade 5
Material: 1.4462
Surface: blasted



Nominal size	Load capacity (WLL) in kg	Dimensions in mm				Weight in kg/pce	Item no.
		t	g	b	h		
4	400	75	20	17	17	0.185	5180.0E.03
5/6	900	100	25	25	22	0.350	5180.0E.07
7/8	1550	126	32	27	28	0.790	5180.0E.12
10	2450	160	40	37	34	1.370	5180.0E.20
13	3850	190	51	48	45	3.000	5180.0E.32
16 (G5)	5000	230	66	55	51	4.800	5180.0E.50
18 (G5)	7000	230	66	55	51	4.800	5180.0E.70

STAINLESS STEEL PRODUCTS

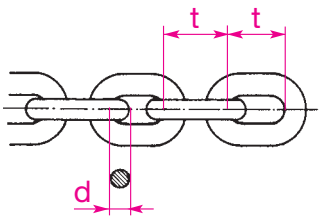
Chain Sling

cromox

CarlStahl

Niro Chain Sling CHK / Hand Chain NHC

Grade 6,
Material: 1.4404
similar DIN 5684
Surface: blank
Tested, true to gauge
Calibrated to DIN 5684 for precise running over the chain wheels



a* Manual lifting equipment
SF 4:1

b* Motorised lifting equipment 1 Bm
SF 5:1

Type	Chain size d x t in mm	Load capacity (WLL) in kg a*	Load capacity (WLL) in kg b*	Weight ca. kg/m	Item no.
CHK	4 x 12	400	320	0.35	HBN6.00.01
CHK	4 x 12.3	400	320	0.35	HBN6.00.02
CHK	5 x 15	630	500	0.54	HBN6.00.03
CHK	5 x 15.1	630	500	0.54	HBN6.00.04
CHK	5 x 15.3	630	500	0.54	HBN6.00.05
CHK	6 x 18	950	750	0.80	HBN6.00.06
CHK	6.3 x 19.1	1000	800	0.86	HBN6.00.07
CHK	7 x 21	1250	1000	1.10	HBN6.00.08
CHK	7 x 22	1250	1000	1.10	HBN6.00.09
CHK	7.1 x 21.2	1300	1000	1.12	HBN6.00.10
CHK	8 x 24	1600	1250	1.40	HBN6.00.11
CHK	8 x 24.2	1600	1250	1.40	HBN6.00.12
CHK	9 x 27	2000	1600	1.80	HBN6.00.13
CHK	10 x 28	2500	2000	2.20	HBN6.00.14
CHK	10 x 30	2500	2000	2.20	HBN6.00.15
NHC	5 x 25	-	-	0.45	HBN6.00.16
NHC	5 x 25.2	-	-	0.45	HBN6.00.17

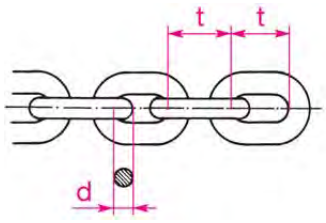
Swivel Load Hook CWHF for direct connection to hoist chain

Grade 6,
Material: 1.4462
Surface: blasted
Easy to swivel under full load (stainless steel ball bearing)
Specially tailored to the lifting equipment and lifting equipment chains from several manufacturers
Patented Sceletto principle for enhanced bracing
Perfect handling thanks to compact design

Designation	Suitable for chain Ø in mm	Load cap. (WLL) kg	Dim. g in mm	Weight ca. kg	Item no.
CWHF 40	4x12/12.1/12.3	400	20	0.450	5171.E0.40
CWHF 43	4.3 x 12	400	20	0.450	5171.E0.43
CWHF 50	5x15/15.1/15.3	630	20	0.450	5171.E0.50
CWHF 60	6 x 16.7/18	950	25	1.100	5171.E0.60
CWHF 63	6.3x19.1	1000	25	1.100	5171.E0.63
CWHF 70	7x21/22	1250	25	1.100	5171.E0.70
CWHF 71	7.1 x 20.5/21.2	1300	25	1.100	5171.E0.71

Niro Round Steel Chain, Short-Linked

Grade 6,
Material: 1.4404
similar DIN 766
Surface: blank
Tested, true to gauge



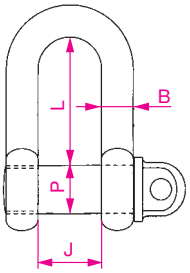
Dimensions d x t in mm	Load capacity (WLL) kg	Weight kg/m	Item no.
4 x 16	400	0.32	6011.E0.04
5 x 18.5	630	0.50	6011.E0.05
6 x 18.5	900	0.78	6011.E0.06
7 x 22	1250	1.10	6011.E0.07
8 x 24	1550	1.35	6011.E0.08
10 x 28	2450	2.25	6011.E0.10
13 x 36	3850	3.90	6011.E0.13

Must not be used for transport and lifting of loads!

High Strength Stainless Steel D-shackle, forged, stamped with Load Capacity

Stainless steel material,
Material: AISI 630
Safety factor 6:1

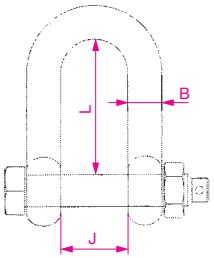
Higher load capacity due to special material



Load capacity (WLL) in kg	Dimensions in mm				Weight in kg	Item no.
	P	B	J	L		
1000	10.0	8.0	16	32	0.085	5672.00.10
2000	12.7	10	20	40	0.150	5672.00.13
3000	16	12.7	25	50	0.350	5672.00.16
5000	19	16	32	64	0.550	5672.00.19
7000	22.2	19	38	76	1.000	5672.00.22
9000	25.4	22.2	44	88	1.900	5672.00.25
11000	28.6	25.4	51	102	2.900	5672.00.29
13000	31.8	28.6	57	114	3.100	5672.00.32
15000	34.9	31.8	64	128	4.350	5672.00.35
18000	38	34.9	70	140	5.300	5672.00.38

Stainless Steel D-shackle with Nut and Pin, forged, stamped with Load Capacity

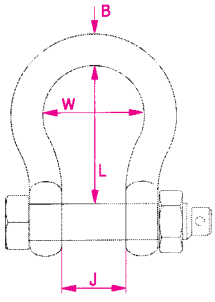
Stainless steel material,
Material: AISI 316
Safety factor 6:1



Load capacity (WLL) in kg	Nominal size	Dimensions in mm			Weight in kg/pce	Item no.
		B	J	L		
350	M6	6	13	25	0.048	5673.00.06
500	M8	8	16	32	0.075	5673.00.08
800	M10	9.5	19	38	0.136	5673.00.10
1000	M12	11	22	44	0.212	5673.00.12
1250	M12	12.7	26	52	0.331	5673.00.13
1800	M16	14.3	29	58	0.585	5673.00.16
2800	M20	16	32	64	0.760	5673.00.20
3300	M22	19	38	76	1.180	5673.00.22
4500	M24	22	44	88	1.750	5673.00.24
5000	M27	25.4	50	100	2.600	5673.00.27

Stainless Steel Bow Shackle with Nut and Pin, forged, stamped with Load Capacity

Stainless steel material,
Material: AISI 316
Safety factor 6:1



Load capacity (WLL) in kg	Nominal size	Dimensions in mm				Weight in kg/pce	Item no.
		B	J	W	L		
280	M6	6	13	19	28	0.052	5674.00.06
400	M8	8	16	25	35	0.081	5674.00.08
600	M10	9.5	19	28	38	0.147	5674.00.10
800	M12	11	22	33	46	0.221	5674.00.12
1000	M12	12.7	26	38	52	0.354	5674.00.13
1500	M16	14.3	29	43	60	0.635	5674.00.16
2500	M20	16	32	50	68	0.805	5674.00.20
3000	M22	19	38	58	76	1.250	5674.00.22
4000	M24	22	44	66	88	1.820	5674.00.24
4500	M27	25.4	50	76	100	2.700	5674.00.27

STAINLESS STEEL PRODUCTS

Wire Rope Slings

Wire rope sling with pressed loops, 1-leg

Wire rope sling with pressed loop and safety hook

Wire rope sling with pressed loop and master link

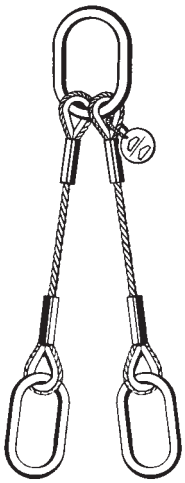
Wire rope sling with master link and safety hook

! **The load capacities assume that for one-legged wire rope slings without a thimble loop, the lifting point has a diameter of at least twice the rope nominal diameter.**

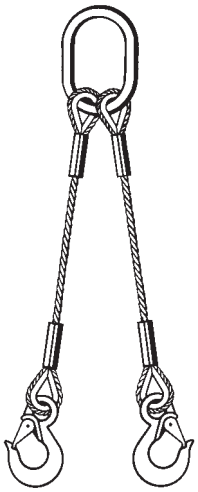
Rope Ø in mm	Load capacity 1-leg single direct in kg	Item no.	Item no.	Item no.	Item no.
8	600	1102.0E.08	1121.0E.08	1113.0E.08	1122.0E.08
10	1000	1102.0E.10	1121.0E.10	1113.0E.10	1122.0E.10
12	1300	1102.0E.12	1121.0E.12	1113.0E.12	1122.0E.12
14	1800	1102.0E.14	1121.0E.14	1113.0E.14	1122.0E.14
16	2300	1102.0E.16	1121.0E.16	1113.0E.16	1122.0E.16
20	3600	1102.0E.20	1121.0E.20	1113.0E.20	1122.0E.20

Wire rope sling with 2 master links

2-leg wire rope sling with master links

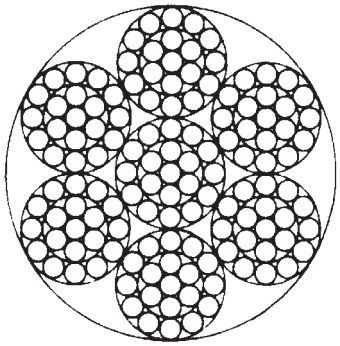


2-leg wire rope sling with master links and safety hook



Rope Ø in mm	Load capacity 1-leg single direct in kg	Item no.	Load capacity 2-leg in kg at angle 0 - 45°	Load capacity 2-leg in kg at angle 45 - 60°	Item no.	Item no.
8	600	1149.0E.08	840	600	1226.0E.08	1219.0E.08
10	1000	1149.0E.10	1400	1000	1226.0E.10	1219.0E.10
12	1300	1149.0E.12	1800	1300	1226.0E.12	1219.0E.12
14	1800	1149.0E.14	2500	1800	1226.0E.14	1219.0E.14
16	2300	1149.0E.16	3200	2300	1226.0E.16	1219.0E.16
20	3600	1149.0E.20	5000	3600	1226.0E.20	1219.0E.20

Stainless Steel Stranded Rope, Material 1.4401, Construction 6x19M-WSC



Rope Ø in mm	Minimum breaking load 1,570 N/mm²		Weight in kg/m	Item no.
	kN	kg		
2.0	2.08	291	0.017	CG71.92.00
3.0	4.69	478	0.034	0160.10.30
4.0	8.34	850	0.060	0160.10.40
5.0	13.0	1330	0.093	0160.10.50
6.0	18.8	1920	0.134	0160.10.60
7.0	27.41	2800	0.196	0160.10.70
8.0	33.4	3410	0.238	0160.10.80
10.0	52.1	5310	0.372	0160.11.00
12.0	75.1	7660	0.536	0160.11.20
16.0	133.0	13600	0.955	0160.11.60

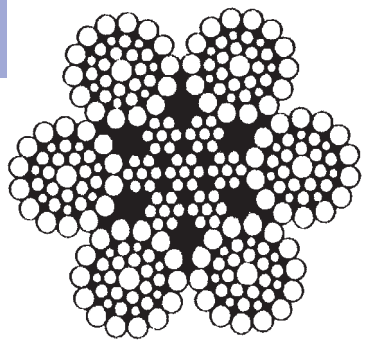
Rope class / Number of outer strands:
6x19/ 6

Lay / Lay direction available in:
sZ

Categories:
not rotation-resistant

Swivel:
not allowed

Stainless Steel Wire Rope, Material 1.4401, Construction 6x36WS-IWRC



Rope Ø in mm	Minimum breaking load (MBL) 1,570 N/mm²		Weight in kg/m	Item no.
	kN	kg		
8.0	35.7	3641	0.260	0164.10.80
10.0	55.9	5700	0.409	0164.11.00
12.0	80.5	8210	0.589	0164.11.20
14.0	110.0	11200	0.802	0164.11.40
16.0	143.0	14600	1.050	0164.11.60
18.0	181.0	18500	1.330	0164.11.80
20.0	224.0	22800	1.640	0164.12.00

Rope class / Number of outer strands:
6x36 / 6

Lay / Lay direction available in:
sZ

Categories:
not rotation-resistant

Swivel:
not allowed

CondorLift Woven Wire Rope Sling

With 2 stranded eyes, in stainless steel 1.4401/1.4310
Special sizes and widths on request!

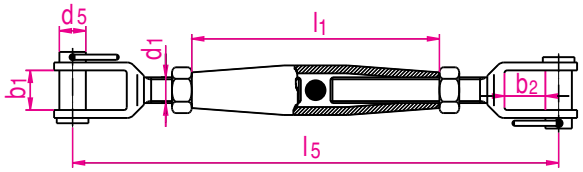
- Low dead weight in relation to load
- Customised loop lengths for different applications

Low dead weight in relation to load

Load capacity (WLL) in kg direct	Load capacity (WLL) in kg basket hitch	Width in mm	Thickness in mm	Loop length in mm	Item no.	Weight 1st metre in kg	Additional metre in kg
750	1500	30	6	195	4330.00.07N	1.6	1.0
1250	2500	40	6	195	4330.00.12N	1.9	1.3
2000	4000	40	10	300	4330.00.20N	4.1	2.2
3000	6000	60	10	300	4330.00.30N	4.5	2.5
6000	12000	90	10	400	4330.00.60N	7.2	4.6
8000	16000	120	10	410	4330.00.80N	9.2	6.2

Other versions of woven wire rope slings can be found starting on page 287.
On request they are also available in stainless steel.

Turnbuckle with 2 Forks, Material 1.4401

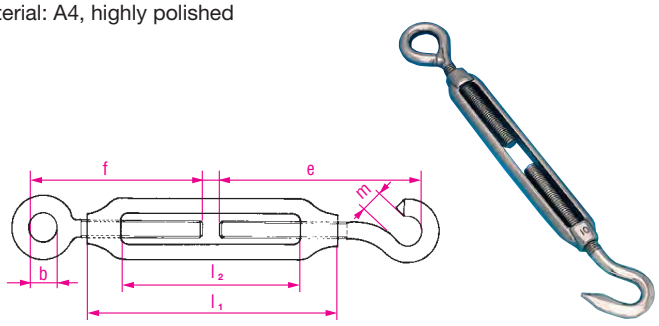


Thread d1	Load capacity (WLL) in t	Dimensions in mm b1	b2	d5	l1	l5	Weight in kg/100 pcs	Item no.
M5	0.187	6	9	5.0	80	130 - 190	5.2	5740.00.05
M6	0.275	8	10	6.0	95	150 - 220	10.2	5740.00.06
M8	0.500	10	11	8.0	105	180 - 255	16.5	5740.00.08
M10	0.775	12	13	9.0	125	220 - 300	29.8	5740.00.10
M12	1.125	14	20	12.5	150	270 - 385	51.3	5740.00.12
M14	1.500	14	22	12.5	165	300 - 425	59.9	5740.00.14
M16	2.050	16	26	16.0	190	360 - 500	114.2	5740.00.16
M20	3.200	20	30	19.0	210	390 - 560	170.2	5740.00.20

Turnbuckles

Turnbuckle similar to DIN 1480, with Hook and Eye

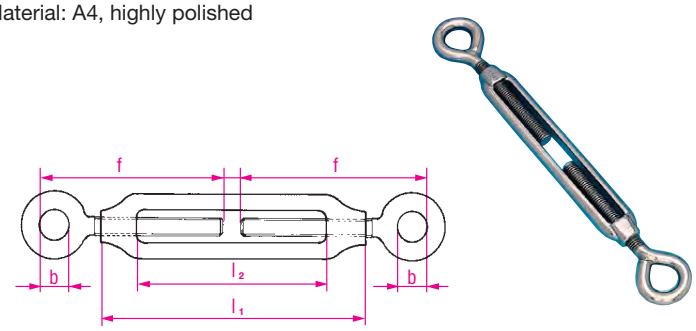
Hook and eye are forged
Material: A4, highly polished



Nominal size = thread	Tens. dist. in mm	Dimensions in mm						Weight in kg/ 100 pcs	Item no.
		b	e	f	l1	l2	m		
M5	45	8	53	58	70	55	9	5.03	5780.00.70
M6	80	10	85	80	110	65	10	9.50	5780.00.90
M8	75	11	85	84	110	95	11	16.50	5780.01.20
M10	85	12	112	105	125	120	12	29.00	5780.01.50
M12	80	14	117	115	125	165	14	43.00	5780.02.00
M16	110	16	138	165	170	215	16	92.00	5780.02.50

Turnbuckle similar to DIN 1480, with 2 Eyes

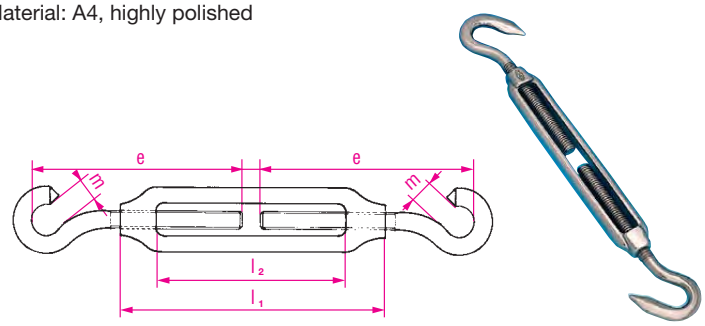
Eyes are forged
Material: A4, highly polished



Nominal size = thread	Tens. dist. in mm	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
		b	f	l1	l2		
M5	45	8	58	70	55	5.21	5781.00.70
M6	80	10	80	110	65	9.00	5781.00.90
M8	75	11	84	110	95	15.50	5781.01.20
M10	85	12	105	125	120	27.00	5781.01.50
M12	80	14	115	125	165	41.00	5781.02.00
M16	110	16	165	170	215	100.00	5781.02.50

Turnbuckle similar to DIN 1480, with 2 Eyes

Eyes are forged
Material: A4, highly polished



Nominal size = thread	Tens. dist. in mm	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
		e	l1	l2	m		
M5	45	53	70	55	9	4.85	5782.00.70
M6	80	85	110	65	10	9.50	5782.00.90
M8	75	85	110	95	11	17.00	5782.01.20
M10	85	112	125	120	12	30.00	5782.01.50
M12	80	117	125	165	14	44.00	5782.02.00
M16	110	138	170	215	16	95.00	5782.02.50

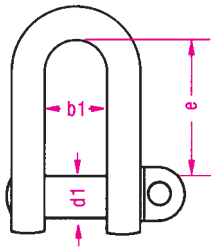
All products on this page must not be used for lifting and transport of loads!

STAINLESS STEEL PRODUCTS

Shackles, Thimbles

D-Shackle

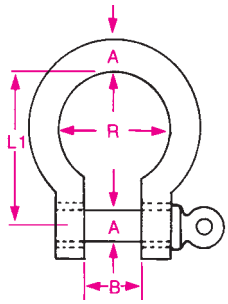
Stainless steel
Material: A4
Finish: highly polished
Marking: Manufacturer's mark, load capacity (WLL/kg)



Load capacity (WLL) in kg	Nominal size	Dimensions in mm			Weight in kg/ 100 pcs	Item no.
		b1	d1	e		
160	4	8	4	16	0.75	5670.00.04
250	5	10	5	19	1.60	5670.00.05
375	6	12	6	24	2.52	5670.00.06
625	8	16	8	32	5.80	5670.00.08
1000	10	20	10	40	11.10	5670.00.10
1500	12	25	12	48	20.20	5670.00.12
2750	16	32	16	64	47.40	5670.00.16
3750	20	38	20	76	79.30	5670.00.19
4750	22	44	22	88	126.00	5670.00.22
5750	24	50	24	100	186.40	5670.00.25

Bow Shackle

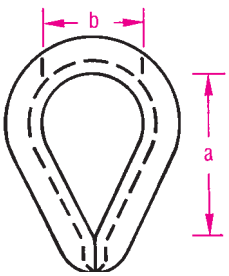
Stainless steel
Material: A4
Finish: highly polished
Marking: Manufacturer's mark, load capacity (WLL/kg)



Load capacity (WLL) in kg	Nominal size	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
		A	B	R	L1		
160	4	4	8	12	16	0.80	5671.00.04
250	5	5	10	15	20	1.80	5671.00.05
375	6	6	12	18	24	2.60	5671.00.06
625	8	8	16	24	32	5.80	5671.00.08
1000	10	10	20	30	40	11.30	5671.00.10
1500	12	12	25	36	48	20.90	5671.00.12
2750	16	16	32	48	64	49.80	5671.00.16
3750	20	20	38	60	80	92.50	5671.00.19
4750	22	22	44	66	88	136.00	5671.00.22
5750	24	24	50	75	100	192.40	5671.00.25

Stainless Steel Thimble

Material: A4
Finish: highly polished



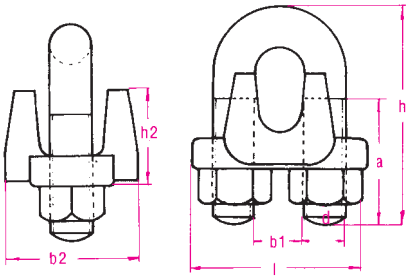
Nominal size	Rope Ø in mm	Dimensions in mm		Weight in kg/ 100 pcs	Item no.
		a	b		
3	3	15	10	0.30	5970.00.03
4	4	17	11	0.41	5970.00.04
5	5	21	13	0.52	5970.00.05
6	6	26	16	0.90	5970.00.06
7	7	29	18	1.08	5970.00.07
8	8	32	20	1.85	5970.00.08
10	10	42	26	3.35	5970.00.10
12	12	43	28	4.41	5970.00.12
14	14	58	34	9.10	5970.00.14
16	16	60	37	13.00	5970.00.16
18	18	66	42	15.70	5970.00.18
20	20	79	45	19.05	5970.00.20

All products on this page must not be used for lifting and transport of loads!
Load capacity is ca. 25% of the breaking load.
Max. load capacity indicated on the shackles must not be exceeded.

Wire Rope Clips

Stainless Steel Wire Rope Clip, heavy Version

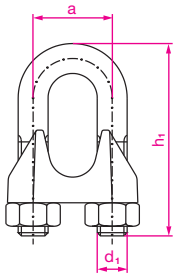
Similar DIN 741
Material: A4
Finish: polished



Nominal size	Dimensions in mm							Weight in kg/ 100 pcs	Item no.
	a	b1	b2	d	h1	h2	l		
2	9	4	13	M 3	18	11	14	0.8	5870.00.02
3	12	5	16	M 4	25	12	17	1.5	5870.00.03
4	13	6	18	M 4	25	14	19	2.9	5870.00.04
5	15	7	20	M 5	29	15	24	3.1	5870.00.05
6	18	8	21	M 6	31	17	27	4.0	5870.00.06
8	23	10	27	M 8	41	21	34	7.7	5870.00.08
10	28	12	34	M 10	52	25	45	17.0	5870.00.10
12	35	14	38	M 12	61	28	51	26.5	5870.00.12
14	42	15	43	M 12	68	32	53	31.0	5870.00.14
16	42	18	47	M 14	76	36	60	50.0	5870.00.16
19	50	20	51	M 14	79	40	62	58.0	5870.00.19
22	60	26	61	M 16	98	46	72	80.0	5870.00.22
25	62	29	61	M 16	110	49	76	108	5870.00.25

Stainless Steel Wire Rope Clip, Light Version

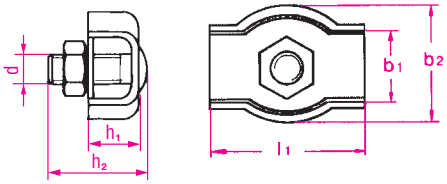
Similar DIN 741
Material: A4
Finish: polished



Nominal size	Dimensions in mm			Weight in kg/ 100 pcs	Item no.
	d1	h1	a		
2	M3	17	4	0.69	5871.00.02
3	M4	20	5	1.20	5871.00.03
4	M4	22	6	1.30	5871.00.04
5	M5	24	6	1.40	5871.00.05
6	M5	28	8	1.72	5871.00.06
8	M6	34	10	4.10	5871.00.08
10	M8	42	12	5.89	5871.00.10
12	M10	55	15	13.0	5871.00.12
16	M12	63	18	21.0	5871.00.15
19	M12	75	21	28.0	5871.00.19
22	M14	85	24	40.0	5871.00.22

Stainless Steel Simplex Clip with 1 Bolt

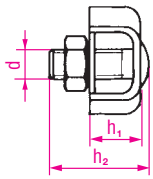
Material: A4
Finish: polished

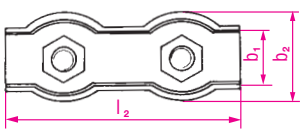


Nominal size Rope Ø	Dimensions in mm						Weight in kg/ 100 pcs	Item no.
	b1	b2	d	h1	h2	l1		
2	4	12	M 4.0	5	14	15	0.46	5855.00.02
3	6	14	M 4.0	7	14	17	0.72	5855.00.03
4	8	17	M 5.0	7	17	20	1.27	5855.00.04
5	10	21	M 5.0	8.5	17	25	1.46	5855.00.05
6	12	25	M 6.0	10	23	30	2.52	5855.00.06
8	17	31	M 8.0	14	25	37	5.42	5855.00.08

Stainless Steel Duplex Clip with 2 Bolts

Material: A4
Finish: highly polished





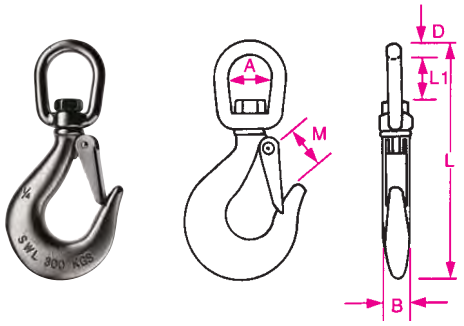
Nominal size Rope Ø	Dimensions in mm						Weight in kg/ 100 pcs	Item no.
	b1	b2	d	h1	h2	l2		
2	4	12	M 4.0	5	14	30	0.97	5865.00.02
3	6	14	M 4.0	7	14	35	1.41	5865.00.03
4	8	17	M 5.0	7	17	40	2.45	5865.00.04
5	10	21	M 5.0	8.5	17	50	2.91	5865.00.05
6	12	25	M 6.0	10	23	60	5.00	5865.00.06
8	17	31	M 8.0	14	25	75	10.63	5865.00.08
10	21	35	M 10.0	16	32	84	17.13	5865.00.10

STAINLESS STEEL PRODUCTS

Hooks, Swivels

Stainless Steel Safety Carbine Hook

Material: A4
Finish: highly polished



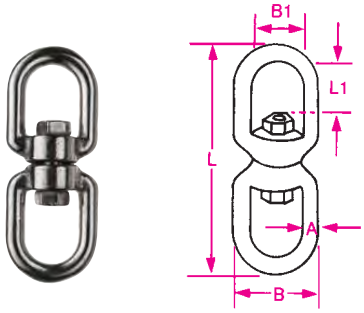
Nominal size	Load cap. in kg	Dimensions in mm						Weight in kg	Item no.
		A	B	D	L	L1	M		
1/4	300	20	12	7	119	22	16	0.190	5340.00.03
5/16	500	28	14	8.5	141	28	19	0.330	5340.00.05
3/8	700	28	16	10	170	28	20	0.530	5340.00.07
1/2	1000	32	20	13	199	36	30	1.040	5340.00.10

Also available as eye hook!

This product must not be used for lifting and transport of loads!

Stainless Steel Swivel with 2 Eyes

Material: A4
Finish: highly polished
Marking: Manufacturer's mark, load capacity (WLL/kg)



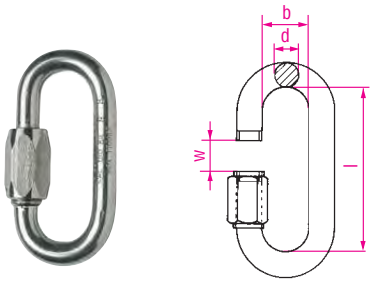
Load capacity in to*	Nominal size	Dimensions in mm					Weight in kg/ 100 pcs	Item no.
		A	L	B	B1	L1		
0.17	5	5	60	23	13	13	3.30	5545.00.50
0.25	6	6	65	27	15	15	5.50	5545.00.60
0.65	8	8	90	36	20	22	14.80	5545.00.80
1.00	10	10	115	44	24	27	26.70	5545.01.00
1.40	13	13	154	58	32	32	57.40	5545.01.30
2.50	16	16	188	71	39	42	101.30	5545.01.60

*** Load capacity = 20% of breaking load**

Load capacity indicated on the swivels must not be exceeded!

Stainless Steel Quick Link

Material: A4
Finish: highly polished
Marking: Manufacturer's mark

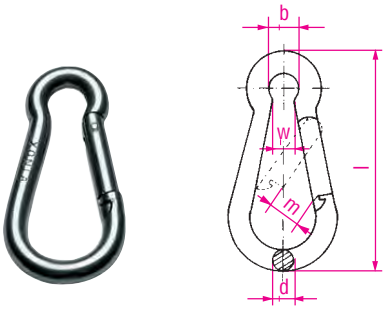


Nominal size	Dimensions in mm				Weight in kg/ 100 pcs	Item no.
	l	b	w	d		
4	32	12	6	4	1.25	6585.00.04
5	39	13	6.5	5	2.20	6585.00.05
6	45	14	7.5	6	3.60	6585.00.06
7	52	16	9.0	7	5.00	6585.00.07
8	58	18	10.0	8	7.80	6585.00.08
10	69	21	12.0	10	13.80	6585.00.10

This product must not be used for lifting and transport of loads!

Stainless Steel Snap Hook

Form C
Material: A4, spring A2
Finish: highly polished



Nominal size	Dimensions in mm					Weight in kg/ 100 pcs	Item no.
	b	d	l	m	w		
50 x 5	8	5	50	7	5	1.90	5145.00.10
60 x 6	9	6	60	8	6.5	2.70	5145.00.15
70 x 7	10	7	70	8	8	4.40	5145.00.23
80 x 8	12	8	80	10	8.5	6.50	5145.00.27
100 x 10	15	10	100	11	10.5	12.70	5145.00.40
120 x 11	18	11	120	16	11.5	18.00	5145.00.55

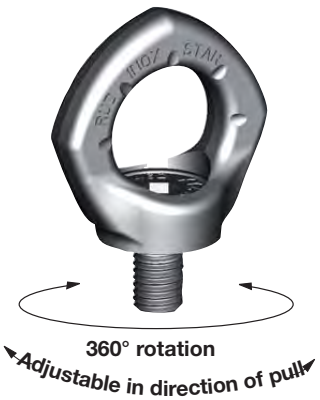
This product must not be used for lifting and transport of loads!

STAINLESS STEEL PRODUCTS

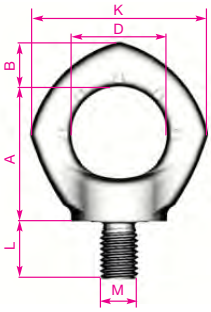
Screw-on Lifting Points, Weldable

Stainless Steel Eye Bolt Type Type INOX-STAR, Material 1.4462

Made from stainless steel
50% higher load capacity than DIN
Eye bolts in all directions



-40° C



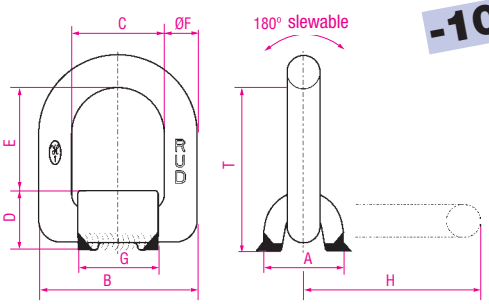
Full information can be found in the lifting points section on page 487.

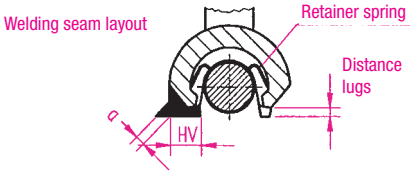
Also available as a lifting point for fall protection systems.
Further information can be found in our latest catalogue 'Fall protection systems/personal protective equipment for the prevention of falls'.

Type	Nominal capacity in t	Dimensions in mm										Weight in kg/pce	Item no.
		A	B	C	D	E	G	K	L	M	SW		
INOX-STAR M12	0.5	43	14	10	30	30	32	56	18	M12	8	0.2	5555.E0.12
INOX-STAR M16	1.0	50	16	14	35	35.5	38	65	24	M16	10	0.3	5555.E0.16
INOX-STAR M20	2.0	57	19	16	40	41	46.5	74	30	M20	12	0.6	5555.E0.20
INOX-STAR M24	2.5	70	24	19	48	50	56	92	36	M24	14	0.9	5555.E0.24

Weld-on Stainless Steel Lifting Ring, Material 1.4571

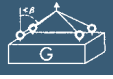
-100° C





Load capacity in t	Designation	Welding seam	Dimensions in mm									Weight in kg/pce	Item no. LBS stainless steel
			A	B	C	D	E	Ø F	G	H	T		
0.5	LBS (1) RS 0.5t	HV 5+3	32	65	36	25	39	13.5	33	69	64	0.3	5563.10.05
1	LBS (3) RS 1t	HV 8+3	42	85	50	31	50	16.5	46	87	81	0.6	5563.10.10
2	LBS (5) RS 2t	HV 12+4	61	110	65	44	72	22.5	60	125	116	1.6	5563.10.20

Maximum transport weight G in t with different lifting methods:

Lifting method								
Legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
LBS RS 0.5	0.5	1	0.5	1	0.7	0.5	0.5	1.05	0.75	0.5
LBS RS 1	1	2	1	2	1.4	1	1	2.1	1.5	1
LBS RS 2	2	4	2	4	2.8	2	2	4.2	3	2

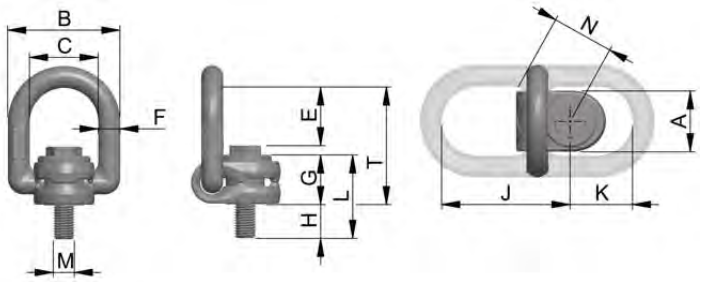
STAINLESS STEEL PRODUCTS

Weld-on Lifting Points, Weldable

Threaded Lifting Ring in Stainless Steel, Material 1.4571

RUD®

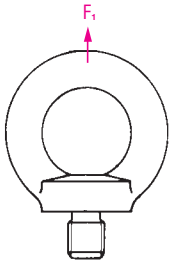
- Lifting point made from stainless steel
- Only 1 threaded bore or through bore required

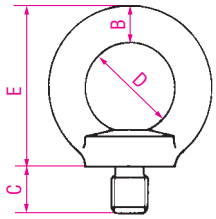


Type	Load capacity in t	Dimensions in mm A	B	C	E	F	G	H	I	K	L	M	N	T	Max. torque bolt	Weight kg/ pce	Item no.
LBG (3) M16 RS 1t	1	50	85	50	43	16.5	38	25	95	45	63	M16	45	88	100 Nm	1	5568.30.16
LBG (3) M20 RS 2t	2	50	85	50	42	16.5	38	27	95	45	65	M20	45	88	200 Nm	1.1	5568.30.20

Stainless Steel Eye Bolt, Material A4, DIN 580

Precisely drop-forged
Material: A4
Finish: highly polished
Marking: Manufacturer's mark, load capacity (WLL/kg)



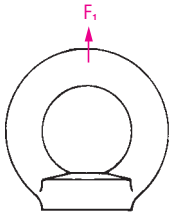


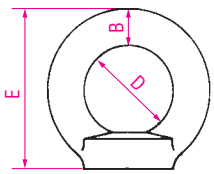
Load capacity in t	Nominal size	Load cap. F1 in kg	Dimensions in mm B	C	D	E	Weight in kg/ 100 pcs	Item no.
0.08	M6	80	8	13	20	36	6.00	5551.60.06
0.14	M8	140	8	13	20	36	6.00	5551.60.08
0.23	M10	230	10	17	25	45	11.00	5551.60.10
0.34	M12	340	12	20.5	30	53	18.00	5551.60.12
0.70	M16	700	14	27	35	62	28.00	5551.60.16
1.20	M20	1200	16	30	40	71	45.00	5551.60.20
1.80	M24	1800	20	36	50	90	74.00	5551.60.24

Load capacity (WLL/kg) indicated on the eye bolts must not be exceeded!

Stainless Steel Eye Nut, Material A4, DIN 582

Precisely drop-forged
Material: A4
Finish: highly polished
Marking: Manufacturer's mark, load capacity (WLL/kg)





Load capacity in t	Nominal size	Load cap. F1 in kg	Dimensions in mm B	D	E	Weight in kg/ 100 pcs	Item no.
0.08	M6	80	8	20	36	5.00	5552.60.06
0.14	M8	140	8	20	36	5.00	5552.60.08
0.23	M10	230	10	25	45	9.00	5552.60.10
0.34	M12	340	12	30	53	16.00	5552.60.12
0.70	M16	700	14	35	62	24.00	5552.60.16
1.20	M20	1200	16	40	71	36.00	5552.60.20
1.80	M24	1800	20	50	90	72.00	5552.60.24

Load capacity (WLL/kg) indicated on the eye nuts must not be exceeded!

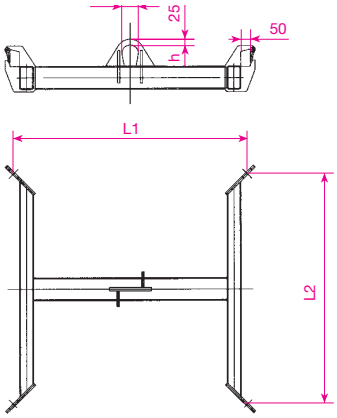
Electric chain hoists with stainless steel chain

These electric chain hoists can be fitted with stainless steel hook and chain. Please be aware that this will reduce the load capacity. This conversion is only possible for hoists with a single chain fall. Prices and capacities on request.

Custom-made stainless steel load suspension equipment

Lifting Beam for Big Bag Transport, Stainless Steel Version

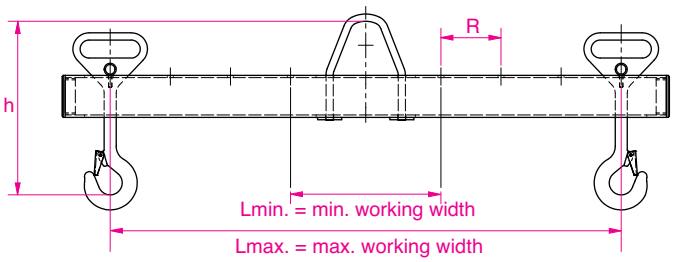
With four load acceptance points with safety latches.
Special versions e.g. low head-room, eccentric lifting eye etc. on request



Load capacity in kg	Working width L1 x L2 in mm	Headroom h in mm	Eye size in mm	Weight ca. in kg	Item no.
1000	1000 x 1000	90	60 x 90	32	8706.E0.10
1500	1000 x 1000	90	60 x 90	41	8706.E0.15
2000	1000 x 1000	90	60 x 90	47	8706.E0.20

Lifting Beam in modular Design, Stainless Steel Version

With bent lifting eye as single point suspension, suitable for crane hook according to DIN 15401 with adjustable, flame-cut safety hooks.



Load capacity in kg	Working width max./ min.L in mm	Adjustment grid R in mm	Headroom h in mm	Eye size in mm	Weight in kg	Item no.
500	500 / 370	1 x 65	290	50 x 90	9	8293.0E.05
500	850 / 250	3 x 100	290	50 x 90	12	8293.1E.05
500	1850 / 850	5 x 100	290	50 x 90	19	8293.2E.05
1000	850 / 250	3 x 100	290	50 x 90	11	8293.1E.10
1000	1850 / 850	5 x 100	290	50 x 90	24	8293.2E.10
1000	2850 / 1350	6 x 125	290	50 x 90	35	8293.3E.10

ACCESSORIES

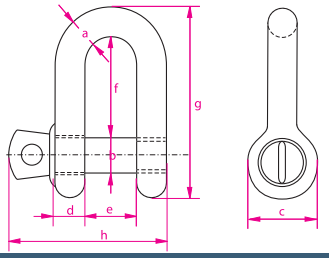
Shackles	**Pages 448-457**
Turnbuckles	**Pages 458-461**
Eye Bolts/Nuts, Swivel Eye Bolts, Weld-on Hooks	**Pages 462-463**
Chain Piece Goods	**Pages 464-465**
Submersible Pumps and Accessories	**Pages 466-471**

ACCESSORIES

Green Pin® Shackles

Green Pin® Standard Shackle DIN EN 13889, Dee Shackle with Screw Collar Pin

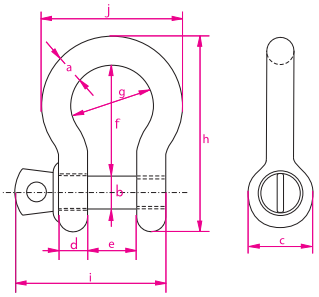
- **Material:** bow and pin in high-tensile steel, gr. 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 2, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available



WLL in t	Dimensions in mm a	b	c	d	e	f	g	h	Weight in kg/pce	Item no.
0.33	5	6	12	5	9.5	19	33	29.5	0.02	5630.G0.03
0.5	7	8	16.5	7	12	22	41.5	38	0.05	5630.G0.05
0.75	9	10	20	9	13.5	26	50	46.5	0.09	5630.G0.07
1	10	11	22.5	10	17	32	59	54	0.14	5630.G0.10
1.5	11	13	26.5	11	19	37	68	59.5	0.19	5630.G0.15
2	13.5	16	34	13	22	43	81	73	0.32	5630.G0.20
3.25	16	19	40	16	27	51	97	89	0.54	5630.G0.32
4.75	19	22	46	19	31	59	112	103	0.87	5630.G0.47
6.5	22	25	52	22	36	73	143	119	1.34	5630.G0.65
8.5	25	28	59	25	43	85	154	137	2.08	5630.G0.85
9.5	28	32	66	28	47	90	167	153	2.77	5630.G0.95
12	32	35	72	32	51	94	180	170	3.72	5630.G1.20
13.5	35	38	80	35	57	115	209	186	5.14	5630.G1.35
17	38	42	88	38	60	127	230	203	6.85	5630.G1.70
25	45	50	103	45	74	149	271	243	11.45	5630.G2.50
35	50	57	111	50	83	171	305	272	16.86	5630.G3.50
42.5	57	65	130	57	94	190	345	310	24.61	5630.G4.25
55	65	70	145	65	105	203	376	344	32.65	5630.G5.50

Green Pin® Standard Shackle DIN EN 13889, Dee Shackle with Screw Collar Pin

- **Material:** bow and pin in high-tensile steel, grade 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 2, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available

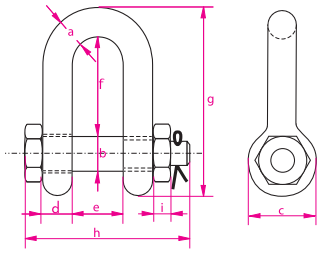


WLL in t	Dimensions in mm a	b	c	d	e	f	g	h	i	j	Weight in kg/pce	Item no.
0.33	5	6	12	5	9.5	22	16	36	29.5	26	0.02	5650.G0.03
0.5	7	8	16.5	7	12	29	20	48.5	38	34	0.05	5650.G0.05
0.75	9	10	20	9	13.5	32	22	56	46.5	40	0.10	5650.G0.07
1	10	11	22.5	10	17	36.5	26	63.5	54	46	0.14	5650.G0.10
1.5	11	13	26.5	11	19	43	29	74	59.5	51	0.19	5650.G0.15
2	13.5	16	34	13.5	22	51	32	89	73	58	0.36	5650.G0.20
3.25	16	19	40	16	27	64	43	110	89	75	0.63	5650.G0.32
4.75	19	22	46	19	31	76	51	129	103	89	1.01	5650.G0.47
6.5	22	25	52	22	36	83	58	144	119	102	1.50	5650.G0.65
8.5	25	28	59	25	43	95	68	164	137	118	2.21	5650.G0.85
9.5	28	32	66	28	47	108	75	185	153	131	3.16	5650.G0.95
12	32	35	72	32	51	115	83	201	170	147	4.31	5650.G1.20
13.5	35	38	80	35	57	133	92	227	186	162	5.55	5650.G1.35
17	38	42	88	38	60	146	99	249	203	175	7.43	5650.G1.70
25	45	50	103	45	74	178	126	300	243	216	12.84	5650.G2.50
35	50	57	111	50	83	197	138	331	272	238	18.15	5650.G3.50
42.5	57	65	130	57	95	222	160	377	310	274	26.29	5650.G4.25
55	65	70	145	65	105	260	180	433	344	310	37.60	5650.G5.50

ACCESSORIES
Green Pin® Shackles

Green Pin® Standard Shackle DIN EN 13889, Dee Shackle with Safety Bolt, Nut and Pin

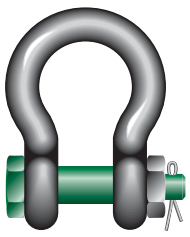
- **Material:** bow and pin in high-tensile steel, grade 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available

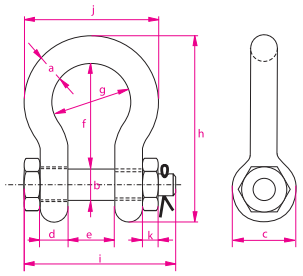


WLL in t	Dimensions in mm									Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i		
2	13.5	16	34	13	22	43	81	82	13	0.39	5640.G0.20
3.25	16	19	40	16	27	51	97	98	17	0.67	5640.G0.32
4.75	19	22	46	19	31	59	112	114	19	1.08	5640.G0.47
6.5	22	25	52	22	36	73	134	130	22	1.66	5640.G0.65
8.5	25	28	59	25	43	85	154	150	25	2.46	5640.G0.85
9.5	28	32	66	28	47	90	167	166	27	3.40	5640.G0.95
12	32	35	72	32	51	94	180	178	30	4.51	5640.G1.20
13.5	35	38	80	35	57	115	209	197	33	6.10	5640.G1.35
17	38	42	88	38	60	127	230	202	19	7.63	5640.G1.70
25	45	50	103	45	74	149	271	249	23	13.25	5640.G2.50
35	50	57	111	50	83	171	305	269	26	18.53	5640.G3.50
42.5	57	65	130	57	95	190	345	301	29	25.94	5640.G4.25
55	65	70	145	65	105	203	376	330	32	35.33	5640.G5.50
85	75	83	162	75	127	229	427	380	39	52.97	5640.G8.50

Green Pin® Standard Shackle DIN EN 13889, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in high-tensile steel, grade 6, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Standards:** EN 13889 and meets performance requirements of US Fed. Spec. RR-C-271 Type IVB Class 3, Grade A
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C (-4°F) to +200°C (+392°F)
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available



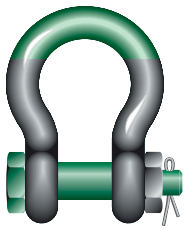


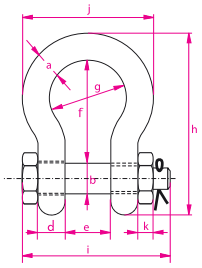
WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
0.5	7	8	16.5	7	12	29	20	48.5	42	34	4	0.06	5660.G0.05
0.75	9	10	20	9	13.5	32	22	56	50	40	5	0.11	5660.G0.07
1	10	11	22.5	10	17	36.5	26	63.5	60	46	8	0.16	5660.G0.10
1.5	11	13	26.5	11	19	43	29	74	67	51	11	0.22	5660.G0.15
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42	5660.G0.20
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74	5660.G0.32
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18	5660.G0.47
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77	5660.G0.65
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58	5660.G0.85
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66	5660.G0.95
12	32	35	72	32	51	115	83	201	178	147	30	4.91	5660.G1.20
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54	5660.G1.35
17	38	42	88	38	60	146	99	249	202	175	19	8.19	5660.G1.70
25	45	50	103	45	74	178	126	300	249	216	23	14.22	5660.G2.50
35	50	57	111	50	83	197	138	331	269	238	26	19.85	5660.G3.50
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33	5660.G4.25
55	65	70	145	65	105	260	180	433	330	310	32	39.59	5660.G5.50
85	75	83	162	73	127	329	190	527	380	340	39	62.00	5660.G8.50

ACCESSORIES
Green Pin® Shackles

Green Pin® Super Shackle, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Standards:** meets performance requirements of US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Surface:** hot-dip galvanised
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and CE certificate of conformity are available. All shackles starting from 150 tons come with a Lloyd's Register of Shipping proof load certificate.

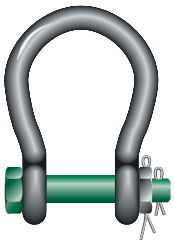


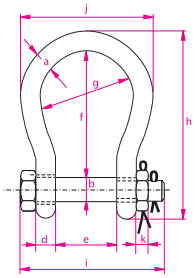


WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
3.3	13.5	16	34	13	22	51	32	89	82	58	13	0.44	5667.G0.033
5	16	19	40	16	27	64	43	110	98	75	17	0.79	5667.G0.050
7	19	22	46	19	31	76	51	129	114	89	19	1.26	5667.G0.070
9.5	22	25	52	22	36	83	58	144	130	102	22	1.88	5667.G0.095
12.5	25	28	59	25	43	95	68	164	150	118	25	2.78	5667.G0.125
15	28	32	66	28	47	108	75	185	166	131	27	3.87	5667.G0.150
18	32	35	72	32	51	115	83	201	178	147	30	5.26	5667.G0.180
21	35	38	80	35	57	133	92	227	197	162	33	6.94	5667.G0.210
30	38	42	88	38	60	146	99	249	202	175	19	8.79	5667.G0.300
40	45	50	103	45	74	178	126	300	249	216	23	15	5667.G0.400
55	57	57	117	57	83	197	138	341	286	252	26	22	5667.G0.550
85	70	70	143	70	105	260	180	437	344	320	32	42	5667.G0.850
120	83	83	162	83	127	329	190	535	403	356	40	70	5667.G1.200
150*	95	95	208	91	147	400	238	647	511	428	50	112	5667.G1.500
175*	105	108	238	102	169	410	275	688	561	485	60	160	5667.G1.750

Green Pin® Wide Mouth Towing Bow Shackle with Saftey Bolt, Nut and Pin

- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 6 times WLL (load capacity)
- **Surface:** hot-dip galvanised
- **Temperature range:** -20°C to +200°C
- **Certificates:** On request a works test certificate and/or a certificate of basic raw material is available.



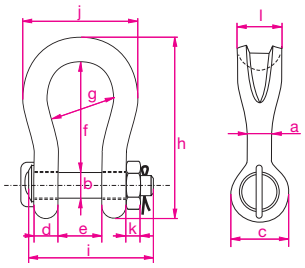


WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
4.75	22	25	52	22	63	112	88	173	157	132	23	2.1	5665.G0.47
6.5	25	28	59	25	75	135	105	204	182	155	25	3.2	5665.G0.65
8.5	28	32	66	28	82	148	115	225	201	171	28	4.4	5665.G0.85
9.5	32	35	72	32	90	162	126	248	217	190	31	6.0	5665.G0.95
12	35	38	79	35	100	180	140	274	240	210	34	7.9	5665.G1.20
16	38	42	88	38	106	216	159	319	248	235	19	12.5	5665.G1.60
25	45	50	103	45	127	248	175	370	296	265	24	18	5665.G2.50
30	50	57	118	50	146	273	207	411	338	307	27	25	5665.G3.00
55	65	70	145	65	165	314	213	487	389	343	33	45	5665.G5.50
75	75	83	166	75	184	330	254	530	432	404	40	70	5665.G7.50

ACCESSORIES
Green Pin® Shackles

Green Pin® Sling Shackle, Bow Shackle with Safety Bolt, Nut and Pin

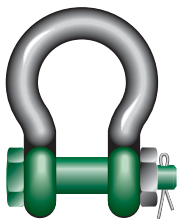
- **Material:** bow and pin in high-tensile steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** bow painted silver, pin painted green
- **Temperature range:** -20°C to +200°C
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available. All shackles starting from 75 tons come with a Lloyd's Register of Shipping proof load certificate.
- **Note:** Inner width and length ± 5% forging tolerance

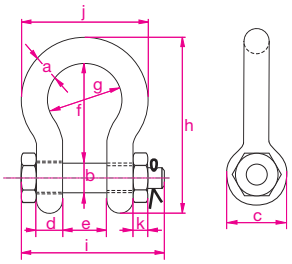


WLL in t	Dimensions in mm												Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k	l		
18	35	35	69	30	54	148	102	239	171	180	29	64	8	5680.00.18
30	40	42	90	35	69	165	126	279	207	200	34	79	13	5680.00.30
40	55	51	109	45	84	199	140	331	252	235	38	97	21	5680.00.40
55	60	57	115	55	90	240	160	389	294	270	45	100	30	5680.00.55
75	68	70	125	54	110	290	185	473	327	317	54	120	48	5680.00.75
125	85	80	154	85	137	366	220	583	426	390	64	150	92	5680.01.25
150	94	95	179	89	147	391	253	645	435	434	50	170	140	5680.01.50
200	110	105	199	100	158	481	280	759	470	482	50	205	205	5680.02.00
250	126	120	227	110	179	542	300	859	519	530	60	240	264	5680.02.50
300	135	134	245	122	195	601	350	947	575	620	70	265	360	5680.03.00
400	160	160	293	145	231	576	370	985	675	690	80	320	580	5680.04.00
500	170	180	328	160	263	681	450	1131	748	790	90	339	780	5680.05.00
600	190	200	348	170	289	741	490	1234	809	865	100	370	980	5680.06.00
700	200	215	392	190	315	751	540	1284	879	901	100	400	1360	5680.07.00
800	218	230	420	200	342	851	554	1426	942	947	110	420	1430	5680.08.00
900	242	255	466	220	368	851	580	1488	1023	1023	120	440	1650	5680.09.00
1000	260	270	490	240	399	851	614	1532	1103	1107	120	460	2970	5680.10.00
1250	285	300	510	260	452	931	650	1666	1227	1182	150	530	3700	5680.12.50
1550	285	320	550	280	483	950	680	1710	1300	1253	150	560	4000	5680.15.00

Green Pin® Polar Shackle, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in high-tensile steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Standards:** EN 13889 und erfüllt die Leistungsanforderungen der US Fed. Spec. RR-C-271 Type IVA Class 3, Grade B
- **Surface:** hot-dip galvanised
- **Temperature range:** -40°C to +200°C
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity and/or DNV 2.7-1 certificate are available.
- **Note:** Inner width and length ± 5% forging tolerance, for shackles with a WLL of 55 to and 85 to, the MBL is 6 times the WLL





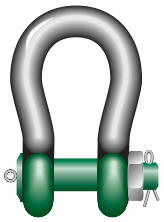
WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
2	13.5	16	34	13	22	51	32	89	82	58	13	0.42	5661.G0.20
3.25	16	19	40	16	27	64	43	110	98	75	17	0.74	5661.G0.32
4.75	19	22	46	19	31	76	51	129	114	89	19	1.18	5661.G0.47
6.5	22	25	52	22	36	83	58	144	130	102	22	1.77	5661.G0.65
8.5	25	28	59	25	43	95	68	164	150	118	25	2.58	5661.G0.85
9.5	28	32	66	28	47	108	75	185	166	131	27	3.66	5661.G0.95
12	32	35	72	32	51	115	83	201	178	147	30	4.91	5661.G1.20
13.5	35	38	80	35	57	133	92	227	197	162	33	6.54	5661.G1.35
17	38	42	88	38	60	146	99	249	202	175	19	8.19	5661.G1.70
25	45	50	103	45	74	178	126	300	249	216	23	14.22	5661.G2.50
35	50	57	116	50	83	197	138	334	269	238	26	19.85	5661.G3.50
42.5	57	65	130	57	95	222	160	377	301	274	29	28.33	5661.G4.25
55	65	70	145	65	105	260	180	433	330	310	32	39.59	5661.G5.50
85	75	83	162	73	127	329	190	527	380	340	40	62.00	5661.G8.50

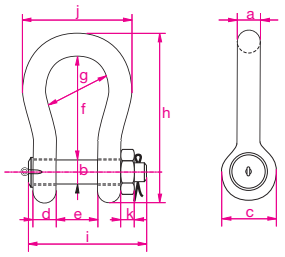
ACCESSORIES

Green Pin® Shackles

Green Pin® Heavy Duty Polar Shackle, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** bow painted silver, pin painted green, Exception: Shackle 120 to hot-dip galvanised
- **Temperature range:** -40°C to +200°C
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available. All shackles starting from 150 tons come with a Lloyd's Register of Shipping proof load certificate.
- **Note:** Inner width and length ± 5% forging tolerance

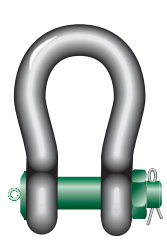


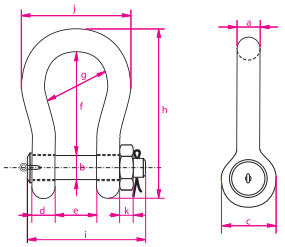


WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
120	95	95	208	91	147	400	238	647	440	428	50	110	5661.G1.200
150	105	108	238	102	169	410	275	688	490	485	60	160	5661.G1.500
200	120	130	279	113	179	513	290	838	520	530	60	235	5661.G2.000

Green Pin® Heavy Duty Shackle, Bow Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** bow painted silver, pin painted green, Exception: Shackle 120 to hot-dip galvanised
- **Temperature range:** -40°C to +200°C
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available. All shackles starting from 150 tons come with a Lloyd's Register of Shipping proof load certificate.
- **Note:** Inner width and length ± 5% forging tolerance

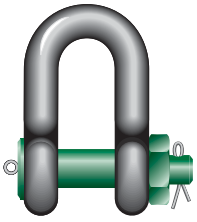


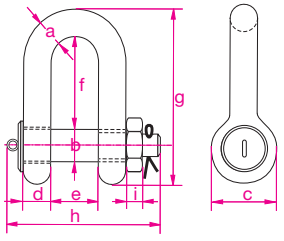


WLL in t	Dimensions in mm											Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i	j	k		
120	95	95	208	91	147	400	238	647	440	428	50	110	5662.G0.120
150	105	108	238	102	169	410	275	688	490	485	60	160	5662.G0.150
200	120	130	279	113	179	513	290	838	520	530	60	235	5662.G0.200
250	130	140	299	118	205	554	305	904	560	565	65	285	5662.G0.250
300	140	150	325	123	205	618	305	996	575	585	70	340	5662.G0.300
400	170	175	376	164	231	668	325	1114	690	665	70	560	5662.G0.400
500	180	185	398	164	256	718	350	1190	720	710	70	685	5662.G0.500
600	200	205	444	189	282	718	375	1243	810	775	70	880	5662.G0.600
700	210	215	454	204	308	718	400	1263	870	820	70	980	5662.G0.700
800	210	220	464	204	308	718	400	1270	870	820	70	1100	5662.G0.800
900	220	230	485	215	328	718	420	1296	920	860	70	1280	5662.G0.900
1000	240	240	515	215	349	718	420	1336	940	900	70	1460	5662.G1.000
1250	260	270	585	230	369	768	450	1456	1025	970	70	1990	5662.G1.250
1500	280	290	625	230	369	818	450	1556	1025	1010	70	2400	5662.G1.500

Green Pin® Heavy Duty Shackle, Dee Shackle with Safety Bolt, Nut and Pin

- **Material:** bow and pin in alloy steel, grade 8, quenched and tempered
- **Safety factor:** Minimum breaking load = 5 times WLL (load capacity)
- **Surface:** hot-dip galvanised
- **Temperature range:** -40°C to +200°C
- **Certificates:** On request a works test certificate, certificate of basic raw material, manufacturer's test certificate and/or CE certificate of conformity are available.
- **Note:** Inner width and length ± 5% forging tolerance





WLL in t	Dimensions in mm									Weight in kg/pce	Item no.
	a	b	c	d	e	f	g	h	i		
120	95	95	208	95	147	274	521	440	50	110	5663.G0.120

ACCESSORIES

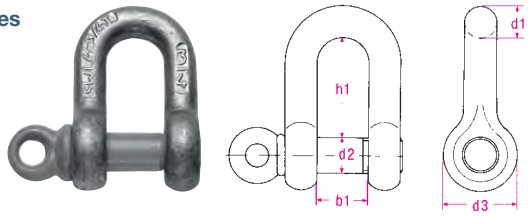
High Strength Shackles Grade 6

High Strength Dee Shackle with Screw Pin

- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted
- With forged usable load and nominal size

On request with certificate acc. to EN 10204-3.1

Load capacity (WLL/kg) indicated on the shackles must not be exceeded!



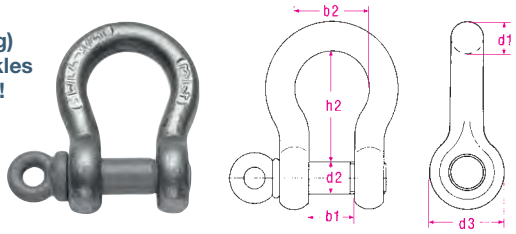
WLL in t	Nominal size in inches	Dimensions in mm d1 Bow	d2	d3 Ball	b1	h1	Weight in kg/pce	Item no.
0.5	1/4	6	8	16	12	19	0.05	5630.00.05
0.75	5/16	8	10	19	13	25	0.08	5630.00.07
1.0	3/8	10	12	23	16	31	0.13	5630.00.10
1.5	7/16	11	14	27	18	36	0.19	5630.00.15
2.0	1/2	13	16	30	21	41	0.31	5630.00.20
3.25	5/8	16	20	39	27	51	0.55	5630.00.32
4.75	3/4	19	22	47	32	60	0.96	5630.00.47
6.5	7/8	22	27	54	36	71	1.41	5630.00.65
8.5	1	25	28	60	43	81	2.03	5630.00.85
9.5	1 1/8	29	33	66	46	90	2.97	5630.00.95
12.0	1 1/4	32	36	76	52	100	4.01	5630.01.20
13.5	1 3/8	35	39	84	57	113	5.40	5630.01.35
17.0	1 1/2	38	42	92	60	124	7.29	5630.01.70
25.0	1 3/4	44	52	109	73	146	11.25	5630.02.50
35.0	2	51	60	127	83	171	16.20	5630.03.50
55.0	2 1/2	63	72	150	106	203	33.30	5630.05.50

High Strength Bow Shackle with Screw Pin

- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted
- With forged usable load and nominal size

On request with certificate acc. to EN 10204-3.1

Load capacity (WLL/kg) indicated on the shackles must not be exceeded!



WLL in t	Nominal size in inches	Dimensions in mm d1 Bow	d2	d3 Ball	b1	b2	h2	Weight in kg/pce	Item no.
0.33	3/16	6	6	14	10	14	23	0.026	5650.00.03
0.5	1/4	6	8	17	12	17	28	0.05	5650.00.05
0.75	5/16	8	10	21	13	21	31	0.08	5650.00.07
1.0	3/8	10	12	26	16	26	36	0.14	5650.00.10
1.5	7/16	11	14	28	18	28	42	0.22	5650.00.15
2.0	1/2	13	16	30	21	30	48	0.33	5650.00.20
3.25	5/8	16	20	42	27	42	60	0.65	5650.00.32
4.75	3/4	19	22	48	32	48	71	0.97	5650.00.47
6.5	7/8	22	27	57	36	57	84	1.46	5650.00.65
8.5	1	25	28	62	43	62	95	2.39	5650.00.85
9.5	1 1/8	29	33	69	46	69	103	3.15	5650.00.95
12.0	1 1/4	32	36	78	52	78	119	4.32	5650.01.20
13.5	1 3/8	35	39	86	57	86	133	5.67	5650.01.35
17.0	1 1/2	38	42	94	60	94	146	7.79	5650.01.70
25.0	1 3/4	44	52	112	73	112	178	12.51	5650.02.50
35.0	2	51	60	135	83	135	197	18.50	5650.03.50
55.0	2 1/2	63	72	158	106	158	267	37.58	5650.05.50

ACCESSORIES

High Strength Shackles Grade 6

Shackles with bolt, nut, and cotter pint

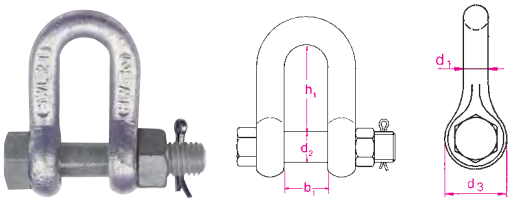
This type is recommended for permanent connections (e.g. with load suspension equipment or hoists). After assembly the bolt is secured by the cotter pin against unintentional loosening. This shackle type offers enhanced safety as the bolt has full surface contact on both sides of the body. Breaking of the bolt at the thread lug is virtually impossible.

High Strength Dee Shackle with Bolt, Nut and Cotter Pin

- With forged usable load and nominal size
- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted

On request with certificate acc. to EN 10204-3.1

Load capacity (WLL/kg) indicated on the shackles must not be exceeded!



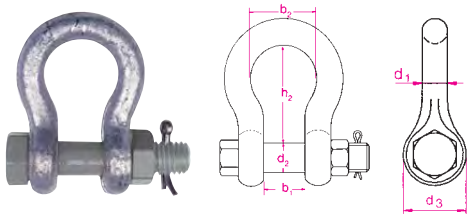
WLL in t	Nominal size in inches	Dimensions in mm d1	d2	d3	b1	h1	Weight in kg/pce	Item no.
0.5	1/4	6	8	17	12	22	0.06	5640.00.05
0.75	5/16	8	10	21	13	26	0.10	5640.00.07
1.0	3/8	10	12	26	16	31	0.15	5640.00.10
1.5	7/16	11	14	28	18	36	0.22	5640.00.15
2.0	1/2	13	16	30	21	41	0.34	5640.00.20
3.25	5/8	16	19	42	27	51	0.70	5640.00.32
4.75	3/4	19	22	48	32	60	1.18	5640.00.47
6.5	7/8	22	25	57	36	71	1.64	5640.00.65
8.5	1	25	28	62	43	81	2.41	5640.00.85
9.5	1 1/8	29	32	69	46	90	3.27	5640.00.95
12.0	1 1/4	32	35	78	52	100	4.59	5640.01.20
13.5	1 3/8	35	38	86	57	113	6.00	5640.01.35
17.0	1 1/2	38	42	94	60	124	8.33	5640.01.70
25.0	1 3/4	44	50	112	73	146	12.83	5640.02.50
35.0	2	51	55	127	83	171	19.30	5640.03.50
55.0	2 1/2	64	70	152	105	203	34.50	5640.05.50
85.0	3	76	85	200	127	216	60.00	5640.08.50

High Strength Bow Shackle with Bolt, Nut and Cotter Pin

- With forged usable load and nominal size
- Stamped with load capacity (WLL/kg), nominal size and manufacturer's mark
- Safety factor: minimum breaking load = 6 times WLL
- Material: forged high-tensile steel
- Finish: bow hot-dip galvanised, pin painted

On request with certificate acc. to EN 10204-3.1

Load capacity (WLL/kg) indicated on the shackles must not be exceeded!



WLL in t	Nominal size inches	Dimensions in mm d1	d2	d3	b1	b2	h2	Weight in kg/pce	Item no.
0.5	1/4	6	8	17	12	19	28	0.07	5660.00.05
0.75	5/16	8	10	21	13	21	31	0.10	5660.00.07
1.0	3/8	10	12	26	16	26	36	0.18	5660.00.10
1.5	7/16	11	14	28	18	29	42	0.25	5660.00.15
2.0	1/2	13	16	30	21	33	48	0.37	5660.00.20
3.25	5/8	16	20	42	27	43	60	0.71	5660.00.32
4.75	3/4	19	22	48	32	51	71	1.27	5660.00.47
6.5	7/8	22	27	57	36	58	84	1.78	5660.00.65
8.5	1	25	28	62	43	68	95	2.52	5660.00.85
9.5	1 1/8	29	33	69	46	74	109	3.53	5660.00.95
12.0	1 1/4	32	36	78	52	82	119	5.04	5660.01.20
13.5	1 3/8	35	39	86	57	92	133	6.84	5660.01.35
17.0	1 1/2	38	42	94	60	98	146	8.78	5660.01.70
25.0	1 3/4	44	52	112	73	127	178	14.09	5660.02.50
35.0	2	51	55	127	83	146	197	20.90	5660.03.50
55.0	2 1/2	64	70	152	105	184	267	39.90	5660.05.50
85.0	3	76	85	200	127	200	330	62.00	5660.08.50
120.0	3 1/2	92	95	203	133	232	374	109.00	5660.12.00
150.0	4	100	107	228	140	250	372	130.00	5660.15.00

ACCESSORIES

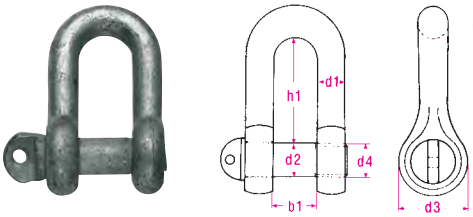
Shackles, similar to DIN 82101

Dee shackle with screw pin, similar DIN 82101 Form A

- Safety factor: minimum breaking load = 5 times WLL
- Finish: Galvanised
- Stamped with load capacity (WLL/kg) and manufacturer's mark

On request with certificate
acc. to EN 10204-3.1

Load capacity (WLL/kg) indicated on the shackles must not be exceeded!



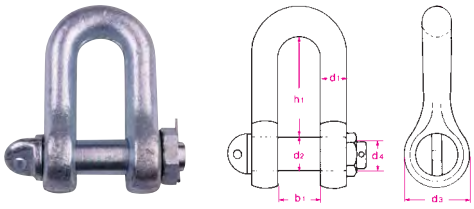
WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
	d1	d2	d3	d4	b1	h1		
0.1	4	5	10	M 5	7	15.5	0.013	5610.00.10
0.16	5	6	12	M 6	8	18.0	0.021	5610.00.16
0.25	7	8	16	M 8	11	24.0	0.042	5610.00.25
0.4	8	10	20	M 10	14	30.0	0.082	5610.00.40
0.6	10	12	24	M 12	17	36.0	0.173	5610.00.63
1.0	13	16	32	M 16	21	49.0	0.360	5610.01.00
1.6	17	20	40	M 20	27	61.0	0.750	5610.01.60
2.0	19	22	44	M 22	30	67.0	1.030	5610.02.00
2.5	21	24	48	M 24	33	73.0	1.430	5610.02.50
3.0	24	27	54	M 27	38	83.5	2.110	5610.03.15
4.0	27	30	60	M 30	42	91.0	2.890	5610.04.00
5.0	30	36	72	M 36	47	111.0	3.900	5610.05.00
6.0	34	39	78	M 39	53	119.5	5.020	5610.06.30
8.0	38	45	90	M 45	60	139.5	6.750	5610.08.00
10.0	42	48	96	M 48	66	147.0	9.760	5610.10.00
12.0	47	52	104	M 52	73	158.0	13.100	5610.12.50
16.0	52	60	120	M 60	81	185.0	17.700	5610.16.00
20.0	58	68	136	M 68	90	211.0	23.800	5610.20.00
25.0	63	72	144	M 72	100	221.0	32.700	5610.25.00

Dee Shackle with Screw Pin, Nut and Cotter Pin, similar DIN 82101 Form C

- Finish: galvanised, from 8 t hot-dip galvanised
- Safety factor: minimum breaking load = 5 times WLL
- Stamped with load capacity (WLL/kg) and manufacturer's mark

On request with certificate
acc. to EN 10204-3.1

Load capacity (WLL/kg) indicated on the shackles must not be exceeded!



WLL in t	Dimensions in mm						Weight in kg/pce	Item no.
	d1	d2	d3	d4	b1	h1		
0.4	8	10	20	M 10	14	30.0	0.082	5616.00.04
0.6	10	12	24	M 12	17	36.0	0.173	5616.00.06
1.0	13	16	32	M 16	21	49.0	0.360	5616.00.10
1.6	17	20	40	M 20	27	61.0	0.750	5616.00.16
2.0	19	22	44	M 22	30	67.0	1.030	5616.00.20
2.5	21	24	48	M 24	33	73.0	1.430	5616.00.25
3.0	24	27	54	M 27	38	83.5	2.110	5616.00.31
4.0	27	30	60	M 30	42	91.0	2.890	5616.00.40
5.0	30	36	72	M 36	47	111.0	3.900	5616.00.50
6.0	34	39	78	M 39	53	119.5	5.020	5616.00.63
8.0	38	45	90	M 45	60	139.5	6.750	5616.00.80
10.0	42	48	96	M 48	66	147.0	9.760	5616.01.00
12.0	47	52	104	M 52	73	158.0	13.100	5616.01.25
16.0	52	60	120	M 60	81	185.0	17.700	5616.01.60
20.0	58	68	136	M 68	90	211.0	23.800	5616.02.00
25.0	63	72	144	M 72	100	221.0	32.700	5616.02.50
32.0	70	80	160	M 80	110	246.0	49.500	5616.03.15
40.0	79	90	180	M 90	125	276.0	69.000	5616.04.00

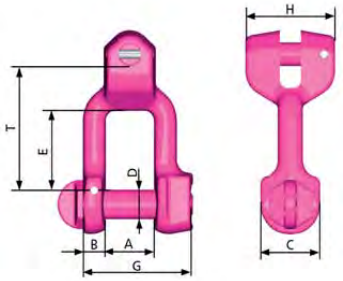
ACCESSORIES

Shackles in Special Versions

Foolproof VIP Clevis Shackle VV-GSCH

For technical description of the shackle see item VV-SCH

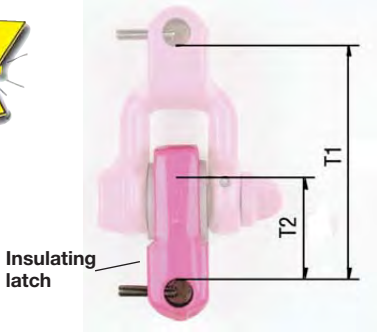
- Optimised design - max. opening width with smallest pin diameter
- High bending resistance due to 90° offset clevis head - cardan joint



Nominal chain size in mm	Load capacity in t	Type	Dimensions in mm								Weight in kg/pce	Item no.
			A	B	C	D	E	G	H	T		
6	1.5	VV-GSCH 6	17	8	22	10	21	40	28	36	0.15	6561.V4.06
8	2.5	VV-GSCH 8	21	10	26	12	32	48	39	48	0.26	6561.V4.08
10	4.0	VV-GSCH 10	27	13	34	16	35	62	45	61	0.65	6561.V4.10
13	6.7	VV-GSCH 13	33	17	42	20	41	81	59	78	1.35	6561.V4.13
16	10.0	VV-GSCH 16	38	22	49	24	49	95	69	96	2.5	6561.V4.16
20	16.0	VV-GSCH 20	47	27	60	30	57	119	88	108	3.9	6561.V4.20
22	20.0	VV-GSCH 22	53	30	76	36	72	130	95	112	6.7	6561.V4.22

VIP Insulating Latch VGIL

Welding on suspended loads involves the danger of current flowing to the crane. The VIP insulating clevis latch insulates up to 1,000 V using a special plastic bearing for the shackle pin. Max. operating temperature +80°C (+176°F).



Nominal chain size in mm	Load capacity in t	Type	Dimensions in mm		Weight in kg/pce	Item no.
			T1	T2		
6	1.5	VGIL-6	71	35	0.15	6578.V1.06
8	2.5	VGIL-8	91	43	0.26	6578.V1.08
10	4.0	VGIL-10	108	47	0.65	6578.V1.10
13	6.7	VGIL-13	132	54	1.35	6578.V1.13
16	10.0	VGIL-16	166	70	2.5	6578.V1.16

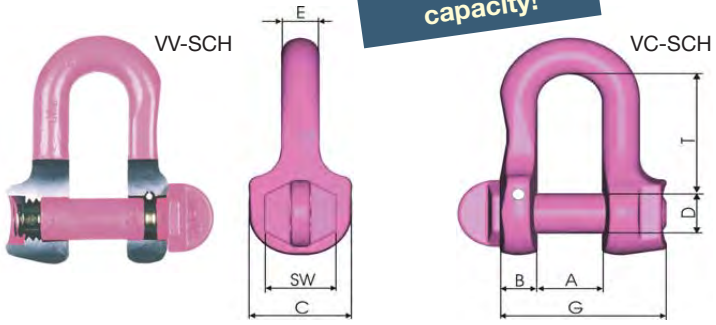
For VIP insulating chain slings see page 257.

Foolproof shackle VV-SCH/ High-strength Shackle VC-SCH

The shackle with the highest load capacity!

VV-SCH
High tensile, patented version with an integrated safety thread in the shackle body. Full surface support of the bolt in the body on both sides. The bolt is turnable. No load on the thread (securing function only). Pre-assembled with split pin.

VC-SCH
Shape acc. to DIN 82101-C with captive nut. Secured by split pin.



Load capacity in t	Type	Dimensions in mm								Weight in kg/pce	Item no.
		A	B	C	D	E	G	SW	T		
1.5	VV-SCH 6	14	8	22	10	8	36	17	30	0.1	6561.V3.06
2.5	VV-SCH 8	17	10	26	12	10	44	19	36	0.2	6561.V3.08
4.0	VV-SCH 10	21	13	34	16	13	56	24	49	0.4	6561.V3.10
6.7	VV-SCH 13	27	17	42	20	17	75	29	63	0.8	6561.V3.13
10.0	VV-SCH 16	33	21	49	24	21	90	36	73	1.5	6561.V3.16
14.0	VC-SCH 4.0	42	27	60	30	29	96	-	91	2.7	6561.V1.40
22.4	VC-SCH 5.0	47	30	72	36	33	107	-	111	4.4	6561.V1.50
31.5	VC-SCH 6.0	53	34	78	39	37	121	-	120	5.9	6561.V1.60

ACCESSORIES

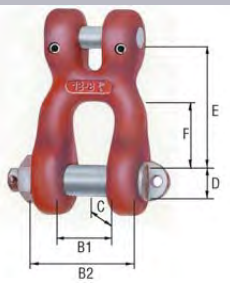
Shackles in Special Versions

Fork shackle with Screw Pin

Nominal chain size in mm	Load capacity in t	Nominal size	Dimensions in mm						Weight ca. in kg/pce	Item no.
			E	D	C	F	B1	B2		
10	3.15	10-8	64	16	32	36	21	47	0.61	6561.80.10
13	5.3	13-8	82.5	20	40	49	27	61	1.24	6561.80.13
16	8	16-8	99	24	48	56	33	75	2.1	6561.80.16
18	10	18-8	115	30	60	63	42	100	3.93	6561.80.18

Fork Shackle with Bolt, Nut and Cotter Pin

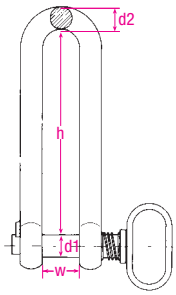
Nominal chain size in mm	Load capacity in t	Nominal size	Dimensions in mm						Weight ca. in kg/pce	Item no.
			E	D	C	F	B1	B2		
10	3.15	10-8	64	16	32	36	21	47	0.67	6561.90.10
13	5.3	13-8	82.5	20	40	49	27	61	1.37	6561.90.13
16	8	16-8	99	24	48	56	33	75	2.28	6561.90.16
18	10	18-8	115	30	60	63	42	100	4.32	6561.90.18



Sheet Pile Shackle

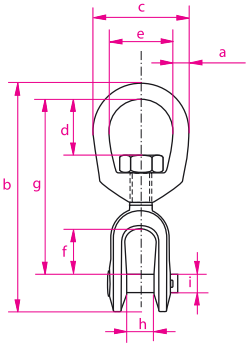
With patented quick release fastener. Material: body: steel C35, bolt: 42CrMo4, finish: painted green, bolt natural

Load cap. in kg	Nominal size	Dimensions in mm				Weight in kg/pce	Item no.
		d1	d2	w	h		
2500	2.5	25	30	50	250	4.8	5605.00.25
3000	3	30	30	50	250	5.0	5605.00.30
5000	5	36	30	50	250	5.9	5605.00.50
10000	10	50	45	110	400	22.5	5605.01.00



Green Pin® Jaw-Eye Swivel

- **Material:** high tensile steel
- **Safety factor:** minimum breaking load = 5 times WLL
- **Standard:** acc. to US Federal Spec. RR-C-271, Type VII, Class 3
- **Surface:** hot-dip galvanised
- **Certificates:** available on request



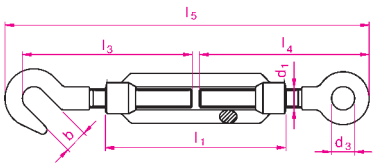
WLL t	Material Ø a	Outer length b	Width c	Inner length d	Inner width of eye e	Inner length f	Inner length g	Inner width of fork h	Pin Ø i	Weight in kg/pce	Item no.
				Dimensions in mm							
0.39	6	84	32	17	19	22	67	12	6	0.11	5156.00.60
0.57	8	98	41	21	25	22	75	13	8	0.17	5156.00.80
1.02	10	121	51	24	32	27	92	16	10	0.32	5156.01.00
1.6	13	154	64	33	38	33	114	19	13	0.65	5156.01.30
2.4	16	186	76	40	44	38	135	24	16	1.12	5156.01.60
3.3	19	211	89	44	51	44	154	28	19	1.76	5156.01.90
4.5	22	242	102	52	57	52	178	30	22	2.66	5156.02.20
5.7	25	290	114	59	64	71	217	44	29	4.46	5156.02.50
8.2	32	329	143	68	80	71	230	52	35	7.14	5156.03.20
20.5	38	501	178	106	102	113	364	73	50	24.8	5156.03.80

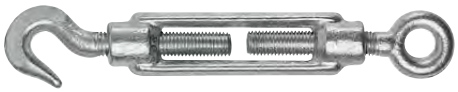
ACCESSORIES

Turnbuckles

Turnbuckles acc. to DIN 1480, with Hook and Eye

Material: steel
Surface: galvanised

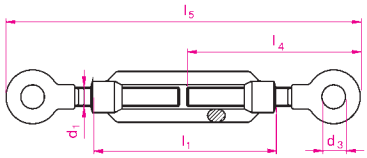


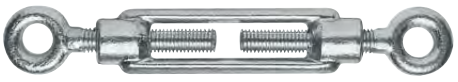


Nominal size	Thread size d1	Dimensions in mm						Weight in kg	Item no.
		d3	b	l1	l3	l4	l5		
6	M 6	9	8.5	110	85	80	172-252	0.095	5710.00.06
8	M 8	10	11.0	110	85	84	182-257	0.165	5710.00.08
10	M 10	14	13.5	125	112	105	213-298	0.290	5710.00.10
12	M 12	16	15.5	125	117	115	238-318	0.430	5710.00.12
14	M 14	18	18.5	140	122	122	263-353	0.620	5710.00.14
16	M 16	22	19.0	170	138	165	320-430	0.920	5710.00.16
20	M 20	24	20.5	200	170	167	367-497	1.630	5710.00.20
22	M 22	27	26.0	220	185	167	398-543	2.200	5710.00.22
24	M 24	27	26.0	255	205	205	447-617	3.000	5710.00.24
30	M 30	31	33.0	255	225	255	512-662	4.600	5710.00.30
36	M 36	43	44.0	295	255	276	568-748	4.680	5710.00.36

Turnbuckles acc. to DIN 1480, with 2 Eyes

Material: steel
Surface: galvanised

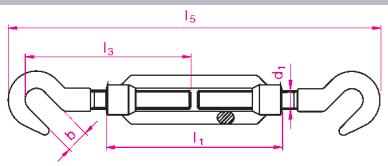


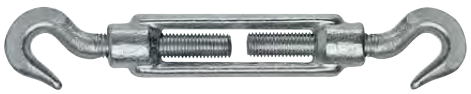


Nominal size	Thread size d1	Dimensions in mm				Weight in kg	Item no.
		d3	l1	l4	l5		
6	M 6	9	110	80	167-247	0.090	5711.00.06
8	M 8	10	110	84	179-254	0.155	5711.00.08
10	M 10	14	125	105	210-295	0.270	5711.00.10
12	M 12	16	125	115	230-310	0.410	5711.00.12
14	M 14	18	140	122	250-340	0.600	5711.00.14
16	M 16	22	170	165	330-440	1.000	5711.00.16
20	M 20	24	200	167	335-465	1.540	5711.00.20
22	M 22	27	220	167	368-513	2.000	5711.00.22
24	M 24	27	255	205	420-590	2.700	5711.00.24
30	M 30	31	255	255	510-670	4.350	5711.00.30
36	M 36	43	295	276	560-740	7.250	5711.00.36

Turnbuckles acc. to DIN 1480, with 2 Hooks

Material: steel
Surface: galvanised



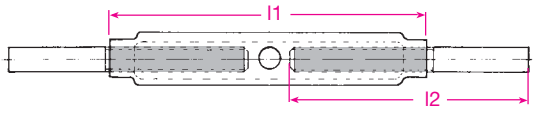


Nominal size	Thread size d1	Dimensions in mm				Weight in kg	Item no.
		b	l1	l3	l5		
6	M 6	8.5	110	85	180-260	0.095	5712.00.06
8	M 8	11.0	110	85	195-270	0.170	5712.00.08
10	M 10	13.5	125	112	230-315	0.300	5712.00.10
12	M 12	15.5	125	117	250-330	0.440	5712.00.12
14	M 14	18.5	140	122	280-370	0.670	5712.00.14
16	M 16	19.0	170	138	320-430	0.950	5712.00.16
20	M 20	20.5	200	170	400-530	1.750	5712.00.20
22	M 22	26.0	220	185	428-573	2.400	5712.00.22
24	M 24	26.0	255	205	490-660	3.220	5712.00.24
30	M 30	33.0	255	225	530-690	4.880	5712.00.30
36	M 36	44.0	295	255	600-780	8.270	5712.00.36

ACCESSORIES
Turnbuckles

Turnbuckle acc. to DIN 1478, Pipe Body Type, with 2 Stub Ends acc. to DIN 34828: 2005-09

Material: St 37-2
Surface: galvanised

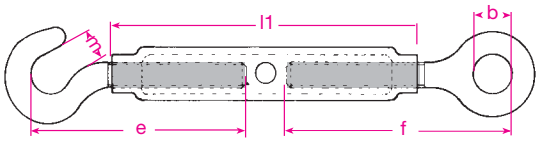


Nominal size	Thread size	Dimensions in mm		Weight	Item no.
		l1	l2	in kg	
8	M 8	110	120	0.180	5721.00.08
10	M 10	125	150	0.320	5721.00.10
12	M 12	125	150	0.450	5721.00.12
16	M 16	170	200	0.900	5721.00.16
20	M 20	200	220	1.500	5721.00.20
24	M 24	255	260	2.750	5721.00.24
30	M 30	255	260	3.940	5721.00.30
36	M 36	295	300	6.500	5721.00.36

Bigger nominal sizes are available on request

Turnbuckle acc. to DIN 1478, Pipe Body Type, with Hook and Eye

Material: St 37-2
Surface: galvanised

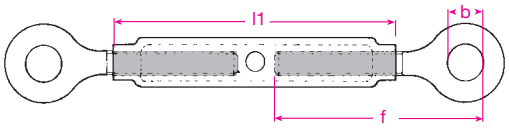


Nominal size	Thread size	Dimensions in mm					Weight	Item no.
		l1	b	e	f	m	in kg	
8	M 8	110	10	84	84	11	0.190	5722.00.08
10	M 10	125	14	105	105	13.5	0.310	5722.00.10
12	M 12	125	16	115	105	15.5	0.420	5722.00.12
16	M 16	170	22	165	165	19	0.890	5722.00.16
24	M 24	255	27	205	205	26	2.920	5722.00.24

Bigger nominal sizes are available on request

Turnbuckle acc. to DIN 1478, Pipe Body Type, with 2 Eyes

Material: St 37-2
Surface: galvanised

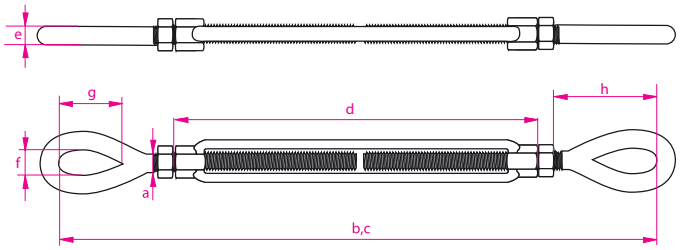


Nominal size	Thread size	Dimensions in mm			Weight	Item no.
		l1	b	f	in kg	
8	M 8	110	10	84	0.190	5724.00.08
10	M 10	125	14	105	0.310	5724.00.10
12	M 12	125	16	105	0.420	5724.00.12
16	M 16	170	22	165	0.890	5724.00.16
20	M 20	200	24	167	1.580	5724.00.20
24	M 24	255	27	205	2.920	5724.00.24

Bigger nominal sizes are available on request

ACCESSORIES
Turnbuckles

Turnbuckles with extra long Adjustment Range, similar to ASTM F 1145-92, forged, Surface tempered, with 2 Eyes



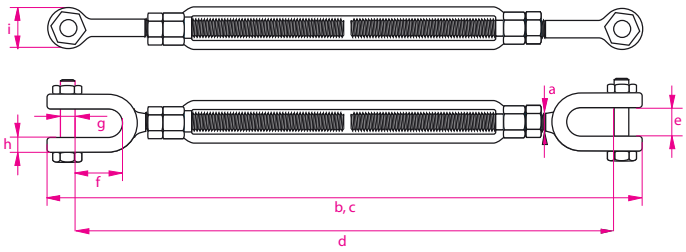
Material: drop-forged, high-tensile steel SAE 1035 or 1045
Safety factor: Minimum breaking load = 5 times WLL
Standard: acc. to ASTM F1145-92
formerly U.S. Federal Specification FF-T-719b
Surface: hot-dip galvanised
Certificates: on request

WLL in t	Thread size a in inches	Adjustment range in inches	Dimensions in mm							Weight in kg/pce	Item no.
			Length closed b	Length open c	Length d	Diameter e	Inner width of eye f	Inner length of eye g	Length closed h		
0.54	3/8	6	292	428	183	10	13	29	49	0.47	5732.38.06
1.00	1/2	6	325	455	193	12	18	36	58	0.84	5732.12.06
1.00	1/2	9	400	608	270	12	18	36	57	1.05	5732.12.09
1.00	1/2	12	476	760	346	12	18	36	57	1.26	5732.12.12
1.59	5/8	6	380	503	203	14	21	45	79	1.35	5732.58.06
1.59	5/8	9	455	656	280	14	21	45	78	1.60	5732.58.09
1.59	5/8	12	531	808	356	14	21	45	78	1.92	5732.58.12
2.36	3/4	6	413	532	214	17	26	54	90	2.03	5732.34.06
2.36	3/4	9	490	685	291	17	26	54	89	2.49	5732.34.09
2.36	3/4	12	564	837	367	17	26	54	89	2.65	5732.34.12
2.36	3/4	18	718	1143	519	17	26	54	89	3.06	5732.34.18
3.27	7/8	12	604	870	377	20	32	61	100	3.98	5732.78.12
3.27	7/8	18	756	1174	529	20	32	61	101	5.12	5732.78.18
4.54	1	6	498	604	234	24	37	76	118	4.35	5732.10.06
4.54	1	12	649	909	387	24	37	76	117	5.92	5732.10.12
4.54	1	18	801	1215	539	24	37	76	117	7.17	5732.10.18
4.54	1	24	952	1518	692	24	37	76	116	7.52	5732.10.24
6.9	1 1/4	12	712	985	385	29	47	91	145	9.8	5732.14.12
6.9	1 1/4	18	862	1287	537	29	47	91	144	11.31	5732.14.18
6.9	1 1/4	24	1015	1592	690	29	47	91	144	12.1	5732.11.24
9.71	1 1/2	12	756	1023	401	32	55	106	156	14.2	5732.11.12
9.71	1 1/2	18	916	1335	553	32	55	106	160	16.5	5732.11.18
9.71	1 1/2	24	1065	1636	706	32	55	106	158	17.1	5732.12.24
12.7	1 3/4	18	1020	1396	577	38	61	120	197	23.1	5732.13.18
12.7	1 3/4	24	1171	1703	730	38	61	120	196	26.3	5732.13.24
16.8	2	24	1264	1784	748	46	69	147	231	40.7	5732.20.24
27.2	2 1/2	24	1430	1934	802	51	80	165	274	64	5732.21.24
34	2 3/4	24	1450	1988	802	57	84	178	311	88	5732.23.24

On request, some sizes are also available as item no. 5731. turnbuckle with extra long adjustment range, acc. to ASTM F 1145-92, forged, surface tempered, wih hook and eye.

ACCESSORIES
Turnbuckles

Turnbuckles with extra long Adjustment Range, similar to ASTM F 1145-92, forged, Surface tempered, with 2 Forks



Material: drop-forged, high-tensile steel SAE 1035 or 1045
Safety factor: Minimum breaking load = 5 times WLL
Standard: acc. to ASTM F1145-92
formerly U.S. Federal Specification FF-T-719b
Surface: hot-dip galvanised
Certificates: on request

WLL in t	Thread size a in inches	Adjustment range in inches	Dimensions in mm								Weight in kg/pce	Item no.
			Length closed b	Length open c	Length closed d	Inner width fork e	Inner length fork f	Bolt diameter g	Material thickness eye h	Eye diameter i		
0,54	3/8	6	273	409	305	12	21	8	9	21	0,57	5734.38.06
1	1/2	6	305	435	344	16	26	10	11	26	0,96	5734.12.06
1	1/2	9	380	587	418	16	26	10	11	26	1,18	5734.12.09
1	1/2	12	455	739	494	16	26	10	11	26	1,50	5734.12.12
1,59	5/8	6	346	469	406	18	32	13	14	33	1,84	5734.58.06
1,59	5/8	9	421	622	481	18	32	13	14	33	2,12	5734.58.09
1,59	5/8	12	496	773	556	18	32	13	14	33	2,56	5734.58.12
2,36	3/4	6	368	487	438	24	38	16	16	41	2,68	5734.34.06
2,36	3/4	9	442	639	512	24	38	16	16	41	3,03	5734.34.09
2,36	3/4	12	518	791	588	24	38	16	16	41	3,29	5734.34.12
2,36	3/4	18	671	1095	740	24	38	16	16	41	3,65	5734.34.18
3,27	7/8	12	559	825	636	27	42	19	19	48	4,90	5734.78.12
3,27	7/8	18	712	1131	789	27	42	19	19	48	5,95	5734.78.18
4,54	1	6	447	555	532	30	50	22	20	55	5,21	5734.10.06
4,54	1	12	598	859	683	30	50	22	20	55	6,96	5734.10.12
4,54	1	18	750	1164	835	30	50	22	20	55	8,95	5734.10.18
4,54	1	24	902	1469	987	30	50	22	20	55	7,85	5734.10.24
6,9	1 1/4	12	641	916	748	44	71	28	26	68	11,9	5734.14.12
6,9	1 1/4	18	793	1218	900	44	71	28	26	68	14	5734.14.18
6,9	1 1/4	24	961	1538	1069	44	71	28	26	68	13	5734.11.24
9,71	1 1/2	12	675	941	806	52	71	35	28	80	16,9	5734.11.12
9,71	1 1/2	18	825	1244	956	52	71	35	28	80	18,7	5734.11.18
9,71	1 1/2	24	980	1550	1111	52	71	35	28	80	18,4	5734.12.24
12,7	1 3/4	18	933	1310	1095	59	86	42	33	90	25	5734.13.18
12,7	1 3/4	24	1084	1614	1246	59	86	42	33	90	28,7	5734.13.24
16,8	2	24	1153	1672	1338	63	93	50	41	108	45,4	5734.20.24
27,2	2 1/2	24	1254	1830	1479	75	114	57	41	143	73	5734.21.24
34	2 3/4	24	1305	1878	1561	90	110	70	41	158	98	5734.23.24

On request, some sizes are also available as item no. 5731. turnbuckle with extra long adjustment range, acc. to ASTM F 1145-92, forged, surface tempered, wih fork and eye.

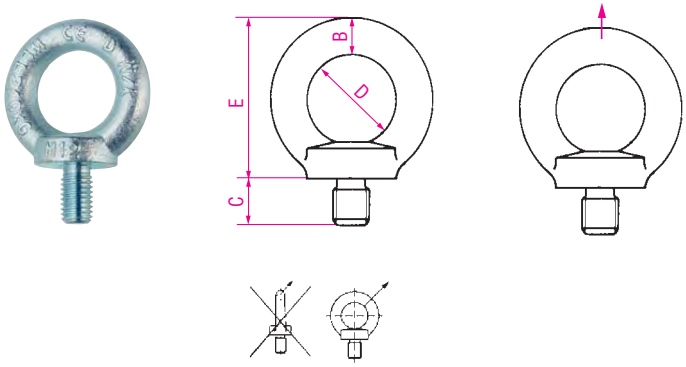
ACCESSORIES

Eye Bolts/Nuts

Eye Bolt acc. to DIN 580
C 15 E, galvanised

Material: C15E

Please observe mounting instructions acc. to DIN 580!

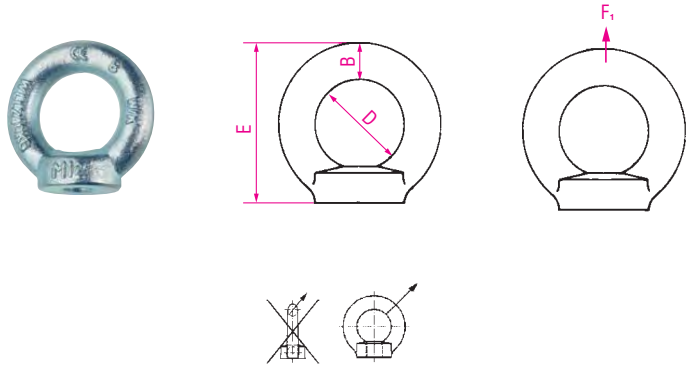


Nominal size	Load cap. F1 1-leg in kg	Dimensions in mm B	C	D	E	Weight in kg/ 100 pcs	Item no.
M6	80	8	13	20	36	5.00	5551.50.06
M8	140	8	13	20	36	6.00	5551.50.08
M10	230	10	17	25	45	11.00	5551.50.10
M12	340	12	20.5	30	53	18.00	5551.50.12
M14	340	14	27	35	62	28.00	5551.50.14
M16	700	14	27	35	62	28.00	5551.50.16
M18	700	16	30	40	71	45.00	5551.50.18
M20	1200	16	30	40	71	45.00	5551.50.20
M22	1200	20	36	50	90	67.00	5551.50.22
M24	1800	20	36	50	90	87.00	5551.50.24
M27	1800	24	45	60	109	88.00	5551.50.27
M30	3200	24	45	60	109	166.00	5551.50.30
M36	4600	28	54	70	128	265.00	5551.50.36
M42	6300	32	63	80	147	403.00	5551.50.42
M48	8600	38	68	90	168	638.00	5551.50.48
M56	11500	42	78	100	187	880.00	5551.50.56
M64	16000	48	90	110	208	1240.00	5551.50.64

Eye Nut acc. to DIN 582
C 15 E, galvanised

Material: C15E

Please observe mounting instructions acc. to DIN 582!

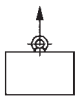
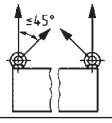
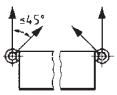


Nominal size	Load cap. F1 1-leg in kg	Dimensions in mm B	D	E	Weight in kg/ 100 pcs	Item no.
M6	80	8	20	36	4.80	5552.50.06
M8	140	8	20	36	5.00	5552.50.08
M10	230	10	25	45	9.00	5552.50.10
M12	340	12	30	53	16.00	5552.50.12
M14	340	14	35	62	24.00	5552.50.14
M16	700	14	35	62	24.00	5552.50.16
M18	700	16	40	71	36.00	5552.50.18
M20	1200	16	40	71	36.00	5552.50.20
M22	1200	20	50	90	58.00	5552.50.22
M24	1800	20	50	90	72.00	5552.50.24
M27	1800	24	60	109	70.00	5552.50.27
M30	3200	24	60	109	132.00	5552.50.30
M36	4600	28	70	128	208.00	5552.50.36
M42	6300	32	80	147	311.00	5552.50.42
M48	8600	38	90	168	502.00	5552.50.48
M56	11500	42	100	187	669.00	5552.50.56
M64	16000	48	110	208	930.00	5552.50.64

The ring screw and ring nut must:
- **Be screwed in fully**
- **Lie evenly and fully on the contact surface**
- **Be positioned in such a way that avoids side drag**
- **Be subjected to loads in the direction of the ring plane**

The load capacities/WLL of the next smaller nominal size apply to ring screws/ring nuts not listed in the norm table.

Load capacities acc. to the standard table DIN 580 / DIN 582

Thread (d1)		M8	M10	M12	M16	M20	M24	M30	M36	M42	M48	M56	M64
Axial load capacity (WLL) per ring screw/nut in kg		140	230	340	700	1200	1800	3200	4600	6300	8600	11500	16000
Load capacity per ring screw/nut ≤ 45° in kg		100	170	240	500	860	1290	2300	3300	4500	6100	8200	11000
Load capacity laterally screwed in per ring screw/nut ≤ 45° in kg		70	115	170	350	600	900	1600	2300	3150	4300	5750	8000

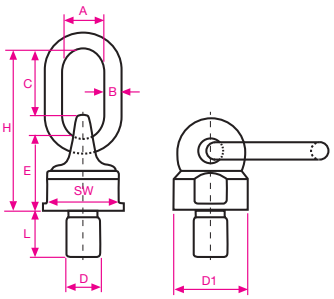
ACCESSORIES

Swivel Eye Bolts and Weld-on Hooks

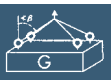
Swivel Eye Bolt

360° rotation under load, safety factor 4, compact design, German BG (Employers' Liability Insurance Association) tested and approved

Available up to M90 x 135 / load capacity 35 ton



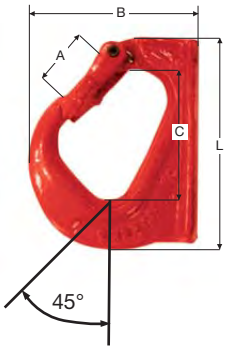
Load capacity in t	Thread size D x L in mm	Dimensions in mm A	B	C	E	H	SW	D1	Weight in kg/pce	Item no.
0.3	M10 x 18	30	13	46	50	105	30	38	0.480	5580.C0.03
0.5	M12 x 18	30	13	46	50	105	30	38	0.500	5580.C0.05
1.12	M16 x 20	30	13	46	50	105	30	38	0.530	5580.C0.10
2	M20 x 30	34	16	57	61	131	40	50	1.050	5580.C0.20
3.15	M24 x 30	40	19	70	68	153	48	58	1.630	5580.C0.30
5.3	M30 x 35	40	20	65	80	165	65	75	2.230	5580.C0.50
8	M36 x 54	50	22	90	95	205	75	85	5.500	5580.C0.80
10	M42 x 63	50	22	90	95	205	75	85	10.000	5580.C1.00
15	M56 x 78	70	30	120	130	280	95	120	10.000	5580.C1.50

Lifting method								
Legs	1	2	1	2	2	2	3 and 4	
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	0-45°	45-60°
M10 x 18	0.6	1.2	0.3	0.6	0.42	0.3	0.63	0.45
M12 x 18	1	2	0.5	1	0.75	0.5	1.1	0.75
M16 x 20	2	4	1.12	2	1.5	1.12	2.36	1.6
M20 x 30	4	8	2	4	2.8	2	4	3
M24 x 30	6.3	12.5	3.15	6.3	4.25	3.15	6.3	4.75
M30 x 35	10.6	21.2	5.3	10.6	7.1	5.3	11.2	8
M36 x 54	12.5	25	8	16	11.2	8	16.8	12
M42 x 63	15	30	10	20	14	10	21.2	15
M56 x 78	25	50	15	30	21	15	31.5	22.5

Weld-on Hook

Applications:
Hydraulic excavators,
lifting and spreader beams

Range of application: 45°
Permissible load: 15° in lateral direction of pull



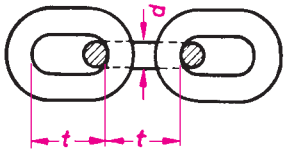
Load capacity in kg up to 45°	Dimensions in mm A	B	C	E	G	L	Weight ca. in kg/pce	Item no.
1120	25	76	59.5	20	25	97	0.48	5320.00.10
2000	26.5	92	65	22	34	114	0.85	5320.00.20
3000	29	106	75	24	36	129	1.12	5320.00.30
5000	34.5	130	92	30	45	171	2.50	5320.00.50
8000	34.5	135	98	39	51	177	3.20	5320.00.80
10000	51	171.5	134.5	39	53	223	5.20	5320.01.00

ACCESSORIES

Special Chains – Piece Goods

Round Steel Chain DIN 766-3 Grade 3

- Short link chain, **tested, true to gauge**
- Galvanised
- Load capacity for static suspended loads



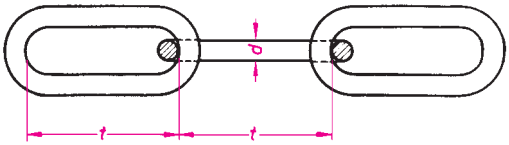
Must not be used for lifting purposes!

Dimensions in mm Nominal size d ± 0.5	Division t	Load capacity ca. in kg	Weight ca. in kg/m	Item no.
4	16	200	0.32	6010.00.04
5	18.5	320	0.50	6010.00.05
6	18.5	400	0.75	6010.00.06
7	22	630	1.00	6010.00.07
8	24	800	1.35	6010.00.08
10	28	1250	2.25	6010.00.10
13	36	2000	3.80	6010.00.13

Length 30 m

Round Steel Chain DIN 763

- Long link chain, **tested, not true to gauge**
- Galvanised
- Load capacity for static suspended loads



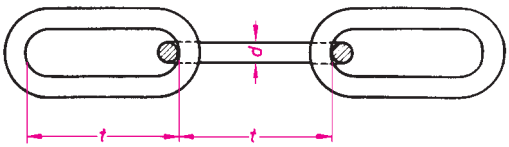
Chains pursuant to this standard must not be used as load suspension equipment, slings or hoists as defined by DIN 15003.

Dimensions in mm Nominal size d ± 0.5	Division t	Load capacity ca. in kg	Weight ca. in kg/m	Item no.
4	32	100	0.27	6020.00.04
5	35	160	0.43	6020.00.05
6	42	200	0.63	6020.00.06
7	49	300	0.86	6020.00.07
8	52	400	1.10	6020.00.08
10	65	630	1.75	6020.00.10

Length 30 m

Round Steel Chain similar to DIN 763 / 5685, Long Links

- Long link chain, **not tested, not true to gauge**
- Galvanised
- Load capacity for static suspended loads



Chains pursuant to this standard must not be used as load suspension equipment, slings or hoists as defined by DIN 15003.

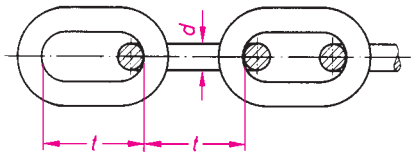
Dimensions in mm Nominal size d	Division t	Load capacity ca. in kg*	Weight ca. in kg/m	Item no.
2**	22	20	0.06	6071.01.02
3	26	45	0.15	6071.01.03
4	32	80	0.27	6071.01.04
5	36	125	0.43	6071.01.05
6	42	160	0.63	6071.01.06
7	48	250	0.86	6071.01.07
8	54	320	1.10	6071.01.08
10	66	500	1.75	6071.01.10

*Computational, static load capacity

Only available in 50 m chains except ** in 30 m chains

Round Steel Chain similar to DIN 766 / 5685, Short Links

- Long link chain, **not tested, not true to gauge**
- Galvanised
- Load capacity for static suspended loads



Chains pursuant to this standard must not be used as load suspension equipment, slings or hoists as defined by DIN 15003.

Dimensions in mm Nominal size d	Division t	Load capacity ca. in kg*	Weight ca. in kg/m	Item no.
4	16	80	0.30	6070.01.04
5	18.5	125	0.50	6070.01.05
6	18.5	160	0.73	6070.01.06
8	24	320	1.30	6070.01.08
10	28	500	3.05	6070.01.10

*Computational, static load capacity

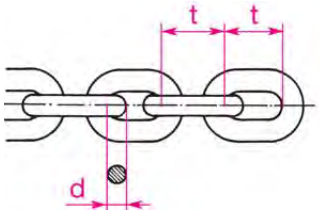
Only available in 50 m chains.

ACCESSORIES

Special Chains – Piece Goods

Stainless Steel Short Link Chain, Dimensions acc. to DIN 766

Material 1.4401, corrosion- and acid-resistant,
not tested, not true to gauge



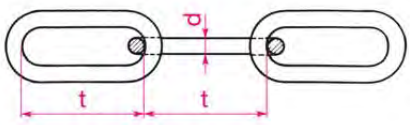
Must not be used for lifting purposes!

Chain size d x t in mm	Break. load in kg	Weight ca. kg/m	Available length in m	Item no.
2 x 12*	125	0.07	100	6011.00.02
3 x 16*	280	0.16	100	6011.00.03
4 x 16	800	0.30	50	6011.00.04
5 x 18.5	1250	0.50	50	6011.00.05
6 x 18.5	1600	0.73	50	6011.00.06
7 x 22	2500	1.10	50	6011.00.07
8 x 24	3200	1.35	50	6011.00.08
10 x 28	5000	2.25	50	6011.00.10

*Dimensions acc. to DIN 5685

Stainless Steel Long Link Chain, Dimensions acc. to DIN 763/5685

Material 1.4401, corrosion- and acid-resistant,
not tested, not true to gauge

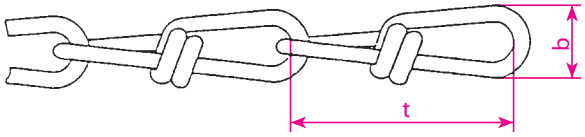


Must not be used for lifting purposes!

Chain size d x t in mm	Breaking load in kg	Weight ca. kg/m	Available length in m	Item no.
2 x 22*	125	0.06	100	6021.00.02
3 x 26*	280	0.15	100	6021.00.03
4 x 32	630	0.27	50	6021.00.04
5 x 35	1000	0.43	50	6021.00.05
6 x 42	1250	0.63	50	6021.00.06
8 x 52	2500	1.10	50	6021.00.08
10 x 65	4000	1.75	50	6021.00.10

*Dimensions acc. to DIN 5685

Knotted Chain acc. to DIN 5686, galvanised



Must not be used for lifting purposes!

Chain nominal thickness in mm	Dimensions in mm t	b	Weight in kg/m	Item no.
1.4	20	6.5	0.037	6080.01.14
1.6	23	7	0.050	6080.01.16
1.8	25	8	0.060	6080.01.18
2.0	28	9	0.088	6080.01.20
2.2	31	10	0.093	6080.01.22
2.5	35	11	0.125	6080.01.25
2.8	39	12.5	0.154	6080.01.28
3.1	41	14	0.182	6080.01.31

Only available in 30 m chains.

Chain sling piece goods, grade 12
Chain sling piece goods, grade 10
Chain sling piece goods, grade 8
see page 244.

SUBMERSIBLE PUMPS

With its slender and compact design, the AURAS submersible pump is suitable for use in even the most unfavourable conditions.

- Made in Germany
- Highly wear resistant
- Robust pump housing
- Diffusor with wear-resistant, synthetic rubber
- Stainless steel screen and base plate
- Impeller made of chrome nickel steel
- Thermal contacts prevent motor overload
- Low weight
- Small dimensions

Modular principle:
The parts of the pump are based on a modular design, making the maintenance and storage of spare parts easier and more cost effective.

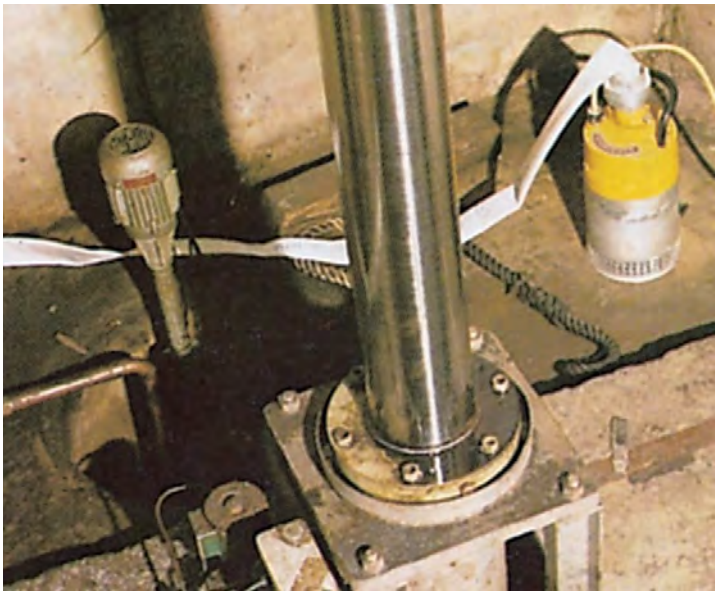
Versions with an automated mode available in all pump sizes (except P40CS)

All of these benefits mean that the submersible pump offers excellent operational reliability and a long service life, which visibly increases your profits.

AURAS automated system:
The automated system in the AURAS submersible pump functions without any moving parts. Electrodes monitor the water level in the pump shaft. The control current is 18 V. A changeover switch on the pump cover can be used to switch off the automatic mode if necessary in order to switch the pump into continuous mode.

Once so much water has been pumped out that the level reaches the lower electrode, the pump switches off again. The water now rises again due to the inflow and reaches the upper electrode. The pump then switches off again.

SUBMERSIBLE PUMPS

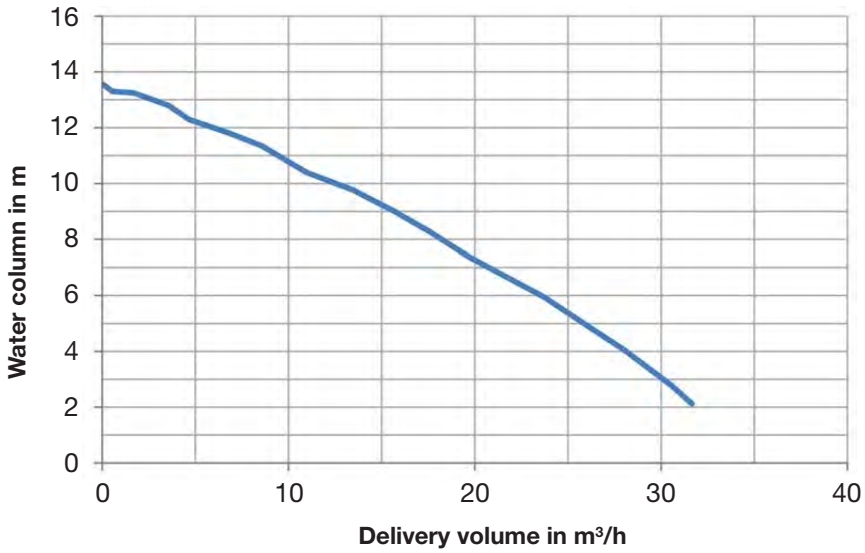


SUBMERSIBLE PUMPS

Submersible Sewage Pumps

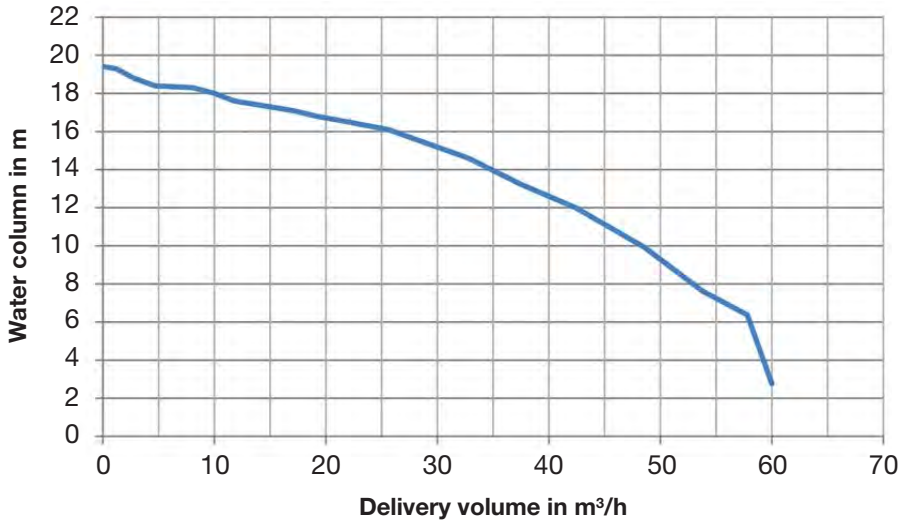
The tables show you how the delivery volume (m^3/h) changes as the delivery height increases (water column in m).

Submersible sewage pump P 20 + P 220



Type	Weight in kg	Ø in mm	Height in mm	Hose connection	Mains voltage in volts	Freq. in Hz	Fuse in A	Nominal current in A	Power consumption in kW	Cable in m/mm²	Item no. w/o autom. system	Item no. w/ autom. system
P20	23	210	510	2 inches	400	50	10	2.6	1.3	15 / 4 x 1.5	AP60.20.00	AP60.20.0A
P220	22	210	510	2 inches	230	50	16	6.4	1.45	15 / 3 x 1.5	AP60.10.00	AP60.10.0A

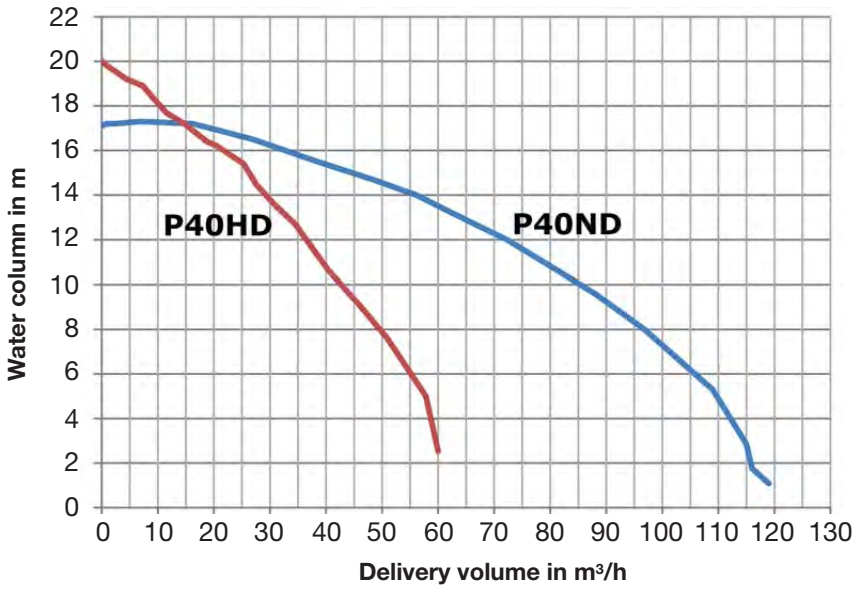
Submersible sewage pump P 30



Type	Weight in kg	Ø in mm	Height in mm	Hose connection	Mains voltage in volts	Freq. in Hz	Fuse in A	Nominal current in A	Power consumption in kW	Cable in m/mm²	Item no. w/o autom. system	Item no. w/ autom. system
P30	37	246	540	3 inches	400	50	16	5.7	3.5	15 / 4 x 1.5	AP60.30.00	AP60.30.0A

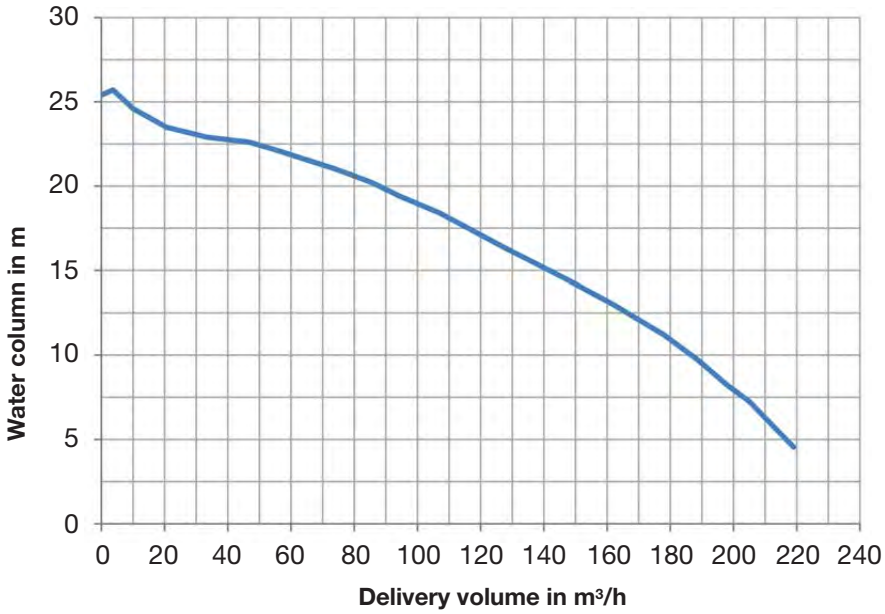
SUBMERSIBLE PUMPS
Submersible Sewage Pumps

Submersible sewage pump P 40 ND + HD



Type	Weight in kg	Ø in mm	Height in mm	Hose connection	Mains voltage in volts	Freq. in Hz	Fuse in A	Nominal current in A	Power consumption in kW	Cable in m/mm²	Item no. w/o autom. system	Item no. w/ autom. system
P40ND	44	246	620	4 inches	400	50	25	7.7	4.7	15 / 4 x 2.5	AP60.40.00	AP60.40.0A
P40HD	44	246	620	3 inches	400	50	25	7.7	4.7	15 / 4 x 2.5	AP61.40.00	AP61.40.0A

Submersible sewage pump P 60 ND

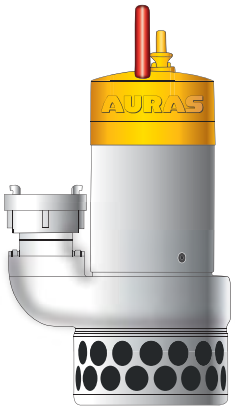


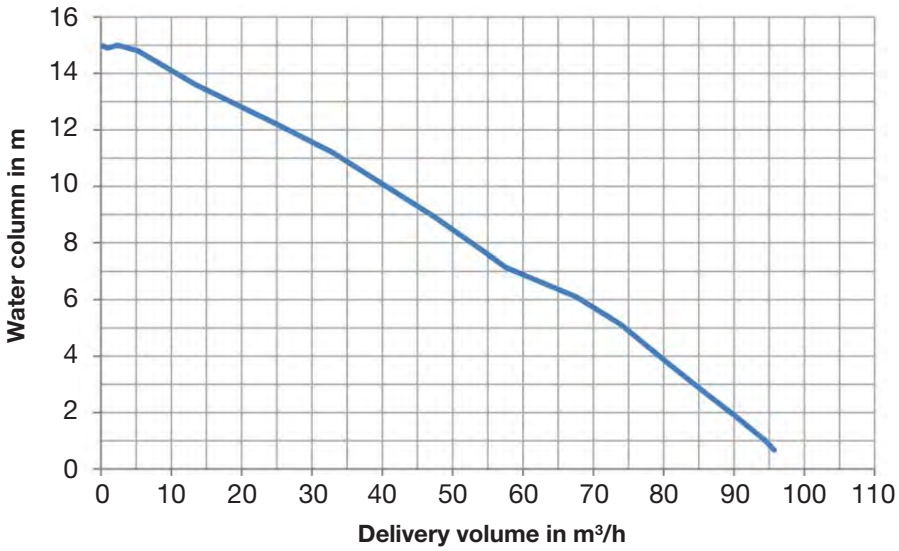
Type	Weight in kg	Ø in mm	Height in mm	Hose connection	Mains voltage in volts	Freq. in Hz	Fuse in A	Nominal current in A	Power consumption in kW	Cable in m/mm²	Item no. w/o autom. system	Item no. w/ autom. system
P60ND	120	350	910	6 inches	400	50	63	20.9	13.5	15 / 4 x 6	AP60.50.00	AP60.50.0A

SUBMERSIBLE PUMPS

Submersible Sewage Pumps

Submersible sewage pump P 40 CS





Type	Weight in kg	Ø in mm	Height in mm	Hose connection	Mains voltage in volts	Freq. in Hz	Fuse in A	Nominal current in A	Power consumption in kW	Cable in m/mm²	Item no. w/o autom. system
P40CS	61.5	420	670	4 Zoll	400	50	25	5.2	2.8	15 / 4 x 2.5	AP60.60.20CS

Construction and Industrial Hose

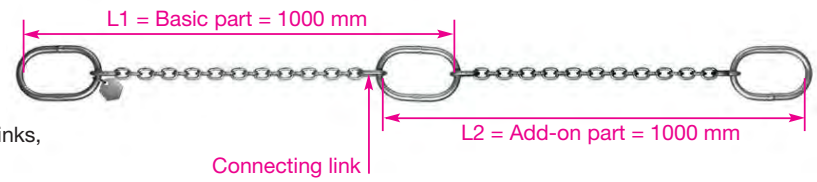
Rubberised interior, white exterior, with integrated LM-Storz couplings

Size	L. W. in mm	Length in m	Item no.
C	52	20	92Z0.05.2C
B	75	20	92Z0.07.5B
A	102	20	92Z0.10.0A
F	150	20	92Z0.15.0F

Safety Chain for Pumps, G6, welded, tested

- For precision placement
- For securing
- For lifting the submersible pump

Made from stainless steel, material 1.4404, with welded Master links, basic length 1 m, chain nominal thickness 3-18 mm possible



Type	Load capacity in kg	Master links in mm	Chain in mm	Transition link in mm	Item no.
CPK 5	630	10 x 80 x 50	5 x 15	6 x 26 x 13	92KE.00.05
CPK 6	900	13 x 110 x 60	6 x 18	8 x 35 x 19	92KE.00.06
CPK 7	1.250	13 x 110 x 60	7 x 21	8 x 35 x 19	92KE.00.07
CPK 8	1.550	13 x 110 x 60	8 x 24	10 x 44 x 25	92KE.00.08
CPK 10	2.450	16 x 110 x 60	10 x 30	13 x 54 x 25	92KE.00.10
CPK 13	3.850	22 x 160 x 90	13 x 39	16 x 70 x 34	92KE.00.13

SUBMERSIBLE PUMPS
Accessories

Base Sucker

For reducing the water level to ground level.

For submersible pumps	Item no.
P220 + P220A	AP60.11.20C

LM-Divider

Size	Item no.
A / B / C	92Z3.0A.BC

LM-Adapter with Female Thread

Size	Thread in inches	Item no.
C	2	92Z3.I0.2C
B	2 1/2	92Z3.I0.2B
B	3	92Z3.I0.3B
A	4	92Z3.I0.4A
F	6	92Z3.I0.6F

Filter Basket

Filter basket for pumps P 220/P 220A and P 20/P 20A.
Ø 250 x 390 mm high, made from stainless steel 1.4301. Attached to the pump (basket not suitable for lifting loads!).

Item no.
AP601.11.1C

LM-Adapter with Male Thread

Size	Thread in inches	Item no.
C	2	92Z3.A0.2C
B	2 1/2	92Z3.A0.2B
B	3	92Z3.A0.3B
A	4	92Z3.A0.4A

Float switch 400 V

Cable m	Plug	Item no.
10	CEE16A	/F61.90.08
10	CEE32A	/F61.90.09

LM-Reducer

Size	Item no.
C / GEKA	92Z.52.CGEKA
C / B	92Z1.00.CB
A / B	92Z1.00.AB
F / A	92Z1.00.FA

Non-Return Valve

Thread in inches	Item no.
1	/F63.90.25
1 1/4	/F63.90.32
2	/F63.90.52
2 1/2	/F63.90.63
3	92Z2.00.03
4	/F63.91.02

LIFTING POINTS

Screw-on Lifting Points **Pages 474-494**

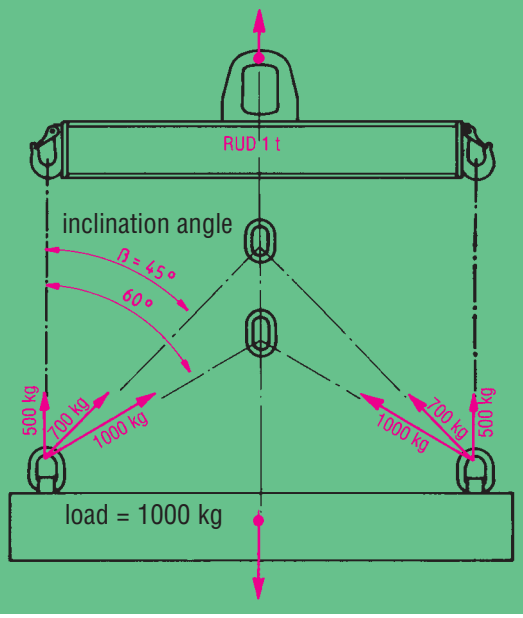
Weld-on Lifting Points **Pages 495-505**

Select the correct lifting points

When selecting the capacity, please be aware that in most cases the load is lifted with multi leg slings. Depending on the inclination angle of the sling the stress on the lifting point will increase. For load capacities please refer to the load chart. In case of 4 leg slings and symmetrical load only 3 legs are assumed as load-bearing.

Also see EN 818-6.

Rule of thumb: The capacity of the single lifting point (also in case of multi leg slings) must correspond to the total weight of the load.



LIFTING POINTS

Screw-on Lifting Points

Screw-on Lifting Points

Thread sizes

M 8-M48

Imperial threads (UNC etc.) and special lengths on request.

DGUV Test

ICE-LBG-SR SUPER ROTATION

SUPER ROTATION®

Number of legs	Inclination angle	ICE-LBG-SR 0.3 t	ICE-LBG-SR 0.63 t	ICE-LBG-SR 1 t	ICE-LBG-SR 1.5 t	ICE-LBG-SR 2.5 t	ICE-LBG-SR 4 t	ICE-LBG-SR 5 t	ICE-LBG-SR 8 t	ICE-LBG-SR 10 t	LICE-BG-SR 12t (15 t)	ICE-LBG-SR 16 t (20 t)
		M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 42	M 48
1	0°	0.3	0.63	1	1.5	2.5	4	5	8	10	15	20
2	0°	0.6	1.26	2	3	5	8	10	16	20	30	40
1	90°	0.3	0.63	1	1.5	2.5	4	5	8	10	15	20
2	90°	0.6	1.26	2	3	5	8	10	16	20	30	40
2	0-45°	0.42	0.88	1.4	2.1	3.5	5.6	7	11.2	14	21	28
2	45-60°	0.3	0.63	1	1.5	2.5	4	5	8	10	15	20
2	asymmetric	0.3	0.63	1	1.5	2.5	4	5	8	10	15	20
3+4	0-45°	0.63	1.32	2.1	3.15	5.25	8.4	10.5	16.8	21	31.5	42
3+4	45-60	0.45	0.95	1.5	2.25	3.75	6	7.5	12	15	22.5	30
3+4	asymmetric	0.3	0.63	1	1.5	2.5	4	5	8	10	15	20
		M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 42	M 48

LIFTING POINTS

Screw-on Lifting Points

RUD® Carl Stahl®

Screw-on Lifting Points

Maximum transport weight G in t with different lifting methods

4 design factor in all directions

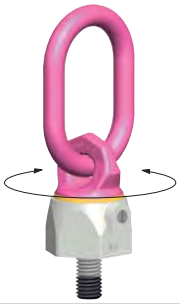
Thread sizes **M 6- M 150**
Imperial threads (UNC etc.) and special lengths on request.

DGUV Test

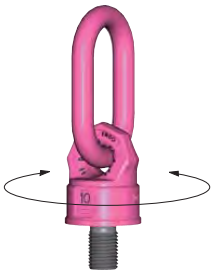
VLBG Lifting ring (Vario)

Rost frei

VWBG-V Lifting ring (Vario)



VWBG Lifting ring



Number of legs	Inclination angle		VLBG 0.3 t	VLBG 0.63 t	VLBG 1 t	VLBG 1.2 t	VLBG 1.5 t	VLBG 2.0 t	VLBG 2.5 t	VLBG 4 t	VLBG 4 t	VLBG 5 t	VLBG 7 t Special	VLBG 8 t	VLBG 10 t	VLBG 15 t	VLBG 20 t	LBG(3) M16 RS 1t	LBG(3) M20 RS 2t	VWBG-V 0.3 t	VWBG-V 0.45 t	VWBG-V 0.6 t	VWBG-V 1.0 t	VWBG-V 1.3 t	VWBG-V 1.8 t	VWBG-V 2 t	VWBG-V 2 t	VWBG-V 3.5 t	VWBG-V 3.5 t	VWBG-V 5 t	VWBG 6(7.5)	VWBG 8(10)	VWBG 12(13)	VWBG 12(15) - M 45	VWBG 13(16) - M 48	VWBG 14(20) - M 52	VWBG 16(22) - M 56	VWBG 16(25) - M64	VWBG 31.5(40) - M 72	VWBG 35(48) - M 80	VWBG 35(48) - Spec.	VWBG 40(50) - M 90	VWBG 40(50) - Spec.
			M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	M 36	M 42	M 42	M 48	M 16	M 20	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 45	M 48	M 52	M 56	M 64	M 72	M 80	M 80	M 90	M 90
G	1	0°	0.3	0.6	1	1.2	1.5	2	2.5	4	4	5	7	8	10	15	20	1	2	0.6	0.9	1.2	2.0	2.6	3.6	4	4	7	7	10	15	15	17	18	18	25	28	28	50	50	50	50	50
A G	2	0°	0.6	1.2	2	3	3	5	5	8	8	10	14	16	20	30	40	2	4	1.2	1.8	2.4	4.0	5.2	7.2	8	8	14	14	20	30	30	34	36	36	50	56	56	100	100	100	100	100
G	1	90°	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.45 (0.6)	0.6 (0.7)	1.0 (1.25)	1.3 (1.5)	1.8 (2.0)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	8 (10)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	35 (48)	35 (48)	40 (50)	40 (50)
A G	2	90°	0.6	1.2	2	3	3	5	5	8	8	10	14	16	20	30	40	2	4	0.6 (0.8)	0.9 (1.2)	1.2 (1.5)	2.0 (2.5)	2.6 (3)	3.6 (4.0)	4 (5)	4 (5)	7 (8)	7 (8)	10 (12)	12 (15)	16 (20)	24 (26)	24 (30)	26 (32)	28 (40)	32 (44)	32 (50)	63 (80)	70 (96)	70 (96)	80 (100)	80 (100)
G	2	0-45°	0.4	0.8	1.4	2.1	2.1	3.5	3.5	5.6	5.6	7	9.8	11.2	14	21	28	1.4	2.8	0.4 (0.56)	0.6 (0.84)	0.8 (1.05)	1.4 (1.75)	1.8 (2.1)	2.5 (2.8)	2.8 (3.5)	2.8 (3.5)	4.9 (5.6)	4.9 (5.6)	7 (8.4)	8.4 (10.5)	11.2 (14)	16.8 (18.2)	16.8 (21)	18.2 (22.4)	19.6 (28)	22.4 (30.8)	22.4 (35)	44.1 (56)	49 (67.2)	49 (76.2)	56 (70)	56 (70)
	2	45-60°	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.4 (0.6)	0.6 (0.75)	1.0 (1.25)	1.3 (1.5)	1.8 (2)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	6 (7.5)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	35 (48)	35 (48)	40 (50)	40 (50)
G	2	asymmetric	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.4 (0.6)	0.6 (0.75)	1.0 (1.25)	1.3 (1.5)	1.8 (2)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	6 (7.5)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	35 (48)	35 (48)	40 (50)	40 (50)
G	3+4	0-45°	0.6	1.3	2.1	3.1	3.1	5.2	5.2	8.4	8.4	10.5	14.7	16.8	21	31.5	42	2.1	4.2	0.6 (0.84)	0.9 (1.26)	1.2 (1.58)	2.1 (2.62)	2.7 (3.15)	3.7 (4.2)	4.2 (5.25)	4.2 (5.2)	7.3 (8.4)	7.3 (8.4)	10.5 (12.6)	12.6 (21)	16.8 (21)	25.2 (27.3)	25.2 (31.5)	27.3 (33.6)	29.4 (42)	33.6 (46.2)	33.6 (52.5)	66.15 (84)	73.5 (100.8)	73.5 (100.8)	84 (105)	84 (105)
G	3+4	45-60	0.4	0.9	1.5	2.2	2.2	3.7	3.7	6	6	7.5	10.4	12	15	22.5	30	1.5	3	0.4 (0.6)	0.6 (0.9)	0.9 (1.12)	1.5 (1.87)	1.9 (2.25)	2.7 (3)	3 (3.75)	3 (3.75)	5.2 (6)	5.2 (6)	7.5 (9)	9 (11.2)	12 (15)	18 (19.5)	18 (22.5)	19.5 (24)	21 (30)	24 (33)	24 (37.5)	47.2 (60)	52.5 (72)	52.5 (72)	60 (75)	60 (75)
G	3+4	asymmetric	0.3	0.6	1	1.5	1.5	2.5	2.5	4	4	5	7	8	10	15	20	1	2	0.3 (0.4)	0.4 (0.6)	0.6 (0.75)	1.0 (1.25)	1.3 (1.5)	1.8 (2)	2 (2.5)	2 (2.5)	3.5 (4)	3.5 (4)	5 (6)	6 (7.5)	8 (10)	12 (13)	12 (15)	13 (16)	14 (20)	16 (22)	16 (25)	31.5 (40)	34 (48)	34 (48)	40 (50)	40 (50)
			M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 24	M 27	M 30	M 36	M 36	M 42	M 42	M 48	M 16	M 20	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 45	M 48	M 52	M 56	M 64	M 72	M 80	M 80	M 90	M 90

Nominal load capacities for screw-on lifting points are indicated in the charts on pages 480-494.
Operational capacities for the different inclination angles can be found in the chart above.

Please also observe the different operating temperatures!

LIFTING POINTS

Screw-on Lifting Points

RUD

Screw-on Lifting Points

Maximum transport weight G in t with different lifting methods

Thread sizes
M 6-
M 150
Imperial threads (UNC etc.) and special lengths on request.

DGUV Test

PP-S (Vario)
PowerPoint-Star

PP-B (Vario)
PowerPoint-B

PP-VIP (Vario)
PowerPoint-VIP

Starpoint VRS
(Vario)
Eye Bolt

Starpoint
VRM
Eye Nut

Number of legs	Inclination angle	Type	PP-S 0.63 t	PP-S 1.5 t	PP-S 2.5 t	PP-S 4 t	PP-S 5 t	PP-S 8 t	VRS M6 / VRM M6	VRS M8 / VRM M8	VRS M10 / VRM M10	VRS M12 / VRM M12	VRS M14 / VRM M14	VRS M16 / VRM M16	VRS M18 / VRM M18	VRS M20 / VRM M20	VRS M22 / VRM M22	VRS M24 / VRM M24	VRS M27/ VRM M27	VRS M30 / VRM M30	VRS M33 / VRM M33	VRS M36	VRS M42	VRS M48
		Thread	M 12	M 16	M 20	M 24	M 30	M 36	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 48
1	0°		0.6	1.5	2.5	4	6.7	10	0.5	1	1	2	2	4	4	6	6	8	8	12	12	16	24	32
2	0°		1.2	3	5	8	13.4	20	1	2	2	4	4	8	8	12	12	16	16	24	24	32	48	64
1	90°		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
2	90°		1.2	3	5	8	10	16	0.2	0.6	0.8	1.5	1.5	3	3	4.6	4.6	6.4	6.4	9	9	14	18	24
2	0-45°		0.8	2.1	3.5	5.6	7.1	11.2	0.14	0.42	0.56	1	1	2.1	2.1	3.2	3.2	4.5	4.5	6.3	6.3	9.8	12.6	6.8
2	45-60°		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
2	asymmetric		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
3+4	0-45°		1.3	3.2	5.3	8.4	10.5	16.8	0.21	0.63	0.8	1.5	1.5	3.1	3.1	4.8	4.8	6.7	6.7	9.4	9.4	14.7	18.9	25
3+4	45-60		0.9	2.2	3.8	6	7.5	12	0.15	0.45	0.6	1.1	1.1	2.2	2.2	3.4	3.4	4.8	4.8	6.7	6.7	10.5	13.5	18
3+4	asymmetric		0.6	1.5	2.5	4	5	8	0.1	0.3	0.4	0.7	0.7	1.5	1.5	2.3	2.3	3.2	3.2	4.5	4.5	7	9	12
		Thread	M 12	M 16	M 20	M 24	M 30	M 36	M 6	M 8	M 10	M 12	M 14	M 16	M 18	M 20	M 22	M 24	M 27	M 30	M 33	M 36	M 42	M 48

Nominal load capacities for screw-on lifting points are indicated in the charts on pages 480-494.
Operational capacities for the different inclination angles can be found in the chart above.

Please also observe the different operating temperatures!

LIFTING POINTS

Screw-on Lifting Points

RUD

Carl Stahl

4 design factor in all directions

Thread sizes

M 6- M 150

Imperial threads (UNC etc.) and special lengths on request.

DGUV Test

INOX-STAR

Rostfrei

RS & RM
High Strength Eye Bolt/Eye Nut

VRBG
Lifting Ring

Threaded adapter
for RUD lifting points

Number of legs	Inclination angle	INOX M12	INOX M16	INOX M20	INOX M24	RS M6	RS M8	RS M10	RS M12	RS M14	RS M16	RS M20	RS M24	RS M30	RS M36	RS M42	RS M48	RBG 3 t	VRBG 10 t	VRBG 16 t	VRBG 31.5 t	VRBG 50 t	VRBG 85 t	VRBG 100 t	VRBG 200 t	Threaded adapter Available thread combinations Male thread/female thread
		M 12	M 16	M 20	M 24	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 24	M 30	M 36	M 42	M 48	2x M 16	4x M 20	4x M 30	4x M 36	6x M 50	6x M 48	6x M 48	10x M 48	M 16/8 M 20/10 M 24/12 M 30/16 M 36/20 M 42/24 M 48/24 M 56/30 M 64/36 M 72/42 M 80/48 M 90/48
1	0°	1.2	2.4	3.6	5.2	0.4	0.8	1	1.6	3	4	6	8	12	16	24	32	3	10	16	31.5	50	85	100	200	
2	0°	2.4	4.8	7.2	10.4	4.8	1.6	2	3.2	6	8	12	16	24	32	48	64	6	20	32	63	100	170	200	400	
1	90°	0.5	1.0	2.0	2.5													3	10	16	31.5	50	85	100	200	
2	90°	1.0	2.0	4.0	5.0													6	20	32	63	100	170	200	400	
2	0-45°	0.7	1.4	2.8	3.5													4.2	14	22.4	45	70	119	140	280	
2	45-60°	0.5	1.0	2.0	2.5													3	10	16	31.5	50	85	100	200	
2	asymmetric	0.5	1.0	2.0	2.5													3	10	16	31.5	50	85	100	200	
3+4	0-45°	1.0	2.1	4.2	5.3													6.3	21	33.6	67	105	178	210	420	
3+4	45-60	0.7	1.5	3.0	3.7													4.5	15	24	47.5	75	127	150	300	
3+4	asymmetric	0.5	1.0	2.0	2.5													3	10	16	31.5	50	85	100	200	
		M 12	M 16	M 20	M 24	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 24	M 30	M 36	M 42	M 48	2x M 16	4x M 20	4x M 30	4x M 36	6x M 50	6x M 48	6x M 48	10x M 48	

We recommend to use either „VRS Starpoint“ or „PowerPoint“ which can be adjusted to the direction of pull

LIFTING POINTS

Selection Matrix/Product Features

		ICE-LBG-SR	VWBG-V	VWBG	PP-S /-B /-VIP	WBPG	VLBG	LGB-RS
Load capacities		0.3 t – 20 t	0.63 t – 5 t	0.6 t – 40 t	0.63 t – 8 t	85 t – 200 t	0.3 t – 20 t	1 t / 2 t
Ideal for rotating and turning		●	●	●	●	●	–	–
Ball bearing type		SR	○	○	○	○	–	–
Safety factor		4:1	4:1	4:1	4:1	4:1	4:1	4:1
All load directions possible		●	●	●	●	–	●	●
DGUV-tested		DGUV Test	–	–	DGUV Test	–	DGUV Test	–
Swivel range		360°	360°	360°	360°	360°	360°	360°
Hitch link slewing range		180°	230°	230°	230°	180°	180°	180°
Possible Thread Types	Metric	M8 M48	M8 M30	M33 M150	M12 M42	M42 M48	M8 M48	M16/ M20
	Metric fine pitch	–	MF M12x1.5 - M30x1.5	MF M33x2 - M160x4	MF M12x1.5 - M42x3	–	MF M12x1.5 - M30x2	–
	Imperial (UNC)	–	UNC 5/16"- 18UNC –1 1/4"- 7UNC	UNC 1 1/2"- 6UNC – 5"	UNC 1/2"- 13UNC –1 1/2"- 6UNC	–	UNC 3/8"- 16UNC –2"- 4.5UNC	–
	Imperial (8UN)	–	–	8UN	–	–	8UN 1 1/4"- 8-UN	–
	Imperial (UNF)	–	–	UNF	–	–	–	–
	BSW-British Standard Whitworth	–	–	BSW 1 1/2" – 5"	–	–	–	–
	G pipe inches (acc. to ISO 228)	–	–	G	–	–	–	–
Variable thread lengths		VARIO	VARIO	VARIO	VARIO	–	VARIO	–
Retaining spring		●	–	–	–	–	●	●
Application temperature range W/O reduction in load capacity		-40 °– 100 °C	-40 °– 100 °C	-40 °– 200 °C	-40 °– 200 °C	-40 °– 100 °C	-40 °– 100 °C	-60°– 100°C
Max. application temperature W/ reduction in load capacity		300 °C max.	350 °C max.	400 °C max.	400 °C max.	100°C max.	350 °C max.	400 °C max.

● Lifting points with this product feature are ideal for rotating and turning loads.

SR The lifting point has the innovative double SR ball bearing (continuous rotary movement and turning under load).

○ Ball bearing: suitable for rotating and turning. However, not suitable for continual rotary movements under load!

4:1 4 x safety against breakage with lifting points (2 x safety against breakage with lashing points).

Load can be applied to the lifting point from all directions.

360° Lifting point is able to rotate 360°. However, this does not equate to rotating and turning under load!

LIFTING POINTS

Selection Matrix/Product Features

RUD®

Carl Stahl®

VRS	VRM	INOX-STAR	RBG / VRBG	FLARIBO	VABH-B	VCGH-G	B-ABA	RS	RM
1 t / 12 t	1 t / 4.5 t	0.5 t / 2.5 t	0.3 t – 50 t	18 t – 31.5 t	1.5 t – 6.7 t	10 t – 20 t	1.6 t - 31.5 t	0.1 t – 8 t	1 t / 8 t
-	-	-	-		-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1
					-	-		-	-
DGUV Test	-	-	-	-	-	-	-	-	-
360°	360°	360°	-	-	-	-	-	-	-
-	-	-	180°	-	-	-	-	-	-
M M6 M48	M M6 M30	M M16 M24	M M16 M36	M M20 M64	M M10 M20	M M24	M M12 M36	M M6 M48	M M6 M48
MF M8x1 - M36x3	-	-	-	-	-	-	-	MF M10x1 - M48x3	MF M14x1.5 - M48x3
UNC 1/4"-20UNC –2"-4.5UNC	-	-	-	-	-	-	-	UNC 1/4"-20UNC –2"-4.5UNC	UNC 3/8"-16UNC –1 1/4"-7UNC
-	-	-	-	-	-	-	-	8UN 1/4"-8-UN-1 3/4"-8-UN	8UN 1 3/4" - 8-UN
UNF 3/4" - 16UNF	-	-	-	-	-	-	-	UNF 3/8"-24UNF –1"-12UNF	
-	-	-	-	-	-	-	-	BSW 1/4" – 2"	BSW 1/2" – 1 1/8"
G 1/4" – 3"	-	-	-	-	-	-	-	G 1/4" – 3/4"	G 1/4" – 3/4"
VARIO	-	-	-	-	-	-	-	-	-
-	-	-	-	-	-	-	-	-	-
-40 °– 100 °C	-40 °– 100 °C	-40 °– 280 °C	-40 °– 100 °C	-40 °– 100 °C	-40 °– 200 °C	-20°– 100°C	-40 °– 100 °C	-40 °– 200 °C	-40 °– 200 °C
350 °C max.	100 °C max.	280 °C max.	350 °C max.	350 °C max.	350 °C max.	350 °C max.	350 °C max.	400 °C max.	400 °C max.

180° Lifting point has a slewing range of XXX° (represents several values) in the hitch link.

M Possible lifting point thread types. Icons correspond to: M, MF, UNC, 8-UN, UNF, BSW, G.

VARIO Lifting point available with variable/different thread lengths.

Retaining spring holds the hitch link/hitch stirrup in a set position – prevents rattling and makes painting easier.

-40 °– 100 °C Application temperature range for the lifting point without permanent load capacity reduction.

300 °C max. Maximum application temperature of the lifting point with product-dependent load capacity reduction in percent.

LIFTING POINTS

Screw-on Lifting Points

ICE-LBG-SR Super Rotation®

NEW!

THE RIGHT TURN!

NEW! SuperRotation® turns more than just heads.

With the same design and without any change to the previous installation dimensions of the former VLBG, **the ICE-LBGS® can now be rotated in all directions under full load.** Whether vertically upwards or at 90° to the screw, the innovative, double SR-ball bearing smoothly converts the load capacity forces into a rotary movement without the attachment screw releasing itself. The ICE bolts made from patented fine-grained steel furthermore guarantee high static and dynamic strength with the smallest screw diameter.

SUPER ROTATION®

Product features/ICE-LBG-SR

SR 4:1 360° 180° M 190°C WLL 300°C max. -40°C max.

- First lifting point that can be rotated under load while subjected to non-symmetrical forces:
  - for rotating, turning and tilting all loads
  - attachment screws do not accidentally come undone
  - tested min. 5,000 rotations
- Dual SR-ball bearing and ICE bolt enable new dimensions – full introduction of forces from all possible directions
- Bearing seal prevents undesired rotary movements and thus dampens noise
- Screw is captive but can still be replaced
- Special CORRUD-DT finish protection, at least 20 x better corrosion protection than electro-galvanized versions
- ICE bolt from patent steel with up to 40% higher, unbelievable strength properties – and all at -60°C
- Suspension bracket with
  - clamping spring, sound dampening and holds in the desired direction
  - patented wear lenses for easily determining the discard stage
- All load-bearing parts 100% crack tested
- ICE pink powder coating with overheating indicator
- BG authorisation (DGUV) in line with the acceptance conditions of GS OA 15-04

- Eliminate any risk of damage to the sling by sharp-edged loads.

- The bracket must not rest on edges.

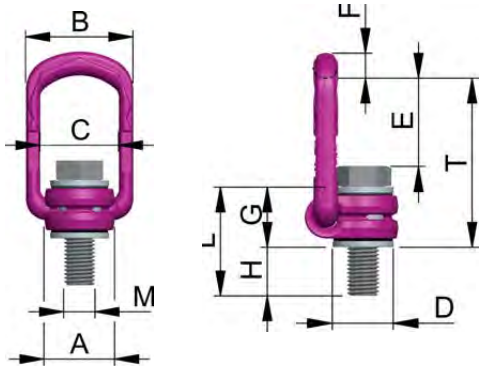
- Note that the sling must be freely moveable in the ICE-LBR-SR lifting point. No areas that pose a risk of crushing, catching, cutting or impact must exist when attaching or detaching the sling (chain sling).

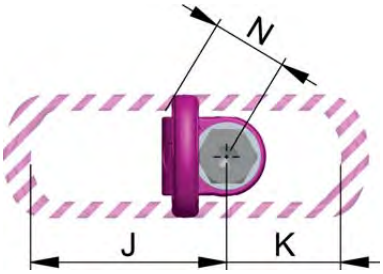
LIFTING POINTS

Screw-on Lifting Points

ICE-LBG-SR Lifting Ring Super Rotation®

-40° C





SUPER ROTATION®

! Version with special lengths on request.

Standard

Type	Load capacity in t	Dimensions in mm														Max. tightening torque of bolt	Weight kg/ pce	Item no.
		A	B	C	D	E	F	G	H	J	K	L	M	N	T			
ICE-LBG-SR 0.3 t M8	0.3	32	50	34	24	40	10	29	12	75	43	41	M8	32	75	30 Nm	0.3	5585.R0.08
ICE-LBG-SR 0.63 t M10	0.63	32	50	34	24	39	10	29	15	75	43	44	M10	32	74	60 Nm	0.31	5585.R0.10
ICE-LBG-SR 1 t M12	1	32	50	34	26	38	10	29	18	75	43	47	M12	32	74	100 Nm	0.34	5585.R0.12
ICE-LBG-SR 1.5 t M16	1.5	36	54	40	30	39	13.5	34	24	86	46	58	M16	38	84	150 Nm	0.52	5585.R0.16
ICE-LBG-SR 2.5 t M20	2.5	54	82	60	45	53	17	45	30	113	61	75	M20	48	110	250 Nm	1.3	5585.R0.20
ICE-LBG-SR 4 t M24	4	54	82	60	45	66	18	45	36	130	76	80	M24	48	125	400 Nm	1.4	5585.R0.24
ICE-LBG-SR 5 t M30	5	63	102	69	55	66	22.5	60	45	151	79	105	M30	66	145	500 Nm	3.2	5585.R0.30
ICE-LBG-SR 8 t M36	8	84	122	90	70	95	26.5	79	54	205	110	133	M36	87	197	800 Nm	6.0	5585.R0.36
ICE-LBG-SR 10 t M42	10	84	122	90	70	92	26.5	79	73	205	110	152	M42	87	197	1000 Nm	6.7	5585.R0.42
ICE-LBG-SR 12 t (15 t) M42	12 (15)	105	156	110	90	107	36	89	63	230	130	152	M42	100	222	1500 Nm	11.2	5585.R0.43
ICE-LBG-SR 16 t (20 t) M48	16 (20)	105	156	110	90	103	36	89	72	230	130	161	M48	100	222	2000 Nm	11.6	5585.R0.48

Maximum transport weight G in tons with different lifting methods:

Lifting method	G	G	G	G	G	G	G	G	G
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle β	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
ICE-LBG-SR 0.3 t M8	0.3	0.6	0.3	0.6	0.42	0.3	0.3	0.63	0.45	0.3
ICE-LBG-SR 0.63 t M10	0.63	1.26	0.63	1.26	0.88	0.63	0.63	1.32	0.95	0.63
ICE-LBG-SR 1 t M12 / 1/2"	1.0	2.0	1.0	2.0	1.4	1.0	1.0	2.1	1.5	1.0
ICE-LBG-SR 1.5 t M16	1.5	3.0	1.5	3.0	2.1	1.5	1.5	3.15	2.25	1.5
ICE-LBG-SR 2.5 t M20	2.5	5.0	2.5	5.0	3.5	2.5	2.5	5.25	3.75	2.5
ICE-LBG-SR 4 t M24 / 1"	4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
ICE-LBG-SR 5 t M30 / 1 1/4"	5.0	10.0	5.0	10.0	7.0	5.0	5.0	10.5	7.5	5.0
ICE-LBG-SR 8 t M36	8.0	16.0	8.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0
ICE-LBG-SR 10 t M42	10.0	20.0	10.0	20.0	14.0	10.0	10.0	21.0	15.0	10.0
ICE-LBG-SR 12 t (15 t) M42	15.0	30.0	15.0	30.0	21.0	15.0	15.0	31.5	22.5	15.0
ICE-LBG-SR 16 t (20 t) M48	20.0	40.0	20.0	40.0	28.0	20.0	20.0	42.0	30.0	20.0

LIFTING POINTS

Screw-on Lifting Points

Lifting Ring VLBG

Lifting point with 100% crack tested hexagonal nut, BG (German Employers' Liability and Assurance Association)-tested.
Hinged load bracket, 360° rotation, full WLL in all load directions.
Only 1 tapped hole or through hole required.
Operating temperature up to -40°C.

Safety Instructions:
Adjustable in the direction of pull.
A plane bolting surface must be guaranteed.
The material to which the lifting point is attached should be of adequate strength to withstand forces during lifting without deformation. The German testing authority BG, recommends the following lengths of engagement:

1	x M in steel
1.25	x M in cast iron
2	x M in aluminium alloys
2.5	x M in aluminium-magnesium alloys

With patented captive screw, 100% crack tested!
Not intended to rotate under load.
The German BG stipulates: For frequent rotation only use the ball bearing types VWBG, WBGV or PP.
Only use genuine bolts supplied by the manufacturer!

The following sizes are also available:
- in fine pitch M12 x 1.5; M14 x 1.5; M16 x 1.5; M18 x 1.5; M20 x 1.5; M24 x 1.5
- in UNC-thread

Contact us!

4 design factor in all directions

Maximum transport weight G in tons with different lifting methods:

Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle β	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VLBG 0.3 t M8	0.3	0.6	0.3	0.6	0.4	0.3	0.3	0.6	0.4	0.3
VLBG 0.63 t M10	0.6	1.2	0.6	1.2	0.8	0.6	0.6	1.3	0.9	0.6
VLBG 1 t M12 / 1/2"	1.0	2.0	1.0	2.0	1.4	1.0	1.0	2.1	1.5	1.0
VLBG 1.2 t M14	1.2	2.4	1.2	2.4	1.68	1.2	1.2	2.52	1.8	1.2
VLBG 1.5 t M16	1.5	3.0	1.5	3.0	2.1	1.5	1.5	3.1	2.2	1.5
VLBG 2 t M18	2.0	4.0	2.0	4.0	2.8	2.0	2.0	4.2	3.0	2.0
VLBG 2.5 t M20 / 3/4" /7/8"	2.5	5.0	2.5	5.0	3.5	2.5	2.5	5.2	3.7	2.5
VLBG 4 t M24 / 1"	4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
VLBG 4 t M27	4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
VLBG 5 t M30 / 1 1/4"	5.0	10.0	5.0	10.0	7.0	5.0	5.0	10.5	7.5	5.0
VLBG 7 t M36	7	14.0	7	14.0	9.8	7	7	14.7	10.4	7
VLBG 8 t M36	8.0	16.0	8.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0
VLBG 10 t M42	10.0	20.0	10.0	20.0	14.0	10.0	10.0	21.0	15.0	10.0
VLBG 15 t M42	15.0	30.0	15.0	30.0	21.0	15.0	15.0	31.5	22.5	15.0
VLBG 20 t M48	20.0	40.0	20.0	40.0	28.0	20.0	20.0	42.0	30.0	20.0

Operation temperature range:

The load capacities of the lifting rings VLBG have to be reduced as follows based on the screw material according to EN 1677-1:

-40°C to 100°C (-40°F to 212°F)	no reduction
100°C to 200°C (212°F to 392°F)	-15%
200°C to 250°C (392°F to 482°F)	-20%
250°C to 350°C (482°F to 662°F)	-25%

Use at temperatures over 350°C (662°F) is prohibited.

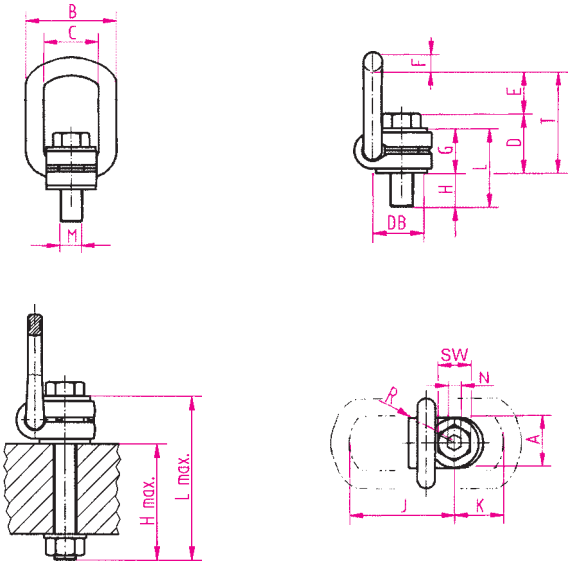
When used at prohibited temperatures of over 350°C (662°F) the pink colour will turn into a deep black.

Direction of pull:

Allowed till contact with load

LIFTING POINTS

Screw-on Lifting Points



Lifting Rings (Metric Thread)

Type	Load capacity in t	Dimensions in mm																			Max. tightening torque of bolt	Wt. kg/ pce	Item no.
		A	B	C	D	E	F	G	H Stand.	H max.	J	K	L Stand.	L max.	**M**	N	SW	R	T	DB			
VLBG 0.3 t M 8	0.3	30	54	34	35	40	10	29	11	76	75	45	40	105	8	5	13	32	75	24	30 Nm	0.3	5566.V0.03
VLBG 0.63 t M10	0.63	30	54	34	36	39	10	29	16	96	75	45	45	125	10	6	17	32	75	24	60 Nm	0.32	5566.V0.06
VLBG 1 t M12	1	32	54	34	37	38	10	29	21	116	75	45	50	145	12	8	19	32	75	26	100 Nm	0.33	5566.V0.10
VLBG 1.2 t M14	1.2	33	56	36	46	39	13.5	36	-	34	86	47	57	70	14	10	24	38	85	30	120 Nm	0.55	5566.V0.12
VLBG 1.5 t M16	1.5	33	56	36	46	39	13.5	36	24	149	86	47	60	185	16	10	24	38	85	30	150 Nm	0.55	5566.V0.15
VLBG 2 t M18	2	50	82	54	55	55	16.5	43	-	47	113	64	70	90	18	12	30	48	110	45	200 Nm	1.3	5566.V0.20
VLBG 2.5 t M20	2.5	50	82	54	55	55	16.5	43	32	187	113	64	75	230	20	12	30	48	110	45	250 Nm	1.3	5566.V0.25
VLBG 4 t M24	4	50	82	54	58	67	18	43	37	222	130	78	80	265	24	14	36	48	125	45	400 Nm	1.5	5566.V0.40
VLBG 4 t M27	4	60	103	65	78	69	22.5	61	39	239	151	80	100	300	27	17	41	67	147	60	400 Nm	3.1	5566.V0.406
VLBG 5t M30	5	60	103	65	80	67	22.5	61	49	279	151	80	110	340	30	17	46	67	147	60	500 Nm	3.3	5566.V0.50
VLBG 7 t M36*	7	60	103	65	72	74	22.5	55	52	-	151	80	107	-	36	-	55	67	146	60	700 Nm	3.4	5566.V0.70
VLBG 8 t M36	8	77	122	82	100	97	26.5	77	63	223	205	110	140	300	36	22	55	87	197	70	800 Nm	6.2	5566.V0.80
VLBG 10 t M42	10	77	122	82	103	94	26.5	77	73	273	205	110	150	350	42	24	65	87	197	70	1000 Nm	6.7	5566.V1.00
VLBG 15 t M42	15	95	156	100	113	109	36	87	63	263	230	130	150	350	42	24	65	100	222	85	1500 Nm	11.2	5566.V1.50
VLBG 20 t M48	20	95	156	100	117	105	36	87	73	303	230	130	160	390	48	27	75	100	222	95	2000 Nm	11.6	5566.V2.00

Fast moving sizes also available with imperial thread *Special construction – non-exchangeable screw

The item numbers and prices apply for lifting ring threads VLBG in standard version (Dimensions $H_{Stand.}$ and $L_{Stand.}$). Other thread lengths and prices on request.

Lifting Rings (Imperial Thread)

Type	Load capacity in t	Dimensions in mm																			Max. tightening torque of bolt	Wt. kg/ pce	Item no.
		A	B	C	D	E	F	G	H Stand.	H max.	J	K	L Stand.	L max.	**M**	N	SW	R	T	DB			
VLBG-Z 1 t 1/2"-13 UNC	1	32	54	34	38	37	10	29	22	-	75	45	50	-	1/2"	5/16"	3/4"	32	75	26	100 Nm	0.33	5566.VZ.010
VLBG-Z 1.5 t 5/8"-1 UNC	1.5	33	56	36	46	38	13.5	36	24	-	87	47	60	-	5/8"	3/8"	15/16"	38	85	30	150 Nm	0.55	5566.VZ.015
VLBG-Z 2.5 t 3/4"-10 UNC	2.5	50	82	54	56	54	16.5	43	28	-	113	64	71	-	3/4"	1/2"	1 1/8"	48	110	45	250 Nm	1.3	5566.VZ.025
VLBG-Z 2.5 t 7/8"-9 UNC	2.5	50	82	54	58	52	16.5	43	27	-	113	64	70	-	7/8"	1/2"	15/16"	48	110	45	300 Nm	1.3	5566.VZ.026
VLBG-Z 4 t 1"-8 UNC	4	50	82	54	61	64	18	43	41	-	130	78	84	-	1"	9/16"	1 1/2"	48	125	45	400 Nm	1.5	5566.VZ.040
VLBG-Z 5 t 1 1/4"-7 UNC	5	60	103	65	80	64	22.5	61	41	-	151	80	102	-	1 1/4"	5/8"	1 7/8"	67	147	60	500 Nm	3.3	5566.VZ.050

Lifting ring threads in stainless steel also see page 443.

LIFTING POINTS

Screw-on Lifting Points

PowerPoint-Star

-40° C

Screw-on lifting points with double ball bearing. Suitable for all applications.

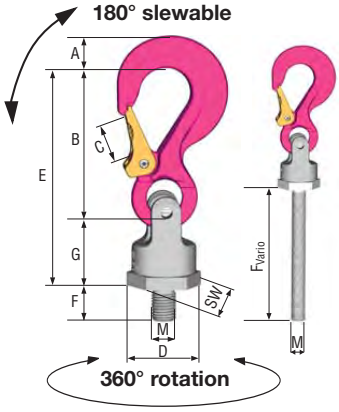
- Suitable for **all** slings, be it hooks, eyes or loops
- Can be turned and loaded in 90° angle to the bolt centre line
- Sufficient distance to load to avoid damage during turning
- Can be used up to -40°C (-40°F)
- Double ball bearing for smooth tilting, rotating and turning
- All parts 100% crack tested
- Variable screw length – including for through bores – (F-vario)
- **Tightening torque according to instructions**
- **Not suitable for continual rotation under full load**

Option: also available in M14, M27 and UNC-threads

PP-S with safety hook
- No protruding hook tip
- Thickened hook tip to prevent improper use
- Forged and tempered safety latch which locks in the hook tip
- 3 times wound, stainless steel double leg spring
- Wear edges on both sides
- Wear indicators and measurable overload indicator

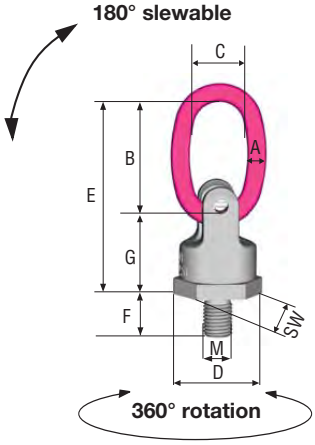
Please specify the type, thread dimensions and F vario.

180° slewable

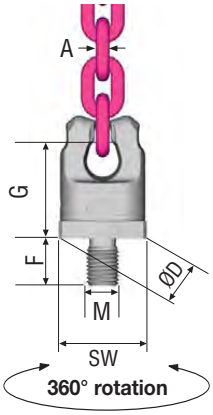


4 design factor in all directions

PP-B with oblong ring
180° slewable



PP-VIP for direct chain connection



VWBG-KA-28 for direct chain connection

Type	Load capacity in t	Dimensions in mm A	B	C	D	E	F	G	H	M	SW	Weight in kg/pce	Item no.
PP-S-0.63t-M12	0.63	13	75	18	40	116	18	41	33	12	36	0.4	650P.00.06
PP-S-1.5t-M16	1.5	20	97	25	46	147	24	50	40	16	41	1.0	650P.00.15
PP-S-2.5t-M20	2.5	28	126	30	61	187	30	61	47	20	55	1.7	650P.00.25
PP-S-4t-M24	4	36	150	35	78	227	36	77	60	24	70	3.5	650P.00.40
PP-S-5t-M30	5.0 (6.7)	37	174	40	95	267	45	93	71	30	85	7.2	650P.00.50
PP-S-8t-M36	8 (10)	49	208	48	100	310	54	102	76	36	90	9.2	650P.00.80
PP-B-0.63t-M12	0.63	9	65	35	40	105	18	41	-	12	36	0.35	650P.50.06
PP-B-1.5t-M16	1.5	11	65	35	46	115	24	50	-	16	41	0.6	650P.50.15
PP-B-2.5t-M20	2.5	13	75	40	61	135	30	61	-	20	55	1.1	650P.50.25
PP-B-4t-M24	4	16	95	45	78	172	36	77	-	24	70	2.4	650P.50.40
PP-B-5t-M30	5 (6.7)	21	130	60	95	223	45	93	-	30	85	5.2	650P.50.50
PP-B-8t-M36	8 (10)	24	140	65	100	242	54	102	-	36	90	6.3	650P.50.80
PP-VIP4-0.63t-M12	0.63	4	-	-	40	-	18	41	-	12	36	0.25	650P.60.06
PP-VIP6-1.5t-M16	1.5	6	-	-	46	-	25	50	-	16	41	0.45	650P.60.15
PP-VIP8-2.5t-M20	2.5	8	-	-	61	-	30	61	-	20	55	0.95	650P.60.25
PP-VIP10-4t-M24	4	10	-	-	78	-	36	77	-	24	70	2.2	650P.60.40
PP-VIP13-5t-M30	5 (6.7)	13	-	-	95	-	45	93	-	30	85	3.5	650P.60.50
PP-VIP16-8t-M36	8 (10)	16	-	-	100	-	54	102	-	36	90	5.2	650P.60.80
VWBG-KA-28	31.5	-	-	-	170	-	108	146	-	-	-	26.4	5580.V3.17

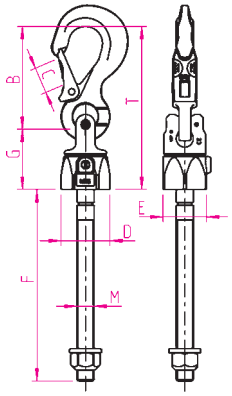
( ) higher load capacity with axial load

LIFTING POINTS

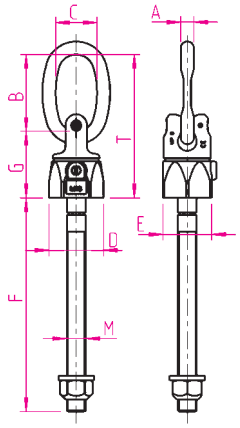
Screw-on Lifting Points

Special PowerPoint-Star

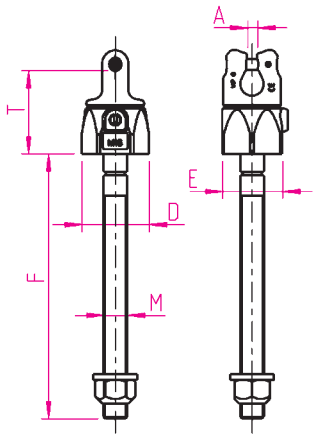
For available thread lengths see column F_{vario}. Please contact us for details!



So-PP-S



So-PP-B



So-PP-VIP

Type	Load capacity in t	Dimensions in mm									Tightening torque in Nm
		A	B	C	D	E	F vario	G	M	T	
So-PP-S-0.6t (0.63) M12	0.6 (0.63)	13	75	18	42	36	12-140	45	12	120	10
So-PP-S-1.0t (1.5) M14	1.0 (1.5)	20	97	25	48	41	14-65	54	14	151	25
So-PP-S-1.3t (1.5) M16	1.3 (1.5)	20	97	25	48	41	16-180	54	16	151	30
So-PP-S-2.5 M20	2.5	28	126	30	61	55	20-200	73	20	199	70
So-PP-S-3.5t (4.0) M24	3.5 (4.0)	36	150	35	81	70	24-255	87	24	237	150
So-PP-S-3.5t (4.0) M27	3.5 (4.0)	36	150	35	81	70	27-92	87	27	237	200
So-PP-S-5.0t (6.7) M30	5.0 (6.7)	37	174	40	99	85	30-330	105	30	279	225
So-PP-S-8.0t (10) M36	8.0 (10)	49	208	48	100	90	36-300	100	36	308	410
So-PP-B-0.6t (0.63) M12	0.6 (0.63)	9	65	35	42	36	12-140	45	12	110	10
So-PP-B-1.0t (1.5) M14	1.0 (1.5)	11	65	35	48	41	14-65	54	14	119	25
So-PP-B-1.3t (1.5) M16	1.3 (1.5)	11	65	35	48	41	16-180	54	16	119	30
So-PP-B-2.0t (2.5) M20	2.0 (2.5)	13	74	40	61	55	20-200	73	20	147	70
So-PP-B-3.5t (4.0) M24	3.5 (4.0)	16	95	45	81	70	24-255	87	24	182	150
So-PP-B-3.5t (4.0) M27	3.5 (4.0)	16	95	45	81	70	27-92	87	27	182	200
So-PP-B-5.0t (6.7) M30	5.0 (6.7)	19	130	60	99	85	30-330	105	30	235	225
So-PP-B-8.0t (10.0) M36	8.0 (10)	24	140	65	100	90	36-300	100	36	240	410
So-PP-VIP-0.6t (0.63) M12	0.6 (0.63)	4	-	-	42	36	12-140	-	12	45	10
So-PP-VIP-1.0t (1.5) M14	1.0 (1.5)	6	-	-	48	41	14-65	-	14	54	25
So-PP-VIP-1.3t (1.5) M16	1.3 (1.5)	6	-	-	48	41	16-180	-	16	54	30
So-PP-VIP-2.0t (2.5) M20	2.0 (2.5)	8	-	-	61	55	20-200	-	20	73	70
So-PP-VIP-3.5t (4.0) M24	3.5 (4.0)	10	-	-	81	70	24-255	-	24	87	150
So-PP-VIP-3.5t (4.0) M27	3.5 (4.0)	10	-	-	81	70	27-92	-	27	87	200
So-PP-VIP-5.0t (6.7) M30	5.0 (6.7)	13	-	-	99	85	30-330	-	30	105	225
So-PP-VIP-8.0t (10) M36	8.0 (10)	16	-	-	100	90	36-300	-	36	100	410

( ) higher load capacity with axial load

Maximum transport weight G in t for all PowerPoint types with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle β	0°	90°	90°	0°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
PP-..-0.63t-M12	0.6	1.2	0.6	1.2	0.8	0.6	0.6	1.3	0.9	0.6
PP-..-1.5t-M16	1.5	3.0	1.5	3.0	2.1	1.5	1.5	3.2	2.2	1.5
PP-..-2.5t-M20	2.5	5.0	2.5	5.0	3.5	2.5	2.5	5.3	3.8	2.5
PP-..-4t-M24	4.0	8.0	4.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
PP-..-5t-M30	6.7	13.4	5.0	10.0	7.1	5.0	5.0	10.5	7.5	5.0
PP-..-8t-M36	10.0	20.0	8.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0

LIFTING POINTS
Screw-on Lifting Points

4 design factor in all directions

DGUV Test

RUD

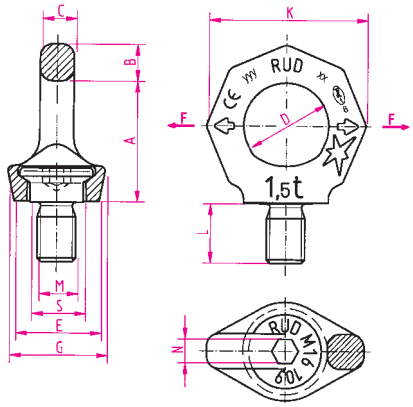
Starpoint Eye Bolt in Pink, Star-shaped design
Type VRS without Key Plate / Type VRS-F with Key Plate

Shape: Star-shaped – and therefore easily distinguishable from DIN 580 eye bolts
Finish: Striking fluorescent pink powder coated
Marking: Clearly marked load capacity for all load directions F

- Forged, material 1.6541, high strength tempered, 100% electro-magnetic crack-tested according to DIN EN 1677-1
- Safety factor 4
  Mounting material ≥ St37
  Countersinking of the thread bore = nominal thread ø
  Ensure tight fit of the hexagon socket screw when mounting
  VRS must rotate freely through 360° after screw is tightened
- Adjustable in pull direction, therefore no unintentional loosening or overtightening
- 100% crack-tested, captive hexagon socket screw.
  This part is patented: EP 654 611
- Can be used up to -40°C (-40°F)

For mounting without any tools the Starpoint eye bolt is also available with a tempered key plate: Type VRS-F
The application is simple:
Just insert key plate in hexagon socket – turn – ready!
The Starpoint can be screwed in and out by hand.
Disengage the key plate: VRS will rotate through 360°.

360° rotation



The cranked socket wrench for VRS makes it easier to tighten the bolt with a regular torque wrench. This item is available for sizes M8-M24 (item nos. 5556.V1.08-5556.V1.24).

Starpoint VRS are available with the following special thread lengths:

VRS M10 (L_{max} 70 mm)	VRS M20 (L_{max} 160 mm)
VRS M12 (L_{max} 150 mm)	VRS M24 (L_{max} 140 mm)
VRS M16 (L_{max} 120 mm)	VRS M30 (L_{max} 190 mm)

Also available with UNC thread and fine pitch as well as in sizes M14, M18, M22, M27, and M32.

Type	Nominal load capacity F1 in t	Dimensions in mm											Weight in kg	Item no. w/o key plate versiom VRS	Item no. with key plate versiom VRS-F
		A	B	C	D	E	G	K	L	M	N	S			
VRS-M 6	0.1	27	9	7	20	23	28	37	9	6	6	13	0.1	5555.V0.06	5556.V0.06
VRS-M 8	0.3	34	11	8.5	25	25	28	47	12	8	6	16	0.1	5555.V0.08	5556.V0.08
VRS-M 10	0.4	34	11	8.5	25	25	28	47	15	10	6	16	0.1	5555.V0.10	5556.V0.10
VRS-M 12	0.75	42	13	10	30	30	34	56	18	12	8	20	0.2	5555.V0.12	5556.V0.12
VRS-M 16	1.5	49	15	14	35	35	40	65	24	16	10	23.5	0.3	5555.V0.16	5556.V0.16
VRS-M 20	2.3	57	17	16	40	42	50	75	30	20	12	29	0.5	5555.V0.20	5556.V0.20
VRS-M 24	3.2	69	21	19	48	50	60	90	36	24	14	35	0.9	5555.V0.24	5556.V0.24
VRS-M 30	4.5	86	26	24	60	60	75	112	45	30	17	44	1.7	5555.V0.30	5556.V0.30
VRS-M 36	7	103	32	29	72	75	90	135	54	36	22	53	2.9	5555.V0.36	5556.V0.36
VRS-M 42	9	120	38	34	82	85	105	158	63	42	24	61.5	4.6	5555.V0.42	5556.V0.42
VRS-M 48	12	137	43	38	94	100	120	180	72	48	27	70.5	7.0	5555.V0.48	5556.V0.48

Maximum transport weight G in tons with different lifting methods:

Lifting method	G	G	G	G	G	G	G	G	G
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VRS/VRM-M 6	0.5	1	0.1	0.2	0.14	0.1	0.1	0.21	0.15	0.1
VRS/VRM-M 8	1	2	0.3	0.6	0.42	0.3	0.3	0.63	0.45	0.3
VRS/VRM-M 10	1	2	0.4	0.8	0.56	0.4	0.4	0.8	0.6	0.4
VRS/VRM-M 12	2	4	0.7	1.5	1	0.7	0.7	1.5	1.1	0.7
VRS/VRM-M 16	4	8	1.5	3	2.1	1.5	1.5	3.1	2.2	1.5
VRS/VRM-M 20	6	12	2.3	4.6	3.2	2.3	2.3	4.8	3.4	2.3
VRS/VRM-M 24	8	16	3.2	6.4	4.5	3.2	3.2	6.7	4.8	3.2
VRS/VRM-M 30	12	24	4.5	9	6.3	4.5	4.5	9.4	6.7	4.5
VRS/VRM-M 36	16	32	7	14	9.8	7	7	14.7	10.5	7
VRS/VRM-M 42	24	48	9	18	12.6	9	9	18.9	13.5	9
VRS/VRM-M 48	32	64	12	24	16.8	12	12	25	18	12

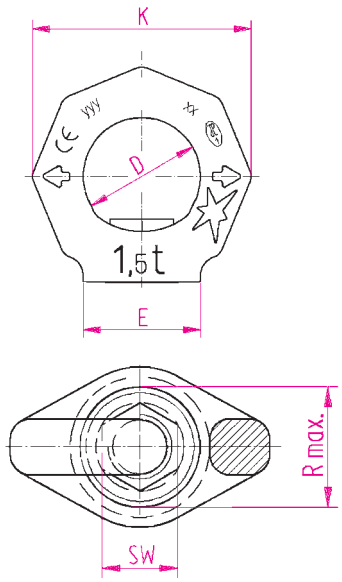
LIFTING POINTS

Screw-on Lifting Points

Starpoint Eye Nut in Pink, Type VRM

- Body of the eye nut Starpoint must rotate freely through 360° after tightening of the screw. Before attaching the sling adjust the eye nut in the direction of pull.
- Ensure plane mounting surface (E). The internal thread has to be 100% engaged in the bolt thread. The threaded stud must guarantee that the plane area of the eye nut rests perfectly flat on the work piece.
- Load capacity indications are only valid with screws of at least grade 10.9.
- For dimensions of VRM see drawing of the Starpoint eye bolt. Dimension “L” must be the minimum length of the screw.
- Patented
- Can be used up to -40°C (-40°F)

Attention: Please refer to the safe use instructions!



4 design factor in all directions

For cranked allan key suitable for eye bolt and nut see page 486.

Type	Nominal capacity in t	Dimensions in mm												Weight in kg/pce	Item no.
		A	B	C	D	E	G	H	K	L	M	Rmax	S	SW	
VRM-M6	0.1	28	9	7	20	23	28	16	37	11	6	16	13	9	0.06	5557.V0.06
VRM-M8	0.3	34	11	8.5	25	25	28	20	47	14	8	20	16	12	0.1	5557.V0.08
VRM-M10	0.4	34	11	8.5	25	25	28	20	47	14	10	20	16	12	0.1	5557.V0.10
VRM-M12	0.75	42	13	10	30	30	34	25	56	17	12	24	20	14	0.2	5557.V0.12
VRM-M16	1.5	51	15	14	35	35.5	40	30	65	21	16	30	22	19	0.3	5557.V0.16
VRM-M20	2.3	57	17	16	40	40	50	34	75	23	20	37	29	24	0.5	5557.V0.20
VRM-M24	3.2	69	21	19	48	50	60	40	90	29	24	45	35	30	0.9	5557.V0.24
VRM-M30	4.5	86	26	24	60	60	75	52	112	34	30	56	44	36	1.5	5557.V0.30

Stainless Steel Eye Bolt Type INOX-STAR

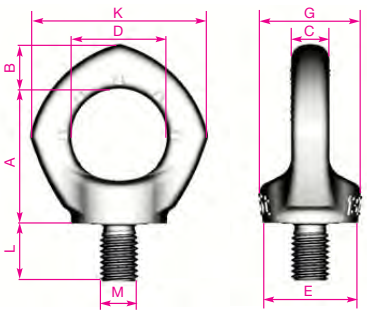
Made from stainless steel
50% higher load capacity than DIN eye bolts in all directions

- Pentagonal design - clearly distinctive in comparison to the DIN 580 eye bolt
- 360° rotation, adjustable in the direction of pull
- Forged ring body
- Material of body and screw: Duplex steel 1.4462 (High resistance against sea water and in environments with a high concentration of chlorine ions)
- 100% crack-tested
- Captive screw
- Adjust in direction of pull before loading
- Patented wear indicators on the ring body
- Item protected by European Patent EP 654611
- When using an allen key or an adapter piece only torque hand tight. Do not use an extension.
- After screw is tightened INOX-STAR must rotate through 360°
- Can be used up to -40°C (-40°F)
- Complies with EEC Machinery Directive 2006/42/EC

Caution: Please refer to the safe use instructions!

EDELSTAHL® Rost frei

-40° C



360° rotation
Adjustable in direction of pull

For cranked allan key suitable for eye bolt and nut see page 486.

Type	Nominal capacity in t	Dimensions in mm										Weight in kg/pce	Item no.
		A	B	C	D	E	G	K	L	M	SW		
INOX-STAR M12	0.5	43	14	10	30	30	32	56	18	M12	8	0.2	5555.E0.12
INOX-STAR M16	1.0	50	16	14	35	35.5	38	65	24	M16	10	0.3	5555.E0.16
INOX-STAR M20	2.0	57	19	16	40	41.5	46.5	74	30	M20	12	0.6	5555.E0.20
INOX-STAR M24	2.5	70	24	19	48	50	56	92	36	M24	14	1.0	5555.E0.24

LIFTING POINTS

Screw-on Lifting Points

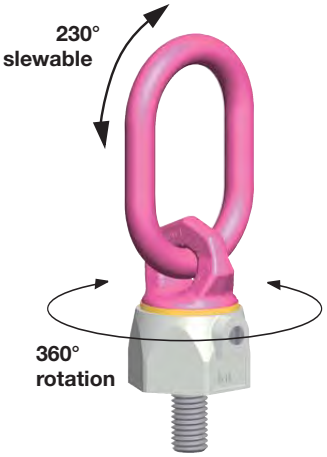
Lifting Ring Vario VWBG-V with Ball Bearing

The swivelling lifting point
- 360° rotation/230° slewable
- Can be loaded from all directions, safety factor 4
- Intended to rotate under load
- Easy attachment, requires just a tapped bore
- Bolts 100% crack-tested
- High-strength, tested oblong ring acc. to DIN EN 1677-4
- Surface: pink powder-coated and galvanised
- Wear marks for the most common directions of pull: 45°, 60° and 90°
- Can be used up to -40°C (-40°F)

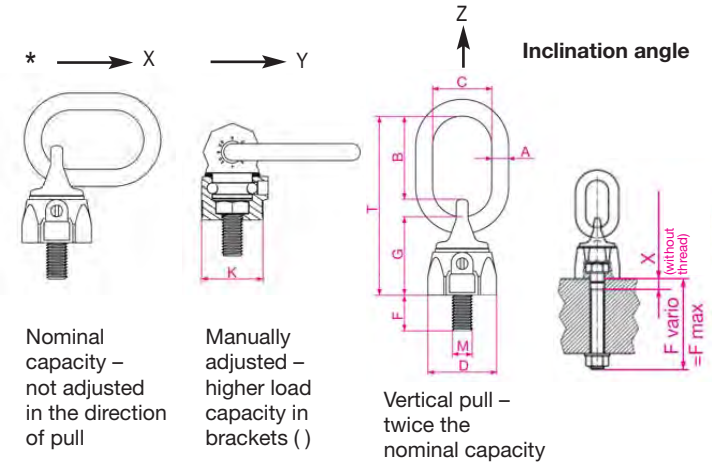
Vario = variable thread lengths (Fmax. in mm):
- Suitable for through-holes
- Type Vario with washer and 100% crack-tested nut
- Additional slide bearing washer for smooth rotation

4 design factor in all directions

-40° C



Type Vario with washer and 100% tested nut



Nominal capacity – not adjusted in the direction of pull

Manually adjusted – higher load capacity in brackets ( )

Vertical pull – twice the nominal capacity

***Caution:** The VWBG-V/VWBG are designed to be used in different directions of pull. Therefore the oblong ring can engage in any position. The indicated **WLL (load capacity)** is based on the **worst case situation** (figure X). If the ring is manually adjusted in the direction of pull (figure Y) the higher values in brackets ( ) can be used.

F* = Standard thread length **F_{vario} = individual thread length**

Type	Load capacity in t	Dimensions in mm A	B	C	D	G	K	M	T	X	Weight cplt. ca. in kg	**Standard thread length F* in mm**	Item no.	**Individual thread length F max. in mm**	Item no.
VWBG-V 0.3-M 8**	0.3 (0.4)	8	31	29	30	36	28	8	76	18	0.25	13	5581.V0.08	102	5581.V1.08
VWBG-V 0.45-M10**	0.45 (0.6)	8	31	29	36	38	30	10	78	19	0.3	17	5581.V0.10	122	5581.V1.10
VWBG-V 0.6-M12	0.6 (0.75)	10	49	35	42	47	36	12	107	19	0.4	21	5581.V0.12	140	5581.V1.12
VWBG-V 0.6-M14	1.0 (1.25)	13	46	38	48	56	41	14	113	-	0.6	21	5581.V0.14	65	5581.V1.14
VWBG-V 1.3-M16	1.3 (1.5)	13	46	38	48	56	41	16	113	28	0.6	25	5581.V0.16	180	5581.V1.16
VWBG-V 1.8-M18	1.8 (2.0)	13	54	35	62	67	55	18	137	-	1.1	27	5581.V0.18	83	5581.V1.18
VWBG-V 2.0-M20	2.0 (2.5)	13	54	35	62	67	55	20	137	30	1.4	33	5581.V0.20	223	5581.V1.20
VWBG-V 2.0-M22	2.0 (2.5)	13	54	35	62	64	55	22	137	-	1.5	33	5581.V0.22	94	5581.V1.22
VWBG-V 3.5-M24	3.5 (4.0)	18	66	40	81	88	70	24	173	25	2.6	40	5581.V0.24	255	5581.V1.24
VWBG-V 3.5-M27	3.5 (4.0)	18	66	40	81	88	70	27	173	-	2.9	40	5581.V0.27	92	5581.V1.27
VWBG-V 5.0-M30	5.0 (6.0)	22	90	50	99	106	85	30	221	32	5.5	50	5581.V0.30	330	5581.V1.30

**w/o slide bearing washer

Maximum transport weight G in t with different lifting methods:

Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VWBG-V 0.3-M 8	0.6	1.2	0.3 (0.4)	0.6 (0.8)	0.4 (0.56)	0.3 (0.4)	0.3 (0.4)	0.6 (0.84)	0.4 (0.6)	0.3 (0.4)
VWBG-V 0.45-M10	0.9	1.8	0.45 (0.6)	0.9 (1.2)	0.6 (0.84)	0.4 (0.6)	0.4 (0.6)	0.9 (1.26)	0.6 (0.9)	0.4 (0.6)
VWBG-V 0.6-M12	1.2	2.4	0.6 (0.7)	1.2 (1.5)	0.8 (1.05)	0.6 (0.75)	0.6 (0.75)	1.2 (1.58)	0.9 (1.12)	0.6 (0.75)
VWBG-V 1.0-M14	2.0	4.0	1.0 (1.25)	2.0 (2.5)	1.4 (1.75)	1.0 (1.25)	1.0 (1.25)	2.1 (2.62)	1.5 (1.87)	1.0 (1.25)
VWBG-V 1.3-M16	2.6	5.2	1.3 (1.5)	2.6 (3)	1.8 (2.1)	1.3 (1.5)	1.3 (1.5)	2.7 (3.15)	1.9 (2.25)	1.3 (1.5)
VWBG-V 1.8-M18	3.6	7.2	1.8 (2.0)	3.6 (4.0)	2.52 (2.8)	1.8 (2.0)	1.8 (2.0)	3.78 (4.2)	2.7 (3.0)	1.8 (2.0)
VWBG-V 2.0-M20	4	8	2 (2.5)	4 (5)	2.8 (3.5)	2 (2.5)	2 (2.5)	4.2 (5.25)	3 (3.75)	2 (2.5)
VWBG-V 2.0-M22	4	8	2 (2.5)	4 (5)	2.8 (3.5)	2 (2.5)	2 (2.5)	4.2 (5.25)	3 (3.75)	2 (2.5)
VWBG-V 3.5-M24	7	14	3.5 (4)	7 (8)	4.9 (5.6)	3.5 (4)	3.5 (4)	7.3 (8.4)	5.2 (6)	3.5 (4)
VWBG-V 3.5-M27	7	14	3.5 (4)	7 (8)	4.9 (5.6)	3.5 (4)	3.5 (4)	7.3 (8.4)	5.2 (6)	3.5 (4)
VWBG-V 5.0-M30	10	20	5 (6)	10 (12)	7 (8.4)	5 (6)	5 (6)	10.5 (12.6)	7.5 (9)	5 (6)

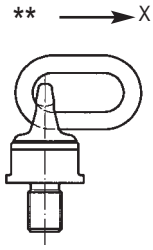
LIFTING POINTS

Screw-on Lifting Points

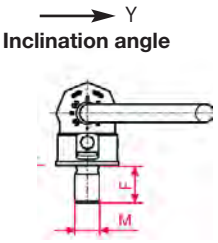
Lifting ring VWBG with Ball Bearing

For rotating and turning heavy loads

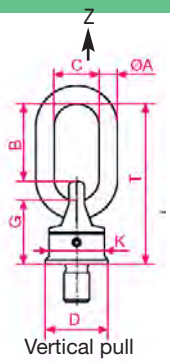
- Equipped with ball bearing, 360° rotation ander load
- Can be loaded in all directions with a safety factor of 4.
- Oblong ring manufactured acc. to DIN EN 1677-4 grade 80 (100% crack-tested and proof-loaded)
- Wear marks for the most common directions of pull: 45°, 60° and 90°



Nominal capacity – not adjusted in the direction of pull



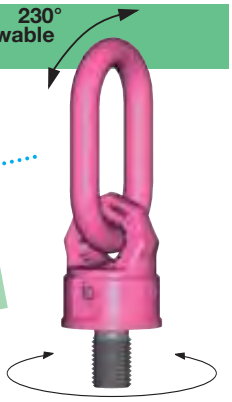
Manually adjusted – higher load capacity in brackets ( )



Vertical pull

4 design factor in all directions

-40° C



360° rotation

** **Caution:** The VWBG-V/VWBG are designed to be used in different directions of pull. Therefore the oblong ring can engage in any position. The indicated **WLL (load capacity)** is based on the **worst case situation** (figure X). If the ring is manually adjusted in the direction of pull (figure Y) the higher values in brackets ( ) can be used.

Type	Load capacity in t	Dimensions in mm										Tightening torque in Nm	Weight in kg	Item no.
		A	B	C	D	E (T)	F	F vario	G	M	K			
VWBG 6(7.5) - M 33	6 (7.5)	22	86	50	90	208	-	33-300	94	33	80	350	-	5580.V0.60
VWBG 8(10) - M 36	8 (10)	22	86	50	90	208	54	-	94	36	80	410	4.6	5580.V0.80
VWBG 8(10) - special thread*	8 (10)	22	86	50	90	208	-	36-300	94	36-39	80	410	-	5580.V0.85
VWBG 12(13) - M 42	12 (13)	26	111	65	98	235	63	-	96	42	85	550	6.1	5580.V1.20
VWBG 12(13) - special thread*	12 (13)	26	111	65	98	235	-	42-300	96	42-45	85	550	-	5580.V1.21
VWBG 12(15) - M 45	12(15)	26	111	65	98	235	67	-	96	45	85	235	6.2	5580.V1.22
VWBG 13(16) - M 48	13 (16)	26	111	65	98	235	68	-	96	48	85	550	6.3	5580.V1.30
VWBG 13(16) - special thread*	13 (16)	26	111	65	98	235	-	48-300	96	48-52	85	550	-	5580.V1.31
VWBG 14(20) - M 52	14 (20)	32	119	70	120	274	78	-	120	52	95	750	10.5	5580.V1.40
VWBG 16(22) - M 56	16 (22)	32	119	70	120	274	84	-	120	56	95	800	10.7	5580.V1.60
VWBG 16(22) - special thread*	16 (22)	32	119	70	120	274	-	56-300	120	56-62	95	800	-	5580.V1.61
VWBG 16(25) - M64	16 (25)	32	119	70	120	274	94	-	120	64	95	800	11.4	5580.V1.62
VWBG 16(25) - special thread*	16 (25)	32	119	70	120	274	-	64-300	120	64-76	95	800	-	5580.V1.63
VWBG 31.5(40) - M 72	31.5 (40)	46	130	90	170	338	108	-	159	72	145	1200	29.9	5580.V3.15
VWBG 31.5(40) special thread*	31.5 (40)	46	130	90	170	338	-	72-300	159	72-76	145	1200	-	5580.V3.16
VWBG 35(48) - M 80	35 (48)	46	130	90	170	338	120	-	159	80	145	1500	31.2	5580.V3.50
VWBG 35(48) - special thread*	35 (48)	46	130	90	170	338	-	80-300	159	80-85	145	1500	-	5580.V3.51
VWBG 40(50) - M 90	40 (50)	46	130	90	170	338	135	-	159	90	145	2000	33.2	5580.V4.00
VWBG 40(50) - special thread*	40 (50)	46	130	90	170	338	-	90-300	159	90-150	145	2000	-	5580.V4.01
VWBG (40)50 - M 90-150	40 (50)	46	170	110	170	378	135	90-300	159	90-150	145	2000	-	5580.V4.02

* also with fine pitch and imperial thread (UNC and Whitworth)

Maximum transport weight G in tons with different lifting methods:

Lifting method	Z G	G	X (Y) G	G	G	G	G	G	G
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VWBG 6(7.5) - M 33	15	30	6 (7.5)	12 (15)	8.4 (10.5)	6 (7.5)	6 (7.5)	12.6 (15.75)	9 (11.25)	6 (7.5)
VWBG 8(10) - M 36	15	30	8 (10)	16 (20)	11.2 (14)	8 (10)	8 (10)	16.8 (21)	12 (15)	8 (10)
VWBG 8(10) - special thread	15	30	8 (10)	16 (20)	11.2 (14)	8 (10)	8 (10)	16.8 (21)	12 (15)	8 (10)
VWBG 12(13) - M 42	17	34	12 (13)	24 (26)	16.8 (18.2)	12 (13)	12 (13)	25.2 (27.3)	18 (19.5)	12 (13)
VWBG 12(13) - special thread	17	34	12 (13)	24 (26)	16.8 (18.2)	12 (13)	12 (13)	25.2 (27.3)	18 (19.5)	12 (13)
VWBG 12(15) - M 45	18	36	12 (15)	24 (30)	16.8 (21)	12 (15)	12 (15)	25.2 (31.5)	18 (22.5)	12 (15)
VWBG 13(16) - M 48	18	36	13 (16)	26 (32)	18.2 (22.4)	13 (16)	13 (16)	27.3 (33.6)	19.5 (24)	13 (16)
VWBG 13(16) - special thread	18	36	13 (16)	26 (32)	18.2 (22.4)	13 (16)	13 (16)	27.3 (33.6)	19.5 (24)	13 (16)
VWBG 14(20) - M 52	25	50	14 (20)	28 (40)	19.6 (28)	14 (20)	14 (20)	29.4 (42)	21 (30)	14 (20)
VWBG 16(22) - M 56	28	56	16 (22)	32 (44)	22.4 (30.8)	16 (22)	16 (22)	33.6 (46.2)	24 (33)	16 (22)
VWBG 16(22) - special thread	28	56	16 (22)	32 (44)	22.4 (30.8)	16 (22)	16 (22)	33.6 (46.2)	24 (33)	16 (22)
VWBG 16(25) - M64	28	56	16 (25)	32 (50)	22.4 (35)	16 (25)	16 (25)	33.6 (52.5)	24 (37.5)	16 (25)
VWBG 16(25) - special thread	28	56	16 (25)	32 (50)	22.4 (35)	16 (25)	16 (25)	33.6 (52.5)	24 (37.5)	16 (25)
VWBG 31.5(40) - M 72	50	100	31.5 (40)	63 (80)	44.1 (56)	31.5 (40)	31.5 (40)	66.15 (84)	47.25 (60)	31.5 (40)
VWBG 31.5(40) - special thread	50	100	31.5 (40)	63 (80)	44.1 (56)	31.5 (40)	31.5 (40)	66.15 (84)	47.25 (60)	31.5 (40)
VWBG 35(48) - M 80	50	100	35 (48)	70 (96)	49 (67.2)	35 (48)	35 (48)	73.5 (100.8)	52.5 (72)	35 (48)
VWBG 35(48) - special thread	50	100	35 (48)	70 (96)	49 (76.2)	35 (48)	35 (48)	73.5 (100.8)	52.5 (72)	35 (48)
VWBG 40(50) - M 90	50	100	40 (50)	80 (100)	56 (70)	40 (50)	40 (50)	84 (105)	60 (75)	40 (50)
VWBG 40(50) - special thread	50	100	40 (50)	80 (100)	56 (70)	40 (50)	40 (50)	84 (105)	60 (75)	40 (50)
VWBG (40)50 - M 90-150	50	100	40 (50)	80 (100)	56 (70)	40 (50)	40 (50)	84 (105)	60 (75)	40 (50)

LIFTING POINTS

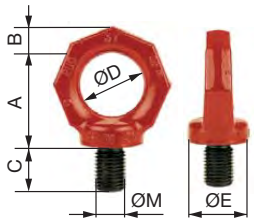
Screw-on Lifting Points

High Strength Eye Bolt RS/High Strength Eye Nut RM

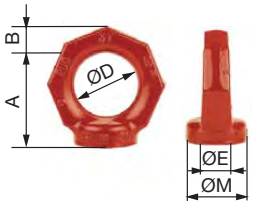
-40° C

Thread size	Load capacity in t			Dimensions in mm						Weight in kg	Item no. eye bolt	Item no. eye nut
	G	G	G	A	B	C	Ø D	Ø M	Ø E			
M 6	0.1	0.4	0.8	35	10	12	25	6	25	0.1	5555.00.06	5557.00.06
M 8	0.2	0.8	1.6	35	10	12	25	8	25	0.1	5555.00.08	5557.00.08
M 10	0.25	1	2	35	10	15	25	10	25	0.1	5555.00.10	5557.00.10
M 12	0.4	1.6	3.2	41	12	18	30	12	30	0.2	5555.00.12	5557.00.12
M 14	0.75	3	6	48	14	21	35	14	35	0.25	5555.00.14	5557.00.14
M 16	1.0	4	8	48	14	24	35	16	35	0.3	5555.00.16	5557.00.16
M 20	1.5	6	12	55	16	30	40	20	40	0.45	5555.00.20	5557.00.20
M 24	2.0	8	16	70	20	36	50	24	50	0.7	5555.00.24	5557.00.24
M 30	3.0	12	24	85	24	45	60	30	60	1.6	5555.00.30	5557.00.30
M 36	4.0	16	32	130	38	54	90	36	100	6.0	5555.00.36	5557.00.36
M 42	6.0	24	48	130	38	53	90	42	100	6.2	5555.00.42	5557.00.42
M 48	8.0	32	64	130	38	68	90	48	100	6.4	5555.00.48	5557.00.48

If the direction of pull is in a 90° angle to the mounting surface the load capacity is 4 times the indicated WLL. We recommend using versions VRS or VRM on pages 486/487 which can be adjusted in the direction of pull. Thread sizes M18, M22, M27, and M33 available on request.



High Strength Eye Bolt RS



High Strength Eye Nut RM

Thread Adapter for RUD Lifting Points

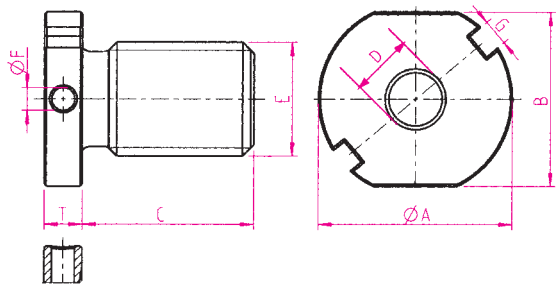
For all applications where loads only have bore holes for old DIN eye bolts and modern high strength lifting points are to be used. In comparison the modern lifting points will be oversized and quite expensive due to the bigger thread size of the DIN eye bolts. This thread adapter is the solution!

The load capacity corresponds to the RUD lifting point mounted in the internal thread of the adapter.

Length of engagement = 1.2 x external thread

The thread adapters are fitted with:
- Spanner flat >B< for open-ended spanners
- Notch >G< for hook spanners
- Bore >Ø F< for mounting pin
- Permanently marked thread sizes

Also available with fine pitch and imperial thread



Thread size outside/inside E/D	Type	Dimensions in mm						Weight in kg/pce	Item no.
		AØ	B	C	FØ	G	T		
M16/M8	ASP-A	35	30	20	5	6	8	0.07	555A.16.08
M20/M10	ASP-A	38	32	24	5	6	9	0.11	555A.20.10
M24/M12	ASP-A	42	36	28	5	6	9	0.15	555A.24.12
M30/M16	ASP-A	51	46	36	6	7	10	0.27	555A.30.16
M36/M20	ASP-A	65	55	43	6	8	12	0.48	555A.36.20
M42/M24	ASP-A	82	70	50	8	10	16	0.8	555A.42.24
M48/M24	ASP-A	82	70	58	8	10	16	1.1	555A.48.24
M56/M30	ASP-A	100	90	67	8	10	16	1.75	555A.56.30
M64/M36	ASP-A	110	95	77	8	10	16	2.3	555A.64.36
M72/M42	ASP-A	110	95	86	8	10	16	2.8	555A.72.42
M80/M48	ASP-A	110	95	96	8	10	16	3.4	555A.80.48
M90/M48	ASP-A	120	100	108	8	10	16	5	555A.90.48

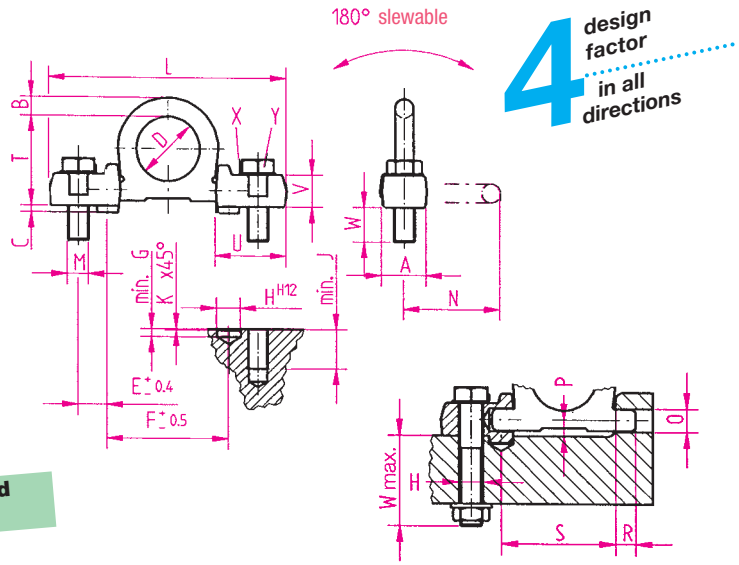
LIFTING POINTS

Screw-on Lifting Points

Lifting Ring RBG

-40° C

- Patented relief lugs protect the fastening bolts from bending and shear stress which adds to your safety.
- Smaller bolt diameters, very low design height due to hinged construction!
- Favourable load transmission
- Mounting material ≥ 1.0037 (St37-2)
- Bolts provided are 100%-crack tested
- After longer usage check bolts for tight fit
- Marking and drilling according to the tolerance range of RBG



RBG 3 t

With patented relief lugs!

Type	Load capacity in t	Tightening torque in Nm	Weight in kg	Item no.
RBG 3	3	120	0.9	5565.00.32

Type	Load capacity in t	Dimensions in mm																							
		A	B	C	D	E ±0.5	F ±0.4	G min.	H H12	J	K	L	M	N	O	P	R	S	T	U	V	W	W max.	X DIN 463	Y
RBG 3	3	34	16	5	48	22	92	6	18	30	1	178	16	71	17	12	20	84	67	53	24	25	30-160	17	M16x50

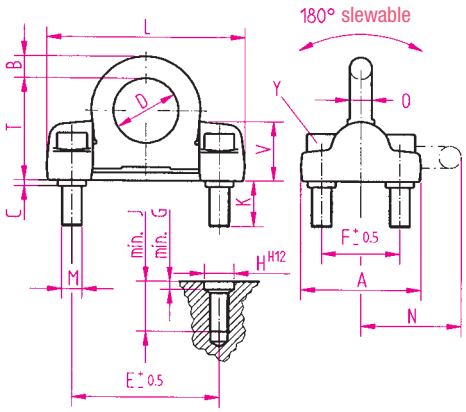
LIFTING POINTS

Screw-on Lifting Points

Lifting Ring VRBG 10/16 t

4 design factor in all directions

-40° C



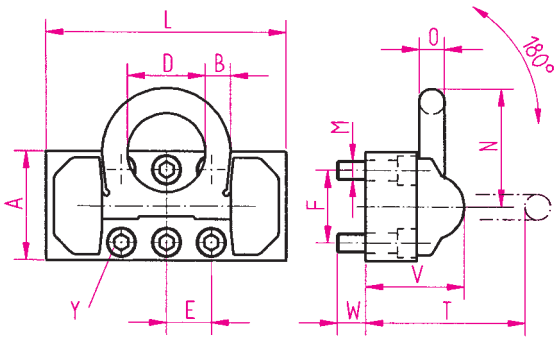
Type	Load capacity in t	Tightening torque in Nm	Weight in kg	Item no.
VRBG 10	10	300	4.1	5565.V1.00
VRBG 16	16	600	7.8	5565.V1.60

Type	Load capacity in t	A	B	C	D	E ±0.5	F ±0.4	G min.	H H12	J	L	M	N	O	V	W	Y
VRBG 10	10	120	22	6	65	143	78	8	30	50	213	20	100	25	54	45	M20x70-12.9
VRBG 16	16	170	30	8	90	198	104	10	46	70	270	30	134	32	67	57	M30x90-12.9

Lifting Ring VRBG 31.5/50 t

4 design factor in all directions

-40° C



Type	Load capacity in t	Dimensions in mm A	B	C	D	E ±0.5	F ±0.4	L	M	N	O	V	W	Y	Tightening torque in Nm	Wt. in kg	Item no.
VRBG 31.5	31.5	180	42	-	130	75	120	400	30	195	42	163	46	6xM30x100-12.9	900	67	5565.V3.00
VRBG 50	50	270	70	-	230	100	200	650	36	340	60	220	58	8xM36x120-12.9	1000	198	5565.V5.00

Maximum transport weight G in tons with different lifting methods:

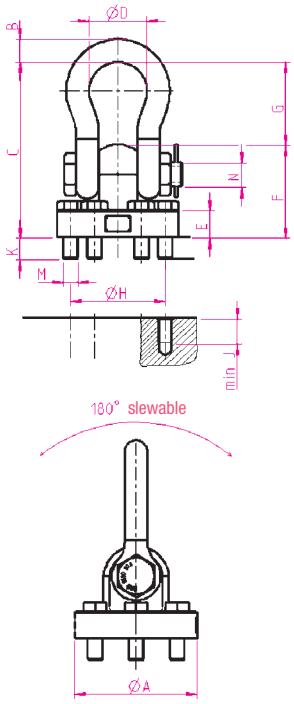
Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4		3 and 4
Inclination angle	0°	90°	0°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
RBG 3	3	6	3	6	4.2	3	3	6.3	4.5	3
VRBG 10	10	20	10	20	14	10	10	21	15	10
VRBG 16	16	32	16	32	22.4	16	16	33.6	24	16
VRBG 31.5	31.5	63	31.5	63	45	31.5	31.5	67	47.5	31.5
VRBG 50	50	100	50	100	70	50	50	105	75	50

LIFTING POINTS

Screw-on Lifting Points

HD Lifting Ring Vario WBPG with Ball Bearing

- Detachable shackle as suspension ring for attachment of cable-laid grommets or heavy duty thimbles
- All load directions possible in the suspension bracket's folding area, therefore suitable for rotating and turning loads.
- Tapped hole for a Starpoint-VRS eye bolt for easy vertical mount
- Available on request with sling shackle for direct hitching and careful use of cable lay grommets.



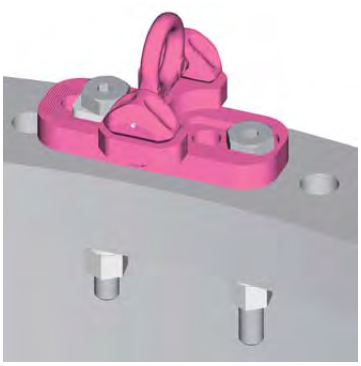
Type	Load cap. in t	Weight in kg	Dimensions in mm A	B	C	D	E	F	G	H	J	K	M	N	Angular pitch	Bolts	Tightening torque
WBPG 85 t/400 mm Standard	85	170	400	75	577	190	89	304	273	310	73	71	48	83	60°	6x RUD - Combi-head M48x160 - 10.9	6000 Nm
WBPG 100 t/400 mm Standard	100	170	400	75	577	190	89	304	273	310	73	71	48	83	60°	6x RUD - Combi-head M48x160 - 10.9	6000 Nm
WBPG 120 t/570 mm Standard	120	360	571	95	651	238	110	344	307	445	77	75	48	95	60°	6x RUD - Combi-head M48x160 - 10.9	6000 Nm
WBPG 200 t/650 mm Standard	200	680	650	120	880	290	100	460	426	500	73	71	48	130	36°	ISO 4762 (DIN 912) 10x M48x150 - 12.9	6000 Nm

Option: other load capacities and hole patterns on request

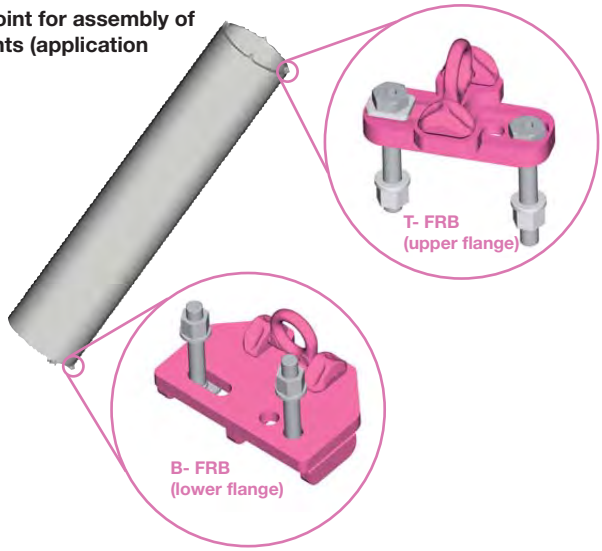
Maximum transport weight G in tons with different lifting methods:

Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4	3 and 4
Inclination angle β	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
WBPG - 85 t	85	170	85	170	119	85	85	178	127	85
WBPG - 100 t	100	200	100	200	140	100	100	210	150	100
WBPG - 120 t	120	240	120	240	168	120	120	252	180	120
WBPG - 200 t	200	400	200	400	280	200	200	420	300	200

FLARIBO



The lifting point for assembly of pipe segments (application example)



LIFTING POINTS

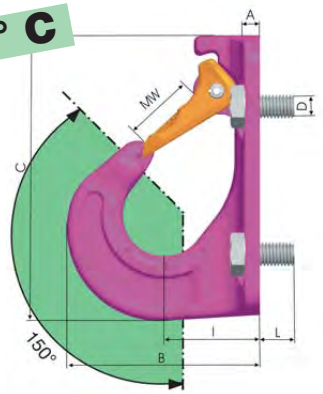
Screw-on Lifting Points

VIP Screw-on Hook VABH-B

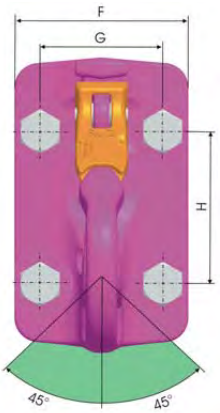
Screw-on hook as lifting point on spreader beams. Suitable for wire rope slings, round slings and slings with loop or Master link.

- Patented wear indicators on the hook
- Measurable overload indicator
- Special bolts included are 100% crack-tested
- Thickened hook tip to prevent improper use
- Solid safety latch
- No protruding hook tip
- Can be used up to -40° C (-40°F)
- Can also be used as excavator hook

-40° C



Use area: max. 150°



Admissible lateral pull: 15°

▲ Reading Point Overload

▲ Wear Indicators

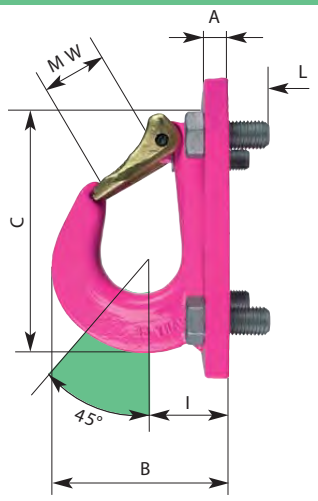
Type	Load capacity up to 120° in t	Dimensions in mm MW	A	B	C	F	G	H	I	L	RUD universal bolt	Weight in kg/pce	Item no.
VABH-B 1.5t	1.5	25	6.5	78	117	70	48	60	38	15	4 x M10	0.78	5363.V0.15
VABH-B 2.5t	2.5	30	7.5	101	148	85	60	75	49	18	4 x M12	1.73	5363.V0.25
VABH-B 4t	4	35	10	122	171	104	70	90	59	25	4 x M16	3	5363.V0.40
VABH-B 6.7t	6.7	40	12	156	208	120	85	110	70	30	4 x M20	5.6	5363.V0.65

VIP Screw-on Hook VCGH-G

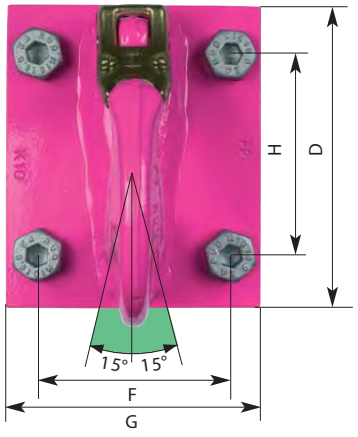
Screw-on hook as lifting point on spreader beams. Suitable for wire rope slings, round slings and slings with loop or Master link.

- Patented wear indicators on the hook
- Measurable overload indicator
- Special bolts included are 100% crack-tested
- Thickened hook tip to prevent improper use
- Solid safety latch
- No protruding hook tip
- Can be used up to -20° C
- Can also be used as excavator hook

-20° C



Use area: max. 45°



Admissible lateral pull: 15°

Type	Load capacity in t up to 45°	Dimensions in mm MW	A	B	C	D	F	G	H	I	L	RUD universal bolt	Weight in kg/pce	Item no.
VCGH-G16	10	48	15	141	200	220	120	170 (100)	150	70	50	4 x M24	6.4	5362.V0.16
VCGH-G20	16	63	20	187	272	288	150	210 (120)	228	87	50	6 x M24	10.4	5362.V0.20
VCGH-G22	20	63	20	195	276	292	150	240 (120)	220	92	50	6 x M24	17.5	5362.V0.22

For weld-on hooks see page 505.

LIFTING POINTS

Weld-on Lifting Points

Please note the following points when welding:

- **All welding has to be carried out by a qualified welder acc. to DIN EN ISO 9606-1.**
- **Material of welding block is S 355J2 + H (1.0570).**
- **The welding surfaces have to be free from dirt, oil, paint etc.**
- **Do not weld at the tempered lifting ring.**

Please note the following points when choosing the material:

- **The complete construction may be annealed stress-free one time at ≤ 600°C (1,112°F) without any reduction of WLL.**
- **The welding spot has to be suitable to absorb the induced forces.**

Weld-on Lifting Points

Maximum transport weight „G“ in ton with different lifting methods

Nominal load capacities for weld-on lifting points are indicated in the charts on pages 498-505.

Please also observe the different operating temperatures!

	WPP-Series PowerPoint rotation	WPPH-Series PowerPoint fixed	VLBS Weld-on Lifting Ring	VLBS-RS Stainless Steel	VLBS-U-LT	VLBS-P for Pipes
	-40° C	-40° C	-20° C	-100° C	-45° C	-20° C
Type	all versions	all versions				
	WPP 0.63 t	WPP 1.5 t	WPP 2.5 t	WPP 4 t	WPP 5 t	WPP 8 t	WPPH 0.63 t	WPPH 1.5 t	WPPH 2.5 t	WPPH 4 t	WPPH 5 t	WPPH 8 t	VLBS 1.5 t	VLBS 2.5 t	VLBS 4 t	VLBS 6.7 t	VLBS 10 t	VLBS 16 t	LBS(1) RS 0.5 t	LBS(1) RS 1 t	LBS(5) RS 2 t	VLBS-U-LT 2.5 t	VLBS-U-LT 4 t	VLBS-U-LT 10 t	VLBS-U-LT 2.5 t	VLBS-U-LT 4 t	VLBS-U-LT 10 t
No. of legs / Inclination angle																											
1 / 0°	0.6	1.5	2.5	4	6.7	10	0.6	1.5	2.5	4	6.7	10	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	2.5	4	10
2 / 0°	1.2	3	5	8	13.4	20	1.2	3	5	8	13.4	20	3	5.0	8	13.4	20	32	1	2	4	5.0	8	20	5.0	8	20
1 / 90°	0.6	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	2.5	4	10
2 / 90°	1.2	3	5	8	10	16	1.2	3	5	8	10	16	3	5.0	8	13.4	20	32	1	2	4	5.0	8	20	5.0	8	20
2 / 0-45°	0.8	2.1	3.5	5.6	7.1	11.2	0.8	2.1	3.5	5.6	7.1	11.2	2.1	3.5	5.6	9.38	14	22.4	0.7	1.4	2.8	3.5	5.6	14	3.5	5.6	14
2 / 45-60°	0.6	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	2.5	4	10
2 / asymmetric	0.6	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	2.5	4	10
3+4 / 0-45°	1.3	3.2	5.3	8.4	10.5	16.8	1.3	3.2	5.3	8.4	10.5	16.8	3.15	5.25	8.4	14.1	21	33.6	1.05	2.1	4.2	5.25	8.4	21	5.25	8.4	21
3+4 / 45-60°	0.9	2.2	3.8	6	7.5	12	0.9	2.2	3.8	6	7.5	12	2.25	3.75	6	10.1	15	24	0.75	1.5	3	3.75	6	15	3.75	6	15
3+4 / asymmetric	0.6	1.5	2.5	4	5	8	0.6	1.5	2.5	4	5	8	1.5	2.5	4	6.7	10	16	0.5	1	2	2.5	4	10	2.5	4	10
Welding seam →	3.5	4.5	3+5	3+6	3+8	3+10	3.5	4.5	3+5	3+6	3+8	3+10	5+3	7+3	8+3	12+4	16+4	25+6	5+3	8+3	12+4	7+3	8+3	16+4	7+3	8+3	16+4

LIFTING POINTS
Weld-on Lifting Points

RUD®

Carl Stahl®

4 design factor in all directions

For all weld-on lifting points please refer to the welding instructions!
For your workshop detailed welding instructions are also available as posters.

ANSCHLAG-PUNKTE

CE

DGUV Test

	VRBS-FIX Weld-on Lifting Ring	VRBS Weld-on Lifting Ring	VRBK-FIX Lifting Ring for edges	ABA Lifting Point loadable from all directions
	-40° C	-20° C	-20° C	-40° C

No. of legs	Inclination angle	VRBS-FIX 4 t	VRBS-FIX 6.7 t	VRBS-FIX 10 t	VRBS-FIX 16 t	VRBS-FIX 31.5 t	VRBS 4 t	VRBS 6.7 t	VRBS 10 t	VRBS 16 t	VRBS 31.5 t	VRBS 50 t	VRBK-FIX 4 t	VRBK-FIX 6.7 t	VRBK-FIX 10 t	ABA 1.6 t	ABA 3.2 t	ABA 5 t	ABA 10 t	ABA 20 t	ABA 31.5 t
1	0°	4	6.7	10	16	31.5	4	6.7	10	16	31.5	50	4	6.7	10	1.6	3.2	5	10	20	31.5
2	0°	8	13.4	20	32	63	8	13.4	20	32	63	100	8	13.4	20	3.2	6.4	10	20	40	63
1	90°	4	6.7	10	16	31.5	4	6.7	10	16	31.5	50	4	6.7	10	1.6	3.2	5	10	20	31.5
2	90°	8	13.4	20	32	63	8	13.4	20	32	63	100	8	13.4	20	3.2	6.4	10	20	40	63
2	0-45°	5.6	9.38	14	22.4	45	5.6	9.38	14	22.4	45	70	5.6	9.38	14	2.2	4.5	7.1	14.1	28	45
2	45-60°	4	6.7	10	16	31.5	4	6.7	10	16	31.5	50	4	6.7	10	1.6	3.2	5	10	20	31.5
2	asymmetric	4	6.7	10	16	31.5	4	6.7	10	16	31.5	50	4	6.7	10	1.6	3.2	5	10	20	31.5
3+4	0-45°	8.4	14.1	21	33.6	67	8.4	14.1	21	33.6	67	105	8.4	14.1	14.1	3.4	6.8	10.6	21.2	42	67
3+4	45-60°	6	10.1	15	24	47.5	6	10.1	15	24	47.5	75	6	10.1	15	2.4	4.8	7.5	15	30	47.5
3+4	asymmetric	4	6.7	10	16	31.5	4	6.7	10	16	31.5	50	4	6.7	10	1.6	3.2	5	10	20	31.5
Welding seam →		HY3	HY5	HY6	HY9	HY12	4+3	5.5+3	8.5+4	8.5+4	18+4	25+8	4+3	5+3	8+3	HY3	HY5	HY9	HY12	10	12

LIFTING POINTS
Weld-on Lifting Points

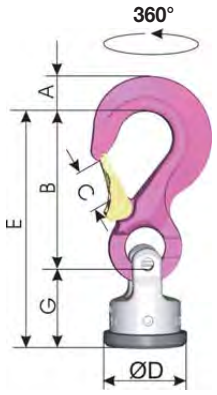
PowerPoint, weld-on Lifting Points, Type WPP, 360° Rotation, double Ball Bearing

PowerPoint -WPP-..-

Weld-on Lifting Point, 360° Rotation, PowerPoint WPP-S

Weld-on, universal connector for slings with Master link, eye or loop.
Double ball bearing, 360° rotation!

-40° C



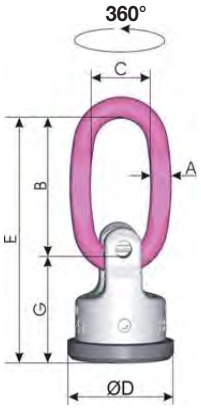
Type	Load capacity in t	Dimensions in mm A	B	C	D	E	G	Welding seam	Weight in kg/pce	Item no.
WPP-S-0.63 t	0.63	13	75	18	40	115	40	3.5	0.4	651P.00.06
WPP-S-1.5 t	1.5	20	97	25	46	147	50	4.5	1.0	651P.00.15
WPP-S-2.5 t	2.5	28	126	30	61	187	61	HY3+5	1.5	651P.00.25
WPP-S-4 t	4	36	150	35	78	227	77	HY3+6	3.3	651P.00.40
WPP-S-5 t	5 (6.7)	37	174	40	95	267	93	HY3+8	7.1	651P.00.50
WPP-S-8 t	8 (10)	49	208	48	100	310	102	HY3+10	8.2	651P.00.80

( ) higher load capacity in 90° angle to mounting surface

Weld-on Lifting Point, 360° Rotation, PowerPoint WPP-B

Weld-on, universal connector with oblong ring for slings with hook.
Double ball bearing, 360° rotation!

-40° C



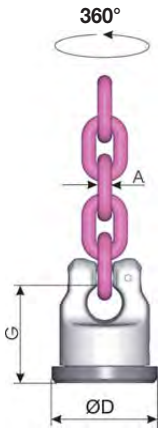
Type	Load capacity in t	Dimensions in mm A	B	C	D	E	G	Welding seam	Weight in kg/pce	Item no.
WPP-B-0.63 t	0.63	9	65	35	40	105	40	3.5	0.35	651P.50.06
WPP-B-1.5 t	1.5	11	65	35	46	115	50	4.5	0.6	651P.50.15
WPP-B-2.5 t	2.5	13	74	40	61	135	61	HY3+5	1.0	651P.50.25
WPP-B-4 t	4	16	95	45	78	172	77	HY3+6	2.3	651P.50.40
WPP-B-5 t	5 (6.7)	21	130	60	95	223	93	HY3+8	4.7	651P.50.50
WPP-B-8 t	8 (10)	24	140	65	100	242	102	HY3+10	5.3	651P.50.80

( ) higher load capacity in 90° angle to mounting surface

Weld-on Lifting Point, 360° Rotation, PowerPoint WPP-VIP

Weld-on, universal connector for direct VIP chain connection.
Double ball bearing, 360° rotation!

-40° C



Type	Load capacity in t	Dimensions in mm A VIP Chain connection	D	G	Welding seam	Weight in kg/pce	Item no.
WPP-VIP4-0.63 t	0.63	4	40	40	3.5	0.25	651P.60.06
WPP-VIP6-1.5 t	1.5	6	46	50	4.5	0.45	651P.60.15
WPP-VIP8-2.5 t	2.5	8	61	61	HY3+5	0.85	651P.60.25
WPP-ViP10-4 t	4	10	78	77	HY3+6	2.1	651P.60.40
WPP-VIP13-5 t	5 (6.7)	13	95	93	HY3+8	3.4	651P.60.50
WPP-VIP16-8 t	8 (10)	16	100	102	HY3+10	4.5	651P.60.80
VWBS-KA-28-31.5 t	31.5	28	170	147	HY20	24	651P.63.15

( ) higher load capacity in 90° angle to mounting surface

LIFTING POINTS
Weld-on Lifting Points

RUD®

Carl Stahl®

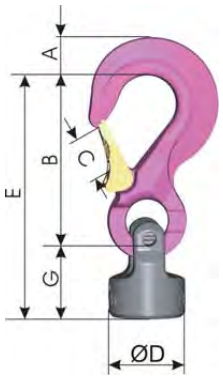
Powerpoint, weld-on Lifting Points, Type WPPH, fixed

PowerPoint -WPPH-..-

Weld-on Lifting Point, fixed, PowerPoint Star Type WPPH-S

The universal connector for slings with Master link, eye or loop.

-40° C



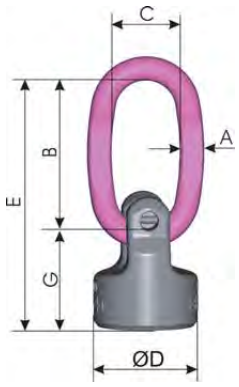
Type	Load capacity in t	Dimensions in mm A	B	C	D	E	G	Welding seam	Weight in kg/pce	Item no.
WPPH-S-0.63t	0.63	13	75	18	34	109	34	3.5	0.35	652P.00.06
WPPH-S-1.5t	1.5	20	97	25	40	141	44	4.5	0.95	652P.00.15
WPPH-S-2.5t	2.5	28	126	30	53	179	53	HY3+5	1.4	652P.00.25
WPPH-S-4t	4.0	36	150	35	68	217	66	HY3+6	3.2	652P.00.40
WPPH-S-5t	5.0 (6.7)	37	174	40	83	253	79	HY3+8	6.9	652P.00.50
WPPH-S-8t	8.0 (10)	49	208	48	88	296	88	HY3+10	8.0	652P.00.80

( ) higher load capacity in 90° angle to mounting surface

Weld-on Lifting Point, fixed, PowerPoint Star Type WPPH-B

The universal connector for slings with hook.

-40° C



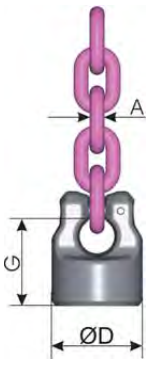
Type	Load capacity in t	Dimensions in mm A	B	C	D	E	G	Welding seam	Weight in kg/pce	Item no.
WPPH-B-0.63t	0.63	9	65	35	34	99	34	3.5	0.3	652P.50.06
WPPH-B-1.5t	1.5	11	65	35	40	109	44	4.5	0.5	652P.50.15
WPPH-B-2.5t	2.5	13	74	40	53	127	53	HY3+5	0.9	652P.50.25
WPPH-B-4t	4.0	16	95	45	68	163	66	HY3+6	2.2	652P.50.40
WPPH-B-5t	5.0 (6.7)	21	130	60	83	209	79	HY3+8	4.5	652P.50.50
WPPH-B-8t	8.0 (10)	24	140	65	88	228	88	HY3+10	5.1	652P.50.80

( ) higher load capacity in 90° angle to mounting surface

Weld-on Lifting Point, fixed, PowerPoint Star Type WPPH-VIP

The universal connector for direct VIP chain connection.

-40° C



Type	Load capacity in t	Dimensions in mm A VIP Chain connection	D	G	Welding seam	Weight in kg/pce	Item no.
WPPH-VIP4-0.63t	0.63	4	34	34	3.5	0.2	652P.60.06
WPPH-VIP6-1.5t	1.5	6	40	44	4.5	0.35	652P.60.15
WPPH-VIP8-2.5t	2.5	8	53	53	HY3+5	0.75	652P.60.25
WPPH-VIP10-4t	4.0	10	68	66	HY3+6	2.0	652P.60.40
WPPH-VIP13-5t	5.0 (6.7)	13	83	79	HY3+8	3.2	652P.60.50
WPPH-VIP16-8t	8.0 (10)	16	88	88	HY3+10	4.3	652P.60.80
WPPH-KA-28-31.5 t	31.5	28	170	147	HY17	11	652P.63.15

( ) higher load capacity in 90° angle to mounting surface

* Price w/o chain

LIFTING POINTS
Weld-on Lifting Points

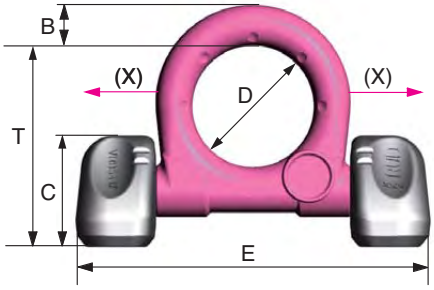
VIP weld-on Lifting Ring with Fixing VRBS-FIX

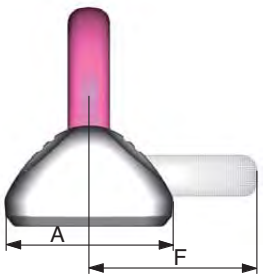
- No dangerous subsurface corrosion on weld-on parts due to circular HY-weld seam. Smaller weld seam compared to the old VRBS.
- The time-consuming alignment of the weld-on blocks and ring bracket is not necessary any more.
- Protected retaining spring within the weld-on block. The spring fixes the weld-on blocks to the ring bracket and also creates a radial clamping. No loose parts – 1-piece construction.
- Retaining spring reduces vibration induced noise.
- Easy recognition of inclination angle due to markings on the ring bracket and weld-on blocks.
- Overall dimensions have remained unchanged compared to the old VRBS.
- The VRBS-FIX can also be fitted with an axial slide bearing washer (in case of permanent load in 90° angle (direction X).
- Can be used up to -40° C (-40°F)
- Patented design

-40° C

4 design factor in all directions

Caution: Please refer to the welding instructions!





Load capacity in t	Type	Welding seam HY+ a	Dimensions in mm							Weight in kg	Item no.
			A	B	C	D	E	F	T		
4	VRBS-FIX 4 t	HY 3	60	14	39	48	132	69	74	0.93	5560.VF.04
6.7	VRBS-FIX 6.7 t	HY 5	88	20	50	60	167	91	97	2.2	5560.VF.06
10	VRBS-FIX 10 t	HY 6	100	22	60	65	191	100	108	3.7	5560.VF.10
16	VRBS-FIX 16 t	HY 9	130	30	72	90	267	134	140	8.0	5560.VF.16
31.5	VRBS-FIX 31.5 t	HY 12	160	42	99	130	366	195	202	18.4	5560.VF.30

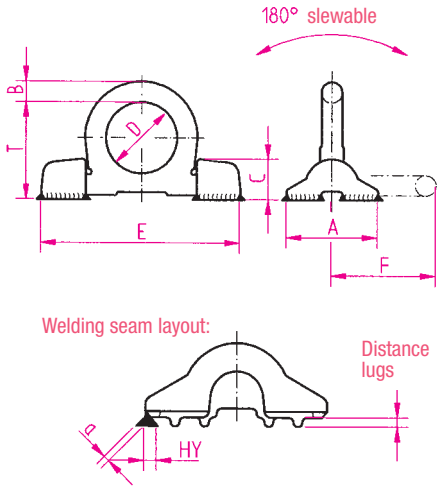
Maximum transport weight G in tons with different lifting methods:

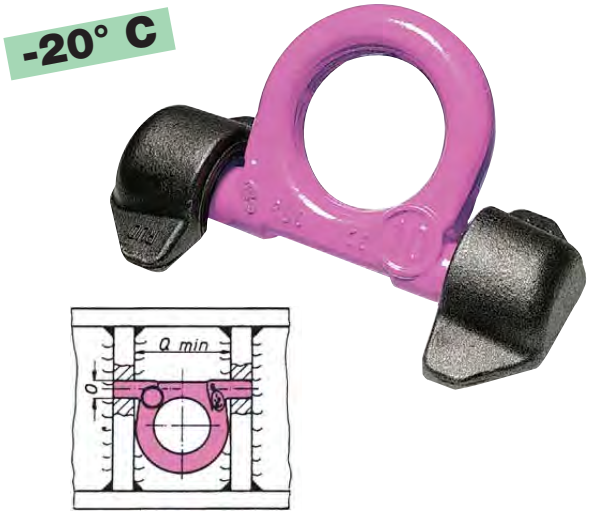
Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VRBS-FIX 4 t	4	8	4	8	5.6	4	4	8.4	6	4
VRBS-FIX 6.7 t	6.7	13.4	6.7	13.4	9.38	6.7	6.7	14.1	10.1	6.7
VRBS-FIX 10 t	10	20	10	20	14	10	10	21	15	10
VRBS-FIX 16 t	16	32	16	32	22.4	16	16	33.6	24	16
VRBS-FIX 31.5 t	31.5	63	31.5	63	45	31.5	31.5	67	47.5	31.5

LIFTING POINTS
Weld-on Lifting Points

VIP weld-on Lifting Ring VRBS

- Even distribution of induced forces due to 2-point anchoring
- Design factor 4 in all directions
- Forged ring bracket acc. to DIN EN 1677-1
- No protruding ring eyes (tripping hazard)
- Low overall height
- High dynamic and static strength
- The welding block is forged out of a good welding material 1.0577+N (St 52-3)
- Can be used up to -20°C (-4°F)





4 design factor in all directions

Caution: Please refer to the welding instructions!

Load capacity in t	Type	Welding seam HY+ a	Dimensions in mm									Weight in kg	Item no.
			A	B	C	D	E	F	O	Q	T		
4	VRBS 4	HY 4 + 3	62	14	28	48	135	135	17	77	65	0.8	5560.V0.40
6.7	VRBS 6.7	HY 5.5 + 3	88	20	39	60	170	91	23	101	84	1.8	5560.V0.67
10	VRBS 10	HY 6 + 4	100	22	46	65	195	100	28	106	95	2.8	5560.V1.00
16	VRBS 16	HY 8.5+4	130	30	57	90	263	134	35	147	127	6.6	5560.V1.60
31.5	VRBS 31.5	HY 15+4	160	42	78	130	373	195	47	215	178	15.6	5560.V3.00
50	VRBS 50 t	HY 25+8	240	70	120	230	620	340	-	-	313	54.1	5560.V5.00

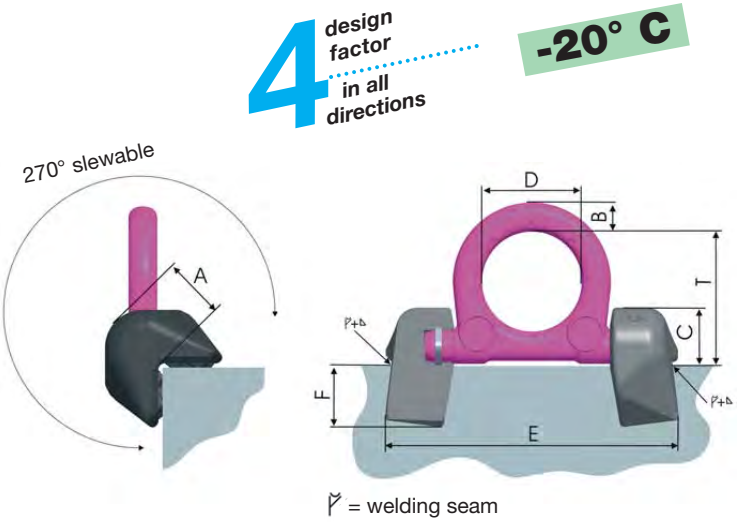
Maximum transport weight G in tons with different lifting methods:

Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VRBS 4 t	4	8	4	8	5.6	4	4	8.4	6	4
VRBS 6.7 t	6.7	13.4	6.7	13.4	9.38	6.7	6.7	14.1	10.1	6.7
VRBS 10 t	10	20	10	20	14	10	10	21	15	10
VRBS 16 t	16	32	16	32	22.4	16	16	33.6	24	16
VRBS 31.5 t	31.5	63	31.5	63	45	31.5	31.5	67	47.5	31.5
VRBS 50	50	100	50	100	70	50	50	105	75	50

LIFTING POINTS
Weld-on Lifting Points

VIP weld-on Lifting Ring for Edges with moveable tempered High Strength Ring Bracket VRBK-FIX

- Placed on the edge it saves you half the number of lifting points
- Forged ring bracket acc. to EN 1677-1, electromagnetically crack-tested, pink powder-coated.
- Can be loaded in all directions
- Safety factor 4 against breaking
- Even distribution of induced forces due to 2-point anchoring
- Very low profile due to slewable construction (270°)
- Weld-on blocks and ring bracket are connected by a special radial clamping spring.
- Easy adjustment of lifting ring
- Ring bracket remains in desired position
- Easy painting
- No loose parts
- No rattling
- Safe welding process: Dimension E is guaranteed
- Protected by patent



Option:
Ring bracket also available as single part.

Price on request.

Load capacity in t	Type	Welding seam	Dimensions in mm							Weight in kg	Item no.
			A	B	C	D	E	F	T		
4	VRBK-FIX 4	HY 4+3	32	14	28	48	140	29	65	1.0	5562.V2.040
6.7	VRBK-FIX 6.7	HY 5+3	40	20	35	60	180	33	84	2.1	5562.V2.067
10	VRBK-FIX 10	HY 8+3	52	22	46	65	212	46	94	4.4	5562.V2.100

Maximum transport weight G in tons with different lifting methods:

Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4		3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VRBK-FIX-4	4	8	4	8	5.6	4	4	8.4	6	4
VRBK-FIX-6.7	6.7	13.4	6.7	13.4	9.38	6.7	6.7	14.1	10.1	6.7
VRBK-FIX-10	10	20	10	20	14	10	10	21	15	10

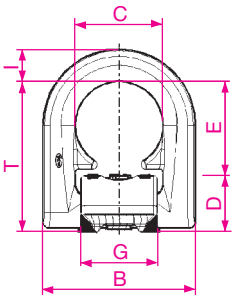
LIFTING POINTS
Weld-on Lifting Points

VIP weld-on Lifting Ring VLBS / VLBS-U-LT

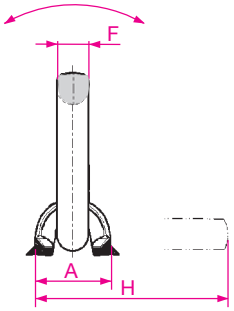
4 design factor in all directions

-20° C

- Quick and easy mounting
- 2 internal patented distance lugs enhance the seat of the hook and support the springs
- High dynamic and static strength
- 100% electromagnetically crack-tested
- The welding block is forged out of a good welding material S355J2+N (St 52-3N)
- With the VLBS-U a protected spring holds the ring bracket in any desired position
- The spring also reduces vibration induced noise
- VLBS can be used up to -20° C (-4°F)



180° slewable



Load capacity in t	Type	Welding seam	Dimensions in mm A	B	C	D	E	Ø F	G	H	I	T	Weight in kg	Item no. with spring	Type	Item no. w/o spring
1.5	VLBS 1.5	HV 5+3	32	66	38	25	40	13.5	33	87	14	65	0.35	5563.V0.015	VLBS 1.5 OF	5563.V2.015
2.5	VLBS 2.5	HV 7+3	36	77	45	27	48	13.5	40	97	16	75	0.5	5563.V0.025	VLBS 2.5 OF	5563.V2.025
4	VLBS 4	HV 8+3	42	87	51	32	52	16.5	46	112	18	84	0.8	5563.V0.040	VLBS 4 OF	5563.V2.040
6.7	VLBS 6.7	HV 12+4	61	115	67	44	73	22.5	60	157	24	117	1.9	5563.V0.067	VLBS 6.7 OF	5563.V2.067
10	VLBS 10	HV 16+4	75	129	67	55	71	26	60	173	26.5	126	2.9	5563.V0.100	VLBS 10 OF	5563.V2.100
16	VLBS 16 OF	HV 25+6	95	190	100	69	105	26	90	243	40	174	6.8	-	VLBS 16 OF	5563.V2.160

-45° C

VLBS-U-LT for ultralow temperatures up to -45°C (-49°F)

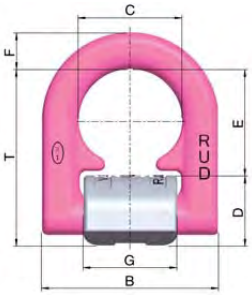
- Notch impact strength ≥ 27 J at -45°C (-49°F)
- Ring bracket phosphated
- Aside from the low-temperature property, same as type VLBS above

Load capacity in t	Type	Welding seam	Dimensions in mm A	B	C	D	E	Ø F	G	H	I	T	Weight in kg	Item no. with spring
2.5	VLBS-U-LT 2.5	HV 7+3	36	77	45	27	48	13.5	40	97	16	75	0.5	5563.V4.025
4	VLBS-U-LT 4	HV 8+3	42	87	51	32	52	16.5	46	112	18	84	0.8	5563.V4.040
10	VLBS-U-LT 10	HV 16+4	75	129	67	55	71	26	60	173	26.5	126	2.9	5563.V4.100

VIP weld-on Lifting Ring VLBS-P

- Ideal for welding to pipes
- For pipe outer diameter of 82 to 220 mm
- The standard version VLBS can be used for larger pipe diameters

-20° C



Load capacity in t	Type	Dimensions in mm A	B	C	D	E	F	G	H	T	Weight in kg	Item no.
4	VLBS-P 4	45	87	51	35	52	18	46	16.5	87	0.8	5563.V5.040

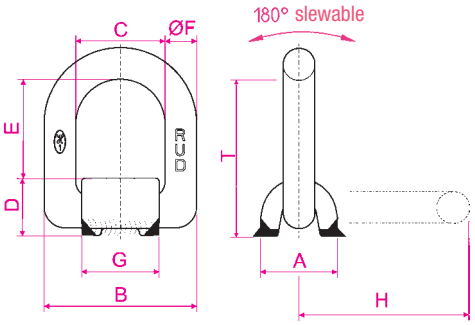
Maximum transport weight G in tons with different lifting methods:

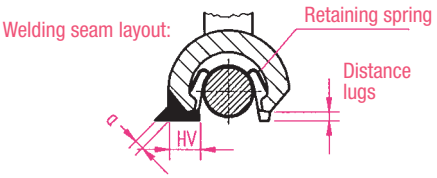
Lifting method										
Number of legs	1	2	1	2	2	2	2	3 and 4		3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
VLBS-1.5	1.5	3	1.5	3	2.1	1.5	1.5	3.15	2.25	1.5
VLBS-2.5	2.5	5	2.5	5	3.5	2.5	2.5	5.25	3.75	2.5
VLBS-4 / VLBS-P 4	4	8	4	8	5.6	4	4	8.4	6	4
VLBS-6.7	6.7	13.4	6.7	13.4	9.38	6.7	6.7	14.1	10.1	6.7
VLBS-10	10	20	10	20	14	10	10	21	15	10
VLBS-16	16	32	16	32	22.4	16	16	33.6	24	16

LIFTING POINTS
Weld-on Lifting Points

Weld-on Stainless Steel Lifting Ring LBS, Material 1.4571

-100° C





Load capacity in t	Type	Welding seam	Dimensions in mm									Weight in kg/pce	Item no. LBS stainless steel
			A	B	C	D	E	Ø F	G	H	T		
0.5	LBS (1) RS 0.5t	HV 5+3	32	65	36	25	39	13.5	33	85	64	0.3	5563.10.05
1	LBS (3) RS 1t	HV 8+3	42	85	50	31	50	16.5	46	108	81	0.6	5563.10.10
2	LBS (5) RS 2t	HV 12+4	61	110	65	44	72	22.2	60	155	116	1.6	5563.10.20

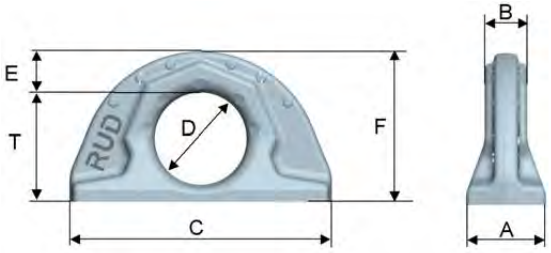
Maximum transport weight G in tons with different lifting methods:

Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
LBS RS 0.5	0.5	1	0.5	1	0.7	0.5	0.5	1.05	0.75	0.5
LBS RS 1	1	2	1	2	1.4	1	1	2.1	1.5	1
LBS RS 2	2	4	2	4	2.8	2	2	4.2	3	2

Weld-on Lifting Point ABA, loadable from all directions

- Loadable from all directions
- Safety factor 4 against breaking
- Quenched and tempered body, enhanced wear resistance
- Patented wear marks in- and outside
- Circular fillet welding seam
- Surface phosphated
- If item is used as weld-on lifting point, the indicated WLL (t) must be observed. When used as a lashing point, the max. allowable lashing capacity LC in daN can be induced.

-40° C



Type	Lifting WLL in t	Dimensions in mm							Fillet welding seam thickness in mm	Weight in kg	Item no.
		A	B	C	D	E	F	T			
ABA 1.6 t	**1.6**	30	16	100	35	16	57	41.5	4	0.44	5563.80.16
ABA 3.2 t	**3.2**	41	23	137	50	21	80	59	6	1.1	5563.80.32
ABA 5 t	**5**	51	27	172	60	27.5	99	71.5	7	2.3	5563.80.50
ABA 10 t	**10**	70	38	228	80	35	130	95	8	5.3	5563.81.00
ABA 20 t	**20**	90	52	272	115	40	175	135	12	10.7	5563.82.00
ABA 31.5 t	**31.5**	108	64	320	130	50	204	154	15	18.3	5563.83.15

Lifting method								
Number of legs	1	2	1	2	2	2	2	3 and 4	3 and 4
Inclination angle	0°	0°	90°	90°	0-45°	45-60°	asymmetric	0-45°	45-60°	asymmetric
ABA 1.6 t	1.6	3.2	1.6	3.2	2.2	1.6	1.6	3.4	2.4	1.6
ABA 3.2 t	3.2	6.4	3.2	6.4	4.5	3.2	3.2	6.8	4.8	3.2
ABA 5 t	5	10	5	10	7.1	5	5	10.6	7.5	5
ABA 10 t	10	20	10	20	14.1	10	10	21.2	15	10
ABA 20 t	20	40	20	40	28	20	20	42	30	20
ABA 31.5 t	31.5	63	31.5	63	45	31.5	31.5	67	47.5	31.5

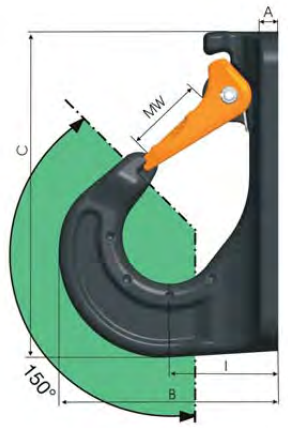
LIFTING POINTS
Weld-on Lifting Points

VIP weld-on Hook VABH-W

-40° C

Weld-on hook as lifting point on spreader beams. Suitable for wire rope slings, round slings and slings with loop or Master link.

- If possible mount in the direction of pull
- Solid safety latch
- No protruding hook tip – no unintentional hooking
- Thickened hook tip to prevent improper use
- Patented wear indicators on the hook
- Measurable overload indicator
- Surface phosphated
- Can also be used as excavator hook



Use area: max. 150°

Admissible lateral pull: 45°

Reading Point Overload

Wear Indicators

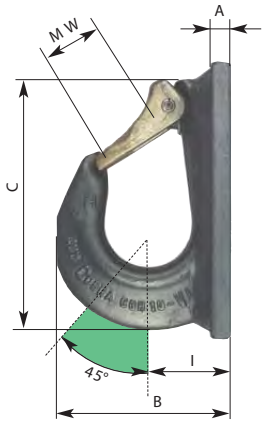
Type	Load capacity up to 120° in t	Dimensions in mm MW	A	B	C	F	I	Fillet weld seam thickness in mm	Weight in kg/pce	Item no.
VABH-W 1.5t	1.5	25	7.5	78	117	70	38	3	0.8	5364.V0.15
VABH-W 2.5t	2.5	30	8.5	101	148	85	49	3	1.8	5364.V0.25
VABH-W 4t	4	35	11	122	171	104	59	4	3.1	5364.V0.40
VABH-W 6.7t	6.7	40	13	156	208	120	70	5	5.9	5364.V0.65

VIP weld-on Hook VCGH-S

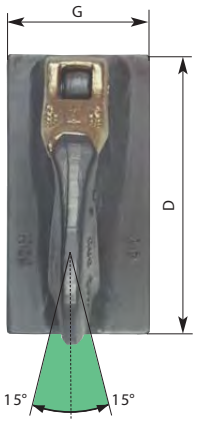
-20° C

Weld-on hook as lifting point on spreader beams. Suitable for wire rope slings, round slings and slings with loop or Master link.

- Solid safety latch
- If possible mount in the direction of pull
- No protruding hook tip – no unintentional hooking
- Thickened hook tip to prevent improper use
- Surface phosphatised



Use area: max. 45°



Admissible lateral pull: 15°

Type	Load capacity in t up to 45°	Dimensions in mm MW	A	B	C	D	G	I	Fillet weld seam thickness in mm	Weight in kg/pce	Item no.
VCGH-S16	10	48	15	141	200	220	100	70	8	5	5322.V0.16
VCGH-S20	16	63	20	187	272	288	120	87	8	8.4	5322.V0.20
VCGH-S22	20	63	20	195	276	292	120	92	8	14.5	5322.V0.22

Please note the welding instructions on page 495.
For screw-on hooks see page 494.

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force
HYDRAULIC TOOLS

Hydraulic Cylinders	**Pages 508-511**
Hydraulik Accessories	**Pages 512-513, 516**
Hydraulic Pumps	**Pages 514-515**
Hydraulic Lifting Devices	**Pages 517-518**
Hydraulic Tools and Accessories	**Pages 519-523**

Please see our comprehensive hydraulics catalogue!

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

The complete hydraulic range

All Carl Steel Hi-Force hydraulic products are designed and manufactured according to ISO 9001:2000 and comply with CE standards. All products are delivered with a test certificate according to national and international standards and bear an individual serial number.

Single acting very low Height Pancake Cylinder Type HVL

- Working pressure up to 700 bar
- Capacities from 10 to 104 t
- Stroke length 6 mm
- No spring assisted return
- Surface treated piston rod
- Types HVL 10 to HVL 50 with adapter coupler

HVL100

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Weight in kg	Item no.
HVL 10	10	6	28	9	87	1.6	78HV.L0.10
HVL 20	20	6	32	17	104	2.6	78HV.L0.20
HVL 30	32	6	34	27	120	3.0	78HV.L0.30
HVL 50	50	6	45	43	158	7.2	78HV.L0.50
HVL 100	104	6	65	88	200	15.6	78HV.L1.00

Single acting low Height Pad Cylinder Type HPS

- Working pressure up to 700 bar
- Capacities from 4.5 to 147 t
- Stroke length 6 to 16 mm
- Spring assisted return
- Surface treated piston rod
- Collar threads withstand full load

HPS100

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Weight in kg	Item no.
HPS 50	4.5	6	32	4	60	0.8	78HP.S0.050
HPS 51	4.5	16	42	10	60	0.9	78HP.S0.051
HPS 100	10	10	46	14	81	1.6	78HP.S0.100
HPS 200	20	11	52	31	100	2.6	78HP.S0.200
HPS 300	32	12	59	55	115	4.2	78HP.S0.300
HPS 500	50	15	67	107	140	6.6	78HP.S0.500
HPS 750	73	16	81	164	165	10.4	78HP.S0.750
HPS 1000	109	16	91	245	215	23.2	78HP.S1.000
HPS 1500	147	16	100	330	215	28.5	78HP.S1.500

Single acting low Height Cylinder Type HLS

- Working pressure up to 700 bar
- Capacities from 10 to 147 t
- Stroke length 25 to 60 mm
- Spring assisted return
- Surface treated piston rod
- Collar threads withstand full load

HLS301

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Weight in kg	Item no.
HLS 101	10	40	95	58	70	2.4	78HL.S0.101
HLS 201	20	44	102	126	90	4.8	78HL.S0.201
HLS 301	32	25	83	114	102	5.0	78HL.S0.301
HLS 302	32	60	119	274	102	7.0	78HL.S0.302
HLS 501	50	25	91	178	127	8.4	78HL.S0.501
HLS 502	50	60	126	428	127	10.4	78HL.S0.502
HLS 1001	109	25	108	384	178	19.8	78HL.S1.001
HLS 1002	109	60	143	921	178	24.0	78HL.S1.002
HLS 1501	147	25	130	516	216	37.0	78HL.S1.501
HLS 1502	147	50	155	1031	216	42.0	78HL.S1.502

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Single acting Multi Purpose Cylinder Type HSS

- Working pressure up to 700 bar
- Capacities from 4.5 to 109 t
- Stroke length 25 to 330 mm
- Spring assisted return
- Surface treated piston rod
- Collar threads withstand full load
- Base and piston rod mounting on most models
- Mounting thread in the base plate
- Capacities 50 t and over with carrying handle

HSS106

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Inlet thread specification in inches	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HSS 51	4.5	25	107	16	1.1/2'' Un	38	24	1.0	78HS.S0.051
HSS 52	4.5	50	132	32	1.1/2'' Un	38	24	1.2	78HS.S0.052
HSS 53	4.5	75	157	48	1.1/2'' Un	38	24	1.4	78HS.S0.053
HSS 54	4.5	100	182	64	1.1/2'' Un	38	24	1.5	78HS.S0.054
HSS 55	4.5	125	207	80	1.1/2'' Un	38	24	1.8	78HS.S0.055
HSS 57	4.5	176	258	113	1.1/2'' Un	38	24	2.0	78HS.S0.057
HSS 59	4.5	227	308	146	1.1/2'' Un	38	24	2.4	78HS.S0.059
HSS 101	10	25	100	36	2.1/4'' Un	57	35	1.8	78HS.S0.101
HSS 102	10	56	131	81	2.1/4'' Un	57	35	2.4	78HS.S0.102
HSS 104	10	100	175	144	2.1/4'' Un	57	35	3.0	78HS.S0.104
HSS 106	10	150	225	217	2.1/4'' Un	57	35	4.2	78HS.S0.106
HSS 108	10	206	281	297	2.1/4'' Un	57	35	5.0	78HS.S0.108
HSS 1010	10	250	325	361	2.1/4'' Un	57	35	5.4	78HS.S1.010
HSS 1012	10	305	379	440	2.1/4'' Un	57	35	6.2	78HS.S1.012
HSS 152	14.5	50	154	101	2.3/4'' Un	70	41	3.4	78HS.S0.152
HSS 154	14.5	100	204	203	2.3/4'' Un	70	41	5.0	78HS.S0.154
HSS 156	14.5	150	254	304	2.3/4'' Un	70	41	6.6	78HS.S0.156
HSS 1510	14.5	250	354	507	2.3/4'' Un	70	41	8.8	78HS.S1.510
HSS 252	25	51	174	178	3.5/16'' Un	86	54	6.5	78HS.S0.252
HSS 254	25	102	225	356	3.5/16'' Un	86	54	8.0	78HS.S0.254
HSS 256	25	150	273	524	3.5/16'' Un	86	54	9.6	78HS.S0.256
HSS 2510	25	250	374	874	3.5/16'' Un	86	54	12.6	78HS.S2.510
HSS 2514	25	356	480	1242	3.5/16'' Un	86	54	16.8	78HS.S2.514
HSS 2518	25	457	611	1597	3.5/16'' Un	86	54	21.4	78HS.S2.518
HSS 308	29	205	374	860	3.5/16'' Un	102	57	18.6	78HS.S0.308
HSS 502	50	51	150	364	5" Un	127	79	13.0	78HS.S0.502
HSS 504	50	102	201	728	5'' Un	127	79	16.8	78HS.S0.504
HSS 506	50	152	251	1084	5'' Un	127	79	20.0	78HS.S0.506
HSS 508	50	203	302	1448	5'' Un	127	79	23.2	78HS.S0.508
HSS 5013	50	330	429	2354	5'' Un	127	79	33.6	78HS.S5.013
HSS 756	73	152	272	1561	5.3/4'' Un	146	95	31.0	78HS.S0.756
HSS 1004	109	102	223	1565	6.7/8'' Un	185	114	41.6	78HS.S1.004
HSS 1006	109	153	274	2347	6.7/8'' Un	185	114	49.8	78HS.S1.006
HSS 10010	109	254	375	3896	6.7/8'' Un	185	114	65.5	78HS.S1.0010

Single acting hollow Piston Cylinder Type HHS

- Capacities from 11 to 102 t
- Stroke length 25 to 152 mm
- Spring assisted return
- Other features as with HSS series

HHS302

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Inlet thread specification in inches	Cylinder Ø in mm	Piston Ø in mm	Through hole in mm	Weight in kg	Item no.
HHS 101	11	25	110	39	2.3/4'' UN	70	38	20	2.8	78HH.S0.101
HHS 102	11	50	140	79	2.3/4'' UN	70	38	20	3.0	78HH.S0.102
HHS 106	11	152	297	240	2.3/4'' UN	70	38	20	10.2	78HH.S0.106
HHS 202	23	50	160	167	3.7/8'' Un	100	51	30	7.0	78HH.S0.202
HHS 206	23	150	306	500	3.7/8'' Un	100	51	30	13.8	78HH.S0.206
HHS 302	33	50	165	233	4.1/2'' Un	115	60	35	10.6	78HH.S0.302
HHS 306	33	152	320	710	4.1/2'' Un	115	60	35	19.2	78HH.S0.306
HHS 603	61	76	226	651	6.1/4'' Un	160	92	55	28.0	78HH.S0.603
HHS 606	61	150	315	1285	6.1/4'' Un	160	92	55	40.6	78HH.S0.606
HHS 1003	102	76	276	1088	8.3/8'' Un	213	127	81	64.0	78HH.S1.003
HHS 1006	102	150	350	2147	8.3/8'' Un	213	127	81	75.0	78HH.S1.006

Double action cylinders and heavy duty cylinders (up to 2,000 t capacity) are available on request.

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Hollow Piston Cylinder Type HHR, double acting

- Working pressure up to 700 bar
- Capacities from 33 to 247 t
- Stroke length 51 to 305 mm
- Double acting version
- Corrosion-resistant QPQ coated piston rod
- Full-load-bearing steel stop ring
- Base and piston rod mounting on most models
- Mounting thread in the base plate (up to 102 t types)

Type	Capacity in t	Tensile strength in t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HHR302	33	24	51	180	238	115	60	12.2	78HH.R0.302
HHR306	33	24	150	279	701	115	60	17.6	78HH.R0.306
HHR3012	33	24	305	434	1424	115	60	25.7	78HH.R3.012
HHR603	61	38	76	239	652	160	92	30.6	78HH.R0.603
HHR606	61	38	152	315	1304	160	92	41.6	78HH.R0.606
HHR6010	61	38	254	417	2179	160	92	52.5	78HH.R6.010
HHR1003	102	43	76	310	1087	213	140	68.5	78HH.R1.003
HHR1006	102	43	152	386	2174	213	140	90.0	78HH.R1.006
HHR1508	152	71	203	503	4320	270	184	170.0	78HH.R1.508
HHR2508	247	76	203	505	7039	350	254	269.0	78HH.R2.508

Heavy duty cylinder Type HFG with adjusting ring, single acting

- Working pressure up to 700 bar
- Capacities from 50 to 520t
- Stroke length 51 to 152 mm
- Single acting version
- Corrosion-resistant QPQ coated housing, piston rod and pressure fitting
- Equipped with a moving pressure fitting

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HFG504	50	102	224	730	127	95	20.6	78HF.G0.504
HFG506	50	150	272	1070	127	95	25.0	78HF.G0.506
HFG1004	109	100	240	1530	178	140	47.5	78HF.G1.004
HFG1006	109	150	311	2300	178	140	61.5	78HF.G1.006
HFG1504	152	100	288	2140	216	165	84.0	78HF.G1.504
HFG1506	152	150	338	3210	216	165	89.5	78HF.G1.506
HFG2002	203	50	261	1420	254	190	95.4	78HF.G2.002
HFG2006	203	152	362	4330	254	190	137.0	78HF.G2.006
HFG3006	326	150	417	6870	310	241	228.5	78HF.G3.006
HFG4006	398	151	459	8440	360	267	308.5	78HF.G4.006
HFG5006	520	152	498	11100	400	305	457.0	78HF.G5.006

Heavy duty cylinder Type HFL with adjusting ring, single acting

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HFL502	50	51	125	360	127	95	14.2	78HF.L0.502
HFL1002	109	50	137	770	178	140	25.1	78HF.L1.002
HFL1502	152	45	150	1070	216	165	44.0	78HF.L1.502
HFL2502	260	45	159	1650	273	216	69.4	78HF.L2.502
HFL4002	398	45	178	2510	360	267	121.0	78HF.L4.002
HFL5002	520	45	192	3290	400	305	186.0	78HF.L5.002

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Heavy duty cylinder Type HDA, double acting

- Working pressure up to 700 bar
- Capacities from 25 to 520 t
- Stroke length 152 to 330 mm
- Double acting version
- Corrosion-resistant QPQ coated piston rod
- Collar threads withstand full load
- Housing and piston thread
- Mounting thread in the base plate (up to 203 t types)
- Equipped with a moving or standard pressure fitting

HDA 506

Type	Capacity in t	Tensile strength n t	Stroke in mm	Height in mm	Oil capacity in cm³	Cylinder Ø in mm	Piston Ø in mm	Weight in kg	Item no.
HDA256	25	10	152	287	530	92	50	15.0	78HD.A0.256
HDA506	50	15	152	295	1080	127	79	28.4	78HD.A0.506
HDA5013	50	15	330	473	2350	127	79	42.6	78HD.A5.013
HDA1006	109	36	152	304	2330	185	114	68.5	78HD.A1.006
HDA10013	109	36	330	482	5060	185	114	96.5	78HD.A1.0013
HDA1506	152	79	152	310	3260	210	114	90.0	78HD.A1.506
HDA15012	152	79	305	463	6530	210	114	120.5	78HD.A1.5012
HDA2006	203	94	152	327	4330	254	140	129.8	78HD.A2.006
HDA20012	203	94	305	480	8690	254	140	167.4	78HD.A2.0012
HDA3006	326	-	152	409	6950	312	165	193.0	78HD.A3.006
HDA4006	398	-	152	431	8490	360	216	286.0	78HD.A4.006
HDA5006	520	-	152	470	11090	397	203	372.0	78HD.A5.006

Features of the HDA range, double acting heavy duty cylinder

Up to and including 203 tons:
- Flat pressure fitting
- Piston rod with female thread
- Cylinder collar thread with protective cap
- Mounting thread in the base plate

From 326 tons:
- Moving pressure fitting
- Piston rod without female thread
- Without cylinder collar thread
- Without mounting thread in the base plate

Single acting Hydraulic Aluminium Cylinder Type HAS

- Working pressure up to 700 bar
- Approx. 50% weight reduction compared to a steel cylinder
- Capacities from 32 to 110 t
- Stroke length 152 mm
- Spring assisted return
- Collar threads withstand full load

HAS1006

Type	Capacity in t	Stroke in mm	Height in mm	Oil capacity in cm³	Ø mm	Weight in kg	Item no.
HAS 306	32	152	282	672	104	6.0	78HA.S0.306
HAS 506	51	152	287	1077	135	9.0	78HA.S0.506
HAS 1006	110	152	317	2340	195	23.0	78HA.S1.006

Single acting Pull Cylinder Type HPC

- Working pressure up to 700 bar
- Capacities from 10 to 50 t
- Stroke length 152 mm
- Replaceable pulling
- Scraper ring avoids dirt penetration
- Spring assisted return
- Protective bellows for piston rod
- HPC106C with clevis connection

HPC106

Type	Tensile strength in t	Stroke in mm	Height in mm	Oil capacity in cm³	Weight in kg	Item no.
HPC 106	10	152	578	228	12.0	78HP.C0.106
HPC 106C	10	152	581	228	15.5	78HP.C0.106C
HPC 306	30	152	672	636	31.0	78HP.C0.306
HPC 506	50	152	785	1078	54.0	78HP.C0.506

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Hydraulic Sets

Set	Set contents	Item no.
Set 1	1 x Low height cylinder 10 t x 40 mm stroke, type HLS 101 1 x Low height pad cylinder 20 t x 11 mm stroke, type HPS 200 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	78PC.S0.01
Set 2	1 x Multi purpose cylinder 10 t x 150 mm stroke, type HSS 106 1 x Low height cylinder 20 t x 44 mm stroke, type HLS 201 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	78PC.S0.02
Set 3	1 x Low height cylinder 50 t x 60 mm stroke, type HLS 502 1 x Multi purpose cylinder 25 t x 150 mm stroke, type HSS 256 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	78PC.S0.03
Set 4	1 x Low height cylinder 10 t x 40 mm stroke, type HLS 101 1 x Hollow piston cylinder 11 t x 50 mm stroke, type HHS 102 1 x Hand pump 1 litre, type HP 110 with angle connection 1 x Hydraulic hose, length 2 m with coupler, type HC 2 1 x Carrying case	78PC.S0.04

PCS003

Manually and Foot operated Pumps Type HP

- Single or two speed operation
- 2- or 4-way valves
- Working pressure up to 700 bar

HP212

Accessories for manually and foot operated pumps: pressure gauges and mounting blocks page 513 hoses and couplers page 516.

Manually operated pumps for single acting cylinders and double acting cylinder

Type	Valve Type	Material	Displacement per stroke in cm³		Usable oil capacity in litres	Weight in kg	Item no.
			1st stage	2nd stage			
HP 110	2-way	Steel	2.9	-	1.00	5.6	78HP.01.10
HP 211	2-way	Aluminium	12.9	1.0	0.5	2.0	78HP.02.11
HP 212	2-way	Aluminium	12.9	2.3	1.00	4.0	78HP.02.12
HP 227	2-way	Steel	12.9	2.3	2.30	10.5	78HP.02.27
HP 232	2-way	Aluminium	12.9	2.3	2.00	6.9	78HP.02.32
HP 257	2-way	Steel	12.9	2.3	5.00	15.2	78HP.02.57
HP 252	2-way	Aluminium	12.9	2.3	5.00	11.6	78HP.02.52
HP 245	2-way	Steel	113.0	4.0	10.00	29.5	78HP.02.45
HP 232D	4-way	Aluminium	12.9	2.3	2.00	8.7	78HP02.32D
HP 252D	4-way	Aluminium	12.9	2.3	5.00	13.6	78HP02.52D
HP 245D	4-way	Steel	113.0	4.0	10.00	29.5	78HP02.45D

HP227 FPC with hose and pressure gauge

Foot operated pumps

Type	Valve Type	Material	Displacement per stroke in cm³		Usable oil capacity in litres	Weight in kg	Item no.
			1st stage	2nd stage			
HP 227 FP	2-way	Steel	12.9	2.3	2.30	12.5	78HP.02.27FP
HP 227 FPC*	2-way	Steel	12.9	2.3	2.30	14.5	78HP.02.27FPC

*complete with hydraulic hose and pressure gauge Ø 100 mm

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Pressure Gauges Type HG

HG1

- Accuracy ± 1%

Type	Reading inner scale in bar	Ø in mm	Inlet thread	Weight in kg	Item no.
HG 1	0 - 700	100	1/2" NPT AG	0.9	78HG.00.01
HG 1G*	0 - 700	100	1/2" NPT AG	1.0	78HG.00.01G
HG 63G*	0 - 700	63	1/4" NPT AG	0.2	78HG.00.63G

* filled with glycerine **Other versions available.**

Gauge Mounting Blocks Type HGA

Type	Length in mm	Inlet thread	Weight in kg	Item no.
HGA 1	75	1/2" NPT IG	0.25	78HG.A0.01
HGA 2	170	1/2" NPT IG	0.85	78HG.A0.02
HGA1-25	75	1/4" NPT IG	0.25	78HG.A1.25
HGA2-25	170	1/4" NPT IG	0.90	78HG.A2.25

HGA1 HGA2

Air driven Pumps Type AHP

- Working pressure up to 700 bar
- Internal safety valve against overload
- Reservoir oil level sight gauge
- Max. air consumption 9.44 l/s at 7 bar
- Max. flow rate 0.8 l/min
- Air connection 1/4" G

AHP1120

Type	Valve Type	Usable oil capacity in litres	Weight in kg	Item no.
AHP1120	2-way	2.4	4.70	78AH.P1.120
AHP1121	2-way	5.0	9.00	78AH.P1.121
AHP1122	2-way	10.0	17.80	78AH.P1.122
AHP1141	4-way	5.0	9.50	78AH.P1.141
AHP1142	4-way	10.0	18.30	78AH.P1.142

Other air driven hydraulic pumps on request.

Electric driven Pumps Type HEP

- Working pressure up to 700 bar
- Two stage – automatic changeover at 150 bar
- With manual or solenoid valves
- Oil capacity 4 litres
- Voltage 240 V – 1 phase
- Power output 450 W
- Standard version with pressure gauge and remote control

HEP103442LS

Type	Valve Type	Displacement per stroke in ltr/min		Weight in kg	Item no.
		1st stage	2nd stage		
HEP103242LS	2-way solenoid	2.5	0.35	19.2	78HE.P1.03242LS
HEP103242S	2-way solenoid	2.5	0.35	20.5	78HE.P1.03242S
HEP103342	3-way hand	2.5	0.35	18.1	78HE.P1.03342
HEP103442	4-way hand	2.5	0.35	18.1	78HE.P1.03442
HEP103442LS	4-way solenoid	2.5	0.35	20.5	78HE.P1.03442LS

LS versions are fitted with solenoid valve and hold function.
S versions are fitted with solenoid valve and auto retract.

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Electrohydraulic Pumps Pumps Type HEP - Medium Use

- Working pressure up to 700 bar
- Two stage
- Standard version with hold function
- Motor 240V-1Ph-50Hz
- With solenoid valve on request

HEP 207422

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate 1st stage l/min	Flow rate 2nd stage l/min	Weight in kg	Item no.
HEP207112	P-T plate	hand	10	7.0	0.65	47.0	78HE.P207.112
HEP207122	P-T plate	hand	25	7.0	0.65	63.0	78HE.P207.122
HEP207212	2-way	hand	10	7.0	0.65	47.5	78HE.P207.212
HEP207222	2-way	hand	25	7.0	0.65	63.5	78HE.P207.222
HEP207312	3-way	hand	10	7.0	0.65	47.5	78HE.P207.312
HEP207322	3-way	hand	25	7.0	0.65	63.5	78HE.P207.322
HEP207412	4-way	hand	10	7.0	0.65	47.5	78HE.P207.412
HEP207422	4-way	hand	25	7.0	0.65	63.5	78HE.P207.422

Further options:
- Voltage 110V-1Ph-50Hz or 380V-3Ph-50Hz
- Protective frame
- Trolley
- Electric motor 60 Hz

Electrohydraulic Pumps Pumps Type HEP - Continual Use

- Working pressure up to 700 bar
- Two stage
- Standard version with hold function
- Motor 240V-1Ph-50Hz
- With solenoid valve on request

HEP 310322S*

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate 1st stage l/min	Flow rate 2nd stage l/min	Weight in kg	Item no.
HEP310122	P-T plate	hand	25	10.0	1.0	63.5	78HE.P310.122
HEP310142	P-T plate	hand	40	10.0	1.0	88.5	78HE.P310.142
HEP310222	2-way	hand	25	10.0	1.0	64.0	78HE.P310.222
HEP310242	2-way	hand	40	10.0	1.0	89.0	78HE.P310.242
HEP310322	3-way	hand	25	10.0	1.0	64.0	78HE.P310.322
HEP310342	3-way	hand	40	10.0	1.0	89.0	78HE.P310.342
HEP310422	4-way	hand	25	10.0	1.0	64.0	78HE.P310.422
HEP310442	4-way	hand	40	10.0	1.0	89.0	78HE.P310.442

Further options:
- Voltage 110V-1Ph-50Hz or 380V-3Ph-50Hz
- Protective frame
- Trolley
- Electric motor 60 Hz

*Version shown with electromagnetic valve

Electrohydraulic Pumps Pumps Type HEP - Heavy Duty Use

- Working pressure up to 700 bar
- Two stage
- Standard version with hold function
- Motor 240V-1Ph-50Hz
- With solenoid valve on request

HEP 517464

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate 1st stage l/min	Flow rate 2nd stage l/min	Weight in kg	Item no.
HEP517142	P-T plate	hand	40	17.0	2.0	88.5	78HE.P517.142
HEP517162	P-T plate	hand	60	17.0	2.0	120.0	78HE.P517.162
HEP517242	2-way	hand	40	17.0	2.0	89.0	78HE.P517.242
HEP517262	2-way	hand	60	17.0	2.0	120.5	78HE.P517.262
HEP517342	3-way	hand	40	17.0	2.0	89.0	78HE.P517.342
HEP517362	3-way	hand	60	17.0	2.0	120.5	78HE.P517.362
HEP517442	4-way	hand	40	17.0	2.0	89.0	78HE.P517.442
HEP517462	4-way	hand	60	17.0	2.0	120.5	78HE.P517.462

Further options:
- Voltage 110V-1Ph-50Hz
- Protective frame
- Trolley
- Electric motor 60 Hz

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Electrically Driven Multi-Flow Pumps Type HSP

- Working pressure up to 700 bar
- Usable oil capacity up to 240 litres
- Flow rate up to 1.8 l/min, per valve
- Identical flow rate irrespective of the operating pressure
- Valve structure up to max. 12 valves
- Remote control with valve switching system, for individual or synchronous activation of the electric valves
- Externally controllable pressure valve for setting the maximum system pressure on each control valve
- Special versions on request

Type	Valve Type	Valve Version	Usable oil capacity in litres	Flow rate per exit l/min	Motor voltage V	Weight in kg	Item no.
Version with manual control valves							
HSP24M54	2 x 4-way	hand	50	0.9	380/440-3Ph	178	78HS.P2.4M54
Versions with low voltage control valves (24 V), control box and cable remote control							
HSP24E54	2 x 4-way	solenoid	50	0.9	380/440-3Ph	180	78HS.P2.4E54
HSP34E104	3 x 4-way	solenoid	100	1.8	380/440-3Ph	335	78HS.P3.4E104
HSP44E104	4 x 4-way	solenoid	100	1.1	380/440-3Ph	274	78HS.P4.4E104
HSP64E104	6 x 4-way	solenoid	100	0.9	380/440-3Ph	335	78HS.P6.4E104
HSP84E104	8 x 4-way	solenoid	150	0.9	380/440-3Ph	370	78HS.P8.4E104
HSP104E104	10 x 4-way	solenoid	200	0.7	380/440-3Ph	414	78HS.P10.4E104
HSP124E104	12 x 4-way	solenoid	240	0.6	380/440-3Ph	460	78HS.P12.4E104

Type	Length in mm	Width in mm	Container height in mm	Overall height in mm
HSP24M54	500	570	460	817
HSP24E54	500	570	460	817
HSP34E104	920	570	460	920
HSP44E104	920	570	460	920
HSP64E104	750	800	470	920
HSP84E104	1010	800	470	1085
HSP104E104	1270	800	470	1085
HSP124E104	1530	800	470	1085

HSP 44E104

Please see our comprehensive hydraulics catalogue!

PLC-Controlled Synchronous Lifting Systems

Fully-automated PLC-controlled synchronous lifting systems are optionally available with a number of settings that can be customised by the user, such as the target lifting height, maximum tolerance between the lifting points and other important settings, which are all controlled using a central touch screen.

- Synchronous lifting of irregularly distributed loads
- Automatic stopping if a lifting height is preset
- Suitable for use with single or dual-action cylinders

1 Oil rig foundations, dim. 151 x 80 metres, total weight: 10,455 tons

2 Cylinder positioned under foundation, ready to lift the huge load

3 Load lifted. Daylight is clearly visible between the foundation and the base

4 16 cylinders and 4 pumps are simultaneously operated via a touchscreen and controlled using a PLC

5 One of 16 single-action cylinders with adjusting nuts, capacity 1,012 tons, lifting height 915 mm

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Hydraulic Hoses Type HC, 700 bar with one Male Coupler, 1 x 3/8“ NPT-AG

Type	Length in m	Item no.
HC 0.5	0.5	78HC.00.005
HC 1	1	78HC.00.01
HC 2	2	78HC.00.02
HC 3	3	78HC.00.03
HC 4	4	78HC.00.04
HC 5	5	78HC.00.05
HC 6	6	78HC.00.06
HC 10	10	78HC.00.10
HC 12	12	78HC.00.12

HC2

Oil volume of hose per metre: 31.65 cm³

Hydraulic Hoses Type HH, 700 bar without Couplers, 2 x 3/8“ NPT-AG

Type	Length in m	Item no.
HH 0.5	0.5	78HH.00.005
HH 1	1	78HH.00.01
HH 2	2	78HH.00.02
HH 3	3	78HH.00.03
HH 4	4	78HH.00.04
HH 5	5	78HH.00.05
HH 6	6	78HH.00.06
HH 10	10	78HH.00.10
HH 12	12	78HH.00.12

HH2

Oil volume of hose per metre: 31.65 cm³

Manifolds Type HM

Type	Description	Connections	Weight in kg	Item no.
HM2	manifold	3x 3/8” NPT IG	1.0	78HM.00.20
HM4	manifold	5x 3/8” NPT IG	1.5	78HM.00.40
HM2C	controlled manifold	3x 3/8” NPT IG	2.0	78HM.00.2C
HM4C	controlled manifold	5x 3/8” NPT IG	3.5	78HM.00.4C
HM2C-SU	2-way controlled manifold with pressure gauge	3 x CF1 female coupler	2.0	78HM.SU.2C
HM4C-SU	4-way controlled manifold with pressure gauge	5 x CF1 female coupler	3.5	78HM.SU.4C

HM4C-SU

Other versions available.

Couplings Type CF and CM

Type	Description	Connection	Item no.
CF1	Female coupler	3/8” NPT AG	78CF.00.01
CM1	Male coupler	3/8” NPT IG	78CM.00.01
CMF1	Coupler set, CF1 and CM1	-	78CM.F0.02
PPC1	Plastic dust cap CF1 and CM1	-	78PP.C0.01

CF1

PPC1

CM1

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Fittings Type HF

Type	Description	Connections	Item no.
HF12	Equal tee	3/8" NPT IG	78HF.00.12
HF14	Adaptor	3/8" NPT IG x 3/8 NPT IG	78HF.00.14
HF16	Elbow	3/8" NPT IG x 3/8 NPT AG	78HF.00.16
HF17	Nipple (length 39 mm)	3/8" NPT AG x 3/8 NPT AG	78HF.00.17
HF19	Nippel (length 51 mm)	3/8" NPT AG x 3/8 NPT AG	78HF.00.19
HF27	Adapter	1/4" NPT AG x 3/8 NPT AG	78HF.00.27
HF55	Adapter	3/8" NPT IG x 1/4 NPT AG	78HF.00.55

Other fittings available on request.

Light metal lifting devices Type JAH

- Lightweight aluminium construction
- Available as plain ram jack, claw jack or "failsafe" locking ring design
- Can be used vertically or horizontally
- Internal safety valve against overload

JAH630

JAH1230SR

JAH1230C

JAH630C

Type	Capacity in t		Stroke in mm	Height in mm	Weight in kg	Item no.
	Piston	Claw				
JAH 620	20	-	152	263	10.9	78JA.H0.620
JAH 620 C	20	8	152	276	14.5	78JA.H0.620C
JAH 620 SR	20	-	152	289	12.5	78JA.H0.620SR
JAH 1220	20	-	305	438	16.7	78JA.H1.220
JAH 1220 C	20	8	305	452	22.2	78JA.H1.220C
JAH 1220 SR	20	-	305	464	18.0	78JA.H1.220SR
JAH 630	30	-	152	263	15.4	78JA.H0.630
JAH 630 C	30	12	152	281	20.3	78JA.H0.630C
JAH 630 SR	30	-	152	292	16.5	78JA.H0.630SR
JAH 1230	30	-	305	451	23.4	78JA.H1.230
JAH 1230 C	30	12	305	470	31.0	78JA.H1.230C
JAH 1230 SR	30	-	305	479	24.5	78JA.H1.230SR
JAH 660	60	-	152	293	27.4	78JA.H0.660
JAH 660 C	60	24	152	327	43.1	78JA.H0.660C
JAH 660 SR	60	-	152	330	30.0	78JA.H0.660SR
JAH 1260	60	-	305	500	43.7	78JA.H1.260
JAH 1260 C	60	24	305	533	64.9	78JA.H1.260C
JAH 1260 SR	60	-	305	536	44.0	78JA.H1.260SR

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Light metal lifting devices Type JAS

- Lightweight construction
- Operates in any position
- Spring assisted return
- Integral stop ring
- Internal safety valve against overload

JAS103

Type	Capacity in t	Stroke in mm	Overall height in mm	Weight in kg	Item no.
JAS 103	10	75	131	4.35	78JA.S1.03
JAS 105	10	125	181	5.70	78JA.S1.05

Compact Jack Type JCS

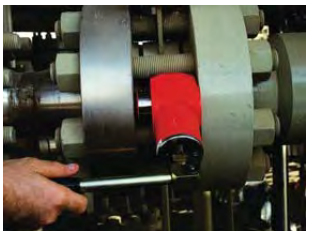
- Operates in any position
- Pump handle rotates through 360°
- Spring assisted return
- Capacities from 10 to 30 ton

JCS10

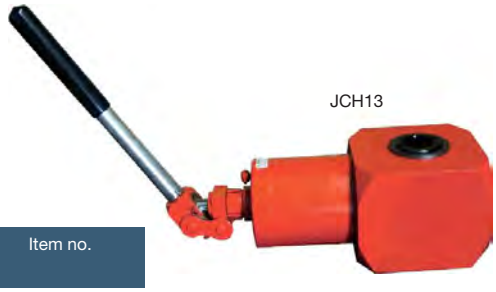
Type	Material	Capacity in t	Stroke in mm	Overall height in mm	Weight in kg	Item no.
JCS 10	Steel	10	35	76	4.5	78JC.S0.10
JCS 20	Aluminium	20	41	96	7.5	78JC.S0.20
JCS 30	Aluminium	30	45	107	8.8	78JC.S0.30

Hollow Piston Compact Jack Type JCH

- Operates in any position
- Pump handle rotates through 360°
- Spring assisted return
- Capacities from 13 to 21 t
- Suitable for push and pull work
- Through-hole JCH13: 25 mm
- Through-hole JCH21: 30 mm



JCH13



Type	Material	Capacity in t	Stroke in mm	Overall height in mm	Weight in kg	Item no.
JCH 13	Aluminium	13	41	99	7.5	78JC.H0.13
JCH 21	Aluminium	21	45	110	8.8	78JC.H0.21

Steel Bottle Jacks Type JSS

- Suitable for industrial and automotive use
- Capacities 16 t and over with carrying handle
- Capacities up to 16 t with screw extension to span the gap

JSS207

Type	Capacity in t	Stroke in mm	Screw extension in mm	Height in mm	Weight in kg	Item no.
JSS 35	3	135	70	195	3.0	78JS.S0.035
JSS 55	5	135	90	200	4.0	78JS.S0.055
JSS 106	10	174	90	243	7.0	78JS.S0.106
JSS 166	16	178	95	255	10.0	78JS.S0.166
JSS 207	20	190	-	280	15.0	78JS.S0.207
JSS 327	32	190	-	285	22.0	78JS.S0.327
JSS 507	50	195	-	300	32.0	78JS.S0.507
JSS 1007	100	195	-	340	69.0	78JS.S1.007

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Hydraulic Torque Wrenches Type TWS-N with Square Drive

- Working pressure up to 700 bar
- Easy handling, compact and lightweight aluminium construction
- Accuracy +/- 3 %
- Multi position reaction foot with safety lock feature
- Reversible square drive
- Fitted with 360° Uni-Swivel quick release coupler

Type	Suitable pump	Torque capacity in Nm	Square drive size	Minimum radius in mm	Weight in kg	Item no.
TWS 17N	HTWP214**	1.727	3/4”	25	1.9	78TW.S0.017
TWS 45N	HTWP214**	4.529	1”	34	4.8	78TW.S0.045
TWS 100N	HTWP214**	10.064	1 1/2”	46	9.0	78TW.S0.100
TWS 150N	HTWP314**	14.974	1 1/2”	50	14.8	78TW.S0.150
TWS 370N	HTWP314**	36.992	2 1/2”	66	32.5	78TW.S0.370

Socket types MS and IS for torque wrench Type TWS-N

- For driving squares from 3/4” to 2.1/2”
- For wrench widths of up to 145 mm or 6.7/8”
- Complete with locking ring and pin.

Metric versions

Type	Square drive size	Wrench width in mm		Item no.
		from	to	
MS2-xx	3/4”	24	60	78MS.20.xx
MS9-xx	1”	24	100	78MS.90.xx
MS5-xx	1.1/2”	36	130	78MS.50.xx
MS6-xx	2.1/2”	80	145	78MS.60.xx

Imperial versions

Type	Square drive size	Wrench width in mm		Item no.
		from	to	
IS2-xx	3/4”	1.1/16”	2.3/8”	78IS.20.xx
IS9-xx	1”	1.1/16”	3.7/8”	78IS.90.xx
IS5-xx	1.1/2”	1.13/16”	5.3/8”	78IS.50.xx
IS6-xx	2.1/2”	3.1/8”	6.7/8”	78IS.60.xx

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Hydraulic Torque Wrench Type TWH-N with Internal Hexagon Nut

- Working pressure up to 700 bar
- Easy handling, very low overall height and low clearance design
- Accuracy +/- 3 %
- Interchangeable cassettes (ratchet heads) with minimum radius
- Fitted with 360° Uni-Swivel quick release coupler

TWH120N

Important: To order a complete hydraulic torque wrench of the TWH-N series both components must be indicated with your order. Example: A TWH-N54N with 60 mm ratchet head consists of the item numbers TWH54N + TWH54NRH-60.

Type	at SW	Nm	at SW	Nm	Suitable pump	Weight* in kg/pce	Item no. Hydraulic unit
TWH27N	24-46	2.625	50-60	3.068	HTWP214**	3.0	78TW.H0.27N
TWH54N	36-65	5.372	70-80	6.037	HTWP214**	6.0	78TW.H0.54N
TWH120N	50-80	11.737	85-100	14.349	HTWP214**	11.5	78TW.H1.20N
TWH210N	70-100	21.216	105-115	23.124	HTWP314**	16.0	78TW.H2.10N
TWH430N	80-115	43.792	130-175	48.181	HTWP314**	28.0	78TW.H4.30N

* Approximate weight including ratchet head

Torque Wrench Exchangeable Cassettes Type TWH-NRH suitable for TWH-N

- Available in metric and imperial sizes
- Simple bolt connection with drive unit
- Strong steel construction
- Non standard and special design ratchet heads can be made to order

TWH120NRH-65

Type	Hexagon nut size min. mm	max. mm	min. inches	max. inches	min. radius in mm	Item no. ratchet head
TWH27NRH-**	24	60	1.1/16”	2.3/8”	9.5-12.1	78TW.H2.7NRH
TWH54NRH-**	36	80	1.7/16”	3.1/8”	10.7-14.6	78TW.H5.4NRH
TWH120NRH-**	50	100	2.3/16”	3.7/8”	14.7-18.7	78TW.H1.20NRH
TWH210NRH-**	70	115	2.3/4”	4.5/8”	18.1-20.7	78TW.H2.10NRH
TWH430NRH-**	80	175	3.1/8”	6.7/8”	25.0-31.3	78TW.H4.30NRH

** Please indicate internal hexagon nut size either in mm (metric) or in inches (imperial)

Please see our comprehensive hydraulics catalogue!

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Hexagon Reducer Bushes Type MB

- The economical solution when different sizes are required
- To reduce the female hexagon size of the ratchet heads
- Atttention: Hexagon reducer bushes increase the radius size of the ratchet heads

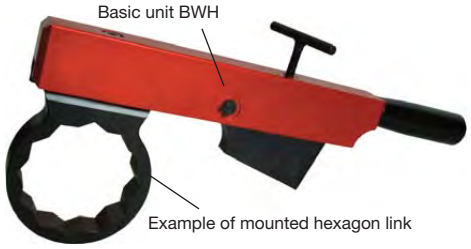
MB54-70-55

Outside AF size	Inside AF size	for TWH27NRH	for TWH54NRH	for TWH120NRH	for TWH210NRH	for TWH430NRH
30	24	MB27-30-24	-	-	-	-
32	24, 27	MB27-32-**	-	-	-	-
36	30	MB27-36-30	MB54-36-30	-	-	-
41	36	MB27-41-36	MB54-41-36	-	-	-
50	41, 46	MB27-50-**	MB54-50-**	-	-	-
55	41, 46, 50	MB27-55-**	MB54-55-**	-	-	-
55	50	MB27-55-50	MB54-55-50	MB120-55-50	-	-
60	46	MB27-60-46	MB54-60-46	-	-	-
60	50, 55	MB27-60-**	MB54-60-**	MB120-60-**	-	-
65	50, 55, 60	-	MB54-65-**	MB120-65-**	-	-
70	55, 60, 65	-	MB54-70-**	MB120-70-**	-	-
75	60, 65	-	MB54-75-**	MB120-75-**	-	-
75	70	-	MB54-75-70	MB120-75-70	MB210-75-70	-
80	65	-	MB54-80-65	MB120-80-65	-	-
80	75, 70	-	MB54-80-**	MB120-80-**	MB210-80-**	-
85	75, 70	-	-	MB120-85-**	MB210-85-**	-
85	80	-	-	MB120-85-80	MB210-85-80	MB430-85-80
90	85, 80, 75	-	-	MB120-90-**	MB210-90-**	MB430-90-**
95	90, 85, 80	-	-	MB120-95**	MB210-95-**	MB430-95-**
100	95, 90, 85	-	-	MB120-100-**	MB210-100-**	MB430-100-**
105	100, 95, 90	-	-	-	MB210-105-**	MB430-105-**
110	105, 100, 95	-	-	-	MB210-110-**	MB430-110-**
115	110, 105, 100	-	-	-	MB210-115-**	MB430-115-**
130	115, 110, 105	-	-	-	-	MB430-130-**
145	130, 115, 110	-	-	-	-	MB430-145-**

** Choose suitable inner hexagonal size

Backup Wrench Type BW

- Suitable for use with TWS-N and TWH-N torque wrenches
- One basic unit for all applications
- Positive release mechanism



Type	Hexagon AF size				Item no.
	min. mm	max. mm	min. inches	max. inches	
BWH Basic unit	-	-	-	-	78BW.00.01
BWI-SET Imperial	-	-	1.7/16”	3.7/8”	78BW.00.02
	Basic unit with 12 pcs link set - imperial				
BWM-SET Metric	36	100	-	-	78BW.00.03
	Basic unit with 14 pcs link set - metric				

On request basic units and hexagonal links are also available separately.

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Hydraulic Torque Type HTWP Wrench Pumps

Type	Motor voltage	Displacement 1st stage	Displacement 2nd stage	Dimensions LxWxH in mm	Weight in kg	Item no.
HTWP 2140P	7 bar (air)	6.1 l/min	0.51 l/min	468 x 205 x 445	28.0	78HT.WP.2140
HTWP 2142AR*	240 V	3.6 l/min	0.39 l/min	468 x 205 x 445	34.0	78HT.WP.2142

*With auto retract function as standard

HTWP2142AR

Split Block Type HTWM with Couplers

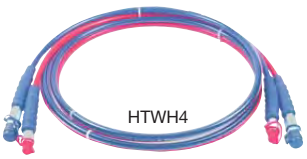
- 4-way split block, including quick connect couplers and hydraulic hoses
- Suitable for use of up to 4 hydraulic wrenches from one pump

Type	Item no.
HTWM 4	78HT.WM.04

HTWM4

Hydraulic Hoses Type HTWH for Torque Wrenches

Type	Length in m	Item no.
HTWH 4	4	78HT.WH.04
HTWH 5	5	78HT.WH.05
HTWH 6	6	78HT.WH.06
HTWH 8	8	78HT.WH.08
HTWH 10	10	78HT.WH.10



HTWH4

Drip-free Couplers for Torque Wrenches Type CF and CM

Type	Thread size in inches	Description	Item no.
CF 4F	1/4“ NPT IG	Female half coupler	78CF.4F
CM 4F	1/4“ NPT IG	Male half coupler	78CM.4F

CF4F

CM4F

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Hydraulic Spreader Type JS

- Made from high-strength steel
- For spreading and wedging
- Working pressure up to 700 bar
- Single acting with spring assisted return

JS4

Type	Capacity in t	Oil capacity in cm³	Initial height in mm	max. spread in mm	Length in mm	Weight in kg/pce	Item no.
JS4	0.9	10.0	9.7	94	223	2.2	78JS.00.04

Spreading Cylinder Type SJS

- Spring assisted return
- Fully wedge-assisted spreading
- 5 initial heights
- Delivery complete with 5 stepped block and safety block

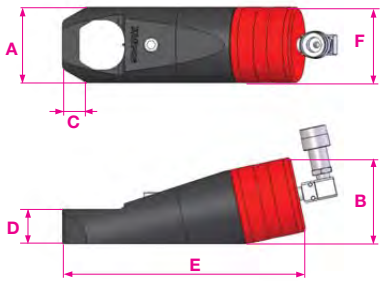
SJS10

SJS10M

Type	Capacity in t	Oil capacity in cm³	Initial height in mm	max. spread in mm	Length in mm	Weight in kg/pce	Item no.
SJS10	13	74	8	60	279	5.5	78SJ.S0.10
SJS10M	13	74	8	60	433	7.5	78SJ.S0.10M

Nut Splitter Type NS with oil connection

- Suitable for nuts up to HRC 44 hardness and sizes up to 75 mm hexagonal
- Working pressure up to 700 bar
- Oil connection with swivel adapter
- Angled body design
- Spring assisted return
- Compact and easy to use
- Models with integrated pump are available on request



NS 104
NS 110

NS 104

Type	Hexagon AF Sizes in mm	Thread sizes	Dimensions in mm						Weight in kg/pce	Item no.
			A	B	C	D	E	F		
NS 104	17-32	M10-M22	64	77	12.5	30	210	67	4.0	78NS.01.04
NS 110	32-41	M22-M27	78	96	20	37	268	88	7.4	78NS.01.10
NS 200	41-50	M27-M33	96	116	21	43	315	108	10.6	78NS.02.00
NS 206	50-60	M33-M39	115	138	24	52	336	126	15.8	78NS.02.06
NS 215	60-75	M39-M48	156	175	27	75	426	162	39.3	78NS.02.15

Nut Splitter Type HMNS with Integrated Manual Pump

- For splitting nuts with a wrench width of 17 - 50 mm
- Suitable for mobile use thanks to integrated manual pump

HMNS110

Type	Hexagon AF Sizes in mm	Thread sizes	Dimensions in mm					Weight in kg/pce	Item no.
			A	B	C	D	E		
HMNS 104	17-32	M10-M22	64	88	12.5	30	380	5.8	78HMNS.01.04
HMNS 110	32-41	M22-M27	78	101	20	37	440	7.9	78HMNS.01.10
HMNS 200	41-50	M27-M33	94	112	21	43	471	13.6	78HMNS.02.00

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force HYDRAULIC TOOLS

Other hydraulic Products from our Range

Hydrotest Pumps

- Manually operated pumps up to 1,000 bar pressure
- Air-driven pumps up to 3,000 bar pressure
- Suitable for use with various fluids, including water
- Perfectly suited for pressure testing of valves, pipes and tanks
- Air-driven pumps with Ø 150 mm pressure gauge as standard
- On request air-driven pumps are also available with chart recorder

Cutting Tools

- Cutters for wire ropes, chains, and bars
- Also available with integrated pump
- Max. cutting Ø 114 mm and up to 140 ton output
- Single or double acting
- Robust and powerful
- Chain cutters suitable for grade 100 chains

Punching Tools

- Single or double acting
- With integrated pump or oil connection
- Punching capacity from 7 to 50 ton
- Punch hole diameters from 10.5 to 60.5 mm
- Max. steel plate thickness 15.0 mm
- Different versions available

ToughLift Jacking Systems

- The right tool for tyre change of wheel loaders or big dumpers
- Capacities from 50 to 200 ton
- Patented lifting system for safe and correct positioning
- Strokes from 254 to 530 mm are available
- Electric or air-driven pumps
- Wide range of accessories for higher flexibility

HYDRAULIC LIFTING & TRANSPORT DEVICES

Hi-Force® HYDRAULIC TOOLS

Carl Stahl®

Other hydraulic Products from our Range

Socket removal kit

- Aluminium cylinder for removing sockets
- 18 t capacity at a maximum operating pressure of 700 bar
- Particularly suited for commercial vehicle manufacturers, service centres and garages for construction vehicles

Hydraulic Pullers

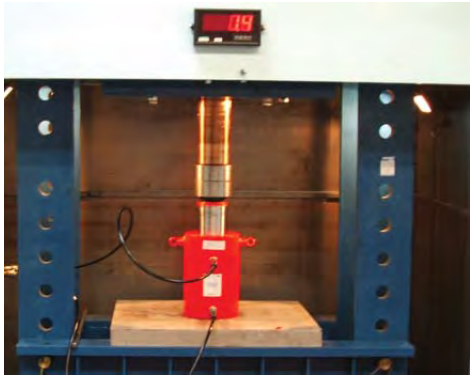
- With integrated pump or oil connection
- Operates in any position
- Capacities up to 50 ton
- Auto-Centre versions available
- 2- and 3-way grips available
- Delivery complete with hydraulic components

Crimping Tools

- With integrated pump or oil connection
- Perfectly suitable for crimping eyelets on electric cables
- Delivery complete with 1 set of dies
- 6 to 18 ton output
- Dies from 10 to 630 mm²
- Also avilable in battery operated version

Workshop Presses

- With manual, air or electric powered pumps
- Single or double acting
- Complete with pressure gauge with ton scale
- Available with a rope winch for the work table
- V-shape press surface available as accessory
- Capacities from 10 to 100 ton



HEAVY DUTY LIFTING AND HEAVY DUTY TRANSPORT

Heavy Duty Lifting	**Pages 528-534**
Heavy Duty Transport	**Pages 535-546**
Industrial Trucks	**Pages 548-551**
Forklift Attachments	**Pages 552-563**

INDUSTRIAL TRUCKS AND ATTACHMENTS

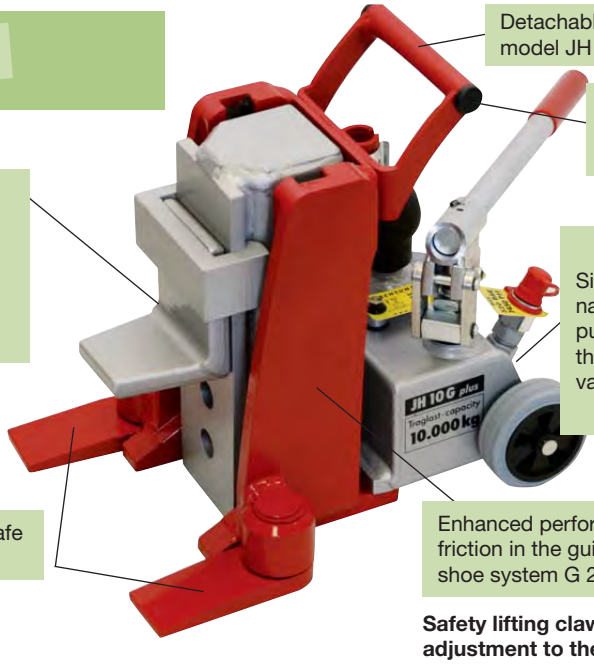
HEAVY DUTY LIFTING

Machine Jacks JH-G plus Series

New and lightweight!

Safe working and moving of the lifting device with the patented safety lifting claw system (Patent no.4413478)

- Drop forged lifting claw
- Extreme toughness excludes crack formation
- Spring steel grade ensures high impact strength



Detachable carrying handle with model JH 6 G plus and JH 10 G plus

Extreme weight reduction due to optimised construction and new design

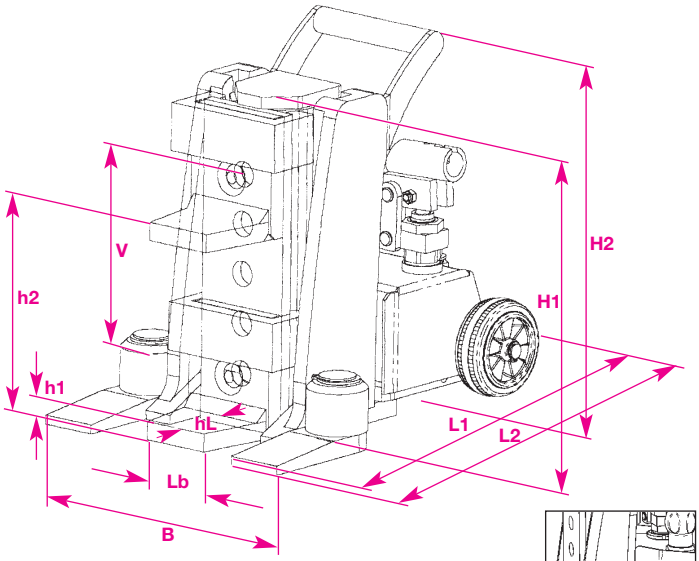
Simple and cost-saving maintenance due to easily detachable pump unit. Enhanced safety thanks to integral pressure relief valve with dirt filter.

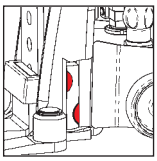
Support feet are slewable through 180° for easy and safe positioning under all space conditions

Enhanced performance due to reduced friction in the guides of the patented slide shoe system G 295 04271.0

Safety lifting claw swivels ±6° for continuous adjustment to the load.

For suitable accessories (pumps and hoses) see pages 558.





Advantages in detail:

- **Reduced friction** due to slide shoes with movable seat. Compared to conventional jacks the load is distributed over a much bigger surface in all operating conditions (see figure left) which results in less wear on the guides and a higher efficiency.
- **Low maintenance cost** due to detachable pump unit and exchangeable slide shoes.
- **High performance but extremely lightweight** due to high grade materials and innovative construction.
- Ideal adaption to the load thanks to **movable safety lifting claw**. High stability especially in elevated position.
- **Quick lift** with JH 15 / 20 G plus

Item no.		7830.10.55	7830.11.00	7830.21.00	7830.11.50	7830.12.00
Type		JH 6 G plus	JH 10 G plus	JH 10 G plus short	JH 15 G plus	JH 20 G plus
Load capacity on top plate in kg		6000	10000	10000	15000	20000
Stroke in mm		140	150	108	175	190
Minimum lifting claw height	h1 in mm	12	15	15	20	20
Maximum lifting claw height	h2 in mm	157	180	138	205	225
Adjustment range of lifting claw	V in mm	6 x 29	5 x 41	4 x 41	5 x 46	5 x 51
Top plate height	H1 in mm	245	275	235	310	340
Claw width front	Lb in mm	50	60	60	80	80
Usable claw length	nL in mm	50	55	55	66	66
Foot length straight	L2 in mm	326	346	346	415	425
Foot length swung sideways	L1 in mm	311	330	330	401	405
Width	B in mm	233	247	247	300	322
Overall height	H2 in mm	280	310	235	310	340
Cylinder volume in l		0.18	0.3	0.21	0.5	0.73
Weight ca. in kg		23	29	26	48	60

HEAVY DUTY LIFTING

Machine Jacks JH-G plus Ex Series without integrated Pump

For technical details please refer to the machine jack JH-G plus
- JH 15G to JH 30G plus Ex are equipped with spring return, therefore no force effort to reset in lowest position.
- External pumps are necessary to operate the JH-G plus Ex series (see below).

These jacks are usually combined with manually or electrically operated hydraulic pumps. This configuration offers an ideal solution for heavy duty lifting in confined spaces or other tricky situations.

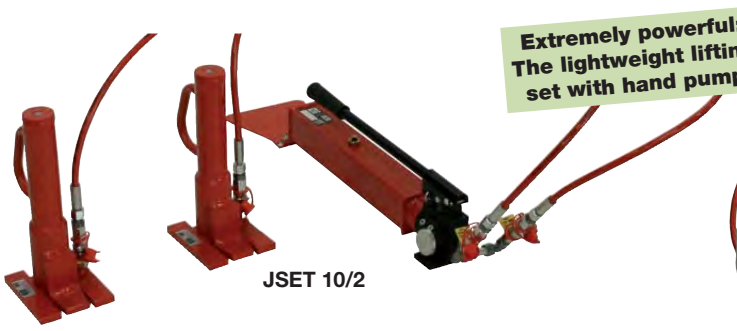
Item no.		7830.31.00	7830.21.50	7830.22.00	7830.13.00
Type		JH10G plus Ex	JH15G plus Ex	JH20G plus Ex	JH30G plus Ex
Load capacity on top plate in kg		10000	15000	20000	30000
Stroke in mm		150	175	190	200
Minimum lifting claw height	h1 in mm	15	20	20	20
Maximum lifting claw height	h2 in mm	180	205	225	305
Adjustment range of lifting claw	V in mm	5 x 41	5 x 46	5 x 51	5 x 71
Top plate height	H1 in mm	275	310	340	420
Claw width front	Lb in mm	60	80	80	80
Usable claw length	nL in mm	55	66	66	66
Foot length straight	L2 in mm	270	340	360	380
Foot length swung sideways	L1 in mm	210	230	230	270
Width	B in mm	247	300	322	375
Overall height	H2 in mm	275	310	340	420
Cylinder volume in litres		0.3	0.5	0.73	1.27
Weight ca. in kg		24	41	52	92

HEAVY DUTY LIFTING

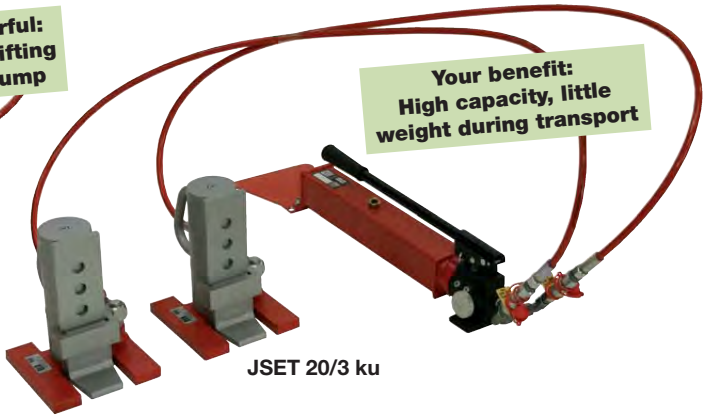
Hydraulic Lifting Set Type JSET
Capacity up to 20 ton

Directions for use:
2 lifting jacks are connected to a pump by hydraulic hoses with non-drip quick couplers. The 2 lifting jacks are controlled by the external pump. Thus it is made sure that the jacks are not unintentionally overloaded during lowering.

- Lifting claw rotates through 180° to lift with or without supporting feet
- High capacity at low weight
- Pump and jacks are separate units and can therefore be used flexibly in confined spaces. Horizontal operation is also possible.
- Swivelling lifting toe on JHS 10 ku assures optimal adjustment to the load, along with safe and stable support even in raised position.

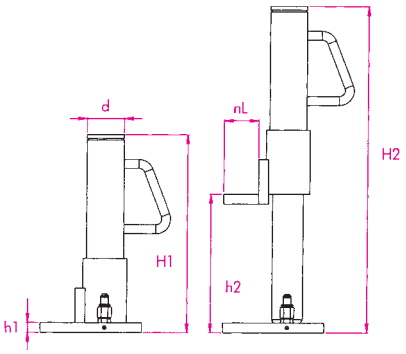


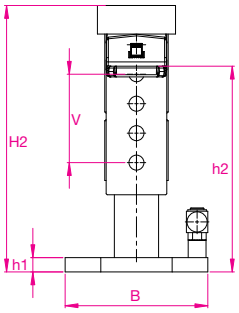
JSET 10/2



JSET 20/3 ku

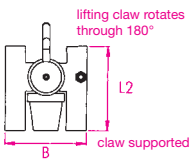
Item no.	7850.00.50	7850.01.00	7850.01.01
Lifting set	JSET 10/2	JSET 20/3	JSET 20/3 ku
Max. capacity in kg	10000	20000	20000
Lifting set consisting of:			
2 x Hydraulic jack	JHS 5	JHS 10	JHS 10 ku
2 x Hydraulic hose	JS 2	JS 3	JS 3
1 x Hand pump	JP 26	JP 26	JP 26

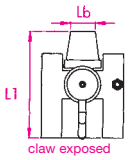




Technical data for hydraulic jacks JHS 5 and JHS 10

Type	JHS 5	JHS 10	JHS 10 ku
Capacity in kg	5000	10000	10000
Minimum lifting claw height h1 in mm	15	20	20
Maximum lifting claw height h2 in mm	240	240	288
Top plate height H1 in mm	350	370	265
Max. lifting height witt top plate H2 in mm	590	610	373
Claw width front Lb in mm	45	60	60
Usable claw length nL in mm	40	55	55
Adjustability of claw V in mm	-	-	5 x 41
Ø d top plate in mm	60	80	95
Length L2 with claw supported in mm	170	205	205
Length L1 with claw exposed in mm	220	260	260
Width B in mm	145	200	200
Cylinder volume in litres	0.3	0.47	0.21
Weight in kg	10	19	19



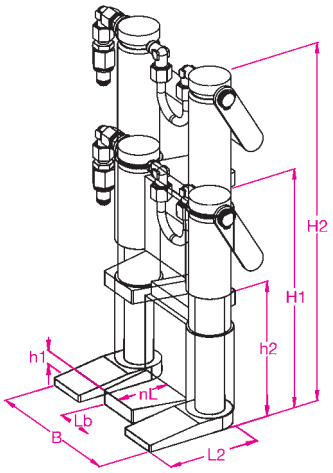


For suitable accessories (pumps and hoses) see pages 558.

Hydraulic Lifting Jack Type Primus

Advantages of the hydraulic jack Primus:
- High performance at low weight
- Slewable feet for optimised positioning
- Equal load distribution and adaption of the jack to the load by integrated twin cylinder system
- Jacks and pump as separate units for high flexibility
- Effortless transport and retraction of the cylinder with the included retraction/transport truck (only JSET 30/2 and JSET 50/3)

For suitable accessories (pumps and hoses) see pages 558.



Item no.	7830.25.00
Type	JH 50 P
Load capacity on top plate in kg	50000
Stroke in mm	250
Minimum lifting claw height h1 in mm	35
Maximum lifting claw height h2 in mm	275
Minimum Top plate height H1 in mm	542
Maximum Top plate height H2 in mm	792
Claw width front Lb in mm	100
Usable claw length nL in mm	85
Length L2 with feet in front in mm	350
Width B in mm	380
Cylinder volume in litres	2.51
Weight in kg	105

Hydraulic Lifting Set Type JSET

Advantages of the hydraulic lifting set JSET:
- Complete lifting set including all hoses, pumps, lifting jacks and the retraction/transport truck JRS 1
- Effortless transport and retraction of the cylinder with the included retraction/transport truck JRS 1
- Jacks and pump as separate units for high flexibility

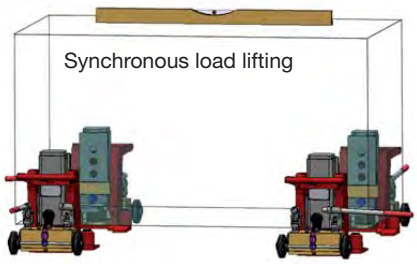
Item no.	7850.50./3
Lifting set	JSET 50/3
Lifting device	1 x JH 50 P
Hose	2 x JS 3
Pump	1 x JPE 55 NVR
Retraction/transport truck	1 x JRS 1

HEAVY DUTY LIFTING

Pressure Blocks Type JD

Safety provided by synchronous pressure block **NEW!**

Benefits when working <u>with</u> the synchronous pressure block:
- Safe working without a risk of tipping
- Time savings
- One-man operation



Caution! Risk of tipping <u>without</u> synchronous pressure block

In the case of heavy loads with a small footprint in particular, 'lifting on demand' using four independent hydraulic lifting device can easily lead to the load tipping over. The risk when setting down the load is even greater, as this often occurs more quickly than lifting it and the realisation that a load is tipping often comes too late.

JD 40 E+ VS

Pressure block JD 80+

JD 40 E+ VS
4x JHS 10

Pressure block in special version for synchronous load lifting

Item no.	7852.04.00	7852.04.01	7852.04.02	7852.08.01	7852.08.02
Type	JD 40+	JD 40 E+	JD 40 E+ VS	JD 80 E+	JD 80 E+ VS
Fully assembled on trolley with electr. pump	no	yes	yes	yes	yes
Retaining spring	no	yes	yes	yes	yes
Length in mm	1200 / 47.2"	1200 / 47.2"	1200 / 47.2"	1200 / 47.2"	1200 / 47.2"
Width in mm	650 / 25.6"	650 / 25.6"	650 / 25.6"	650 / 25.6"	650 / 25.6"
Height in mm	1300 / 51.2"	1300 / 51.2"	1300 / 51.2"	1300 / 51.2"	1300 / 51.2"
Electric pump working pressure in bar	520	520	520	520	520

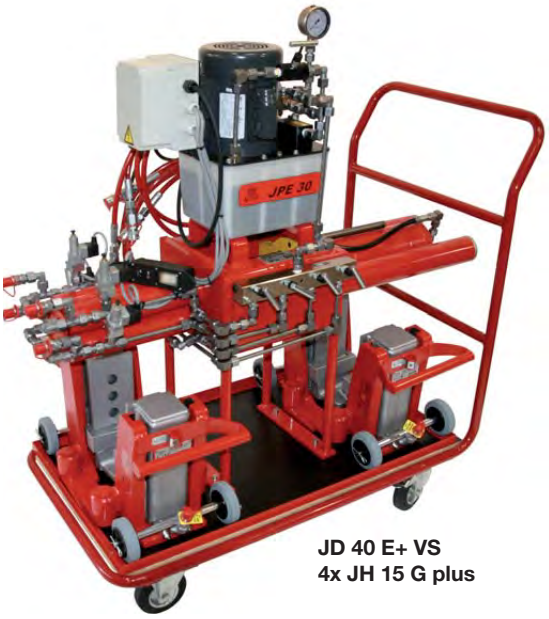
Pressure Block JD 40 E+ VS

With convenient retraction device

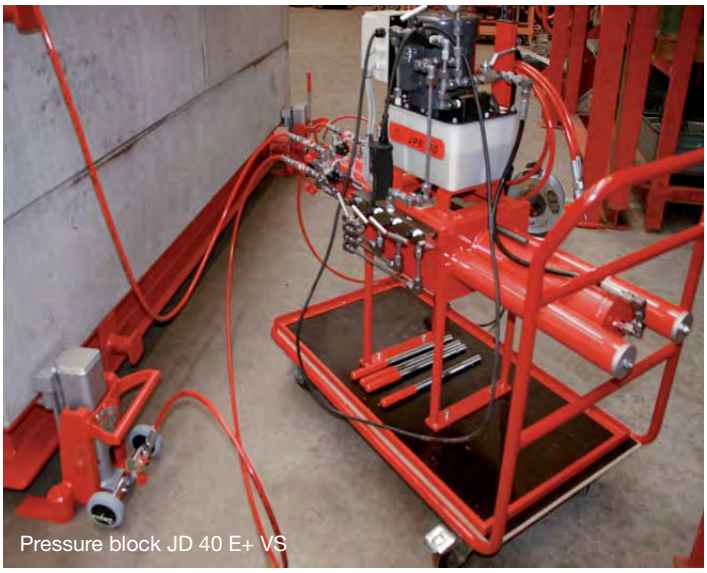
NEW!

Benefits when working with the synchronous pressure block:

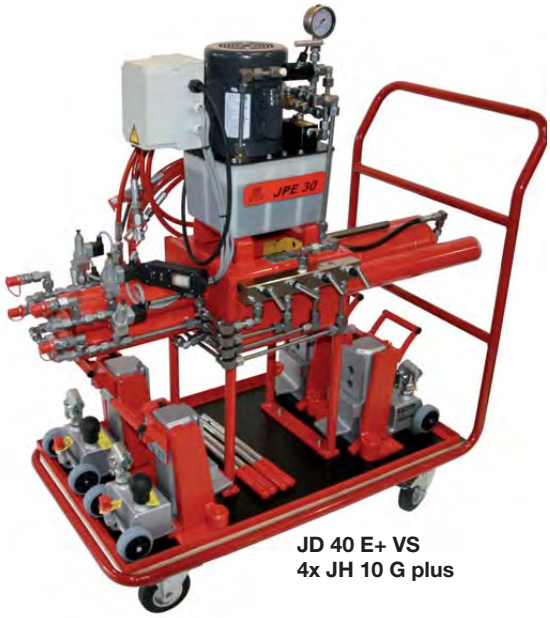
- Loads with a decentralised centre of gravity can be synchronously lifted and lowered simply and safely.
- Simple push button operation (remote operation).
- All slave cylinders are equipped with safety pressure switches preset to 520 bar. Pressure monitoring using integrated pressure switches with an LED indicator prevents overloads.
- Machine lifting devices can be retracted even without load (with JH 15 to 20 G plus EX)
- Load-independent, constant lifting speed.
- Controllable lowering speed.
- The entire system is mobile and conveniently positioned on a trolley.
- Electric pump JPE 30 and VS control unit for controlling the individual lifting devices.
- Clear and simple control unit, can be set to system-based or individual lifting devices and is suitable for creating a three-point base.
- System contains enough oil for up to 4 pcs. JH 10 G plus/JH 10 G plus EX/JHS 10. Larger devices can also be operated, but with a reduced lift.
- The pressure block is equipped with return springs so that the working cylinder automatically returns to the start position.



JD 40 E+ VS
4x JH 15 G plus



Pressure block JD 40 E+ VS



JD 40 E+ VS
4x JH 10 G plus

Suitable lifting devices for the JD 40 E+ VS	Load capacity in kg
4x JH 6 G plus (full lift, no spring retraction)	24 000
4x JHS 5 (full lift, no spring retraction)	20 000
4x JH 10 G plus (full lift, no spring retraction)	40 000
4x JHS 10 / JH 10 G plus ku (full lift, no spring retraction)	40 000
4x JH 15 G plus (reduced lift, no spring retraction)	60 000
4x JH 15 G plus EX (reduced lift, with spring retraction)	60 000
4x JH 20 G plus (reduced lift, no spring retraction)	80 000
4x JH 20 G plus EX (reduced lift, with spring retraction)	80 000

HEAVY DUTY LIFTING

Air and electrical Pumps Types JPL and JPE

- These electric pumps are very easy to operate.
- They offer the best possible weight/flow rate ratio.

Item no.	7852.00.15	7852.03.00	7852.03.55
Type	JPL 15	JPE 30 NVR	JPE 55 NVR
Total/useful oil capacity in l	1.5	7.6 / 4.8	9.5 / 8.4
Working pressure in bar	0-700	520	520
Number of connections	2 drip-free hydraulic connections	2	2
Flow rate low pressure in l/min	1.07	3.9 at 7 bar	7.1 at 50 bar
Flow rate high pressure in l/min	0.18	0.33 at 520 bar	0.95 at 520 bar
Weight in kg	9	40	40
Dimensipns L x W x H in mm	380 x 136 x 185	530 x 300 x 560	530 x 300 x 560
Hose length in mm	-	variable	variable
Motor data	-	230 V, 50 Hz, 5 A	230 V, 50 Hz, 13 A
For use with	single acting cylinders	-	-
Compressed air connection in bar	7-14	-	-

Hydraulic Hand Pump Type JP 26

Your advantages in detail:

- Sturdy construction but still light weight and handy
- Pressure limit valve as overload protection
- Equipped with integrated quick-lift for faster work

Item no.	7851.02.50
Type	JP 26
Total/useful oil capacity in l	2.1 / 2.0
Working pressure in bar	520
Number of connections	2
Dimensions L x W x H in mm	770 x 170 x 169
Weight in kg	13

*up to 15,000 mm

Possible fields of application

Lifting jacks	JP26
JH 6 G plus	for 2 hydraulic jacks
JH 10 G plus	for 2 hydraulic jacks
JH 15 G plus	for 2 hydraulic jacks
JH 20 G plus	for 2 hydraulic jacks
JH 10 G plus ku	for 2 hydraulic jacks
JH 13 P	for 2 hydraulic jacks
JHS 5	for 2 hydraulic jacks
JHS 10	for 2 hydraulic jacks
JHS 10 G ku	for 2 hydraulic jacks

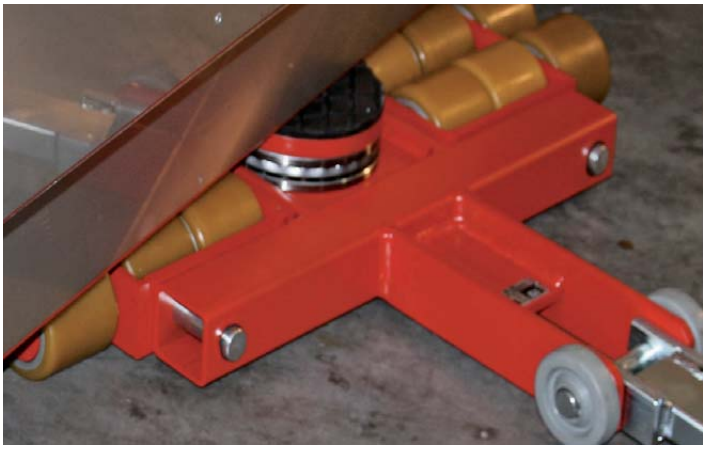
Hydraulic Hoses Type JS

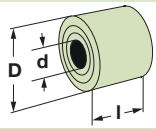
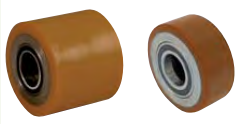
- Both ends fitted with non-drip couplers, evacuated oil-filled, ready to use
- Safety factor 4:1

Item no.	**7853.00.20**	**7853.00.30**	**7853.00.40**	**7853.00.60**
Type	JS 2	JS 3	JS 4	JS 6
Number of non-drip couplers	2	2	2	2
Length in mm	2000	3000	4000	6000

Max. length available is 15,000 mm

Castor finishes for the broadest range of flooring



Type	Steel	JUWAmid	JUWAthan®	JUWAthan®plus	JUWAthan®Professional
Details	The castor body is made of a seamless, precision steel tube. 2 ball bearings are pressed into the castor body.	2 ball bearings are pressed into a high-quality polyamide castor.	The coating is moulded around a steel core. 2 precision ball bearings are pressed into the steel core.	A special polyurethane coating is moulded around an aluminium core. • Due to optimised coating the rolling resistance is reduced by almost 30% • Almost 35% weight reduction	• Higher load capacity compared to JUWAthan® plus rollers due to partition of rollers and bearings (2x2 ball bearings) • Considerably reduced friction between flooring and rollers as the double rollers can rotate in opposite directions. • Reduced turning effort • More directional stability due to reduced friction also for the trailing axles
Usage 	Very uneven areas and poor floor conditions with high levels of dirt	Smooth, level industrial floors without dirt/chips	• Smooth, level industrial floors without dirt/chips • Industrial floors with dirt/chips and slight indents or areas of unevenness		
Trolley type and castor dimensions **JKB** D x d x l (mm) 85 x 25 x 43					
M D x d x l (mm) 85 x 25 x 43					
K D x d x l (mm) 85 x 25 x 85					
K Prof. D x d x l (mm) 85 x 25 x 85					
G Prof. D x d x l (mm) 140 x 35 x 59					
H D x d x l (mm) 200 x 70 x 170 200 x 70 x 85					

HEAVY DUTY TRANSPORT

Rotating Transport Skate Sets JKB, Clearance 110 mm

Your advantages in detail:
- Low dead weight at high load capacity
- 360° rotation due to ball bearing castors
- Height matches the K-series
- Unrivalled: The small width of the castors reduces rolling and turning resistance to a minimum.
- Through special openings provided, the skates JKB 3-7.5 can be connected to the load with standard lashing straps
- Skates JKB 3-7.5 are fitted with centric bores (Ø 30 mm) for easy load attachment

Options:
- The pictured draw and alignment bars are not included in the set
- Alignment bar can be fixed to the carrying handle without using tools

Optionally available with the following castor types:
(for details, see page 535)

JUWAmid

JUWAmid white

JUWAthan® plus

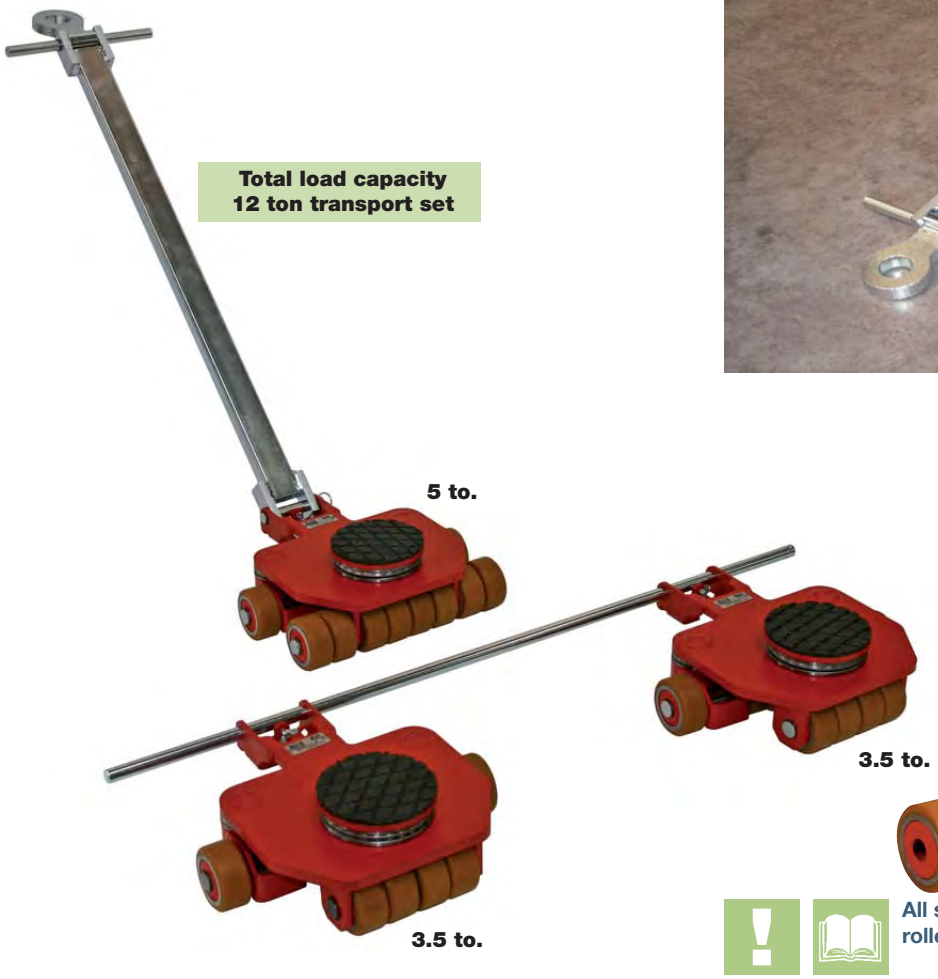
Type	JKB 1.5/3	JKB 3/6	JKB 4/8	JKB 6/12	JKB 7.5 / 15
Load capacity of single skate/set in kg	1500 / 3000	3000 / 6000	4000 / 8000	6000 / 12000	7500 / 15000
Number of rollers per skate	6	8	12	16	20
Roller dimensions Ø x width in mm	85 x 43	85 x 43	85 x 43	85 x 43	85 x 43
Supporting area per skate in mm	150	250	250	250	250
Dimensions of skate in mm	530 x 490	690 x 460	690 x 475	690 x 525	910 x 740
Weight with JUWAmid single skate/set in kg	20/40	30/60	43/86	44/88	63.5/127
Item no. Set (consisting of 2 single skates)	9107.02.15	9107.02.30	9107.02.40	9107.02.60	9107.02.75
Item no. single skate	9107.01.15	9107.01.30	9107.01.40	9107.01.60	9107.01.75
Item no. draw bar	910Z.00.09	910Z.00.09	910Z.00.09	910Z.00.09	910Z.00.09
Item no. alignment bar	910Z.00.10	910Z.00.10	910Z.00.11	910Z.00.11	910Z.00.11

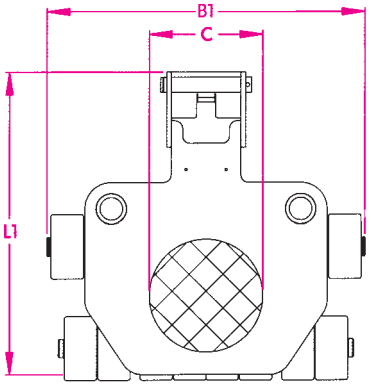
Multi-Purpose Trolley Series M

Your advantages in detail:

- 80% easier to steer thanks to two steering wheels
- Held on track by the rigid axis
- Suitable for steering and straight-line movements
- Steering forces from a standing position reduced by up to 80%. This protects the castors and the floor covering and vastly enhances the device ergonomics for the user.
- Enables the load to be pushed transversely to the direction of movement.

Total load capacity
12 ton transport set





All skates are equipped with JUWAthan® plus rollers. For details see page 535.

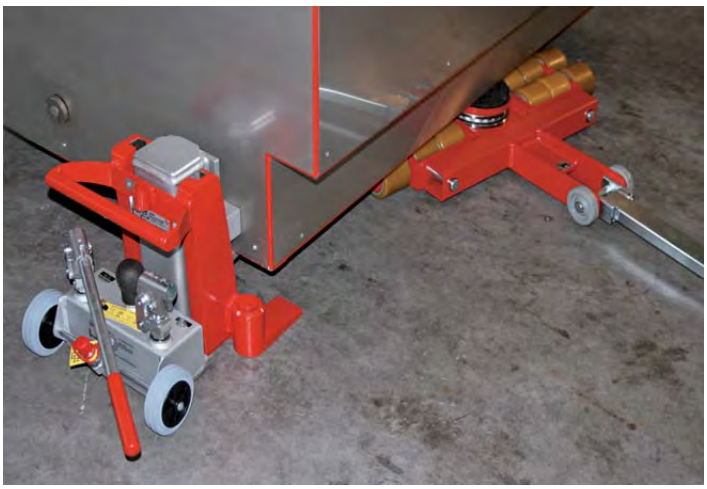
Item no.	9107.20.35	9107.21.20	9107.20.50	9107.21.50
Type	JLF 3.5	JLF Set 12	JLF 5	JLF Set 15
Load capacity in kg	3500	1 x 5000 + 2 x 3500	5000	3 x 5000
Number of rollers	8	1 x 12 + 2 x 8	12	3 x 12
Roller dimensions in mm	85 x 43	85 x 43	85 x 43	85 x 43
Height in mm	150	150	150	150
Supporting area Ø C in mm	150	150	150	150
Overall width B1 in mm	420	420	420	420
Skate length L1 in mm	410	410	410	410
Weight with JUWAthan plus in kg	23	71	25	75

HEAVY DUTY TRANSPORT

Adjustable and steerable Transport Skates Type K, Load Capacity 6-24 t, Overall Height 110 mm

Your advantages in detail:

- Galvanised axles and safety clip ring for improved corrosion resistance
- Fitted with top quality rollers as standard
- Reduced weight due to optimised cassette design
- All transport skates are immediately ready for use.
- The steerable skate is equipped with a roller bearing turntable and the pictured steering handle.
- **The fixed skates can be connected with the included alignment bar as pictured on the below.**



Optionally available with the following castor types:
(for details see page 535)

Steel

JUWAmid

JUWAthan®plus

Item no.	9102.20.30	9101.20.30	9102.20.60	9101.20.60	9102.20.90	9101.20.90	9102.21.20	9101.21.20
Type	JLB 3 K	JFB 3 K	JLB 6 K	JFB 6 K	JL 9 K	JFB 9 K	JL 12 K	JFB 12 K
Capacity in kg	3000	3000	6000	6000	9000	9000	12000	12000
Number of rollers	4	4	8	8	12	12	16	16
Dimensions of rollers in mm	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85
Overall height in mm	110	110	110	110	110	110	110	110
Load surface fixed skates in mm		120 x 80		175 x 170		175 x 170		175 x 170
Dimensions of fixed skates		190 x 115		325 x 200		325 x 390		325 x 390
Length of alignment bar in mm		1000**		1230		1230		1230
Adjustment range of skates in mm		125-880		400-1030		400-1030		400-1030
Turntable Ø in mm	150		150		170		170	
Dimensions of steerable skates in mm	225 x 280		445 x 590		580 x 820		580 x 1000	
Length of steering handle in mm	990*		1120		1120		1120	
Weight with JUWAthan plus in kg	12	11	33	25	54	32	64	35

* Without towing eye, ** Non articulated alignment bar

Adjustable and steerable Transport Skates Type K Professional, Load Capacity 14-28 ton, Overall Height 110 mm

Your advantages in detail:

- Galvanised axles and safety clip ring for improved corrosion resistance
- Less turning effort due to divided rollers. Considerably reduced friction when negotiating curves. The drastically lower friction also provides enhanced directional stability for the trailing axles.
- Higher load capacity at identical dimensions compared to K series.
- All transport skates are immediately ready for use.
- The steerable skate is equipped with a roller bearing turntable and the pictured steering handle.
- **The fixed skates can be connected with the included alignment bar as pictured on the below.**

All skates are equipped with JUWAthan® Professional rollers. For details see page 535.

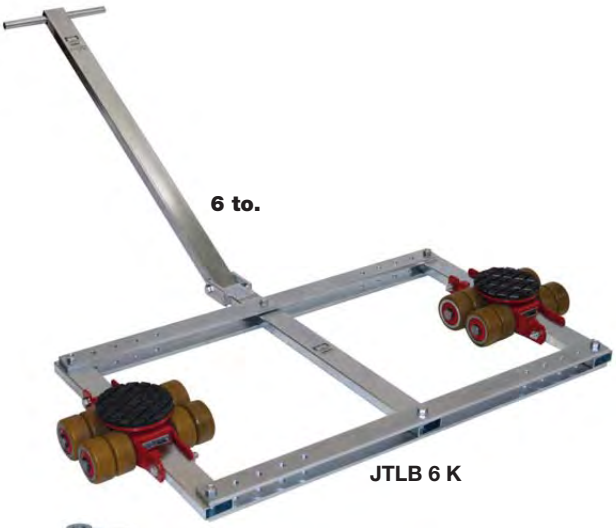
Item no.	9102.30.70	9101.30.70	9102.31.00	9101.31.00	9102.31.40	9101.31.40
Type	JLB 7 K	JFB 7 K	JL 10 K	JFB 10 K	JL 14 K	JFB 14 K
Capacity in kg	7000	7000	10000	10000	14000	14000
Number of rollers	8	8	12	12	16	16
Dimensions of rollers in mm	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85	85 x 85
Overall height in mm	110	110	110	110	110	110
Load surface fixed skates in mm		175 x 170		175 x 170		175 x 170
Dimensions of fixed skates		325 x 200		325 x 390		325 x 390
Length of alignment bar in mm		1230		1230		1230
Adjustment range of skates in mm		400-1030		400-1030		400-1030
Turntable Ø in mm	150		170		170	
Dimensions of steerable skates in mm	445 x 590		580 x 820		580 x 1000	
Length of steering handle in mm	1120		1120		1120	
Weight with JUWAthan Professional in kg	36	27	56	35	68	39

HEAVY DUTY TRANSPORT

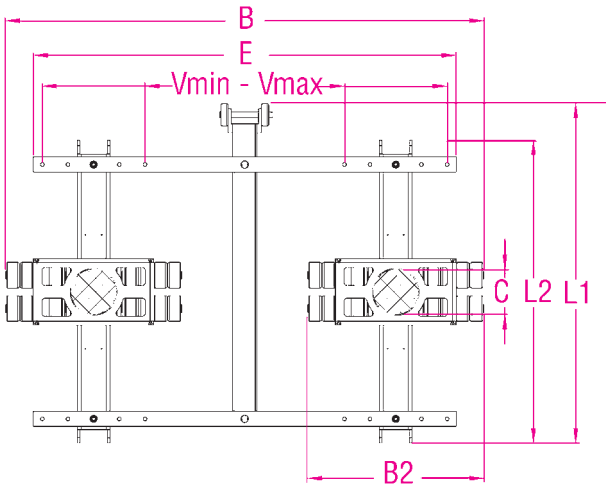
Tandem Skates Series K Professional, Capacity up to 14 ton, Overall Height 110 mm

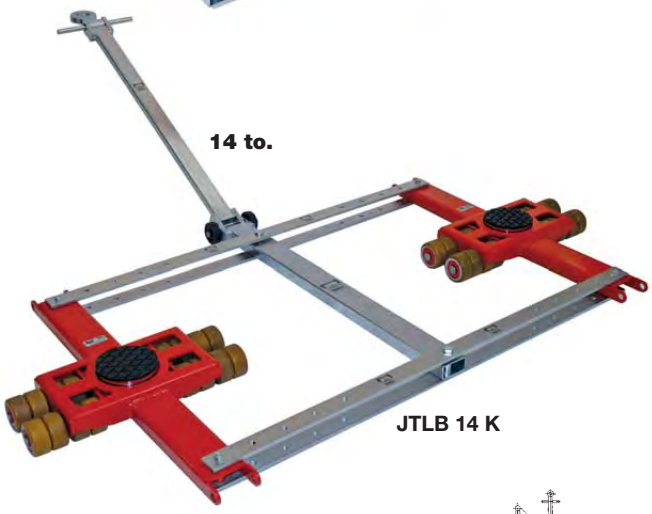
Your advantages in detail:

- These tandem skates are specially suitable for loads with no leading or trailing edge centre support.
- Galvanised axles, bolts, and safety clip ring for improved corrosion resistance
- Less turning effort due to divided rollers. Considerably reduced friction when negotiating curves. The drastically lower friction also provides enhanced directional stability for the trailing axles.
- Immediately ready for use.
- 2 steering handles and 1each alignment bar.
- Multi-purpose use: Can also be used as single skates. Without any further accessories the steerable skates can be used as single units with half the load capacity.
- Angle lock of 45° possible
- Delivery includes 2 steerable skates



JTLB 6 K

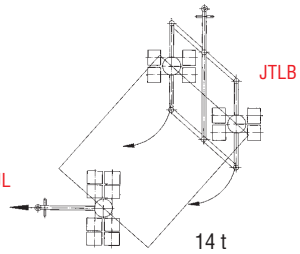




JTLB 14 K

All skates are equipped with JUWAthan® Professional rollers.
For details see page 535.

Example: Negotiating a curve under restricted space conditions



Item no.	9102.10.60	9102.11.40
Type	JTLB 6 K Professional	JTLB 14 K Professional
Capacity in kg	6000	14000
Number of double rollers	8	16
Dimensions of rollers in mm	85 x 85	85 x 85
Overall height in mm	110	110
Dimensions of steerable skate L2 x B2 in mm	600 x 280	1000 x 590
Load surface per turntable Ø C in mm	150	150
Width of alignment bar E in mm	1000	1400
Adjustment range of steerable skates Vmin - Vmax in mm	560 - 960*	660 - 1340*
Adjustment steps	5 x	5 x
Overall length L1 x overall width B1 in mm	760 x 1240	1070 x 1580
Length of steering handle with towing eye in mm	990**	1120
Weight with JUWAthan Professional rollers in kg	37	104

*other lengths available **without towing eye

HEAVY DUTY TRANSPORT

Weld-on Cone for Container Transport up to 28 ton, Overall Height 180 mm
Twistlock for Container Transport up to 60 ton, Overall Height 330 mm

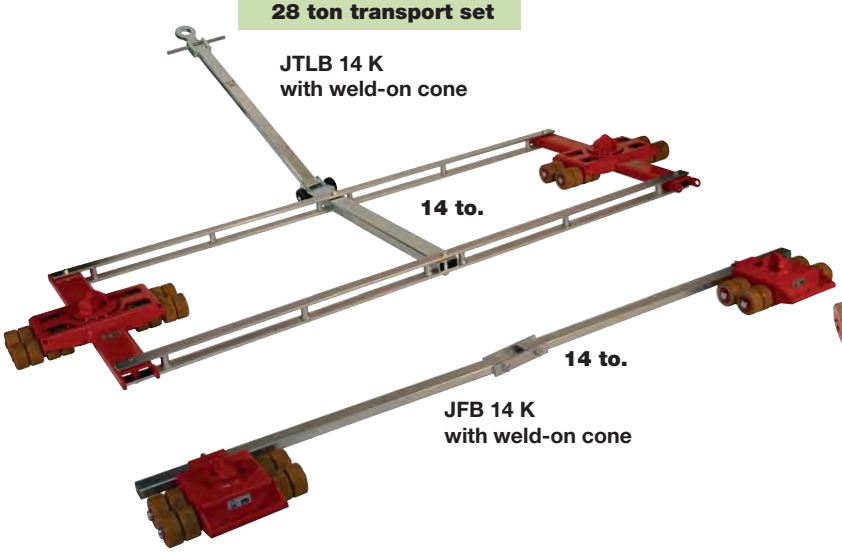
Your advantages in detail:
- Safe transport of ISO containers.
- Containers can be moved under profile restrictions.
- Positive and force-locking connection between skates and container (twist lock system) and only positive connection respectively („weld-on cone“ system).

Two-part alignment bars for greater manoeuvrability

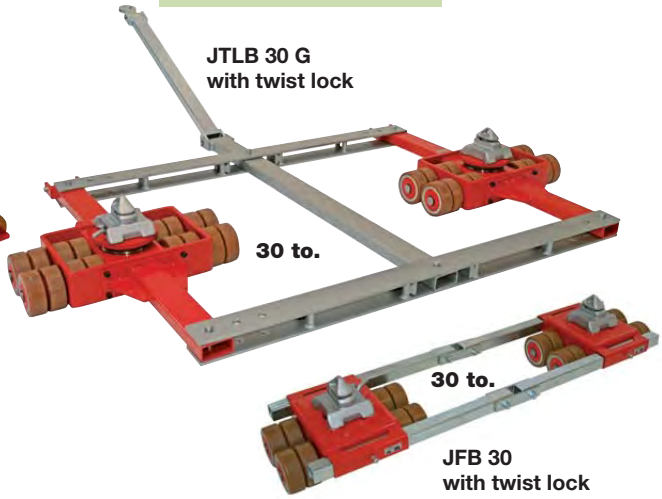
- **Weld-on cone version** with 2 modified turntables and cassettes with container receptacles, not lockable, and lengthened alignment bars (2.26 m) suitable for ISO containers instead of the standard alignment bars.
- Delivery includes tandem skates with 2 draw bars with towing eyes.

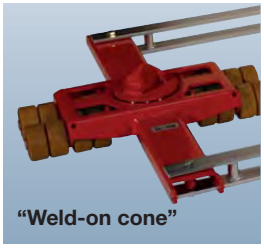
- Lockable **twist lock** version with 2 modified turntables and cassettes and lengthened alignment bars suitable for ISO size (2.26m; not adjustable) instead of standard alignment bars.
- Delivery includes tandem skates with 2 draw bars with towing eyes.
- **Option:** A longer alignment bar is available on request.

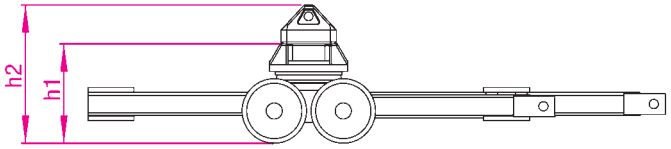
Total load capacity 28 ton transport set



Total load capacity 60 ton transport set




“Weld-on cone”



Twist lock

“Weld-on cone” system for K series skates see pages 538-540

Item no.	9102.41.40	9101.41.40
Type	JTLB 14 K WC	JFB 14 K WC
Capacity in kg	14000	14000
Overall height h1 in mm	110	110
Overall height h2 in mm	180	180

Twist lock system for G series skates see pages 542-543

Item no.	9103.41.50	9103.43.00	9104.41.50	9104.42.20	9104.43.00
Type	JTL 15 TW	JTL 30 G TW	JFB 15 TW	JFB 22 TW	JFB 30 TW
Capacity in kg	15000	30000	15000	22000	30000
Overall height h1 in mm	215	215	215	215	215
Overall height h2 in mm	300	300	300	300	300

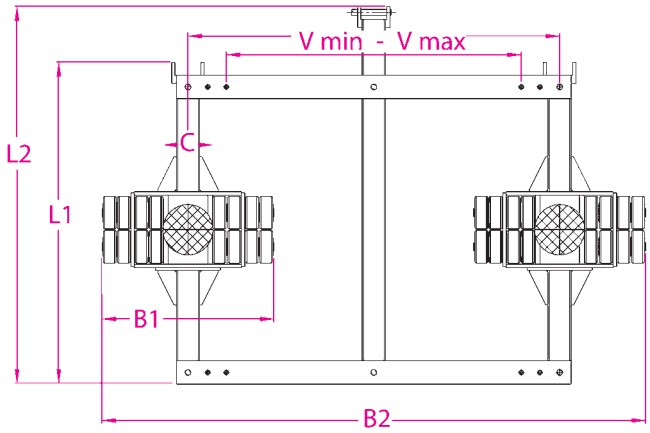
HEAVY DUTY TRANSPORT

Tandem Skates Series G Professional, Capacity up to 30 ton, Overall Height 180 mm

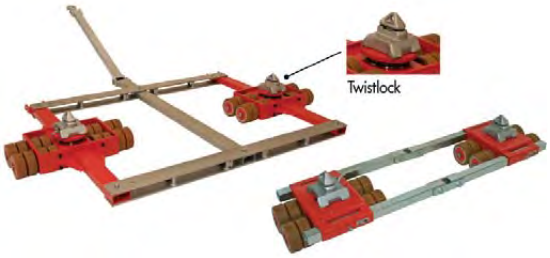
Your advantages in detail:

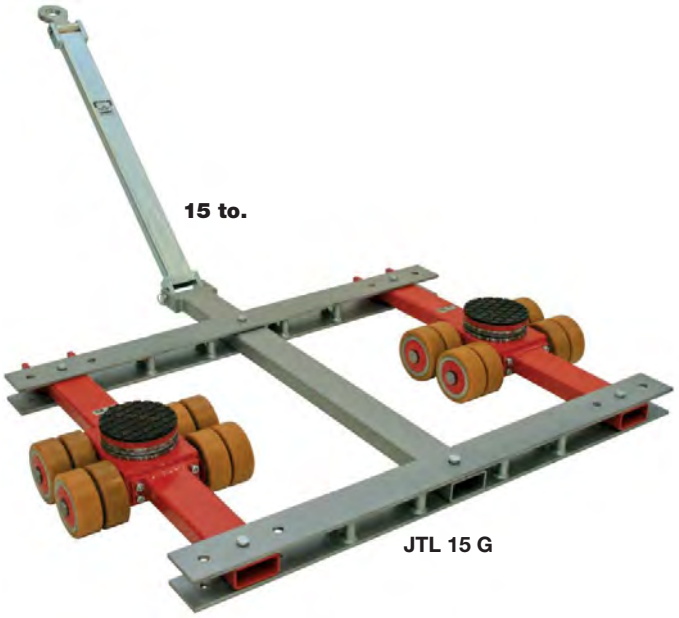
- Excellent running characteristics on uneven ground and yard surfaces due to big roller Ø of 140 mm and width of 59 mm.
- Safe crossing of small ledges and floor-embedded rails
- Multi-purpose use: Can also be used as single skates. Without any further accessories the steerable skates can be used as single units with half the load capacity.
- Customized versions are possible; other widths or adjustment ranges available. Please contact us for other alignment bar lengths.
- Angle lock of 45° possible

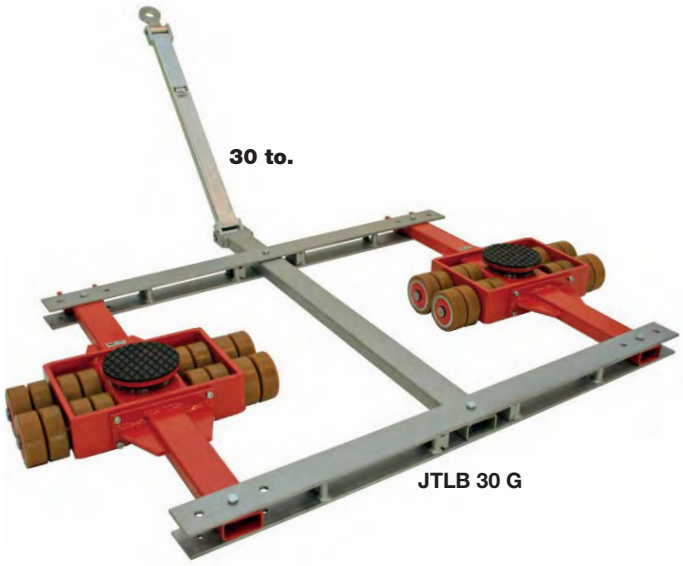
All skates are equipped with JUWAthan® plus rollers. For details see page 535.



Also available with twist lock system for form-locking container transport (see page 541).







Item no.	9103.11.50	9103.13.00
Type	JTL 15 G Professional	JTLB 30 G Professional
Capacity in kg	15000	30000
Number of rollers	16	32
Dimensions of rollers in mm	140 x 59	140 x 59
Overall height in mm	180	180
Dimensions of steerable skates L1 x B1 in mm	1020 x 440	1380 x 740
Load surface per turntable Ø C in mm	170	215
Width of alignment bar E in mm	1330	1700
Adjustment range of steerable skates Vmin - Vmax in mm	900 - 1230*	1270 - 1600*
Adjustment steps	3 x	3 x
Overall length L2 x overall width B2 in mm	1260 x 1670	1620 x 2340
Length of steering handle with towing eye in mm	1230	1230
Weight with JUWAthan plus in kg	168	291

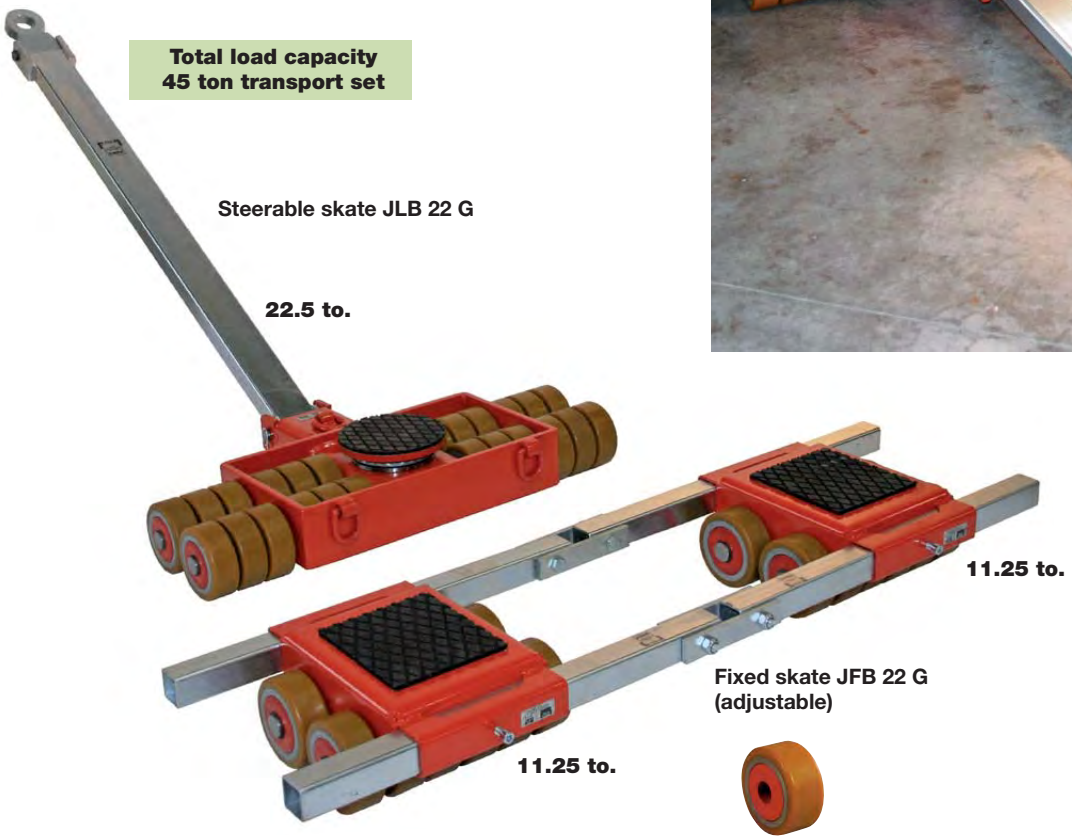
*other lengths available

Adjustable and steerable Transport Skates Type G, Load Capacity 30-60 ton, Overall Height 180 mm

Your advantages in detail:

- The rollers are mechanically pivoted. Therefore equal load distribution on all wheels and the floor. No elaborated and failure-prone hydraulic compensation needed.
- All transport skates are immediately ready for use. The steerable skate is equipped with a roller bearing turntable and the pictured steering handle.
- Less turning effort with half the roller width and twice the number of rollers. Considerably reduced friction when negotiating curves. The drastically lower friction also provides enhanced directional stability for the trailing axles.
- **The fixed skates can be connected with the included alignment bars as pictured below.**

Total load capacity 45 ton transport set



All skates are equipped with JUWAthan® plus rollers.
For details see page 535.

Item no.	9103.01.50	9104.01.50	9103.02.20	9104.02.20	9103.33.00	9104.33.00
Type	JLB 15 G	JFB 15 G	JLB 22 G	JFB 22 G	JL 30 G	JFB 30 G
Capacity in kg	15000	15000	22500	22500	30000	30000
Number of rollers	16	16	24	24	32	32
Dimensions of rollers Ø in mm	140 x 59	140 x 59	140 x 59	140 x 59	140 x 59	140 x 59
Overall height in mm	180	180	180	180	180	180
Load surface fixed skates in mm		220 x 200		220 x 200		220 x 200
Dimensions of fixed skates		460 x 285		460 x 400		460 x 528
Length of alignment bar in mm		2 x 1540		2 x 1540		2 x 1540
Adjustment range of skates in mm		475 - 1300		530 x 1300		530 x 1300
Turntable Ø in mm	215		215		250	
Dimensions of steerable skates in mm	565 x 741		565 x 981		750 x 1550	
Length of steering handle in mm	1230		1450		1590	
Weight with JUWAthanplus in kg	96	88	129	113	312	126

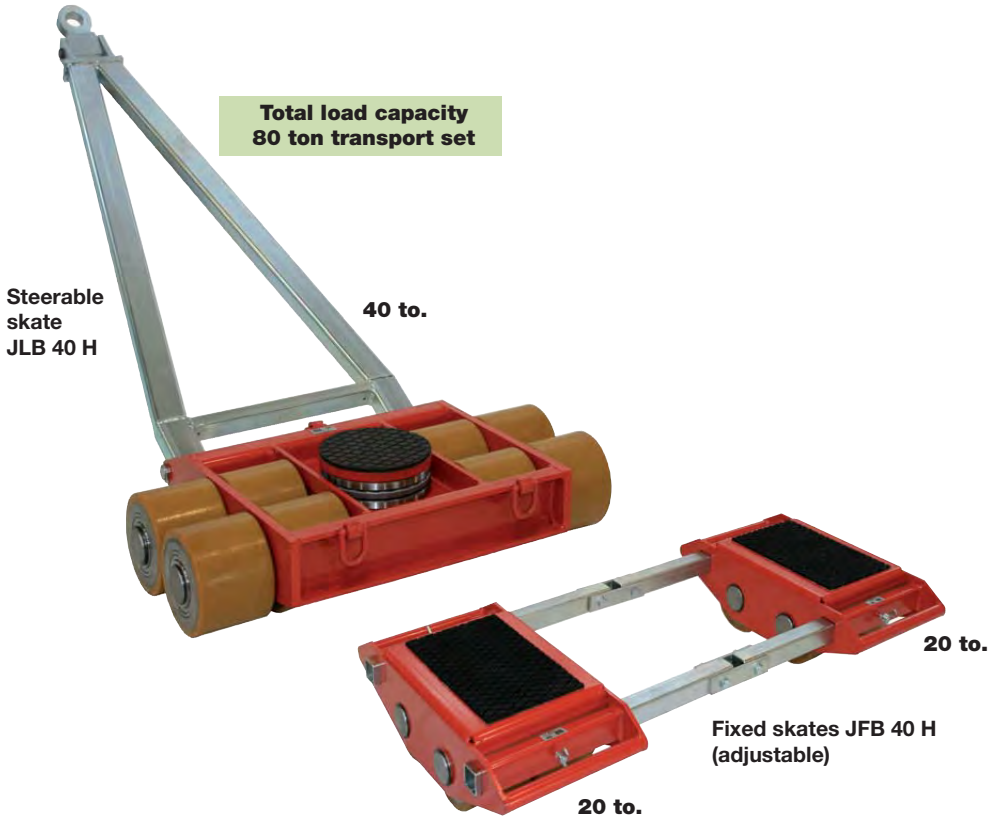
HEAVY DUTY TRANSPORT

Adjustable and steerable Transport Skates Type H, Load Capacity 80-120 ton, Overall Height 230 mm

Your advantages in detail:

- In comparison to the capacity unequalled compact and lightweight construction.
- Mechanically pivoted rollers for equal load distribution on all wheels and the floor.
- All transport skates are immediately ready for use.
- The steerable skate is equipped with a roller bearing turntable and a drawbar.
- **The fixed skates can be connected with the included alignment bars.**

All skates are equipped with JUWAthan® rollers. For details see page 535.



Item no.	9103.03.50	9104.03.50	9103.06.00	9104.06.00
Type	JLB 40 H	JFB 40 H	JLB 60 H	JFB 60 H
Capacity in kg	40000	40000	60000	60000
Number of rollers	8	8	8/8	8/8
Dimensions of rollers in mm	200 x 170	200 x 170	200 x 170 / 85	200 x 170 / 85
Overall height in mm	230	230	230	230
Load surface fixed skates in mm		395 x 260		395 x 260
Dimensions of fixed skates		740 x 400		740 x 580
Length of alignment bar in mm		2 x 1540		2 x 1540
Adjustment range of skates in mm		600-1140		600-1140
Turntable Ø in mm	250		250	
Dimensions of steerable skates in mm	650 x 1060		650 x 1400	
Length of steering handle in mm	1590		1590	
Weight with JUWAthan in kg	320	289	450	410

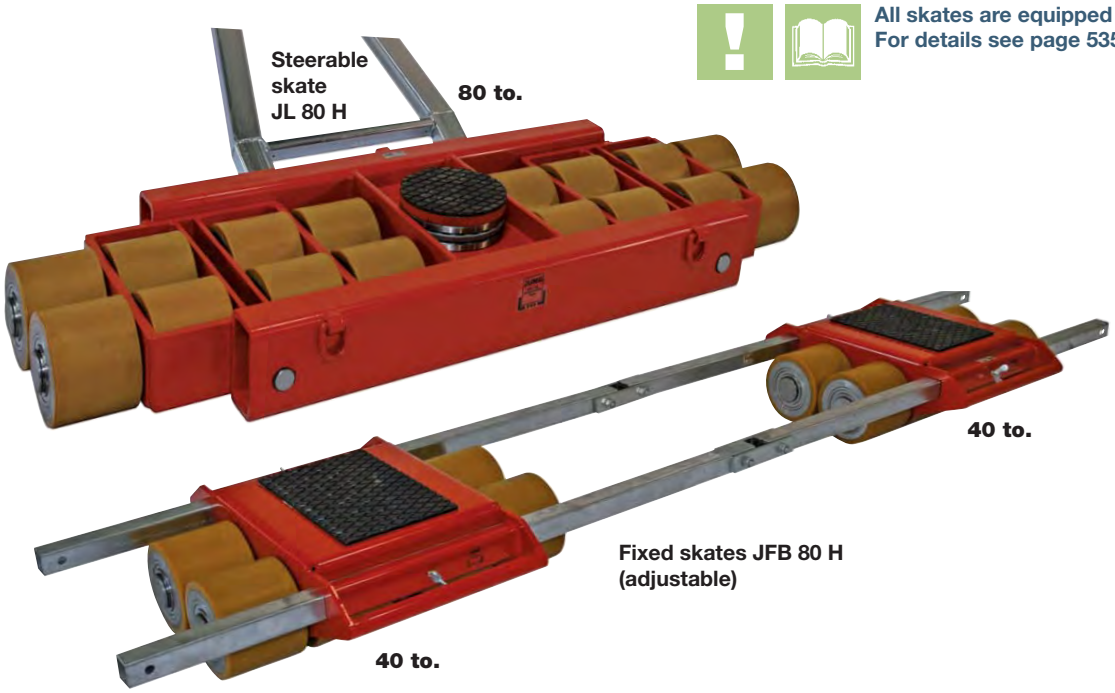
Transport Skates Type H, Load Capacity 160 ton, Overall Height 240 mm

Your advantages in detail:

- In comparison to the capacity unequalled compact and light-weight construction.
- Mechanically pivoted rollers for equal load distribution on all wheels and the floor.
- All transport skates are immediately ready for use.
- The steerable skate is equipped with a roller bearing turntable and a drawbar.
- **The fixed skates can be connected with the included alignment bars.**

All skates are equipped with JUWAthan® rollers.
For details see page 535.

Total load capacity 160 ton transport set



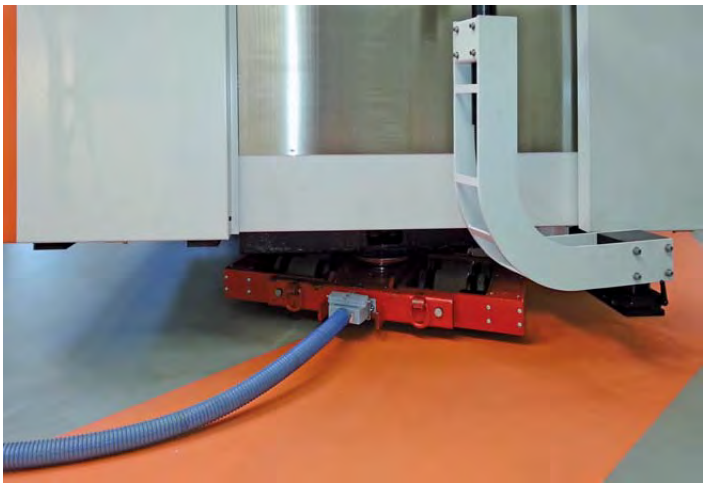
Item no.	9103.08.00	9104.08.00	9104.12.00
Type	JL 80 H	JFB 80 H	JFB 120 H
Capacity in kg	80000	80000	120000
Number of rollers	16	16	24
Dimensions of rollers in mm	200 x 170	200 x 170	200 x 170
Overall height in mm	240	240	240
Load surface fixed skates in mm		400 x 260	440 x 300
Dimensions of fixed skates		750 x 830	960 x 830
Length of alignment bar in mm		2 x 3000	2 x 3000
Adjustment range of skates in mm		830 - 2530	830 - 2530
Turntable Ø in mm	250		
Dimensions of steerable skates in mm	820 x 1900		
Length of steering handle in mm	1590		
Weight with JUWAthan in kg	723	565	815

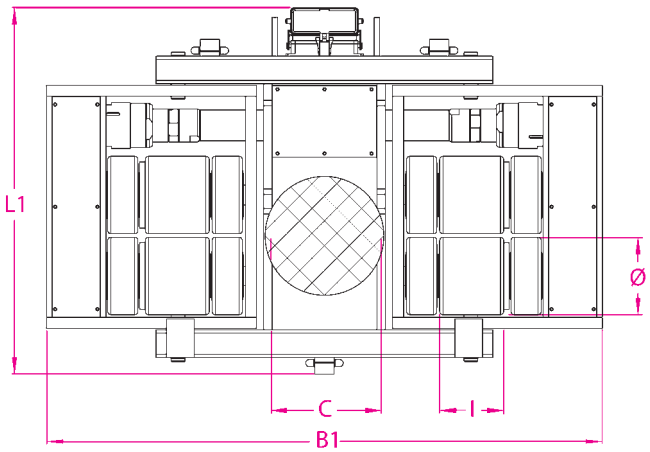
HEAVY DUTY TRANSPORT

Powered Skate JLA Set 3 (15/30 G), Load Capacity 15 ton, Pulling Capacity 30 ton, Overall Height 180 mm

Your advantages in detail:
- Very short set-up time, connect air hose and go
- No additional tractor necessary
- Low-maintenance drive
- All lines are detachable for easy transport
- Rotates through 360°
- No electric power needed
- Standard compressed air connection with a continuous minimum pressure of 8 bar and a flow rate of 25 l/s
- Stepless adjustment due to working pressure adaption
- Can be combined with G-series skates

Powered steerable skate JLA 15/30 G





Scope of delivery of JLA Set 3:
- 1 piece steerable skate JLA 15/30 G including pendant control
- 1 set (= 2 pcs) skates JFB 15 G
- Air hose, length 30 m x 19 mm
- Transport trolley with oil and lubricants

JLA Set 3

Options:
- All components are also available separately
- Higher load capacities are available on request

Arrange a presentation appointment

Item no.	9103.00.10
Type	JLA Set 3
Load capacity in kg	15000
Pulling capacity in kg	30000
Number and dimension of rollers JFB 15 G	16 rollers 140 mm Ø x 59 mm B
Number and dimension of rollers JLA 15/30 G	4 rollers 140 mm Ø x 120 mm B and 8 rollers 140 mm Ø x 59 mm B
Overall height in mm	180
Load surface per turntable Ø C in mm	215
Dimensions L1 x B1 in mm	650 x 1000
Weight in kg	175 w/o pendant control
Air consumption / necessary minimum air pressure	25 L/s / 8 bar continuously

HYDRAULICS

Please see our comprehensive hydraulics catalogue

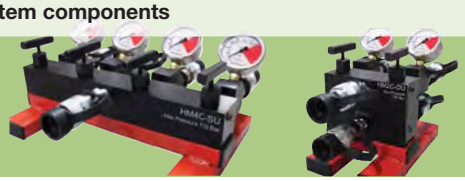
Hi-Force® HYDRAULIC TOOLS

JUNG Hebe- und Transporttechnik GmbH

▶ Cylinders

▶ Pumps

▶ System components



▶ Lifting devices

▶ Torque tools

▶ Pressurising cylinders

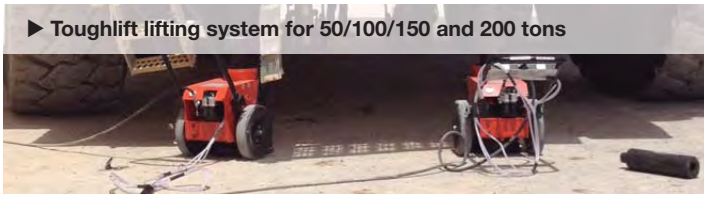
▶ Hydrostatic test pumps

▶ Stripper sets

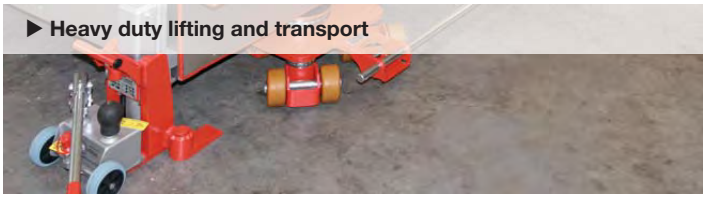
▶ Crimpers & cutting tools

▶ Tools

▶ Toughlift lifting system for 50/100/150 and 200 tons



▶ Heavy duty lifting and transport



Do you require further copies of the hydraulic catalogue? Simply place an order at www.carlstahl-lifting.com

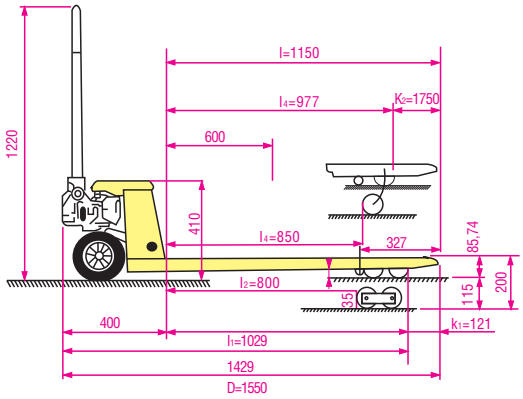
INDUSTRIAL TRUCKS

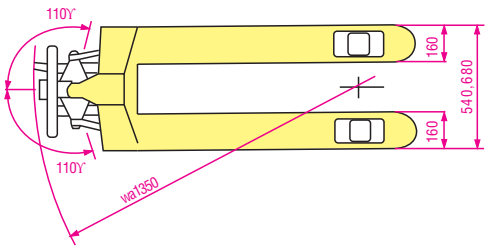
Hand Pallet Trucks

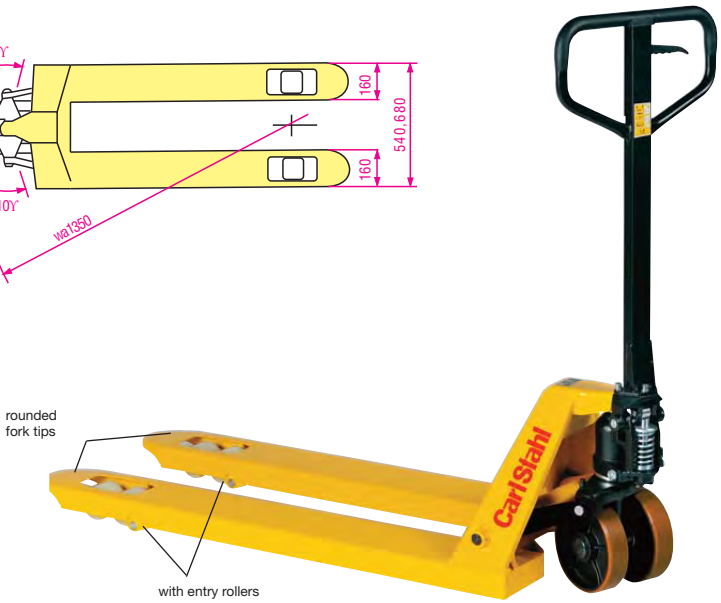
Hand Pallet Truck „Made in Europe“

Load capacity 2,500 kg

Steering wheels of abrasion-resistant polyurethane
Tandem load rollers of Polyamide







Design modifications possible

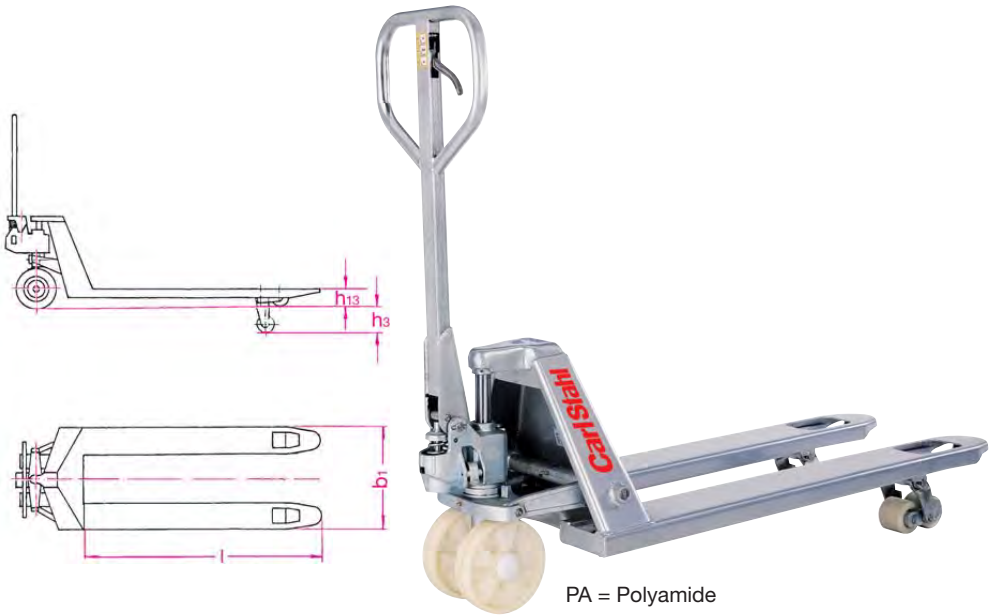
Load capacity in kg	Lifting height in mm	Steering wheels Ø in mm	Load rollers Ø in mm	Weight in kg/pce	Item no.
2500	85 x 200	200 x 50	80 x 70	68	7785.60.25B

Hand Pallet Truck in Galvanised Version

Load capacity 2.500 kg

The ideal pallet truck for use in corrosive environments of the chemical or food industry.

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Low-maintenance high-performance hydraulic pump with hard-chrome plated piston and overload protection.
- Hot-dip galvanised frame with a coat thickness of 100 µm, cold galvanised draw bar and pump housing, stainless steel running gear, ball bearings and axles guarantee for a high chemical resistance.
- Easy handling also in confined spaces, angle lock of 105° to both sides.



PA = Polyamide

Type	Load cap. in kg	Lift. h. h3 mm	Height, lowered h13 in mm	Fork length l in mm	Fork width b1 in mm	Steering wheels Ø mm	Load rollers Ø in mm	Weight in kg/pce	Item no.
CS HU 25-115 GAL	2500	115	85	1150	160	200 x 50 PA	82 x 70 PA	86	7785.V.025

INDUSTRIAL TRUCKS
Hand Pallet Trucks

Hand Pallet Trucks with special Fork Lengths and higher Load Capacities

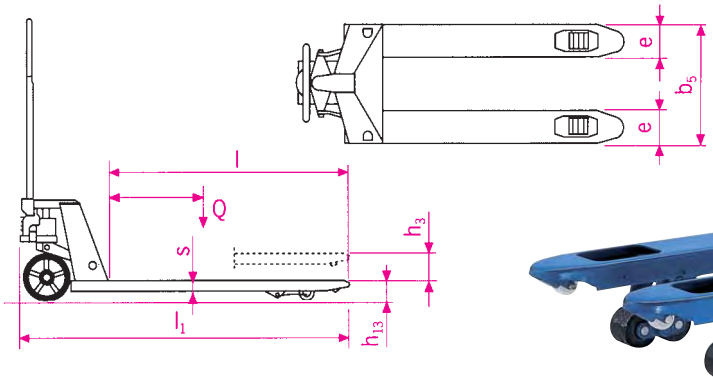
- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Rubber-lined hand grips for safe handling.
- Low-maintenance high-performance hydraulic pump with hard-chrome plated piston and overload protection.
- Frame and forks in robust steel construction, adjustable driving rod, specially hardened axles and the high-quality powder coat guarantee for a long service life of the pallet truck.
- Fork lengths from 800 to 3,000 mm are available.
- Easy handling also in confined spaces, angle lock of 105° to both sides.

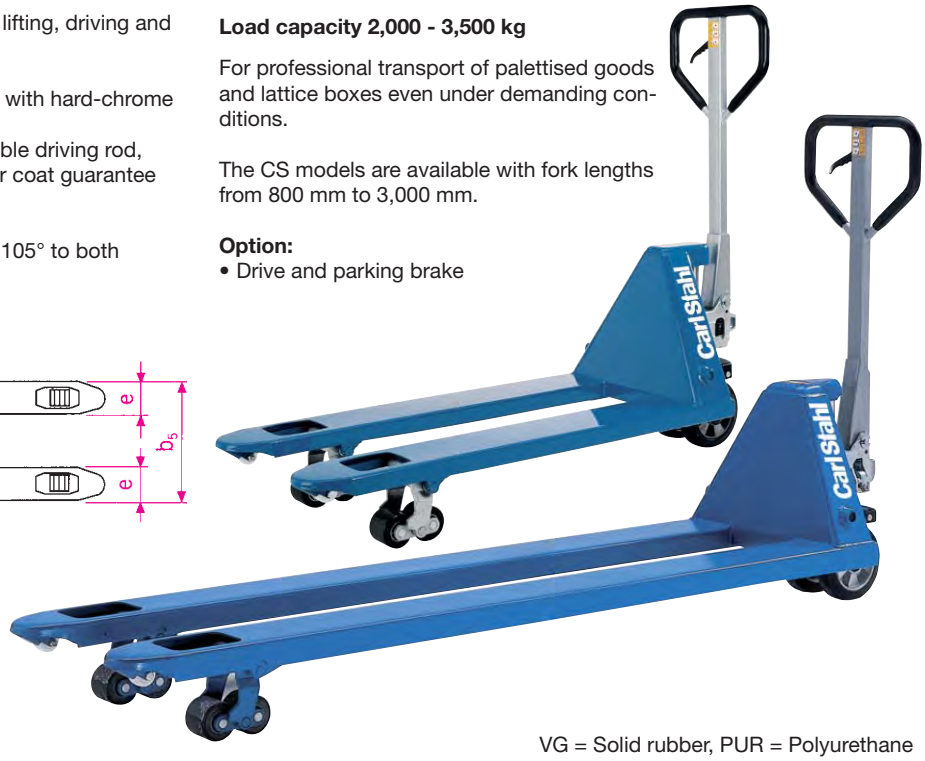
Load capacity 2,000 - 3,500 kg

For professional transport of palettised goods and lattice boxes even under demanding conditions.

The CS models are available with fork lengths from 800 mm to 3,000 mm.

Option:
- Drive and parking brake





Special fork length pallet trucks

VG = Solid rubber, PUR = Polyurethane

Item no.	7786.08.00	7786.09.50	7786.10.00	7786.13.00	7786.15.00	7786.18.00	7786.20.00	7786.25.00	7786.30.00
Type	CS 25-80 TP	CS 25-90 TP	CS 25-100 TP	CS 25-130 TP	CS 30-150 TP	CS 30-180 TP	CS 35-200 TP	CS20-250 TP	CS 20-300 TP
Load capacity in kg	2500	2500	2500	2500	3000	3000	3500	2000	2000
Steering wheels / Load rollers	VG / PUR	VG / PUR	VG / PUR	VG / PUR	PUR / PUR	PUR / PUR	PUR / PUR	PUR / PUR	PUR / PUR
Lifting height (h3) in mm	115	115	115	115	115	115	115	115	115
Height, lowered (h13) in mm	85	85	85	85	85	85	85	85	85
Overall length (l1) in mm	1185	1285	1385	1685	1885	2185	2385	2885	3385
Fork prong length in mm	800	900	1000	1300	1500	1800	2000	2500	3000
Overall width (b5) in mm	540	540	540	540	540	550	550	550	550
Weight in kg	71	76	81	96	106	108	129	275	316

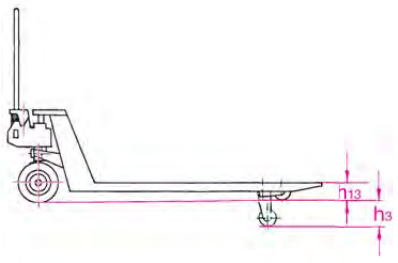
Stainless Steel Hand Pallet Truck Type CS 20-115 VATP

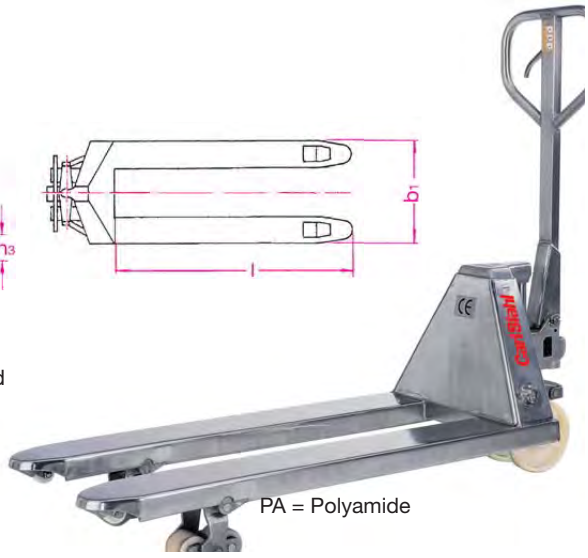
Load capacity 2,000 kg

Pallet truck for use in all corrosive environments of the chemical and food industry.

EDELSTAHL Rostfrei

Stainless steel lasts longer!





- Ergonomic safety handle bar for single-hand operation of lifting, driving and lowering.
- Low-maintenance high-performance hydraulic pump with hard chromium plated rod and overload protection. Pump housing made from stainless steel V4A–316.
- Body, adjustable handle bar, bolt and torque tube are manufactured from high-quality stainless steel V4A–316.
- Easy handling, even in confined spaces, thanks to an angle lock of 105°.

PA = Polyamide

Load capacity in kg	Steering wheels Ø in mm	Load rollers Ø in mm	Dimensions in mm h3	h13	l1	s	e	l	b5	Weight in kg/pce	Item no.
2000	200 x 50	82 x 70	115	85	1200	50	160	1150	540	86	7781.E0.20

INDUSTRIAL TRUCKS
Hand Pallet Trucks

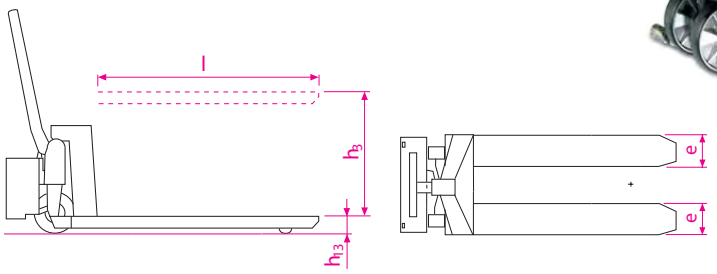
Scissor Pallet Truck Type CS HS 10 B, Type CS ES 10 B

Load capacity 1,000 kg
Max. fork height 800 mm

A combination of pallet truck und lifting table for transport and lifting of palettized loads, allowing flexible heights in production, assembly and shipping.

- Safety handle bar with the following functions: Quick lift - Lifting - Lowering.
- Sensitive lowering of the load due to adjustable lowering speed.
- Extremely robust due to single-stage hydraulics.
- Quick lift up to 250 kg.
- Overload protection with safety valve.
- Saftey supports for improved stability with raised forks.
- Low-noise and smooth running due to polyurethane tyres (PUR) on steering wheels and load rollers.

Scope of delivery:
battery and charger



Model CS HU ES 10 B
Expands the performance characteristics of the HU HS 10 B by time-saving electrical operation in case of frequent lifting and lowering.

- Ergonomic control pad for hydraulic unit, integrated in the head of the handle bar.
- In case of battery failure lifting and lowering is still be possible by hand.
- Quick lifting of the load with the electrically powered hydraulic pump, overload protection by safety valve.
- Low-noise and smooth running due to polyurethane tyres on steering wheels and load rollers.
- Additional tilt protection on load rollers.

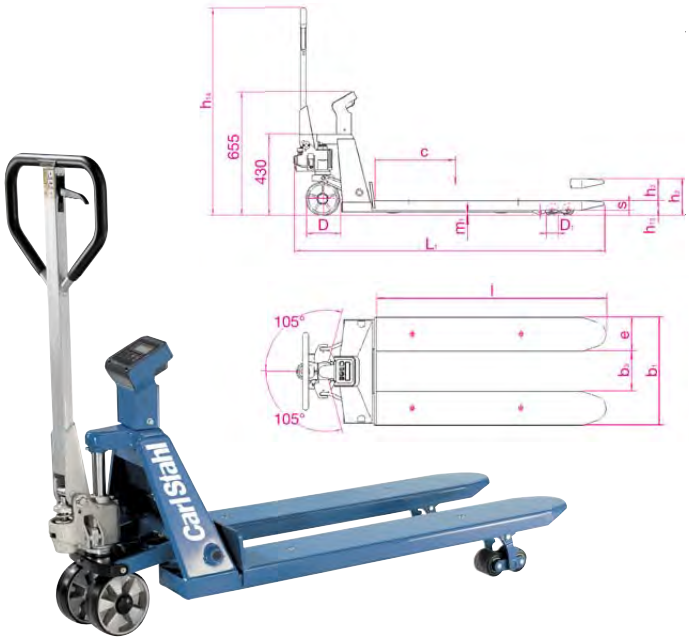
Type	Load cap. in kg	Lifting h. h3 in mm	Height, lowered h13 in mm	Fork length l in mm	Fork width e in mm	Steering wheels Ø mm	Load rollers Ø in mm	Weight in kg/pce	Item no.
CS HU HS 10B	1000	715	85	1150	160	200 x 50 PUR	78 x 60 PUR	140	7785.85.10BS
CS HU ES 10B	1000	715	85	1150	160	200 x 50 PUR	78 x 60 PUR	167	7785.85.11BS

Pallet Truck with Scale Type CS HU W-20 S

Load capacity 2,000 kg

For transport and weighing
of palettised goods and lattice boxes

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Rubber-lined hand grips for safe handling.
- Low-maintenance high-performance hydraulic pump with hard-chrome plated piston and overload protection.
- Frame and forks in robust steel construction, adjustable driving rod, specially hardened axles and the high-quality powder coat guarantee for a long service life of the pallet truck.
- Easy handling also in confined spaces, angle lock of 105° to both sides.
- Weighing range from 0 to 2,000 kg in 1 kg-steps.
- Easy to read LCD display.
- Accuracy +/- 0.25% of result.
- Minimum value 1.0 kg.
- System is factory-calibrated.
- Suitable for simple weighing procedures like dispensing or filling.
- Delivery with batteries 4 x 1.5 V (sufficient for approx. 3,000 weighings)



Type	Load cap. in kg	St. wheels PU Ø in mm	Load rollers PA Ø in mm	Dimensions in mm Lift.h. h3	h13	h14	l1	s	e	l	b5	Weight in kg/pce	Item no.
CS HU W-20 S	2000	180 x 50	74 x 70	195	85	1210	1580	50	180	1150	570	135	7781.DW.21

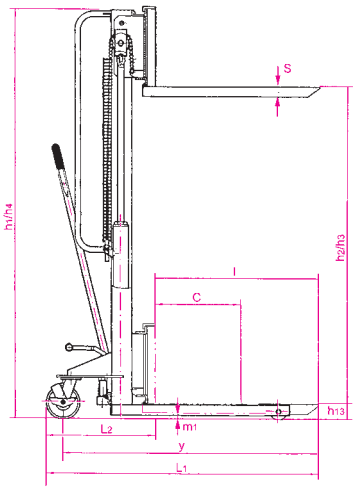
INDUSTRIAL TRUCKS
Hand Pallet Trucks

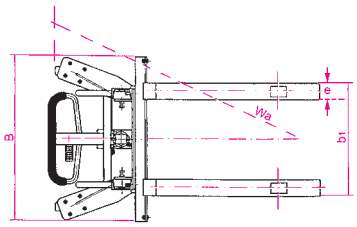
Manual Stacker with hand-hydraulic Lift Type CS HV 0516

Load capacity 500 kg

For occasional in-plant use for lifting and transport of goods, loading and unloading of shelves or trucks.

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering.
- Lateral hand grips for easy movement of the stacker.
- Sensitive lowering of the load due to adjustable lowering speed.
- Single-acting hand pump with big lift per lever movement.
- Robust chassis with 2 each load rollers and steering wheels, with parking brake on one steering wheel.
- Parking brake on one steering wheel.
- Please contact us for technical details.
- Fork lengths from 270 mm to 810 mm are available.





PA = Polyamide

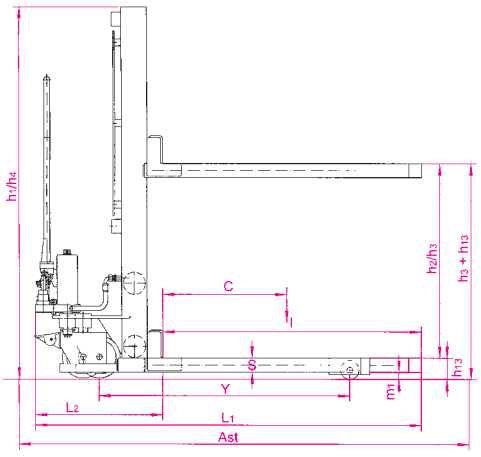
Type	Load capacity in kg	Steering wheels Ø mm	Load rollers Ø in mm	Lifting height h3 in mm	Overall height of frame h4 in mm	Overall length l1 in mm	Weight in kg/pce	Item no.
CS HV 0516	500	150 x 40 PUR	80 x 35 PA	1520	2000	1750	217	7785HVTH05-15

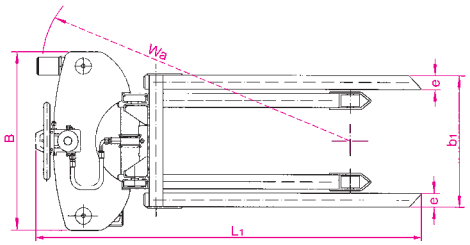
Manual Stacker with hand-hydraulic Lift Types CS HV 1008 and HV 1016

Load capacity 1,000 kg

For occasional in-plant use for lifting and transport of goods, loading and unloading of shelves or trucks.

- Ergonomic safety handle bar for one-hand control of lifting, driving and lowering
- Forced steering of the steering wheels for easy movement of the stacker
- Sensitive lowering of the load due to adjustable lowering speed
- Single-acting hand pump with big lift per lever movement
- Quick lift for loads up to 100 kg
- Robust design with hard chromated piston rod
- Parking brake on one steering wheel
- Please contact us for technical details





PA = Polyamide

Type	Load capacity in kg	Steering wheels Ø mm	Load rollers Ø in mm	Lifting height h3 in mm	Overall height of frame h4 in mm	Overall length l1 in mm	Weight in kg/pce	Item no.
CS HV 1008	1000	180 x 50 PUR	80 x 55 PA	810	1300	1675	179	7785HVTH10-08
CS HV 1016	1000	180 x 50 PUR	80 x 55 PA	1510	1965	1675	205	7785HVTH10-16

FORKLIFT ATTACHMENTS

Fork Extensions

Fork Extension without Coating

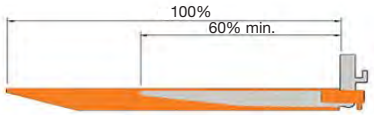
Ideal fork extension for lifting and transporting loads
- stable steel construction, 8 mm wall thickness
- low dead weight
- fork arms can be inserted quickly and easily
- without any tools it can simply be slid over the prong
- secured by bolt and pin
- surface painted in RAL 2000 yellow-orange (standard) or RAL 7021 black-grey

open bottom version

closed all around version

secured by bolt and pin

Please note:
For structural reasons, the fork arm length must be at least 60% of the total extension!

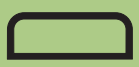


GO-Standard, open bottom, without coating

Suitable for prong profiles W x H (mm)	Dimensions W x H (mm)	Item no. L = 1.6 m	Item no. L = 1.8 m	Item no. L = 2.0 m
80 x 40	106 x 48	40020600.001600	40020600.001800	40020600.002000
100 x 40	128 x 48	40020700.001600	40020700.001800	40020700.002000
100 x 45	128 x 53	40020800.0016004002090	40020800.001800	40020800.002000
100 x 50	128 x 58	0.00160040021000.00160	40020900.001800	40020900.002000
120 x 40	148 x 48	040021100.001600400212	40021000.001800	40021000.002000
120 x 50	148 x 58	00.001600	40021100.001800	40021100.002000
125 x 45	153 x 53	40021300.001600	40021200.001800	40021200.002000
125 x 50	153 x 58	40021400.001600	40021300.001800	40021300.002000
150 x 50	181 x 58	40021500.001600	40021400.001800	40021400.002000
150 x 70	181 x 78		40021500.001800	40021500.002000

GG-Standard, closed all around, without coating

Closed version also suitable for loads that are outside the basic fork arms



Suitable for prong profiles W x H (mm)	Dimensions W x H (mm)	Item no. L = 1.6 m	Item no. L = 1.8 m	Item no. L = 2.0 m
80 x 40	106 x 66	40040600.001600	40040600.001800	40040600.002000
100 x 40	128 x 66	40040700.001600	40040700.001800	40040700.002000
100 x 45	128 x 71	40040800.0016004004090	40040800.001800	40040800.002000
100 x 50	128 x 76	0.00160040041000.00160	40040900.001800	40040900.002000
120 x 40	148 x 66	040041100.001600400412	40041000.001800	40041000.002000
120 x 50	148 x 76	00.001600	40041100.001800	40041100.002000
125 x 45	153 x 71	40041300.001600	40041200.001800	40041200.002000
125 x 50	153 x 76	40041400.001600	40041300.001800	40041300.002000
150 x 50	181 x 76	40041500.001600	40041400.001800	40041400.002000
150 x 70	181 x 96		40041500.001800	40041500.002000

Other dimensions available on request.

The maximum allowable extension length = existing fork length x 1.65!
e.g. Fork length 1,200 mm; Extension length max. 2,000 mm

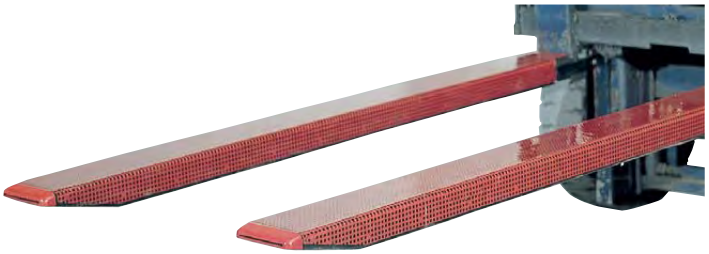
FORKLIFT ATTACHMENTS
Fork Extensions

Fork Extension with Coating

The maximum allowable extension length = existing fork length x 1.65!
e.g. Fork length 1,200 mm; Extension length max. 2,000 mm

Special extension of the fork for any use in fields, where the prongs have to be protected against intruding dirt. If required, the tool can be supplied with a secutex-coating. The secutex-coating is particularly robust and resistant, poor of noise and antiskid. Without any tools it can be slid over the prong and is secured by bolt and pin.

Fork extension, closed all around, with coating



secutex-GVO-Standard, open bottom, top side with secutex coating

Suitable for prong profiles W x H (mm)	Item no. L = 1.2 m	Item no. L = 1.4 m	Item no. L = 1.6 m	Item no. L = 1.8 m
80 x 30, 80 x 35, 80 x 40	40030100.001200	40030100.001400	40030100.001600	40030100.001800
100 x 30, 100 x 35, 100 x 40	40030200.001200	40030200.001400	40030200.001600	40030200.001800
100 x 45, 100 x 50	40030300.001200	40030300.001400	40030300.001600	40030300.001800
120 x 40	40030400.001200	40030400.001400	40030400.001600	40030400.001800
125 x 40, 125 x 45, 120 x 50	40030500.001200	40030500.001400	40030500.001600	40030500.001800

secutex-GVG-Standard, closed all around, top side with secutex coating

Suitable for prong profiles W x H (mm)	Item no. L = 1.2 m	Item no. L = 1.4 m	Item no. L = 1.6 m	Item no. L = 1.8 m
80 x 30, 80 x 35	40050100.001200	40050100.001400	40050100.001600	40050100.001800
100 x 30, 100 x 35, 100 x 40	40050200.001200	40050200.001400	40050200.001600	40050200.001800
100 x 45	40050300.001200	40050300.001400	40050300.001600	40050300.001800
120 x 40, 120 x 45, 120 x 50	40050400.001200	40050400.001400	40050400.001600	40050400.001800
125 x 50	40050500.001200	40050500.001400	40050500.001600	40050500.001800

secutex Fork Protection SZ-S

secutex fork protection shoe (detachable)

This is a special version within the **secutex** range of impact protection for use with **forklift prongs**.

- secutex protects the load
- secutex prevents the load from slipping
- secutex is sound absorbing

Width in mm	Item no.
80	4706.00.80
100	4706.01.00
120	4706.01.20

Other dimensions on request.

Special runs in different materials on request!

Permanent fork arm coating on request.

FORKLIFT ATTACHMENTS

Crane Arms

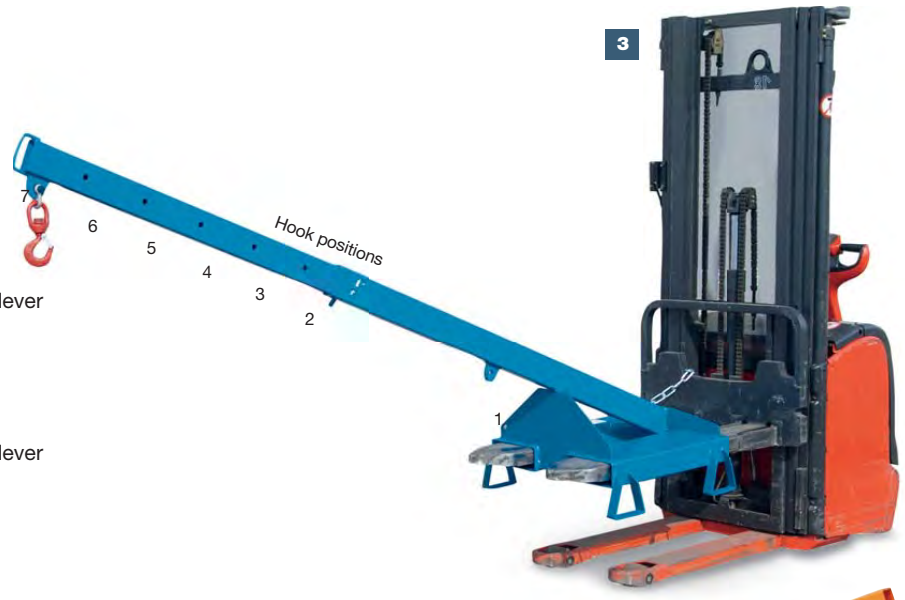
Crane Arms - to extend the Reach of your Forklift Truck

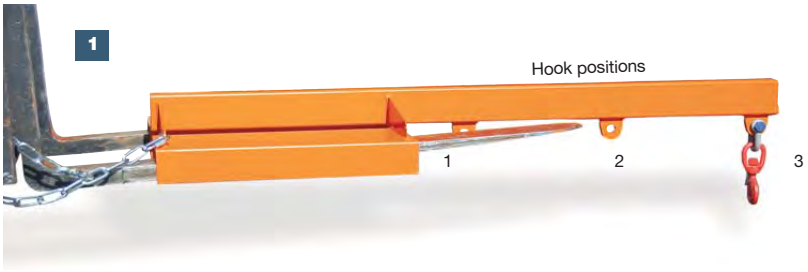
- Extends the reach of your forklift
- Telescopic arm held by forks
- Safety chain to prevent accidental slipping
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005, hot-dip galvanised acc. to EN ISO 1461

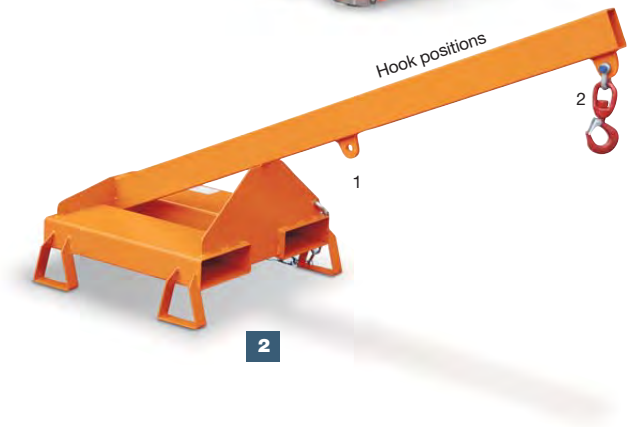
1 Rigid arm, without gradient
- 3 lifting points for swivel load hooks

2 Rigid arm, with gradient
- Gradient 25°
- With support feet, therefore also suitable for cantilever forklifts, ground clearance 100 mm
- 2 lifting points for swivel load hooks

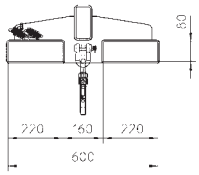
3 Telescopic arm
- Each position secured with bolt
- Gradient 25°
- With support feet, therefore also suitable for cantilever forklifts, ground clearance 100 mm
- 2 lifting points for swivel load hooks







Type	Basic length	Hook position	not telescoping			telescoping			
			1	2	3	4	5	6	7
1	1600	Distance mm	780	1165	1550				
		Capacity kg	1000	350	200				
1	2400	Distance mm	780	1565	2350				
		Capacity kg	1000	200	100				
1	1600	Distance mm	780	1165	1550				
		Capacity kg	2500	850	500				
1	2400	Distance mm	780	1565	2350				
		Capacity kg	2500	500	250				
1	1600	Distance mm	780	1165	1550				
		Capacity kg	5000	1700	1000				
1	2400	Distance mm	780	1565	2350				
		Capacity kg	5000	1000	500				
2	1600	Distance mm	875	1600					
		Capacity kg	1000	300					
3	1600	Distance mm	875	1600	1780	1960	2140	2320	2500
		Capacity kg	1000	300	225	200	175	150	125



Inner dimensions of forklift pockets

Type	1 fixed not telescoping						2 Gradient 25°	3 Gradient 25° telescoping
Basic length in mm	1600	2400	1600	2400	1600	2400	1600	1600
Load capacity max. in kg	1000	1000	2500	2500	5000	5000	1000	1000
Weight varnished/galvanised kg/pce	42/45	49/53	73/79	88/95	104/112	124/134	47/51	55/61
Item no. RAL 2000	8030.96.60	8030.96.61	8030.96.62	8030.96.63	8030.96.64	8030.96.65	8030.96.80	8030.96.90
Item no. hot-dip galavnised	8030.96.70	8030.96.71	8030.96.72	8030.96.73	8030.96.74	8030.96.75	8030.96.81	8030.96.91

Without indication of requested colour, we will deliver in yellow orange RAL 2000.

Please note the forklift's load capacity!

FORKLIFT ATTACHMENTS

Telescopic Crane Arms

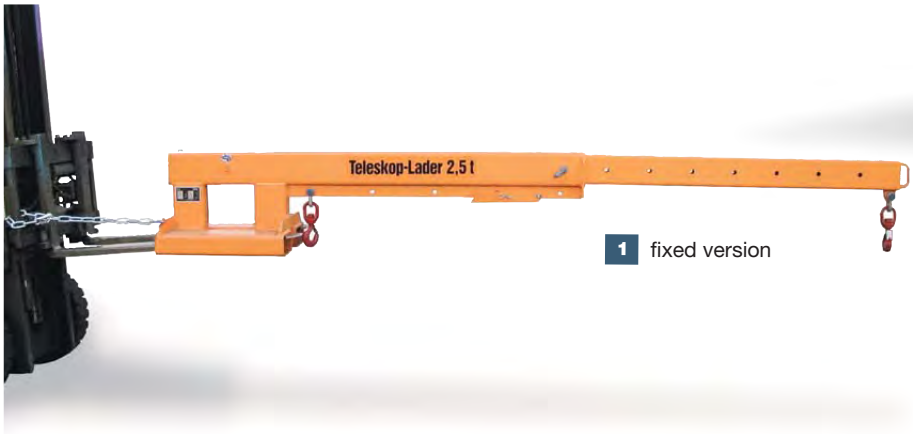
Telescopic Crane Arm Type KT (fixed), Type KTH (height-adjustable)

- Interior boom, adjustable in 8 steps
- Each position secured by locking pin
- Extends the reach of your forklift
- With 2 safety swivel hooks as standard
- Optionally with or without gradient adjustment 15°/30°/45°
- End position secured to prevent extraction
- 14 hook positions
- Telescopic arm held by forks
- Securing chain against unintentional slipping
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

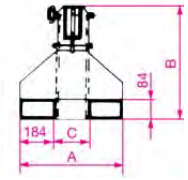
1 **KT** fixed version

2 **KTH** height-adjustable in 3 steps

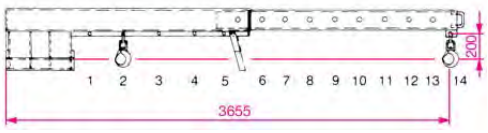
2 height-adjustable in 3 steps



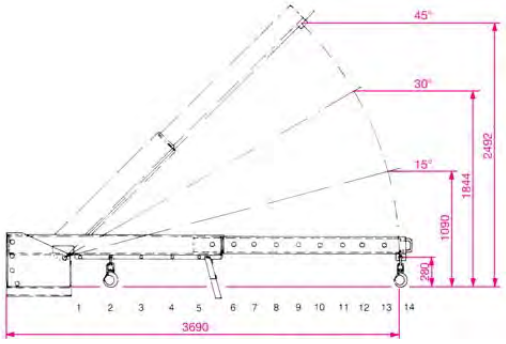
1 fixed version



1



2



Hook positions / Version		non telescoping 1	2	3	4	5	6	telescoping 7	8	9	10	11	12	13	14
1 KT	Distance mm	710	1000	1290	1590	1870	2055	2255	2455	2655	2855	3055	3255	3455	3655
	Capacity kg	2500	2500	2500	1800	1400	1200	1050	950	850	770	700	650	600	560
	Capacity kg	5000	3550	2750	2250	1950	1700	1550	1400	1300	1200	1150	1050	1000	950
2 KTH	Distance mm	695	990	1285	1580	1825	2090	2290	2490	2690	2890	3090	3290	3490	3690
	Capacity kg	2500	2500	2500	1800	1400	1200	1050	950	850	770	700	650	600	560
	Capacity kg	5000	3550	2750	2250	1950	1700	1550	1400	1300	1200	1150	1050	1000	950

Type	**1 fixed KT**		**2 height-adjustable KTH**	
Basic length in mm	3655	3655	3690	3690
Capacity max. in kg	2500	5000	2500	5000
Weight varnished/galvanised kg/pce	175/192	195/214	218/239	250/271
Dimensions L x W x H in mm	2160 x 490 x 480	2160 x 500 x 525	2210 x 540 x 555	2210 x 550 x 600
Inside dim. fork pocket A x B x C in mm	106 x 184 x 84	116 x 184 x 84	156 x 184 x 84	166 x 184 x 84
Item no. RAL 2000	8030.96.01	8030.96.03	8030.96.25	8030.96.50
Item no. hot-dip galavnised	8030.96.02	8030.96.04	8030.96.26	8030.96.51

Without indication of requested colour, we will deliver in yellow orange RAL 2000.

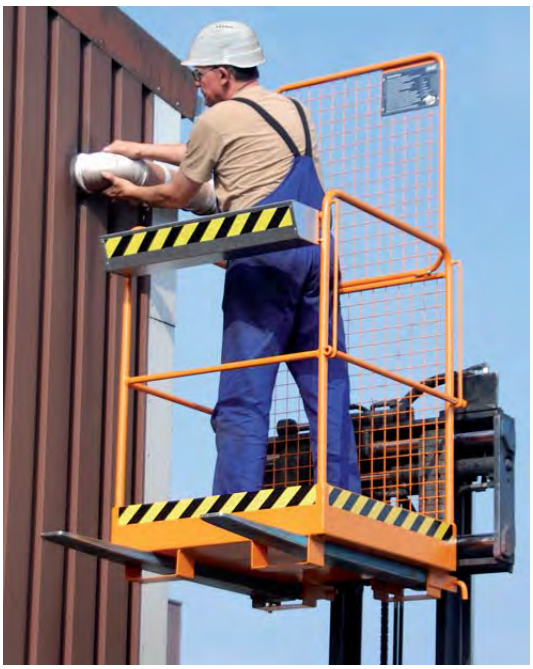
Please note the forklift's load capacity!

FORKLIFT ATTACHMENTS

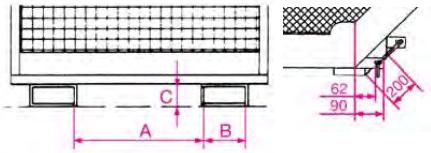
Safety Cages

Safety Cage Type SIKO-M

- Sturdy round pipe construction
- Non-slip working platform
- Permitted for 2 persons
- Through fork pockets with safety mechanism to prevent slipping
- German TÜV approved, complies with German Accident Prevention Regulations UVV
- Underrun protection ensures pick-up only through fork pockets
- Galvanised tool tray
- Surface varnished orange RAL 2000



Fork pocket dimensions

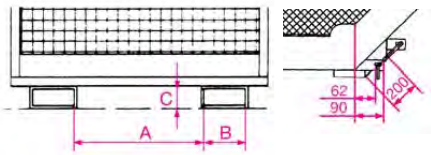


Type	Dimensions L x W x H in mm	Platform area in mm	Perm. total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no.
SIKO-M	1040 x 835 x 1895	740 x 740	240	54	280 x 200 x 80	8030.94.43

Safety Cage Type SIKO and SIKO/L

- Sturdy round pipe construction
- Non-slip working platform
- Permitted for 2 persons
- Through fork pockets with safety mechanism to prevent slipping
- German TÜV approved, complies with German Accident Prevention Regulations
- Underrun protection ensures pick-up only through fork pockets
- Galvanised tool tray
- Surface varnished orange RAL 2000

Fork pocket dimensions



Accessories:

- Set consisting of 2 steering + 2 fixed polyamide rollers Ø 180 mm, one steering roller with parking brake, clearance height 220 mm, max. load capacity 1,000 kg

  Surcharge: €127 per set

SIKO/L:
Lengthwise pick-up with forklift truck

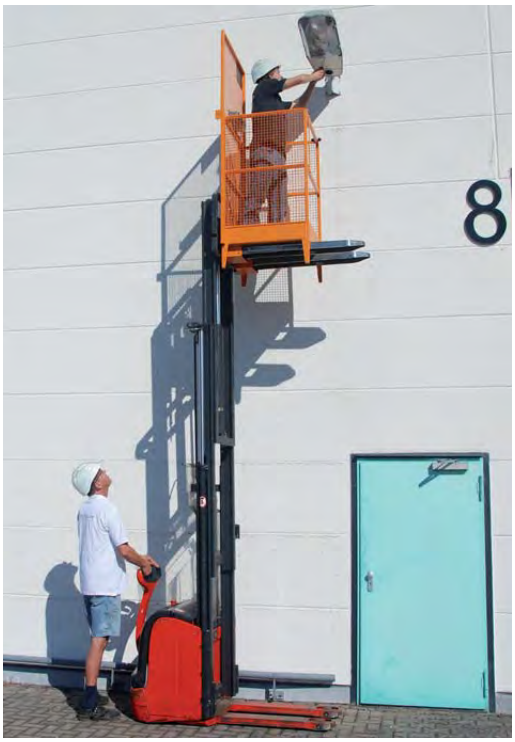
SIKO:
Crosswise pick-up by forklift truck

Type	Dimensions L x W x H in mm	Platform area in mm	Perm. total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no.
SIKO/L	1290 x 800 x 1890	1200 x 800	300	96	160 x 200 x 80	8030.91.04
SIKO	1115 x 1200 x 1890	800 x 1200	300	90	600 x 200 x 80	8030.91.03

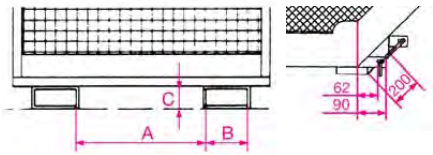
FORKLIFT ATTACHMENTS
Access Platforms

Access Platform Type MB-I

- Suitable for use with pedestrian stackers and forklifts
- Offers safety during maintenance and repair work at heights
- Permitted for 1 person
- Through fork pockets with safety mechanism to prevent slipping
- Galvanised tool tray
- German TÜV approved, acc. to BGV
- 4 support feet
- Surface varnished orange RAL 2000



Fork pocket dimensions



Type	Dimensions L x W x H in mm	Platform area in mm	Permitted total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no.
MB-I	775 x 800 x 2050	645 x 650	180	60	165 x 210 x 85	8030.94.44

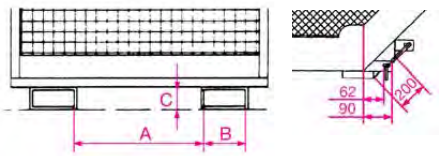
Access Platforms Type MB-D and MB-D/L

- Approved for 2 persons
- Fork pockets with anti-slip mechanism
- Galvanised tool tray
- German TÜV approved, acc. to BGV
- Surface varnished orange RAL 2000, blue RAL 5012 or hot-dip galvanised acc. to EN ISO 1461

MB-D/L with wheels:
Lengthwise pick-up by forklift truck (wheels are not included but avaible as accessory)

MB-D:
Crosswise pick-up by forklift truck

Fork pocket dimensions



Accessories:

- 2 steering + 2 fixed polyamide rollers Ø 180 mm, one steering roller with parking brake, clearance height 220 mm, max. load capacity 1,000 kg

Surcharge: €127 per set

Without indication of requested colour, we will deliver in yellow orange RAL 2000.

Type	Dimensions L x W x H in mm	Platform area in mm	Permitted total weight in kg	Weight in kg/pce	Fork pocket dim. A x B x C in mm	Item no. RAL 2000	Item no. hot-dip galvanised
MB-D	1115 x 1200 x 1890	800 x 1200	300	120	600 x 200 x 80	8030.91.01	8030.91.05
MB-D/L	1290 x 800 x 1890	1200 x 800	300	120	160 x 200 x 80	8030.91.06	8030.91.07

FORKLIFT ATTACHMENTS

Access Platforms

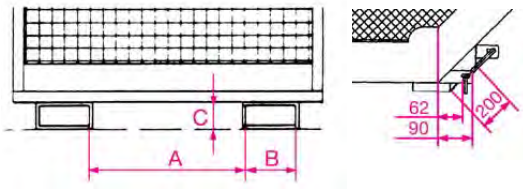
Access Platform Type MB-F / MB-K-IV / MB-ST/T

MB-F:
- German TÜV approved, complies with German Accident Prevention Regulations
- Foldable version
- Ready for use in a minute
- Crosswise pick-up by forklift truck

MB-K-IV:
- German TÜV approved, complies with German Accident Prevention Regulations
- Acc. to DIN EN 14502-1
- Payload 300 kg
- Support feet, ground clearance 135mm
- With galvanised top
- Supplied with 4-leg chain sling
- For crane operation
- With lifting points for PPE

MB-ST/T:
- Two-hand control contact switch, strobe light, cable retractor drum with 8 m electric cable, plug, socket and additional plug, door disconnecting switch
- Crosswise pick-up by forklift truck

Drawings of inside dimensions of fork pockets, not applicable for MB-K-IV



Accessories for access platforms (except version MB-K-IV):

2 steering + 2 fixed polyamide rollers Ø 180 mm, one steering roller with parking brake
Clearance height 220 mm

Without indication of requested colour, we will deliver in yellow orange RAL 2000. On request also available in light blue RAL 5012 or hot-dip galvanised acc. to EN ISO 1461.

Type	Dimensions L x W x H in mm	Platform area in mm	Permissible total weight in kg	Weight varn. in kg/pce	Fork pocket dim. B x C in mm	Fork pocket dim. A in mm	Item no. RAL 2000	Item no. hot-dip galvanised
MB-F	1090 x 1200 x 1890	1000 x 1200	300	120	200x80	600	8030.92.01	8030.91.08
MB-K-IV	800 x 1200 x 2300	800 x 1200	470	170	-	-	8030.93.01	8030.91.09
MB-ST/T	1115 x 1200 x 1890	800 x 1200	300	130	200x80	600	8030.91.10	8030.91.11

FORKLIFT ATTACHMENTS
Tipping Containers

Tipping Containers Type Expo

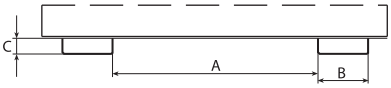
Compact tipping container with roller system

- Low load centre of gravity
- Tipping is possible from the forklift seat at any height by cable pull
- Pan sheet with circumferential edge profile
- Robust base frame with forklift pockets
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

Accessories:

- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

Without indication of requested colour, we will deliver in yellow orange RAL 2000.



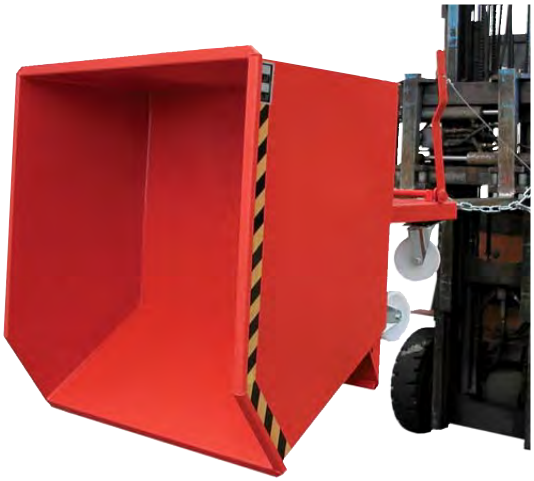
Insertion dimensions (inner)

Volume ca. m³	0.15	0.30	0.60	0.90	1.20	1.70	2.10
Capacity in kg	750	750	1000	1000	1500	1500	1500
Dimensions L x W x H in mm	960 x 640 x 550	1260 x 770 x 835	1260 x 1070 x 835	1260 x 1570 x 835	1720 x 1070 x 1103	1720 x 1570 x 1103	1720 x 1870 x 1103
Inner dimensions of forklift pockets A x B x C	170 x 200 x 80	300 x 200 x 80	600 x 200 x 80	600 x 200 x 80	600 x 200 x 80	600 x 200 x 80	600 x 200 x 80
Weight varnished/galvanised kg/pce	74/80	112/121	131/141	173/190	205/220	240/258	265/285
Item no. varnished	8030.94.01	8030.94.03	8030.94.05	8030.94.07	8030.94.09	8030.94.11	8030.94.13
Item no. galvanised	8030.94.02	8030.94.04	8030.94.06	8030.94.08	8030.94.10	8030.94.12	8030.94.14

Tipping Containers Type GU

Tipping container with low construction height

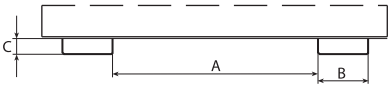
- Favourable tipping angle
- Low construction height
- Tipping is possible from the forklift seat at any height by cable pull
- Pan sheet with circumferential edge profile
- Robust base frame with forklift pockets
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



Accessories:

- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

If no colour is specified, we deliver painted in RAL 2000 (yellow orange).



Insertion dimensions (inner)

Volume ca. m³	0.30	0.50	0.75	1.00	1.50	2.00
Capacity in kg	750	1000	1000	1500	1500	1500
Dimensions L x W x H in mm	1440 x 680 x 580	1440 x 780 x 680	1440 x 1280 x 680	1640 x 1280 x 780	1640 x 1280 x 1090	1640 x 1680 x 1090
Inner dimensions of forklift pockets A x B x C	12 x 200 x 60	150 x 200 x 60	495 x 200 x 60	495 x 200 x 60	495 x 200 x 60	495 x 200 x 60
Weight varnished/galvanised kg/pce	108/118	121/133	156/171	184/202	215/236	246/271
Item no. varnished	8030.94.15	8030.94.17	8030.94.19	8030.94.21	8030.94.23	8030.94.25
Item no. galvanised	8030.94.16	8030.94.18	8030.94.20	8030.94.22	8030.94.24	8030.94.26

FORKLIFT ATTACHMENTS

Flap Bottom Containers

Flap Bottom Containers Type FB

Flap bottom container for collecting, storing and discharging materials

- Robust steel design with smooth interior walls
- Bottom flap can be unlocked by cable pull from the forklift seat
- Rubber shock absorber dampens the sudden dropping of the flap during the emptying process
- Bottom flap closes automatically when the container is placed down
- Safety mechanism to prevent accidental slipping and the opening of the bottom flap
- Brackets for forklifts and cranes
- 100 mm ground clearance – transportable with pallet truck
- 4 crane eyelets with 40 mm diameter
- Up to 3 containers can be stacked
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

Fork pocket inner dimensions

If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Accessories:

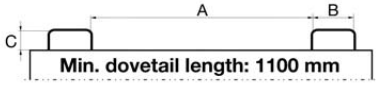
- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

Volume ca. m³	0.50	0.75	1.00	1.50	2.00
Capacity in kg	1000	1000	1250	1500	1500
Dimensions L x W x H in mm	800 x 1200 x 860	800 x 1200 x 1160	1000 x 1200 x 1160	1000 x 1800 x 1160	1000 x 1800 x 1460
Fork pocket inner dimensions A x B x C in mm	415 x 185 x 75	415 x 185 x 75	415 x 185 x 75	615 x 185 x 75	615 x 185 x 75
Weight varnished/galvanised kg/pce	125/178	144/207	158/228	202/286	232/328
Item no. varnished	8030.94.27	8030.94.29	8030.94.31	8030.94.33	8030.94.35
Item no. galvanised	8030.94.28	8030.94.30	8030.94.32	8030.94.34	8030.94.36

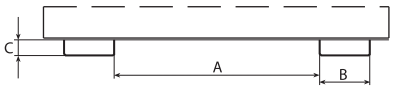
Flap Bottom Containers Type BKB

Conical flap bottom container with base discharge

- Stackable one inside the other
- Bottom flap can be unlocked by cable pull from the forklift seat
- Bottom flap closes automatically when the container is placed down, 90° opening
- Robust design with circumferential edge profile
- Brackets for forklifts and cranes
- 100 mm ground clearance, transportable with pallet truck
- Safety mechanism to prevent slipping and the bottom flap from opening
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



Fork pocket inner dimensions



Inner dimensions of forklift pockets

Accessories:

- Castor set comprising 2 steering and 2 fixed castors made from polyamide Ø 180 mm, including one steering castor with arrestor – construction height 220 mm, max. load capacity 1,350 kg

Volume ca. m³	0.50	0.70	1.00
Capacity in kg	1000	1500	2000
Dimensions L x W x H in mm	1040 x 1200 x 721	1040 x 1200 x 971	1040 x 1200 x 1271
Fork pocket inner dimensions A x B x C	600 x 180 x 65	600 x 180 x 65	600 x 180 x 65
Fork pocket inner dimensions A x B x C	600 x 190 x 90	600 x 190 x 90	600 x 190 x 90
Weight galvanised kg/pce	136	156	182
Item no. varnished	8030.94.37	8030.94.39	8030.94.41
Item no. galvanised	8030.94.38	8030.94.40	8030.94.42

FORKLIFT ATTACHMENTS

Stacking tipper

Stacking tipper Type BSK

Stacking tipper made from profiled sheet steel for robust applications

- Made from profiled sheet steel
- Up to 3 containers can be stacked when filled
- Dumped with cross beam by cable pull from the forklift seat
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

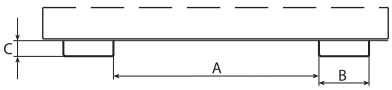
If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Volume ca. m³	0.30	0.55	0.70	0.90	1.50	2.0
Capacity kg	500	1000	1500	2000	2000	2000
Dimensions L x W x H in mm	800 x 600 x 600	1000 x 800 x 900	1200 x 800 x 900	1200 x 1000 x 900	1200 x 1500 x 1000	1200 x 2000 x 1000
Weight varnished/galvanised kg/pce	50/55	80/88	90/99	100/110	140/154	170/187
Item no. varnished	8030.94.45	8030.94.47	8030.94.49	8030.94.51	8030.94.53	8030.94.55
Item no. galvanised	8030.94.46	8030.94.48	8030.94.50	8030.94.52	8030.94.54	8030.94.56

Cross beam for stacking tipper Type BST

Cross beam for dumping the BSK stacking tipper

- Tipping is possible from the forklift seat at any height by cable pull
- Safety mechanism to prevent accidental slipping
- Fork pocket for forklifts
- Stacking tipper can be grasped using the holding pins
- For stacking tippers with a capacity of 0.30 – 2.00 m³
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461



Insertion dimensions (inner)

If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Cross beam for container m³	0.30	0.55	0.70	0.90	1.50	2.0
Capacity kg	500	1000	1500	2000	2000	2000
Dimensions L x W x H in mm	945 x 730 x 845	945 x 930 x 975	945 x 930 x 975	945 x 1130 x 975	940 x 1630 x 1085	940 x 2130 x 1085
Inner dimensions of forklift pockets A x B x C	110 x 200 x 80	250 x 200 x 80	250 x 200 x 80	450 x 200 x 80	450 x 200 x 80	590 x 200 x 80
Weight kg	71	79	79	85	156	173
Item no. varnished	8030.94.57	8030.94.58	8030.94.59	8030.94.60	8030.94.61	8030.94.62

FORKLIFT ATTACHMENTS

Box Wagon, Tipping Trough

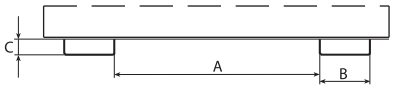
Box Wagon Types KW and KW-ET

Box wagon for any kind of bulk materials, with optional emptying at ground level

- Robust steel sheet design with edge reinforcement
- Base frame made from profiled steel
- Oil tight and waterproof
- Spring protection against tipping
- 2 wheels + 1 steering castor (from 600 l content: + 2 steering wheels) made from solid rubber Ø 250 x 60 mm, of which one steering castor with arrestor
- Handle for pushing
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

KW

KW-ET



Insertion dimensions (inner)

If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Volume ca. m³		0.25	0.40	0.60	1.0
Capacity kg		300	300	300	300
	Dimensions L x W x H in mm	1120 x 820 x 990	1330 x 900 x 1090	1400 x 1070 x 1220	1430 x 1340 x 1285
	Dumping edge height mm	690	740	830	870
Type KW without forklift pockets	Weight varnished/galvanised kg	69/76	84/93	128/141	156/172
	Item no. varnished	8030.94.63	8030.94.65	8030.94.67	8030.94.69
	Item no. galvanised	8030.94.64	8030.94.66	8030.94.68	8030.94.70
Type KW-ET with forklift pockets and safety mechanism to prevent accidental slipping or dumping	Inner dimensions of forklift pockets A x B x C	465 x 170 x 55	465 x 170 x 55	465 x 170 x 55	465 x 170 x 55
	Weight varnished/galvanised kg	80/88	96/106	140/154	168/185
	Item no. varnished	8030.94.71	8030.94.73	8030.94.75	8030.94.77
	Item no. galvanised	8030.94.72	8030.94.74	8030.94.76	8030.94.78

Tipping Trough Type KN

Low tipping trough for collecting and disposing of bulk goods and industrial waste for bulk goods of any kind, with optional ground-level emptying

- Robust steel sheet design with edge reinforcement
- Trough in a tippable position with handle
- Base frame with forklift pockets
- Easy to move using a forklift
- Oil tight and waterproof
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

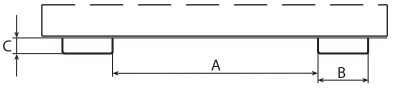
If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

KN

Volume ca. m³		0.25	0.40
Capacity kg		300	300
Dimensions L x W x H in mm		1320 x 670 x 535	1390 x 840 x 610
Dumping edge height mm		535	610
Inner dimensions of forklift pockets A x B x C		285 x 170 x 55	455 x 170 x 55
Weight varnished/galvanised kg		70/77	77/85
Item no.	varnished	8030.94.79	8030.94.81
Item no.	galvanised	8030.94.80	8030.94.82

Accessories:

- 2 steering and 2 fixed castors made from solid rubber Ø 200 x 50 mm, 1 steering castor with arrestor – construction height 235 mm



Insertion dimensions (inner)

FORKLIFT ATTACHMENTS
Access Platforms

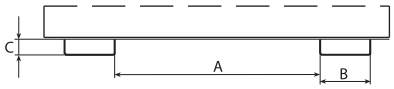
Tipping Trough Type KK

Box-shaped tipping trough for collecting and disposing of bulk goods and industrial waste for bulk goods of any kind, with optional ground-level emptying

- Robust steel sheet design with edge reinforcement
- Trough in a tippable position with handle
- Base frame with forklift pockets
- Easy to move using a forklift
- Oil tight and waterproof
- Safety mechanism to prevent accidental slipping and tipping out
- Castors can be retrofitted
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005 or hot-dip galvanised acc. to EN ISO 1461

Accessories:

- 2 steering and 2 fixed castors made from solid rubber Ø 200 x 50 mm, 1 steering castor with arrestor – construction height 235 mm



Insertion dimensions (inner)

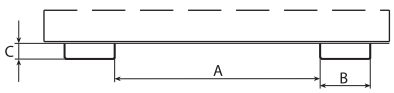
If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Volume ca. m³	0.25	0.40	0.60	0.80	1.00
Capacity kg	300	300	300	300	300
Dimensions L x W x H in mm	1130 x 590 x 740	1320 x 670 x 840	1390 x 840 x 910	1420 x 910 x 980	1420 x 1110 x 980
Dumping edge height mm	440	490	520	560	560
Inner dimensions of forklift pockets A x B x C	205 x 170 x 55	285 x 170 x 55	455 x 170 x 55	525 x 170 x 55	725 x 170 x 55
Weight varnished/galvanised kg	70/77	77/85	125/138	133/147	145/160
Item no. varnished	8030.94.83	8030.94.85	8030.94.87	8030.94.89	8030.94.91
Item no. galvanised	8030.94.84	8030.94.86	8030.94.88	8030.94.90	8030.94.92

Tipping Trough Type KS

Tipping trough for transporting and dumping bulk goods with great flexibility

- Wheels and pushing handle enable simple manual transportation
- Forklift pockets for transportation with a forklift
- Emptying at ground level or over a large container using a forklift
- Robust steel design
- Base frame with forklift pockets
- Trough in a tippable position
- Safety mechanisms to prevent accidental slipping and dumping
- 2 steering and 2 fixed castors made from polyamide Ø 180 mm, of which one steering castor with arrestor – construction height 220 mm, max. load capacity 1,000 kg
- Surface varnished orange RAL 2000, red RAL 3000, blue RAL 5021, green RAL 6011, grey RAL 7005



Insertion dimensions (inner)

If no colour is specified, we deliver painted in RAL 2000 (yellow orange).

Volume ca. m³	0.40	0.55	0.70
Capacity kg	1000	1000	1000
Dimensions L x W x H in mm	1220 x 1010 x 1115	1245 x 1200 x 1170	1340 x 1200 x 1275
Dumping edge height mm	1020	1055	1175
Inner dimensions of forklift pockets A x B x C	100 x 200 x 80	180 x 200 x 80	180 x 200 x 80
Weight varnished kg	107	120	132
Item no. varnished	8030.94.93	8030.94.94	8030.94.95

FALL PROTECTION SYSTEMS / PROTECTIVE EQUIPMENT FOR THE PREVENTION OF FALLS

Carl Stahl - Your partner for fall protection systems and personal protective equipment for the prevention of falls.

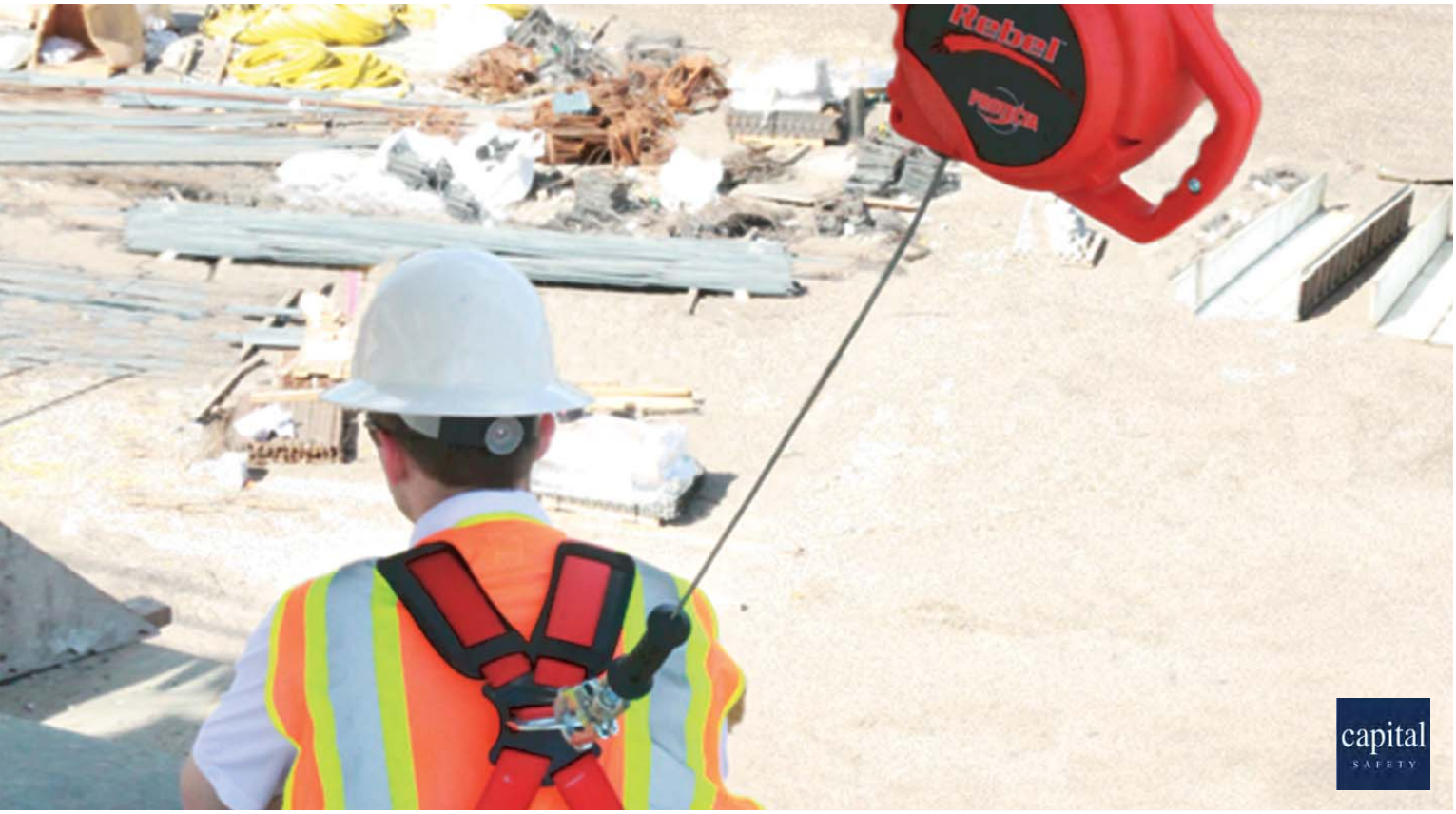
Choose from the most comprehensive range of systems and equipment as there are:

- Collective protection, aluminium safety railings
- Safety and side protection nets
- Full body harnesses, seat harnesses and work positioning belts
- Personal protective equipment sets
- Lanyards
- Anchorage points
- Fall arresters
- Horizontal and vertical lifeline systems
- Anchorage points for self-assembly
- Rescue kits

Please contact your closest Carl Stahl office for our special catalogue.

This catalogue is also available for download on our website www.carlstahl-fallprotection.com

FALL PROTECTION SYSTEMS / PROTECTIVE EQUIPMENT FOR THE PREVENTION OF FALLS



Aluminium safety railings for collective protection on flat roofs on new and old buildings

The Barrial®-system basically consists of three types of railing:

- **Barrial® fixed**
- **Barrial® self-supporting**
- **Barrial® folding**

Depending on the property, fastening area, installation method and visual and functional requirements, the different shoe types, post types and options offer a broad range of usage and design options.

The simple installation of the fully-compatible components and their ability to be adjusted is highly rated on construction sites.

The surface treatment (Danilac) in the factory-own powder coating system also makes it possible to individually adapt the colour of the Barrial railings to that of the property.

Colour variety
Due to its filigree optic the railing in painted version (250 RAL colours to choose) perfectly fits to the structure of the building.

Railing type	Installation area in several shoe types	Pillar straight	Pillar rounded	Pillar inclined 15° / 30° / 45°	Post foldable	Parapet capping option	Skirting option
Barrial fixed	Inside of parapet wall	✔	✔	✔		✔	
Barrial fixed	Facade		✔	✔		✔	✔
Barrial fixed	On parapet wall	✔	✔	✔		✔	✔
Barrial fixed	On roof surface	✔	✔	✔		✔	✔
Barrial self-supporting	On roof surface	✔	✔	✔ ✔	✔	✔	✔
Barrial folding	Inside of parapet wall				✔	✔	
Barrial folding	On parapet wall				✔	✔	

Height- and depth variable consoles for installation in insulated parapet walls available.

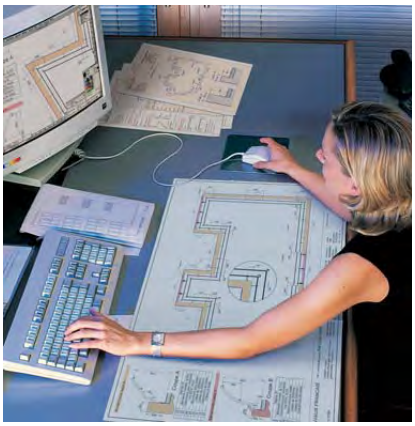
Type	Item no.	**Price/€**
Barrial aluminium-safety railing	49G10000	**project-related**
Barrial rooflight dome railing	49LK1000	**project-related**
Barrial corridor	49K10000	**project-related**
Installation Barrial	49M00000	**project-related**

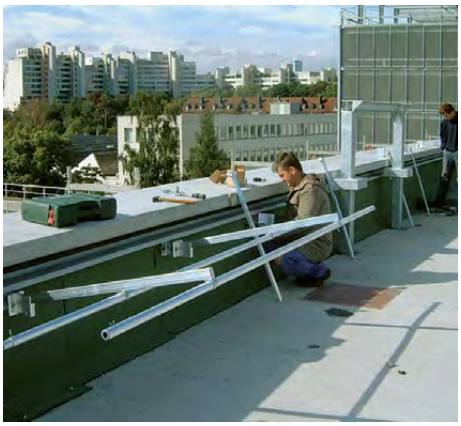
Carl Stahl Service, that convinces!

Comprehensive, professional support from planning through to implementation
We support you throughout all your project planning phases:

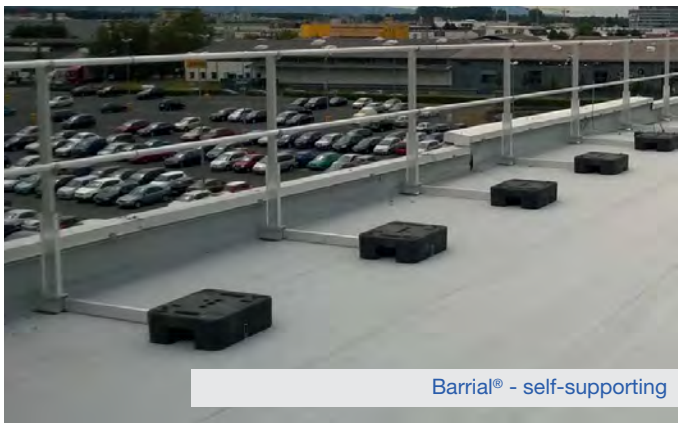
- Safety analysis
- Clarification of technical details
- Proposal of suitable solutions
- Measurements on the construction site
- Planning using special Danisoft software
- Products supplied made-to-measure and with a layout drawing
- Technical support during installation
- After-sales service

For further information please contact your local Carl Stahl dealer!

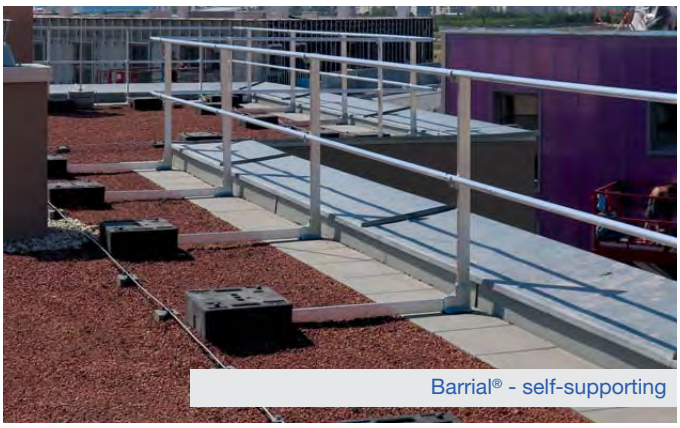




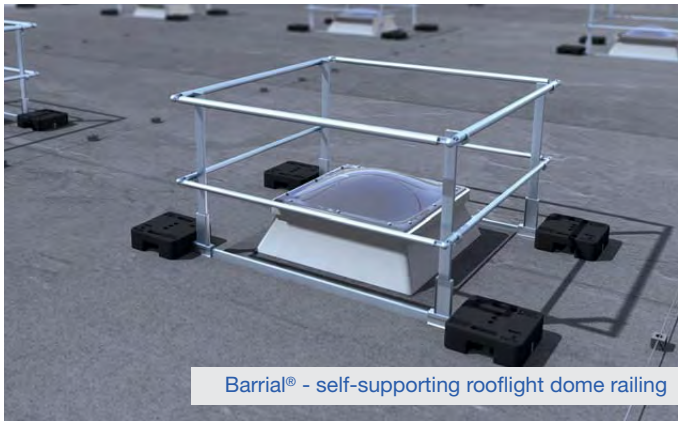
Barrial® - a extremely versatile railing system



Barrial® - self-supporting



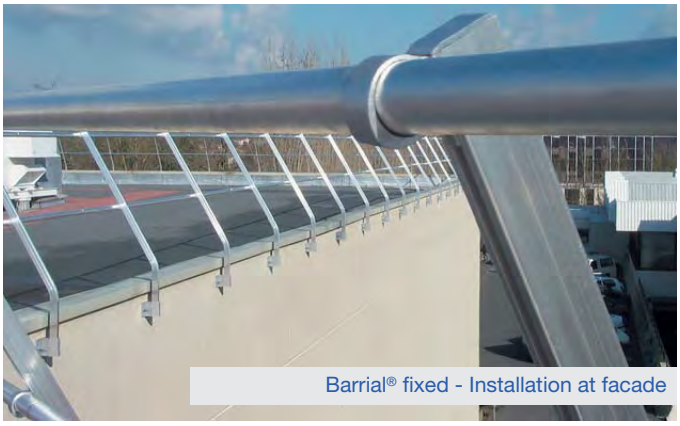
Barrial® - self-supporting



Barrial® - self-supporting rooflight dome railing

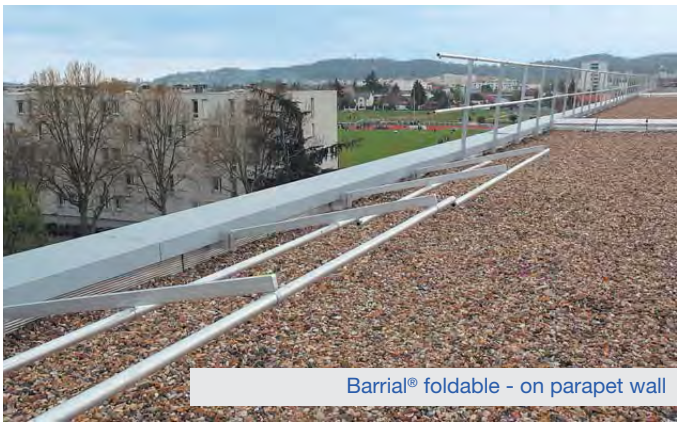
Barrial® fixed - on parapet wall

Barrial® fixed - inside of parapet wall



Barrial® fixed - Installation at facade

Barrial® fixed - Installation on roof surface



Barrial® foldable - on parapet wall

Barrial® self-supporting standard

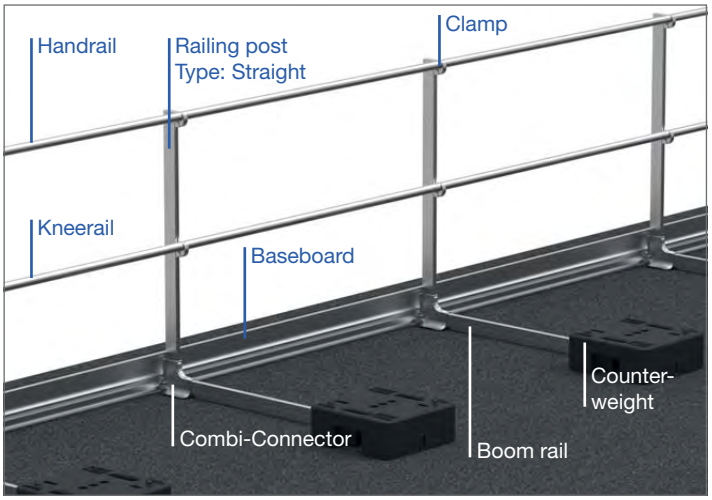
Practible, elegant and high-class

The load supported railing made from aluminium guarantees safety during all maintenance and care works on privately used flat roofs.

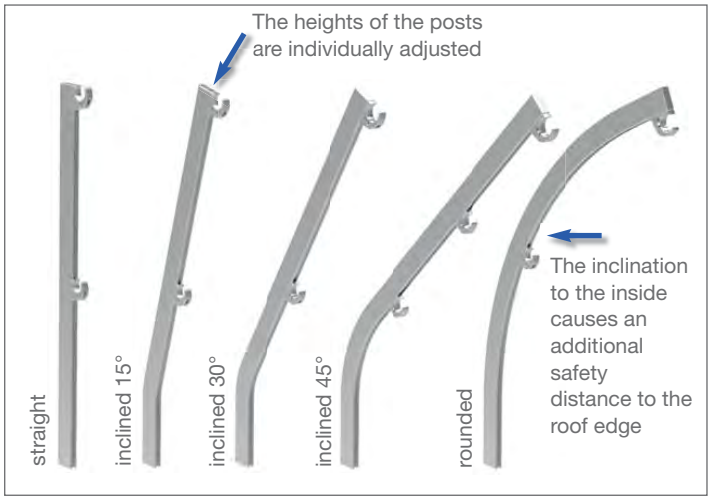
Barrial® self-supporting fulfills optimally all legal regulations for a permanent collective prevention against fall.

- ✓ Non-penetrative
- ✓ Without thermal bridge
- ✓ No sound transmission
- ✓ No warranty regulation problems
- ✓ Fast installation due to pre-installed clamp
- ✓ Functional design

The components of the system



Flexible posts



Counterweights made of 100 % recycelt PVC with 10 years warranty

- CO2-neutral and 100 % recyclable (with guaranteed redemption system)
- drillable, screwable, millable and cuttable
- UV- and weather resistant
- Material compatible to all usual sealing sheets
- Grip recesses for a safe transport and high wearing comfort
- Space-saving and stackable
- Fixing of the weight on the boom rail by an self-drilling screw

Practically combi-connector

- Connection of post and boom rail by easy plug in
- Fixation by integrated clamp with just one screw
- Especially space-saving during transport
- Non-slip protective cap at the bottom
- Height adjustment of railing post up to 30 mm possible
- Mounting fixture for an easy installtion of the baseboard by quick connector

Practically clamp mounting

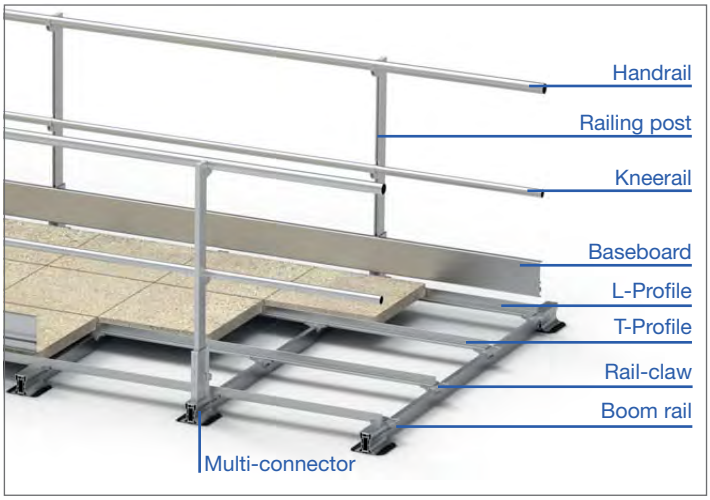
- Fast installation by factory-made by pre-assembled clamp mountings
- No scratching of the profiles during installation
- Easy adjustment without disassembling
- Easy to open and close with just one tool

Barrial® Corridor escape-, rescue and maintenance routes

Escape-, rescue- and maintenance routes with system

- Height adjustment up to 300 mm
- Supported by load, without penetration of the sealing
- Modular system for variable route widths
- Patented rail claw, no pre-drilling
- Installation by minimal amount of tools
- Fast connection of the parts
- Regulation compliant, tested and certified
- Design in Alu natural or painted in RAL
- Special designs for schools and play schools

The components of the system

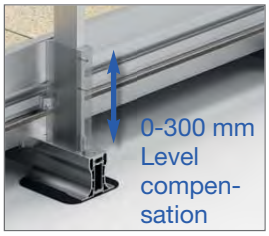


Aluminium boom rail

- Solid extrusion moulding profile with mounting groove Strangpressprofil
- Continuous height adjustable
- Easy installation at the post sleeve by fast-connector

Practically clamp mounting

- Fast installation by factory-made by pre-assembled clamp mountings
- No scratching of the profiles during installation
- Easy adjustment without disassembling
- Easy to open and close with just one tool

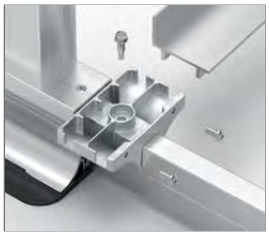


Multi-connector with level compensation function

- Compensation of level differences between 0 up to 300 mm possible (bigger sleeve heights on request)
- Mounting fixture for an easy installtion of the baseboard by quick connector

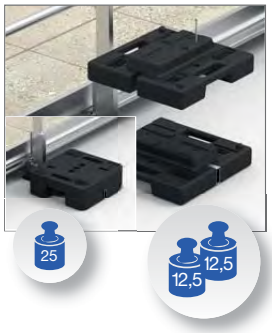
Door element

- Precast standard elements
- Automatic closing mechanism
- Direction of doorway to the inside
- Easy assimilation by clamp butt connector



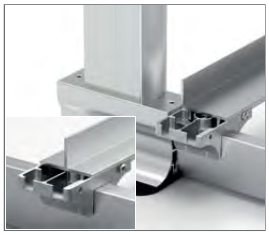
Innovative rail-claw

- solid aluminium die-cast part
- Easy adjustment on the boom rail
- Connecting part between boom rail and L-/T-Profiles
- Extra-wide for practicable design of profile-joints
- No pre-drilling necessary
- Fixation with an self-drilling screw



Counterweights made of 100% recycelt PVC

- Counterweights made of 100% recycelt PVC with 10 years warranty
- CO2-neutral and 100 % recyclable (with guaranteed redemption system)
- drillable, screwable, millable and cuttable
- UV- and weather resistant
- Material compatible to all usual sealing sheets
- Grip recesses for a safe transport and high wearing comfort
- Space-saving and stackable
- Flexible installation and load distribution by steps of 12,5 kg
- Fixing of the weight on the boom rail by an self-drilling screw



L- and T-Profiles for mounting of floor covering

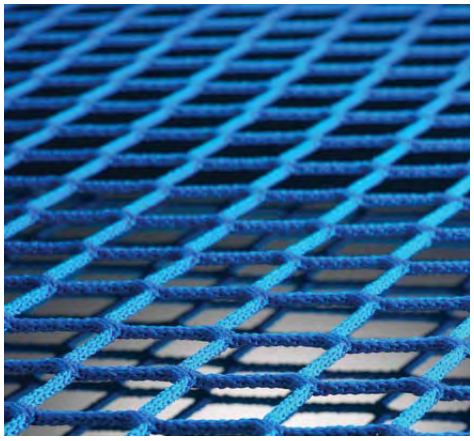
- Specially manufactured profiles with a high stability
- Profiles were clamped not screwed
- Very fast installation time, completely without drilling

Safety nets

Safety nets can prevent people from falling and incurring serious or even fatal injuries. They can also prevent objects from falling onto the lower areas of construction sites, e.g. when installing overhead lines, constructing houses etc. Attached horizontally, they provide effect accident prevention in line with the provisions of the German employers' insurance associations for the construction sector. All the nets are produced in compliance with European Standard EN 1263-1, as is evidenced by GS marks.

Caution: remember that safety nets must be inspected annually!

Safety nets edged with rope



Knotless safety net conforming to EN 1263-1, system S, square mesh, fully edged with 30 kN rope, approx. 12 mm in diameter.
Material: high tenacity polypropylene, mesh size: approx. 100 mm
Material thickness: approx. 4.75 mm
Net class A2, GS test certificate 7100004

Type	Size in m	Colour	Weight in kg	Item no.
19040-100-01	5 x 10	green	13.7	49AN510G
19040-100-04	5 x 10	blue	13.7	49AN510B
19041-100-01	6 x 10	green	16.5	49AN610G
19041-100-04	6 x 10	blue	16.5	49AN610B
19042-100-01	10 x 10	green	27.5	49AN1010G
19042-100-04	10 x 10	blue	27.5	49AN1010B

Suspension rope according to EN 1263-1, type L

For single-rope suspension, one end with spliced loop, the other end firmly sealed off, minimum rope breaking strength of 30 kN.
According to BGR 179, safety nets must be fastened to stable suspension points at a maximum distance of 2.50 m. When using single-rope suspension, the rope must have a minimum breaking strength of 30 kN.

Type	Length in m	Colour	Weight in kg	Item no.
2011	2.50	white	0.200	49ANZBAS

Safety nets with rope edge and clips

Knotless safety net conforming to EN 1263-1, system S, square mesh, fully edged with 30 kN rope, approx. 12 mm in diameter
Clips at 2.50 m intervals
Material: high tenacity polypropylene, mesh size: approx. 100 mm
Material thickness: approx. 4.75 mm

Type	Size in m	Colour	Weight in kg	Item no.
20030-100-01	5 x 10	green	15.00	49AN510KBG
20030-100-06	5 x 10	black	15.00	49AN510KBS
20031-100-01	6 x 10	green	18.00	49AN610KBG
20031-100-06	6 x 10	black	18.00	49AN610KBS

Side protection nets

Safety nets offer clear benefits as side protection on scaffolds or side fall protection when working on flat roofs, bridges and the like: low weight, quick to attach/detach and minimal space requirement during storage. They not only provide fall protection for people but also offer protection against falling objects. Whether standard or customised versions, all of our nets are produced in line with the requirements of the employers' insurance associations and European Standard EN 1263-1. They are fully edged with an integral surround rope. Alternatively, they can also come with sewn-on quick-connect buckles. Our practical Isilink clips or clamp-lock belt-snap buckles enable the nets to be attached in seconds, even when wearing protective gloves.

Side protection nets with sewn-on belt snap buckles

Knotless side protection nets conforming to EN 1263-1, safety net system U.
Made from high tenacity polypropylene, approx. 5 mm in diameter, with integral surround rope and sown-on belt snap buckles at approx. 75 cm intervals
With GS test certificate 03006

Type	Size in m	Mesh size in mm	Colour	Weight in kg	Item no.
3006-100GSV-01	2 x 5	100	green	4.1	49SN25100G
3006-100GSV-04	2 x 5	100	blue	4.1	49SN25100B
3006-100GSV-07	2 x 5	100	red	4.1	49SN25100R
3006-045GSV-01	2 x 5	45	green	6.1	49SN2545G
3006-045GSV-04	2 x 5	45	blue	6.1	49SN2545B
3006-045GSV-07	2 x 5	45	red	6.1	49SN2545R
3008-100GSV-01	2 x 10	100	green	7.7	49SN210100G
3008-100GSV-04	2 x 10	100	blue	7.7	49SN210100B
3008-100GSV-07	2 x 10	100	red	7.7	49SN210100R
3008-045GSV-01	2 x 10	45	green	11.7	49SN21045G
3008-045GSV-04	2 x 10	45	blue	11.7	49SN21045B
3008-045GSV-07	2 x 10	45	red	11.7	49SN21045R

PROTECTA

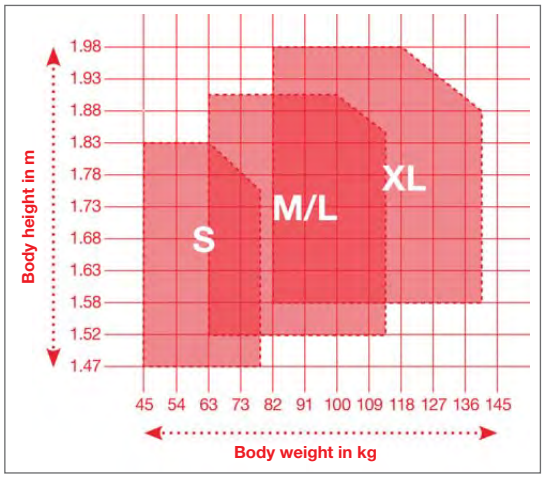
Safe, practical, user-friendly equipment at low prices.

For over 50 years, the brand **PROTECTA** has represented superior-quality fall protection safety equipment around the world.

The new PRO™ Series of fall arrest and work positioning harnesses

The new enhanced PROTECTA® PRO™ fall arrest harness design fulfills the same safety regulations, but offers more comfort equally, better adjustment options, better fixation of the webbing belt and a better functionality. The comprehensive product series stays the same one of the biggest in this branch. Equally to your requirements in use, a suitable PROTECTA® PRO™ fall arrest harness is available.

PRO™ harness sizing chart



Options for buckles
Standard buckles
Automatic buckles for more comfort

Chest strap
Ideal position for attachment of lanyards and climbing protection runner.
Lower injury risk in the facial area due to its lower position

Easy web adjustment
Sprung brackets prevent a slipping of the web.
Easy adjustment by pulling down.

Strap positioning
Special design in the hip area.
All seams have no contact to the body for a better comfort

Options with removable upholstery
Can be attachted by the user itself at every harness of this series.
For details check page 573

Big dorsal attachment ring
Easy attachment
Suitable for rescue

Adjustable shoulder straps

Web
Polyester, Width 45 mm
Seam: high-strength polyester thread

Fall indicator
In case of a fall the seam tears up

Covered labels
A covering protects the labels

PRO® 1-point fall arrest harness

Back D-ring, standard locks,
better adjustment possibilities, fall indicator

AB10112NG

PRO® 2-point fall arrest harness

Back and front D-ring, standard locks,
better adjustment possibilities, fall indicator

AB11312NG

PRO® 3-point fall arrest harness

Back D-ring, shoulder rings for entry and rescue
from confined spaces, fall indicator

AB10212NG

PRO® 5-point fall arrest and work positioning harness

Back and front D-ring, fixation rings and
climbing protection ring, fall indicator

AB116125NG

Type and Size S M/L XL	Area of application	D-Rings	Buckle type	Weight in kg	Standard	Item no. Size S(M/L)(XL)
AB10112NG (13NG) (14NG)	Universal	Back	Standard	1.06 (1.11) (1.15)	EN361	49AG101NGS (NGM/L) (NGXL)
AB11312NG (13NG) (14NG)	Confined spaces	Back, Chest	Standard	1.13 (1.17) (1.21)	EN361	49AG113NGS (NGM/L) (NGXL)
AB10212NG (13NG) (14NG)	Universal	Back, Chest	Standard	1.28 (1.30) (1.31)	EN361	49AG102NGS (NGM/L) (NGXL)
AB116125NG (35NG) (45NG)	Climbing protection syst.	as above and climbing pr.	Standard	2.02 (2.06) (2.15)	EN361	49AG1161NGS (NGM/L) (NGXL)

Permissible total weight including equipment = 140 kg

Optional for all PRO® -harnesses

PVC Carrying bag

Transportation bag

AK043 from Nylon

Shoulder pad AK096NG

Leg pad 9502120NG

Type	Size (h x Ø) in cm	Capacity in litres	Weight in kg	Item no.
PVC-Carrying bag, black	60 x 30	45	0,60	49ZBPS01
Transportation bag	WxLxH (30x45x35)	45	0,96	450T0000
Carrying bag AK043	50 x 30	35	0,40	49ZBAK43
AK096NG Shoulder pad	Unisize	-	0,17	49AGZB096NG
9502120NG Leg pad	Unisize	-	0,12	49AGZB120NG

PRO® 5-point fall arrest and work positioning harness

Back D-ring, shoulder rings for enty and rescue from confined spaces, fixation rings

AB105125NG

PRO® Hi-Vis vest fall arrest harness

Inclusion of the PRO-fall arrest harness with a safety vest for a quick and easy dressing.

- integrated pockets
- leight-weight, breathable textile
- inside mesh-lining and fixations keep the shape of the vest
- dressing like a coat
- Reflecting warning stripes according to EN471 Kl. B

AB10112HVNG

PRO® 2-point welder fall arrest harness

Extremely robust and heat resistant (370° C)
Especially resistant against possible thermal damages, which can be occur during welding.

AB11313K

FLEXA harness

with thorn lock
in the leg area

AB12433

All FLEXA harnesses
- comfort-elastic web in the shoulder area
- match to the user
- for a fatigue-free work

FLEXA harness

Product line with elastic web and automatic fast-lock.
Equipped with D-ring at the back and front.

AB113EA

Type and Size S M/L XL	Area of application	D-Rings	Buckle type	Weight in kg	Standard	Item no. Size S (M/L) (XL)
AB105125NG (35NG) (45NG)	Confined spaces	Back, Side, Chest	Standard	2.07 (2.14) (2.21)	EN361-358	49AG1051NGS / NGM/L / NGXL
AB10112HVNG (13HVNG) (14HVNG)	Universal	Back	Standard	1.5 (1.56) (1.6)	EN361/EN471	49AG101HVNGS / HVNGM/L / HVNGXL
AB11312K (13K) (14K)	Steelwork, Constr.	Back, Chest	pass-thru buckle	1.25 (1.30) (1.40)	EN361	49AG11312K / 13K / 14K
AB12432 (33) (34)	Universal	Back, Chest	thorn buckle	1.44 (1.48) (1.92)	EN361	49AG124S (M) (L)
AB113EA (ELA)	Universal	Back, Chest	Automatic	1.395	EN361	49AGF0EA* (49AGFELA)**

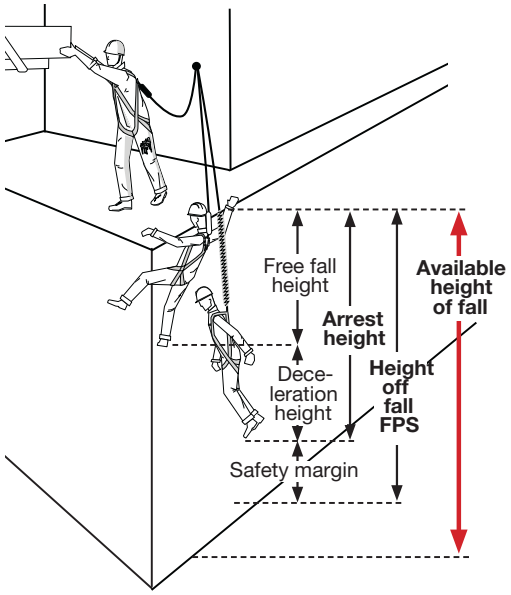
Permissible total weight including equipment = 140 kg

*Size M/L **Size XL

PROTECTA offers the broadest range of fall arrest devices in the industrial worldwide

Simple use and lightweight materials are combined to comply with and exceed the requirements of European standards.

Height of fall calculation



Lanyards - selection guide

Product	Area of application	Material	Connector	Fall indicator
PRO™	• Construction industry • Utilities industry and maintenance • Installation and service • High-bay warehouses	25 mm polyester webbing 10.5 mm rope	Self-locking karabiner	Transparent plastic cover over energy absorber

Energy absorbing lanyards

The **PROTECTA** energy absorbing lanyards provide high quality at a low price. They have a transparent cover over the energy absorber to make it easy to inspect the stitching. Available with several different karabiner options and configurations depending on the requirements of your work site.

Energy absorbing lanyard AE522/3

Y-Energy absorbing lanyard AE532/3

Energy absorbing lanyards - rope basis

Type	Material	1-leg	2-leg	Length in m	Weight in kg	Connector	Item no.
AE522/3	10.5 mm kernmantle rope	✔		2.0	0.88	2 karabiners - 18 mm opening width	49VMKS01
AE532/3	10.5 mm kernmantle rope		✔	1.8	1.73	1 karabiner - 18 mm, 2 scaffold hooks - 60 mm opening width	49VMY001

Energy absorbing lanyard AE5220WAE

Y-Energy absorbing lanyard AE5320WAF

PRO™ Stretch energy absorbing lanyard with impact indicator AE5220SAK

Energy absorbing lanyard - webbing

Type	Material	1-leg	2-leg	Length in m	Weight in kg	Connector	Item no.
AE5220WAE	25 mm polyester webbing	✔		2.0	0.81	1 karabiner - 17 mm, 1 carabiner - 18 mm opening width	49VMGB01
AE5320WAF	25 mm polyester webbing		✔	2.0	1.80	1 karabiner - 17 mm, 2 scaffold hooks - 60 mm opening width	49VMY002
AE5220SAK	50 mm stretch material	✔		2.0	1.03	Screw karabiner 17 mm, scaffold hook - 60 mm opening width	49VMST0SAK

Pro™ Stretch Lanyards

- Tested on an edge with a radius of 0.5 mm
- Enhanced protection for workers subjected to the risks associated with working over edges
- Two layers of tubular webbing create a highly durable product with an outstanding service life
- Available with a screw or twist lock karabiner
- Differentiated from Pro Stretch standard lanyards by means of the orange labelling on the packaging and the black stripes on the lanyard
- Depending on the user's needs, different lanyards are available from standard karabiners to scaffold hooks with large openings.

EN 355

AE5220SBB/SE

AE5220SBK/SE

AE5220SYK/SE

Type	Material	1-leg	Length in m	Karabiner	Weight in kg	Item no.
AE5220SBB/SE	50 mm stretch fabric	✔	2,0	2 steel karabiners AJ 514 = 18 mm opening width	0.79	49VMSBB200
AE5220SBK/SE	50 mm stretch fabric	✔	2,0	1 x steel karabiner AJ 514 = 18 mm opening width 1 x aluminium karabiner AJ 527 = 60 mm opening width	1.08	49VMSBK200
AE5220SYK/SE	50 mm stretch fabric	✔	2,0	1 x aluminium karabiner AJ 512 = 22 mm opening width 1 x aluminium karabiner AJ 527 = 60 mm opening width	1.08	49VMSYK200

Sanchoc™ kernmantle rope lanyard

- Tested on an edge with a radius of 0.5 mm
- Enhanced protection for workers subjected to the risks associated with working over edges
- 12.5 mm kernmantle rope makes for an extraordinarily reliable product with an outstanding service life
- Available with a screw or twist lock karabiner
- Differentiated from the Sanchoc standard kernmantle rope lanyard by means of the orange pattern

EN 355

AE5220REK/SE

AE5315REK/SE

AE5220RBB/SE

AE5220RBK/SE

Type	Material	1-leg	2-leg	Length in m	Karabiner	Gewicht in kg	Item no.
AE5220REK/SE	12,5 mm kernmantle rope	✔		2,0	1 x steel karabiner AJ 565 = 17 mm opening width 1 x aluminium karabiner AJ 527 = 60 mm opening width	1.20	49VMREK200
AE5315REK/SE	12,5 mm kernmantle rope		✔	1,5	1 x steel karabiner AJ 565 = 17 mm opening width 2 x aluminium karabiners AJ 527 = 60 mm opening width	1.70	49VMREK150
AE5220RBB/SE	12,5 mm kernmantle rope	✔		2,0	2 x steel karabiners AJ 565 = 17 mm opening width	0.90	49VMRBB200
AE5220RBK/SE	12,5 mm kernmantle rope	✔		2,0	1 x steel karabiner AJ 514 = 18 mm opening width 1 x aluminium karabiner AJ 527 = 60 mm opening width	1.40	49VMRBK200

Lanyard - restraint system

Lanyards without an energy absorber must only used for restraint purposes. In no event should their users be able to enter an area in which there is a risk of falling. The restraint system is precisely defined for each place where it will be used. To guarantee users' safety, they should be given precise information about the PPE and the anchorage point to be used.

Rope lanyard AL420C

Webbing lanyard AL422OWAE

„Trigger" positioning lanyard AF777

Lanyards for positioning

Type	Description	1-leg	Length in m	Weight in kg	Connector	Item no.
AL420C	Kernmantle rope 10.5 mm	✔	2.0	0.22	2 thimbles	49HMS200
AL4220WAE	25 mm nylon webbing	✔	2.0	0.53	1 karabiner - 18 mm, 1 karabiner - 17 mm opening width	49HMG200

Positioning

Type	Description	1-leg	Length in m	Weight in kg	Connector	Item no.
AF777	Kernmantle rope 10.5 mm	✔	0.4 - 2.0	0.75	1 karabiner - 18 mm, 1 karabiner - 17 mm opening width	49HMAF01

For information on lengths and connectors not listed, please contact Carl Stahl.

AM450/80

AM401G

AJ301

Connectors for anchorage devices

Type	Product	Description	Length in m	Weight in kg	Item no.
AM450/80 AM450/150	Web sling acc. to EN795	25 mm wide nylon web sling	0.8 1.5	0.08 0.15	49APS080 49APS150
AM401G AM402G	Cable sling acc. to EN795	Coated wire rope, 6 mm diameter, galvanized finish, thimbled ends	1.0 2.0	0.30 0.46	49APS100 49APS200
AJ301 AJ302 AJ303	Manucroche acc. to EN362	Attached arround piping up to 140 mm in diameter (AJ303), stainless steel design	0.075 0.110 0.140	0.30 0.35 0.40	49KH0001 49KH0002 49KH0003

AJ501 AJ514 AJ521

Type	Karabiner type	Breaking load/standard	Description	Weight in kg	Item no.
AJ501	Screw gate	25 kN, EN 362	17 mm opening width, galvanized steel	0.17	49KH0004
AJ514	Twistlock	25 kN, EN 362	18 mm opening width, steel, galvanized finish	0.18	49KH0005
AJ521	Twistlock	23 kN, EN 362	18 mm opening width, aluminium alloy	0.10	49KH0006

AC202/01

AC202/03

Mobile fall arrest devices COBRA™

Type	Product	Description	Weight in kg	Item no.
AC202/01	COBRA™ Static/ mobile rope grab	Can be attached or detached anywhere along the lifeline for vertical handsfree operation. Suitable for ropes with 14 mm diameter. Delivery with a srew gate karabiner - 17 mm opening width	0.98	49MA1001
AC202/03	COBRA™ Rope grab	see AC202/01 additionally with extension webbing L = 28 cm including automatic karabiner AJ565	1.05	49MA1002
AC205	Lifeline	14 mm braided rope with 3 strands for Cobra - length 5 m* Delivery with screw gate karabiner - 17 mm opening width	0.92	49SEAC05
AC210	Lifeline	14 mm braided rope with 3 strands for Cobra - length 10 m* Delivery with screw gate karabiner - 17 mm opening width	1.53	49SEAC10

*other lengths available on request
Standard: EN 353-2

AC4015

AC4002

Mobile fall arrest devices VIPER™ LT, edge tested

Type	Product	Description	Weight in kg	Item no.
AC4002	VIPER™ LT	Absorbing fall arrest device, • vertical use with 140 kg tested • horizontal use as restraining system with 100 kg tested	0.35	49MAAC4002
AC4005	Lifeline	Kernmantle rope, Length 5 m, Ø 12,5 mm	1.00	49SEAC4005
AC4010	Lifeline	Kernmantle rope, Length 10 m, Ø 12,5 mm	1.5	49SEAC4010
AC4015	Lifeline	Kernmantle rope, Length 15 m, Ø 12,5 mm	2.0	49SEAC4015
AC4020	Lifeline	Kernmantle rope, Length 20 m, Ø 12,5 mm	2.5	49SEAC4020

Standard: EN 353-2, EN 358

PVC Carrying bag

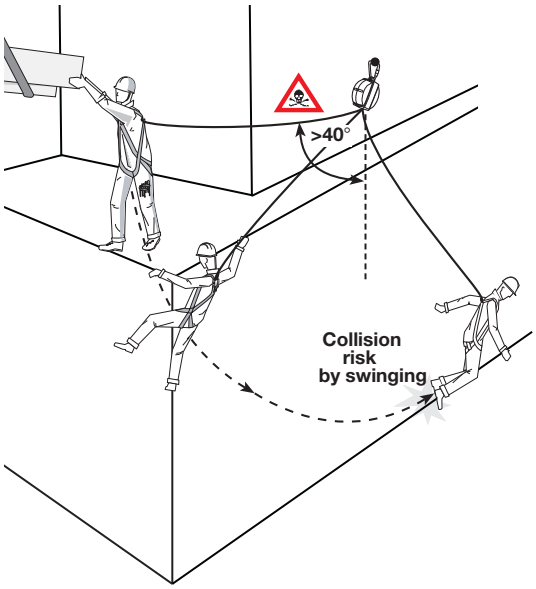
Transportation bag

AK043 from Nylon

Type	Size (h x Ø) in cm	Capacity in litres	Weight in kg	Item no.
PVC-Carrying bag, black	60 x 30	45	0.60	49ZBPS01
Transportation bag	WxLxH (30x45x35)	45	0.96	450T0000
Carrying bag AK043	50 x 30	35	0.40	49ZBAK43

The pendulum effect risk

To limit the risk of accidents caused by the pendulum effect (or sideways swinging), the retractable type fall arrester must be vertically installed over the work zone. It is important to work in the 40° conical safety area beneath the anchorage point. If the work zone is outside this conical safety area, a second retractable type fall arrester is used, whereby the two retractable type fall arresters are attached to the two ends of the work zone.



PROTECTA fall arresters - smooth, safe operation and built to last! - selection guide

Product	Description	Area of application	Housing	Fall indicator	Connector	Swivel suspension	Housing Karabiner
Rebel™ webbing	Small, light and compact	• Construction industry • Assembly / Maintenance • General industry	Extruded aluminium or thermoplastic	✔	Automatic karabiner	✔	✔
Rebel™ Rope	Robust and with handle for transportation	• Construction industry • Assembly / Maintenance • Energy suppliers • Telecommunications		✔	Automatic karabiner with swivel suspension	✔	✔

Rebel™ fall arresters

The Rebel retractable type fall arrester is lightweight yet robust enough to withstand complex uses. The unique webbing enables flexible usage.

- High quality with outstanding features
- Compact and lightweight – at under 1.4 kg, the best length to weight ratio for industrial use
- Durable aluminium housing
- User weight 140 kg
- The web model weighs only 1.3 kg!

Rebel™ fall arresters
3 m webbing

Type	Length	Rope type	Connector	Housing	Weight in kg	Item no.
AD111	3 m	25 mm polyester webbing	Karabiner hook AJ501*	Aluminium	1.3	49HSG003
AD120	6 m	25 mm polyester webbing	Karabiner hook AJ501*	Aluminium	2.45	49HSG006

*not included

Die Rebel™, rope basis fall arresters

Because of the integrated structure and the fall indicator, specialists can conduct the annual inspection as a visual inspection. It is therefore not necessary to send the retractable type fall arrester to a service centre for the annual inspection. User weight 140 kg

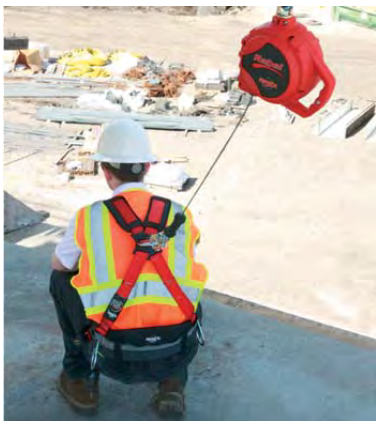
Type	Length	Rope type	Housing	Weight in kg	Item no.
3590521	10 m	5 mm galv. rope	Plastic	5.6	49HSGR10
3590570	15 m	5 mm galv. rope	Plastic	7.5	49HSGR15
3590610	20 m	5 mm galv. rope	Plastic	10	49HSGR20
3590690	30 m	5 mm galv. rope	Plastic	13.4	49HSGR30
3590542	6 m	5.5 mm galv. rope	Plastic	5.9	49HSGRK06

Rebel™ with fall indicator
e.g. 10 m rope

Type 3590521

Rebel™ with fall indicator
e.g. 10 m rope

Type 3590542, edge tested



Fall arrest kits

KIT 1
for vertical standard work within industry and construction

Kit contents:

1 x fall arrest harness AB11313NG*
1 x fall arrester „Rebel“
AD120, L = 6 m
1 x karabiner AJ501
1 x webbing loop AM450/80 (L = 80 cm)
1 x carrying bag 49ZBPS01

Weight: 4.57 kg
*Standard size M/L

Item no. 49SETPR1

KIT 2
for vertical standard work within industry and construction

Kit contents:

1 x fall arrest harness AB11313NG*
1 x fall arrester
Type Rebel 3590521, L = 10 m
including karabiner
1 x webbing loop AM450/80 (L = 80 cm)
1 x carrying bag 49ZBPS01

Weight: 7.55 kg
*Standard size M/L

Item no. 49SETPR2

KIT 3
for vertical work and restraint systems

Kit contents:

1 x fall arrest harness AB105135NG*
1 x guided fall arrester AC202/01
„Cobra“
1 x stranded rope AC210, Länge 10 m,
ø 14 mm
1 x carrying bag 49ZBPS01

Weight: 5.35 kg
*Standard size M/L

Item no. 49SETPR3

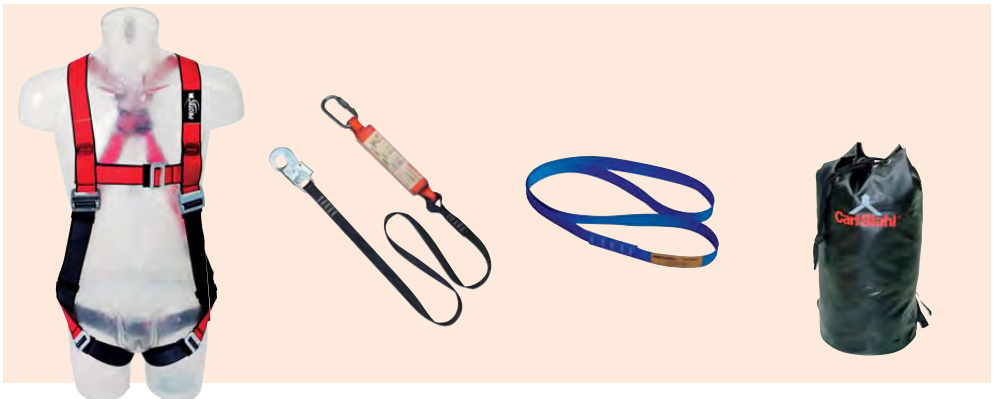
KIT 4
Universal kit

Kit contents:

1 x fall arrest harness AB10113NG*
1 x positioning sling AE5220WAE
1 x webbing loop AM450/80 (L = 80 cm)
1 x carrying bag 49ZBPS01

Weight: 2.70 kg
*Standard size M/L

Item no. 49SETPR4



Tripod self-locking pillar
Integrated in the aluminium head to cause, that the legs keep locked.

4 attachment points
Approved for 2 persons
Load capacity 500 kg.

Pulley
Guides the safety rope centred over the entry.

Rebel™ with rescue winch
Fall arrester with integrated winch 15 m.

Adjustable telescopic legs
Self-locking pins
8 adjustable height positions
Usable height 1.35 - 2.35 m
Basic diameter 1.50 - 2.56 m.

Feet
Slip-resistant and slewable.

3 + 4 Fall arrester Rebel™ with rescue winch

- Mechanism for attachment of bracket
- 2 Swivel and fall indicator
- Twistlock-karabiner at housing

Technical details:
Length: 15 m
Capacity: 140 kg
Standard: CE EN 360:2002 and EN 1496:2006 Class B
Housing material: Aluminium
Measurements: D14 x W28 x H61 cm
Transmission of winch: 7,4 : 1

Type 3591002 und -003

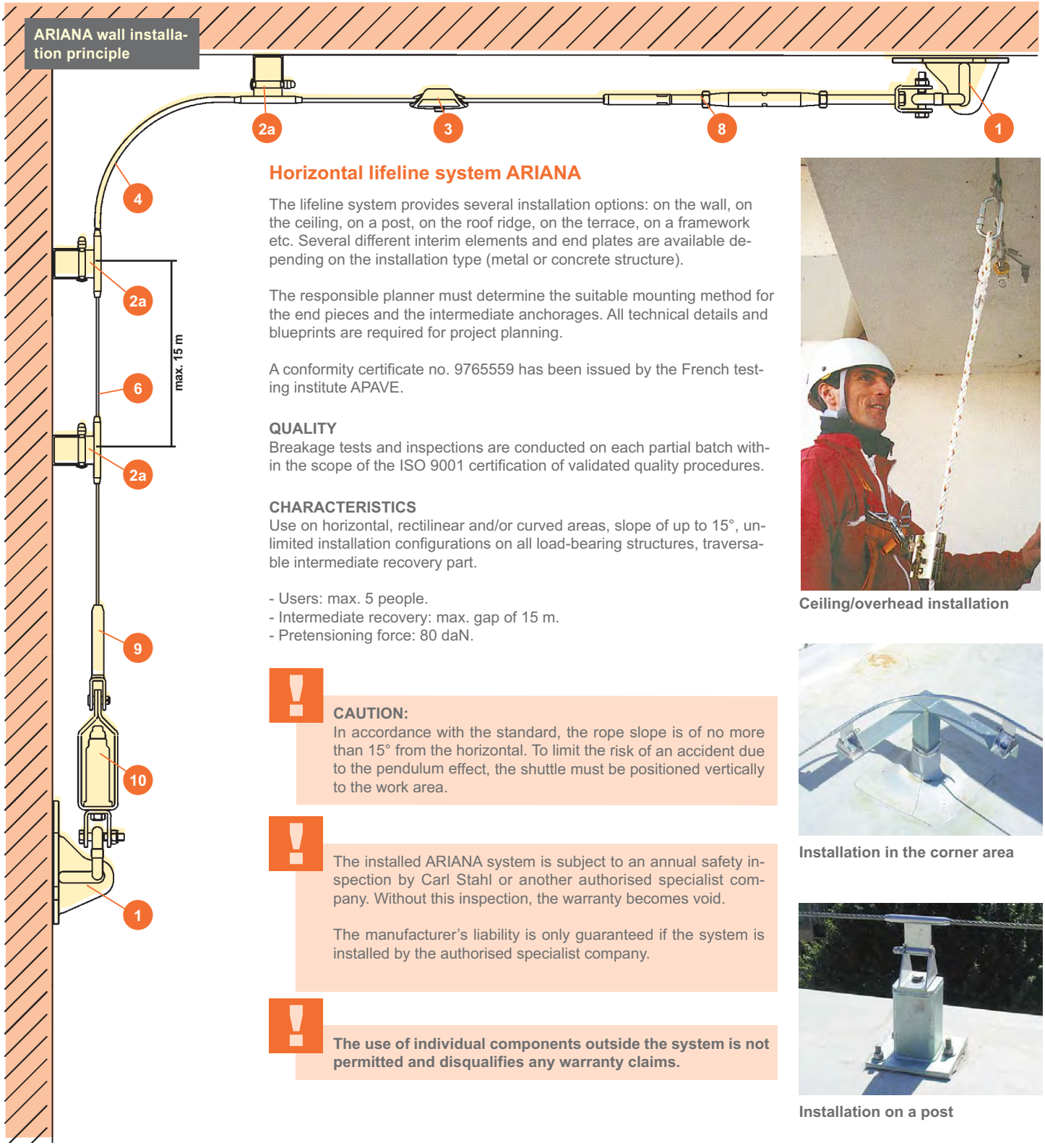
5 Load winch AT150/2

- Capacity 150 kg
- Rope length 20 m
- Incl. bracket, but without adapter

8

Image no.	Type	Description	Weight in kg	Item no.
1	AM100	Aluminium-Tripod acc. to DIN EN 795	21.75	49RTA100
2	AT052/1	Pulley	0.92	49RTAT052/1
3	3591002	Fall arrester with winch, rope length 15 m, galvanized	12.0	49RTHSG15
4	3591003	Fall arrester with winch, rope length 15 m, stainless steel	12.0	49RTHSG15/2
5	AT150/2	Load winch 150 kg, rope length 20 m	10.1	49RTAT150/2
6	8005050	Adapter for fall arrester and load winch, aluminium	2.0	49RTAD01
7	3401025	Bracket for fall arrester	0.7	49RTAD02
8	AK0100	Carrying bag (PVC)	1.0	49ZBAK0100

PROTECTA



Horizontal lifeline system ARIANA

The lifeline system provides several installation options: on the wall, on the ceiling, on a post, on the roof ridge, on the terrace, on a framework etc. Several different interim elements and end plates are available depending on the installation type (metal or concrete structure).

The responsible planner must determine the suitable mounting method for the end pieces and the intermediate anchorages. All technical details and blueprints are required for project planning.

A conformity certificate no. 9765559 has been issued by the French testing institute APAVE.

QUALITY
Breakage tests and inspections are conducted on each partial batch within the scope of the ISO 9001 certification of validated quality procedures.

CHARACTERISTICS
Use on horizontal, rectilinear and/or curved areas, slope of up to 15°, unlimited installation configurations on all load-bearing structures, traversable intermediate recovery part.

- Users: max. 5 people.
- Intermediate recovery: max. gap of 15 m.
- Pretensioning force: 80 daN.

CAUTION:
In accordance with the standard, the rope slope is of no more than 15° from the horizontal. To limit the risk of an accident due to the pendulum effect, the shuttle must be positioned vertically to the work area.

The installed ARIANA system is subject to an annual safety inspection by Carl Stahl or another authorised specialist company. Without this inspection, the warranty becomes void.

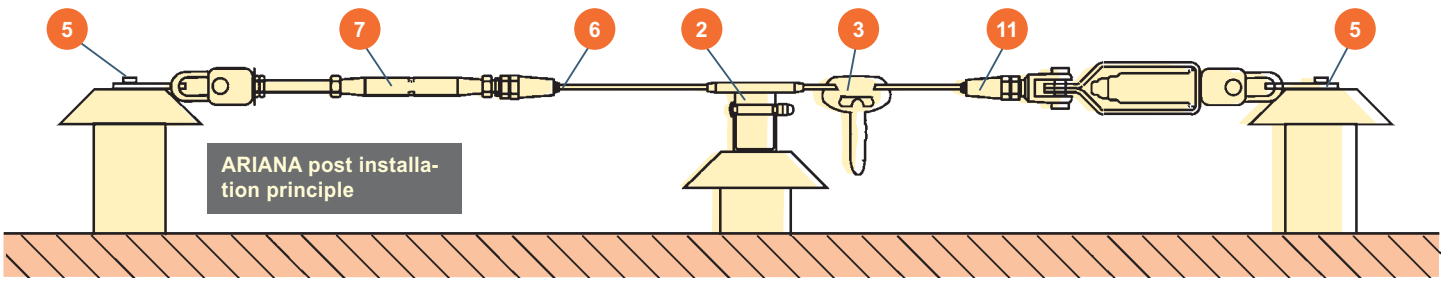
The manufacturer's liability is only guaranteed if the system is installed by the authorised specialist company.

The use of individual components outside the system is not permitted and disqualifies any warranty claims.

Ceiling/overhead installation

Installation in the corner area

Installation on a post

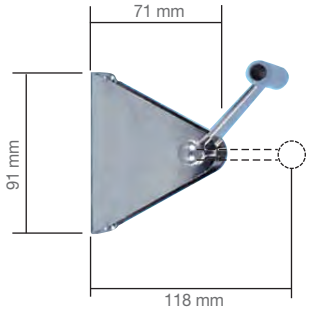


1 General-purpose anchor plate

- Material: stainless steel 1.4401 electrolytically polished
- Use as an exterior anchor plate, 3 M12 fasteners
- This anchor plate must be used with a quick link with ø 8 mm

Item no. IAN719

2a Intermediate recovery part



- Material: stainless steel 1.4401
- Stainless steel screws V2A
- Attachment to vertical or horizontal support
- Net weight: 460 g

Item no. IAN705

2b Intermediate recovery part for overhead installation

- Material: stainless steel 1.4401
- Stainless steel screws V2A
- Attachment to the ceiling
- Net weight: 460 g

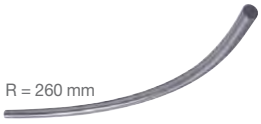
Item no. IAN705/2

3 Shuttle

- Stainless steel Z8CND17 04, electrolytically polished
- Steel karabiner AJ501
- Use on stainless steel cables with ø 8 mm Construction 7 x 19
- Net weight: 390 g

Item no. IAN700

4 Curve



- Material: stainless steel 1.4401
- Diameter: 13.5 mm
- Use as 90° inner/outer angle
- Net weight: 300 g

Item no. IAN716

5 Anchor plate for post

- Galvanised steel
- Stainless steel link: 8 mm
- Size: 120 x 40 x 10
- Net weight: 438 g

Item no. IAN718

6 Round strand rope 7 x 19

- Material: stainless steel 1.4401
- Rope diameter: 8 mm.
- Pretensioning force on use: 80 daN
- Construction 7 x 19
- Net weight: 246 g/metre

Item no. IAN708

7 Swageless pretensioner

- Identical to AN707, equipped with olive type manual crimping end
- Material: stainless steel 1.4401

Item no. IAN707/1

8 Swage pretensioner

- Material: stainless steel 1.4401
- Pretensioning force on use: 80 daN
- Cable diameter: 8 mm
- Net weight: 420 g
- The cable is classed as adjusted when the display disc starts to rotate and must not be any further tightened from this time onwards.

Item no. IAN707

9 Swage end

- Material: stainless steel 1.4401
- Cable diameter: 8 mm
- Weight: 221 g

Item no. IAN709

10 Energy absorption element

- Material: stainless steel 1.4301
- Tripping threshold: 2.4 KN
- Use: vertical and horizontal
- Energy absorption element for one-off use
- Net weight: 1.1 kg

Item no. IAC325

11 Swageless end clevis

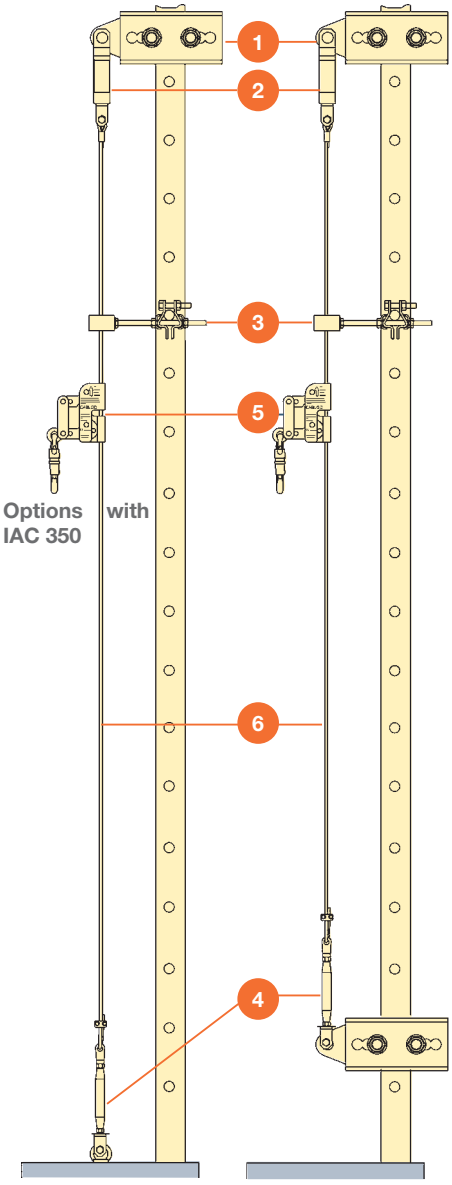
- Material: stainless steel 1.4401
- Net weight: 420 g

Item no. IAN709/1

Vertical lifeline system CABLOC

The CABLOC system ensures users' safety when climbing masts, chimneys, fixed ladders etc. The CABLOC system runs freely on the permanently attached wire rope and secures users while also providing them with unrestricted freedom of movement. Standard: EN 353-1, 353-2

CABLOC Installation principe



1 General-purpose anchorage beam

- Material: stainless steel 1.4401
- Absorbs all forces generated during a fall
- Suitable for the most common types of anchor lines with a diameter of 30 to 90 mm
- Design compliant with EN795, Class A1
- Net weight: 2450 g

Item no. IAC340

2 Energy absorption element

- Material: stainless steel 1.4301
- Tripping threshold: 2.4 KN
- Use: vertical and horizontal
- Energy absorption element for one-off use
- Net weight: 1.1 kg

Item no. IAC325

3 General-purpose cable guide

- Material: stainless steel 1.4301 and rubber
- Suitable for the most common installation methods; limits cable floating
- Net weight: 360 g

Item no. IAC320

4 Clevis and eye cable tensioner installations with a rigid anchor line

- Material: stainless steel 1.4401
- The built-in tension indicator can be used to monitor the optimum tension required for the smooth functioning of the CABLOC system
- Also available as a clevis/clevis version Order no. IAC330/1

Item no. IAC330

5 CABLOC fall arrester

With built-in energy absorber for installations without a line head energy absorber

- Material: stainless steel 1.4301
- Easy connection and disconnection at any point of the line
- Version with rigid guide compliant with DIN EN 353-1 and version with mobile guide compliant with DIN EN 353-2

Item no. IAC350/4

6 Thimble loop on one end, loop U-clamp terminal on the other end

- Material: stainless steel 1.4401
- Rope diameter: 8 mm
- Construction: 7 x 19

Item no. IAC308/1

AC3000 Cabloc kit for a vertical lifeline system

AC3000/10 (10 m), AC3000/20 (20 m), AC3000/30 (30 m)

The Cabloc kit combines all the components required to install a safety system that provides access to a work position at a height via a ladder or metal structure. The user instructions provide users with detailed information on all the system installation steps and the necessary precautionary measures. This enables users to safely access work positions at heights.

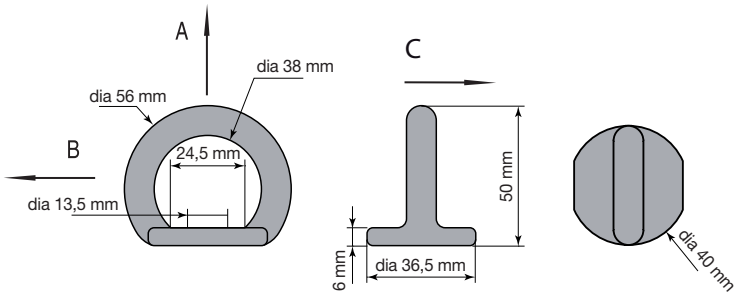
- Stainless steel cable with ø 8 mm with factory-manufactured end connections
- Cabloc fall arrester AC350
- 2 general-purpose anchorage beams (upper and lower) AC340
- Energy absorber AC325
- Cable tensioner with pretension indicator AC330
- Name plate AN126
- General-purpose cable guide AC320
- System breaking strength > 15 kN EN353-1

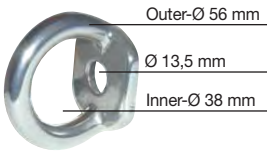
Type	Length in m	Rope-Ø in mm	Weight in kg	Number of users	Item no.
AC3000/10	10	8	11.3	1	49CABL10
AC3000/20	20	8	14.4	1	49CABL20
AC3000/30	30	8	17.1	1	49CABL30

Individual anchorage point AM211

Individual anchorage point AM211 for the anchorage of a person to common undergrounds like steel, concrete or walls.

Breaking loads:
A: = 15 kN
B: = 15 kN
C: = 15 kN
Standard: EN795: 1996, Class A



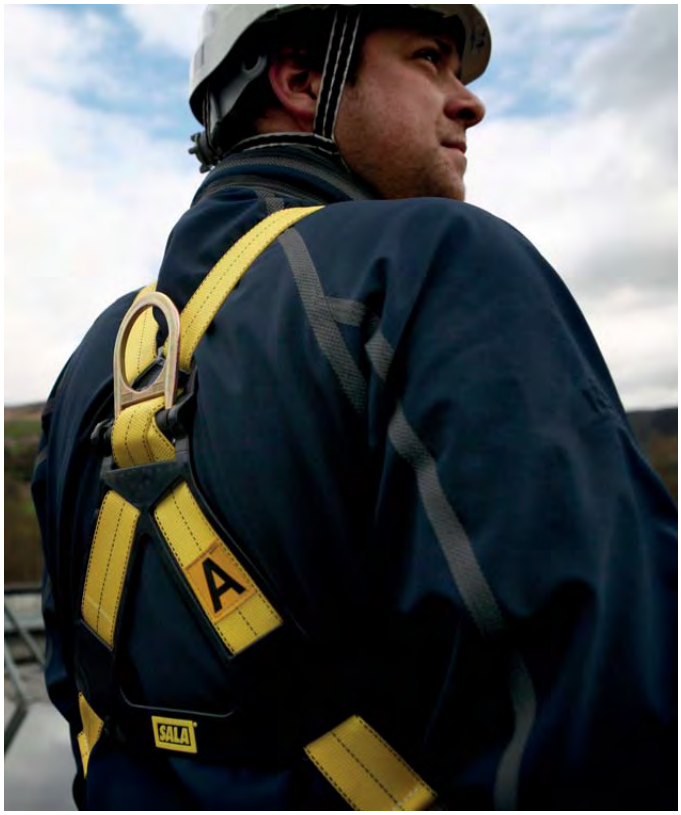


Type	Description	Material	Required anchoring	Standard	Weight in kg	Item no.
AM211	Standard individual anchorage point	Stainless steel	in stainless steel Ø 12 mm	EN795, test load 10 kN	0.110	49AP0211

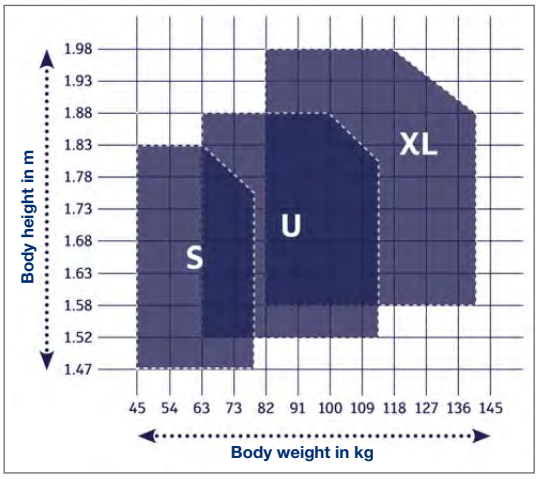
Webbing loop not included.

The new Delta™ fall arrest harnesses:

Innovative fullbody assistance since more than two decades. Robust, practicable and comfortable.



Delta™ harness size chart



Repel™ web
Water-resistant, anti-bacterial and stain resistant, high resistancy against abrasion

Material loop
Lanyard keepers for parking of not used lanyards

Revolver™
Equipment for vertical webbing adjustment. Easy and fast adjuster without loose ends, which prevent slipping by latching.

Delta™ Comfort padding
Improved ergonomic fit, soft, breathable, comfortable filling

Tech-Lite™ Automatic locks
Compact Aluminium-lightweight construction for a fast and easy use.

Stand-up back D-ring
Stand-up, sprung construction

No-Tangle™ Design
Frame with triangular Design. For an easy and fast dressing.

Integrated Impact indicator
Rip-Stich-Indicators as a note about damaging impact loads.

Protected label pocket
Velcro® coverage protects the integrated i-safe™ transponder and makes the testing easier.

SureFit Elastic with limited elasticity
Surefit ensures a tight and correct fitting.

Permissible user weight including equipment = 140 kg

1112909

DELTA™ Fall arrest and work positioning harness
Front and back D-ring
Side D-rings
Standard: EN 361, EN 358

1112912

DELTA™ Fall arrest harness
Front and back D-ring, positioning harness, automatic locks
Standard: EN 361

1112918

DELTA™ Fall arrest harness
Back D-ring, pass through buckles
Standard: EN 361

Type and Size Unisize	Weight in kg	D-Rings	Buckle type	Positioning harness	Item no. Size Unisize
1112909	2.60	Back and Chest, positioning harness	Automatic lock	✔	49AGDT909
1112912	1.75	Back and Chest	Automatic lock		49AGDT912
1112918	1.65	Back	Automatic lock		49AGDT918

Permissible user weight including equipment = 140 kg

PVC Carrying bag

Transportation bag

Type	Size (h x Ø) in cm	Capacity in litres	Weight in kg	Item no.
PVC-Carrying bag, black	60 x 30	45	0.60	49ZBPS01
Transportation bag	WxLxH (30x45x35)	45	0.96	450T0000

ExoFit™ XP fall arrest harness

Developed for quality
This standard gives you peace of mind when selecting a fall arrest harness. A quality fall arrest harness means maximum comfort, freedom of movement and ease of use.
Industry innovations such as the spring-loaded stand-up back D-ring and the no-tangle Delta™ pad are signs of an innovative development.

A fall arrest harness is designed with straps to fasten around the user in order to distribute fall arrest forces over at least the thighs, pelvis, chest and shoulders. This moves the impact of a fall from the internal organs to the major bone and muscle groups around the pelvis. The fall arrest harness includes the means to be attached to the other components of a fall protection system. All fall arrest harnesses meet strict OSHA, ANSI, and CSA standards.

No-tangle design
Donning a harness incorrectly can mean the equipment may not work properly. The patented Delta™ pad and the Exofit™ exclusive wrap-around X-design make these harnesses easy to don and comfortable to wear with a wide spread over the shoulders to prevent irritating abrasion.

Colour-coded sizing
Colour-coded sizing allows workers to quickly and easily choose the harness that will work best for their size.

Arc Flash
Arc Flash harnesses are made from a material such as 31 kN nylon to meet the requirements of uses in the utility industry where protection against static build-up is required. Options include non-conductive, non-sparking PVC-coated metal parts and a back PVC-coated D-ring. Leather insulators beneath the metal parts reduce static energy transfer.

Padding

Cushioned shoulder, leg and hip pads keep the pressure off to provide extra worker comfort for long hours of wear. In a fall, they absorb the impact and help distribute your weight. They can be built-in to avoid slipping or loss, or washable and removable to improve the product's durability.

Lining

The ExoFit™ and ExoFit™ XP fall arrest harnesses feature breathable lining that wicks moisture away from your body, keeping you dry and comfortable in hot or cold conditions. Initially designed for sport, recreation and work shoes, the breathable 3-D mesh lining is robust and resistant to odour and mildew.

Fall indicator

The fall arrest harnesses have impact indicators to give immediate notice that the harness has been in a fall. This promotes safety and proper inspection.

Stand-up back D-ring

The unique, patented **DBI-SALA** spring-loaded D-ring makes connection easy for increased worker comfort and productivity.

Integrated lanyard holder

A lanyard holder provides a place to hook the end of the lanyard when it is not in use. This prevents tripping and entanglement for enhanced safety and productivity.

i-Safe™

All **DBI-SALA** harnesses now come with i-Safe, the integrated RFID system.

ExoFit™XP fall arrest harness

- The industry's first truly washable harness with removable padding
- Breathable 3D mesh lining with soft edging for enhanced comfort
- Unique spring-loaded stand-up back D-ring with impact indicator
- Integrated lanyard holder to eliminate the risk of tripping

Standard: EN 361, EN 358

Type and Size S M L	Weight in kg	D-Rings	Buckle type	Positioning harness	Item no. Size S(M)(L)
KB11109745 (46) (47)	2.0 (2.1) (2.2)	Back, front	Automatic lock		49AGXP2S(M)(L)
KB11100585 (86) (87)	3.2 (3.4) (3.6)	Back, front, side	Automatic lock	✔	49AGXP4S(M)(L)

Permissible user weight including equipment = 140 kg

Features of the ExoFit™ XP fall arrest harness

Quick-connect buckles

Stand-up back D-ring

Removable shoulder, back and leg padding

Built-in impact indicator

Lanyard holder

ExoFit™ fall arrest harness, standard model

The ExoFit™ fall arrest harnesses have a wrap-around, no-tangle design that slips on like a jacket, making them quicker and easier to put on while providing ventilation, comfort, padding and safety.

The materials are soft and lightweight, yet extremely durable. The shoulder, hip and leg pads are built-in so that they cannot slip. The breathable lining keeps you dry and comfortable all day while the quick-connect buckles are fast, efficient and totally secure.

- The ergonomic design incorporates integrated shoulder, hip and leg padding.
- The soft edges move with you to prevent uncomfortable rubbing or chafing and thus enhance comfort and mobility
- No stand-up back D-ring
- With i-Safe™ RFID tags for electronic data recording

Standard: EN 361, EN 358

ExoFit™
standard fall arrest harness

Ideal fall arrest harness for all general uses
KB1EXO/M

ExoFit™
fall arrest harness with positioning harness

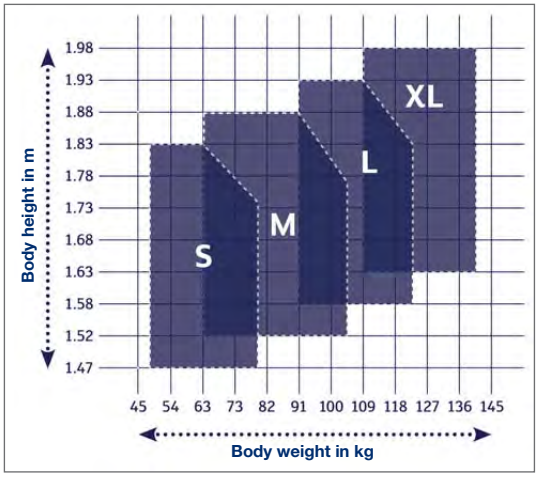
Hip pad and belt for use with tool pouches. D-rings also on the sides
KB1EXO/MB

Type and Size S M L	Weight in kg	D-Rings	Buckle type	Positioning harness	Item no. Size S(M)(L)
KB1EXO/S (/M) (/L)	1.74 (1.78) (1.82)	Back, front	Automatic lock		49AGEF2S(M)(L)
KB1EXO/SB (/MB) (/LB)	2.78 (3.0) (3.0)	Back, front, side	Automatic lock	✔	49AGEF4S(M)(L)

Permissible user weight including equipment = 140 kg

SALA ExoFit™ Nex fall arrest and positioning harness

ExoFit XP™, ExoFit Nex™ fall arrest harnesses size chart



ExoFit™Nex basic information

- Two loops for hanging lanyards while not in use. The loop opens when pulled to prevent any risk of tripping. A sleeve protects the labelling and contains a transponder for electronically managing inspections (i-Safe™).
- Duo-Lok™ quick connect buckles. One-handed operation and high-grip mechanism for the webbing provide safety.
- Revolver™ webbing adjustment. Quick adjustment and retraction of excess webbing, no troublesome webbing ends.
- Repel™ webbing coating. Longer service life thanks to enhanced wear resistance. Water and dirt repellent.
- Stand-up rear fall arrest eyelet.
- Fall indicator, load display makes inspection quick and reliable.
- Foot loops are integrated into the fall arrest harness to prevent suspension trauma.
- Reflective textile sections.

Approved for weights of up to 140 kg

Standard: EN 361, EN 358, ANSI, OSHA and CSA versions available

Fall arrest and work positioning harnesses

ExoFit™Nex fall arrest harnesses

1113900 1113910 1113925

- Breathable 3D mesh lining with soft edging for comfort
- Spring-loaded stand-up back D-ring with impact indicator
- Integrated lanyard holder to eliminate the risk of tripping
- Types 1113925 to 1113928 with climbing protection eyelet (no image)

EN 361, EN 358

ExoFit™Nex Rescue

1113970 to 1113973

- Additional eyelets on the shoulder webbing for rescue
- Particularly suitable for use in shafts and containers with narrow access openings

- Rescue positioning lanyard: the spreader bar prevents the shoulder straps from drawing together

EN 361, EN 1497
Rescue positioning lanyard conforming to EN 357

Rescue positioning lanyard

KF71201466

ExoFit™Nex Suspension fall arrrest harness

1113960 to 1113963

- Suitable for rope-supported work, Tech-Lite™ sternal and dorsal fall arrest eyelets
- Stand-up rear D-ring, Duo-Lok™ quick-connect buckle with web-lock on the legs and chest area prevents unintentional slippage
- Equipment loops for attaching equipment or tools

EN 361, EN 358 and EN 813

Type and Size S M L XL	Weight in kg	D-Rins	Buckle type	Item no. Size S (M) (L) (XL)
1113900 (01) (02) (03)	1.86 (1.9) (1.95) (1.99)	Back, chest	Automatic lock	49AGNEXS00 (01) (02) (03)
1113910 (11) (12) (13)	2.75 (2.81) (2.86) (2.92)	Back, chest, side	Automatic lock	49AGNEXS10 (11) (12) (13)
1113960 (61) (62) (63)	2.2 (2.3) (2.4) (2.5)	Back, chest	Automatic lock	49AGNEXSS (M) (L) (XL)
1113970 (71) (72) (73)	2.02 (2.06) (2.11) (2.15)	Back, chest	Automatic lock	49AGNEXRS (M) (L) (XL)
KF71201466	1.3	for attachment	-	49AGNEXTR
1113925 (26) (27) (28)	3.0 (3.05) (3.10) (3.12)	Back, chest, side add. climbing protection eyelet	Automatic lock	49AGNEXHS (M) (L) (XL)

Permissible user weight including equipment = 140 kg

Delta™II heat resistant fall arrest harness

The Delta™II fall arrest harnesses feature the patented Delta™ no-tangle pad for extra comfort across the neck, shoulders and back.

This design holds the shape of the harness, making it easier to put on. This added comfort and ease of donning has greatly improved worker acceptance and reduced the probability of improper usage. Our patented spring-loaded 'stand-up' back D-ring ensures quick and easy connection to your fall arrest device. A wide variety of models and options lets you find just the right fall arrest harness for almost any work application.

- Melting point of 425° C
- Patented spring-loaded stand-up back D-ring for quick and easy connection
- Book-style labels make information and inspection logs readily available
- Forged alloy steel hardware for maximum strength and durability
- **i-Safe™ -** all fall arrest harnesses now come with i-Safe™

EN 361

Delta™ II
Nomex®/Kevlar® Fall arrest harness

Flame resistant
Nomex®/Kevlar® webbing
KB1K-P29

Other models available on request

Type and Size	Description	D-Rings	Buckle type	Hip pad/belt	Belt loops	Weight in kg	Additional	Item no.
KB1K-P29 (U)	Nomex® / Kevlar®	Back	Pass thru buckle	✔	✔	1.45	Nomex® / Kevlar®-web	49AGKEV1

Size „U" = universal size – one size fits the most users; „Medium" and „Large" range
Permissible user weight including equipment = 140 kg

PVC Carrying bag

Transportation bag

Type	Size (h x Ø) in cm	Capacity in litres	Weight in kg	Item no.
PVC-Carrying bag, black	60 x 30	45	0.60	49ZBPS01
Transportation bag	WxLxH (30x45x35)	45	0.96	450T0000

The right level of safety for the task at hand

Which connectors are needed for anchorage points largely depends on the purchaser's specific requirements: type of attachment, environment, connecting system etc.
DBI-SALA offers the most comprehensive range of available connectors for anchorage points, rigorously tested to ensure the strength you need. This means you can always find the best product to fit your requirements.

Anchorage points

An anchorage point is a secure point of attachment for the fall protection system. The anchorage must be capable of supporting a load of 12 kN per worker attached to the anchorage or be designed, installed and used as part of a complete personal fall protection system which maintains a safety factor of at least 2. Anchorage points can be certified (designed or engineered on site for fall protection) or non-certified (beams, trusses or other suitably strong structures). Certified anchorages should be identified with paint or special markings and noted on a site list.

Connectors for anchorage points

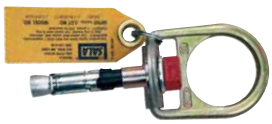
Connectors for anchorage points provide a means of attaching the system to the anchorage and can vary widely depending on application. Some of the common types are anchor slings, roof anchors, beam clamps, rail sliders, trolleys and eye bolts.

Concrete D-ring anchor point

Reusable D-ring assembly: drill a hole in set concrete, insert and torque the unit; for temporary or permanent applications; fits 18 mm or 19 mm Ø holes (standard drill bits); rotates 360°.

Type	Standard + optional	Weight in kg	Item no.
2104565	Standard model	0.55	49APBET2
2104566	D-ring assembly with 6 additional bolts	0.65	49APBET3
2104567	D-ring assembly with 12 additional bolts	0.75	49APBET4

CE EN 795 Class B



SAFLOK® concrete wedge anchor

Provides temporary anchorage in concrete.
For 1 person weighing up to 141 kg.
Min. concrete strength class: C20/25
Min. concrete base material thickness: 12.7 cm
Borehole diameter: 20 mm
Borehole depth: 80 mm
For full installation information, see the installation instructions.

Type	Diameter in mm	Weight in kg	Breaking load in kN	Item no.
2100100	19.5	0.354	22	49APBET5

CE EN 795 Class B

Door jamb anchor

Anchorage points was installed against door or window frame.
Required distance:
55 to 130 cm width.
User: 1 Person / 141 kg

Type	Breaking load in kN	Material	Weight in kg	Item no.
2100080	16	Aluminium	6.35	49APTUE1

CE EN 795 Class B

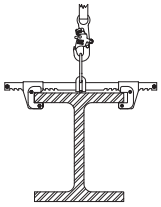
Glyder2™ sliding beam anchor

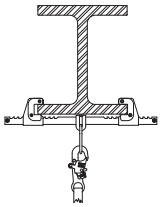
For horizontal mobility over head or at foot height.
Integrated ratching adjustment for fast and easy installtion and removal.
Flange: 8.75 to 35 cm
User: 1 Person / 189 kg

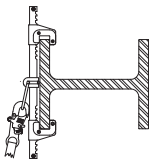
Type	Breaking load in kN	Material	Weight in kg	Item no.
2104700	22	Aluminium	1.66	49APGL02

CE EN 795 Class B

Installation options:





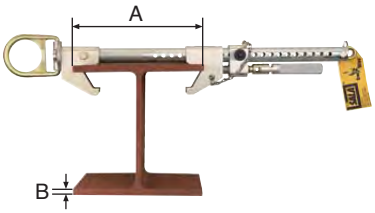


Fixed beam anchor

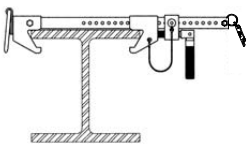
Can be used horizontally and vertically.
Material: Aluminium
Breaking load: 22 kN
User: 1 Person / 189 kg
2 fixed beam anchors can be connected with a mobile attachment device.
Can only be used for certain beam dimensions - see table.

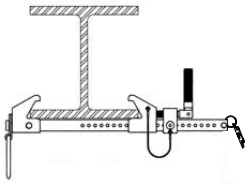
Type	Size of beam flange A in cm	Thickness of I-beam B in cm	Weight in kg	Item no.
2108412	6.35 - 30.48	3.81	1.70	49APFE01
2108413	6.35 - 45.72	3.81	1.75	49APFE02
2108414	6.35 - 60.96	3.81	1.80	49APFE03
2108415	30.48 - 91.44	6.35	1.85	49APFE04

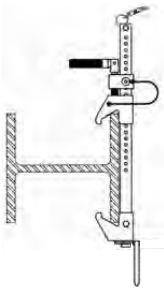
CE EN 795 Class B



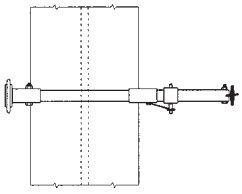
Installation options:







Vertical steel post:

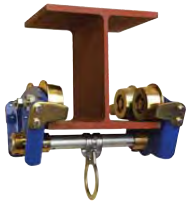


T-beam trolley

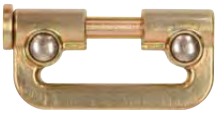
Anchor system runs at T-beam and ensures horizontal mobility.
Measurements: for 7.6 - 20.3 cm beams
Material: Aluminium / Steel
User: 1 Person / 141 kg

Type	Breaking load in kN	Material	Weight in kg	Item no.
KM22103148	22	Alu/Steel	6.80	49APTR01

CE EN 795 Class B



NANO-LOK™ retractable type fall arresters
Direct attachment options to fall arrest harnesses



Single leg connector

Galvanised steel catch with triple safety device. No additional karabiners required.

Y-connector

A connector directly integrated into the harness webbing with a plastic insert keeps the two Nano-Loks apart.

Press the release buttons to open the connector. Allow the safety pin to slide out.

Push the plastic insert upwards and the karabiner gate inwards. Insert the karabiner nose into the swivel eye on the retractable type fall arrester and rotate it to the other side.

Thread the connector through the loosened loop beneath the rear fall arrest eyelet (D-ring), then pull the loop tight.

Slide the nose end of the karabiner behind the loosened loop beneath the rear fall arrest eyelet (D-ring) and attach the second retractable type fall arrester.

Re-insert the safety pin and push it through the swivel eye on the retractable type fall arrester. Press until the pin clicks into place.

Close the karabiner and rotate the plastic insert inwards and downwards to secure the connector, making sure the loop passes through the slot on the insert.

3101260

3101262

3101207

3101264

3101208

3101298

Type	1-leg	2-legs	Length retracted in m	Length extended in m	Weight in kg	Item no.
3101260	✔		0.47	1.83	1.14	49HSGNA01
3101262	✔		0.54	1.86	0.99	49HSGNA02
3101207	✔		0.56	1.92	1.3	49HSGNA03
3101264	✔		0.56	1.92	0.87	49HSGNA04
3101208	✔		0.61	1.97	1.18	49HSGNA05
3101298		✔	0.58	1.94	2.39	49HSGNA06

NANO-LOK™ EDGE, webbing

- Suitable for tie-off at foot level (fall factor 2)
  The special design minimises impact forces, while the automatic retraction of unused rope reduces the risk of tripping
- "Integrated energy absorber for adjustment in the area of the dorsal webbing cross on the fall arrest harness 360° rotatable"
  Material: 20 mm wide Dyneema® webbing,
  max. person weight: 141 kg
  Leaves the suspension eyelet free, e.g. for rescue purposes
- Fulfils the CE standard on inspections over sharp edges acc. to VG11.60, version 7 (edge radius 0.5 mm)

Karabiner on the webbing	Nano-Lok™ web 1-leg				Nano-Lok™ web 2-leg			
	Type	Length in m	Weight in kg	Item no.	Type	Length in m	Weight in kg	Item no.
Aluminium Twistlock karabiner Opening width: 19 mm	3101430	2.40	1.30	49HSGNE01	3101440	2.50	2.22	49HSGNE03
Aluminium karabiner Opening width: 57 mm	3101433	2.50	1.30	49HSGNE02	3101443	2.40	2.22	49HSGNE04

NANO-LOK™ EDGE, Cable

- Suitable for tie-off at foot level (fall factor 2)
  The special design minimises impact forces, while the automatic retraction of unused rope reduces the risk of tripping
- Integrated energy absorber for adjustment in the area of the dorsal webbing cross on the fall arrest harness 360° rotatable, max. person weight: 141 kg
  Leaves the suspension eyelet free, e.g. for rescue purposes, material: galvanised steel cable, Ø 5 mm
- Fulfils the CE standard on inspections over sharp edges acc. to VG11.60, version 7 (edge radius 0.0 mm)

Karabiner on the cable	Nano-Lok™ Cable 1-leg				Nano-Lok™ Cable 2-leg			
	Type	Length in m	Weight in kg	Item no.	Type	Length in m	Weight in kg	Item no.
Aluminium Twistlock karabiner Opening width: 19 mm	3500224	2.40	1.70	49HSGNE05	3500239	2,40	2,90	49HSGNE07
Aluminium karabiner Opening width: 57 mm	3500244	2.50	2.10	49HSGNE06	3500241	2,50	3,85	49HSGNE08

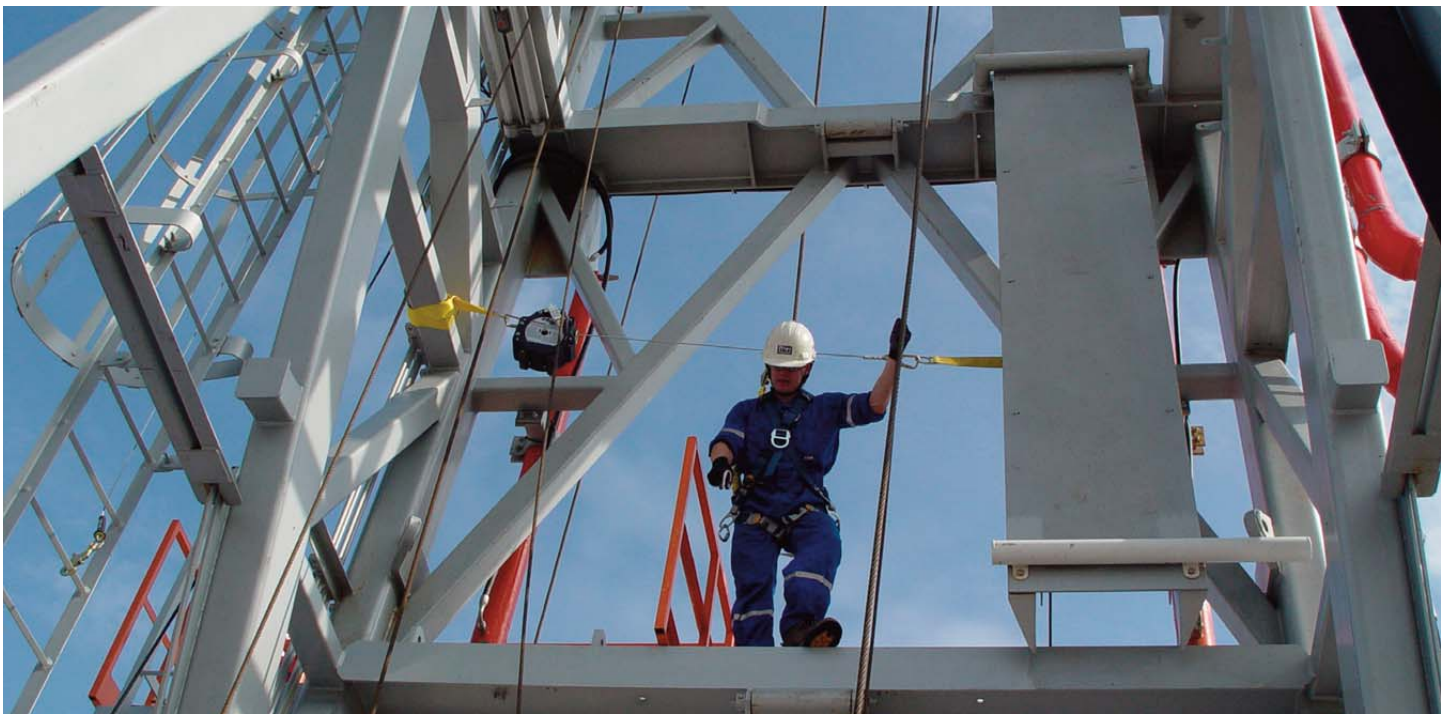
Temporary horizontal lifeline systems

Precision engineering

Proper engineering is critical for safe lifeline systems. Typical errors include the improper calculation of the fall distance, not taking into account sag in the lifeline and a lack of understanding of the existing building structure.

When a fall is experienced on a horizontal lifeline, the load is magnified back to the anchorage, generating tremendous force. The amount of sag amplifies the forces on the end anchors.

Other factors are the number of people secured to the system, the overall length and the connection material used.



Selection guide

Product	Description	Area of application	Installation	Energy absorber	Cable	No. of users (max.):
EZ-Line™	**Temporary** Fastest horizontal lifeline to install and remove. Max. range 18 m. The cable simply retracts inside the housing for transportation and storage.	• Plant maintenance • Bridge work • Construction industry • Production	Simple, no special tools or equipment required	Zorbit™	6.25 mm galvanised	1 - 2 depending on the fall distance

EZ-Line™ Temporary horizontal lifeline system

EZ-Line™ is the most user friendly and fastest horizontal lifeline to install and remove on the market today. The 18 m lifeline is simply pulled out for installation and retracted into its housing with the built-in handle upon disassembly. No more unruly cable that is difficult to install, transport and store. Built-in tension and impact indicators take the guess work out of system set-up and maintenance. The extremely lightweight system is 33% lighter than conventional 18 m systems. Complies with standards DIN EN 795-C and OSHA.
Required attachment anchor = 22 kN

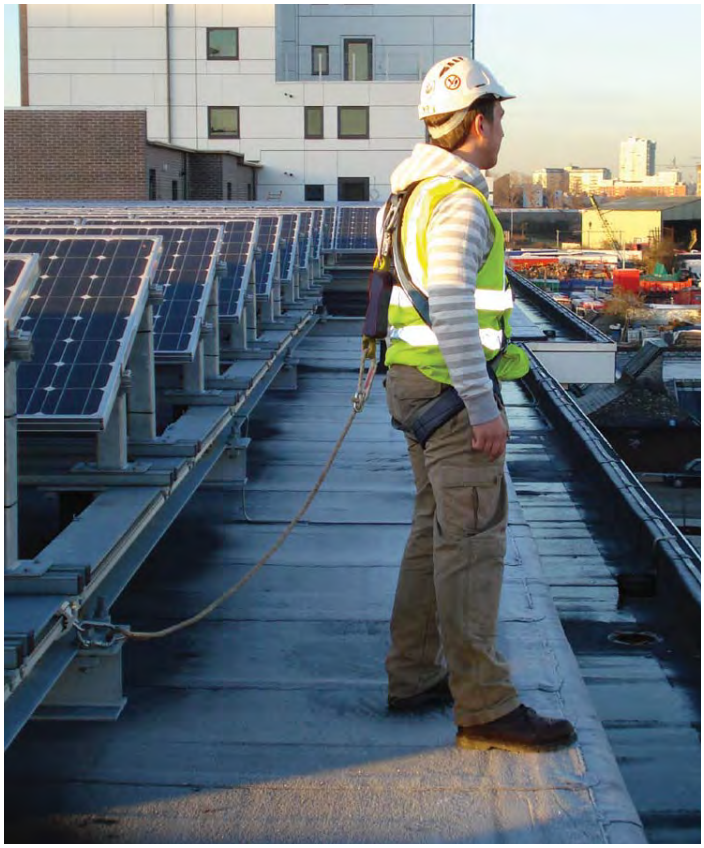
Please see the user instructions.

Type	Range in m	Users	Weight in kg	Item no.
7605061	18	2	11.25	49TPEZ01

Following the integration of the Uniline systems into the Capital Safety Group's product range, new horizontal cable and rail-based fall protection systems are now available to us under the SALA brand. On request, we will gladly provide you with an on-site consultation.

Uni Rail™
Uni 8™
Uni 8™ Overhead
Uni 16™

The Uniline® product range for horizontal fall arrest products has been developed to offer multiple solutions for compliance with workplace safety regulations. This enables our customers to efficiently and compliantly safeguard themselves against the situations and risks that arise when working at heights. Whatever your situation, we always offer you high-quality services, technical support and products.



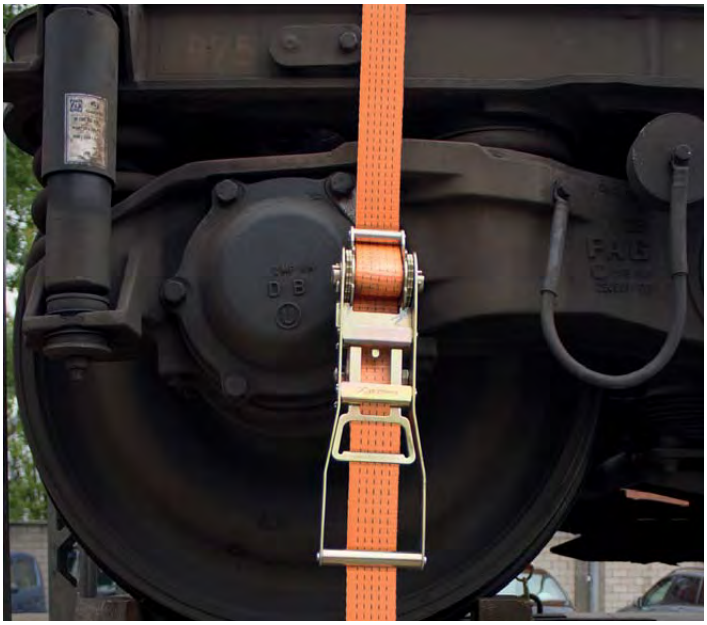
Uni Rail™

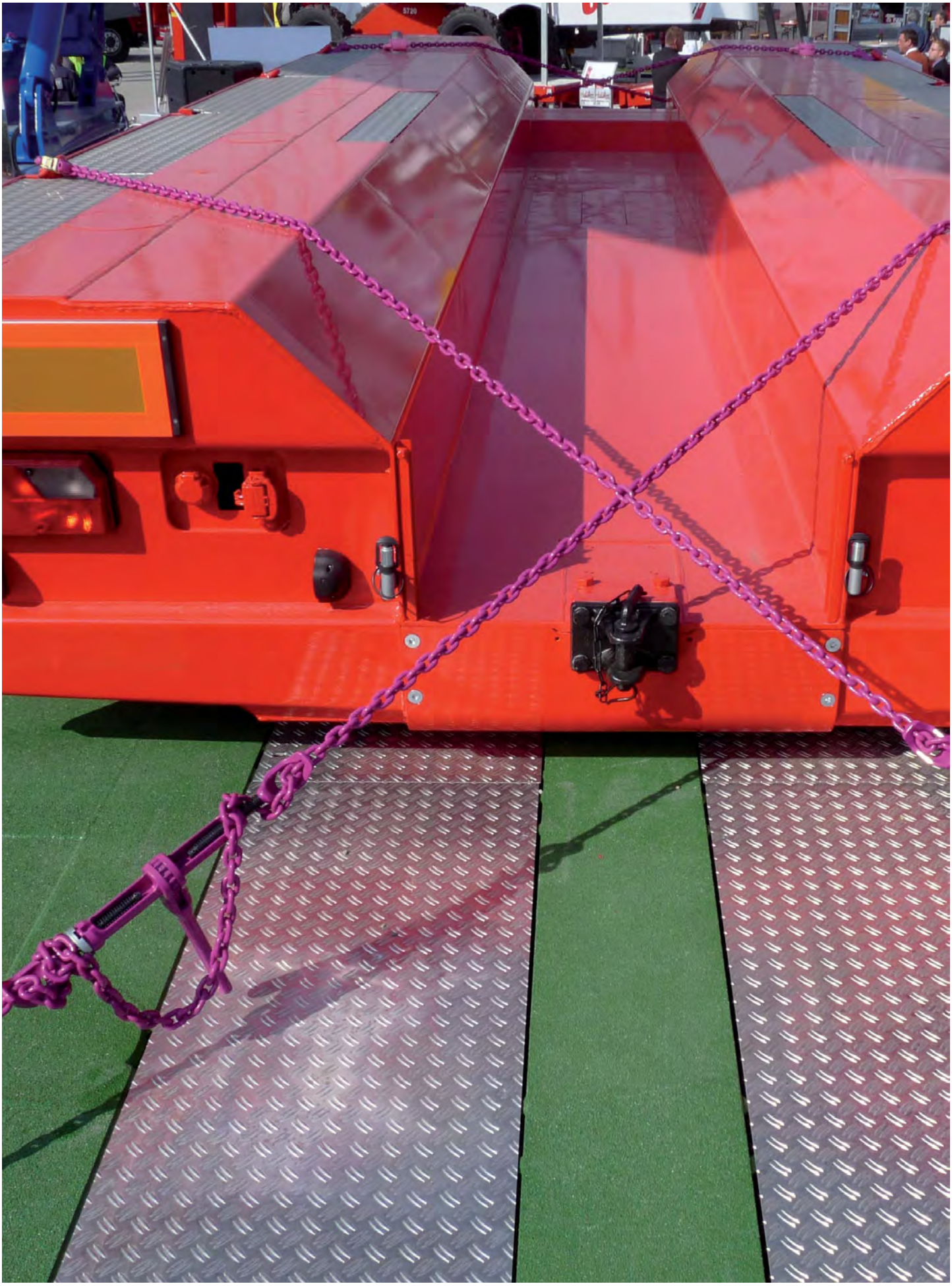
UniRail™ is the perfect choice for construction projects, especially those involving internal and external facade access, inspections and maintenance, including on walkways and suspended gantries. The product is also often used for suspended access work by rope access technicians as it meets the requirements of both abseil and fall protection standards.

LOAD RESTRAINT SYSTEMS

SpanSet®

Lashing Straps	Pages 603-615
Edge Protectors	Pages 617-619
Disposable Lashings	Pages 641, 648
Anti-Slip Mats	Pages 638, 642-645
Lashing Chains Grade 12	Pages 620-625
Lashing Chains Grade 8	Pages 628-629
Lashing Points	Pages 626-627
Nets and Tarpaulins	Pages 630-631
Stowage Cushions	Page 633
Load Restraints for Curtainsiders	Page 633
Cargo Nets for Trucks and Vans	Pages 634-636
Big Bags	Pages 646-647





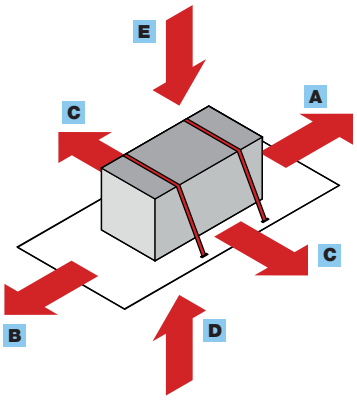
LOAD RESTRAINT SYSTEMS

Practical Guide

Selection of the correct cargo strap

EN 12195-1: 2011 is not consistant with the results of many scientific tests that have been proved by daily practise. The status of an acknowledged rule of technology within the meaning of § 22, para. 1 StVO (German Road Traffic Regulations) is doubtful and for the time being has not been confirmed by jurisdiction. In order to ensure a sufficient level of safety, the following explanations refer to DIN EN 12195-1: 2004 and VDI 2700 ff. respectively.

Calculating acceleration values



Acceleration in g		Lorry	Train	Ship
A	Forwards (Cx)	0.8	4.0	0.4
B	Backwards (Cx)	0.5	4.0	0.4
C	Sideways (Cy)	0.5	0.5	0.8
D	Up (Cz)	-	0.3	0.8
E	Down (Cz)	1.0	1.0	1.0

Securing loads through positive locking

Load restraint by means of positive locking exists if the load can be supported against a front wall, side wall and/or stanchions. The front wall, side wall and stanchions must be able to withstand the forces that arise. A further kind of load securing through positive locking is angular or diagonal lashing, where the lashing equipment, lashing points and lifting points must be able to withstand the forces that arise. The aim is always to prevent the load from moving. Secure loads with positive locking whenever possible as this form of load restraint is particularly effective and safe.

Securing loads through force locking

The load is prevented from falling or slipping by being tied down, i.e. through load restraint based on force locking. When using tie-down lashing, two forces work together to secure the load: the pre-tension force and the dynamic friction. The lashing straps are used to apply the pre-tension force. The number of lashing straps to be used depends on the pre-tension force required. The friction created by the material pairing of the load and the loading area reduces the pre-tension force required to secure the load to the loading area. You can increase the dynamic friction by placing an anti-slip mat under the load.

Calculating the necessary restraint force (minimum LC) when securing a load through positive locking: VDI 2700 part 2:2014 and DIN EN 12195-1:2004

$$F_R = \frac{m \times g\ (Cx - \mu \times Cz)}{2\ (\cos\alpha \times \cos\beta + \mu \times \sin\alpha)}$$

F_R – Min. LC (Lashing Capacity)
μ – Friction value
α – Vertical lashing angle (in relation to the loading area)
β – Horizontal lashing angle (in relation to the loading area)
Cx – Acceleration forwards and backwards
Cz – Acceleration up and down
m – Mass
g – Weight

DIN EN 12195-1:2011

$$F_R = \frac{m \times g\ (Cx - \mu \times f\mu \times Cz)}{2\ (\cos\alpha \times \cos\beta + \mu \times f\mu \times \sin\alpha)}$$

F_R – min. LC (Lashing Capacity)
$f\mu$ – 0.75
μ – Friction value
α – Vertical lashing angle (in relation to the loading area)
β – Horizontal lashing angle (in relation to the loading area)
Cx – Acceleration forwards and backwards
Cz – Acceleration up and down
m – Mass
g – Weight

In the case of angled and diagonal lashing, the lashing angles must be considered. Ideally, the vertical angle should be between 0° and 60° and the lengthways horizontal angle between 20° and 45°.

Calculating the number of lashing straps required when securing a load through force locking: VDI 2700 part 2 and DIN EN 12195-1:2004

$$n = \frac{m \times g\ (Cx - \mu \times Cz)}{k \times \mu \times \sin\alpha \times S_{TF}}$$

DIN EN 12195-1:2011

$$n = \frac{m \times g\ (Cx - \mu \times Cz)}{2 \times \mu \times \sin\alpha \times STF} \times f_s$$

n – Number of straps
f_s – For road transportation in X = 1.25
k – Transmission coefficient (k-factor)
μ – Friction coefficient
α – Vertical lashing angle (in relation to the loading area)
Cx – Acceleration forwards and backwards
Cz – Acceleration up and down
m – Mass
g – Weight

Example:

Tie-down lashing of a load weighing 20 tons with an anti-slip mat placed underneath it
μ = 0.6, lashing angle α 80°,
S_{TF} = 400 daN, k = 1.5, f_s = 1.25

DIN EN 12195-1:2004

$$n = \frac{20000\ (0.8 - 0.6)}{1.5 \times 0.6 \times \sin 80° \times 400}$$

= 11.28 = 12 straps

DIN EN 12195-1:2011

$$n = \frac{20000\ (0.8 - 0.6)}{2 \times 0.6 \times \sin 80° \times 400} \times f_s$$

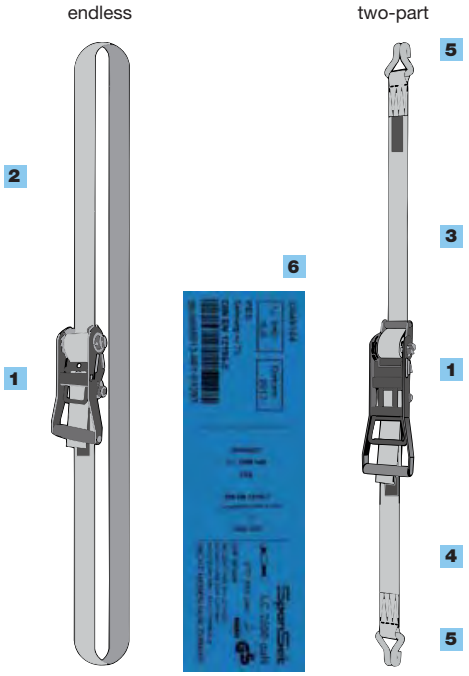
= 10.58 = 11 straps

LOAD RESTRAINT SYSTEMS
Practical Guide

Structure of textile lashing

The **endless lashing strap** comprising a **tensioner** 1 and **webbing** 2 is strapped around the load, meaning that no connectors such as eyelets or hooks are required.

The **two-part lashing strap** comprises the **fixed end (FE)** 4, **connector (C)** 5, **tensioner (T)** 1 and **adjustable end (AE)** 3, which is also equipped with a connector 5.



The label

According to standard DIN EN 12195-2, the fixed and adjustable ends must each have a label 6 that shows all technical details. The fixed end label specifies the standard tension force (STF). If this information is missing, the lashing strap must not be used for tie-down lashing. Lashing straps with a CE mark are a widespread problem. As Section 7 of the German Product Safety Act (ProdSG) prohibits this mark, CE marks on lashing strap labels therefore lead to straps needing to be discarded!

Inspection and servicing

Lashing straps must be inspected by an expert at least once a year. More regular inspections may be required depending on the usage conditions and frequency. Servicing work may only be conducted by the manufacturer or persons commissioned by the manufacturer.

TFI - TFI – Tension Force Indicator

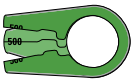
SpanSet developed a unique mechanical aid over ten years ago – the tension force indicator (TFI). This is installed directly on the tensioner and reliably indicates the pre-tension force that has been achieved.

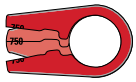
Demonstrably achieve the maximum pre-tension force with the TFI

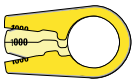
The TFI makes it possible to use your lashing straps optimally and with maximum performance. The pre-tension measurement indicator makes it easier for you to measure the pre-tension force applied as well as to provide evidence of this for any checks.

The tension force indicator is designed for 50 mm straps and available in several designs with 500 (green), 750 (red) and 1,000 (yellow) daN/STF pre-tension indicator tailored to the respective lashing system.

- Demonstrably use up to 60% fewer lashing straps
- For the fixed end and the adjustable end
- Optimal legibility thanks to signal colour


TFI 500 daN


TFI 750 daN


TFI 1.000 daN

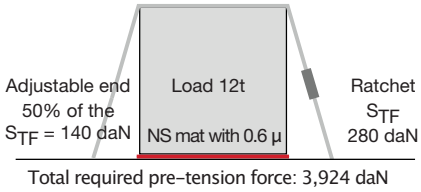
Secure the load – minimise the lashing equipment

By using the tension force indicator on the fixed end of the lashing equipment, the number of lashing straps can be vastly reduced. If a further TFI is attached to the adjustable end, up to 60% fewer lashing straps can demonstrably be used to secure the load. The fixed end of the 2.5 tonne ErgoABS pull-down ratchet – with a proven STF of 350 daN – is equipped as standard with a 750 daN TFI. If we consider the k-factor of 1.5, an STF of 1,125 daN is achieved with tie-down lashing. If a 750 daN TFI is also used on the adjustable end, a pre-tension force of 1,500 daN can even be reached and evidenced.

STF values for lashing systems with and without TFI

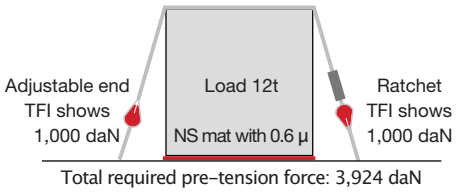
Lashing system	LC in the strapping in daN	LC in the strapping in daN	STF simply direct in daN	STF in the strapping k = 1.5 in daN	STF with TFI simply direct in daN	STF with TFI in the strapping k = 2 in daN	Number of lashing straps
2t lash. strap (ext. prod.)	2,000	4,000	280	420	-	-	10
2.5t lash. strap (ext. prod.)	2,500	5,000	280	420	-	-	10
2t lash. strap w/ TFI 500	2,000	4,000	-	-	500	1,000	4
2.5t lash. strap w/ TFI 500	2,500	5,000	-	-	500	1,000	4
2t Ergo ABS	2,000	4,000	440	660	-	-	6
2.5t Ergo ABS	2,500	5,000	350	525	-	-	8
2t-Ergo ABS w/ TFI 750	2,000	4,000	-	-	750	1,500	3
2.5t Ergo ABS w/ TFI 750	2,500	5,000	-	-	750	1,500	3
ErgoMaster	2,000	4,000	720	1,080	-	-	4
ErgoMaster w/ TFI 1.000	2,000	4,000	280	420	1,000	2,000	2

2t lashing strap (external product), without TFI



Result: the necessary pre-tension force is achieved with 10 (external product) lashing straps!

ErgoMaster 2t with TFI at the adjustable and fixed ends



Result: the necessary pre-tension force is achieved with 2 ErgoMaster pull-down ratchets!

LOAD RESTRAINT SYSTEMS

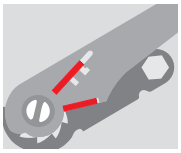
The key benefits of the ratchet systems

Longer ratchet lever

For better force transmission and enhanced ergonomics; kind on the back

The longer lever not only means that higher pre-tension forces can be achieved but also makes lashing far easier. High pre-tension forces can be achieved with far less muscle power. The pull-down ratchets with a long lever in particular are kinder on the back and comply more with ergonomic requirements.

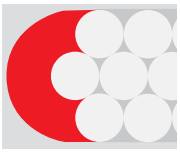
Dual slider



More tensioning force, less muscle power

When tightening the lashing strap, the dual slider also secures the load at interim stages. Two sliders engage in an existing gear ring in smaller steps. This enables you to achieve a greater tensioning force while using less muscle power.

Reinforced web edge



Makes the strap less sensitive to wear and friction

Straps with a reinforced web edge are less sensitive to wear and friction. The benefit to you: longer service lives and lower costs!

Tension force indicator

Indicator for proving the pre-tension force actually achieved

By using the TFI, you can prove the pre-tension forces applied when tying down loads with a lashing system and calculate the load restraint requirements. Three TFI versions are available with 500 (green), 750 (red) and 1,000 daN (yellow). Using a TFI on the adjustable and fixed ends is particularly effective and makes it possible to prove pre-tension forces of 1,000, 1,500 and 2,000 daN. As a result, fewer lashing straps are required to secure the load, which in turn accelerates the loading and unloading processes and offers major financial benefits.

'Anti-belt-slip' procedure

Makes it possible to release the pre-tension in small steps

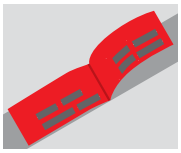
The ratchet is opened, the tension is suddenly released and you lose control of the load: anyone who has ever experienced this knows the importance of ABS. The ABS system has been developed for loads at risk of tipping over and makes it possible to release the pre-tension force in small steps. This enables you to straighten up any loads at risk of tipping that are leaning into the strap. This helps to prevent damage and accidents. The lashing system can also be immediately fully opened so that no time is lost when transporting more stable loads.

Self-locking ratchet lever

Prevents the ratchet from accidentally opening

We have developed the self-locking ratchet lever for maximum safety when lashing loads. When lashing the load, pull the integrated slider. If the ratchet is closed, it automatically moves to the locked position. This effectively prevents the ratchet from accidentally opening while on the move – even with the strongest vibrations and highest amount of shaking.

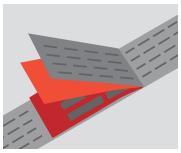
Centre fold label



For protection against damage with internal text

SpanSet clamp-lock lashing straps have a centre-fold label that is double-layered to make it more resistant to being torn off. The writing on the inside is protected against friction. A fold in the centre makes the label shorter to minimise the area subjected to the wind and sheering forces.

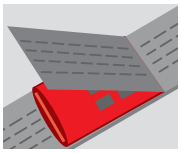
Strap overlap



Protected label thanks to 'fabric protection shield'

The labels on all SpanSet ratchet lashing straps are also protected by a strap overlap. The 'fabric protection shield' combined with the benefits of the centre fold label extends the service life of your lashing straps.

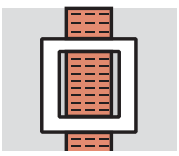
Protective sleeve label



Optimally protected, reinforced with insert

In addition to the non-tear-out workmanship thanks to the fabric insert, a robust plastic sleeve optimally protects the text against wear and dirt. The strap overlap used as standard also extends the service life.

Optimum tailoring



From the strap to the clamping lock

The SpanSet clamp-lock lashing straps are optimally designed in line with the width and thickness of the straps that can be used with them. This prevents premature wear and ensures that the strap is securely held in the clamp lock.

Precision strap

Low strap elongation

Spannfix ratchets comply with a strap elongation of less than 7% of the norm. Our quality systems even show evidence of just 4% of the standard strap elongation. Less elongation makes sense as this means that additional tensioning is required less frequently.

Epoxy resin coating

Coating on chromated and galvanised sheet steel ratchet

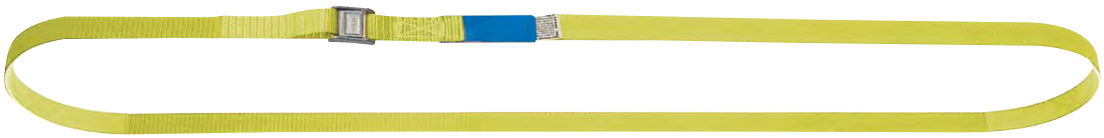
We place the greatest value on the quality of every component. The ratchets are first galvanised, then chromated and covered with an impact-resistant epoxy resin coating, which additionally protects them against rusting, for example.

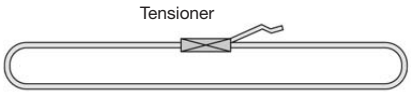
LOAD RESTRAINT SYSTEMS

Lashing Straps

Polyester Strap with Cambuckle, Width 25 mm

- Endless
- For light load restraint and in-plant storage
- Acc. to DIN EN 12195-2





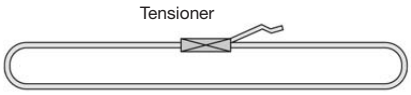
Structure of endless lashing strap

Lashing capacity LC in daN	Length in m	Max. elongation at LC in %	Item no.
250	4	< 7	41550100.004000
250	6	< 7	41550100.006000

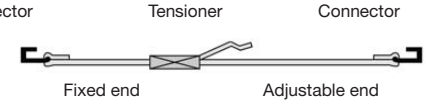
Other lengths are available on request.

Polyester Ratchet Strap, Width 25 mm

- Specially suitable for use with roof racks and auto trailers for light duty
- Endless or two-part, with double J or snap hook
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



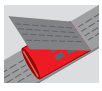
Structure of two-part lashing strap

endless

two-part

with double J hook

with snap hook



endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Length in m	Pretensioning force ST_F in daN	Max. elongation at LC in %	Item no.
endless	–	800	–	4	280	< 7	48020100.004000
		800	–	6	280	< 7	48020100.006000
two-part	double J hook	–	400/800	4	140	< 7	48020212.004000
		–	400/800	6	140	< 7	48020212.006000
two-part	snap hook	–	400/800	4	140	< 7	48020209.004000
		–	400/800	6	140	< 7	48020209.006000

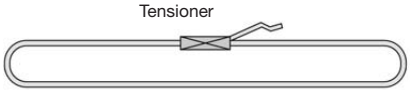
Other lengths are available on request.

LOAD RESTRAINT SYSTEMS

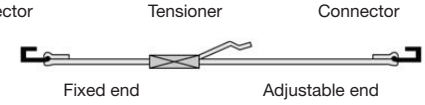
Lashing Straps

Polyester Straps with Pressure Ratchet, Width 35 mm

- With extra wide ratchet handle,
- In endless or two-part version available
- For medium duty
- Epoxy resin coated tensioner
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



Structure of two-part lashing strap

endless | **two-part**

with double J hook | **with claw hook** | **with snap hook**

EPX

endless/ two-part	with hook type	Lashing capacity L in daN	Lashing capacity L in daN	Length in m	Pretensioning force STF in daN	Max. elongation at LC in %	Item no.
endless	–	2000	–	4	440	< 7	4804P100.004000
		2000	–	6	440	< 7	4804P100.006000
two-part	double J hook	–	1000/2000	4	440	< 7	4804P211.004000
		–	1000/2000	6	440	< 7	4804P211.006000
two-part	claw hook	–	1000/2000	4	440	< 7	4804P206.004000
		–	1000/2000	6	440	< 7	4804P206.006000
two-part	snap hook	–	1000/2000	4	440	< 7	4804P209.004000
		–	1000/2000	6	440	< 7	4804P209.006000

Other lengths are available on request.

LOAD RESTRAINT SYSTEMS

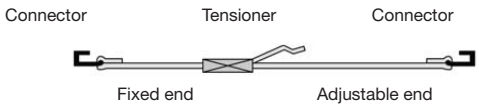
Lashing Straps

Tie-down Controller

Item no.: 4000.ZC.00

Polyester Straps with Pressure Ratchet, Width 50 mm

- With extra wide ratchet handle
- In endless or two-part version available
- For medium duty
- Epoxy resin coated tensioner
- Acc. to DIN EN 12195-2



Structure of two-part lashing strap

two-part

with double J hook | **with flat hook** | **with snap hook**

	with hook type		Lashing capacity LC in daN	Length in m	Pretensioning force STF in daN	Max. elongation at LC in %	Item no.
two-part		double J hook	500/1000	4	210	< 7	4803P212.004000
			500/1000	6	210	< 7	4803P212.006000
two-part		flat hook	500/1000	4	210	< 7	4803P244.004000
			500/1000	6	210	< 7	4803P244.006000
two-part		snap hook	500/1000	4	210	< 7	4803P209.004000
			500/1000	6	210	< 7	4803P209.006000

Other lengths are available on request.

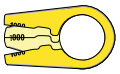
LOAD RESTRAINT SYSTEMS

Lashing Straps

Polyester Strap with ErgoMaster Ratchet, Width 50 mm

NEW!

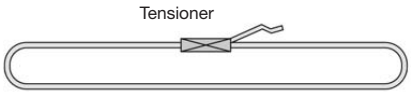
ABS + TFI



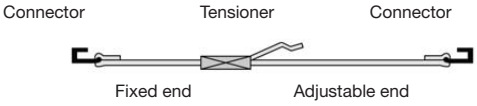
Enhanced safety with the Tension Force Indicator Indication of Pretension Force

With the ErgoMaster, ergo again stands for high pre-tension forces and the back-friendly functional principle of 'pull don't push'. Thanks to a new geometric design and innovative mechanics, the lashing system can be used to achieve a standard tension force (STF) of 720 daN – or with a tension force indicator (TFI) even of up to 1,000 daN – in a straight line. The system, which is preferably used for tie-down lashing, is offered with a lashing capacity (LC) of 2,000 daN and various hook combinations.

- Standard length 8 m, fixed end 0.5 m
- Available in endless or two-part version
- With tension force indicator (TFI) as standard, enabling an achievable and readable pre-tension force of 1,000 daN
- Unique slit shaft system for ideal force transmission
- Low elongation, wear-resistant strap with cord edge and identification stripes
- Epoxy resin coated tensioner
- Robust label secured against being torn out and protected by a plastic sleeve and strap overlap
- The self-locking ratchet lever: lash – pull safety lever – close ratchet – anchor safety lever in the gear ring. This stops the ratchet from subsequently springing open. Even the strongest vibrations and shaking movements have no effect!
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



Structure of two-part lashing strap

LOAD RESTRAINT SYSTEMS

Lashing Straps

endless

two-part

with double J hook

with claw hook

with snap hook

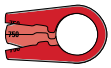
with triangle hook

endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Pretensioning force ST_F in daN	Pretensioning force ST_F with TFI in daN	Width in mm	Thickness in mm	Item no.
endless	–	4000	–	–	–	50	2.9	48505100.008000
two-part	double J hook	–	2000/4000	720	1000	50	2.9	48505201.008000
two-part	claw hook	–	2000/4000	720	1000	50	2.9	48505204.008000
two-part	snap hook	–	2000/4000	720	1000	50	2.9	48505215.008000
two-part	triangle hook	–	2000/4000	720	1000	50	2.9	48505253.008000

Other lengths are available on request.

Polyester Strap with ErgoABS Ratchet, Width 50 mm

ABS + TFI



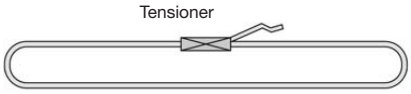
Enhanced safety with the
Tension Force Indicator
Indication of Pretension Force

GURTBAND DEHNUNG <4%

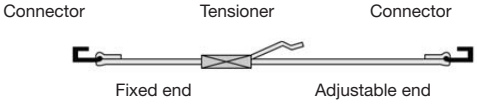
Option: additional TFI at the loose end

Powerful and ergonomic tightening
safe and controlled releasing

- Standard length 8 m, fixed end 0.5 m
- Available in endless or two-part version
- With tension force indicator (TFI) as standard, enabling an achievable and readable pre-tension force of 750 daN
- Epoxy resin coated tensioner
- Controlled release of the lashed load with the ABS ratchet
- The double latch brings more tension in less time! More tension through smaller steps
- The self-securing ratchet handle: Tightening – pull the function slider – lock the ratchet – let the function slider engage in the toothed ring. Subsequent unintentional unlocking of the ratchet is excluded. The system even resists strongest vibrations and jolts!
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



Structure of two-part lashing strap

LOAD RESTRAINT SYSTEMS

Lashing Straps

endless

two-part

with double J hook

with claw hook

with snap hook

with triangle hook

endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Pretensioning force STF in daN	Pretensioning force ST_F with TFI in daN	Width in mm	Thickness in mm	Item no.
endless	–	5000	–	–	–	50	2.9	48705100.008000
two-part	double J hook 1201	–	2500/5000	350	750	50	2.9	48705201.008000
two-part	claw hook 1204	–	2500/5000	350	750	50	2.9	48705204.008000
two-part	snap hook 1215	–	2500/5000	350	750	50	2.9	48705215.008000
two-part	triangle hook 1253S	–	2500/5000	350	750	50	2.9	48705253.008000

Other lengths are available on request.

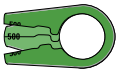
LOAD RESTRAINT SYSTEMS

Lashing Straps

Polyester Strap with ABS Pressure Ratchet, Width 50 mm

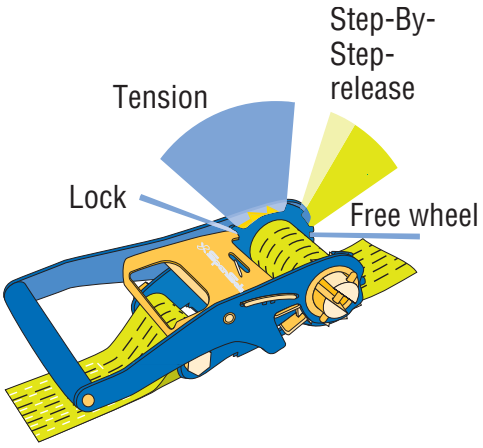
ABS ratchet: Tighten more powerfully and release gradually.

ABS + TFI

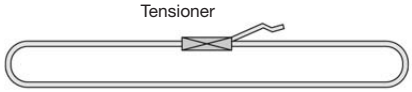


Enhanced safety with the Tension Force Indicator Indication of Pretension Force

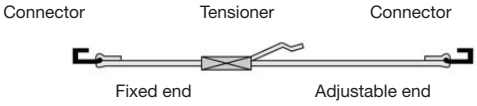
WEBBING ELONGATION <4%



- Standard length 8 m, fixed end 0.5 m
- Available in endless or two-part version
- With tension force indicator (TFI) as standard, enabling an achievable and readable pre-tension force of 500 daN
- Epoxy resin coated tensioner
- Controlled release of the lashed load with the ABS ratchet
- The pretension force is released gradually, whereas conventional ratchets will release the webbing tension all at once. This is particularly dangerous if the load is not properly balanced.
- The ABS ratchet is released gradually. Thus the risk is avoided that shifted load will tip over when loosening the ratchet and endangers man and material.
- Acc. to DIN EN 12195-2



Structure of endless lashing strap



Structure of two-part lashing strap

LOAD RESTRAINT SYSTEMS

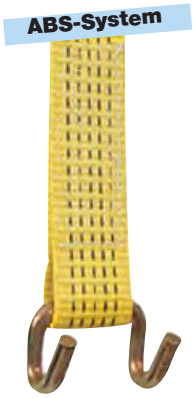
Lashing Straps

endless

two-part

with double J hook

with claw hook



with snap hook

with triangle hook

500daN TFI | ABS | EPX | 4%

endless/ two-part	with hook type	Lashing capacity LC in daN	Lashing capacity LC in daN	Pretensioning force STF in daN	Pretensioning force ST_F with TFI in daN	Width in mm	Thickness in mm	Item no.
endless	–	5000	–	–	–	50	2.9	48405100.008000
two-part	double J hook	–	2500/5000	350	500	50	2.9	48405201.008000
two-part	claw hook	–	2500/5000	350	500	50	2.9	48405204.008000
two-part	snap hook	–	2500/5000	350	500	50	2.9	48405215.008000
two-part	triangle hook	–	2500/5000	350	500	50	2.9	48405253.008000

Other lengths are available on request.

LOAD RESTRAINT SYSTEMS

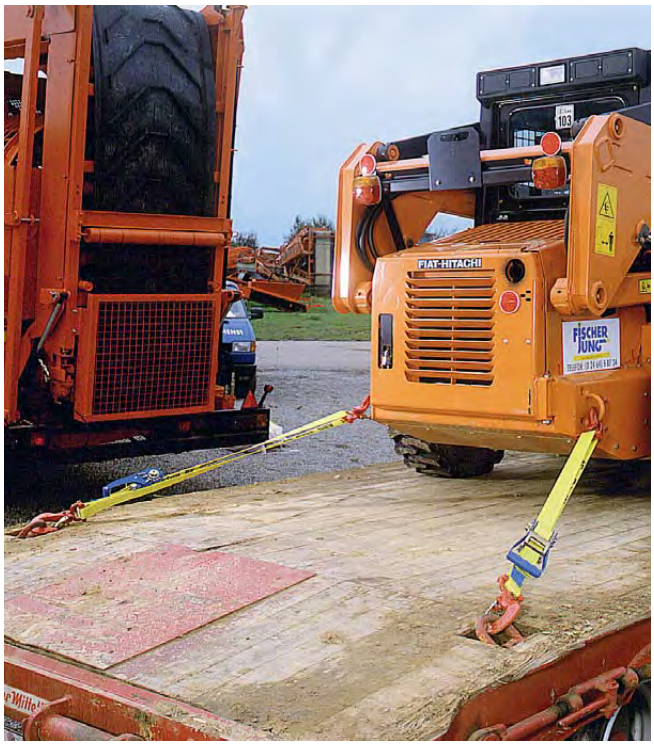
Lashing Straps

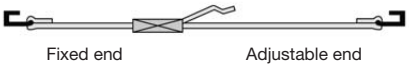
Polyester Strap with ABS Heavy Duty Ratchet, Width 50 mm

Fast and powerful lashing!

- Standard length 4 m, fixed end 0.5 m
- Two-part version
- Epoxy resin coated tensioner
- Self-locking tensioner, can be gradually released with ABS and equipped with dual slider
- The double-layer belt material together with high-strength hooks and the ABS ratchet ensure a reliable lashing capacity of up to 10,000 daN
- Ideal for direct lashing of vehicles and machinery
- Also available with woven logo or individual print
- Acc. to DIN EN 12195-2

WEBBING ELONGATION <4%





Structure of two-part lashing strap

two-part

with triangle

with safety hook

ABS EPX 4%

	with hook type		Lashing capacity LC in daN	Width in mm	Thickness not impregnated in mm	Item no.
two-part		triangle	5000/10000	50	2.8	48151238.004000
two-part		safety hook	5000/10000	50	2.8	48151275.004000

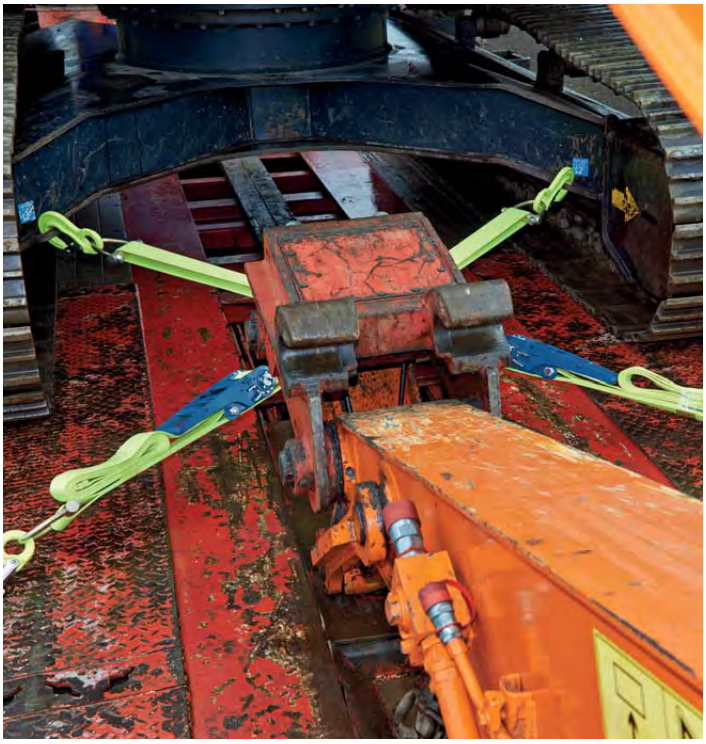
Other lengths are available on request.

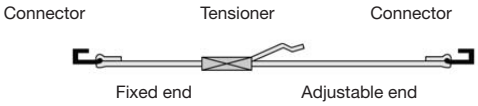
LOAD RESTRAINT SYSTEMS

Lashing Straps

Polyester Strap with ABS Heavy Duty Ratchet, Width 75 mm

- Standard length 4 m, fixed end 0.5 m
- Available in two-part version
- Epoxy resin coated tensioner
- Self-locking tensioner, can be gradually released with ABS and equipped with dual slider
- Ideal for direct lashing of heavy vehicles and machinery
- Also available with individual print
- Reliable tie-down lashing capacity of 20,000 daN due to double-layer belt material
- Acc. to DIN EN 12195-2



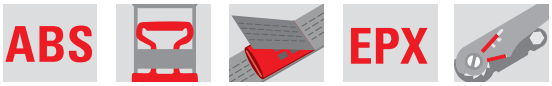


Structure of two-part lashing strap

two-part

with triangle

with safety hook

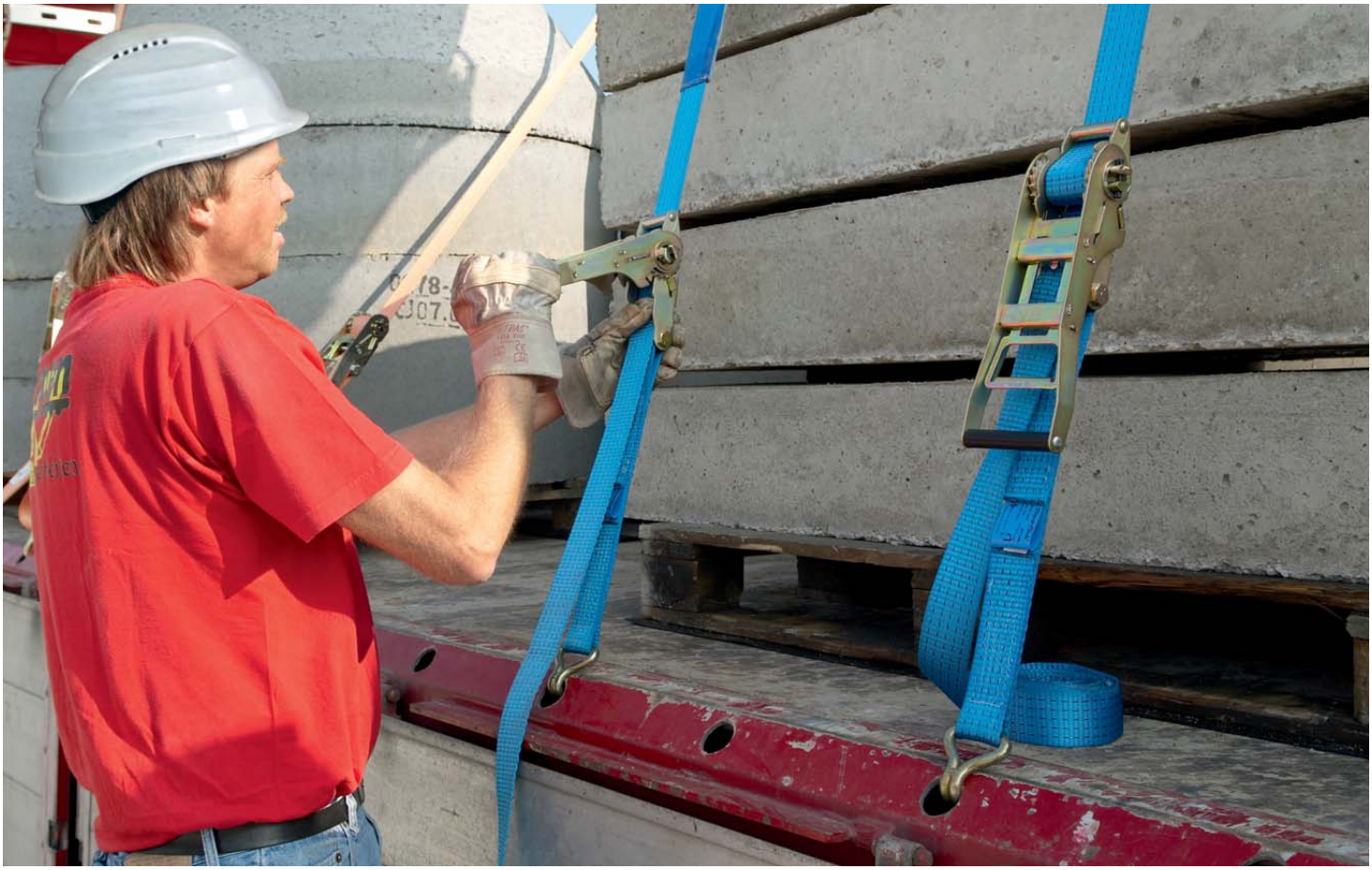


	with hook type		Lashing capacity LC in daN	Width in mm	Thickness not impregnated in mm	Item no.
two-part		triangle	10000/20000	75	4.2	48152275.004000
two-part		safety hook	10000/20000	75	4.2	48152205.004000

Other lengths are available on request.

LOAD RESTRAINT SYSTEMS

Lashing Straps



Polyester Strap with Ergo Ratchet, Width 50 mm

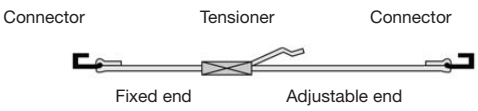
The low-cost alternative - Please contact us for pricing!

The highest performing ratchet assembly available is a reverse action type which maximises ergonomic efficiency and utilises an extended handle for greater leverage. The pretension forces are 50% higher than with conventional ratchets!

- Standard length 8 m, fixed end 0.5 m
- Two-part version with double J hook
- The required pretension is reached without effort
- Less tie-down effort
- Easy handling
- Spine-friendly
- Sturdy design
- Acc. to DIN EN 12195-2

Pulling is better than pushing!

Less effort – more safety!



Structure of two-part lashing strap

Also available with

TFI

Also available with your individual print.

Lashing capacity LC in daN	ST_F in daN	Width in mm	Thickness not impregnated in mm	Item no.
2500/5000	500	50	2.8	48065201.008000

LOAD RESTRAINT SYSTEMS

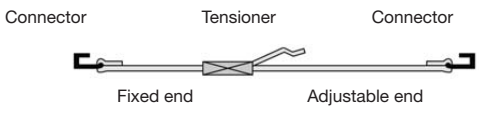
Lashing Straps

Polyester Strap with Pressure Ratchet, Width 50 mm

The low-cost alternative - Please contact us for pricing!

- Standard length 8 m, fixed end 0.5 m
- Two-part version with double J hook
- The required pretension is reached without effort
- Less tie-down effort
- Easy handling
- Sturdy design
- No unintended loosening – even with strong vibrations or shaking motion – due to self-locking ratchet handle
- Acc. to DIN EN 12195-2

Self-locking ratchet handle



Structure of two-part lashing strap

Also available with your individual print.

Lashing capacity LC in daN	ST_F in daN	Width in mm	Item no.
2500/5000	350	50	4ZG50SPH.008000
2000/4000	350	50	4ZG40SPH.008000

LOAD RESTRAINT SYSTEMS

Property Protection/Promotion/Accessories

Belts with individual Weaving for Lashing Straps ABS and ErgoABS

Individual weavings with your company name or phone number in black yarn.

The black weaving on the yellow belt material provides high contrast and offers additional advertising space as well as property protection against theft.

Weaving available for 35 mm and 50 mm belts. Please contact us for pricing.

Length of weaving max. 1.5 m in repeat.
Minimum order quantity: 250 m belt material, corresponding to approx. 30 straps/8 m length.
Over- or underdeliveries of 10% are possible.

The weaving is generated during the belts' production by colored yarn.

Individual Print on the Belt

This is the cost-saving alternative to weaving. Your logo or logotype as monochrome print in repeat as property marking.

Screen printing. Please contact us for pricing.

Continuous printing. Please contact us for pricing.

(Minimum order quantity 250 m, corresponding to approx. 30 lashing straps)

Max. length of print image: 1.0 m, max. 40 characters at 25 mm width.

The print colours will only penetrate the top layer of the belt.

2nd Label

On request your ratchet strap can be fitted with an additional label. This label offers pace for individual information as your own numbering as property protection, vehicle plate number etc.

Please contact us for details!

Retrofitting with transponder possible

Ratchet Pads

This useful pad protects your load against marks of the tightly fitted ratchet parts. The pad is simply threaded on the strap.

Suitable for belt width in mm	Item no.
bis 36	4801.16.20
50	4801.16.21
75	4801.16.22

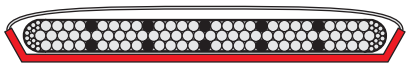
LOAD RESTRAINT SYSTEMS

Protective Sleeves

Protective Sleeve SF-LSP

Roll length 5 m

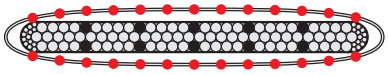
Specially suitable for transport of prefabricated concrete parts, steel- or metal elements or similar sharp-edged goods.



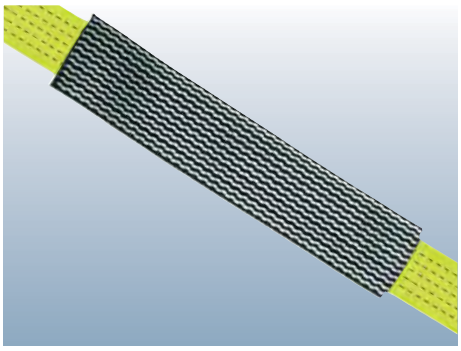
Suitable for belt width in mm	Item no.
25	4SFL.00.25
35	4SFL.00.35
50	4SFL.00.50
75	4SFL.00.75

Abrasion Protection sliP

This very low-friction protective sleeve lets the belt slip through very smoothly. Flexible and easy to roll up together with the strap.



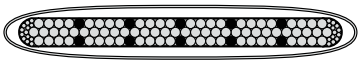
Suitable for belt width 50 mm	Item no.
length 500 mm	4801.SP.50
5 m roll	4801.SP.35



Protective Sleeve PF/2

NEW!

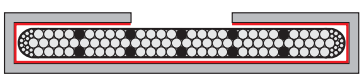
PF/2 – the ultra-low-friction protective sleeve enables the straps to glide particularly smoothly. Flexible and easy to roll up together with the strap.



Suitable for belt width in mm	Item no.
35	4801.PF.35
50	4801.PF.50
75	4801.PF.75

Protective Sleeve LSP-SF1

The coated fabric layer enables it to be quickly pushed onto or removed from a strap. Item length 1,000 mm.



Suitable for belt width in mm	Item no.
50	4801.SC.50
75	4801.SC.75

Edge Protector KaSi Plus

The innovative KaSi Plus edge protector uses a hollow to protect the sensitive edge of paper reels when they are secured for transportation with lashing straps. This effectively prevents indents and damage to the paper reels.

Suit. for max. belt width in mm	Packing unit	L x W x H in mm	Item no.
55	1	200 x 150 x 145	4801.16.29
55	72	200 x 150 x 145	4801.16.29

Edge Protector UWI

The versatile edge protector

The UWI is a particularly low cost edge bracket for everyday use during transportation. Specially designed for straight loads where the securing forces are transmitted over a large area, the UWI relieves the burden on the load edge.

Suitable for max. belt width in mm	L x W x H in mm	Item no.
50	145 x 135 x 90	4801.16.31

Edge Protector UWI Plus

NEW!

Edge protection for straight loads

The UWI Plus has been specially developed for highly sensitive loads. The inset hollow on the edge protection bracket particularly protects your load's sensitive edges. The UWI Plus is suitable for lashing systems with a strap width of 50 mm.

Suitable for max. belt width in mm	L x W x H in mm	Item no.
50	200 x 150 x 145	4801.16.25

Velcro® Fastener at Fixed End

For fixing the loose end.

***Firmly sewn to the strap and thus undetachable!!!**

Suitable for belt width in mm	Type	Item no.
50	Standard version*	4801.17.00
50	Retrofittable version	4801.17.02

*Available from a minimum quantity of 30 ratchet straps

Edge protectors for ropes and chains can be found on page 329.

Edge Protector Type LaWi 1636

Advantages
- Strong version for all applications
- Easy handling due to big contact surface, edge protector cannot fall down
- Can be cut to any length
- Pressure-resistant, hard polyethylene, avoids deformation
- Temperature range from -30°C (-22°F) to +100°C (+212°F)
- The cross section has sufficient stiffness to bridge gaps in the load (e.g. barrel lashing with 1 strap)
- Depending on the application, a maximum belt tension of 750 daN is possible without causing permanent deformation
- The concave channel on the inside protects the edge of the load, the curve on the outside prevents damage from the strap and increases the pretension force due to a better load transmission

Type	Most suitable for ratchets	Length in mm	Height and width in mm	Inner contact surface in mm	Colour	Weight in kg	Item no.
LaWi 1636	Ergo ABS, ABS, Ergo	800	210 x 120	180 x 90	black	2.0	4801.16.80
LaWi 1636	Ergo ABS, ABS, Ergo	1200	210 x 120	180 x 90	black	3.0	4801.16.81
LaWi 1636	Ergo ABS, ABS, Ergo	2400	210 x 120	180 x 90	black	6.0	4801.16.82

Edge Protector Type LaWi 1637

Advantages
- Budget-priced version for standard applications
- Easy handling due to big contact surface, edge protector cannot fall down
- Can be cut to any length
- Pressure-resistant, hard polyethylene, avoids deformation
- Temperature range from -30°C (-22°F) to +100°C (+212°F)
- Sufficient stiffness to bridge gaps in the load
- Depending on the application, a maximum belt tension of 450 daN is possible without causing permanent deformation
- Two white softstripes with increased friction value, each 8 mm wide and placed in distances of 22 and 57 mm from the edge simplify attachment to the load and prevent the edge protectors from sliding
- The concave channel on the inside protects the edge of the load, the curve on the outside prevents damage from the strap and increases the pretension force due to a better load transmission
- Fitted with punch holes (ø 10 mm) on the upper side in distances of 60 and 70 mm from the edge to attach the strap guides

Type	Most suitable for ratchets	Length in mm	Height and width in mm	Inner contact surface in mm	Colour	Weight in kg	Item no.
LaWi 1637	Spannfix 5-/4-/2-/1-t	800	140 x 100	120 x 80	red	1.1	4801.16.90
LaWi 1637	Spannfix 5-/4-/2-/1-t	1200	140 x 100	120 x 80	red	1.63	4801.16.91
LaWi 1637	Spannfix 5-/4-/2-/1-t	2400	140 x 100	120 x 80	red	3.25	4801.16.92

Strap Guide for LaWi 1637

These guides can be plugged in the punch holes of the red LaWi 1637. They hold both the strap and the edge protector in place and increase the contact pressure from above.

Type	Colour	Item no.
Gubafü 1637	blue	4801.16.95

LOAD RESTRAINT SYSTEMS

ICE Lashing Chains Grade 120

LOAD RESTRAINT SYSTEMS

ICE Lashing Chains Grade 120

Use the strongest RUD Lashing Chain

In comparison with a grade 80 lashing chain ICE 120 offers up to 60% more lashing capacity (LC) and lashing force respectively. The ICE 120 lashing chain complies with all requirements of EN 12195-3 and even exceeds them for some decisive criteria.

- Fitted with preparation for theft protection by padlock
- Easy to clean and lubricate
- New and practice-oriented locking device
- Easy handling - also with gloves
- Innovative design - lightweight and robust

Please note the following regarding revision of EN 12195-1: 2011
EN 12195-1: 2011 is not consistant with the results of many scientific tests that have been proved by daily practise. The status of an acknowledged rule of technology within the meaning of § 22, para. 1 StVO (German Road Traffic Regulations) is doubtful and for the time being has not been confirmed by jurisdiction. In order to ensure a sufficient level of safety, the following explanations refer to DIN EN 12195-1: 2004 and VDI 2700 ff. respectively.

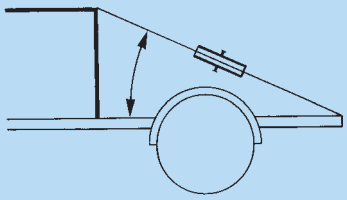
Friction values μ according to VDI 2700-2			
Material pair	dry	wet	greasy
wood/wood	0.20-0.50	0.20-0.25	0.05-0.15
metal/wood	0.20-0.50	0.20-0.25	0.02-0.10
metal/metal	0.10-0.25	0.10-0.20	0.01-0.10

Which lashing chain for which load?

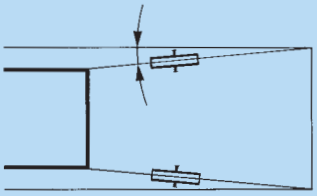
Direct lashing

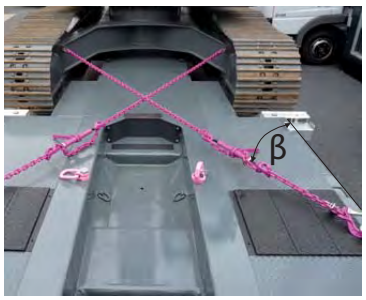
RUD chain type	LC in daN	Max. load weight in t (horizontal angle β: 20° - 45°; 2 chains in each direction)											
		vertical angle α: 0° - 30°						vertical angle α: 30° - 60°					
		μ = 0.1	μ = 0.2	μ = 0.3	μ = 0.4	μ = 0.5	μ = 0.6	μ = 0.1	μ = 0.2	μ = 0.3	μ = 0.4	μ = 0.5	μ = 0.6
ICE-VSK 6	3000	6.2	8.4	10.4	13.0	17.4	26.2	4.5	6.3	9.0	12.8	19.2	32.0
ICE-VSK 8	6000	10.5	14.0	17.4	21.8	29.1	43.9	7.6	10.7	15.0	21.4	32.0	53.4
ICE-VSK 10	10000	17.5	23.4	29.0	36.4	48.6	73.1	12.8	17.9	25.0	35.6	53.4	89.0
ICE-VSK 13	16000	28.0	37.5	46.4	58.2	77.8	117.0	20.5	28.6	40.0	57.1	85.5	142.4
ICE-VSK 16	25000	43.7	58.6	72.6	91.0	121.6	182.8	32.0	44.7	62.5	89.1	133.6	222.5

Vertical angle α



Horizontal angle β





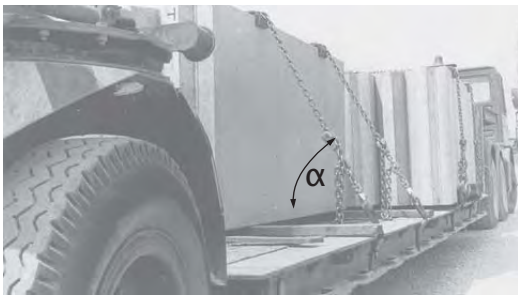
Tie-down

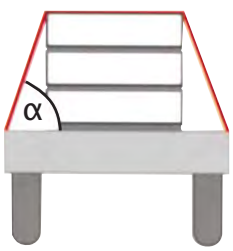
RUD chain type	STF in daN	Necessary number of VIP or ICE lashing chains for tie-down (Number of lashing chains = factor from chart x load weight in t)											
		vertical angle α: 60° - 90°						vertical angle α: 30° - 60°					
		μ = 0.1	μ = 0.2	μ = 0.3	μ = 0.4	μ = 0.5	μ = 0.6	μ = 0.1	μ = 0.2	μ = 0.3	μ = 0.4	μ = 0.5	μ = 0.6
ICE-VSK 6	1500	3.6 x	1.6 x	0.9 x	0.6 x	0.4 x	0.2 x	6.3 x	2.7 x	1.5 x	0.9 x	0.6 x	0.3 x
ICE-VSK 8/10/13	2800	2.0 x	0.9 x	0.5 x	0.3 x	0.2 x	0.1 x	3.4 x	1.5 x	0.8 x	0.5 x	0.3 x	0.2 x

Values of both charts are valid for: stable load, road transport, no combined load restraint.

Should there be a considerable deviation from the indicated lashing angles, additional load securing measures are necessary (e.g. bigger chain size and/or chocks - **friction increasing pads see pages 639 and 642 et seq.**).

When it comes to transporting heavy construction machinery the bucket should rest on the platform of the low loader. Apply hand brake and engage gear.





The ICE lashing chain replaces quality grade 8 in the next nominal thickness up.

It doesn't get any lighter – weight savings of up to 45%!

Nominal thickness in mm	Permissible lashing force in daN	
	GK 8	ICE
6	2,200	3,600
8	4,000	6,000
10	6,300	10,000
13	10,000	16,000
16	16,000	25,000

LOAD RESTRAINT SYSTEMS

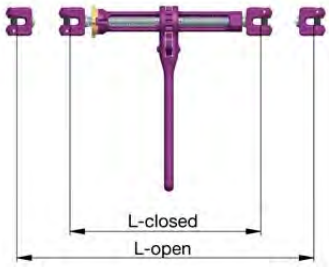
ICE Ratchet Tensioners

ICE-CURT-GAKO Ratchet Tensioner / CURT-SL Ratchet Tensioner

- Easy-to-handle ratchet tensioner
- Patented and practical locking device to prevent loosening
- Magnetically adhesive locking joint – secured against opening, also suitable as an anti-theft device (lockable)
- Exceeds EN 12195-3
- Innovative forged design – light and robust
- Easy to clean and lubricate

Authorised for tie-down and direct lashing!

ICE-CURT-GAKO



ICE-CURT-SL

Locking joint open

Locking joint closed

Locking joint closed and with anti-theft lock

ICE-CURT-GAKO with shortening hook

Ø chain in mm	Pretension force ST_F in daN	Lashing cap. LC in daN	Description	Dimensions in mm L-open	L-closed	Stroke	Weight in kg/pce	Item no.
6	1500	3600	ICE-CURT-6-GAKO	400	260	140	1.5	6571.S5.06
8	2800	6000	ICE-CURT-8-GAKO	520	350	170	3.9	6571.S5.08
10	2800	10000	ICE-CURT-10-GAKO	532	362	170	4.3	6571.S5.10
13	2800	16000	ICE-CURT-13-GAKO	830	530	300	7.6	6571.S5.13
16	Direct lashing only	25000	ICE-CURT-16-GAKO	962	612	350	13.0	6571.S5.16

ICE-CURT-SL with shortening connector

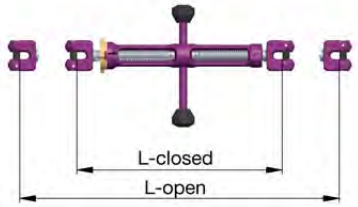
6	1500	3600	ICE-CURT-6-SL	470	330	140	1.6	6571.S7.06
8	2800	6000	ICE-CURT-8-SL	623	453	170	4.5	6571.S7.08
10	2800	10000	ICE-CURT-10-SL	671	501	170	5.2	6571.S7.10

ICE-CURT-K-GAKO Ratchet Tensioner / CURT-K-SL Ratchet Tensioner

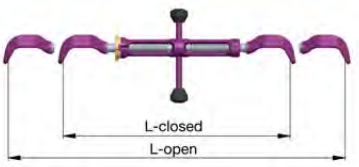
- Easy-to-handle ratchet tensioner
- Patented and practical locking device to prevent loosening
- Magnetically adhesive locking joint – secured against opening, also suitable as an anti-theft device (lockable)
- Exceeds EN 12195-3
- Innovative forged design – light and robust
- Easy to clean and lubricate

Only authorised for direct lashing!

ICE-CURT-K-GAKO



ICE-CURT-K-SL



Locking joint open

Locking joint closed

Locking joint closed and with anti-theft lock

ICE-CURT-K-GAKO with shortening hook

Ø chain in mm	Lashing cap. in daN	Description	Dimensions in mm L-open	L-closed	Stroke	Weight in kg/pce	Item no.
6	3600	ICE-CURT-K-6-GAKO	400	260	140	1.8	6571.S6.06
8	6000	ICE-CURT-K-8-GAKO	520	350	170	3.2	6571.S6.08
10	10000	ICE-CURT-K-10-GAKO	532	362	170	3.6	6571.S6.10
13	16000	ICE-CURT-K-13-GAKO	830	530	300	6.9	6571.S6.13
16	25000	ICE-CURT-K-16-GAKO	962	612	350	12.2	6571.S6.16

ICE-CURT-K-SL with shortening connector

6	3600	ICE-CURT-K-6-SL	470	330	140	1.9	6571.S4.06
8	6000	ICE-CURT-K-8-SL	623	453	170	3.6	6571.S4.08
10	10000	ICE-CURT-K-10-SL	671	501	170	4.4	6571.S4.10

LOAD RESTRAINT SYSTEMS

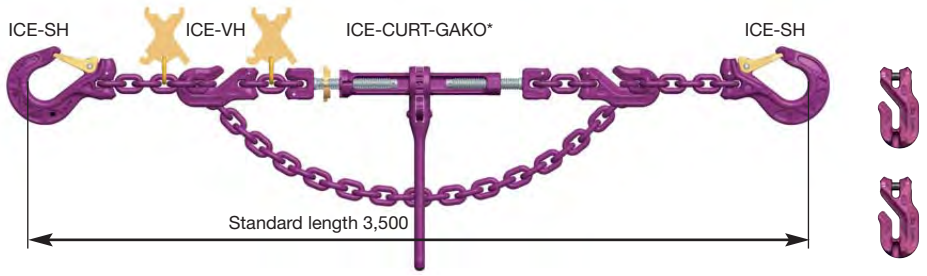
RUD® Carl Stahl®

ICE Lashing Chains Grade 120

ICE-VSK-CURT GAKO with ICE-IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO ratchet tensioner and ICE shortening hook ICE-VH

*Tensioner can be slid along the chain leg

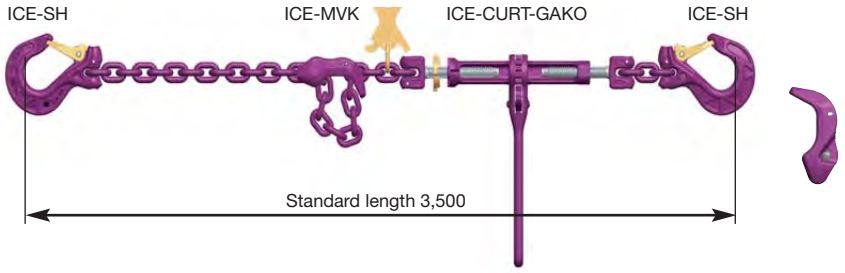


Authorised for tie-down and direct lashing!

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force ST_F in daN	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-IVH	3600	ICE-CURT-6-GAKO	1500	140	780	7.0	617S.C1.06
8	ICE-VSK-8-CURT-IVH	6000	ICE-CURT-8-GAKO	2800	170	1040	13.2	617S.C1.08
10	ICE-VSK-10-CURT-IVH	10000	ICE-CURT-10-GAKO	2800	170	1210	20.1	617S.C1.10
13	ICE-VSK-13-CURT-IVH	16000	ICE-CURT-13-GAKO	2800	300	1600	35.5	617S.C1.13
16	ICE-VSK-16-CURT-IVH	25000	ICE-CURT-16-GAKO	Direct lashing only	350	1910	58.8	617S.C1.16

ICE-VSK-CURT GAKO with ICE-IMVK

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO ratchet tensioner and ICE multi-shortening claw ICE-MVK

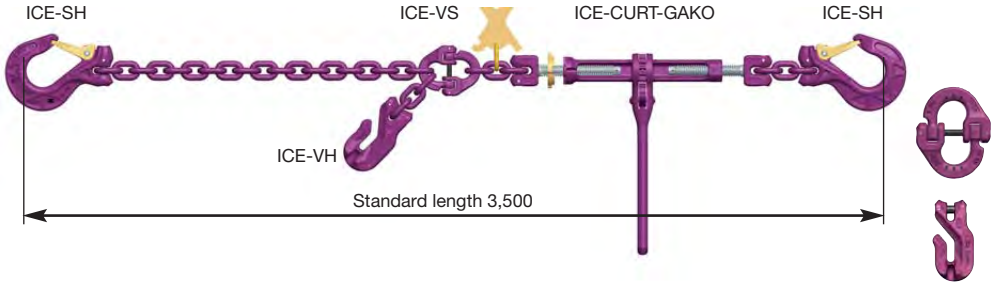


Authorised for tie-down and direct lashing!

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force ST_F in daN	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-IMVK	3600	ICE-CURT-6-GAKO	1500	140	770	6.3	617S.C3.06
8	ICE-VSK-8-CURT-IMVK	6000	ICE-CURT-8-GAKO	2800	170	1010	11.7	617S.C3.08
10	ICE-VSK-10-CURT-IMVK	10000	ICE-CURT-10-GAKO	2800	170	1170	17.0	617S.C3.10
13	ICE-VSK-13-CURT-IMVK	16000	ICE-CURT-13-GAKO	2800	300	1540	28.6	617S.C3.13
16	ICE-VSK-16-CURT-IMVK	25000	ICE-CURT-16-GAKO	Direct lashing only	350	1840	46.0	617S.C3.16

ICE-VSK-CURT GAKO with ICE-IVS and ICE-IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO ratchet tensioner, ICE shortening lock ICE-VS and ICE shortening hook ICE-VH



Authorised for tie-down and direct lashing!

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force ST_F in daN	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-IMVK	3600	ICE-CURT-6-GAKO	1500	140	680	6.4	617S.C8.06
8	ICE-VSK-8-CURT-IMVK	6000	ICE-CURT-8-GAKO	2800	170	870	11.9	617S.C8.08
10	ICE-VSK-10-CURT-IMVK	10000	ICE-CURT-10-GAKO	2800	170	1000	17.7	617S.C8.10
13	ICE-VSK-13-CURT-IMVK	16000	ICE-CURT-13-GAKO	2800	300	1330	29.9	617S.C8.13
16	ICE-VSK-16-CURT-IMVK	25000	ICE-CURT-16-GAKO	Direct lashing only	350	1590	48.8	617S.C8.16

LOAD RESTRAINT SYSTEMS

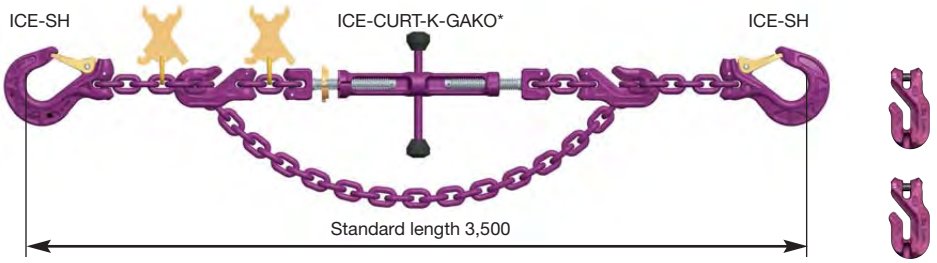
ICE Lashing Chains Grade 120

ICE-VSK-CURT-K GAKO with ICE-IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO lever tensioner and ICE shortening hook ICE-VH.

*Tensioner can be slid along the chain leg.

Only authorised for direct lashing!

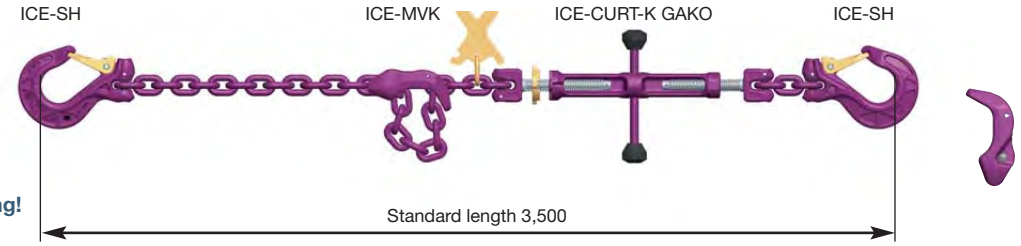


Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet tensioner type	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-IVH	3600	ICE-CURT-K-6-GAKO	140	780	7.3	617S.C6.06
8	ICE-VSK-8-CURT-K-IVH	6000	ICE-CURT-K-8-GAKO	170	1040	12.5	617S.C6.08
10	ICE-VSK-10-CURT-K-IVH	10000	ICE-CURT-K-10-GAKO	170	1210	19.4	617S.C6.10
13	ICE-VSK-13-CURT-K-IVH	16000	ICE-CURT-K-13-GAKO	170	1600	34.5	617S.C6.13
16	ICE-VSK-16-CURT-K-IVH	25000	ICE-CURT-K-16-GAKO	350	1910	57.7	617S.C6.16

ICE-VSK-CURT-K GAKO with ICE-IMVK

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO lever tensioner and ICE multi-shortening claw ICE-MVK.

Only authorised for direct lashing!

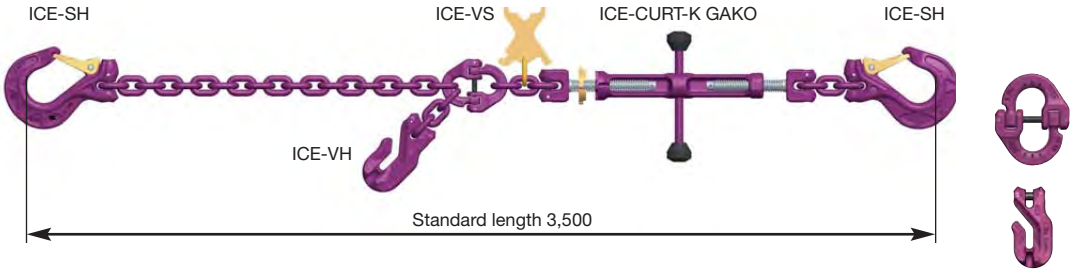


Ø chain in mm	Description	Lashing capacity LC in daN	Compact tensioner type	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-IMVH	3600	ICE-CURT-K-6-GAKO	140	770	6.6	617S.C5.06
8	ICE-VSK-8-CURT-K-IMVH	6000	ICE-CURT-K-8-GAKO	170	1010	11.0	617S.C5.08
10	ICE-VSK-10-CURT-K-IMVH	10000	ICE-CURT-K-10-GAKO	170	1170	16.3	617S.C5.10
13	ICE-VSK-13-CURT-K-IMVH	16000	ICE-CURT-K-13-GAKO	170	1540	27.6	617S.C5.13
16	ICE-VSK-16-CURT-K-IMVH	25000	ICE-CURT-K-16-GAKO	350	1840	44.9	617S.C5.16

ICE-VSK-CURT-K GAKO with ICE-IVS and ICE-IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO lever tensioner, ICE shortening lock ICE-VS and ICE shortening hook ICE-VH.

Only authorised for direct lashing!

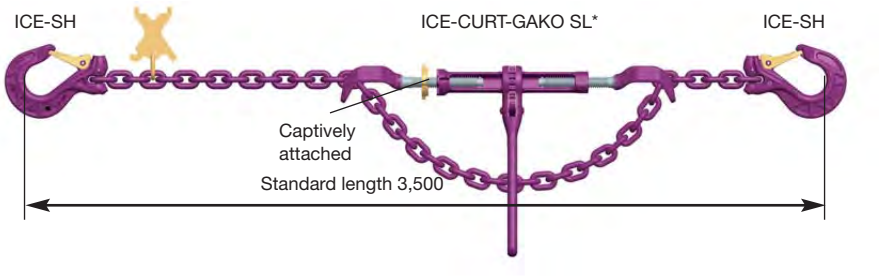


Ø chain in mm	Description	Lashing capacity LC in daN	Compact tensioner type	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-IVS	3600	ICE-CURT-K-6-GAKO	140	680	6.7	617S.C7.06
8	ICE-VSK-8-CURT-K-IVS	6000	ICE-CURT-K-8-GAKO	170	870	11.2	617S.C7.08
10	ICE-VSK-10-CURT-K-IVS	10000	ICE-CURT-K-10-GAKO	170	1000	17.0	617S.C7.10
13	ICE-VSK-13-CURT-K-IVS	16000	ICE-CURT-K-13-GAKO	170	1330	28.9	617S.C7.13
16	ICE-VSK-16-CURT-K-IVS	25000	ICE-CURT-K-16-GAKO	350	1590	47.7	617S.C7.16

ICE-VSK-CURT GAKO SL with ICE-IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT GAKO SL ratchet tensioner with captively attached shortening connector

*Tensioner can be slid along the chain leg



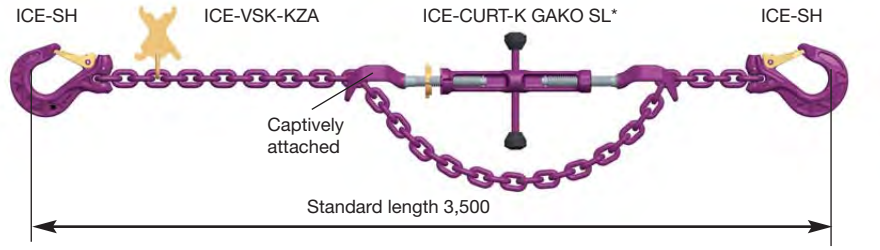
Authorised for tie-down and direct lashing!

Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Pretension force ST_F in daN	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-SL	3600	ICE-CURT-6-SL	1500	140	640	6.5	617S.C2.06
8	ICE-VSK-8-CURT-SL	6000	ICE-CURT-8-SL	2800	170	817	12.6	617S.C2.08
10	ICE-VSK-10-CURT-SL	10000	ICE-CURT-10-SL	2800	170	935	18.1	617S.C2.10

ICE-VSK-CURT-K GAKO SL with ICE-IVH

Suitable for shortening, both sides with ICE safety hook ICE-SH, ICE-CURT-K GAKO SL lever tensioner with captively attached shortening connector

*Tensioner can be slid along the chain leg



Only authorised for direct lashing!

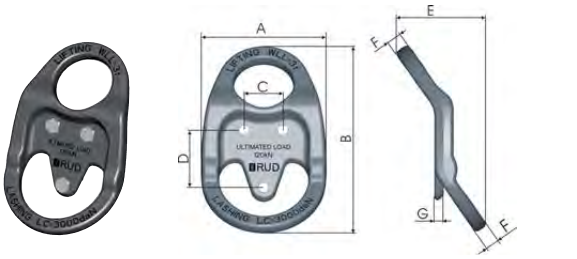
Ø chain in mm	Description	Lashing capacity LC in daN	Ratchet type	Stroke in mm	L_{min} in mm	Weight in kg/pce	Item no.
6	ICE-VSK-6-CURT-K-SL	3600	ICE-CURT-K-6-SL	140	640	6.8	617S.C4.06
8	ICE-VSK-8-CURT-K-SL	6000	ICE-CURT-K-8-SL	170	817	11.7	617S.C4.08
10	ICE-VSK-10-CURT-K-SL	10000	ICE-CURT-K-10-SL	170	935	17.3	617S.C4.10

LOAD RESTRAINT SYSTEMS

Weldable Lashing Points

SMILEY BI Combined Lifting- and Lashing Point

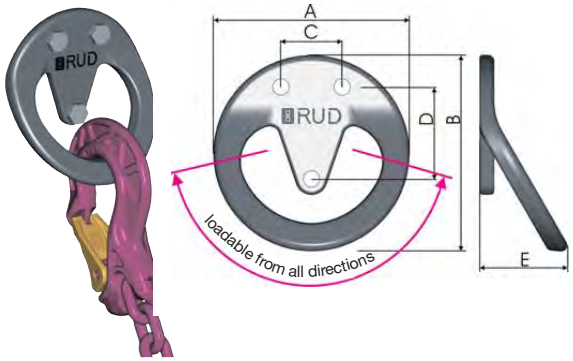
- Forged from one piece
- Silent – no rattling of the lugs
- Galvanised surface
- Body and bolts 100% crack-tested
- Easy fixing with only 3 screws M12 property class 10.9
- Load capacity indication for lifting WLL in ton
- Lashing capacity for lashing LC in daN
- Safety factor 4 for lifting and lashing



Lashing capacity LC in daN	Load capacity WLL in t	Description	Dimensions in mm A	B	C	D	E	F	G	3 x bolt	Weight in kg	Item no. with bolts
3000	3.0	SMILEY BI	163	244	50	75	116	19	12	M12x30 Fk. 10.9	3.7	5564.03.00

SMILEY - The RoRo Lashing Point

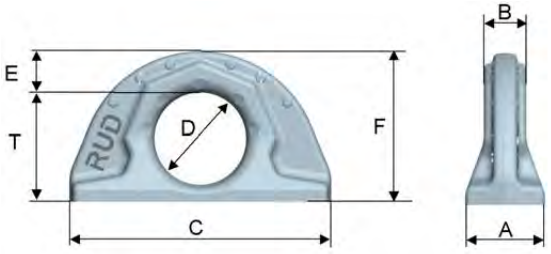
- Lashing and fastening point for road vehicles and sea transport on RoRo ships
- Forged from one piece – therefore silent
- 100% crack-tested
- Complies with DIN EN 29367-2 Tensile properties with a proof load of 120 kN and a breaking load of 200 kN
- Easy fixing with only 3 bolts M12 property class 10.9
- Galvanised surface
- Suitable for all common lashing means
- The point of load incidence to the frame has been chosen in a way that the direction of force lies in the centroid of the screw triangle. The advantage: Stress on the screws is minimised, a smaller screw size can be used



Lashing capacity LC in daN	Description	Dimensions in mm A	B	C	D	E	3 x bolt	Weight in kg	Item no. with bolts
6000	SMILEY	160	160	50	75	72	M12x50 Fk. 10.9	1.8	5564.06.00

Weld-on Lashing Point L-ABA, loadable from all directions

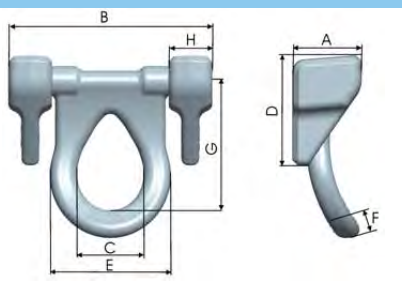
- Loadable from all directions
- Safety factor 2 against breaking
- Quenched and tempered body, enhanced wear resistance
- Patented wear marks in- and outside
- Circular fillet welding seam
- Surface phosphated
- With lashing capacity LC indication in daN



Lashing cap. LC in daN	Description	Dimensions in mm A	B	C	D	E	F	T	Fillet welding seam thickness in mm	Weight in kg	Item no.
3.200	L-ABA 3200 daN	30	16	100	35	16	57	41.5	4	0.44	5563.90.32
6.400	L-ABA 6400 daN	41	23	137	50	21	80	59	6	1.1	5563.90.64
10.000	L-ABA 10000 daN	51	27	172	60	27.5	99	71.5	7	2.3	5563.91.00
20.000	L-ABA 20000 daN	70	38	228	80	35	130	95	8	5.3	5563.92.00

Star Lashing Point SLP

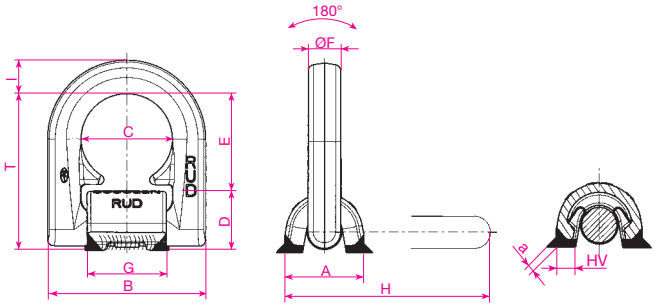
- Loadable from all directions
- Slewing range 225°, with integrated clamping spring
- Lashing also possible with protruding loads
- No subsurface corrosion of the weld-on blocks
- With lashing capacity LC indication in daN
- Patent pending



Lashing cap. LC in daN	Description	Dimensions in mm A	B	C	D	E	F	G	H	Weight in kg	Item no.
10.000	SLP 10000	63	185	60	100	110	25	115	14	3.75	5564.11.00

VIP Lashing Point Type LPW

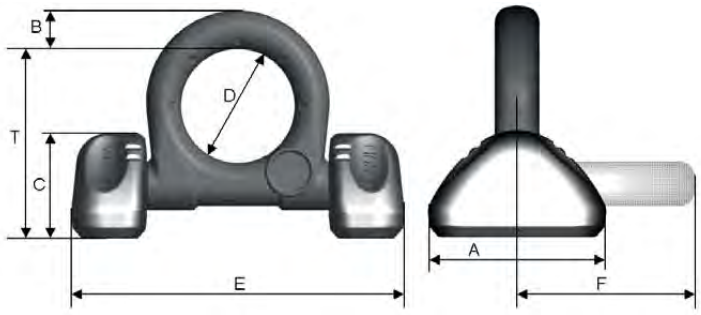
- Manufactured from VIP material, ...up to 50% higher lashing capacity than conventional design
- Sleek design, zinc-phosphated
- Weld-on block is marked with LC in daN
- Also available with spring for noise reduction
- Optimised 90° load support
- 2 patented lugs in the eye improve hook fit



Lashing capacity LC in daN	Description	Dimensions in mm A	B	C	D	E	G	I	F	T	Weld seam HV + Δa	Weight in kg/pce	Item no.
3000	LPW-U 3000	33	66	38	25	40	33	14	13.5	65	HV 5 + 3	0.35	5563.60.30
5000	LPW-U 5000	36	77	45	27	48	40	16	13.5	75	HV 7 + 3	0.5	5563.60.50
8000	LPW-U 8000	42	87	51	31	52	46	18	16.5	83	HV 8 + 3	0.8	5563.60.80
13400	LPW-U 13400	61	115	67	44	73	60	24	22.5	117	HV 12 + 4	1.9	5563.61.34
20000	LPW-U 20000	75	129	67	55	71	60	26.5	26.5	126	HV 16 + 4	2.9	5563.62.00

VIP Lashing Point Type LRBS-FIX

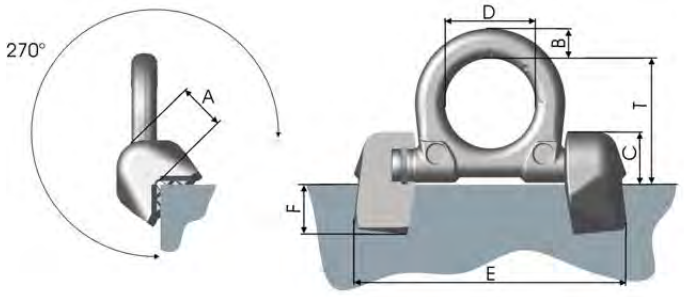
- **Circular HY welding seam**
- **No subsurface corrosion of the weld-on blocks**
- Weld-on blocks and ring bracket are connected by radial clamoing spring
  - – Easy adjustment of ring backet
  - – Ring bracket remains in position
  - – Easy painting in the gap
  - – No loose parts
  - – No rattling
  - – Secured welding process: dimension E is predetermined



Lashing capacity LC in daN	Description	Dimensions in mm A	B	C	D	E	F	T	Weld seam HY + Δa	Weight in kg/pce	Item no.
8000	LRBS-FIX 8000	60	14	39	48	132	69	74	HY 3	0.9	5563.30.80
13400	LRBS-FIX 13400	88	20	50	60	167	91	97	HY 5	2.2	5563.31.34
20000	LRBS-FIX 20000	100	22	60	65	191	100	108	HY 6	3.7	5563.32.00
32000	LRBS-FIX 32000	130	30	72	90	267	134	140	HY 9	8.0	5563.33.20

VIP Lashing Point LRBK-Fix

- Circular HY welding seam. No subsurface corrosion of the weld-on blocks
- Weld-on blocks and ring bracket are connected by radial clamoing spring
  - - Easy adjustment of ring backet
  - - Ring bracket remains in position
  - - No loose parts
- Positioned on the edge, it halves the number of lashing points required
- Loadable from all directions



Lashing capacity LC in daN	Description	Dimensions in mm A	B	C	D	E	F	T	Weld seam HY + Δa	Weight in kg/pce	Item no.
8000	LRBK-FIX 8000	32	14	28	48	141	29	65	HY 4	1.0	5563.K0.80
13400	LRBK-FIX 13400	40	20	35	60	181	33	84	HY 5	2.1	5563.K1.34
20000	LRBK-FIX 20000	52	22	46	65	212	46	94	HY 6	4.4	5563.K2.00

LOAD RESTRAINT SYSTEMS

Lashing Chains Grade 8

Ratchet tensioner

According to DIN EN 12195-3, grade 8.

- Shortening hook can be connected to any chain link
- Hook is welded to threaded eye by connecting link
- Corrosion resistant ratchet springs
- With end stop
- All load-bearing and structural parts are of forged steel
- Hooks are of tempered alloy steel and equipped with support bulges
- Safe and smooth-running ratchet
- **NEW: shorter ratchet lever**

Ratchet Tensioner with 2 Shortening Hooks

Suitable for chain size in mm	Lashing capacity LC in daN	Pretension force STF in daN	Lever length in mm	Adjust-ment range in mm	Item no.
8	4000	1000	237	145	5R25.60.08
10	6300	1575	237	145	5R25.60.10
13	10000	1500	355	145	5R25.60.13

For lashing only, must not be used for lifting!

Ratchet Tensioner with 2 Eyes

Suitable for chain size in mm	Lashing capacity LC in daN	Pretension force STF in daN	Lever length in mm	Lever length in mm	Item no.
8	4000	1000	237	145	5R10.L1.20
10	6300	1575	237	145	5R10.L1.30
13	10000	1500	355	145	5R10.L1.40

LOAD RESTRAINT SYSTEMS

Lashing Chains Grade 8

CondorLash Lashing Chain with Ratchet Tensioner

According to DIN EN 12195-3, grade 8

Both ends with safety hooks, one end can be shortened by shortening hook, tensioner with end stop, standard length 3,500 mm.

Other lengths are available at short notice.

Chain size in mm	Lashing capacity LC in daN	Pretension force STF in daN	Adjustment range in mm	Item no.
8 - 8	4000	1000	145	6132.00.08
10 - 8	6300	1575	145	6132.00.10
13 - 8	10000	1500	145	6132.00.13

For lashing only, must not be used for lifting!

Lashing chains must be inspected at regular intervals pursuant to VDI 2700-3.1. Arrange an appointment with our inspection service department.

CondorLash Lashing Chain consisting of Ratchet Tensioner and Chain Piece

According to DIN EN 12195-3, grade 8

Both ends with safety hooks, both ends can be shortened by shortening hook, continuous chain piece, tensioner with end stop, standard length 3500 mm.

Other lengths are available at short notice.

Chain size in mm	Lashing capacity LC in daN	Pretension force STF min in daN	Adjustment range in mm	Item no.
8	4000	1000	145	6133.00.08
10	6300	1575	145	6133.00.10
13	10000	1500	145	6133.00.13

CondorLash Single Chain Piece for Lashing Chain with Ratchet Tensioner

According to DIN EN 12195-3, grade 8

Both ends with safety hooks, standard length 3500 mm

Other lengths are available at short notice.

Chain size in mm	Lashing capacity LC in daN	Item no.
8	4000	610R.00.08
10	6300	610R.00.10
13	10000	610R.00.13

LOAD RESTRAINT SYSTEMS TRUCKS

Nets and tarpaulins as cargo lashing and load protection

Due to their flexibility, nets adapt to different load shapes and can compensate volume changes. Nets may be used to secure unsorted loads (e.g. waste paper). Nets keep the load from coming apart and thus protect from loss or partial loss.
Tarpaulins permeable to air protect the load from dust, dirt and sunlight.

Cover Nets for Flatbed Trucks

Cover nets made from high-strength polypropylene with integral fastening cable

Net size: 2.70 m x 2.50 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2544.06.30

Net size: 2.70 m x 3.10 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2544.07.30

Net size: 2.70 m x 3.50 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2544.08.30

Net size: 2.70 m x 4.10 m, includes rubber fastening cable

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2544.09.30

Cover nets in other sizes, colours and mesh widths are available.

Air permeable Tarpaulins for Flatbed Trucks

These tarpaulins are made from UV-resistant, air permeable knitted fabric with reinforced edges and metal eyes in a distance of 0.50 m.
All tarpaulins are fitetd with a 6 mm rubber fastening cable.

Tarp size: 2.70 m x 2.50 m, includes rubber fastening cable

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2589.86.60

Tarp size: 2.70 m x 3.10 m, includes rubber fastening cable

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2589.87.60

Tarp size: 2.70 m x 3.50 m, includes rubber fastening cable

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2589.88.60

Net size: 2.70 m x 4.10 m, includes rubber fastening cable

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2589.89.60

Tarpaulins in other sizes, colours and mesh widths are available.

LOAD RESTRAINT SYSTEMS
CONTAINERS

Container Cover Nets, Standard Width 3.50 m (w/o Rubber Fastening Cable)

Cover nets made from high-strength polypropylene for safe transport or covering of loaded containers or skip bins. All nets are fitted with a hemmed border line.

Option: Also available with bordering or fastening cable

Net size: 3.50 m x 5 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	grün	2525.01.30

Net size: 3.50 m x 6 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2525.02.30

Net size: 3.50 m x 7 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2525.03.30

Net size: 3.50 m x 8 m

Mesh width in mm	Rope ø in mm	Colour	Item no.
45	3.0	green	2525.04.30

Cover nets in other sizes, colours and mesh widths are available.

Air permeable Tarpaulins, Standard Width 3.50 m for Skip Bins and Containers

Specially suitable to keep sand, gravel and other small particles from flying away. These tarpaulins are made from UV-resistant, air permeable knitted fabric with reinforced edges and metal eyes in a distance of 0.50 m. The air permeable material avoids bloating of the tarp under the influence of strong winds or during transport.

Net size: 3.50 m x 5 m

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2550.51.00

Net size: 3.50 m x 6 m

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2550.52.00

Net size: 3.50 m x 7 m

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2550.53.00

Net size: 3.50 m x 8 m

Weight ca. g/m³	Material	Colour	Item no.
200	PE-tape yarn	dark green	2550.54.00

Tarpaulins in other sizes, colours and mesh widths are available.

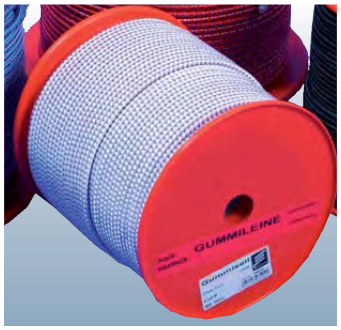
LOAD RESTRAINT SYSTEMS

Accessories

Lashing Cord

Ideal for container nets, canvas covers and tarps

- Rubber cord on spools, elongation approx. 110%
- Covering from 100% BIROLEN (PES), abrasion resistant, colour: white, identifier: red/blue
- Available on spools



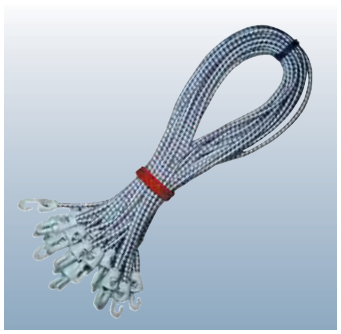
Rope ø in mm	Spool length in m	Item no.
4	200	2800.00.04
6	200	2800.00.06
8	150	2800.00.08
10	80	2800.00.10
12	100	2800.00.12

Caution! Removal in complete reels only

Rubber Cord with Hooks

For tensioning and easy fastening of nets and tarps

- Diameter 4 mm
- Latex core
- Elongation approx. 110% with plastic hook
- Minimum order quantity: 1 packing unit = 50 pcs
- Also available in black Please contact us for pricing



Length in cm	PU	Item no.
20	50	2810.0004.000200
30	50	2810.0004.000300
40	50	2810.0004.000400
50	50	2810.0004.000500
60	50	2810.0004.000600
70	50	2810.0004.000700
80	50	2810.0004.000800

Rubber Tensioning Ropes, fixed Length

Length in cm	Version	Diameter in mm	Item no.
80	adjustable	8	2812.00.08V
80	not adjustable	8	2812.00.08
2000	with hook + rope termination	10	2812.00.10

Rigging Ropes for Cover Nets and Tarps

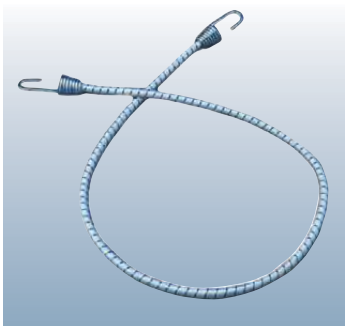
Length must be twice the circumference of the net!

Rigging ropes for cover nets and tarps can be found on page 297.
We recommend braided Polyamide ropes acc. to DIN EN ISO 1140 form A, type 1.

Rubber Tensioning Ropes

With stainless steel hooks, extra strong

- Fast tensioning with 8 mm rubber rope
- Elongation approx. 110%
- Braid from abrasion-resistant BIROLEN (Polyester)
- Completely assembled



Length in cm	PU	Item no.
50	10	2811.0008.000500
100	10	2811.0008.001000
200	10	2811.0008.002000
500	10	2811.0008.005000

Stainless Steel Wire Hook

For rubber ropes

- Stainless steel hook for assembly of your own rubber ropes
- Minimum order quantity: 1 packing unit = 100 pcs

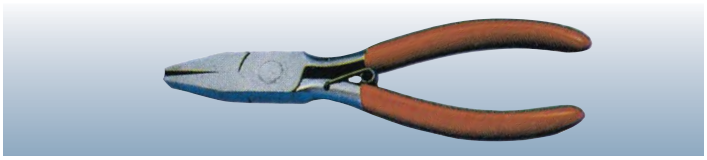
For rope ø in mm	PU	Item no.
6	100	2850.00.06
8	100	2850.00.08
10	100	2850.00.10

Stainless Steel Crimps

- For assembly of your own rubber ropes
- Minimum order quantity: 1 packing unit = 100 pcs

For rope ø in mm	PU	Item no.
4	100	2850.01.04
6	100	2850.01.06
8	100	2850.01.08
10	100	2850.01.10

Crimping Tool for Stainless Steel Crimps



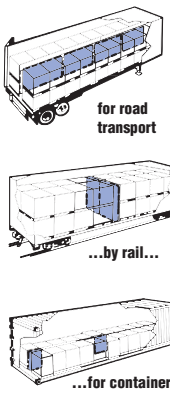
PU	Item no.
1	2850.01.01

LOAD RESTRAINT SYSTEMS

Load Restraint for Curtainsider

AIRflex inflatable Stowage Cushions

- Ideal load restraint for containers, on vessels, for rail and road transport
- Perfect stabilisation of the load by large-area contact and formlocking filling of stowage gaps - what cannot shift will not be damaged.
- High strength due to specially strong kraft paper
- Quick filling



Fill the gaps between pallets to avoid safety risks during transport!

TRUXAFE System for Curtainsiders

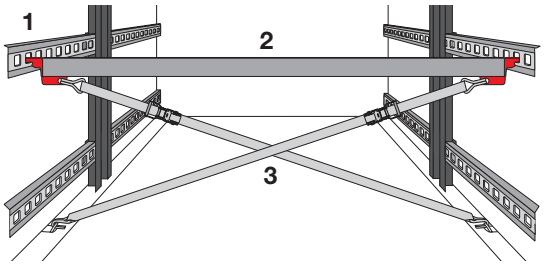
Please contact us! We solve your load restraint problems!

Curtainsiders (also called Tautliners) have one main problem: The insufficient stability of their side walls to secure heavy or high loads by formlock. TRUXAFE is the ideal solution:

- **Certified by German DEKRA**
- **Safety for man and material**
- **In compliance with the regulations**

The TRUXAFE system consists of 3 different components which build on each other:

1. Reinforced side slat with perforation
2. Shoring beam with hooked ends
3. Diagonal straps



Truxafe Side Slat

- With its adjustable ends the side slat can be adapted to the required length. This aluminium slat (weight 11.7 kg) stabilizes the side walls.
- 400 daN point load
- 800 daN distributed load

Truxafe Shoring Beam

- The shoring beam (weight 12 kg) provides additional hold
- Standard version 2,500 daN distributed load
- Narrow version 1,000 daN distributed load at a height of 175 mm
- Can be inserted in the anchoring holes of the side slats

Truxafe Diagonal Straps

- This diagonal strapping deflects the lateral forces to the platform floor and relieves the stanchions and side slats.
- On the top they are inserted in the standard lashing eyes of the shoring beam, on the bottom in the lashing points of the platform.

Truxafe Pro Ratchet Strap

- Increases the stanchion stability by embracing 2 opposing stanchions and tying them together

LOAD RESTRAINT SYSTEMS

PaXafe Modular Net System

PaXafe Net Kit DIN EN 12195-2, VDI 2700 Bl. 3.3

German BG*-tested load restraint nets for trucks

PaXafe truck nets are versatile load restraint systems, that can be used for both loose and palltetized loads.

These nets are also available separately without shoring beam and quick fastener. Please contact us for details!

- Material: sewn belt strap, width 50 mm
- Mesh width: 250 mm
- Colour: orange
- Operating temperature range: from -40°C (-40°F) to +100°C (+212°F)
- BG-approved as load restraint net and labelled accordingly
- DIN EN 12195-2, VDI 2700 Bl. 3.3

Type	Set contents	Mesh	Outer size in mm	Fastening points	Total LC in daN	Max. LC per fastening point in daN	Item no.
LKW1 Basic Set	Basic net LKW1 including 6 ratchet straps 2.0 m and shoring beam 2.3 m	8 x 9	2450 x 2750	20 triangles	3000	1600	2540.00.10
LKW E1.1* Extension Set	Extension net LKW E1.1 including 2 ratchet straps 2.0 m	4 x 9	1250 x 2750	12 triangles, 6 snap hook	3000	1600	2540.00.11
LKW E1.2* Extension Set	Extension net LKW E1.2 including 4 ratchet straps 2.0 m	8 x 9	2450 x 2750	20 triangles, 6 snap hook	3000	1600	2540.00.12
LKW2 Basic Set	Basic net LKW2 including 8 ratchet straps 2.0 m and shoring beam 2.3 m	10 x 10	3050 x 3050	44 triangles	3000	1600	2540.00.20
LKW E2.1 Extension Set	Extension net LKW E2.1 including 2 ratchet straps 2.0 m	4 x 10	1250 x 3050	18 triangles, 6 snap hook	3000	1600	2540.00.21
LKW E2.2 Extension Set	Extension net LKW E2.2 including 4 ratchet straps 2.0 m	8 x 10	2450 x 3050	30 triangles, 6 snap hook	3000	1600	2540.00.22
LKW3 Basic Set	Basic net LKW3 including 6 ratchet straps 2.0 m, with triangles all around	8 x 9	2450 x 2750	28 triangles	3000	1600	2540.00.30

*Extension-Set can also be combined with Basic Set LKW3

LOAD RESTRAINT SYSTEMS

PaXafe Modular Net System

Separate Shoring Beam

- Material: galvanised steel
- Both ends with eye nut M16

Length in mm	Dims in mm	Fastening	Item no.
2300	2300 x 45	2 eye nuts	2540.01.00

Length 2,300 mm

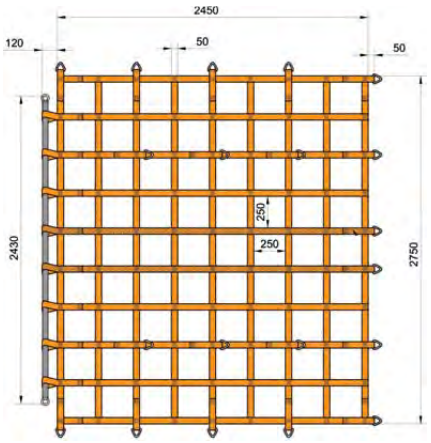
Separate Ratchet Strap

- One end snap hook
- Other end double J hook
- Width 50 mm

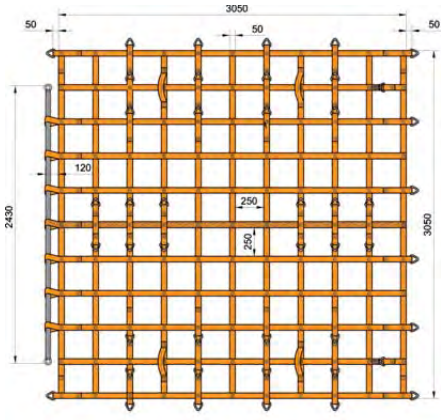
Length in mm	FE in mm	LC in daN	Item no.
2000	320	2000	4ZG40SPK.002000

Selection of net type

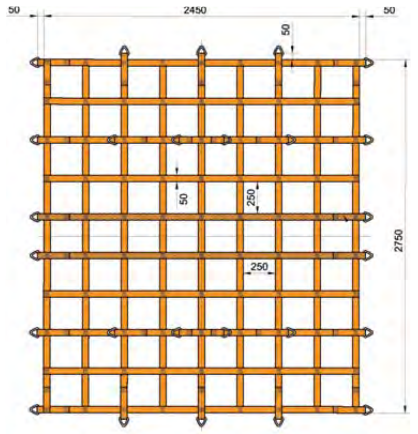
Basic net



LKW1

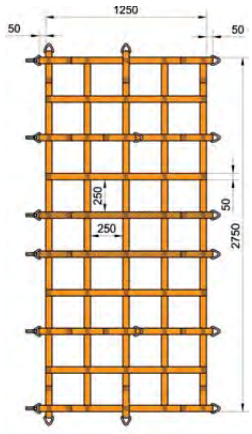


LKW2

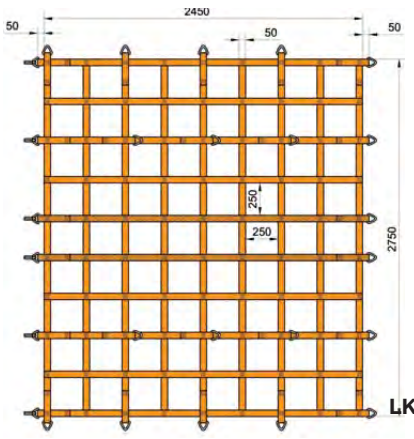


LKW3

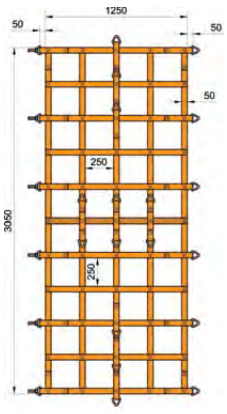
Extension net



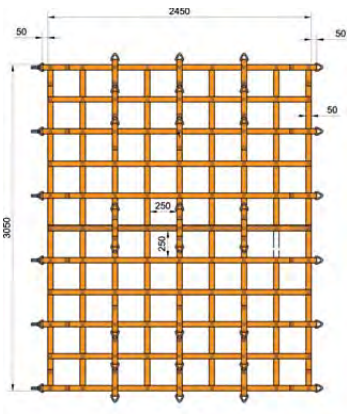
LKW E1.1



LKW E1.2



LKW E2.1



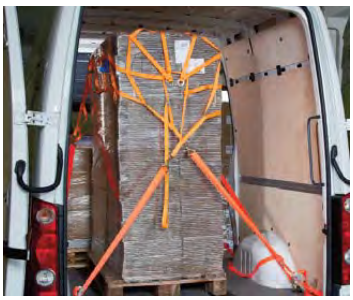
LKW E2.2

Other cargo nets for cars and flatbed trucks can be found on our website: www.carlstahl-hebetechnik.de

LOAD RESTRAINT SYSTEMS

PaXafe Modular Net System

PaXafe Netz Net Kit DIN EN 12195-2, VDI 2700 Bl. 3.3



German BG-tested load restraint nets for CEP (Courier, Express und Parcel) and flat bed trucks

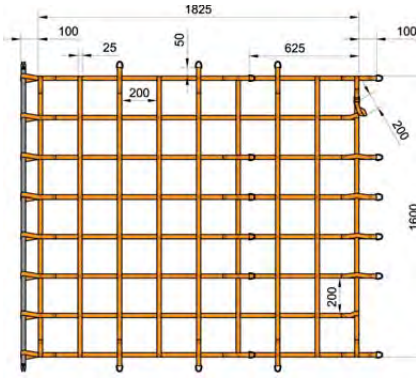
Loads for CEP vehicles are always different and never predictible regarding size and volume. Therefore load restraint systems have to be very flexible, so they can be used with small parcels as well as with bulky pallets or other packaged goods.

- Material: sewn belt strap, width 25 mm
- Mesh width: 200 mm
- Colour: orange
- Operating temperature range: from -40°C (-40°F) to +100°C (+212°F)
- BG-approved as load restraint net and labelled accordingly
- DIN EN 12195-2, VDI 2700 Bl. 3.3

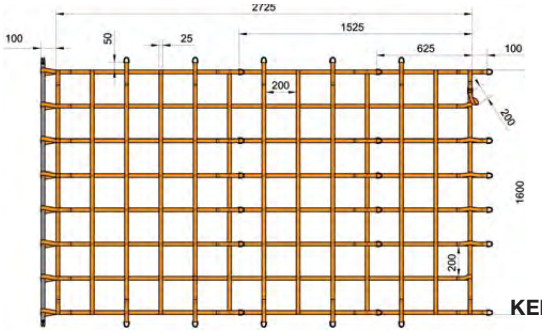
These nets are also available separately without shoring beam and quick fastener. Please contact us for details!

Selection of net type

Basic net

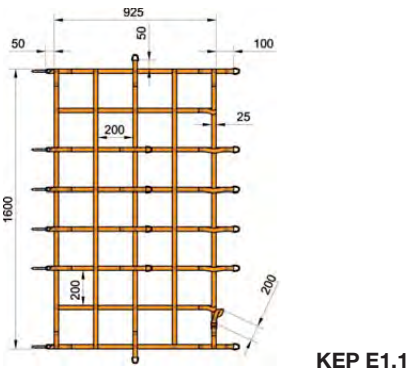


KEP1

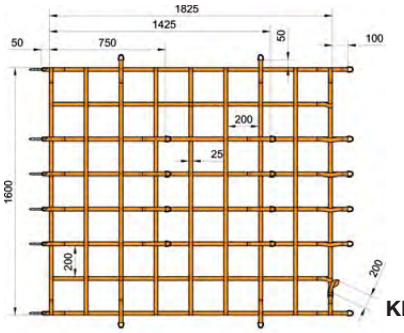


KEP2

Extension net

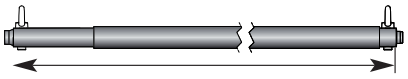


KEP E1.1



KEP E2.1

Telescoping shoring beam



Length adjustbale from 1,500 to 1,800 mm
Serves as additional bulk head

Type	Set contents	Meshs	Outer size in mm	Fastening points	Total LC in daN	Max. LC per fastening point in daN	Item no.
KEP1 Basic Set	Basic net KEP1 including 4 quick fasteners with buckle, telescoping shoring beam and 2 adapter straps**	8 x 7	1825 x 1600	18 triangles	800	400	2540.10.10
KEP2 Basic Set	Basic net KEP2 including 4 quick fasteners with buckle, telescoping shoring beam und 2 adapter straps**	12 x 7	2725 x 1600	28 triangles	800	400	2540.10.20
KEP E1.1* Extens. Set	Extension net KEP E1.1 including 2 quick fasteners with buckle	4 x 7	925 x 1600	12 triangles, 6 snap hook	800	400	2540.10.11
KEP E2.1* Extens. Set	Extension net KEP E2.1 including 2 quick fasteners with buckle	8 x 7	1825 x 1600	18 triangles, 6 snap hook	800	400	2540.10.21

*Extension Set can be combined with both Basic Sets. **Adapter strap for telescoping beam, both ends with snap hooks

Separate Telescoping Shoring Beam

Length in mm	Item no.
1500 - 1800	2540.11.00

Separate Adapter Strap for Shoring Beam

Both ends with snap hook

Length in mm	Item no.
140	2540.11.10

Separate Quick Fastener with Buckles

- One end with snap hook
- Other end with double J hook
- Width 35 mm

Length in mm	LC in daN	Item no.
2000	750	41490215.002000

LOAD RESTRAINT SYSTEMS

PaXafe Modular Net System

LOAD RESTRAINT SYSTEMS

Anti-Slip Mats

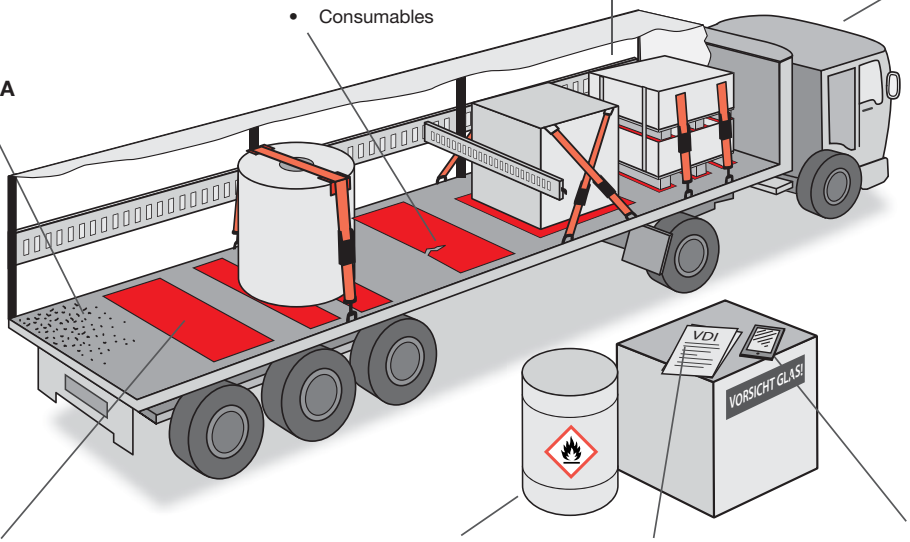
Anti-Slip Mat acc. to VDI 2700 ff

Anti-slip-mats – for added safety

When loads start to slide

- Sliding loads are hard to stop, uncontrollable and can lead to far-reaching consequences during transportation on roads
- The anti-slip mats vastly reduce this hazard source – with very little effort on your part.

Observe the service life, area of use and manufacturer details about the anti-slip mats.



PROCEDURE
- Tie-down lashing
- Diagonal/angled lashing

SPECIAL FEATURES
- Discard stage
- Weather, climate
- Consumables

VEHICLE
- Select the right vehicle

LOADING AREA
- Material
- Swept clean
- Condition and properties
- Consumables, dirt

ANTI-SLIP MAT
- Determine the coefficients of friction
  Reusable:
  Solid rubber and granulate mats

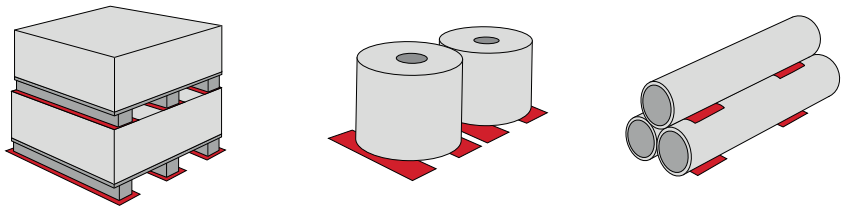
LOAD
- Material
- Weight, footprint and surface pressure
- Geometry

LITERATURE
- Operating instructions
- VDI guidelines
- Certificates

CALCULATION
- Use tools for calculating the load restraint

Only as many as necessary

The anti-slip mat is particularly efficient as it only needs to be placed under the areas where the contact between the freight and loading area is interrupted. Two narrow strips suffice for pallets and one mat suffices for a motor block under the part that touches the loading area. Small cuts are therefore sometimes all that are needed to prevent the entire load from slipping. The anti-slip mats are therefore not only available in standard sizes but also as custom-sized cuts on request.



Dynamic friction coefficients with different material pairs

Dynamic friction coefficients μ pursuant to VDI 2700-2			
Material pair	Dry	Wet	Greasy
Wood/wood	0.20-0.50	0.20-0.25	0.05-0.15
Metal/wood	0.20-0.50	0.20-0.25	0.02-0.10
Metal/metal	0.10-0.25	0.10-0.20	0.01-0.10

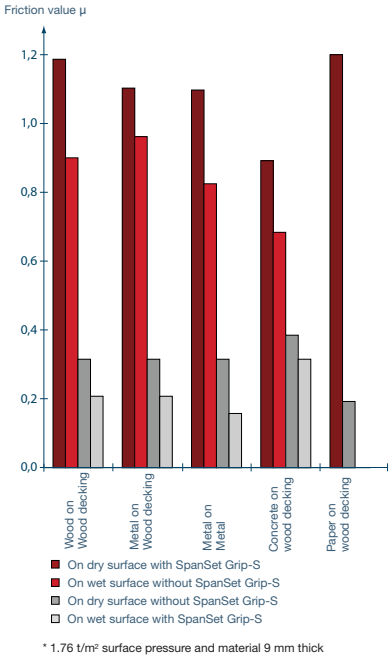
LOAD RESTRAINT SYSTEMS

Anti-Slip Mats

Grip-S Anti-Slip Mat, Solid Rubber, the Reusable Anti-Slip Mat

- Optimum supplement for tie-down lashing
- Reusable many times
- High resistance against consumables
- Complies with VDI guideline 2700 parts 14+15
- Robust, highly durable solid rubber mat
- Friction coefficients tested and certified by TÜV Rheinland
- 9 mm material thickness, for area pressures of several 100 t during heavy duty transport

Certified friction coefficients



* 1.76 t/m² surface pressure and material 9 mm thick

Custom formats on request

Note:
Particle boards are multi-layered wooden boards for constructing the loading area on the lorry.

Type	Dimensions in mm	Thickness in mm	Weight in kg	Item no.
GRIP-S	200 x 200	2.0	0.1	4825020020
GRIP-S	5.000 x 266	2.0	3.0	4825020500
GRIP-S	20.000 x 150	2.0	6.7	4825022000
GRIP-S	200 x 200	9.0	0.4	4825090020
GRIP-S	5.000 x 266	9.0	13.7	4825090500

Grip-G Anti-Slip Mat, Granulate

The popular anti-slip mat made from rubber granulates is produced in consistently high quality, complies with VDI 2700 et seq. and is suitable for universal use. Friction coefficients of 0.6 and more are achieved and documented by test certificates for the common material pairs.

During manufacture, pressure is used to adhere and process rubber granules of a specified quality and size to form anti-slip mats.

- Complies with VDI 2700 et seq.
- Friction coefficients of 0.6 for the common material pairscc
- Custom formats possible

See the table for standard cuts and roll goods

Custom formats on request

Type	Dimensions in mm	Thickness in mm	Weight in kg	Item no.
GRIP-G	20.000 x 150	3.0	7.7	48250320
GRIP-G	200 x 200	8.0	0.3	48250802
GRIP-G	5.000 x 250	8.0	8.2	48250850

Anti-Slip Mats

secugrip 95 Anti-Slip Mat

NEW!

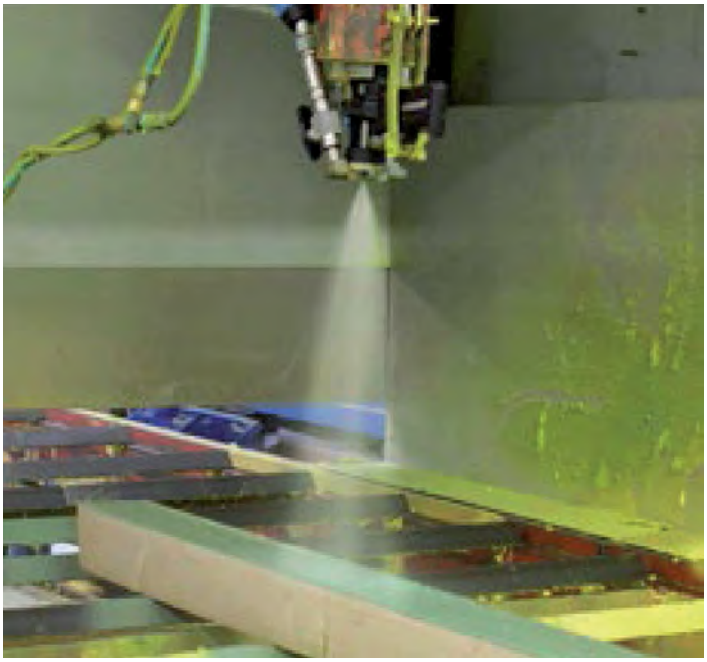
secugrip 95 – spray coating

Load carriers, beams and pallets can all be permanently anti-slip coated with the new spray coating secugrip 95. The coloured coating is applied with a thickness of approx. 2 mm. secugrip 95 achieves a friction coefficient of 0.6 µ with common material pairs and is highly robust and durable. If necessary, the coating thickness can be increased by respraying. To provide a specific quotation, we need to know your load carrier's size, condition and material.

Simply contact us – we are happy to help!

- secugrip is acid-, alkali- and UV-resistant
- Reusable
- DEKRA certified

Please contact us for pricing!



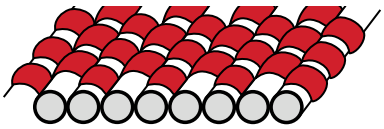
LOAD RESTRAINT SYSTEMS

Disposable Lashings

EasyLashtex – woven strap

The woven straps are suitable for even the more sensitive of surfaces. Whereas steel straps often dirty the surface of loads with flecks of rust, textile straps do not corrode. This makes it possible to minimise transport damage costs. Thermal setting ensures low elongation of below 7%.

- Ideal for transporting goods by container, train or ship
- Protects sensitive goods
- Weather resistant and non-corrosive
- System strengths of up to 7,500 daN
- High strength yet low tare weight
- Easy to handle



Cross-section through a strap: thermal setting minimises the material elongation to below 7%.

EasyLashtex Buckle types

B8 | 1422 | 80005 | BF10

80009 | 01436 | 01950 | 80010

01421 | BC10

EasyLashtex Selection matrix

Strap strength in daN	Buckle types									
	B8	1422	80005	BF10	80009	01436	01950	80010	01421	BC10
1200	x	x	x							
3000				x	x					
5000						x				
1900							x	x		
4800								x	x	
6000										x

EasyLashtex Strap

Width in mm	Strap strength in daN	For max. strap width in mm	Weight per PU in kg
25	1200	400	10.5
35	3000	300	21.5
40	5000	200	20.2
49	1900	300	12
49	4800	200	18.9
49	6000	200	23.4

EasyLashtex Tensioner

Type	For max. strap width in mm	Dimension in mm	Integrated cutting device	Weight in kg/pce
Tensioner 25	25	320 x 185 x 105	yes	1.5
Tensioner 40	40	330 x 180 x 95	yes	2.5
Tensioner 50	50	320 x 185 x 105	yes	2.6

EasyLashtex Buckles

Type	Finish	Number per PU in pcs	Weight per PU in kg
B8	Galvanised	250	9.0
1422	Powder-coated	200	6.0
80005	Chromated	300	16.2
BF10	Phosphated	125	11.2
80009	Chromated	200	18.8
01436	Chromated	40	11.2
01950	Powder-coated	50	11.2
80010	Chromated	125	22.5
01421	Chromated	100	23.0
BC10	Chromated	50	19.5

Tensioner

Please contact us for pricing!

LOAD RESTRAINT SYSTEMS

Anti-Slip Mats

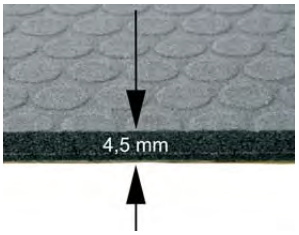
"BLACK-CAT"-Panther Safety Anti-slip Mat

Strong ... Safe .... Indestructible ... The No.1 on the market!

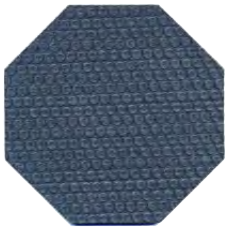
For univeral use in industry, transport, logistics, and production.

Tested and certified for load restraint up to 82.5 t/m². Friction values of B 0.94 at 10 t/m2 and B 1.49 at 0.5 t/m² (depending on material and surface pressure)! Exceeds all requirements!

- Extremely strong and tearproof. Very flexible, tightly rollable and therefore easy to stow
- Material thickness only 4.5 mm, dimensionally stable, easy to cut, double-sided
- Outdoor use possible, temperature range -40°C (-40°F) to +120°C (+248°F)
- Complies with police marking requirements for certified anti-slip mats
- Closed surface, no fluid absorption and no frost heave, great cost saving due to year-round use
- Suitable for forklift and pallet truck traffic, safe and skidproof stand, easy to clean
- Extremely sturdy textile inlay with hard-wearing special coating
- Resistant against most acids, leaches, gasoline and diesel
- Tested and certified by FLog, Dortmund University, Logistics Faculty
- Endurance test proves constant friction value. Even after 100 test serials no noteworthy wear (as per to FLog test report).



With nub structure, thickness only 4.5 mm



„Black-Cat"-Panther octagon load restraint pad 15x15 cm

The many uses of "BLACK-CAT"-Panther (BCP):

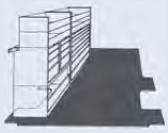
For load restraint in transport, logistics and industry
Versatile use for all load restraint measures for vans, trucks, rail, ship or air transport. Today many logistic service providers rely on the durability and longevity of "Black-Cat"-Panther anti-slip mats.

As pallet overlay for shippers, logistics companies and courier services
"BLACK-CAT"-Panther as strips, pads or complete overlays for pallets avoid shifting of loads. They are the perfect load restraint according to German High-way Code § 22 StVO and VDI 2700 and following dated 5/2009. "BLACK-CAT"-Panther is available as BCP octagon pad (15x15 cm) as pallet underlay or perfect intermediate layer between pallet and load.

As floor cover in industry, trade and production
Make work more productive by using this safe and healthy stand underlay. Long standing at workbenches, assembly lines or in laboratories puts a high strain on muscles and joints. Due to its elasticity "BLACK-CAT"-Panther as floor cover protects the joints and ensures a safe stand.

As trunk insert BCP "MegaMate XL" (1.20 x 0.80 m), "CombiMate" (0.60 x 0.80 m) or "CompactMate" (0.50 x 0.70 m) for all cars, station wagons, vans, and trailers
"BLACK-CAT"-Panther is the new all-rounder for versatile use in your trunk. For easy securing of parcels, crates or cages in all vehicles.

„BLACK-CAT"-Panther ...



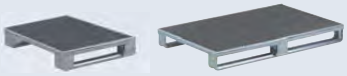
... as floor cover

... for workshop carts

... on inclinded shelves

... on all workbenches

... for load securing

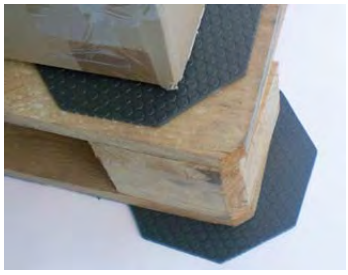


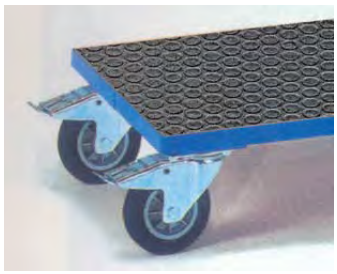
... on and under pallets

LOAD RESTRAINT SYSTEMS

Anti-Slip Mats

Versatile use in industry, transport, logistics, and production





Standard mats Black-Cat-Panther

Description	Applications	Width x Length in m	Weight ca. kg/pce	PU	Item no.
BCP 8-kant-LaSi-Pad	Load restraint - 6 or 9 pads as pallet over- or underlay	0.15 x 0.15	0.037	100	48BC.P1.515
BCP 4-kant-LaSi-Pad	Load restraint - as underlay for pallet skids	0.20 x 0.20	0.08	100	48BC.P0.202
BCP Multipad	Load restraint - as underlay for packages	0.20 x 0.24	0.01	100	48BC.P0.2024
BCP 0.12 x 1.25 m	Load restraint - two mats as pallet underlay	0.12 x 1.25	0.30	1	48BC.P0.12125
BCP CompactMate	Trunk insert for all cars, station wagons, vans, and trailers	0.50 x 0.70	0.70	1 roll	48BC.P0.507
BCP CombiMate	Trunk insert for all cars, station wagons, vans, and trailers	0.60 x 0.80	1.00	1 roll	48BC.P0.608
BCP MegaMate XL	Trunk insert for all station wagons, vans, and trailers	1.20 x 0.80	1.65	1 roll	48BC.P0.812

Standard sizes for different applications

Description	Applications	Width x Length in m	Weight ca. kg/pce	PU	Item no.
BCP 0.12 x 4 m	Load restraint for load areas up to 4 m	0.12 x 4	1.00	1	48BC.P0.124
BCP 0.15 x 4 m	Load restraint for load areas up to 4 m	0.15 x 4	1.25	1	48BC.P0.154
BCP 0.20 x 4 m	Load restraint for load areas up to 4 m	0.20 x 4	1.65	1	48BC.P0.204
BCP 0.30 x 4 m	Universal use / Load restraint	0.30 x 4	2.45	1	48BC.P0.304
BCP 0.60 x 4 m	Universal use / Load restraint	0.60 x 4	4.90	1	48BC.P0.604
BCP 0.80 x 4 m	Universal use / Load restraint	0.80 x 4	6.40	1	48BC.P0.804
BCP 1.00 x 4 m	Universal use / Floor cover / Load restraint	1.00 x 4	8.20	1	48BC.P1.004
BCP 1.20 x 4 m	Universal use / Floor cover / Load restraint	1.20 x 4	9.80	1	48BC.P1.204
BCP 1.60 x 4 m	Universal use / Floor cover / Load restraint	1.60 x 4	12.80	1	48BC.P1.604
BCP 0.20 x 8 m	Load restraint systems for loading areas of up to 8 m	0.20 x 8	3.30	1	48BC.P0.208
BCP 1.00 x 8 m	Floor cover /Load restraint systems for loading areas of up to 8 m	1.00 x 8	16.40	1	48BC.P1.008
BCP 1.20 x 8 m	Floor cover	1.20 x 8	19.70	1	48BC.P1.208
BCP 1.60 x 8 m	Floor cover	1.60 x 8	25.80	1	48BC.P1.608
BCP 0.12 x 2.45 m	Load restraint for trucks - crosswise	0.12 x 2.45	0.60	1	48BC.P0.12245
BCP 0.12 x 13.8 m	Load restraint for curtainsiders - lengthwise	0.12 x 13.8	3.40	1 roll	48BC.P0.12134

Any special sizes width from 0.02 m to 1.60 m and up to 60 m length are possible! Individual sizes available on request.

LOAD RESTRAINT SYSTEMS

Anti-Slip Mats

"BLACK-CAT" Safety Anti-Slip Mat (BC)

One product for thousands of applications!

Flexible, highly tear-resistant and long-lasting ... for small trade, industry, office, and home.

The highly tear-resistant anti-slip mat with open lattice structure – only 3.8 mm thick. Versatile – holds everything safely in place – even on inclined surfaces up to 60°!

- Once placed the mat will firmly adhere to the surface. Usable everywhere where nothing must shift – on almost any material without sticking!
- Hand and machine washable up to 60°C (140°F) with any mild detergent. Can be cut to size
- Tested and certified by FLog, Dortmund University, Logistics Faculty
- Free from toxic substances, harmless under food law, manufactured according to EC standards
- Temperature range approx. -40°C (-40°F) to +120°C (+248°F), flame resistant
- Good resistance against acids and leaches, oil, petrol and diesel
- High friction value of B 0.70 to 1.23
- Only mat of its kind certified for load restraint
- Highest quality for long-trem use – made in Germany

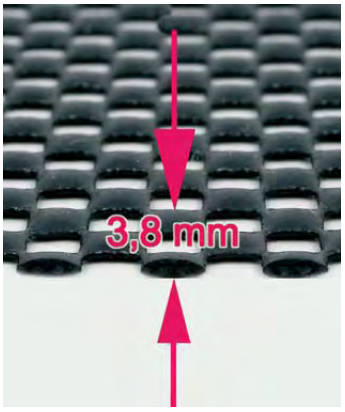
Tested and certified by

FLog

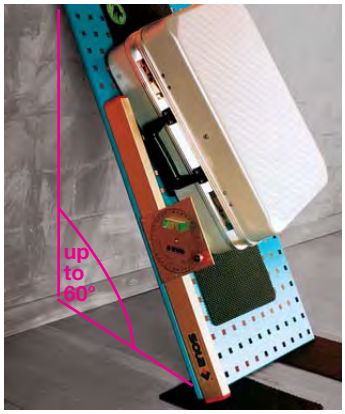
DORTMUND UNIVERSITY LOGISTICS FACULTY

MADE IN GERMANY

"BLACK-CAT" – the only foam plastic mat with lattice structure certified for load restraint



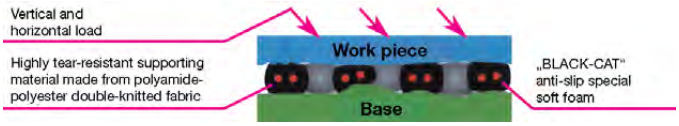
Open lattice structure, thickness only 3.8 mm



Up to 60° inclination!

How "BLACK-CAT" works

"BLACK-CAT" holds tight thanks to its adhesive power, even on rough surfaces. The "BLACK-CAT" special soft foam adapts to surface irregularities and is held in place by the double-reinforced tear-resistant support material.



The many applications of original "BLACK CAT" (BC):

Commerce, industry and transport:
E.g. for allocation and transport of sensitive parts: Considerable simplification of production and picking in workshops, industry and commerce.
E.g. for reliable tidiness und safe storage in drawers, workshop carts and inclined surfaces.
E.g. for fixing of items for automatic or semi-automatic workpiece handling: On conveyor belts, turntables and feeders metal parts, glass, die cast components and galvanised parts can be fixed, transported, picked up and returned again – without any gripping, plugging, magnetic or positioning devices.

Car, home and hobby:
E.g. for anti-slip transport of sensitive parts: Holds mirrors, equipment of all kind, tool boxes and bags at their place.
E.g. for inclinded surfaces in office, home and hospitals.

Small trade:
E.g. safe grip and transport of any item on clean surface: Original "Black Cat" anti-slip mats ensure hassle-free work in many fields without use of holding tongs, grippers or clamps. (Planing, sanding, sawing, drilling etc.).

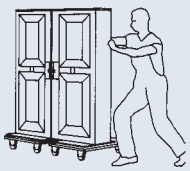
Original „BLACK-CAT" ...

... for workshop carts

... for transport boxes and inserts

... for drawers

... in shelves



... for removals approved for load restraint

... as anti-slip pad

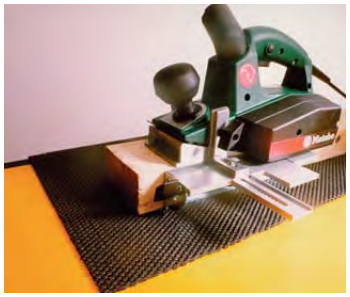
... for sawing and planning

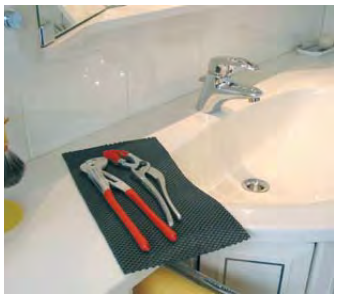
... as car trunk mat approved for load restraint

LOAD RESTRAINT SYSTEMS

Anti-Slip Mats

One product for thousands of applications





Standard sizes for different applications Black-Cat

Description	Applications	Size in mm	Item no.
Piccolo octagon	Dashboard pad and intermediate layer load restraint	150 x 150	48BC.15.15
HandyMate	Dashboard pad and intermediate layer load restraint	200 x 240	48BC.00.25
Uni-CarMate	Small car trunk mat with certification	450 x 600	48BC.45.60
Work mat	For manual work – grinding, planning, sawing	600 x 1200	48BC.61.20
Car mat	Big car trunk mat with certification	800 x 1200	48BC.91.20
Mini tool mat	For industry and small trade for lockers, carts and tables	300 x 1800	48BC.31.50
Midi tool mat	Drawer inserts, workshop carts and shelves	450 x 1800	48BC.42.00
Maxi tool mat	As inserts for paternoster lifts or rotating racks	600 x 2400	48BC.62.40

Rolls

Description	Roll width in mm	Item no.
Rolls of 10 m length	200	48BC.10.20
Can be cut to any desired size with scissors or a utility knife.	250	48BC.10.25
	300	48BC.10.30
	350	48BC.10.35
	430	48BC.10.43
	450	48BC.10.45
	500	48BC.10.50
	600	48BC.10.60
	1000	48BC.11.00
	1200	48BC.11.20

Special sizes:
Any roll width from 0.20 m to 0.99 m is available in lengths of 10 m or 20 m from a minimum quantity of 10 pcs. **Bigger roll widths from 1.00 m to 2.40 m** in lengths of 10 m or 20 m only require a minimum quantity of 6 pcs. Special lengths from 2 to 9 m, as well as 25, 50 or 100 m are also possible! Please contact us for the respective minimum order quantities.

LOAD RESTRAINT SYSTEMS

Big Bags

CondorLift Flexible Intermediate Bulk Containers (FIBC's or Big Bags) for Transport and Storage

BIG-BAGS are the cost-saving alternative for transport of bulk goods

Our customers use **BIG-BAGS** successfully in the following areas:

- **Disposal** (asbestos-BB, plate bags 260 + 320 cm, mineral wool sacks 140 x 220 cm, mineral wool-BB)
- **Recycling** (e.g. for plastic, granules etc.)
- **Aggregates and Mining** (e.g. for gravel, sand or as stone-BB e.g. 90 x 90 x 90 cm or 90 x 90 x 120 cm, SWL 1,500 kg)
- **Chemicals** (e.g. UN-BB, type B + C, liner, dust-tight etc.)
- **Agricultural** (e.g. harvest-BB for grain or potatoes)
- **Wood products** (e.g. for pellets, fire wood etc.)

BIG-BAGS suit standard pallet sizes and can be picked up by forklifts or transported using special cross beams.

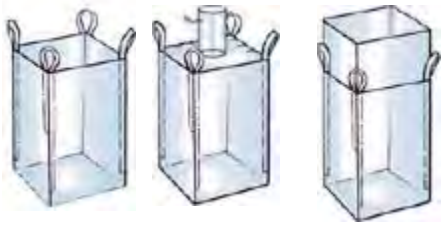
Carl Stahl **BIG-BAGS** are made from sturdy **UV-stabilized** PP-(polypropylene) woven tape fabric, not impregnated or impregnated against humidity absorption, with four strong lifting loops (loop length = 25-35 cm)

Load capacity (SWL): 1,000 kg / 1,250 kg / 1,500 kg / up to 2,000 kg (on request)
Safety factor (SF): 5:1 (single use), 6:1 (multiple use)
Manufactured according to DIN 55461

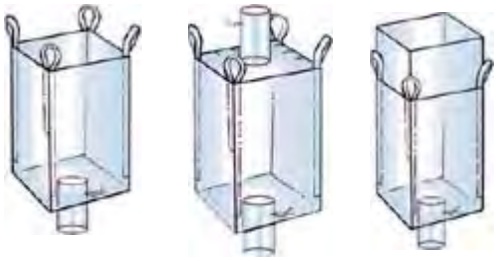
Lifting beams for Big-Bags can be found on page 134.

Other sizes and versions are available on request.
A suitable automatic safety load hook with digital remote control can be found on pages 252-253.

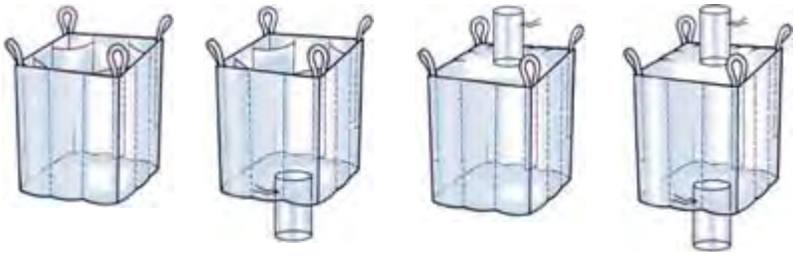
Big-Bag types (examples):



Fabric:
impregnated/not impregnated
Top:
open, filler pipe, duffle top
Bottom:
closed, discharge spout



Big-Bag plain bottom



Big-Bag dimensionally stable (schematic)

Big-Bag 1-loop or cross corner

LOAD RESTRAINT SYSTEMS

Big Bags

Application examples:

Example 1:
Asbestos Big-Bag 90 x 90 x 110 cm
Duffle top, closed bottom, impregnated, asbestos warning print, SWL 1,000 kg, SF 5:1
Item no. 2590.12.0A

Example 2:
Asbestos plate bag
Duffel top + cover, bottom closed, impregnated asbestos warning print
260 x 125 x 30 cm **Item no. 2591.26.12**
320 x 125 x 30 cm **Item no. 2591.32.12**

Example 3:
Mineral wool sack 140 x 220 cm
Impregnated, white, duffle top with lacing
Print “Mineral Fibre Waste! Contents Release Carcinogenic Fibre Dust“
Item no. 2591.14.22

Example 4:
Stone Big-Bag, 90 x 90 x 90 cm
SWL 1,500 kg, SF 5:1, not impregnated, 180 g/m^2, open top, closed bottom
Item no. 2590.09.0C

Example 5:
Container sack, 620 x 240 x 115 cm (17 m^3)
Duffle + cover, closed bottom, impregnated, asbestos print
Item no. 2590.62.24

CondorLift CPP Woven Fabric Bags

Our PP woven fabric bags can be used for:
- as sand bags for coast and building protection
- for transport of screws, nails, nuts
- for storage of plastic fittings for cardboard packing
- for transport and storage of bed springs
- for transport and storage of food

Application example as sandbag:
Sand bag 40 x 60 cm
- duffle top
- Colour: white
- with or without lacing
Item no. 2589.40.60

Other sizes and versions on request.

Stock sizes
- 50 x 80 cm
- 55 x 75 cm
- 60 x 105 cm
- 60 x 115 cm
- 65 x 115 cm
- 65 x 135 cm
- 70 x 110 cm
- 75 x 125 cm
- 90 x 130 cm
- 90 x 140 cm blue
- 120 x 180 cm blue
- 120 x 220 cm blue

With PE liner, with UN approval e.g.

- 55 x 95 cm (UN 5 H3)
- 50 x 85 cm (UN 5 H3)

available on request

LOAD RESTRAINT SYSTEMS

Disposable Lashings

Stahltex® System - The versatile Strapping and Tie-down System off the Reel

Soft: The flexible straps prevent load damage, fit all shapes and involve no risk of injury. They do not burst open and have no sharp edges.
Fast: The self-closing buckles allow fast and safe tightening according to the belt principle.
Advertising: Have your company name printed on the Stahltex® strap and it will advertise for you by its durability, strength and clean looks.
and ... Stahltex® can be retightened, leaves no rust stains, is absolutely weather-proof, resistant to chemicals, reusable and can be adapted to your individual requirements by our sales team.

Stahltex® System
Disposable polyester straps, elastic to impacts and jolts, weather-proof, for extreme loads of 610-2,000 kg (system strength), simple and safe buckle lock.

			Straps	Buckles*	Pallet needle	Dispenser	Tensioner	Complete system	
Width in mm	Breaking strength in kg	Roll length in m	Item no.	Item no.	Item no.	Item no.	Item no.	Content: 1 strap reel (see below), 1,000 buckles, 1 tensioner, pallet needle, dispenser	Item no.
13	610	1100	4013.05.04	4013.03.04	4015.04.00	4015.02.00	4015.01.00	1 roll 13 mm of 1,100 m	4013.00.04
16	790	850	4016.05.05	4016.03.05	4015.04.00	4015.02.00	4015.01.00	1 roll 16 mm of 850 m	4016.00.05
19	880	600	4019.05.06	4019.03.06	4015.04.00	4015.02.00	4015.01.00	1 roll 19 mm of 600 m	4019.00.06

* Package of 1,000 pcs, for strap width 19 mm: 500 pcs

Multitex - The Low Cost Alternative

The alternative for 95% of all possible applications.
Caution: Strap and dispenser of this alternative programme are not compatible with the Stahltex® system.

			Straps	Buckles*	Pallet needle	Dispenser	Tensioner	Complete system	
Width in mm	Breaking strength in kg	Roll length in m	Item no.	Item no.	Item no.	Item no.	Item no.	Content: 1 strap reel (see below), 1,000 buckles, 1 tensioner, pallet needle, dispenser	Item no.
13	400	1100	4013.F5.04	4013.F3.04	4015.04.00	4015.F2.00	4015.F1.00	1 roll 13 mm of 1,100 m	4013.F0.04
16	480	850	4016.F5.05	4016.F3.05	4015.04.00	4015.F2.00	4015.F1.00	1 roll 16 mm of 850 m	4016.F0.05
19	580	600	4019.F5.06	4019.F3.06	4015.04.00	4015.F2.00	4015.F1.00	1 roll 19 mm of 600 m	4019.F0.06

* 1 Package of 1,000 pcs

TRADING TERMS AND CONDITIONS

1. Scope:

All service agreements made with us are subject to our general terms of business as listed below. We do not recognize buyer's terms that contradict or differ from our conditions of sale insofar as we have not expressly agreed to the same. Our terms of business are also valid for all future transactions with the buyer.

2. Conclusion of a Contract:

Any orders that are placed with us or any changes or additions to the contract or supplementary agreements must be made in writing. Orders placed by phone or in another form are only considered to have been accepted following our confirmation, shipping or delivery of the goods and issuance of the invoice.

3. Prices / Packaging Costs:

Prices are valid as at the time the order was placed. Insofar as no agreement to the contrary is made in the order confirmation our prices are valid per delivered unit, net, ex works excluding packaging and including statutory value-added tax, which is stated separately in the invoice.

We will carry out shipping and packaging at our discretion. Any goods accepted by the shipper, carrier or recipient without dispute are considered to have been packaged correctly.

4. Conditions of Payment / Compensation:

4.1 Our invoices are payable within 30 days of invoice date insofar as no other agreement has been reached in the order confirmation. In the event of a delay in payment we are entitled to charge interest on arrears at a rate 8% p.a. above the basic interest rate in accordance with §1 of the bank rate law, whereby we reserve the right to also assert the right to damages for arrears at a higher rate.

4.2 The buyer may only offset charges against our claims for payment if his counterclaim is found to be legally binding, undisputed or expressly recognized by us.

5. Delivery and Delivery Delays:

5.1 The start date for a delivery deadline or delivery period that has been confirmed by us presumes the clarification of all technical and business-related questions.

5.2 Our delivery obligations exist on condition of complete and correct availability of supplies to us, except if we are responsible for the non-delivery or delay.

5.3 In the event of a delay in delivery the buyer is entitled to set a reasonable extension, which must be at least 2 weeks, in connection with the threat of refusal and may withdraw from the contract following expiry of this extended deadline. In the event of unforeseeable events that are beyond our control, such as strike, lockout, stoppage, delays in the supply or advance materials, we do not accept responsibility if we are in arrears, irrespective of whether these hindrances occur with us or with our suppliers.

5.4 Claims for compensation due to the violation of service obligations or non service-related auxiliary obligations can only be made if we are guilty of intent or gross negligence and this is proven. We do not rule out our liability for damages resulting from injury to life, limb or health as a proven consequence of negligent breach of duty on our part.

5.5 For specially manufactured goods delivery quantities can vary by up to 10% plus or minus. This discrepancy will be taken into account in the invoice.

5.6 For all delivered goods we reserve the right to allow industry-standard discrepancies in dimensions are other technical specifications except where we have expressed assured adherence to dimensions.

5.7 We are entitled to make deliveries in reasonable partial quantities.

5.8 In the event that the buyer delays his acceptance of the goods or if he violates other co-operation obligations we are entitled to claim for damage we have incurred, including any additional costs.

5.9 In the event that the buyer delays his acceptance of the goods the risk of chance destruction or chance deterioration of the ordered goods is transferred to the buyer as of the time the buyer delays the acceptance.

5.10 Responsibility for transportation: Once goods are transferred to the carrier transfer of risk is also determined by the statutory regulations.

6. Claims for Defects / Liability:

6.1 In the event that the newly manufactured goods delivered by us are defective then the buyer is entitled to demand subsequent fulfilment. We reserve the right to choose between repair of the defect and subsequent delivery of non-defective goods.

6.2 Further claims for withdrawal, reduction in costs or compensation are not possible except if the subsequent fulfilment is not successful. In this event the buyer can reduce the purchase price or, as long as the defect is not a construction service, withdraw from the contract if he so chooses. Claims for compensation based on accountable and provable intentional or grossly negligent breach of duty or claims for compensation that result from injury to life, limb or health are not excluded.

6.3 The buyer is not permitted to claim for withdrawal or compensation in the case of insignificant defects.

6.4 We are not liable to the buyer for properties that he expects in accordance with public statements by the seller or the manufacturer or their agents, particularly in advertisements, except if these statements explaining properties are expressly confirmed by us in writing.

6.5 We do not guarantee any property or durability where this is not expressly agreed in writing.

6.6 We do not accept liability for defective installation instructions from suppliers and other companies except if grossly negligent breach of duty is proven against us in this regard.

6.7 The statutory regulations are valid for required examination and notice. We expressly contradict the commercial requirement for examination and notice by the buyer in accordance with § 377 HGB. The buyer must subject the goods to a comprehensive check of incoming goods.

7. Period of Limitation:

7.1 Insofar as no individual period of limitation has been agreed between the contractual parties the guarantee period for claims regarding defects in newly manufactured goods will be two years. This is not valid for the period of limitation for compensations claims following injury to life, limb or health insofar as this damage is a result of accountable and provable grossly negligent or intentional breach of duty on our part. This period of limitation is also not valid for claims for reimbursement for other damage caused by accountable grossly negligent or intentional breach of duty on our part.

7.2 In the case of the sale of consumer goods the limitation period for claims regarding defects is two years for newly manufactured goods and one year for used good.

8. Sale of Consumer Goods:

The regulations in figure 6, above, are not valid when based on the sale of consumer goods. However claims for compensation are also not permissible in this case except if they are caused by intentional or grossly negligent breach of duty on our part or from injury to life, limb or health resulting from intentional or grossly negligent breach of duty.

9. Reservation of Proprietary Rights:

9.1 We reserve the proprietary rights to the delivered goods until all payments from the delivery contract are paid. In the event of behaviour by the buyer that contradicts the contract, particularly payment arrears, we are entitled to recover the delivered goods. This recuperation does not represent withdrawal from the contract insofar as we do not state this expressly in writing.

9.2 If we have a continuous business relationship with the buyer then the reservation of proprietary rights to the delivery goods also extends to delivery goods in all previously unpaid claims.

9.3 The buyer is entitled to dispose of and process the delivered goods within orderly business processes. He does, however, immediately transfer all claims he incurs resulting from the disposal to his customers or third parties to us up to the total of all unpaid claims. The buyer retains his authorization to collect the claim himself; this does not affect our authority to collect claims. We are, however, obliged not to report transfer in relation to customers or third parties as long as the buyer fulfils his payment obligations to us and no application has been made for the initiation of process of bankruptcy or settlement or payments are otherwise stopped. The buyer is obliged to provide us with all necessary information on the transferred claims on demand and to submit the corresponding documentation to us.

9.4 In the event that the buyer processes or converts the goods delivered by us then we have partial proprietary rights to the new object in proportion to the value of our goods in comparison to the value of the other processed objects at the time of processing. The above regulations apply to the new object created by this process in the same way.

9.5 The buyer will also transfer to us those claims on third parties in accordance with the above regulations that are created by the combination of our delivered goods with a piece of land.

9.6 Insofar as the value of all securities exceeds our claims by more than 20% because of the agreed reservation of proprietary rights, we are obliged to release securities to the excess value as we wish when requested by the buyer to do so.

10. Place of Fulfilment / Court of Jurisdiction / Choice of Law:

10.1 The place of fulfilment for all obligations resulting from the contractual relationship is Suessen and/or the location of an affiliated company or branch insofar as no other regulation is contained in the order confirmation.

10.2 If the buyer is a merchant in the German commercial register then we will agree Suessen and/or the location of an affiliated company or branch as the court of jurisdiction. We do, however, retain the right to taken the buyer to court at his general court of jurisdiction.

10.3 The law of the Federal Republic of Germany is valid for our contractual relationships under exclusion of the UN Convention on the International Sale of Goods.

11. Partial Invalidity:

If any contractual regulation is invalid this will not affect the validity of the remaining regulations.

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NOTES

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