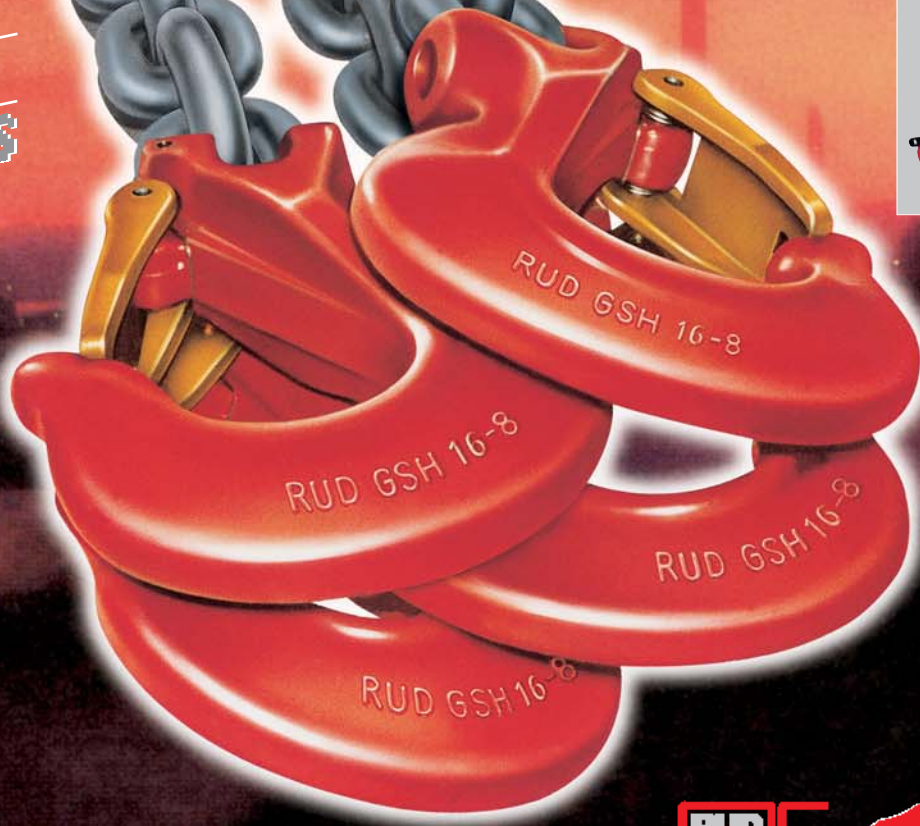


Chain Slings

– Grade 80 –

**INTER
LINE
SYSTEMS**





The passion of chain manufacturing!

The round steel chain link production in Unterkochen has been running for about 130 years. Producing chains for lifting, lashing, conveying, tire protection as well as snow and off-road chains.

Our headquarters and manufacturing plant is one of the most modern chain producing companies world wide.

Developed from a small chain forging company by the river Kocher, the RUD group has stood to the test of time to become a global player with approximately 800 motivated employees, subsidiaries and sales representatives around the world.

Almost 500 national and international protective clauses are the evidence for our progress.

The well established brand name RUD stands for quality, technical innovation and know how. Continuous research and development has enabled us not only to produce products meeting the highest expectations but also with consistent quality standards. Experience, diligence, ambition and passion are the virtues we manifest in order to remain favourite for our customers. With the above virtues in mind, RUD has successfully entered a new century with the trust and satisfaction of our customers as our prime objective for the future. What are tomorrow's concepts? This is one of the questions which RUD is trying to address while facing the challenge of consistently providing the best solutions to our customers.



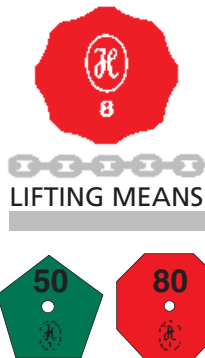
The quality assurance system, certified at RUD in December 1992 by the TÜV-South West, according to DIN/ISO 9001, was an important contribution in order to meet these requirements and extends once more the quality requirements with regard to the quality assurance system used by the company RUD during the past 10 years according to AQAP 4.



Tested by the BG (Employers' Liability Insurance Association) Iron and Metal Technical Committee Norddeutsche Eisen- und Stahl-Berufsgenossenschaft (North German Iron and Steel Employers' Liability Insurance Association)

Tested by the BG: BG vehicle keeping Hamburg

TÜV (Technical Monitoring Association) tested. TÜV Rheinland.



LIFTING MEANS

Innovation and quality take first priority at RUD. We are always leading in decisive developments.

Examples in the lifting and lashing chains field:

1967: 1. Approval of quality class 5, H1-5 by the Berufsgenossenschaft (*employers liability insurance association).

1972: First chain factory to gain approval for the quality class 8, H1-8 by the BG* Technical Committee "Steel and Metal".

The first idea of a **mecano system from RUD** – fool-proof connection of the correct chains and components, as well as suspension links. This idea became the standard at Ruhrkohle RAG (coal board mining).



1981: The first series of lifting points type RBS and RBG with a design factor 4:1 in any direction.

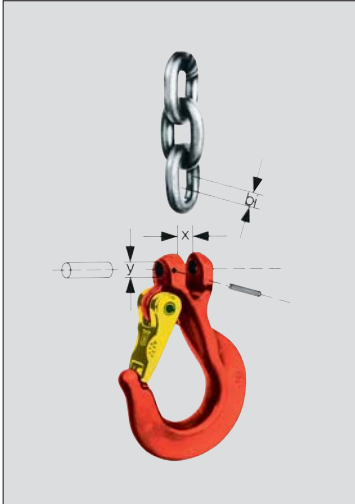
1992: First chain factory to obtain certification for their quality assurance system according to DIN/ISO 9001.

1994: First chain factory to obtain approval of the BG for their **VIP-special quality** with up to 50% higher WLL than Grade 8.

2002: The first universal lifting point – called PPS.

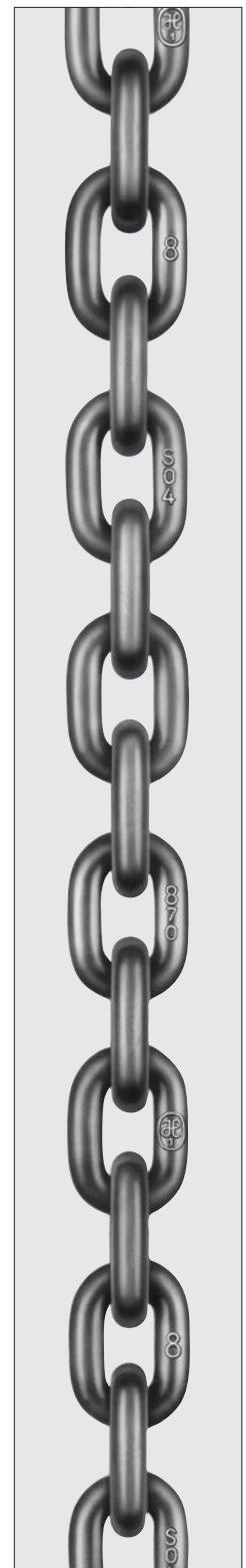


Clevis System



RUD load pins of quality class 10 can be mounted in RUD grade 80 components with a stepped borehole.

The dimensional coordination of the RUD clevis system ensures non-interchangeable, inevitable assignment of the correct RUD chain gauge.

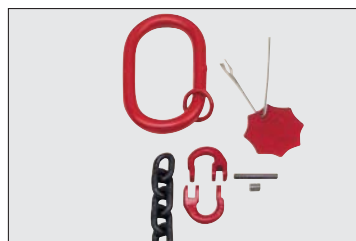


The BG specifies:

- 1.) Chain suspensions of quality class 10 must not be used with chains and components from other manufacturers of quality class 10.
- 2.) Suspensions of quality class 8 must not be combined with components that identifiably belong to quality class 10.

In brief:

It is forbidden to mix quality classes 8 and 10.



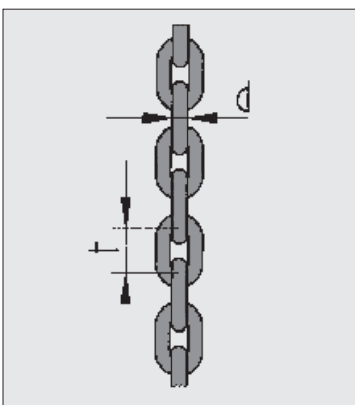
Universal system

During assembly and repair, particular attention must be paid to ensuring that chains and components are of the correct matching dimensions.

Identification and loading capacity tags must be attached separately.

ET round steel chain

corresponds to EN 818-2, quality class 8



Surface: magic black.

Use VIP chains quality class 10 for higher working loading capacities.

Nominal thickness d x t (mm)	Load-bearing capacity t	Weight kg/m	Order no.:
6 x 18	1,12	0,8	0062495
7 x 21	1,5	1,1	0062496
8 x 24	2,0	1,4	0062497
10 x 30	3,15	2,2	0062498
13 x 39	5,3	3,7	0062499
16 x 48	8,0	5,7	0062500

Breaking elongation, magic black, at least 20%.

Ratio of load stress to production test stress to breaking stress = 1 : 2.5 : 4 (200 : 500 : 800 N/mm²).

= mark on fully assembled chain suspensions.

= mark confirms that the technical requirements of the European EU Directives have been fulfilled.

Please comply with the following regulations without fail:

EN 818/EN 1677/ BGR 500,2.8 – BetrSichV (Operational Safety Regulations).
We accept no liability for damage arising from disregard of the standards and regulations stated in the above instructions.



Loading capacity table in kg

For single and multi-strand sling chains at various angles of inclination and symmetrical loading of the strands according to EN 818-4.

Now in quality class 10-VIP

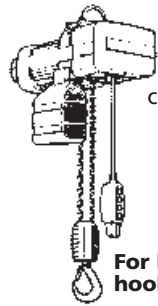
- ∅ 16 ←
- ∅ 20 ←
- ∅ 22 ←

Ask for a VIP brochure or look under www.rud.com!

	1 strand	2 strand		3 and 4 strand	
Inclination- β	0°	0-45°	45-60°	0-45°	45-60°
Load factor	1	1,4	1	2,1	1,5
4 ∅ Chain diam. (quality class 10-VIP only)	(630)	(880)	(630)	(1320)	(950)
6	1120	1600	1120	2360	1700
7	1500	2100	1500	3150	2250
8	2000	2800	2000	4250	3000
10	3150	4250	3150	6700	4750
13	5300	7500	5300	11200	8000
16	8000	11200	8000	17000	11800
18	10000	14000	10000	21200	15000
22	16000	22400	16000	33600	25600
26	20000	28000	20000	42000	30000
	Warning! With an asymmetrical load, the loading capacity is only 50% of the stated value.				

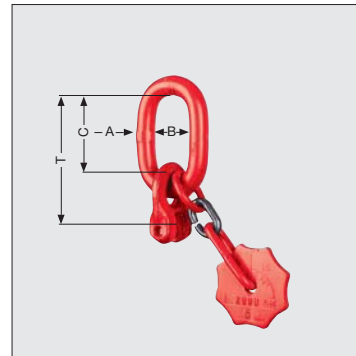
	Endless chain (basket)				Choke hitch		
Inclination- β	0-45°	45-60°	0-45°	45-60°	0°	0-45°	45-60°
Load factor	1,1	0,8	1,7	1,2	0,8	1,1	0,8
4 ∅ Chain diam. (quality class 10-VIP only)	(550)	(400)	(850)	(600)	(400)	(550)	(400)
6	1230	900	1900	1350	900	1230	900
7	1650	1200	2550	1800	1200	1650	1200
8	2200	1600	3400	2400	1600	2200	1600
10	3600	2600	5400	3800	2600	3600	2600
13	5700	4000	8500	6000	4000	5700	4000
16	9000	6400	13600	9500	6400	9000	6400
18	11200	8000	17000	12000	8000	11200	8000
22	17600	12800	27200	19200	12800	17600	12800
26	22000	16000	34000	24000	16000	22000	16000
	Warning! With an asymmetrical load, the loading capacity is only 50% of the stated value.						
	The authorized loading capacity must be reduced if sling chains are used at temperatures above 200°.						
	Loading capacity in % at chain temperatures of						
	-40 to + 200° C		over 200 to 300 °C		over 300 to 400 °C		
	100 %		90 %		75 %		

BK1 suspension head with welded in, all-round moveable ring fork – RG –, giving constrained connection for chain diameter and number of strands. Complete identification tag with loading capacity information. Connection bolt and locking pin are pre-assembled.



Also available as last link (B 1-) (without identification tag).

For hoist hooks



LIFTING MEANS

Suspension head 1 strand BK 1

Dimensions correspond to link form B according to DIN 5688. Adequate for hooking into small load hooks on lifting equipment.

Chain	Load. capacity t	Name	A	B	C	T	kg/item.	Order. no.
6	1,12	BK 1 – 6 (B1-6)	13	25	54	82	0,5	50 552 (50 608)
8	2,0	BK 1 – 8 (B1-8)	16	34	70	107	0,7	50 556 (50 609)
10	3,15	BK 1 – 10 (B1-10)	18	40	85	131	1,1	50 560 (50 610)
13	5,3	BK 1 – 13 (B1-13)	22	50	115	174	2,0	50 564 (50 611)
16	8,0	BK 1 – 16 (B1-16)	26	65	140	211	3,3	50 568 (50 612)

AK1 suspension head with welded in, all-round moveable ring fork – RG –, giving constrained connection for chain diameter and number of strands. Complete identification tag with loading capacity information. Connection bolt and locking pin are pre-assembled.

Suspension head AK 1 can be used up to crane hook no. DIN 15401.

Size 6–

no. 2,5

 Size 8–

no. 2,5

 Size 10–

no. 5

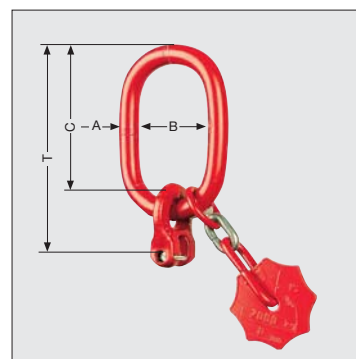
 Size 13–

no. 6

 Size 16–

no. 8

Also available as last link (A 1-) (without identification tag).



Suspension head 1 strand AK 1

for standard crane hooks

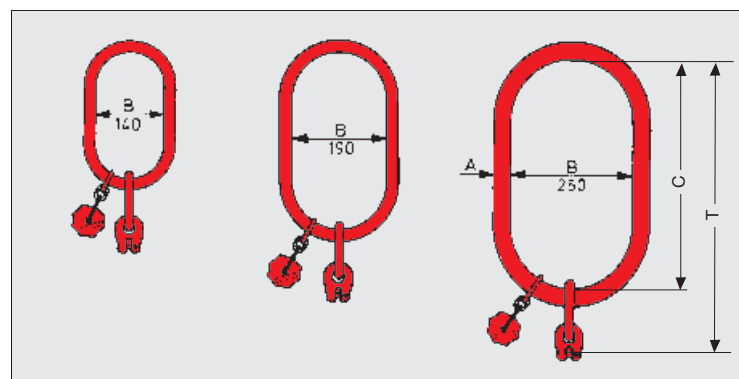
Dimensions correspond to suspension link form A according to DIN 5688.

Chain	Load. capacity t	Name	A	B	C	T	kg/item.	Order. no.
6	1,12	AK 1 – 6 (A1-6)	13	60	110	138	0,6	50 469 (50 617)
8	2,0	AK 1 – 8 (A1-8)	16	60	110	147	0,9	50 473 (50 618)
10	3,15	AK 1 – 10 (A1-10)	18	75	135	181	1,4	50 477 (50 619)
13	5,3	AK 1 – 13 (A1-13)	22	90	160	218	2,4	50 481 (50 620)
16	8,0	AK 1 – 16 (A1-16)	26	100	180	250	3,7	50 485 (50 612)

SAK 1 – 140/190/250
 SAK 2 – 140/190/250
 SAK 3/4 – 140/190/250

On request.

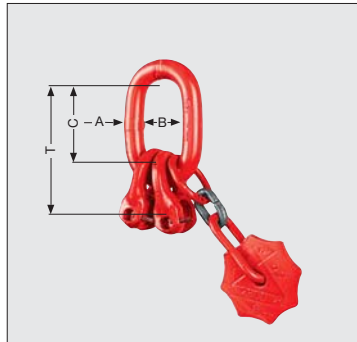
For dimensions, see VIP catalog edition 16.



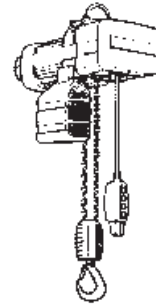
Special suspension heads SAK



Suspension head 2 strand BK 2



BK 2 suspension head with 2 welded in, all-round moveable ring forks – RG –, giving constrained connection for chain diameter and number of strands. Complete identification tag with loading capacity information. Connection bolt and locking pin are pre-assembled.



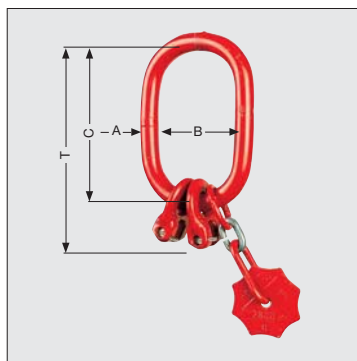
Adequate for small hoist hooks.

Dimensions correspond to link form B according to DIN 5688.

Chain	Load. capacity t	Name	A	B	C	T	kg/item.	Order. no.
6	1,6/1,12	BK 2 – 6	13	25	54	82	0,5	50 553
8	2,8/2,0	BK 2 – 8	16	34	70	107	0,9	50 557
10	4,25/3,15	BK 2 – 10	18	40	85	131	1,4	50 561
13	7,5/3,5	BK 2 – 13	22	50	115	174	2,7	50 565
16	11,2/8,0	BK 2 – 16	26	65	140	211	4,4	50 569

Suspension head 2 strand AK 2

for standard crane hooks



AK 2 suspension head with 2 welded in, all-round moveable ring forks – RG –, giving constrained connection for chain diameter and number of strands. Complete identification tag with loading capacity information. Connection bolt and locking pin are pre-assembled.

Can be used up to crane hook **no.** DIN 15401.

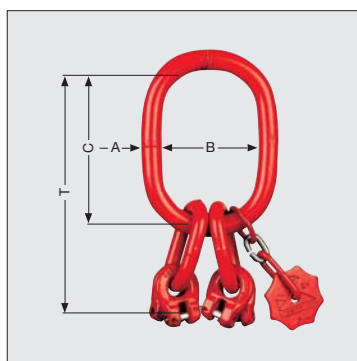
Size 6–	no. 2,5
Size 8–	no. 5
Size 10–	no. 6
Size 13–	no. 8
Size 16–	no. 10

Dimensions correspond to suspension link form A according to DIN 5688.

Chain	Load. capacity t	Name	A	B	C	T	kg/item..	Order. no.
6	1,6/ 1,15	AK 2 – 6	13	60	110	138	0,74	50 470
8	2,8/ 2,0	AK 2 – 8	18	75	135	172	1,4	50 474
10	4,25/3,15	AK 2 – 10	22	90	160	206	2,3	50 478
13	7,5/ 5,3	AK 2 – 13	26	100	180	238	3,9	50 482
16	11,2/ 8,0	AK 2 – 16	32	110	200	270	6,6	50 486

Suspension head 4 strand AK 4

3 strand suspension heads AK 3-SAK 3, same order no. as 4 strand suspension heads. No separate storage for 3 strand.



AK 4 strand suspension head – technical description as for AK 2, but with 4 ring forks.

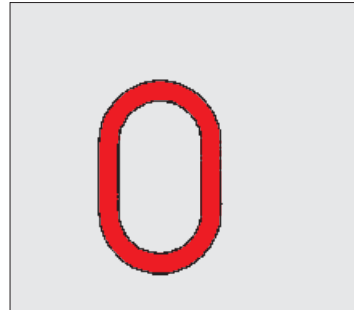
Can be used up to crane hook **no.** according to DIN 15401.

Size 6–	no. 5
Size 8–	no. 6
Size 10–	no. 8
Size 13–	no.10
Size 16–	no.16

Chain	Load. capacity t	Name	A	B	C	T	kg/item.	Order. no.
6	2,63/1,7	AK 4 – 6	18	75	135	217	1,6	50 472
8	4,2/3,0	AK 4 – 8	22	90	160	268	3,0	50 476
10	6,7/4,75	AK 4 – 10	26	100	180	311	4,9	50 480
13	11,2/8,0	AK 4 – 13	32	110	200	373	8,9	50 484
16	17,0/11,8	AK 4 – 16	36	140	260	470	14,8	50 488

For ET sling chains, design corresponds to EN 1677-4, **quality class 8.**

For connection lock (VS) assembly, without identification tag – order separately.



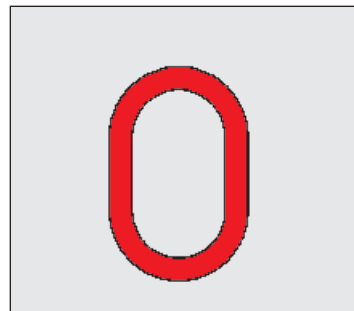
LIFTING MEANS

ET suspension link 1 strand

Chain mm	Bezeichnung	Load. capacity		Dimensions mm		Weight kg/item	Order. no.
		t	d	b	t		
6	ET-AKO 1-6	1,12	13	60	110	0,36	7985066
7	ET-AKO 1-7	1,5	13	60	110	0,36	7985066
8	ET-AKO 1-8	2,0	16	60	110	0,55	7985067
10	ET-AKO 1-10	3,15	18	75	135	0,82	7985068
13	ET-AKO 1-13	5,3	22	90	160	1,52	7985069
16	ET-AKO 1-16	8,0	26	100	180	2,32	7985070

For ET sling chains, design corresponds to EN 1677-4, **quality class 8.**

For connection lock (VS) assembly, without identification tag – order separately.

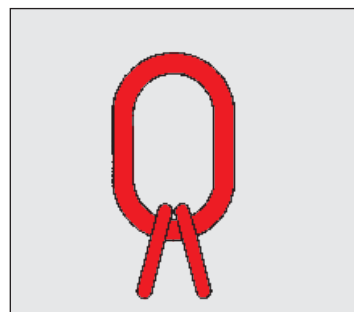


ET suspension link 2 strand

Chain mm	Name	Load. capacity t		d	Dimensions mm		Weight kg/item.	Order. no.
		b = 0-45°	b = 45-60°		b	t		
6	ET-AKO 2-6	1,6	1,12	13	60	110	0,36	7985066
7	ET-AKO 2-7	2,1	1,5	16	60	110	0,55	7985067
8	ET-AKO 2-8	2,8	2,0	18	75	135	0,82	7985068
10	ET-AKO 2-10	4,25	3,15	22	90	160	1,52	7985069
13	ET-AKO 2-13	7,5	5,3	26	100	180	2,32	7985070
16	ET-AKO 2-16	11,2	8,0	32	110	200	3,92	7985071

For ET sling chains, design corresponding to EN 1677-4 **quality class 8.**

For connection lock (VS) assembly, without identification tag, order separately.



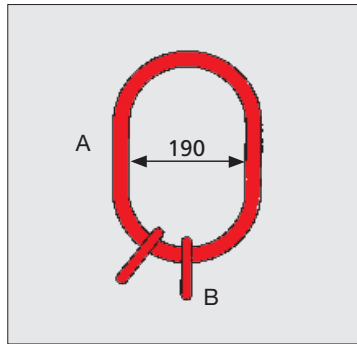
ET suspension link 3/4 strand

Chain mm	Name	Load. capacity t		d	Dimensions mm		Weight kg/item.	Order. no.
		b = 0-45°	b = 45-60°		b	t		
6	ET-AKO 3/4-6	2,36	1,70	18	75	190	1,2	7985072
7	ET-AKO 3/4-7	3,15	2,25	18	75	190	1,2	7985072
8	ET-AKO 3/4-8	4,25	3,0	22	90	230	2,26	7985073
10	ET-AKO 3/4-10	6,7	4,75	26	100	265	3,42	7985074
13	ET-AKO 3/4-13	11,2	8,0	32	110	315	60,4	7985075
16	ET-AKO 3/4-16	17,0	11,8	36	140	400	10,02	7985076



**ET special
suspension
link
1/2 strand**

...with 190 mm
internal width



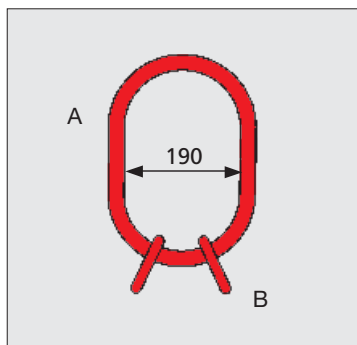
For ET sling chains, design corresponds to EN 1677-4, **quality class 8.**

For connection lock (VS) assembly, without identification tag, order separately.

Chain mm	Name	Load. capacity t		Dimensions mm		Weight kg/item.	Order. no.
		b = 0-45°	b = 45-60°	A	B		
6	ET-SAKO 1/2-6	1,6	1,12	22x300x190	13x54x25	3,0	7984154
7	ET-SAKO 1/2-7	2,1	1,5	22x300x190	13x54x25	3,0	7984154
8	ET-SAKO 1/2-8	2,8	2,0	26x300x190	16x70x34	4,5	7984155
10	ET-SAKO 1/2-10	4,25	3,15	32x300x190	18x85x40	6,8	7984156
13	ET-SAKO 1/2-13	7,5	5,3	32x300x190	22x115x50	7,8	7984152
16	ET-SAKO 1/2-16	11,2	8,0	36x300x190	26x140x65	11,0	7984153

**ET special
suspension
link
3/4 strand**

...with 190 mm
internal width



For ET sling chains, design corresponds to EN 1677-4, **quality class 8.**

For connection lock (VS) assembly, without identification tag, order separately.

Chain mm	Name	Load. capacity t		Dimensions mm		Weight kg/item.	Order. no.
		b = 0-45°	b = 45-60°	A	B		
6	ET-SAKO 3/4-6	2,36	1,7	22x300x190	13x54x25	3,0	7984154
7	ET-SAKO 3/4-7	3,15	2,25	22x300x190	13x54x25	3,0	7984154
8	ET-SAKO 3/4-8	4,25	3,0	26x300x190	16x70x34	4,5	7984155
10	ET-SAKO 3/4-10	6,7	4,75	32x300x190	18x85x40	6,8	7984156
13	ET-SAKO 3/4-13	11,2	8,0	36x300x190	26x140x65	11,0	7984153

**ET
identification
tag
- Universal -**

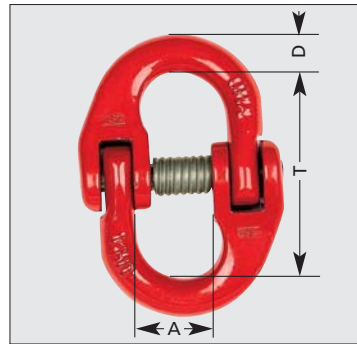
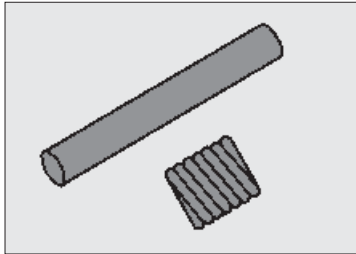


With single and multistrand symbols, without diameter and loading capacity information, complete with wire rope connection and alu grommet, colored red. Stamps according to loading capacity information, page 4.

Symbol layout, see top of page 13.

Name	Weight kg/item.	Order. no.
ET-KZA	0,02	0060587

Replacement pin with securing elementment



ET connection lock

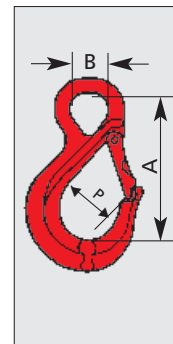
The universal chain connection lock. During assembly, attention must be paid to ensuring that chains and components are of the correct matching dimensions.



Universal System
(not non-interchangeable)

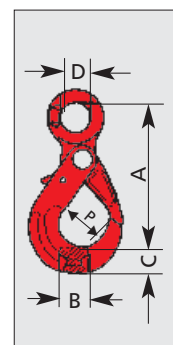
Name	Order. no.	Chain mm	Name	Load. capacity t	Dimensions mm			Weight kg/item.	Order. no.
					A	D	T		
VS-BLZ 5/6	7101780	6	ET-VS 5/6	1,12	14	7	40	0,06	0060172
VS-BLZ 8	7101782	8	ET-VS 8	2,0	18	8	56	0,18	0060173
VS-BLZ 10	7101783	10	ET-VS 10	3,15	24	11	68	0,3	0060183
VS-BLZ 13	7101784	13	ET-VS 13	5,30	29	14	88	0,6	0060184
VS-BLZ 16	7101785	16	ET-VS 16	8,0	35	17	104	1,3	0061256
VS-BLZ 18	7101786	18	ET-VS 18	10,0	42	21	122	2,2	0061257
VS-BLZ 22	7101787	22	ET-VS 22	15,0	48	24	146	3,3	0061258
VS-BLZ 26	7101820	26	ET-VS 26	21,2	66	32	180	5	0061766

Chain mm	Name	Load. capacity t	Dimensions mm			Weight kg/item.	Order. no.
			A	B	P		
6	ÖH 5/6	1,12	87	24	34	0,26	7982773
8	ÖH 7/8	2,0	102	26	40	0,54	7982775
10	ÖH 10	3,15	122	35	41	0,97	7982777
13	ÖH 13	5,3	154	40	52	1,75	7982779
16	ÖH 16	8,0	185	50	60	2,8	7982781



ÖH eye hooks

Chain mm	Name	Load. capacity t	Dimensions mm				Weight kg/item.	Order. no.	
			A	B	C	D			
6	AÖH 6	1,12	114	15	25	24	33	0,53	7984536
8	AÖH 8	2,0	134	21	29	30	43	0,95	7984537
10	AÖH 10	3,1	170	28	34	40	47	1,90	7984538
13	AÖH 13	5,3	210	32	43	50	61	3,30	7984539
16	AÖH 16	8,0	260	40	57	60	78	7,30	7984540



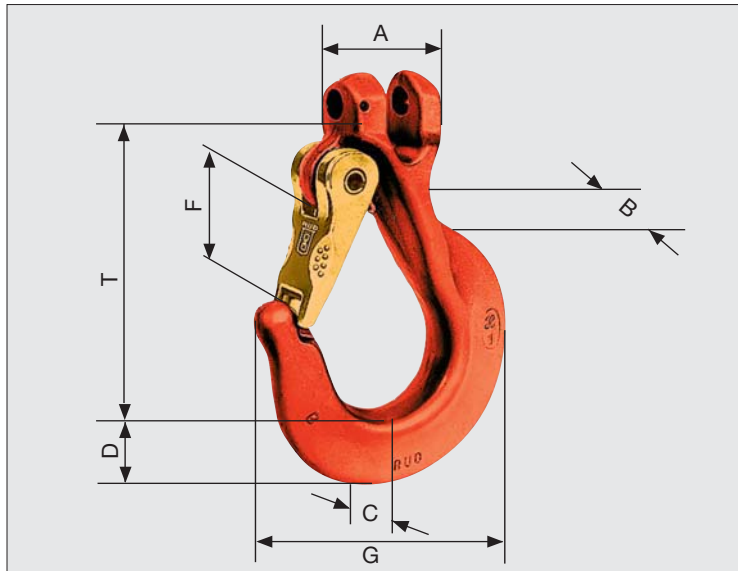
AÖH automatic eye hooks

The original
proven a million times!



LIFTING MEANS

Granit-Super hook GSH



Extremely robust design has proven itself a million times.

Forged safety latch slots into tip of hook, protecting it against bending sideways.

Ergonomic design, finger-protecting actuating hollows.

Triple coiled double leg spring, stainless.

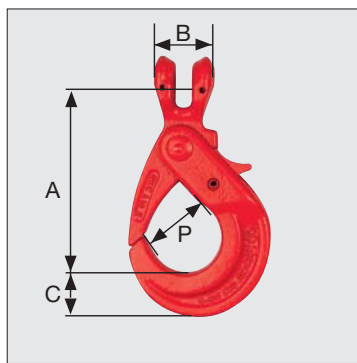
Wearing edges on both sides – high bending resistance.

Double composite locking sleeve, easy exchangeable.

Completely pre-assembled with load pin and adapter sleeve.

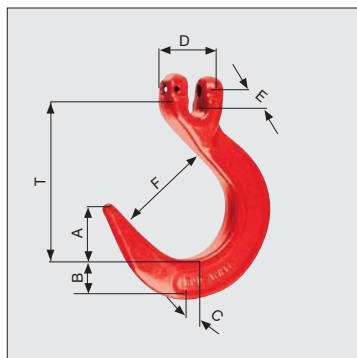
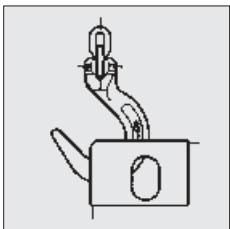
Safety set order no.	Chain	Load.cap. t	Name	A	B	C	D	F	G	T	kg/item.	Order. no.
53 133	6	1,12	GSH – 6	27	22	16	20	25	74	75	0,3	53 068
53 134	8	2,0	GSH – 8	38	28	20	28	30	98	97	0,8	53 069
53 135	10	3,15	GSH – 10	46	36	26	35	35	122	108	1,4	53 070
53 136	13	5,3	GSH – 13	58	46	30	37	40	139	126	2,5	53 071
53 137	16	8,0	GSH – 16	67	56	36	49	48	164	152	4,1	53 072

AGH automatic fork head hook (with grooved load pin)



Chain mm	Load. capacity t	Name	Dimensions mm					Weight kg/item.	Order. no.
			A	B	C	D	P		
6	1,12	AGH 6	95	15	25	31	33	0,53	7984530
8	2,0	AGH 8	117	21	29	41	43	0,97	7984531
10	3,15	AGH 10	142	28	34	53	47	2,00	7984532
13	5,3	AGH 13	169	32	43	64	61	3,40	7984533
16	8,0	AGH 16	219	40	57	78	78	7,60	7984534

Wide-mouthed hook/foundry hook WH



Also known as a foundry or container hook. With a considerably wider mouth than the GSH, but without a securing element.

Only use where unintentional unhooking is impossible. Does not comply with EU Machinery Directive 98/37 EEC I/4.4.1. Not suitable for transport above people.

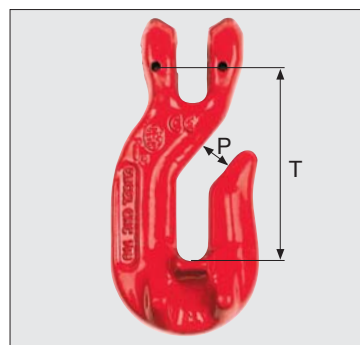
Robust cross-section (dimension C/B) to withstand higher bending forces. Wearing edges on both sides protect the mounted chain link.

Completely pre-assembled with load pin and adapter sleeve.

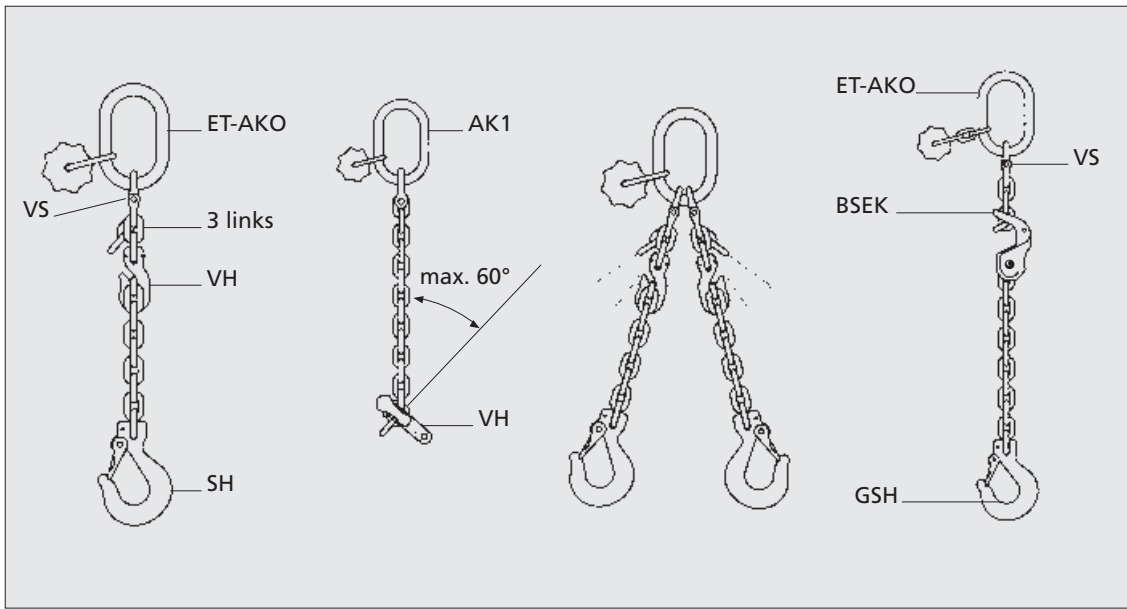
Chain	Load. cap. t	Name	A	B	C	D	E	F	T	kg/item.	Order. no.
6	1,12	WH – 6	30	22	18	30	22	50	88	0,45	7101891
8	2,0	WH – 8	40	29	26	40	29	64	115	0,90	7101892
10	3,15	WH – 10	46	37	30	50	36	76	130	1,70	7101818
13	5,3	WH – 13	51	45	37	64	46	90	168	3,00	7101893
16	8,0	WH – 16	64	56	40	75	56	102	190	5,70	7101621

Notice!
 A new standard for shortening elements is in preparation: pr EN 1677-7.
 All RUD shortening elements already comply with all requirements.

Chain mm	Load. capacity t	Name	Dimensions mm T P	Weight kg/item.	Order. no.
8	2,0	VH 7/8	59 10	0,35	7982847
10	3,15	VH 10	74 12	0,80	7982849
13	5,3	VH 13	100 15	1,70	7982851
16	8,0	VH 16	137 18	4,00	7982853



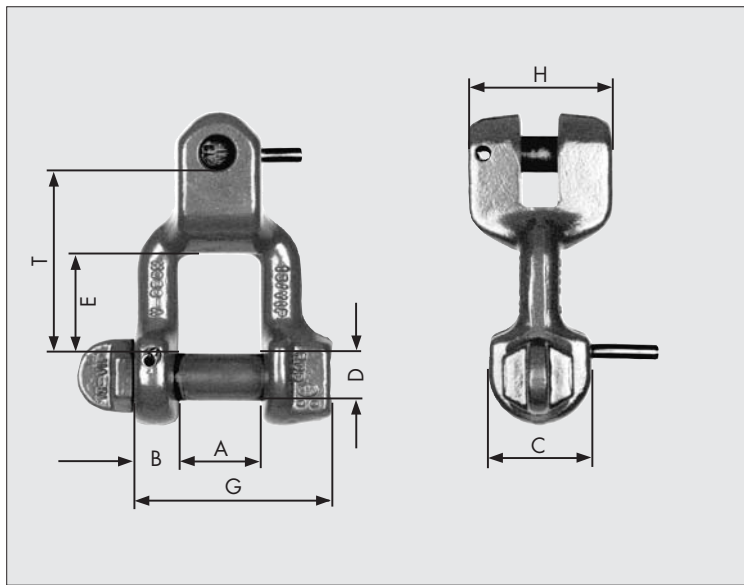
VH shortening hook
 (with grooved load pin)



Possibilities for using shortening elements

- Optimal combination of max. mouth width with the smallest shackle pin.
- The turned fork head universal joint makes it very resistant to bending.

High-tensile, patented design with integrated safety thread in the shackle yoke. The bolt bracket in the shackle is smooth on both sides. The bolt can be turned. There is no bending stress in the thread, it only has a safety function. Pre-assembled with locking sleeve. Secured for long periods by driving-in a locking sleeve.



Non-interchangeable fork shackle VG SCH

Chain	Load. cap. t	Name	A	B	C	D	E	G	H	T	kg/item.	Order. no.
6	1,12	V-GSCH 6	17	8	22	10	21	40	28	36	0,15	7983526
8	2,0	V-GSCH 8	21	10	26	12	32	48	39	48	0,26	7983527
10	3,15	V-GSCH 10	27	13	34	16	35	62	45	61	0,65	7983528
13	5,3	V-GSCH 13	33	17	42	20	41	81	59	78	1,35	7983529
16	8,0	V-GSCH 16	38	22	49	24	49	95	69	96	2,5	7983531

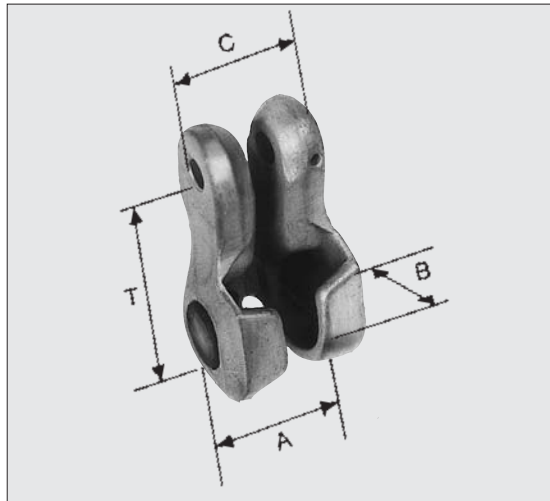


LIFTING MEANS

Shortening claw V (with G-pin)

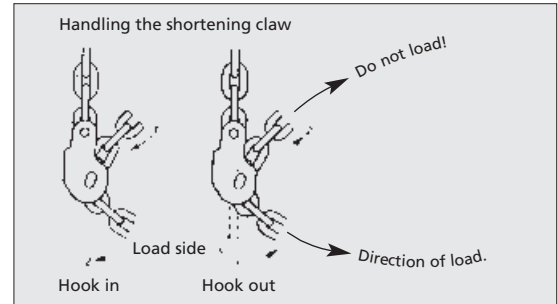
Notice!

A new standard for shortening elements is in preparation: pr EN 1677-7. All RUD shortening elements already comply with all requirements.



Shortening claw – V – with flexible self-locking. Rubber safety device can be retrofitted. Chain-protecting recessed seating.

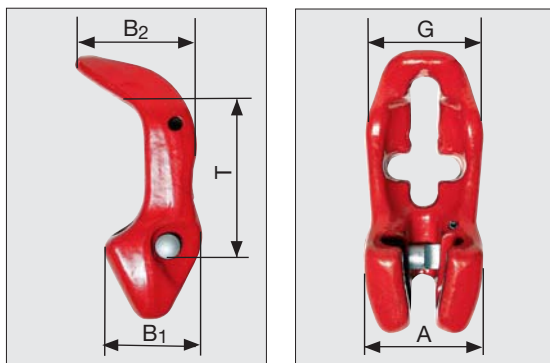
No reduction of loading capacity. The shape and the flexible rubber locking device provide a double safeguard against the hooked chain disengaging itself.



Chain	Load. caoacity t	Name	A	B	C	T	kg/item.	Order. no.
6	1,12	V – 6	35	35	25	39	0,2	50 648
8	2	V – 8	45	46	34	52	0,5	50 650
10	3,15	V – 10	57	59	42	65	1,0	50 651
13	5,3	V – 13	75	73	55	85	2,0	50 652
16	8	V – 16	92	93	65	107	2,7	50 653

Shortening claw BSEK – a better – quicker – simpler – claw

New!



A further development of the RUD shortening claw V which has proven its worth for decades. Captive-fitted in the continuous chain strand.

No additional chain or coupling parts needed. Can be fitted on any part of the chain strand. The chain is ideally supported by the link-shaped recessed seating – so there is **no reduction of the loading capacity**. Conforms to prEN 1677-7.

The robust, spring mounted securing bolt prevents the hooked chain from disengaging, whether loaded or unloaded. If the BSEK is not permanently fitted, please follow the instruction below.

Chain	Load. capacity t	Name	A	B ₁	B ₂	T	G	kg/item.	Order. no.
6	1,12	BSEK – 6	38	34	40	66	38	0,3	79 84073
8	2	BSEK – 8	46	41	52	88	48	0,55	71 02686
10	3,15	BSEK – 10	58	50	64	110	60	1,1	71 02687
13	5,3	BSEK – 13	74	64	86	143	76	2,4	71 02688
16	8,0	BSEK – 16	91	79	105	176	98	4,4	71 01419

Warning!

When shortening elements are used for transporting loads, in most cases the load is not symmetrical. (This is caused by a non-centred centre of gravity and/or points of attachment at different levels). In such cases, the highest stress occurs in the single strand with the smallest angle of inclination. The loading capacity therefore has to be reduced by 50 %.



Fitting:

1) Pull a loose chain strand through the intersecting slots. Hook the chain into the locking slot at the intended position. The chain strand is now securely fixated in the BSEK claw. Preferably fit the third chain link from the suspension link into the shortening slot.

Handling:

2) With the chain slack, fit the desired link into the recessed seating, pull the chain down while pressing the securing bolt. Release by performing these steps in the reverse order.

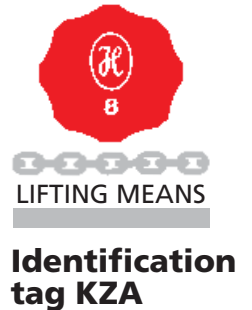
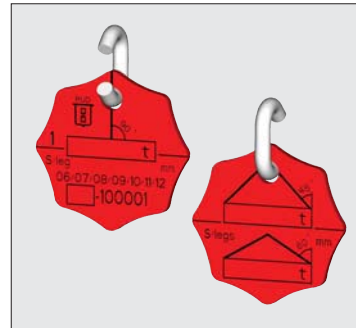
Warning!

3) When using the BSEK without a retaining pin locking sleeve, ensure that the chain is always completely hooked into the locking slot (B). When pulling or lifting the shortened chain ensure that the chain is always completely hooked into the locking slot (B).

*Do not load a slack, shortened chain.

Identification tags, single and multistrand complying with EN 818, including open, bendable link 7 x 21.

KZA for single and multistrand chains	Order. no. 60 442
KZA model without symbols for internal labeling	Order. no. 59 384



Test data tag PDA for marking the annual check under BGR 500-2.8. The back is blank for sequential chain number and/or internal labeling. Including open, bendable link 7 x 21.

PDA test data tag	Order. no. 60 228
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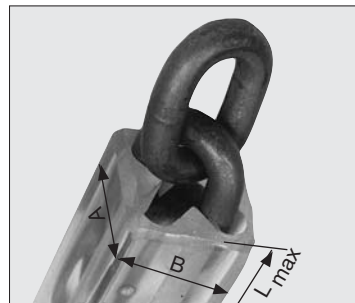


Test data tag PDA

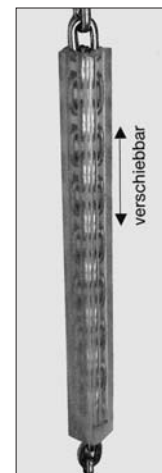
RUD-RSK System Secutex made of hardwearing, robust-edged polyurethane.

Flexible in all directions, can be slid along the chain by hand.

Diagonal cross-chain distributes the load evenly. Max. 2 m available.



Edge protection RSK



Chain	Name	A	B	L _{max}	Order. no.
6	RSK – 6	27	27	2000	56 033
8	RSK – 8	33	33	2000	56 037
10	RSK – 10	38	38	2000	55 810
13	RSK – 13	50	50	2000	56 038
16	RSK – 16	63	63	2000	on request

Supplied in 1 and 2 m lengths only.

RUD testing service

Testing = maintaining value!

1 **RECORDING**

2 **VISUAL INSPECTION**

3 **MEASUREMENT**

4 **CRACK TEST**

5 **MAINTENANCE**

6 **CERTIFICATION**

Over 300,000 chains tested in the cause of safety!

Testing of sling equipment with test certificate under Operational Safety Regulations BGR 500 - EN 818-EN 1677



Combi-Coupler KK



KK – for chains, suspension links, eye link.
The loading capacity of the round loop is not reduced.
Lightweight design with the lowest height.
Simple, practical mounting and dismounting.
Tested and stamped: complies with EN 1677.

Patent: 3726738



Load. cap. in t	Name	T	A	B	C	D	E	F	Weight in kg	Part no.
1,12	KK 6-8*	25	35	25	9	20	60	5,5	0,15	62029
2,0	KK 8-8*	39	40	28	13	24	71	8	0,25	61575
3,15	KK 10-8	44	54	30	15	28	90	10	0,40	61607
5,3	KK 13-8	55	60	37	21	34	107	13	0,80	61780

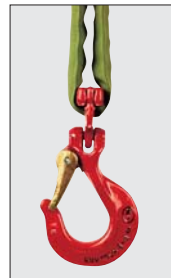
* With convex round sling seating.

Combi-Coupler adapter KKA

KKA – for fork head link

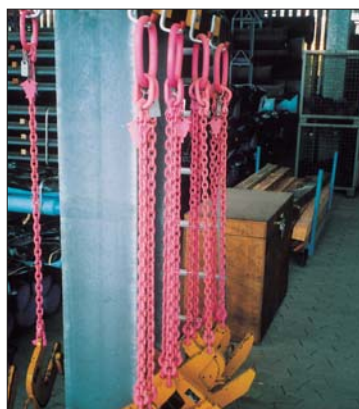
Non-interchangeable connection of all RUD clevis connectors in combination with chains. A shortening element can be used to change the length of the round loop.

Patent: 3726738



Load. cap. in t	Name	T	A	B	C	D	E	F	Weight in kg	Part no.
1,12	KKA 6-8	29	35	25	7,2	6	60	0,15	62030	
2,0	KKA 8-8	38	40	28	9,7	8	71	0,25	61576	
3,15	KKA 10-8	44	54	30	12,2	10	90	0,45	61608	
5,3	KKA 13-8	54	60	37	15,7	13	107	0,90	61781	

Special hook - special load lifting tackle - special components



RUD load lifting tackle is manufactured according to the rules of the technology, DIN 5428 and BGR 500. The welding is performed by qualified welders. Weld joints are crack-tested. Supplied with test certificate and load lifting tackle index card for regular testing and user information.

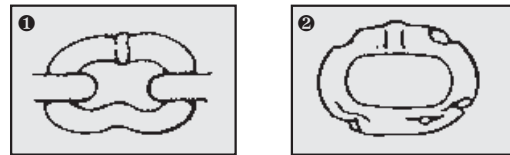
Let us know your **task specification** or briefly state your technical data (e.g. loading capacity, relevant dimensions and function).



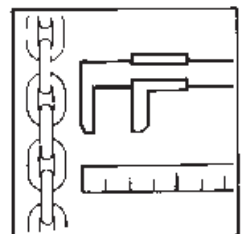
■ **Chain suspensions** must be tested by an expert at least once every year. Tests may be necessary at shorter intervals, depending on the operational conditions. Chains must be subjected to a special test to ensure that they are crack-free at least every three years. Chains must also be tested for cracks if incidents occur which could affect their loading capacity.



■ **Visual inspection** Finding external faults such as bent chain links ①, twisted or dented ② links. Examining the condition of the parts and checking that they have been put together correctly, and checking the completeness and effectiveness of the safety devices.

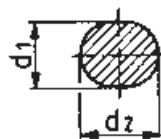


Regular maintenance and checks

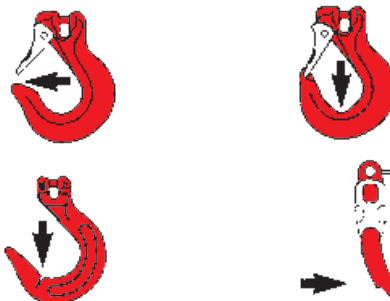


■ **Checking for wear and elongation.**
 1. Checking the wear on the diameter d_m .
 2. Checking that the permanent elongation caused by overloading is not more than 5% of the division of 3 d.
 3. Checking the pitch extension by the wear on the nominal thickness.

$$d_m = \frac{d_1 + d_2}{2} \geq 0,9 d$$



■ **Accessories:** Load hooks must be rejected when the mouth width has opened by more than 10 %, or the bottom of the hook has worn by more than 5% or has deep indentations. The same applies to load hooks that have been bent sideways.



The maximum permissible wear on the diameter of the G bolt is $\leq 10\%$.

When exchanging accessories, always use new connection bolts and securing elements (locking sleeves).

Documentation in a chain card index:

The entries in the chain card index provide information about the user's regular monitoring activities while using hitching chains. It is essential that the user has this verification for the factory inspectorate /Employers' Liability Insurance Association to prove compliance with the industrial safety / accident prevention measures(EU Directives 89/655).

Kettenkarteikarte für montierte Anschlagketten aus Einzelteilen			
Bezeichnung der Anschlagkarte H 2 - 10 x 3000		Stufenklasse DIN 5687/88-B	
Länge in 3,0		Gesamttragfähigkeit in kg K 8 0 - 45° = 4500 K 8 45 - 60° = 3200	
Als Einzelteile wie Aufhängelieder/Aufhängeliederkombination, Verbindungsglied, Anschlaggabel entsprechen der Güteklasse B nach DIN 5687 Teil 2 und DIN 5688 Teil 2. Sämtliche verwendeten Einzelteile und die Kette sind mit den vorgeschriebenen Prüfverfahren versehen wie folgt:			
	Hersteller- zeichen	Güte- klasse	Prüfprotokoll Nr. Datum
Aufhängelieder bzw. Aufhängeliederkombination	H 1	B	
Kette	H 1	B	2386 1.7.83
Verbindungsglied	H 1	B	
Anschlaggabel	H 1	B	
Die Original-Prüfprotokolle der jeweiligen Hersteller legen uns vor.			
Mannheim, 3.7.83 Ort und Datum			

Please comply with the following regulations without fail:

– Operational Safety Regulations –
 BGR 500/2.8, EN 818, EN 1677, RUD user information.
 We accept no liability for damage arising from disregard of these standards, regulations or the above instructions.

■ Only use original RUD spare parts.

Only the manufacturer may make a surface treatment. Be aware of the effects of temperature (see table on page 4).

Lifting points - for bolting -



Maximum transport weight "G" in "tonnes" with different lifting methods



Thread size M 6- M 150 inch thread (UNC,...) and special lengths on request		PP-S (Vario) PowerPoint-Star			PP-B (Vario) PowerPoint-B			PP-VIP (Vario) PowerPoint-VIP			VLBG Load ring (Vario)										WBG-V Load ring (Vario)																					
Number of strands	Direction of load	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		VLBG Load ring (Vario)										WBG-V Load ring (Vario)																	
			M 12	M 16	M 20	M 24	M 30	M 36	VLBG 0,3 t	VLBG 0,63 t	VLBG 1 t	VLBG 1,5 t	VLBG 2,5 t	VLBG 4 t	VLBG 4 t	VLBG 5 t	VLBG 7 t spec.	VLBG 8 t	VLBG 10 t	VLBG 15 t	VLBG 20 t	VLBG (3) M16 RS 1 t	VLBG (3) M20 RS 2 t	WBG-V 0,3 t	WBG-V 0,45 t	WBG-V 0,6 t	WBG-V 1,3 t	WBG-V 2 t	WBG-V 3,5 t	WBG-V 5 t												
Thread	Thread	Thread	M 8	M 10	M 12	M 16	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 16	M 20	M 24	M 24	M 30	M 30	M 36	M 42	M 42	M 48	M 16	M 20	M 8	M 10	M 12	M 16	M 20	M 24	M 30			
	1	0°	0,6	1,5	2,5	4	6,7	10										0,3	0,6	1	1,5	2,5	4	4	5	7	8	10	15	20	1	2				0,6	0,9	1,2	2,6	4	7	10
	2	0°	1,2	3	5	8	13,4	20										0,6	1,2	2	3	5	8	8	10	14	16	20	30	40	2	4				1,2	1,8	2,4	5,2	8	14	20
	1	90°	0,6	1,5	2,5	4	5	8										0,3	0,6	1	1,5	2,5	4	4	5	7	8	10	15	20	1	2			0,3	0,45	0,6	1,3	2	3,5	5	
	2	90°	1,2	3	5	8	10	16										0,6	1,2	2	3	5	8	8	10	14	16	20	30	40	2	4			0,6	0,9	1,2	2,6	4	7	10	
	2	0-45°	0,8	2,1	3,5	5,6	7,1	11,2										0,4	0,8	1,4	2,1	3,5	5,6	5,6	7	9,8	11,2	14	21	28	1,4	2,8			0,4	0,6	0,8	1,8	2,8	4,9	7	
	2	45-60°	0,6	1,5	2,5	4	5	8										0,3	0,6	1	1,5	2,5	4	4	5	7	8	10	15	20	1	2			0,3	0,4	0,6	1,3	2	3,5	5	
	2	asymmetrical	0,6	1,5	2,5	4	5	8										0,3	0,6	1	1,5	2,5	4	4	5	7	8	10	15	20	1	2			0,3	0,4	0,6	1,3	2	3,5	5	
	3+4	0-45°	1,3	3,2	5,3	8,4	10,5	16,8										0,6	1,3	2,1	3,1	5,2	8,4	8,4	10,5	14,7	16,8	21	31,5	42	2,1	4,2			0,6	0,9	1,2	2,7	4,2	7,3	10,5	
	3+4	45-60°	0,9	2,2	3,8	6	7,5	12										0,4	0,9	1,5	2,2	3,7	6	6	7,5	10,4	12	15	22,5	30	1,5	3			0,4	0,6	0,9	1,9	3	5,2	7,5	
	3+4	asymmetrical	0,6	1,5	2,5	4	5	8										0,3	0,6	1	1,5	2,5	4	4	5	7	8	10	15	20	1	2			0,3	0,4	0,6	1,3	2	3,5	5	
Thread	Thread	Thread	M 8	M 10	M 12	M 16	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 16	M 20	M 24	M 24	M 30	M 30	M 36	M 42	M 42	M 48	M 16	M 20	M 8	M 10	M 12	M 16	M 20	M 24	M 30			

RUD Lifting Points

- All parts are either 100% crack detected or proof loaded accord. to EN 1677.
- All original bolts from RUD are 100% crack detected.
- Design factor 4:1 in any direction.
- Types VRS, VRM and VLBG have to be adjusted to the load direction.
- RUD patented features such as clamping spring (VLBS) for noise reduction and distance lugs for a perfect root pass weld increase the ease of use.
- RUD CD-ROM and slide chart "RUD-MULTI-MASTER" facilitate the correct selection of lifting points.
- Low installation height, high dynamic and static strength.

Lifting points - for bolting -

Maximum transport weight "G" in "tonnes" with different lifting methods



WBG Load ring														Starpoint VRS (Vario) eyebolt														INOX-STAR														RS & RM high-tensile eyebolt/lifting eye nut														RBG/VRBG Load ring													
WBG Load ring														Starpoint VRS (Vario) eyebolt							Starpoint VRM lifting eye nut							INOX-STAR														RS & RM high-tensile eyebolt/lifting eye nut														RBG/VRBG Load ring													
WBG 6-spec.	WBG 8-1	WBG 8-spec.	WBG 10-1	WBG 10-1	WBG 10-spec.	WBG 15-1	WBG 15-1	WBG 15-spec.	WBG 25-1	WBG 30-1	WBG 35-1	WBG 35-spec.	WBG 35-spec.	VRS M8	VRM M8	VRS M10	VRM M10	VRS M12	VRM M12	VRS M16	VRM M16	VRS M20	VRM M20	VRS M24	VRM M24	VRS M30	VRM M30	VRS M36	VRS M42	VRS M48	INOX M12	INOX M16	INOX M20	INOX M24	INOX M30	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 3-1	VRBG 10-1	VRBG 16-1	VRBG 30-1	VRBG 50-1	VRBG 80-1																
M 33	M 36	M 39	M 42	M 48	M 42-52	M 56	M 64	M 56-85	M 72-76	M 80-85	M 90	M 90-150	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 12	M 16	M 20	M 24	M 30	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 16	M 20	M 30	M 36	M 50	M 80																								
12,5	12,5	12,5	16	16	16	25	25	25	35	35	35	35	1	1	2	4	6	8	12	16	24	32	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	30	50	80																								
25	25	25	32	32	32	50	50	50	70	70	70	70	2	2	4	8	12	16	24	32	48	64	2,4	4,8	7,2	10,4	-	0,8	1,6	2	3,2	6	8	12	16	24	32	48	64	6	20	32	60	100	160																								
6	8	8	10	10	10	15	15	15	25	30	35	35	0,4	0,4	0,7	1,5	2,3	3,2	4,5	7	9	12	0,6	1,2	1,8	2,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	10	16	30	50	80																							
12	16	16	20	20	20	30	30	30	50	60	70	70	0,8	0,8	1,5	3	4,6	6,4	9	14	18	24	1,2	2,4	3,6	5,2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	20	32	60	100	160																							
8,4	11,2	11,2	14	14	14	21	21	21	35	42	49	49	0,56	0,56	1	2,1	3,2	4,5	6,3	9,8	12,6	16,8	0,8	1,7	2,5	3,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,2	14	22,4	42	70	112																							
6	8	8	10	10	10	15	15	15	25	30	35	35	0,4	0,4	0,7	1,5	2,3	3,2	4,5	7	9	12	0,6	1,2	1,8	2,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	10	16	30	50	80																							
6	8	8	10	10	10	15	15	15	25	30	35	35	0,4	0,4	0,7	1,5	2,3	3,2	4,5	7	9	12	0,6	1,2	1,8	2,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	10	16	30	50	80																							
12,6	16,8	16,8	21	21	21	31,5	31,5	31,5	52,5	63	73,5	73,5	0,8	0,8	1,5	3,1	4,8	6,7	9,4	14,7	18,9	25	1,3	2,5	3,8	5,5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6,3	21	33,6	63	105	168																							
9	12	12	15	15	15	22,5	22,5	22,5	37,5	45	52,5	52,5	0,6	0,6	1,1	2,2	3,4	4,8	6,7	10,5	13,5	18	0,9	1,8	2,7	3,9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4,5	15	24	45	75	120																							
6	8	8	10	10	10	15	15	15	25	30	35	35	0,4	0,4	0,7	1,5	2,3	3,2	4,5	7	9	12	0,6	1,2	1,8	2,6	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	10	16	30	50	80																							
M 33	M 36	M 39	M 42	M 48	M 42-52	M 56	M 64	M 56-85	M 72-76	M 80-85	M 90	M 90-150	M 8	M 10	M 12	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 12	M 16	M 20	M 24	M 30	M 6	M 8	M 10	M 12	M 14	M 16	M 20	M 24	M 30	M 36	M 42	M 48	M 16	M 20	M 30	M 36	M 50	M 80																								

For this type of suspension, we recommend to use either the »VRS-Starpoint«, which can be set in the direction of force, or PowerPoint with double ball bearing!



CD-ROM for the calculation and selection of the correct lifting point. We provide you with the geometric data for your design. New: 3D CAD data.

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Lifting points - for welding -

Maximum transport weight "G" in "tonnes" with different lifting methods



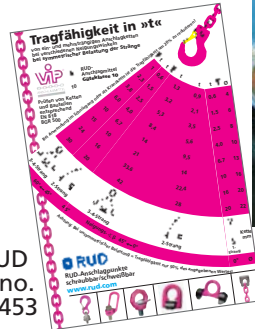
LIFTING POINTS CE BGR-ÜTest	Direction of load	Number of strands	WPP series PowerPoint swivelling		WPP series PowerPoint rigid		VLBS Load ring weldable				VRBS Load ring weldable				VRBK Load ring for edges	VRBSS Load ring with adjustment lock		
			all variants		all variants		all variants	all variants	all variants	all variants	all variants	all variants	all variants	all variants				
			Type	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			
0°	1	1	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
0°	2	2	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
90°	1	1	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
90°	2	2	△	0,8	2,1	3,5	5,6	7,1	11,2	2,1	5,6	9,38	14	22,4	5,6	14		
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
0-45°	2	2	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
45-60°	2	2	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
asymmetrical	2	2	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,3	3,2	5,3	8,4	10,5	16,8	21,2	33,6	3,15	8,4	14,1	21	33,6	105	21
0-45°	3+4	3+4	△	0,9	2,2	3,8	6	7,5	12	2,25	6	10,1	15	24	6	15		
			△	1,3	3,2	5,3	8,4	10,5	16,8	21,2	33,6	3,15	8,4	14,1	21	33,6	105	21
45-60°	3+4	3+4	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
asymmetrical	3+4	3+4	△	0,6	1,5	2,5	4	5	8	10	1,5	4	8	16	30	4	10	
			△	1,2	3	5	8	13,4	20	32	50	3	8	13,4	20	32	60	20
Weld seam			△	3,5	4,5	3+4,5	3+5	3+8	3+10	3+10	5+3	8+3	12+4	15+4	25+6	25+8	4+3	8-3
			△	3,5	4,5	3+4,5	3+5	3+8	3+10	3+10	3+10	5+3	8+3	12+4	15+4	25+6	25+8	4+3



Protractor

90 x 120 mm.

The chain thickness is select according to the weight of the load, taking into account the measured inclination angle, quality class 10-VIP and quality class 8.



RUD order no. 7991453



...in preparation!

RUD order no. 7101019

Warning notice!
Follow the instruction manual for the relevant sling chains!

Loading capacity poster

420 x 625 mm.

VIP quality class 10 and quality class 8.



Quality class 10-VIP modular system – the best in the long run.



Mit freundlicher Genehmigung der MAN TURBO AG.

New!
3D CAD Data



RUD order no. 7104459.

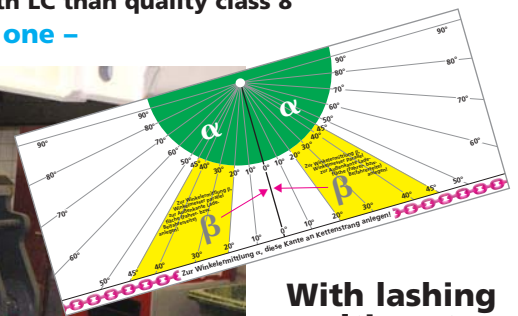
Please ask for the special VIP sling chains brochure.



Quality class 10-VIP lashing chains

have 30% more lashing strength LC than quality class 8

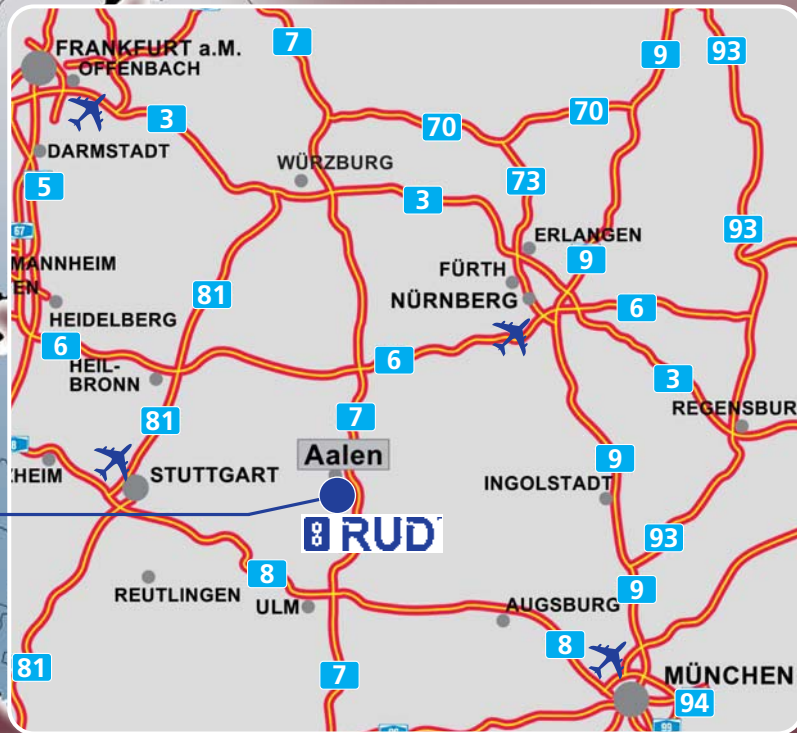
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