









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 Associa-

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

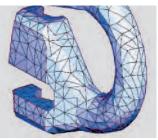
The first idea of a mecano system from RUD – foolproof connection of the correct chains and components, as well as suspension links. This idea became the standard at Ruhrkohle RAG.

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

1992: First chain factory to obtain certification for their quality assurance system acc. 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 80.

2002: The first universal lifting point – called PPS.



2006: First manufacturer who received the "Type Examination Certificate" from the Inspection and Certification authority PZNM of the Technical Commitee MO (*Employers Liability Insurance Association = BG), for VIP-round steel chains according to PAS 1061 (Publicity Available Specification according to the Standard DIN EN 818 Grade 100). As the First H1-10!

2007: RUD receives as the first chain manufacturer the approval for Grade 120 (D1-12) from the BG.
World premiere of the strongest lifting chain ICE (Grade 120). Innovation leap in chain technology Always one chain diameter thinner.



The passion of chain manufacturing!

The round steel chain link production in Unterkochen has been running for almost 140 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 at 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 successfuly 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.











BG and TÜV approved!

*BG = German Employers **Liability Assurance** Association.



eprift und zugelas



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VIP SLING CHAINS IN RUD SPECIAL QUALITY CLASS 10





- LIFTING MEANS
- Despite having the same chain diameter, an up to 30 % increase in the WLL in comparison to grade 80.
- Chain dimensions from 4 to 28 mm. WLL from 0.6 t (Mini 1-leg) to 126 t (2x MAXI double leg).
- Distinctive fluorescent pink powder coating and clear "VIP" stamp on every chain link and component. Distinctive in comparison to other quality classes. Surface quality is comparable to a zinc plated surface.
- Chain diameters 16, 20, 22 and 28 mm in VIP special quality replace the 18, 22, 26 and 32 mm chain diameters of quality grade 8. Smaller chain sizes, hence a considerable reduction of weight which facilitates easy handling.
- Multifunctional WLL identification tag: Owing to it's special patented shape, it facilitates simple inspection of the three wear criteria for sling chains (diameter, elongation of pitch and







overload). The inspection data can be documented on the tag.

• Heat indicator:

The pink powder coating changes its colour with temperatures exceeding 200°C. Chain must not be used after being subject to temperatures exceeding 380°C. At this temperature the VIP colour changes to a deep black with small bubbles, clearly indicating that it has been overheated.



• Master link collection for every crane hook:

The chain connecting link VRG is attached to the corresponding master link in a permanent but flexible way. The fool – proof clevis connection allways ensures that only the correct chain diameter can be fitted. The collection of master links range from the smallest VBK size for the high tensile hoist hooks up to crane hook No. 50 with Bi = 250 mm in 1 to 4 leg assembly versions.

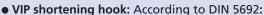
• The patented multi shortening claw can be fitted on the chain leg at any required position. No additional chain and coupling parts are required. The robust safety bolt with a spring prevents unintentional hooking out of the chain in both loaded and unloaded conditions. Ideal chain link shaped pocket support, thus no reduction in the WLL (DIN 5692).

VIP Cobra hook:

The compact design of the VIP Cobra hook with no protruding hook tip is far superior and safer than the common clevis sling hook. Supplied complete with a forged and tempered safety latch that locks into the hook tip protects against lateral bending. The safety latch is supported by a triple coiled double leg. The enlarged hook tip prevents misuse. Wear edges on both sides of the hook protect against abrasion of the chain when hauling the chain assemblies. Gauge marks on the hook enable easy inspection for the elongation of the width of the hook opening.

• VIP automatic clevis hook:

Extremely robust design. The hook locks automatically when lifting the load and can only be opened by activating the protected unlocking lever at the back of the hook. No protruding hook tip. Large mouth width size F.



With no reduction of WLL and a thickened hook tip to avoid misuse e.g. incorrect fitting of the chain. Ideal chain support facilitated by the calibrated lugs. The U-bend insertion slot protects against accidental chain disengangement.

• World wide unique: The VIP Mecano System with the 4 mm and 28 mm chain.





VIP-Quality – "Made in Germany!"





Application examples
- VIP -

nse are

₩P +point

















YOUR BENEFITS...





VIP Stamping – on every chain link

VIP-stamped chains are manufactured with smaller tolerances in the inner width (size W1) and are coated with the fluorescent colour pink. In connection with the VIP stamped, pink coloured components, whose special clevis design has been perfectly harmonised, a distinctive chain connection is realised.

4 10 or 8 S

The approval of RUD's special quality VIP by the BG* is documented in short chain link intervals with the following: H1 refering to the manufacturer's number i.e 1 = RUD and 8 S or 10 meaning Grade 100.

Verification of quality

At regular intervals, the chains are stamped with a serial and batch number. This identification ensures a continuous record tracking of the manufacturing and proof load data even after a period of 10 years. After all we stick to our VIP quality.

Patented heat indicator

In high temperature environments the special fluorescent pink powder coating permanently changes its colour. Above 380°C the colour changes permanently to black. If this happens the chain assembly must be taken out of service (refer to page 7).

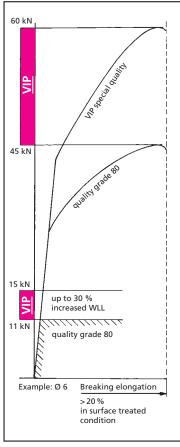
The geometric construction and tolerances of the VIP chains are aligned to a higher quality class. On request, **Corrud DS**, a 20 times more red rust resistant component than zinc plating, can be supplied.

VIP Grade 100

A consequential enhancement of the RUD – Mecano system with quality grade 80, which has stood to the test of time for over 30 years. V – distinguished, I – in, P – pink.

Using the patented VIP identification tag, the chain can easily be inspected for wear and pitch elongation. Please refer to pages 10 and 48.

BG* = Employers Liability Insurance Association.



TheThe highly qualitative VIP chains and components are provided with a duplex surface protection. This comprises of two processes i.e: Pre-treatment and pink powder coating. Due to this two process procedure, a relatively better surface protection is achieved in comparison to zinc plating.

The highly dynamic VIP-Mecano system and chains achieves a dynamic strength higher than the standard values. Tested with over 20,000 load cycles and with a factor ratio of 1.5 of their actual WLL.

An up to 30 % increase in the WLL in comparison to quality class 8

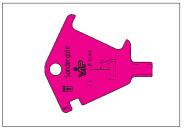
Material CrNiMo alloy steel, specially tempered, high toughness. Minimum breaking elongation \geq 25 % in natural black, \geq 20 % in pink coated.

Less sensitive to notching and hydrogen embrittlement than quality grade 80. Bending tests acc. standard DIN EN 818-2, bending min f = 0.8 x d is by far exceeded. 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 damages. Hence an increased life expectancy is achieved.

Quality grade 80 chains whose nominal diameter exceeds 18 mm can be substituted by a one size less nominal diameter chains in VIP quality. Giving the same WLL despite a 50 % weight reduction **Grade 80** Ø 18 Ø 16 10 t 10 t

RUD VIP- and Grade 80 chains are likewise components according to DIN EN 1677, designed for a dynamic loading of more than 20000 load cycles at a 50 % overload (1.5 x WLL). The BG (German Employers Liability Insurance Association) recommends: At a high number of load cycles (continuous operation), the bearing stress must be reduced according to FEM/ISO classification 18_m (M3 acc. to EN 818-7); f.e. by using the next bigger chain diameter.







FOOL-PROOF »IN PINK«

FOOL-PROOF »IN STAMPING«

FOOL-PROOF »IN PINK+STAMPING«

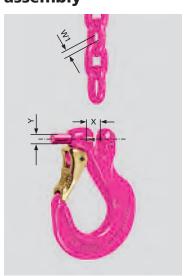
The proven clevis connection system has been further enhanced with the new VIP range. With it's dimensional adjustments and colour (VIP chains and components in pink) arrangement of the chains and the components, a fool-proof assembly is assured.

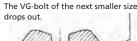
Clevis dimension "X" avoids the connection of a larger VIP chain. VIP chains are manufactured with tighter tolerances in the inner width (size W1). The connection bolt diameter "size Y" avoids the connection of the next smaller VIP chain size.

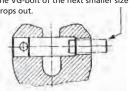
Result:

Only chains and components with the same WLL are distinctively assembled together.

VIP-**Fool-proof Mecano** assembly









Attention:

VIP chains (4) 85 or 10 must only be connected with VIP components (R) 85 or 10. Follow RUD operating manual and user instructions! Use only original VIP spare

The German Employers Liability Assurance Association requires:

- 1.) Chain slings of Grade 100 must not be used in combination with chains and components from different manufacturers.
- 2.) Components which are recognized as Grade 100, must not be mixed with Grade 80 sling components.

Slot of the tensioning sleeve must be visible facing to the front! The tensioning sleeve must be used only once.





The special fluorescent VIP powder coating permanently shows the temperature to which the VIP chain has been exposed.

Operated in the prohibited temperature ranges i.e. above 380°C, the pink colouration turns black with bubles on the surface. Replace the VIP chains or return them to the supplier for repair.

LIFTING MEANS

BRUD

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Application examples of the versatile VIP system.

Assembly

VIP heat indication **European** patent





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Inspection and documentation made easy!



Required, regularly inspections of lifting means are time consuming and can often be fault-prone.

Due to the **RFID-technology** (Radio-Frequenz-Identifikation) these time consuming methods and massive amount of paper work become a thing of the past.

With RFID technology, chain slings and the components can now be effortlessly and quickly identified without errors, and the Product Identification Number can be easily registered and managed like never before.

Radio Frequency Identification (RFID) continues to evolve as a major technology — modernizing the way documentation and inventory management is done.





RUD-ID-POINT®

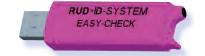
The components can be marked by the **RUD-ID-Point**® (RFID chip) and with the unique identification number distinguished.





RUD-ID-EASY-CHECK®

The robust **RUD-ID-EASY-CHECK**® readers capture the Identification number of the **RUD-ID-Point**® and transfer it to the **RUD-ID-NET**® application (software), resp. optionally to your PC application like WordPad, MS Word, MS Excel, SAP etc.



RUD-ID-NET®

The extendable **RUD-ID-NET**® application (software) will support your product administration and documentation.







RUD-ID-POINT®





Ref. no.: 7998881

Ref. no.: 7902580



Ref. no.: 7901288

The innovative and unrivalled **RUD-ID-POINT**® performs in varied conditions ranging from -80°C temperatures to an astonishing +270°C. They hold a high level of water and pollution resistance and are extremely robust against damage.

The RFID-chip does not harm the capability of the components of any kind.

RUD-ID-POINT® 8 mm or 4 mm (13.56 MHz HF):

Press-fit transponder (in metal). No glue necessary.

Sizes: 8 mm x 3.25 mm (5/16" x 1/8") and 4 mm x 3.5 mm (5/32" x 9/64"). The usage of **RFID-Chips** embedded into a component is a patented technological innovation.

RUD-ID-TAG® (13.56 MHz HF):

Metal reinforced tag for chains, connecting links, wire ropes, can be attached to parts with bolts also.

Size: 50 mm x 32 mm x 6 mm (2" x 1 1/4" x 15/64").

Additional colors and design on request.

RUD-ID-EASY-CHECK®



Reference no.: 7901000



Reference no.: 7901524 (Bluetooth)

The RUD-ID-EASY-CHECK® readers are compatible with the RUD-ID-POINTS® as well as with common high frequency transponders/chips (ISO 15693). The transfer of the identification number is carried out either by USB or Bluetooth and can be linked up with the RUD-ID-NET® application (software), almost all Office applications (WordPad, MS Word, MS Excel, Open Office) and also with SAP or other programs.

RUD-ID-EASY-CHECK® (13.56 MHz):

USB-reader for identifying the unique number of the **RUD-ID-POINT**®.

RUD-ID-DISPLAY-CHECK® (13.56 MHz):

The unique identification number is shown on the **RUD-ID-POINT®** which is then displayed on the integrated LCD-display. The data can be transferred to a laptop or PC up to 15 metres away.

RUD-ID-NET®



The RUD-ID-NET® application (software) has many advantages; it is easy to use, requires no digital maintenance and ensures you manage inspections of products effectively.

- It enriches your data by providing detailed product information, inspection dates, test reports and automatic test reminders to selected employees. The benefits are endless.
- Product information and documentation such as inspection reports and product data can be easily accessed via the RUD web portal.
- Upgradeable software for different work equipment which has to be inspected regularly (f.e. work platforms, roller shutter).

use































VIP round steel link chain Grade 10

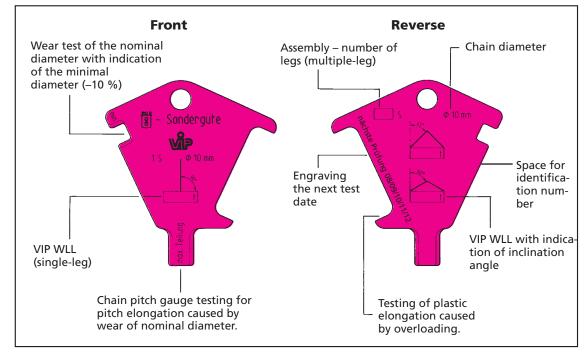
Size d in mm Ø	4	6	8	10	13	16	20	22	28
Pitch P in mm	12	18	24	30	39	48	60	66	84
inside, width W1 bi min. mm	5.2	7.8	10.4	13	17	21	26	28.6	36.4
WLL in t	0.63	1.5	2.5	4.0	6.7	10	16	20	31.5
Proof load MPF min. kN	15.7	37.5	62.5	100	166	250	395	500	772
Breaking load BF min. kN	25	60	100	160	265	400	630	800	1240
Weight kg/m	0.36	0.85	1.5	2.4	4.0	6.0	9.5	12.3	18.6
Surface:	Dupl	ex prot	ection =	pre-tre	atment	+ pink	oowder	coating	
Order no:	7984399	7100477	7100478	7100479	7100480	7100481	7983689	7100482	7900670
Surface:	Co	orrud-D	5-black						
Order no:	7987349	7987591	7986226						



Minimal ultimate elongation: natural black \geq 25 %, Pink \geq 20 %

Stamped: VIP identification stamped in every chain link, manufacturing number and the BG approval stamp H1

VIP identification tag with an integrated chain testing gauge EP 610611





Testing wear of nominal diameter



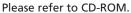
Testing for plastic elongation caused by overload



Testing for pitch elongation caused by wear of nominal diameter



	1-leg	2-	leg	3- and	d 4-leg	endless
Nominal size of sling chain in mm	9) accorded			endless chain sling in choke hitch
Inclination-∢ β	0°	0–45°	> 45–60°	0–45°	> 45–60°	_
Load factor	1	1.4	1	2.1	1.5	1.6
Ø 4	0.63	0.88	0.63	1.32	0.95	1
6	1.5	2.1	1.5	3.15	2.25	2.4
8	2.5	3.5	2.5	5.25	3.75	4
10	4.0	5.6	4.0	8.4	6.0	6.4
13	6.7	9.5	6.7	14	10	10.6
16	10	14	10	21	15	16
20	16	22.4	16	33.6	24	25.6
22	20	28	20	42*	30	32
28	31.5	45	31.5	67**	47.5**	50
		In cas	se of unsymmet	rical loading, the	e load factors	



^{*} in connection with balancer up to 56 t (see page 28). **only 2 x 2 leg type available

must be reduced by 50 %.

		Endles	s chair	1	Ch	tch	
Nominal size of sling chain in mm	1	A CONTRACTOR OF THE PROPERTY O		A CONTRACTOR OF THE PARTY OF TH			
	si	ngle	double		single	do	uble
	0–45°	> 45-60°	0-45°	> 45-60°	0°	0-45°	> 45-60°
Load factor	1.1	8.0	1.7	1.2	8.0	1.1	0.8
Ø 4	0.69	0.5	1.1	0.75	0.5	0.69	0.5
6	1.65	1.2	2.55	1.8	1.2	1.65	1.2
8	2.75	2	4.25	3	2	2.75	2
10	4.4	3.2	6.8	4.8	3.2	4.4	3.2
13	7.5	5.3	11.2	8	5.3	7.5	5.3
16	11	8	17	12	8	11	8
20	17.6	12.8	27.2	19.2	12.8	17.6	12.8
22	22	16	34	24	16	22	16
28	35.5	25	53** 37.5**		25	35.5	25

In case of **unsymmetrical** loading, the load factors must be modified as follows:



When using sling chains at temperatures beyond 200°C (refer to page 7), the permissible WLL has to be reduced.
Working load in % at chain temperature of:

– 40° up to + 200 °C	above 200° – 300 °C	above 300° – 380 °C
100 %	90 %	60 %



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VIP Grade 100 WLL in tonnes

of single and multiple leg chain slings with different angles of inclination and symmetrical loading of the legs.



In case of choke hitch applications, reduce WLL by 20 %.

A reduction of 20 % for the choke hitch and bundling (sharp edge) is already within the calculation.

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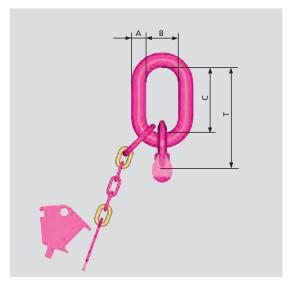






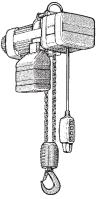
VIP Master link for single leg VRK1

for smaller load hooks



VBK 1 master link with an in all multi-directional movable welded VRG connector. Thus ensuring that the correct chain diameter and number of legs can be connected. Complete identification tag with an integrated testing gauge. Connecting bolt and tensioning sleeve are pre-assembled.

Can also be supplied as **end link (VB-1)** without VIP identification tag.

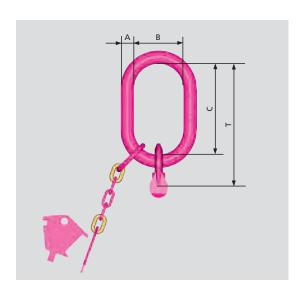


The size corresponds with that of connecting link type B according to DIN 5688. Sufficient for attachment in small load hooks on hoisting devices.

Chain	WLL t	Туре		Α	В	C	Т	kg/pc.	Ref.	No.
6	1.5	VBK 1 – 6	(VB 1 – 6)	13	25	54	82	0.5	71 00 675	(7100220)
8	2.5	VBK 1 – 8	(VB 1 – 8)	16	34	70	107	0.7	71 00 676	(7100221)
10	4	VBK 1 – 10	(VB 1 – 10)	18	40	85	131	1.1	71 00 677	(7100222)
13*	6.7	VBK 1 – 13	(VB 1 – 13)	22	50	115	174	2.0	71 00 678	(7100223)
16*	10	VBK 1 – 16	(VB 1 – 16)	26	65	140	211	3.3	71 00 679	(7100224)
20*	16	VBK 1 – 20	(VB 1 – 20)	32	75	170	264	7.6	71 04 092	(7104093)
22*	20	VBK 1 – 22	(VB 1 – 22)	36	110	200	294	9.0	71 00 680	(7102060)
28**	31.5	_	(VB 1 – 28)	62	130	150	215	13.7	_	(79 00 641)**

VIP Master link for single leg VAK 1

for standard crane hooks e.g. DIN 15401



VBK 1 master link with an in all multi-directional movable welded VRG connector. Thus ensuring that the correct chain diameter and number of legs can be connected. Complete identification tag with an integrated testing gauge. Connecting bolt and tensioning sleeve are pre-assembled.

The size corresponds with that of connecting link type A according to DIN 5688.

Master link VAK1 can be used for crane hooks up to No. DIN 15401. – standard size hooks

Size:	6 –	No.	2.5	8 -	-	No.	2.5
	10 –	No.	5	13 -	-	No.	6
	16 –	No.	8	20 -	-	No.	25
	22 –	No.	25				

Can also be supplied as **end link (VA-1)** without identification tag.

Chain	WLL t	Туре	Α	В	C	Т	kg/pc.	Ref.No).
6	1.5	VAK 1 – 6 (VA	1 – 6) 13	60	110	138	0.6	71 00 681	(7100237)
8	2.5	VAK 1 – 8 (VA	1 – 8) 16	60	110	147	0.9	71 00 682	(7100238)
10	4	VAK 1 – 10 (VA	1 – 10) 18	75	135	181	1.4	71 00 683	(7100239)
13*	6.7	VAK 1 – 13 (VA	1 – 13) 22	90	160	218	2.4	71 00 684	(7100240)
16*	10	VAK 1 – 16 (VA	1 – 16) 26	100	180	250	3.7	71 00 685	(7100241)
20*	16	VAK 1 – 20 (VA	1 – 20) 40	180	340	434	14.7	71 04 089	(7104090)
22*	20	VAK 1 – 22 (VA	1 – 22) 45	180	340	434	16.5	71 00 686	(7102092)
28**	31.5	VAK 1 – 28 –	100	250	280	360	64.3	79 00 642**	

^{*}Attention: Master link size 13/16/20/22 with a special identification tag (refer to page 16).

A testing gauge will be additionally supplied with the master link sizes 13/16/20/22

^{**}see MAXI-pages 32/33



VSAK1 master link is supplied complete with a welded VRG connector. Therefore only the correct chain diameter and number of legs can be connected. The identification tag with an integrated testing gauge is already attached.

Connecting bolt and tensioning sleeve are pre-assembled.

Owing to a larger gradation of the inner width "B" of the VSAK, improper use (BGR 500) is almost eliminated and wear of the crane hook is minimised. Additional connective components for over size hooks are not necessary.

6.7

10

B 190 A 250

LIFTING MEANS

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WÎP

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+point

VIP special master link 1-leg VSAK 1

VSAK – size **B** = **140** VSAK – size **B** = **190**

10

13*

16*

for standard hooks up to. for standard hooks up to.

VSAK 1 - 10/140

VSAK 1 - 13/140

VSAK 1 – 16/140

No. 16 DIN 15401 No. 32 DIN 15401 No. 50 DIN 15401

260

260

260

391

433

471

VSAK – sizo	e B = 250	for standard hooks u	p to.	No. 50	OIN 1540	1
Chain	WLL t	Туре	Α	В	С	Т
6	1.5	VSAK 1 - 6/140	18	140	260	342
8	2.5	VSAK 1 – 8/140	22	140	260	367

Chain	WLL t	Туре	Α	В	C	Т	kg/pc.	Ref. No.
8	2.5	VSAK 1 – 8/190	22	190	350	457	4.0	71 00 692
10	4	VSAK 1 – 10/190	26	190	350	481	6.0	71 00 693
13*	6.7	VSAK 1 – 13/190	32	190	350	523	9.9	71 00 694
16*	10	VSAK 1 – 16/190	36	190	350	560	13.5	71 00 695

140

140

140

26

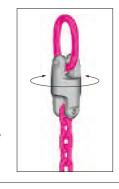
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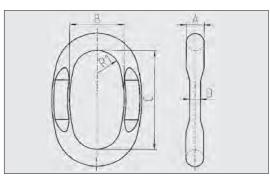
32

Chain	WLL t	Туре	Α	В	C	Т	kg/pc.	Ref. No.
10	4	VSAK 1 – 10/250	36	250	460	590	12	71 00 696
13*	6.7	VSAK 1 – 13/250	36	250	460	634	13	71 00 697
16*	10	VSAK 1 – 16/250	40	250	460	670	14	71 00 698
20*	16	VSAK 1 – 20/250	45	250	460	724	25	71 04 100
22*	20	VSAK 1 – 22/250	51	250	460	754	33	71 00 699

Forged Special-Link (in pink) for small load hooks, extreme light-weight construction – centre flattening respective to the corresponding chain diameter.

Fits to the Universal-Swivel-PowerPoint from page 29 or to the Lifting Point PowerPoint-B.





kg/pc.

1.7

3.1

4.4

7.6

8.1

Ref. No.

71 00 687

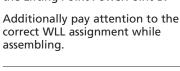
71 00 688

71 00 689

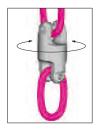
71 00 690

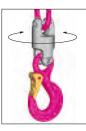
71 00 691

VIP special master link 1-leg PP-X-B – lightweight construction –



Chain	WLL t	Туре	Α	В	C	D	R_1	kg/pc.	Ref. No.
4	0.63	PP 0.63t - B	9	35	65	4	15	0.1	79 89 531
6	1.5	PP 1.5t - B	11	35	65	6	15	0.14	85 02 173
8	2.5	PP 2.5t - B	13	40	75	8	18	0.2	85 02 174
10	4	PP 4t - B	16	45	95	10	20	0.32	85 02 175
13	6.7	PP-VIP Ø 13-B	21	60	130	13	25	1.02	85 02 176
16	10	PP-VIP Ø 16-B	24	65	140	16	28	1.4	85 02 177





MAXI



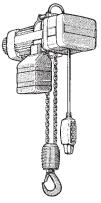


VIP-**Master link** 2-leg VBK 2

for smaller load hooks



VBK 2 master link is supplied with two welded VRG connectors. Therefore only the correct chain diameter and number of legs can be connected. The identification tag with an integrated testing gauge is already attached. Connecting bolt and tensioning sleeve are pre-assembled.



The size corresponds with that of connecting link type B according to DIN 5688. Sufficient for attachment to small load hooks on hoisting devices.

Chain	WLL t	Туре	Α	В	С	Т	kg/pc.	Ref. No.
6	2.1/1.5	VBK 2 – 6	13	25	54	82	0.5	71 00 700
8	3.5/2.5	VBK 2 – 8	16	34	70	107	0.9	71 00 701
10	5.6/4.0	VBK 2 – 10	18	40	85	131	1.4	71 00 702
13*	9.5/6.7	VBK 2 – 13	22	50	115	174	2.7	71 00 703
16*	14/10	VBK 2 – 16	26	65	140	211	4.4	71 00 704
20*	22.4/16	VBK 2 – 20	32	75	170	264	11	71 04 097
22*	28/20	VBK 2 – 22	36	110	200	294	13.7	71 00 705

VIP-**Master link** 2-leg VAK 2

for standard crane hooks



VBK 2 master link is supplied with two welded VRG connectors. Therefore only the correct chain diameter and number of legs can be connected. The identification tag with an integrated testing gauge is already attached. Connecting bolt and tensioning sleeve are pre-assembled.

The size corresponds with that of connecting link type A according to DIN 5688.

Can be used for crane hooks up to No. DIN 15401. simple hook.

Size:

6 – No. 2.5 10 – No. 6 8 - No. 5 13 - No. 8

- No.	10
No.	25
	- No. - No.

<u> </u>	No.	10	20 –	No.
. –	No.	25		

Chain	WLL t	Type	Α	В	C	Т	kg/pc.	Ref. No.
6	2.1/1.5	VAK 2 – 6	13	60	110	138	0.7	71 00 706
8	3.5/2.5	VAK 2 – 8	18	75	135	172	1.4	71 00 707
10	5.6/4.0	VAK 2 – 10	22	90	160	206	2.3	71 00 708
13*	9.5/6.7	VAK 2 – 13	26	100	180	238	3.9	71 00 709
16*	14/10	VAK 2 – 16	32	110	200	270	6.6	71 00 710
20*	22.4/16	VAK 2 – 20	40	180	340	434	16	71 04 095
22*	28/20	VAK 2 – 22	45	180	340	434	20	71 00 711
28**	45/31 5	VAK 2 – 28	100	250	280	360	64 3	79 00 642

^{**}see MAXI-pages 32/33

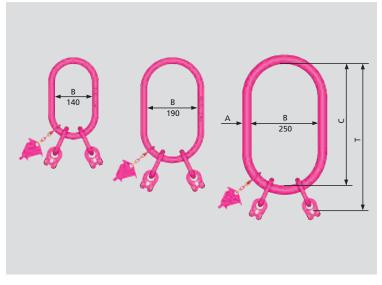


VSAK 2 master link is supplied with two welded VRG connectors. Therefore only the correct chain diameter and number of legs can be connected. The identification tag with an integrated testing gauge is already attached.

Connecting bolt and tensioning sleeve are pre-assembled.



Subject to technical modifications!





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VIPspecial master link 2-leg VSAK 2

Owing to a larger gradation of the inner width "B" of the VSAK, improper use (BGR 500) is almost eliminated and wear of the crane hook is minimised. Additional connective components for over size hooks are not necessary.

VSAK – Size B =	140	for standard hooks up to	No. 16	DIN 15401
VSAK – Size B =	190	for standard hooks up to	No. 32	DIN 15401
VSAK – Size B =	250	for standard hooks up to	No. 50	DIN 15401

Chain	WLL t	Туре	Α	В	С	Т	kg/pc.	Ref. No.
6	2.1/1.5	VSAK 2 - 6/140	18	140	260	342	2.3	79 94 070
8	3.5/2.5	VSAK 2 - 8/140	22	140	260	367	3.5	79 94 071
10	5.6/4.0	VSAK 2 – 10/140	26	140	260	391	5.2	79 94 072
13*	9.5/6.7	VSAK 2 - 13/140	32	140	260	433	9.2	79 94 073
16*	14/10	VSAK 2 - 16/140	32	140	260	471	12.5	79 94 074
Chain	WLL t	Туре	Α	В	C	Т	kg/pc.	Ref. No.
8	3.5/2.5	VSAK 2 – 8/190	22	190	350	457	4.3	79 94 075
10	5.6/4.0	VSAK 2 – 10/190	26	190	350	481	6.5	79 94 076
13*	9.5/6.7	VSAK 2 – 13/190	32	190	350	523	10.6	79 94 077
16*	14/10	VSAK 2 – 16/190	36	190	350	560	15.6	79 94 078
Chain	WLL t	Туре	Α	В	C	Т	kg/pc.	Ref. No.
10	5.6/4.0	VSAK 2 – 10/250	36	250	460	591	12.8	79 94 079
13*	9.5/6.7	VSAK 2 – 13/250	36	250	460	634	14.9	79 94 080
16*	14/10	VSAK 2 – 16/250	40	250	460	671	20.5	79 94 081
20*	22.4/16	VSAK 2 – 20/250	45	250	460	724	32.5	79 94 083
22*	28/20	VSAK 2 – 22/250	51	250	460	754	43	79 94 084











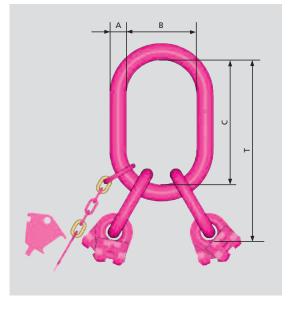








VIP-Master link 4-leg VAK 4



VAK 4 leg master link is supplied with four welded VRG connectors. Therefore only the correct chain diameter and number of legs can be connected. The identification tag with an integrated testing gauge is already attached. Connecting bolt and tensioning sleeve are pre-assembled.

The size corresponds with that of connecting link type A and B according to DIN 5688.

Can be used for crane hooks up to No. acc. to DIN 15401.

Size:	6 –	No. 5	8 –	No. 6
	10 –	No. 8	13 –	No. 10
	16 –	No. 16		No. 32
	22 –	No. 32		

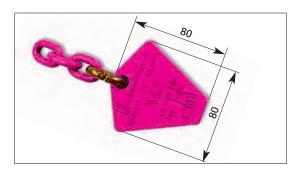
Chain	WLL t	Туре	Α	В	С	Т	kg/pc.	Ref. No.
6	3.1/2.2	VAK 4 – 6	18	75	135	217	1.5	71 00 742
8	5.2/3.7	VAK 4 – 8	22	90	160	268	2.8	71 00 743
10	8.4/6.0	VAK 4 – 10	26	100	180	311	4.6	71 00 744
13*	14/10	VAK 4 – 13	32	110	200	373	8.3	71 00 745
16*	21/15	VAK 4 – 16	36	140	260	470	13.7	71 00 746
20*	33.6/24	VAK 4 – 20	51	190	350	614	39	71 04 181
22*	42/30	VAK 4 – 22	51	190	350	644	42	71 00 747

^{*}Attention: Master link size 13/16/20/22 with a special identification tag (refer to page 16).

A testing gauge will be additionally supplied with the master link sizes 13/16/20/22

3 leg master links VAK 3 and VSAK 3 do have the same reference numbers as 4 leg master links. No separate stock exists.

VIP-Spare parts VKZA



VIP identification tag for chain diameter

Diameter Ref. No.

Ø 13 mm/16 mm/20 mm/22 mm/28 mm 79 89 739

VKPL



VIP identification tag as *chain testing gauge, for diameters 13mm/16 mm/20 mm/22 mm

Chain	Туре	Ref. No.
13	VKPL-13	71 00 667
16	VKPL-16	71 00 672
20	VKPL-20	71 04 045
22	VKPL-22	71 01 832
28	MAXI-Tester-28	79 00 709

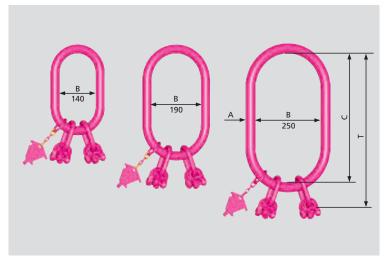
*Comes as separate item with each Masterlink shipment of these sizes.



VSAK 4 master link is supplied with four welded VRG connectors. Therefore only the correct chain diameter and number of legs can be connected. The identification tag with an integrated testing gauge is already attached.

Connecting bolt and tensioning sleeve are pre-assembled.

For the respective crane hooks refer to page 13.





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VIP-Special master link 4-leg VSAK 4

Chain	WLL t	Туре	Α	В	C	Т	kg/pc.	Ref. No.
6	3.1/2.2	VSAK 4 – 6/140	22	140	260	342	3.3	71 00 748
8	5.2/3.7	VSAK 4 – 8/140	26	140	260	367	5.0	71 00 749
10	8.4/6.0	VSAK 4 – 10/140	32	140	260	391	7.9	71 00 750
Chain	WLL t	Туре	Α	В	C	T	kg/pc.	Ref. No.
6	3.1/2.2	VSAK 4 – 6/190	22	190	350	432	3.6	71 00 751
8	5.2/3.7	VSAK 4 – 8/190	26	190	350	457	5.5	71 00 752
10	8.4/6.0	VSAK 4 - 10/190	32	190	350	481	9.2	71 00 753
13*	14/10	VSAK 4 - 13/190	36	190	350	523	13.5	71 00 754
Chain	WLL t	Туре	Α	В	С	T	kg/pc.	Ref. No.
10	8.4/6.0	VSAK 4 – 10/250	36	250	460	591	14.8	71 00 755
13*	14/10	VSAK 4 – 13/250	40	250	460	634	20.4	71 00 756
16*	21/15	VSAK 4 - 16/250	51	250	460	671	34.5	71 00 757
20*	33.6/24	VSAK 4 - 20/250	54	250	460	754	45.5	**79 93 210
22*	42/30	VSAK 4 – 22/250	56	250	460	763	53.6	**79 93 211

*Attention: Master link size 16/20/22 with a special identification tag (refer to page 16). A testing gauge will be additionally supplied with the master link sizes 13/16/20/22

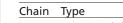
**with VVS-connection



VIP identification tag with integrated testing

Chain	Туре	Ref. No.
4	VKZA-4	79 87 054
6	VKZA-6	71 00 804
8	VKZA-8	71 00 805
10	VKZA-10	71 00 806
13	VKZA-13	71 00 807

VIPspare parts VKZA



VC halts with tansianing classes

vg boits with tensioning sleeves							
Chain	Туре	Ref. No.					
4	VG-4/retaining pin 4	79 84 300/51 299					
6	VG-6/retaining pin 6	71 01 594/59 289					
8	VG-8/retaining pin 8	71 01 595/57 490					
10	VG-10/retaining pin 10	71 01 596/59 021					
13	VG-13/retaining pin 13	71 01 597/59 022					
16	VG-16/retaining pin 16	71 01 598/59 023					
20	VG-20/retaining pin 20	71 02 717/59 386					
22	VG-22/retaining pin 22	71 01 599/59 387					
28	VG-28/retaining pin 28	79 00 708/63416					

VG/SP





MAXIe

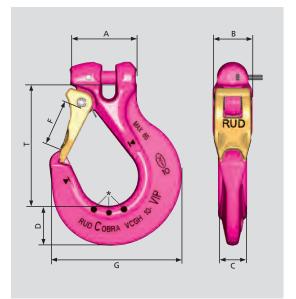






VIP-**Cobra hook** with safety latch **VCGH**

*● ● Patented wear marks showing the statutory allowable wear hint.



Extremely robust improved version.

No protruding hook tip.

Forged safety latch engages into the tip of the hook and is thus protected against lateral

A triple-coiled, double-leg spring in stainless steel. Thickened tip of the hook prevents misuse. Wearing edges on both sides.

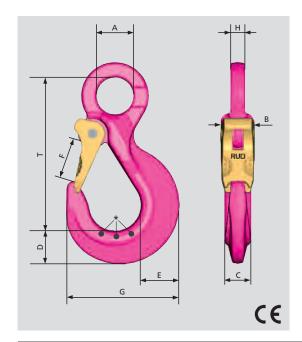
Gauge marks for measuring the width of the hook opening.

Fmax. = Maximum distance between the gauge marks.



Chain	WLL t	Tupo	Α	В		D	F	F max.	G	т	kg/pc.	Ref. No.
Criain	VVLL	Type	А	Ď		ע	Г	FilldX.	ū	ı	κg/pc.	nei. No.
6	1.5	VCGH 6	38	22	16	20	25	45	72	76	0.4	71 00 498
8	2.5	VCGH 8	50	28	20	28	30	52	95	97	0.9	71 00 499
10	4.0	VCGH 10	60	36	26	36	35	65	118	108	1.5	71 00 500
13	6.7	VCGH 13	76	46	30	37	40	73	135	126	2.7	71 00 501
16	10.0	VCGH 16	83	56	36	49	48	87	161	152	4.3	71 00 502
20	16.0	VCGH 20	112	68	50	69	63	114	218	195	10.0	71 03 385
22	20.0	VCGH 22	117	78	50	74	63	114	223	198	11.5	71 01 603
28	31.5	VCGH 28	150	101	69	88	90	155	295	275	26.4	79 00 638

VIP-Cobraeye hook with safety latch **VCÖH**



For special wire rope slings, VIP chain slings, PowerPoint combinations or the universal swivel (refer to page 29).

Extreme durable, compact design, with pink powder coating.

No protruding hook tip.

The forged, guenched and tempered safety latch, engages into the hook tip.

Therefore protected against lateral bending. Triple coiled, stainless steel double leg spring. Thickened hook tip to avoid improper use. Wear edges on both sides.

Gauge marks for measuring the width of the hook opening.

F_{max.} = Distance between the gauge marks, see VCGH data above.





Chain	WLL t	Туре	Α	В	C	D	Ε	F	G	Н	Т	kg/pc.	Ref. No.
4	0.63	VCÖH 4	18	18	12	13	14	18	52	8	75	0.14	85 02 323
6	1.5	VCÖH 6	24	22	16	22	24	25	73	11	98	0.5	85 02 203
8	2.5	VCÖH 8	32	28	20	28	31	30	95	13	126	0.8	85 02 142
10	4.0	VCÖH 10	38	36	26	36	39	35	118	17	150	1.6	85 02 145
13	6.7	VCÖH 13	48	45	30	37	48	40	135	21	170	2.9	85 02 204
16	10	VCÖH 16	63	56	36	49	58	48	161	27	208	4.2	85 02 146



Considerably larger mouth width than VCGH, but without a safety latch.

Use only where unintentional unhooking is impossible.

Inappropriate for overhead lifting!

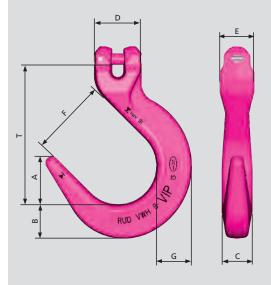
When using foundry hooks, special attention must be paid and a risk assessment must be carried out before using.

Robust cross section (size C/G) is resistant against increased lateral forces.

Specially designed wearing edges to protect the chain link, compare the dimension "E". Connecting bolt and tensioning sleeve are preassembled.

Gauge marks for measuring the width of the hook opening.

Fmax. = Maximum distance between marked points.





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VIP-**Foundry** hook **VWH**

Chain	WLL t	Туре	Α	В	C	D	Е	F	F max.	G	Т	kg/pc.	Ref. No.
6	1.5	VWH 6	30	22	18	30	22	50	63	22	87	0.5	71 00 210
8	2.5	VWH 8	40	29	26	40	29	64	81	30	115	0.9	71 00 211
_10	4.0	VWH 10	46	37	30	50	36	76	96	37	130	1.7	71 00 212
_13	6.7	VWH 13	51	45	37	64	46	90	115	51	168	3.0	71 00 213
16	10.0	VWH 16	64	56	40	75	56	100	129	58	190	5.7	71 00 214
20*	16	VWH 20	96	80	73	102	80	136	183	80	277	15.1	79 98 157
22*	20	VWH 22	96	80	73	102	80	136	183	80	277	15.1	79 98 158

^{*}weight optimized in Skeletto-Technology and patented wear marks.

Consisting of a forged safety latch, a triple coiled corrosion protected double leg spring and a tensioning sleeve.

Can be supplied as complete set. Easy installa-



Chain	Туре	kg/pc.	Ref. No.
4	Si-Set VMH-4	0.04	79 87 901
6	Si-Set VCGH-6	0.04	71 00 299
8	Si-Set VCGH-8	0.07	71 00 300
10	Si-Set VCGH-10	0.09	71 00 301
13	Si-Set VCGH-13	0.15	71 00 302
16	Si-Set VCGH-16	0.24	71 00 303
20	Si-Set VCGH-20	0.40	71 01 604
22	Si-Set VCGH-22	0.40	71 01 604
28	Si-Set VCGH-28	1.6	79 00 640

Subject to technical modifications!



Safety latch set for **VCGH**



minic





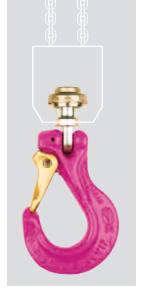


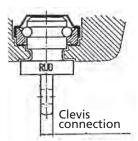
Can also be used as spare part for the RUD GSH 80 hook!





Hoist Swivel adapter HWA

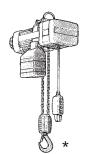




- Supplied complete with original Demag ball bearing
- Manufactured from hightempered special steel
- tested acc. to EN 1677
 suitable for single leg snatch blocks and for double leg lower blocks
- suitable for all RUD clevis Mecano components

Application examples:

for Demag hoists





for Demag-DK-hoists

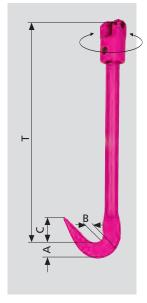
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Туре		WLL t	Clevis connection	kg/pc.	Ref. No.
HWA 6 DK 400	DC 1+2 up to 250 kg	0.4	6	0.15	7985570
HWA 6 DK 800	DC 5 up to 500 kg	0.8	6	0.30	7985571
HWA 8 DK 800	DC 5 up to 500 kg	0.8	8	0.40	7985572
HWA 8 DK 1250	DC 10+20 up to 1000 kg	1.25	8	0.55	7985573
HWA 10 DK 2500	DC 20** 1000-2000 kg	2.5	10	0.90	7985574
HWA 13 DK 5000		5.0	13	1.3	7985575

**only in	combination	with	Demag	DK	bottom	block
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for Demag-PK-hoists

Туре	WLL kg	Ref. No.
HWA 6 PK (1)	250	51 287
HWA 6 PK (2)	500	51 288
HWA 8 PK (2)	500	51 293
HWA 8 PK (5)	1000	51 294
HWA 10 PK (10)	2000	51 295

VIP-Bale hook VBMH with ballbearing swivel





The bevelling on the back of the hook simplifies the horizontal hook insertion between the bales. The clevis connection enables a direct chain connection and the integrated ball bearing swivel prevents the chain from automatically spinning.

Suitable only for the transport of bundled bale packages.

Not suitable for choke lifts!

Inappropriate for overhead lifting!

When using bale hooks, special attention must be paid and a risk assessment must be carried out before using.

Chain	WLL t	Туре	Α	В	С	Т	kg/pc.	Ref. No.
8	2.5	VBMHWA – 8	35	18	61	381	2.5	79 91 478
10	4.0	VBMHWA -10	35	18	61	381	2.5	79 89 017



- Optimized weight by innovative structure design (Skeletto).
- Locking device designed ergonomically, easy to handle with anti-slip-surface - no danger of bruise.
- Wear distance ridges which protect the first chain link.
- Thickened tip of the hook prevents incorrect an dangerous use of the hook tip.
- Marker points to check the width of the hook on inspection (often copied).
- Patented wear markings which show the replacement of the stated wear.





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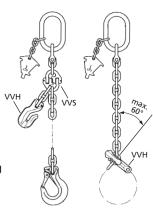
VIP-**Self-locking** hook VAGH (S)

Chain	WLL t	Туре	Α	В	С	D	Е	F	F _{max}	Т	kg/pc.	Ref. No.
8	2.5	VAGH (S)-8	40	30	27	28	97	44	60	121	1.0	79 00 046
10	4.0	VAGH (S)-10	49	37	30	31	107	48	66	135	1.5	79 00 047
13	6.7	VAGH (S)-13	61	48	36	40	133	61	81	169	2.9	79 00 048

- No reduction of the VIP-WLL.
- Thickened hook tip to avoid misuse e.g; incorrect insertion of the chain.
- The calibrated tooth lugs facilitate an optimal chain positioning in the hook.
- The curved insertion opening prevents the chain from easily falling out in compliance with DIN 5692.
- Connecting bolt and tensioning sleeve are pre-assembled.

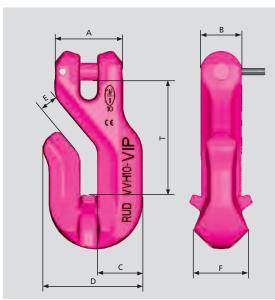
technical modifications

Subject to



Shortening by means of VVS and VVH

Endless chain by means of VVH



VIPshortening hook VVH



Special designed hook tip to avoid misuse.



Probable misuse!

WLL t Chain Α В C D Ε F Τ Ref. No. Type kg/pc. 1.5 VVH 6 34 18 20 44 7.5 23 53 0.27 79 88 658 6 8 2.5 VVH 8 38 22 25 54 9.5 33 64 0.35 79 87 319 10 4.0 **VVH 10** 47 28 31 68 12 42 80 8.0 79 87 320 6.7 **VVH 13** 60 40 87 15 47 103 2.2 79 87 321 13 36 75 50 57 10.0 **VVH 16** 45 108 18.5 125 3.5 79 88 669 16 20 16.0 VVH 20 92 58 63 138 24 76 162 8.4 85 03 630 102 85 03 631 22 20.0 VVH 22 62 69 151 26 83 179 11.0

Attention:

Standard for shortening ele-ments DIN 5692! ments DIN 3032: All RUD shortening components do already fulfil these requirements.

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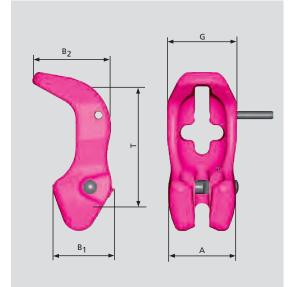




VIP-Multishortening claw VMVK EP 0736150

Attention:

Standard for shortening elements DIN 5692! All RUD shortening components do already fulfil these requirements.



After decades of success the RUD shortening claw has been further enhanced.

Fitted on a continuous chain strand at any required position.

Fitted permanently on the chain leg at any required position, no additional chain coupling devices are required.

It can either be mounted or easily moved to any position along the chain leg.

The ideal link shaped chain pocket facilitates even wearing of the chain **thus no reduction of the WLL**. A robust safety bolt with spring prevents accidental loosening of the chain in both loaded and unloaded condition.

In case of a mounted but not firmly fixed VMVK, please adhere to the instructions marked "Attention" below.

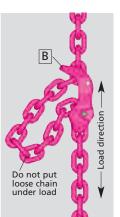
Complies with DIN 5692.

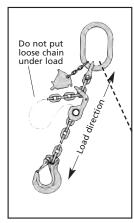
Chain	WLL t	Туре	Α	B ₁	B ₂	Т	G	kg/pc.	Ref. No.
6	1.5	VMVK 6	38	34	40	66	38	0.3	79 84 072
8	2.5	VMVK 8	46	41	52	88	48	0.55	71 00 760
10	4.0	VMVK 10	58	50	64	110	60	1.1	71 00 761
13	6.7	VMVK 13	74	64	86	143	76	2.4	71 00 762
16	10.0	VMVK 16	91	79	105	176	98	4.4	71 00 763

VMVK Fitting and Handling



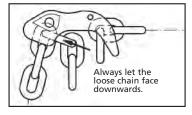






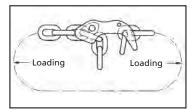
Fitting:

Pull loose chain strand through the crucifix. Secure the chain in the locking pocket at the required position and drive in the retaining pin A. Thus the multi shortening claw is fixed in the VIP chain strand. It is preferable to fit and secure the claw on the third chain link down from the suspension link for maximum adjustment. Slide the chain into the slot and secure.



Handling:

In a loosened condition, insert the required link of the to be loaded slack chain leg into the pocket support 1. Pull down the chain leg and press the securing bolt 3. The securing bolt locks automatically. Check the locking. To unlock reverse the above procedure while simultaneously pressing the securing bolt 3.



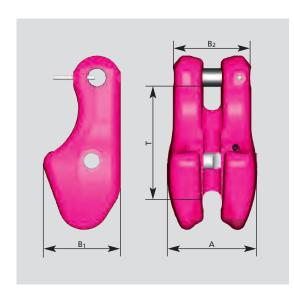
Attention:

If the VMVK or BSEK is used without securing bolt the chain must always be completely seated in the locking slot B!
When pulling/lifting the shortened chain assembly attention must be paid to ensure that the chain remains in the locking slot!

User advice:

Easier application for example if an endless sling is being used.

RUD®



For the 20, 22 and 28 mm VIP-chain, only the standard shortening claw is available in VIP quality.

- Pocket support is geutle to chain
- no reduction of WLL
- light construction

The robust safety bolt supported by a spring avoids an unintensional dismounting of the chain in unloaded as well as loaded conditions. Complies with DIN 5692.



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VIPshortening claw VV-20/22/28

Attention:

Standard for shortening ele-ments DIN 5692! ments DIN 5692! All RUD shortening components do components do already fulfil these requirements.

Chain	WLL t	Type	Α	B 1	В 2	Т	G	kg/pc.	Ref. No.
20	16	VV 20	117	101	102	140	-	8.8	79 94 856
22	20	VV 22	117	101	102	140	-	8.5	79 94 855
28	31.5	VV 28	150	130	130	170	-	16.9	79 00 643

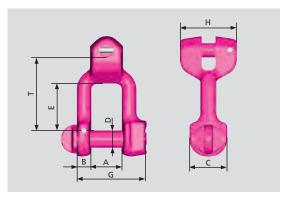
Assembly for Ø 20 and 22: 1-leg –	2-leg –	4-leg –			
adjustable – fully captive	adjustable – fully captive	adjustable – fully captive			
Example: VAK 2-22	VAK 4-22	VAK 4-22			
VKZA 22-1S 3-link VIP 22x66	VKZA 22-2\$	WS 22			
W 22 Attention: Fit with a 1-leg VKZA-tag	Attention:	W 22			







VIPfool-proof shackle VV-GSCH

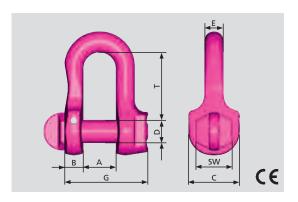


For technical description of the shackle refer to VV-SCH.

- Optimal dimensions max. mouth width with smallest shackle bolt.
- Due to a turned clevis connection, the shackle is extremely resistant against bending.

Chain	WLL t	Туре	Α	В	C	D	Ε	G	Н	Т	kg/pc.	Ref. No.
6	1.5	VV-GSCH 6	17	8	22	10	21	40	28	36	0.15	71 02 022
8	2.5	VV-GSCH 8	21	10	26	12	32	48	39	48	0.26	71 02 023
10	4.0	VV-GSCH 10	27	13	34	16	35	62	45	61	0.65	71 02 024
13	6.7	VV-GSCH 13	33	17	42	20	41	81	59	78	1.35	71 02 025
16	10.0	VV-GSCH 16	38	22	49	24	49	95	69	96	2.5	71 02 026
20	16.0	VV-GSCH 20	47	27	60	30	57	119	88	108	3.9	71 04 284
22	20.0	VV-GSCH 22	53	30	76	36	72	130	95	132	6.7	71 02 027

VIPfool-proof shackle VV-SCH



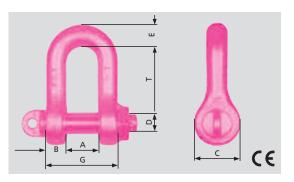
High-tensile patented version with an integrated safety thread in the shackle bracket. On both sides, smooth bolt support in the shackle. Bolt is turnable. No bending strength in the thread, it has only a securing function.

Pre-assembled with tensioning sleeve. Long term securing by driving in a tensioning sleeve. Special thread, thus fool-proof compared to other shackle bolts! Surface is pink powder coated.



Chain	WLL t	Туре	Α	В	C	D	Е	G	SW	Т	kg/pc.	Ref. No.
6	1.5	VV-SCH 6	14	8	22	10	8	36	17	30	0.1	71 00 607
8	2.5	VV-SCH 8	17	10	26	12	10	44	19	36	0.2	71 00 608
10	4.0	VV-SCH 10	21	13	34	16	13	56	24	49	0.4	71 00 609
13	6.7	VV-SCH 13	27	17	42	20	17	75	29	63	0.8	71 00 610
16	10.0	VV-SCH 16	33	21	49	24	21	90	36	73	1.5	71 00 611

VIP-Shackle high-tensile VC-SCH

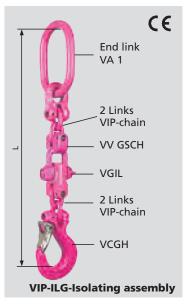


Shape acc. to DIN 82 101-C with an attached fixed nut. Securing by split-pin. Surface is pink powder coated.

WLL t	Туре	Α	В	C	D	Е	F	G	Т	kg/pc.	Ref. No.
14.0	VC-SCH 4.0	42	27	60	30	29	27	96	91	2.7	79 84 331
22.4	VC-SCH 5.0	47	30	72	36	33	30	107	111	4.4	79 84 332
31.5	VC-SCH 6.0	53	34	78	39	37	34	121	120	5.9	79 84 333

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VIP-**Isolating** Assembly

VIP-**Isolating** latch **VGIL + VV GSCH**

Up to 1000 V



Chain	WLL t	Туре	^T 1	T 2	L	Weight/	Ref. No. VIP-Isolat. assembly	Ref. No.
6	1.5	VGIL-6	71	35	357	1.4	79 84 258	79 84 161
	1.5	VGIL-0	/ 1		337	1.4	73 04 230	73 04 101
8	2.5	VGIL-8	91	43	431	2.4	79 84 259	79 84 162
10	4.0	VGIL-10	108	47	517	4.3	79 84 260	79 84 163
13	6.7	VGIL-13	132	54	632	8.2	79 84 261	79 84 164
16	10.0	VGIL-16	166	70	760	13.1	79 84 262	79 84 165

There is a danger of current flow when welding is carried out on suspended loads. The isolating latch isolates up to max. 1,000 V by means of a special non conductive plastic bearing of the clevis shackle bolt. Max operational temperature is +80°C.



Ensures even load distribution by means of a compensating pulley with a VVGSCH-8. There is neither overload nor deformation of the concrete element.



RUD VIP Cobra hook: with a robust hook securing, small, handy and easy to hookin in both diagonal and upper chords.



VIP-**Balancing** assembly "VIPoctopus" for concrete elements





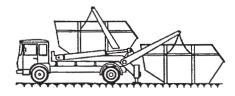
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Chain	WLL t	Туре	Ref. No. complete	Ref. No. clevis shackle with a deflection pulley
8/6	5.25	VIP-Krake 8 x 5000	79 87 582	79 87 366









VIP-Dumper truck suspensionring **VMEĞ**

VIP-Dump truck-**Automatic-Clevis hook** VMAGH (S)





VMEG and VMAGH(S):

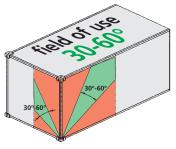
Suitable for standardized dump truck studs, quick attachment and anyway safe hold.

Chain	Туре	WLL t	Α	В	С	D	Е	F	F _{max}	Т	kg/pc.	Ref. No.
13	VMEG-13	6.7	37	66	128	20	64	46	-	149	2.6	79 02 657
13	VMAGH (S)-13	6.7	61	37	36	40	137	50	81	167	3	79 02 114

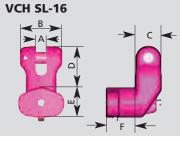
VIP-**Container** hook **VCH**

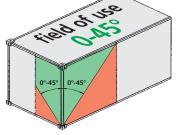






VCH - 10 t suitable for ISO container edges. Fix connection by VVS or VVGSCH. Loose component for hook mounting.





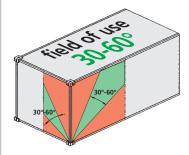


device.

Taking out: Only possible when locking

pin is released.
RUD VCH-SL hooks are suitable for vertical lifts and up to max. 45° inclination angle (see graphic chart).
Clevis connection suits 16 mm VIP chain.





VCH - SL 22 suitable for ISO container edges. Clevis connection for the 22 mm VIP

chain. VIP chain size can be reduced to 16 mm when using a VRG-16 connector.

With patented locking mechanism.

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1 0	

RUD VCH hooks are not suitable for vertical lift-

When the inclination angle > 30° - accidental loosening is impossible.

Туре	WLL t	А	В	С	D	Е	F	kg/pc.	Ref. No.
VCH – 10 t	10.0	56	70	24	83	76	45	3	51 005
VCH – SL 16	10.0	18	71	42	40	50	47	2.5	85 03 115
VCH – SL 22	20.0	24	62	48	45	76	45	4.2	85 02 313

- The all-purpose robust connecting link
- Lifting points, shakles and plate clamps can be attached into the halves of the connecting link.
- Form and kinking free function are patent pending
- No kinking of pre-assembled chain possible.
- The halves are exchangeable between each other.
- No movement of securing pin and therefore no damage of the common securing springs or -sleeves.
- Patented wear markings





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VIP-Connecting link **VVS-Patent**

Type	WLL	Α	В	C	D	Ε	Т	Weight	Ref. No.
	t	[mm]	[mm]	[mm]	[mm]	[mm]	[mm]	kg/pc.	
VVS 6	1.5	18	55	13	11	17	46	0.12	79 01 438
VVS 8	2.5	24	70	18	14	23	61	0.29	79 01 439
VVS 10	4.0	28	88	22	17	27	74	0.57	79 01 440
VVS 13	6.7	34	111	28	23	33	93	1.2	79 01 441
VVS 16	10.0	39	130	33	27	37	108	2.0	79 01 442
VVS 20	16.0	42	154	41	34	41	124	3.7	79 01 443
VVS 22	20.0	48	172	44	37	46	138	4.8	79 01 444
VVS 28	31.5	69	228	58	47	67	189	10.6	79 01 445

VERG to be used as a plug-in bolt for transportation of tools and other similar lifting purposes when bores are the only specified lifting points available.

Minimum diameter D, refer to the table, minimum bolt length L is 2 x D. Maximum diameter D = 48 mm. Bore diameter = D + 1 mm. We recommend that for vertical lifting purposes, the VERG should be used with a spreader bar or a cross beam.

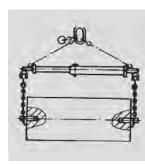
Attention:

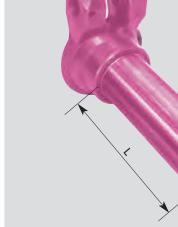
Subject to technical modifications!

In the event of any lifting procedure, attachment should always be at the collar.

The plug-in connectors are non stock items and their production is subject to customer requirement.

Thus bear in mind the respective delivery periods.





2	ous.						
	Chain	WLL t	Type	Dmin	D*	L*	A min.
פ	6	1.5	VERG – 6	17	_		11
5	8	2.5	VERG – 8	22		L d D	15
2	10	4.0	VERG - 10	28	Indicate siz		18
179	13	6.7	VERG – 13	36	when orde	ring!	24
anc	16	10.0	VERG – 16	45			29

VIP-Plug-in connector **VERG**

Т

20

26

33

42

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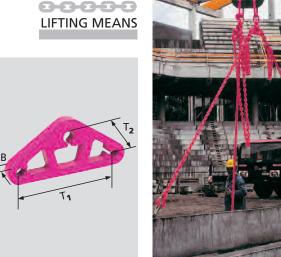
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VIP-Balancer VW

	∢β 0-45 °						
Chain	WLL t	Туре	T ₁	T ₂	В	Weight/k	g Ref. No.
6	2.1	VW-6	110	42	15	0.4	79 83 128
8	3.5	VW-8	150	56	20	1.0	79 83 129
10	5.6	VW-10	180	70	25	2.2	79 83 130
13	9.5	VW-13	240	97	30	4.1	79 82 669
16	14.0	VW-16	300	120	35	8.1	79 83 131
20	22.4	VW-20	300	123	45	12.4	79 83 135
22	28.0	VW-22	350	138	50	17.1	79 83 142

Attention: Balancing position or inclined position of balancer max. 10°.

connection at top	connection at bottom
VV-SCH 8	VV-GSCH 6
VV-SCH 10	VV-GSCH 8
VV-SCH 13	VV-GSCH 10
VV-SCH 16	VV-GSCH 13
VC-SCH 4.0	VV-GSCH 16
VC-SCH 5.0	VV-GSCH 20
VC-SCH 6.0	VV-GSCH 22/ when shortened VC-SCH 6 + VVS-22
	VV-SCH 8 VV-SCH 10 VV-SCH 13 VV-SCH 16 VC-SCH 4.0 VC-SCH 5.0





VIP Balancing head complete 2 leg VWK 2S

* Increased WLL. When using two slings whereby one is equipped with a balancer and both master links are in the crane hook, the calculations for the capacity can be based on four bearing legs; provided the load is **symetrical** and the inclination angle is max. 45° to the vertical (BGR 500).

	*0-45° WLL 4 leg = 2x2 leg					
Chain	WLL t	L ₁	L 2	A-link	Weight/kg	Ref. No.
6	4.2	224	138	13x60x110	1.5	79 84 334
8	7.0	288	172	18x75x135	2.8	79 84 335
10	11.2	354	206	22x90x160	6.8	79 84 336
13	19.0	428	238	26x100x180	10.7	79 84 337
16	28.0	507	270	32x110x200	20.2	79 84 338
20	45.0	682	434	40x180x340	35.3	79 84 339
22	56.0	726	434	45x180x340	50	79 84 340

VWK-2S consisting of: $1 \times VIP A$ -link, $1 \times VIP shackle$, $1 \times VIP balance$, $2 \times VIP fork shackle$. Separately specify and order the VIP 2-leg assemblies and chains.

User advice:

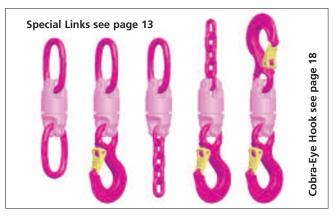
Ideal in combination with a VIP Multi-shortening claw in every chain leg.

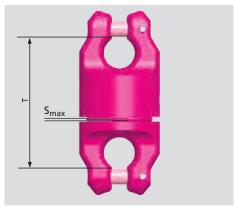


4 leg assembly VIP 10 mm consisting of 2 x 2 leg with 1 x balancer = 4 bearing legs

_{0-45°} = 11.200 kg









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VIP-Universal Swivel -PP-UW-Patent

The following applies to both versions:

The BGR stipulates that twisted slings are not to be loaded. This requirement is automatically achieved by the ball bearing swivel - swivelling under load.

Not designed for continuous use.

Special universal swivel PowerPoint:

A patented clevis connection design hence a universal connection which is loadable from any direction and facilitates the shortest combination possibilities.

Only RUD-approved VIP chains and components must be used.

1. VIP Cobra-Eye Hook VCÖH, see page 18
2. B-Link for PowerPoint PP-(WLL)-B, see page 13
Note: VIP chain connection is designed fool proof.
When assembling component 1 and 2, please pay attention to the correct Working Load Limits.

Special VWA:

Due to the adapter bar, it can be fool-proof connected to all VIP clevis components. The sealed body makes it more resistant to dirt. Do not bend the appliance! The installation of the adapter should be done in such a way that no bending occurs during use. Supply is subject to stock availability. This type will soon be replaced.





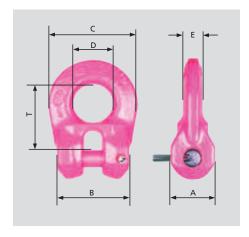
VIP-Swivel connector VWA

Chain	WLL t	Type	Α	В	C	Т	S _{max}	kg/pc.	Ref. No.
4	0.63	UW-PP-4	32	4.8	13	56	4.5	0.20	79 90 878
6	1.5	UW-PP-6	38	7.0	16	68	4.5	0.42	79 90 879
8	2.5	UW-PP-8	52	9.1	20	88	6.0	1.0	79 90 880
10	4.0	UW-PP-10	66	11.0	26	106	6.0	1.9	79 90 881
13	6.7	UW-PP-13	80	14.4	30	131	6.5	3.6	79 90 882
16	10.0	UW-PP-16	86	17.6	37	141	8.0	4.9	79 92 861
20	16.0	VWA-20	100	21	25	147	-	6.7	79 90 723
22	20.0	VWA-22	102	23	28	147	-	6.8	71 00 634

A single component for extrinsic connections to clevises, flanges etc. $% \label{eq:conservation}$

Complete with a pre-assembled connecting bolt and tensioning sleeve.

ons	Chain	WLL t	Туре	Α	В	C	D	Е	Т	kg/pc.	Ref. No.	
icati	6	1.5	VRG 6	17	30	37	16	8	28	0.07	71 00 469	
modifications	8	2.5	VRG 8	23	40	50	22	10	37	0.2	71 00 470	
<u>a</u>	10	4.0	VRG 10	28	50	60	26	13	46	0.3	71 00 471	
nui:	13	6.7	VRG 13	36	64	75	32	17	58	0.7	71 00 472	
to technical	16	10.0	VRG 16	45	75	92	40	20	74	1.1	71 00 473	
	20	16.0	VRG 20	58	92	118	52	28	94	3.1	71 03 384	
igns.	20 22	20.0	VRG 22	62	102	124	52	32	94	3.5	71 01 611	



VIP-Connector VRG



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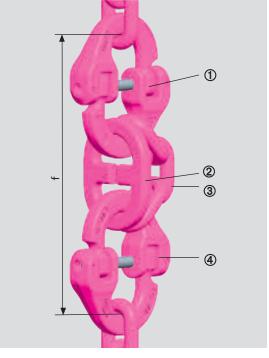






VIP-Overload indicator complete

Unique RUD product!



The safety sensation

Immediate visual indication of overload - due to the specially calibrated RUD control link VCG. Although stationary fitted it can easily be replaced by means of the Combi-lock VVS consisting of:

① Combi-lock VVS-U (see page 27) Easy hammer mounting (fool-proof chain connection)

2 Control link VCG

With indicator bars and a calibrated slot width (nominal... mm)

③ VIP chain, 3 links (see page 8)

Additional securing element besides the control link in

side connection

4 Combi-lock VVS (see page 27) Easy assembly (fool-proof chain connection)



Control link VCG

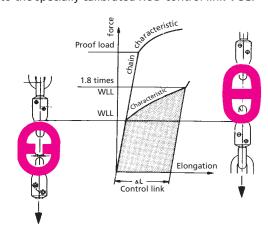
Type	WLL	Initial size	Weight	Ref.
	t	nom. (mm)	kg	No.
VCG – 6	1.5	4	0.06	79 87 623
VCG – 8	2.5	6	0.10	79 87 046
VCG -10	4	7	0.20	79 87 626
VCG -13	6.7	10	0.40	79 88 245
VCG -16	10	11	0.70	79 89 743
VCG -20	16	12	1.10	79 92 549
VCG -22	20	16	1.90	79 92 551

Overload indicator VCG (complete)

Nom. size	WLL	single	build.	Weight
chain mm	t	parts	length (mm)	kg
6	1.5		115	0.3
8	2.5	VVS	151	0.5
10	4	VCG	198	1.2
13	6.7	3 links	232	2.1
16	10	Chain	291	4.5
20	16	VVS	345	8.8
22	20		382	12.1

Hints for use

Immediate visual indication of overload – due to the specially calibrated RUD control link VCG.



Do not exceed permissible

The calibrated slot width corresponds with the indicated nominal size.

Chain strand overloaded! Clearly visible through the indicator. Slot width will decrease with increasing overload. The closing of the indicator implies that the WLL has been exceeded by 80 % to 100 %! If the two indicator bars are not closed after overload (slot width > 0.5 mm), the user may install a new control link.

Should the overload repeatedly occur, a bigger chain size has to be used. If the bars are closed or even bent up, the chain has to be removed from operation and be examined (as per BGR 500).

A WORLD SPECIALTY-

the one and only Mini mecano system 4 mm!



Mecano "in miniature" for small loads up to 1320 kg!









WIP"
>mini<

nse RUD

+point

mini MAXI

VIP-**Master link VAK 1/2**

VIP-**Master link VAK 3/4**

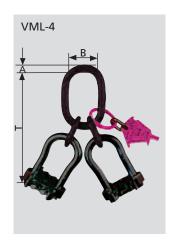
Chain	WLL t	Туре	А	В	Т	Weight/kg	Ref. No.
4	0.63	VAK 1/2 – 4	9	30	55	0.1	79 84 445
4	1.32	VAK 3/4 – 4	10	35	106	0.3	79 84 447

VIP chain assembly, can be shortened









VIP-**Mini-lifter** VML-2 complete with shorteners -»patent«

VIP-**Mini-lifter** VML-4

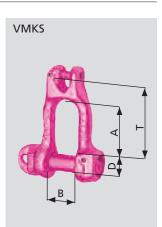
Chain	WLL t	Туре	А	В	T	Weight/kg	Ref. No.
4	0.63/0.88	VML 2 – 4	10	30	66	0.26	79 84 478
4	1.32/0.95	VML 4 – 4	10	35	150	0.85	79 84 479











VIP-Mini-hook **VMH-4**

*VIP-**End link VEA-4!**

VIP-Minicoupling shackle **VMKS**

Chain	WLL t	Туре	MW	Α	В	Т	D	Н	Weight/kg	Ref. No.
4	0.63	VMH – 4	18	-	-	56	-	13	0.12	79 84 439
4	0.63	VMKS – 4	-	30	14	42	10	-	0.12	79 85 243
4	0.63	VEA – 4	-	-	-	-	-	-	0.05	79 90 215

The Heavy Duty Solution

- For the safe lift of heavy loads
- Adjustable, edge wear resistant
- Divisible, but lockable chain sling



Chain 28 x 84 Grade 100 For loads up to 126 t



Chain length can be easily adjusted manually



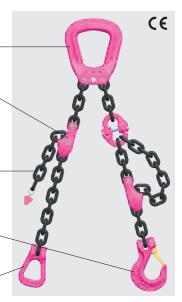
VIP >MAXI< VAK 1/2-28, for 1 and 2 legs with integrated chain connection for crane hooks up to size No. 50, with embossed WLL statement in the master link.

VIP >MAXI< Shortening Claw VV-28 with chain conserving pocket support and spring supported safety pin, no unintended releasing of the chain.

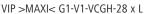
VIP >MAXI< Round Steel Chain 28 x 84, Grade 100 manufactured from patented ICE-steel and suitable in low temperature applications -60° C > 56 joule, 30 % higher surface hardness than Grade 80, replaces Grade 80 chain diameter 32 Surface CRUD-dsl or pink powder coated.

VIP >MAXI< VCGH-28, approved Cobra-Clevis Hook in light weight design.

VIP >MAXI< Endlink VB-28, e.g. for shackle connection VC-SCH-6.



VIP >MAXI< G2-V2-VCGH/VB-28 x L

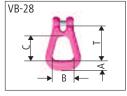


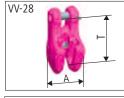
VAK

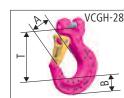
1/2-28



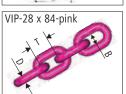


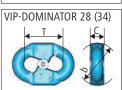


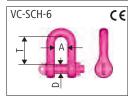








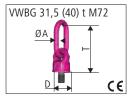














Si-Set VCGH-28

For details see VIP-MAXI flyer.

Chain	Туре	WLL t	А	В	С	D	Е	T	Weight kg	Ref. No.
84	VAK-1/2-28	31.5/45/63	100	250	280	208	-	360	64.3	7900642
×	VBK-1/2-28 (round)	31.5/45/63	60	190	265	-	-	322	35	8504022
∞	VB-28	31.5	62	130	150	-	-	209	13.7	7900641
7	VV-28	31.5	150	-	-	-	-	170	16.9	7900643
HED HE	VCGH-28	31.5	90	88	-	-	-	275	26.4	7900638
£ 50 €	VIP-28 x 84-dsl	31.5	-	36.4	-	28	-	84	18.6/m	7900671
PATE	VIP-28 x 84-pink	31.5	-	36.4	-	28	-	84	18.6/m	7900670
	VIP-Dominator 28 (34)	31.5	-	119	40	-	-	126	4.1	58917
	VC-SCH-6	31.5	53	-	-	39	-	120	5.9	7984333
	VVS-28	31.5	69	228	-	47	67	189	10.6	7901445
	VKZA-1S-28	-	-	-	-	-	-	-	0.18	7901149
>	VLE-28	31.5	650	172	138	120	-	475	44	7900772
	VWBG 31.5 (40) t M72	31.5 (40)	46	-	-	170	-	338	29.9	7900097
<u> </u>	VRBS-Fix 31,5 t	31.5	160	42	-	-	366	202	18.4	7999302
>	Si-Set-VCGH-28	-	165	90	-	-	-	-	1.6	7900640

WLL Scheme

VIP >MAXI< 28 x 84

For symmetrical load



WLL in t

+point

	96	D _B	•					0.000000000
Inclination-∢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
WLL	63*	45*	31.5*	126*	88*	126*	88*	63*



WLL in t



Attention:

- In case of unsymmetrical loading, the load factors must be reduced by 50 %.
- *Choke hitch and endless chain: It can be assumed the WLL of a double strand when using bollard-, bolt- or shackle diameter $> 3 \times t$ (250 mm). In case of a smaller diameter (edge load) the load factors must be reduced by 20 %.
- When lifting in a basket hitch, make sure that loads do not move hazardous or drop. (See German work safety regulation "BetrSichV", attachment 1 acc. §7).

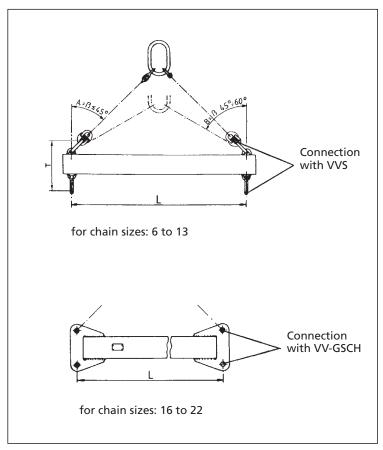








VIP-Spreader bar fixed VSRS



VIP Spreader bar fixed VSRSWhen ordering please indicate the effective length L of the spreader bar!

Spreader bars are also available with chain slings. When ordering, specify the type of master link and the required inclination angle β .

VIP spreader bars are non stock items and their production is subject to customer requirement. Thus bear in mind the respective delivery periods.

Surface: Effective length L **up to** 2500 mm: pink powder coated.

Effective length L **beyond** 2500 mm: yellow painted.

Chain	_	Possible	-	WLI	5	Weight	D (N
size	Type	working length L	I	0 – 45°	45 – 60°	kg/pc.	Ref. No.
6	VSRS-6	500 – 4000 mm	190	2100	1500		86 00 110
8	VSRS-8	500 – 5000 mm	240	3500	2500	_ 5£ .	86 00 111
10	VSRS-10	500 – 5000 mm	320	5600	4000	ding o	86 00 112
13	VSRS-13	1000 – 5000 mm	350	9500	6700		86 00 113
16	VSRS-16	1000 – 5000 mm	250	14000	10000	epen rking	86 00 114
20	VSRS-20	1000 – 5000 mm	285	22400	16000	de vork	86 00 115
22	VSRS-22	1000 – 5000 mm	290	28000	20000	>	86 00 116







Subject to technical modifications!



VIP Spreader bar adjustable **VSRV**

When ordering please indicate working length L of the spreader

Adjustable spreader bars are also available with chain slings. When ordering, specify the type of master link and the required inclination angle β .

VIP spreader bars are non stock items and their production is subject to customer requirement. Thus bear in mind the respective delivery periods.

Surface: Pink powder coated.

Chain size

6

8

10

13 16

20

22

Type

VSRV-6

VSRV-8

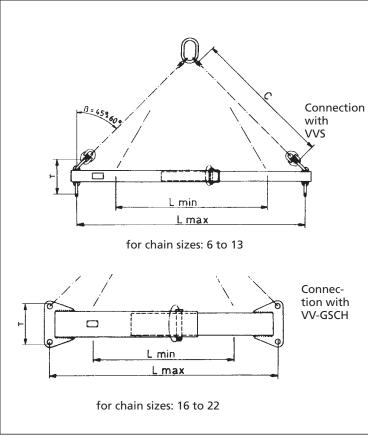
VSRV-10 VSRV-13

VSRV-16

VSRV-20

VSRV-22

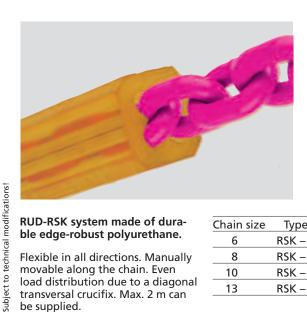
Lmin. depends on Lmax. and nominal size.



'	,				-1		
	fo	or chain size	es: 16 to 22				
possible working		WLL kg		Weight			
length Lmax.	Т	≦ β 45°	β 45 – 60°	Kg/St.	Ref. No.		
1500 – 4000 mm	200	2100	1500		86 00 120		
1500 – 4000 mm	250	3500	2500	gth _	86 00 121		
1500 – 4000 mm	330	5600	4000	ng eng	86 00 122		
1500 – 4000 mm	360	9500	6700	ibc g le	86 00 123		
1500 – 4000 mm	250	14000	10000	depending working leng	86 00 124		
1500 – 4000 mm	285	22400	16000	de	86 00 125		
4500 4000	200	20000	20000	- > '	06.00.406		

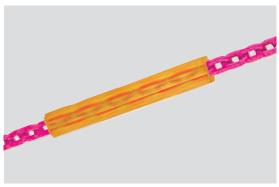
20000

28000



1500 - 4000 mm

290



RUD-RSK system made of durable edge-robust polyurethane.

Flexible in all directions. Manually movable along the chain. Even load distribution due to a diagonal transversal crucifix. Max. 2 m can be supplied.

Chain size	Type	Α	В	L _{max} .	Ref. 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

*further sizes upon request.



BRUD

wi MP

use

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+point

VIP-Spreader bar adjustable VŠRV

Edge protecting device **RSK**

86 00 126



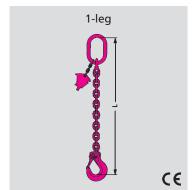
MAXI



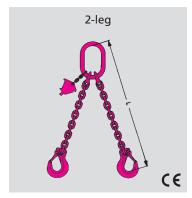


Examples of applications

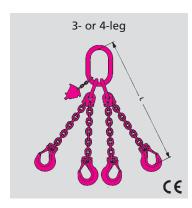
Order references



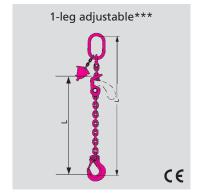
Order reference: VIP-G1...



VIP-G2...



VIP-G3... or VIP-G4...



Order reference: VIP-G1-V1-...



VIP-G2-V2-...



VIP-G3-V3-... or VIP-G4-V4...

Combination possibilities

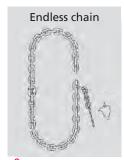


Order reference:

*VIP-G2-V2-VCGH/10x2000

= 2 leg version in RUD special quality VIP with 2 leg shortenings (VMVK). VCGH = End component/10 = chain diameter x 2000 = max. working length size L in mm.

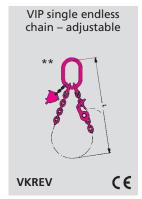
Assembled endless chain



-special connecting link*

for VIP-endless chain: Ø 20, 22 und 28 mm. On request.









Order examples:

**1 pc VKR $\stackrel{\cdot}{\text{EV}}$ -8 x 2000 = single endless chain, adjustable in RUD special quality VIP, 8 = chain dia. x 2000 = max. working length size L in mm.

*** in case of long adjustable assemblies it is recommended to mount the multi claw VMKV in the lower part of the chain. Indicate Lv when ordering, e.g. VIP-G2-V2-VCGH/10x5000 Lv-2000.





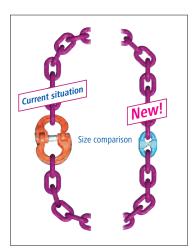
Endless chain ICE-120 and VIP-100 with compact connecting-elements



Endless chain with H-Connector

VIP	VKR-H	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 13 mm	Ø 16 mm
Edles in ch	ss chain sling oke hitch	2.4	4.0	6.4	10.6	16
*R_	0-45°	1.65	2.75	4.4	7.5	11.0
U	45-60°	1.2	2.0	3.2	5.3	8.0
ICE	IKR-H	Ø 6 mm	Ø 8 mm	Ø 10 mm	Ø 13 mm	Ø 16 mm
Edles in ch	ss chain sling oke hitch	2.88	4.8	8.0	12.8	20.0
+ A	0-45°	2.0	3.3	5.5	8.8	14.0
8 8	45-60°	1.44	2.4	4.0	6.4	10.0

WLL in [t]



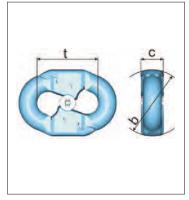
Endless chain with Dominator

VIP	VKR-D	Ø 20 mm	Ø 22 mm	Ø 28 mm
Edle in cl	ess chain sling hoke hitch	25.6	32.0	50.0
BA _	0-45°	17.6	22.0	35.5
0	45-60°	12.8	16.0	25.0

WLL in [t]



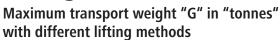
H-Connector (ICE and VIP)	chain	A [mm]	B [mm]	T [mm]	weight [kg/pc.]	Ref.no.
IH-6/VH-6	6	34	19.6	18	0.11	7901922
IH-8/VH-8	8	45	25.5	18	0.11	7901453
IH-10/VH-10	10	56	31.5	30	0.55	7901454
IH-13/VH-13	13	73	40	39	1.16	7901455
IH-16/VH-16	16	89	49	48	2.16	7901924



Dominator (VIP)	chain	A [mm]	B [mm]	T [mm]	weight [kg/pc.]	Ref.no.
Dominator 22 x 86 for VIP 20 x 60	16	85	26	86	1.2	56295
Dominator 26 x 92 for VIP 22 x 66	20	95	33	92	1.8	58915
Dominator 34 x 126 for VIP 28 x 84	31.5	119	40	126	4.1	58917



Lifting Points - for bolting -





Thread		S	F	PP-S (PowerPo		ar		(Vario) Point-B		PP-VIP (Va owerPoin						VL	BG L	.oad	Ring	(Var	io)				
Impe (UNC, special I on rec	50 erial) and lengt quest	d hs																						[5]	ain- ess
	Number of legs	rection	Type		PP-S 0.63 t	PP-S 1.5 t	PP-S 2.5 t	PP-5 4 t	PP-S 5 t	PP-5 8 t	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 Sond.	VLBG 8 t	VLBG 10 t	VLBG 15 t	VLBG 20 t	LBG(3) M16 RS 1t	LBG(3) M20 RS 2t
	Numb	Load direction	Thread size		M 12	M 16	M 20	M 24	M 30	M 36	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
G	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
ф ф G	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
G	, 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
o G	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
炒	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
G	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
G	2	unsymmetrical			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
HE	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
G	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
	3+4	unsymmetrical			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
		_	Thread size		M 12	M 16	M 20	M 24	M 30	M 36		M 10							M 36	M 36			M 48		M 20

- All parts are either 100 % crack detected or proof loaded accord. to EN 1677.
- All original bolts from RUD are 100 % crack detected.
- Safety factor 4 : 1 in any direction.
- The types VRS, VRM and VLBG have to be adjusted to the load direction.
- RUD features such as clamping spring (VLBS) for noise reduction and distance lugs for a perfect root pass weld increase the ease of use.
- Low installation height, high dynamic and static strength.

- RUD Lifting Point CD-ROM makes it easy to select the right Lifting Point.
- In case of higher dynamic application please ask manufacturer.

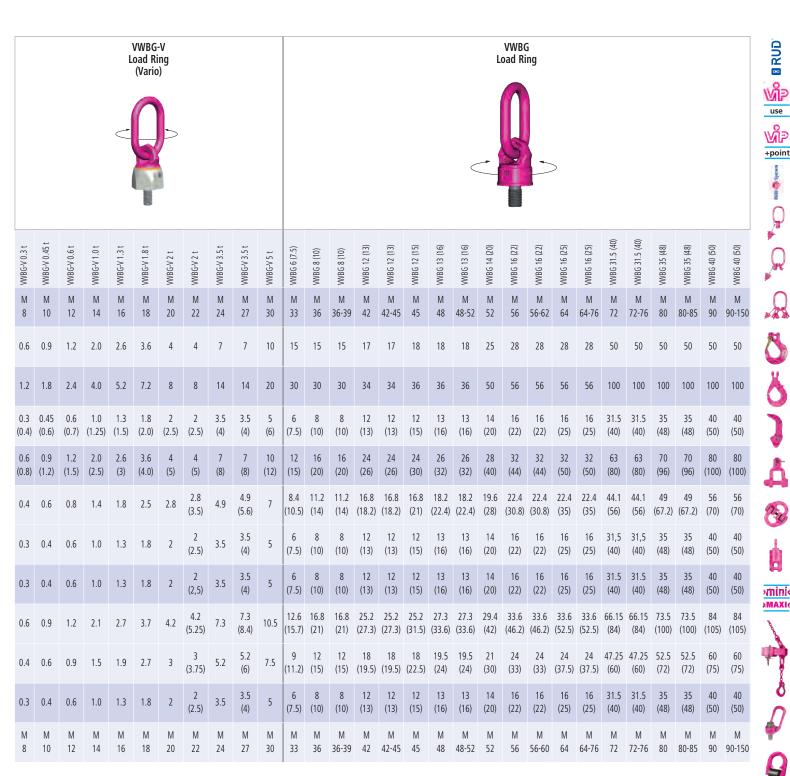
The BG (German Employers Liability Insurance Association) recommends: At a high number of load cycles (continuous operation), the bearing stress must be reduced according to FEM/ISO classification $1B_{\rm m}$ (M3 acc. to EN 818-7); f.e. by using the next bigger chain diameter.



Lifting Points - for bolting -

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





We have the right tools for you. Call us! Phone no. or e-mail:



+49 7361-504-1371 or sling@rud.com

The perfect service for the CAD department. We provide you with geometry datas for your design.

For the calculation of the right lifting point. Especially useful for the designer is the 3D-presentation of the lifting points.

...click www.rud.com

Click on lifting means — ▶ lifting points



| Lifting Points - for welding -

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



Thread M	6- 50				rpoir (Var eyeb	io)	RS			,	arpo VRN yen	/				INO	X-S	TAR				Hi	gh-		RS 8			eyer	nut					L		BG Rin	ıg		
Imp (UNC,. special on re) an lengt quest	hs		To the second se	LE L		300 ts									[5]	inoxi tair less											The state of the s				•			1				
	Number of legs	ection	Type	VRS M6 / VRM M6	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 / RM M6	RS M8 / RM M8	RS M10 / RM M10	RS M12 / RM M12	RS M14 / RM M14	RS M16 / RM M16	RS M20 / RM M20	RS M24 / RM M24	RS M30 / RM M30	RS M36 / RM M36	RS M42 / RM M42	RS M48 / RM M48	RBG 3 t	VRBG 10 t	VRBG 16 t	VRBG 31.5 t	VRBG 50 t	WBPG 80 t	WBPG 100 t	WBPG 200 t
	Numbe	Load direction	Thread size	M 6	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		2x M 16	4x M 20	M	M	M	6x M 48	M	10x M 48
¢ G	1	0°		0.5	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	31.5	50	85	100	200
φ φ G	2	0°		1	2	2	4	8	12	16	24	32	48	64	2.4	4.8	7.2	10.4	ļ -	0.8	1.6	2	3.2	6	8	12	16	24	32	48	64	6	20	32	63	100	170	200	400
G	1	90°		0.1	0.3	0.4	0.7	1.5	2.3	3.2	4.5	7	9	12	0.5	1.0	2.0	2.5	-													3	10	16	31.5	50	85	100	200
A G	2	90°		0.2	0.6	0.8	1.5	3	4.6	6.4	9	14	18	24	1.0	2.0	4.0	5.0	-						ecc	ml	me	nd				6	20	32	63	100	170	200	400
炒人	2	0- 45°		0.14	10.42	0.56	1	2.1	3.2	4.5	6.3	9.8	12.6	16.8	0.7	1.4	2,8	3.5	-				\	ıRS	-St	arp	oir	ηt« at#				4.2	14	22.4	45	70	119	140	280
G	2	45- 60°		0.1	0.3	0.4	0.7	1.5	2.3	3.2	4.5	7	9	12	0.5	1.0	2.0	2.5	-		,		or	»۲	Ovv	ران ما	ad	ius	tec	ł		3	10	16	31.5	50	85	100	200
G	2	unsymmetrical		0.1	0.3	0.4	0.7	1.5	2.3	3.2	4.5	7	9	12	0.5	1.0	2.0	2.5	-			V V '	to	th (an e c of p	oul						3	10	16	31.5	50	85	100	200
	3+4	0- 45°		0.21	0.63	0.8	1.5	3.1	4.8	6.7	9.4	14.7	18.9	25	1.0	2.1	4.2	5.3	-													6.3	21	33.6	67	105	178	210	420
G	3+4	45- 60°		0.15	0.45	0.6	1.1	2.2	3.4	4.8	6.7	10.5	13.5	18	0.7	1.5	3.0	3.7	-													4.5	15	24	47.5	75	127	150	300
26	3+4	ınsymmetrical		0.1	0.3	0.4	0.7	1.5	2.3	3.2	4.5	7	9	12	0.5	1.0	2.0	2.5	-													3	10	16	31.5	50	85	100	200
		3	Thread size						M 20							M 16									M 16						M 48	М	4x M 20	M	M	M	M	M	M

We have the right tools for you. Call us! Phone no. or e-mail:



+49 7361-504-1170 or mv@rud.com

The perfect service for the CAD department. We provide you with geometry datas for your design.

For the calculation of the right lifting point. Especially useful for the designer is the 3D-presentation of the lifting points.

...click www.rud.com

Click on lifting means → lifting points





						Serie rPoint tion					Powe	I-Serie rPoint ced					(L	Load ri PW in	VLBS ng for daN fo	welding r lashin	g ig)		
S.PTI	ü/Zen																			b		stain- less]
	gs			i	all var	iations	5		+		all var		5								.5 t	+	+
	ir of le	ection	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	LBS(3) RS 1 t	LBS(5) RS 2 t
	Number of legs	Load direction													3000 daN	5000 daN	8000 daN	13400 daN	20000 daN				
ģ G	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
φ Å φ G	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
G	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
G G	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
炒	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	112	2.1	3.5	5.6	9.38	14	22.4	0.7	1.4	2.8
Ğ	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
G	2	unsymmetrical	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
	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
G	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
G	3+4	unsymmetrical	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
Weld	>	•	∆ 3.5	∆ 4.5	HY 3+5	HY 3+6	HY 3+8	HY 3+10	∆ 3.5	∆ 4.5	HY 3+5	HY 3+6	HY 3+8	HY 3+10	HV 5+3	HV 7+3	HV 8+3	HV 12+4	HV 16+4	HV 25+6	HV 5+3	HV 8+3	HV 12+4



























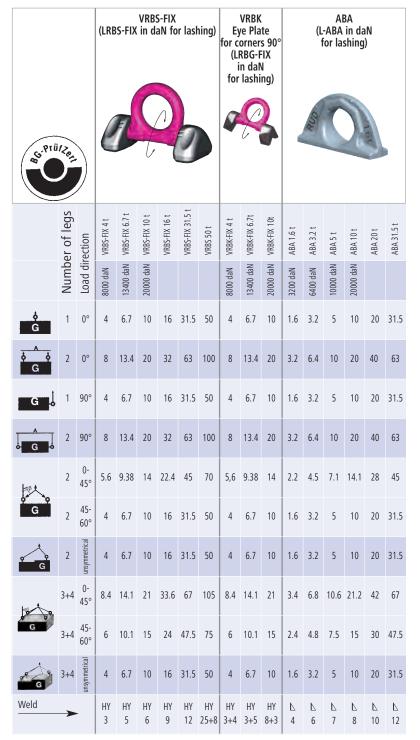




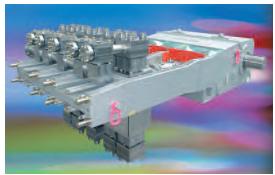
Lifting Points - for welding -

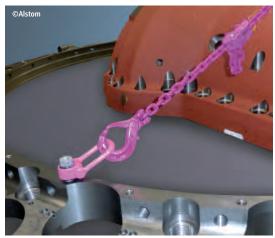
Maximum transport weight "G" in "tonnes" with different slinging methods















RUD Lashing chain ICE-CURT with highest LC (lashing capacity)



nse Sp

+point

minic

The proven, technical advantages of the VIP-program have been retained and further improved. Tensioning, connecting and shortening element have been improved considerably in weight and functionality.

ICE – in ICE-Pink (purple) powder coated – means significant weight saving for the user. The standard equivalent Grade 80 commercial lashing chains are on average 60 % heavier.

This improved ergonomic design, enables faster fitting and heightened safety.

It is possible to use one diameter smaller than Grade 80 <16 mm \emptyset .

Up to 60 % higher Lashing Capacity (LC) than Grade 80 — also up to -60°C even in Arctic applications.

All values (conditions) of EN 12195-3 are fulfilled and the essential requirements are easily exceeded. All for the health and safety of the user!

ICE-CURT

Ratched tensioner version with an integrated fast shortener, which is assembled captive in the chain strand. As an alternative there is a clevis type available also.

Patented:

"Secured against release by a magnet blocking clutch which can be secured with a lock. Theft protection of lashing chain and transporting goods."

Thread tube now in a open and innovative form — robust, light in weight and due to the trapezoid thread easy to clean, check and lubricate.

Made in Germany.

All pieces drop forged, quentched and tempered and 100 % crack inspected.

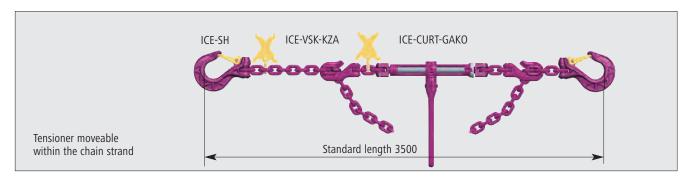




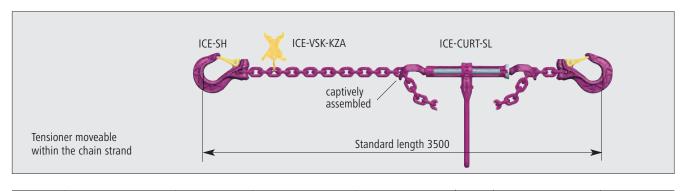


ICE-VSK-CURT lashing chains — grade ICE-120 —

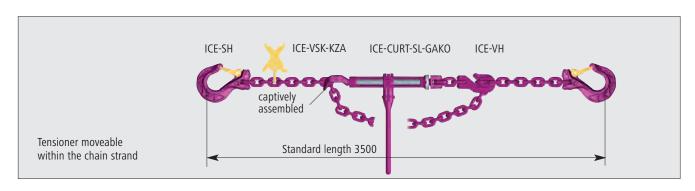




Chain	Type	Lashing cap.	1	ensioner		Lmin	Weight	Ref. no.
Ø [mm]	,,	LČ [daN]	Туре	Pre-tension STF [daN]	Adjustm. [mm]	[mm]	[kg/pc.]	
6	ICE-VSK-6-CURT-IVH	3600	ICE-CURT-6-GAKO	1500	140	780	4.8 + 2.2	7903 443*
8	ICE-VSK-8-CURT-IVH	6000	ICE-CURT-8-GAKO	2800	170	1040	8.0 + 5.2	7901 129
10	ICE-VSK-10-CURT-IVH	10000	ICE-CURT-10-GAKO	2800	170	1210	13.0 + 7.1	7901 130
13	ICE-VSK-13-CURT-IVH	16000	ICE-CURT-13-GAKO	2800	170	1600	21.9 + 13.6	7902 626
16	ICE-VSK-16-CURT-IVH	25000	ICE-CURT-16-GAKO	iı	n preparati	on – soor	n available	



6	ICE-VSK-6-CURT-SL	3600	ICE-CURT-6-SL	1500	140	640	6.5	7903 444*
8	ICE-VSK-8-CURT-SL	6000	ICE-CURT-8-SL	2800	170	817	12.6	7900 026
10	ICE-VSK-10-CURT-SL	10000	ICE-CURT-10-SL	2800	170	935	18.1	7900 027



	6	ICE-VSK-6-CURT-SL-IVH	3600	ICE-CURT-6-SL-GAKO	1500	140	710	6.7	7903 445*
	8	ICE-VSK-8-CURT-SL-IVH	6000	ICE-CURT-8-SL-GAKO	2800	170	956	12.9	7901 131
-	10	ICE-VSK-10-CURT-SL-IVH	10000	ICE-CURT-10-SL-GAKO	2800	170	1105	19.1	7901 132

^{*}expected availability April 2013

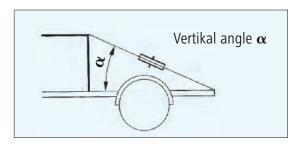
ICE sets benchmarks in lashing chain technology!

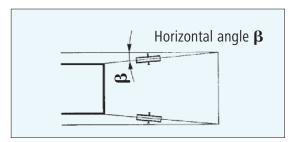


Up to 60 % more LC-Lashing Capacity than Grade 80 – with decisive handling benefits!

Which lashing chain for which load?

	_	_			Diagor	nal las	hing									
Lashing chain	LC	Max. lo	ad weig	ht [t] (ho	rizontal a	ngle β: 2	20°-45°;	2 lashing	, chains p	er direct	ion)					
	[daN]	Vertikal	kal angle α : 0°-30° Vertikal 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	3600	6.2	8.4	10.4	13.0	17,4	26.2	4.5	6.3	9.0	12.8	19.2	32.0			
VIP-VSK 6	3000	5.2	7.0	8.7	10.9	14.5	21.9	3.8	5.3	7.5	10.7	16.0	26.7			
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			
VIP-VSK 16	20000	35.0	46.9	58.1	72.8	97.3	146.3	25.6	35.8	50.0	71.3	106.9	178.0			





		_			riction	nal las	hing			_			
RUD- Lashing chain	STF [daN]				+ ICE la: = factor fi			weight [t])				
		Vertical a	angle α: 6	50°-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
VIP-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
VIP- VSK 8	2500	2.2 x	1.0 x	0.6 x	0.4 x	0.2 x	0.2 x	3.8 x	1.6 x	0.9 x	0.6 x	0.4 x	0.2 x
VIP-VSK 10	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
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
VIP-VSK 13/16	3600	1.5 x	0.7 x	0.4 x	0.3 x	0.2 x	0.1 x	2.6 x	1.2 x	0.7 x	0.4 x	0.3 x	0.2 x

Values of both tables refer to: stable load, road transport, no combination with other lashing or securing methods!

Slide-coefficient of friction μ to VDI 2700-2								
Materials 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					

If there is a clear deviation from the indicated lashing angles, then it is necessary to add some safety measures (e.g. larger chain diameter, and/or

- friction increasing elements).

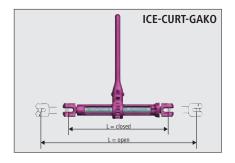
Heavy construction machinery should be positioned bucket first, tight against the step frame of the low loader.

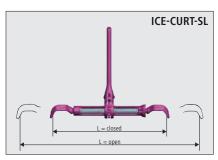
Handbrake must be engaged and the vehicle left in gear.

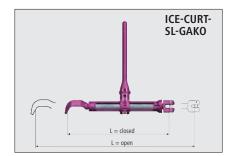
Download of the essay "Optimal load securing"

under: www.rud.com









Chain Ø	Туре	Lashing cap. LC [daN]	L-open [mm]	L-closed [mm]	Adjustment [mm]	Pretension STF [daN]	Weight [kg/pc.]	Ref. no.
6	ICE-CURT 6-SL	3.600	470	330	140	1.500	1.6	7903441**
6	ICE-CURT-6-GAKO	3.600	400	260	140	1.500	1.5	7903439**
6	ICE-CURT-6-SL-GAKO	3.600	436	296	140	1.500	1.6	7903442**
8	ICE-CURT-8-SL	6.000	623	453	170	2.800	4.5	7999435
8	ICE-CURT-8-GAKO	6.000	520	350	170	2.800	3.9	7901125
8	ICE-CURT-8-SL-GAKO	6.000	575	405	170	2.800	4.7	7901127
10	ICE-CURT-10-SL	10.000	671	501	170	2.800	5.2	7999436
10	ICE-CURT-10-GAKO	10.000	532	362	170	2.800	4.3	7901126
10	ICE-CURT-10-SL-GAKO	10.000	605	435	170	2.800	4,8	7901128
13	ICE-T-GAKO-13*	16.000	695	445	250	2.800	7.5	7995935
13	ICE-CURT-13-GAKO	16.000	830	530	300	2.800	7.6	7902624
16	ICE-CURT-16-GAKO	25.000	in preparation					

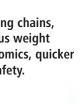
^{*}Modell expires (closed thread)

** expected availability April 2013

The ICE-CURT

comes with an magnetic

For the user of ICE-lashing chains, this offers a treamendous weight saving, improved ergonomics, quicker installation and more safety.





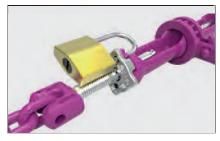
Locking device opened



adhensioning blocking clutch which is a securing

device against release.

Locking device closed



Locking device closed and secured against thefts

Tensioner according to (DIN-EN-12195-3) standards



BRUD

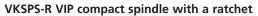
use

+point

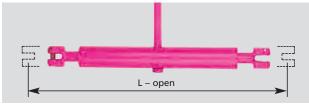
standard requirements! Better than the

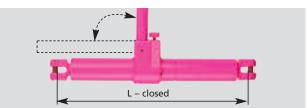
VKSPS VIP compact spindle tensioner with a tensioning lever

Special robust design due to a solid threaded pipe. Resistant to dirt ingrees. Threads are protected by solid sleeves and can thus not be easily damaged. Safety device to prevent unthreading and a clevis connection are available on both sides. Connecting bolt and securing stud are pre-assembled. Pink powder coated with an axial tensioning lever. No securing chain is necessary.



Improved safety due to the foldable ratchet. Pink powder coated. No securing cháin is necessary.





Chain dia. VIP	Lifting WLL t	Lashing cap. LC daN	WLL-kg	Type	L-open	L-closed	Adjust- ment mm	Pretension STF daN	Weight kg/pc.	Ref. no.
6	1.5	3000	1500	VKSPS-6	323	204	120	1500	0.9	7990 170
6	1.5	3000	1500	VKSPS-R-6	323	204	120	1500	0.95	7990 169
8	2.5	5000	2500	VKSPS-8*	518	308	210	2500	2.8	7987 907
8	2.5	5000	2500	VKSPS-R-8*	518	308	210	2500	3.2	7988 569
10	4.0	8000	4000	VKSPS-10*	533	324	210	2800	3.1	7987 994
10	4.0	8000	4000	VKSPS-R-10*	533	324	210	2800	3.6	7988 570
13	6.7	13400	6700	VKSPS-13*	787	487	300	3600	7.6	7990 133
13	6.7	13400	6700	VKSPS-R-13*	787	487	300	3600	8.0	7990 132
16	10.0	20000	10000	VKSPS-16	807	507	300	3600	8.8	7990 135
16	10.0	20000	10000	VKSPS-R-16	807	507	300	3600	9.3	7990 134

Surface: pink powder coated.

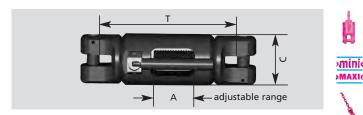
Remark: Tensioners once used for lashing must not then used for lifting!

Length adjustment

Length adjustment only possible under low pretensioning resp. in unloaded condition.

Chain dia.	Туре	WLL kg	Adjustable range A	С	Tmin mm	Ref. No.
20	VLE 20	16	140	110	363	79 97 322
22	VLE 22	20	140	110	363	79 94 668
28	VLE 28	31.5	175	138	475	79 00 772

*Model expires (as long as stock lasts)



Attention: Design factor for lashing = 2:1

Design factor for lifting = 4 : 1

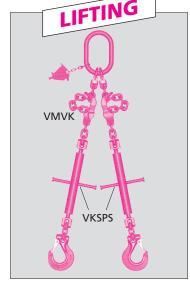
ASHING

LIFTING **VKSPS**

For exact length compensation with chain assemblies. Length in mm can exactly be adjusted by right- and left hand thread via tensioner or ratchet.

VLE: may only be adjusted in an unloaded condition.

Lashing protocol, easily generated with RUD CD-ROM! Reference No. 7982945











Chain Inspection Service – prioritising security! –

h_{spection} se



RUD lifting and lashing means - Inspection service: Inspection means safety and conservation of value! The RUD inspection service offers an on location complete safety service. We inspect the lifting and lashing means according to the below listed six point program. Our technicians are qualified specialists according to EN 473 and work with modern testing devices. Inspection certification according to BGR 500 and the new EC - law.

























ID tag incl.
Testing guide
*for VIPlifting/
**lashing
chains



Chain	Туре	Ref. No.
6	VKPL-6	71 00 639
8	VKPL-8	71 00 657
10	VKPL-10	71 00 662
13	VKPL-13	71 00 667
16	VKPL-16	71 00 672
20	VKPL-20	71 04 045
22	VKPL-22	71 01 832



	Chain	Туре	Ret. No.
b	6	VSK-KPL-6	7988623
	8	VSK-KPL-8	7988624
	10	VSK-KPL-10	7988625
	13	VSK-KPL-13	7988626
7	16	VSK-KPL-16	7988627



Testing wear of nominal dia.



Testing for elongation caused by wear of nominal diameter.



Testing for pitch elongation caused by overload.



■ At regular intervals (maximum: one year) chain assemblies must be inspected by a competent person. Depending on the application circumstances, inspection might be necessary with in a time interval of less than one year. After a max. period of three years, chains must under go special inspection for the detection of cracks. After the occurence of a special incident, which could affect the WLL, chains should also be inspected by a compe-

tent person. In the case of VIP chains and components, proof loading instead of magnetic crack detection is insufficient. After the magnetic crack detection, probable cracks will be visible despite the pink powder coating. Use the crack detection fluid "Ferroflux".



BRUD

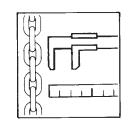
use

wî≥

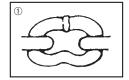
+point

MAXI

Regular Maintenance and Testing

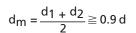


■ Visual examination: This reveals any exterior defects for example deformed or twisted chain links or chain links with notches. Examine the components as to the correct fitting, completeness and efficiency of the safety devices.

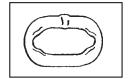


■ Examination of wear and elongation:

- 1. Examine wear of diameter.
- 2. Examine the plastic elongation caused by overload, more than 5 % based on the pitch 3d. Dm = $d1/2 + d2/2 \ge 0.9$ d.
- 3. Determine the pitch elongation caused by wear of the diameter. This can be easily carried out using the VIP testing gauge (refer to page 6 and 48).







■ Accessories: When the opening of the hook is deformed by more than 10 % or worn out by more than 5 %, it must be replaced. The same applies if the hook has got deep notches. For wear marks dimensions F refer to VCGH on pages 18 and 19. The same applies as for the lateral bending of the hook.

Permissible max. wear of the VG – bolt diameter ≤ 10 %.

When replacing components, always use new connecting bolts and tensioning sleeves.









■ Documentation in a chain register:

The entries in the chain register card give us information about the continuous inspection measures under taken by the user in the course of using the lifting and lashing chains. For the user, this can additionally be used as evidence to be presented to the respective authorities to prove compliance with accident prevention measures as required by the EC-machinery directives.





The new RUD-ID-System® will support your product administration and documentation (see pages 8 and 9).

■ Only RUD original spare parts must be used!

VIP-chains and components must be kept away from aggressive chemicals and acids. Surface treatment can only be undertaken by the manufacturer. Pay attention to the influence of temperatures (refer to the table on pages 4 and 7).

Please strictly adhere to the following regulations and specifications: BetrSichV – BGR 500, EN 818, EN 1677 and the RUD user instructions.

We are not liable for damages incurred as a result of ignoring the above regulations and specifications.

CD-USERINFORMATION on CD-ROM or www.rud.com



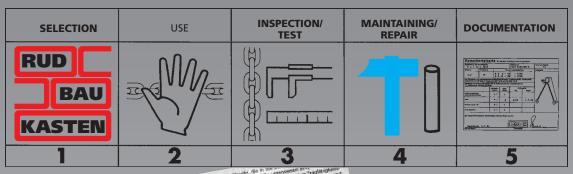


Interactive programme with ICE- and VIP-Lashing Calculation Program and Lashing Protocol!

Using the questionaire the most important data is entered, for example: working load, number of lifting points (or distance between lifting points), angle, shock load impact, sharp corners, influence of temperature etc. Automatically the correct ICE and VIP Chain Sling or lifting point will be determined within seconds.

You can print out: Drawings, part lists, lashing protocols, calculation of the selected components.







User Information for **RUD Chain** Sling

+point

Reference No.: 7101649

Short user Information

Reference No.: 7982411



According to EC Machinery Directive 2006/42/EG - BetrSichV - BGR 500.

Identification, inspection and documentation made easy! RUD System



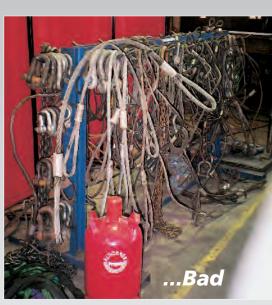
VIP WLL Poster

Size 420 x 625 mm **Special Grade** and Grade 80.



Reference No.: 7102334





Storage of lifting and lashing system components.

Hang the components appropriately in a frame.



RUD-Quality in PIN

Grade 80, Grade 100 (VIP) and WLL win metric tons« of sline According to inclination angle at symmetric tons.



VLL
MP ICE 100 120
R (1) (1) (1) (1) (1) (1) (1) (1) (1) (1)
ICE-SC
ICE-AGH

ICE-CURT

ICE-MVK

Methods of sling		1-leg	7	2-leg	3	3-4 leg		
		3			BOOK			
inclin	ation angle: β	0	0-45°	> 45-60°	0-45°	> 45-60°		
lo	ad factor	1.0	1.4	1.0	2.1	1.5		
Diam. of chains	Quality grade							
Ø 4	VIP	0.63	0.88	0.63	1.32	0.95		
	Gk 8	1.12	1,6	1.12	2.36	1.7		
Ø 6	VIP	1.5	2.1	1.5	3.15	2.25		
	ICE	1.8	2.5	1.8	3.75	2.7		
-	Gk 8	2.0	2.8	2.0	4.25	3.0		
Ø 8	VIP	2.5	3.5	2.5	5.25	3.75		
	ICE	3.0	4.2	3.0	6.3	4.5		
	Gk 8	3.15	4.25	3.15	6.7	4.75		
Ø 10	VIP	4.0	5.6	4.0	8.4	6.0		
	ICE	5.0	7.0	5.0	10.5	7.5		
	Gk 8	5.3	7.5	5.3	11.2	8.0		
Ø 13	VIP	6.7	9.5	6.7	14.0	10.0		
	ICE	8.0	11.2	8.0	16.8	12.0		
	Gk 8	8.0	11.2	8.0	17.0	11.8		
Ø 16	VIP	10.0	14.0	10.0	21.0	15.0		
	ICE	12.5	17.0	12.5	26.5	19.0		
Ø 18	Gk 8	10.0	14.0	10.0	21.0	15.0		
Ø 20	Gk 8 VIP	12.5 16.0	17.0	12.5 16.0	26.5	19.0 24.0		
	VIP	10.0	22.4	16.0	33.6	24.0		
Ø 22	Gk 8	15.0	21.2	15.0	31.5	22.4		
	VIP	20.0	28.0	20.0	42.0	30.0		
Ø 26	Gk 8	21.2	30.0	21.2	45.0	31.5		
Ø 28	VIP	31.5	45.0	31.5	67.0*	47.5*		
Ø 32	Gk 8	31.5	45.0	31.5	67.0	47.5		



Attention:

WLL has to be reduced by 50 % when load is unsymmetrical!

Temperature °C/°F

Subject to technical modifications. *Only 2 x 2-leg type available.

K!

d Grade 120 (ICE) g chains etric loading



"Made in Germany"

endless** Basket sling chain with choke hitch		Basket slii single	ng chain**	ouble		Choke hitch** single double		
		R			0	, g	9	
-	0-45°	> 45-60°	0-45°	> 45	5-60°	0°	0-45°	> 45-60°
1.6	1.1	0.8	1.7	1	.2	0.8	1.1	8.0
1.0	0.69	0.5	1.1	0.	75	0.5	0.69	0.5
1.8	1.2	0.9	1.9	1	.3	0.9	1.2	0.9
2.4	1.65	1.2	2.55	1	.8	1.2	1.65	1.2
2.88	2.0	1.44	3.1	2	.1	1.44	2.0	1.44
3.2	2.2	1.6	3.4	2	.4	1.6	2.2	1.6
4.0	2.75	2.0	4.25	3	.0	2.0	2.75	2.0
4.8	3.3	2.4	5.1	3	.6	2.4	3.3	2.4
5.0	3.5	2.5	5.3	3	.8	2.5	3.5	2.5
6.4	4.4	3.2	6.8		.8	3.2	4.4	3.2
8.0	5.5	4.0	8.5	6	.0	4.0	5.5	4.0
8.5	5.8	4.0	9.0	6	.0	4.0	5.8	4.0
10.6	7.5	5.3	11.2		.0	5.3	7.5	5.3
12.8	8.8	6.4	13.6		.6	6.4	8.8	6.4
12.5	0.0	6.4	12.6	_		6.4	0.0	6.4
12.5 16.0	8.8 11.0	8.0	13.6 17.0		.6 2.0	6.4 8.0	8.8 11.0	6.4 8.0
20.0	14.0	10.0	21.2		5.0	10.0	14.0	10.0
16.0	11.0	8.0	17.0	12	2.0	8.0	11.0	8.0
20.0	14.0	10.0	21.2	15	5.0	10.0	14.0	10.0
25.6	17.6	12.8	27.2	19	9.2	12.8	17.6	12.8
23.6	16.5	12.0	25.5	18	3.0	12.0	16.5	12.0
32.0	22.0	16.0	34.0	24	1.0	16.0	22.0	16.0
33.5	23.3	17.0	36.0	2!	5.4	17.0	23.0	17.0
50.0	35.5	25.0	53.0*	37	.5*	25.0	35.5	25.0
50.0	35.5	25.0	53.0	37	7.5	25.0	35.5	25.0
Grade 80		-40° up to +200° C (+40° up to +392° F)	higher 200° up 1 (higher 392° up 1	to 300° C to 572° F)	higher 3 (higher 5	1 00° up to 400° C 72° up to 752° F) 75 %	0° up to 400° C 2° up to 752° F)	
VIP 100		-40° up to +200° C (+40° up to +392° F)	higher 200° up 1 (higher 392° up 1	to 300° C to 572° F)	75 % higher 300° up to 380° C (higher 572° up to 716° F)		**20 % reduction for basket chains,	
		100 % -60° up to +200° C	90 % higher 200° up 1	to 250° C	higher 2	60 % 50° up to 300° C	due to sharp edges,	
ICE 120		(-76° up to +392° F)	(higher 392° up 1	to 482° F)	(higher 4	50° up to 300° C 82° up to 572° F) 60 %	is conside	erea.







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