

Moving big things. Safely.



# From Germany

# To all over the world



## Overhead line construction

SHZ develops special slings for the transport of tool baskets for an overhead construction company



## Industry/Mechanical Engineering

SHZ heavy-duty round slings provide support during the assembly of a new moulding press at a manufacturer of moulded parts



## Hall assembly

SHZ Webbing slings ensure safety when lifting heavy prefabricated parts as part of a new hall construction.







# Motorsport

Ready to race! SHZ ratchet tie down straps ensure safe transport of the vehicles at Shapeula Student



## Steelworks

SHZ Endless slings ensure the safe transport of heavy steel pipes and components



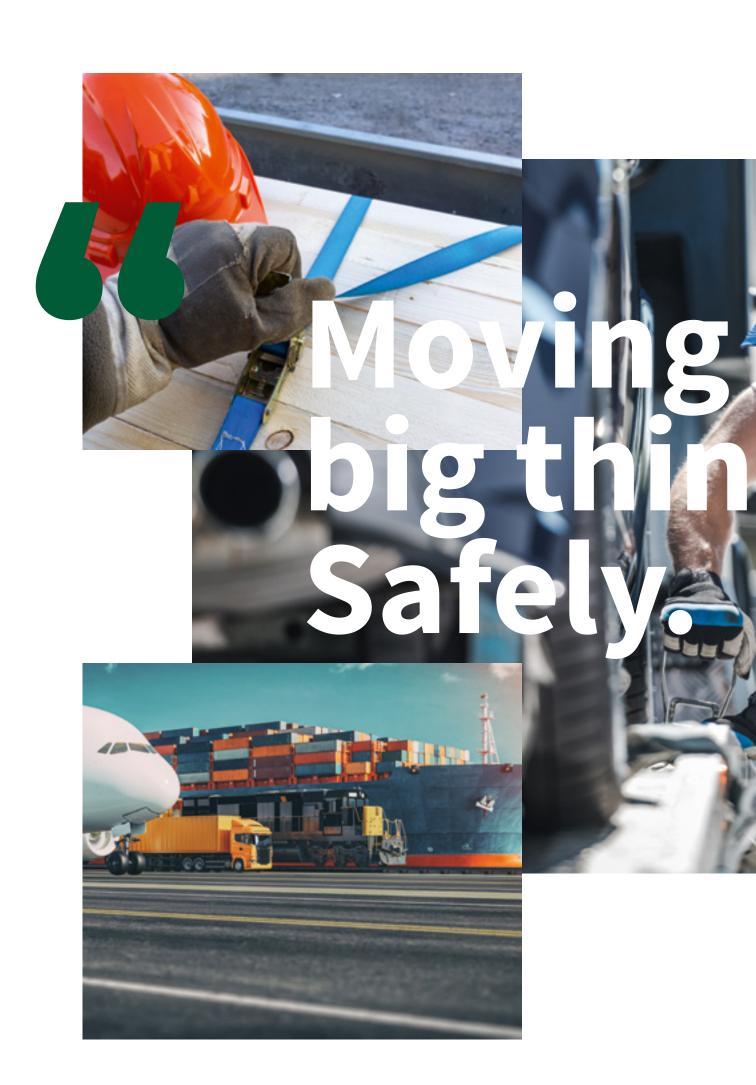
# Logistics/Transport

SHZ lashing straps secure the load and ensure that nothing slips out of place



## Construction industry

SHZ cargo lashing chains secure construction machinery for transport throughout Europe





#### Dear customers and business partners,

SHZ is your specialist when it comes to solutions for the safe transport of heavy loads: Our lifting and lashing technology is still produced at the Großröhrsdorf site in Germany today – and stands for the highest quality made in Germany.

The SHZ portfolio includes a wide range of lashing straps, Webbing slings, Endless slings, round slings, lashing and sling chains and suitable accessories.

We will be happy to guide you on the selection of the right product. And should you not find the right article, our engineering team will be happy to support you in the development and manufacture of completely new products and custom-made products.

The maxim of our 75 member SHZ team is to provide you with the best possible support in your day-to-day work– through lifting and lashing technology that convinces through its functionalities and offers the highest level of safety through its quality. So that you can concentrate fully on what really counts: Your core business.

Since 2002 we have been developing and producing lifting and lashing technology to meet the highest requirements. With state-of-the-art technology, a high level of vertical integration and the many years of experience of our employees, we are in a position to implement almost any customer requirement.

Our 700 sqm warehouse with direct connection to the production offers space for over 1000 pallets and stocks large quantities of raw and finished materials for in-house production. This way we can guarantee you high production reliability and short delivery periods even in uncertain times.

As an owner-managed company, we attach great importance to stable and long-term business relationships with our customers, partners and suppliers.

# We are convinced: Only together can we move mountains

That is why we want to inspire you, dear customers and partners - with the best advice, short delivery times and safe, high-quality products at fair prices.

#### We look forward to working together in partnership.

#### On behalf of the entire SHZ team

Your SHZ Managing Director Matthias Böhme

# Information on the catalogue

#### Liability Disclaimer

The information presented here has been carefully compiled and checked. The accuracy of the information provided cannot be guaranteed. Liability towards third parties for personal injury, property damage and financial loss is therefore excluded.

#### Scope

The prices listed in this catalogue are wholesale prices for trade and commercial customers. The statutory value-added tax will be charged additionally at the respective valid rate.

#### Freight costs

Orders with a net value of € 1500 or more are delivered free of charge (within Germany, excluding islands). For orders under € 1500, you are welcome to ask us the freight costs.

#### Parcel shipment

Parcel price up to 30 kg Total weight: 8.50 €/pc (within Germany excluding islands, packaging included)

#### Minimum order value

For orders with a net order value (excluding freight costs) of less than € 75, we charge a minimum quantity surcharge of € 20.

#### Validity

With the publication of this catalogue on 01/06/2022, all previous price lists for the articles listed here lose their validity. We reserve the right to make price changes due to highly fluctuating raw material prices or foreign exchange rates.

#### Bank details

Ostsächsische Sparkasse Dresden IBAN: DE 1485 0503 0031 1001 4725 BIC: OSDDDE81XXX

Register

Local Court Dresden HRB 20477 VAT ID: DE813355465

Commerzbank AG Frankfurt am Main IBAN: DE 2285 0400 0008 0148 5400

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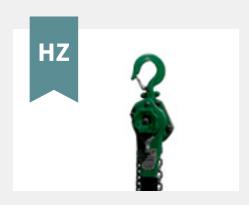


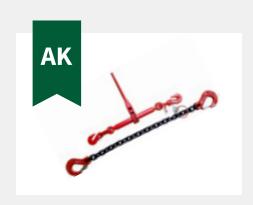
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#### Passion connects

Since our founding in 2002, our employees, our customers and our partners have inspired us to continually create new and even better products.

Our driving forces are curiosity, passion and the unconditional will to make good things even better – for maximum safety in our customers' everyday work.

Despite many changes over the last 20 years, we have always succeeded in turning great challenges into great opportunities.

And that's the way it should continue. Together with you – our employees, customers and partners – in the future too we want to continue to:

Moving big things. Safely.

# SHZ stands for the highest level of quality and safety

- + Company headquarters and production site Großröhrsdorf
- + Various NC sewing machines and heavy sewing machines
- + Several round sling machines
- + Printing machine with up to 120 mm of webbing webbing width
- + Own testing machine (tearing machine)
- + Production in 2 shifts



#### Founded in 2002

Our family business, founded in 2002, has its headquarters in Großröhrsdorf, Saxony.



# Turnover of 9.5 million in 2021

SHZ stands for continuous and sustainable growth. Since 2008, we have more than tripled our turnover from 3 million to 9.5 million.



#### More than 75 employees

We focus on teamwork, exchange and networking and promote the individual development of our employees. Because they are the basis of our collective success at SHZ.



#### 340 years of experience

Strap and belt weaving has a tradition of over 340 years in Großröhrsdorf.



#### 100% family

SHZ is a 100% owner-managed company. Flat hierarchies and independence from investors favour rapid action in line with demand.



#### In more than 50 countries

SHZ is one of the leading suppliers of lifting and lashing technology – made in Germany. Our products are distributed in more than 50 countries worldwide.

# 1850

Largest centre of strap and belt weaving in Germany

In the middle of the 19th century, Großröhrsdorf was one of the most important centres of German strap and belt weaving. More than 32 factories | Over 10,000 strap looms



# 2002 \*

The dawn of a new era – founding of SHZ GmbH

Four shareholders, two of whom are still active in the company today, founded SHZ GmbH. Relocation to a larger production hall will take place as early as September. This will quadruple the production area.

## 2003 - 2008

On track for growth: 25-30 % growth per year

Continuous growth far above the industry average promotes constant investment: Expansion of the machinery, enlargement of parking areas, expansion of office space, construction of a changing room, construction of a new dining room. 2004: more than 1 million turnover for the first time and 16 employees.

# 1949 - 1990

Kombinat Bandtex

The During the German partition, the Großröhrsdorf strap production and processing was continued by Kombinat Bandtex. After the German unification, it came to a standstill.



# 2009 - 2012

Moving into the new headquarters – and further growth

Hiring the 40th employee and acquisition of a 50t testing machine. New construction of the warehouse. 2010: more than 40 employees. 2012: tenth anniversary of the company.



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# 2014/2015

Increasing productivity through automation

Commissioning the new production line for 50mm lashing straps. New construction of the warehouse (400 m2, expandable to 1200 m2).



# 2016 - 2018

Expansion of production capacities

Construction of an extension to expand production capacities due to sustained high demand. Further investments in automation technology: Production line for round slings and fully automatic production line for other products.



# 2021

1.2 million investment in a new warehouse

700 m2 of additional storage space. Guaranteed supply security even in times of crisis. Stable delivery times. More than 75 employees and a turnover of 9.5 million.



2022

20th anniversary

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Only when you know where you come from and who you are can you find your way into the future. SHZ is ready for the next 20 years of success.

66

- Matthias Böhme, Managing Director SHZ GmbH

# Our products

# **Made in Germany**

Under one roof: Development, production, and trade

Benefit from optimal work-flows and comprehensive service. Because we don't just deal in lifting and lashing technology - we also develop and produce it ourselves.

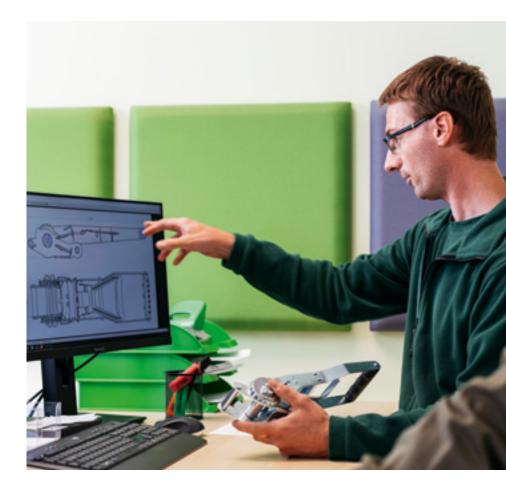
# Product development and custom-made products

Your requirement is our drive:
We are happy to support you in
the development and manufacture
of individual products – precisely
tailored to your needs. Given our
many years of experience, a high
level of vertical integration and the
use of state-of-the-art technology,
we can realise new product
developments and custom-made
products to a high standard of
quality within a very short time –
and at fair prices.

#### Production in Germany: Lashing straps, Webbing slings, and round slings

In our factory in Großröhrsdorf in Saxony, around 7,000,000 metres of webbing straps are processed into lashing straps, Webbing slings and round slings every year.

We produce lashing straps according to the EN 12195-2 standard as well as Webbing slings and round slings according to the EN 1492-1/-2 standard. We rely on well thought-out processes and modern, automated production facilities. This enables us to produce competitively even against foreign production sites.

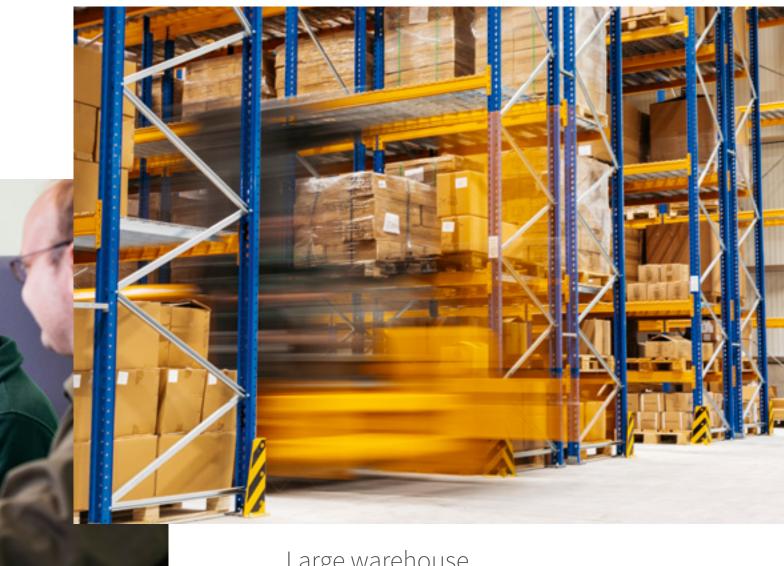


- Production of lashing straps and Webbing slings
  - → See catalogue from page 24
- Production of round slings
  - → See catalogue page 69

# Customisation of your products

We offer you a wide range of customisation options: We are happy to produce strap colours, inscriptions or logos on labels according to your wishes. SHZ lashing strap configurator With this practical tool you can quickly and easily put together your custom lashing strap online

→ https://www.shz-gmbh.de/ services/lashing-strapconfigurator?lang=en



Large warehouse

# **Short** delivery times

High production reliability- thanks to the large warehouse

Our large warehouse with direct connection to the production area offers space for over 1000 pallets. Large quantities of raw and finished materials for the production of slings, lifting gear and lashing straps are stored in the warehouse. This allows us a high level of production and delivery reliability.

Another advantage: Thanks to the direct connection between the warehouse and the production area, we can execute very short delivery times.

Packaging and packing – according to customer requirements

We will be happy to fulfil your custom packaging requirements.

#### We can:

- Strap with plastic straps or shrink wrap in film
- Affix your barcode or identification sticker

Our standard packaging is designed for optimal use. This ensures sustainable use of packaging materials with the best possible Protection against damage during transport.

Highest quality

# About standard requirements



Quality management system according to ISO 9001:2015

SHZ stands for the highest product quality made in Germany. We see quality as a passion and a commitment to our customers, because their safety depends on the quality of our products. The SHZ quality management system in accordance with DIN EN ISO 9001:2015 ensures well thought-out and

efficient processes. The SHZ quality management system according to DIN EN ISO 9001:2015. We plan how to achieve the target quality and carry out regular tests in our own test laboratory as well as in cooperation with external laboratories

Because we want to: **Moving big things. Safely.** 

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When it comes to quality, we are uncompromising.

66

– Günter Böhme, Managing Director SHZ GmbH

Production in Germany according to European standards

The production of our SHZ lashing straps, Endless slings and round slings is still carried out in our factory in Großröhrsdorf in Germany and complies with the requirements of the European standards EN 12195-2 and EN 1492-1/-2.





# Tested product safety: GS certificate

Our most important products have been tested by the BG Verkehr and have received the GS certificate for this. The "Geprüfte Sicherheit ("Tested Safety") or GS mark is an internationally recognised safety mark. It is only awarded to products that are ready for use and documents compliance with all legal regulations (e.g. relevant standards and product safety law).

The close cooperation with various testing institutes in combination with regular tests in our laboratory is our guarantee for the highest level of product quality and safety.



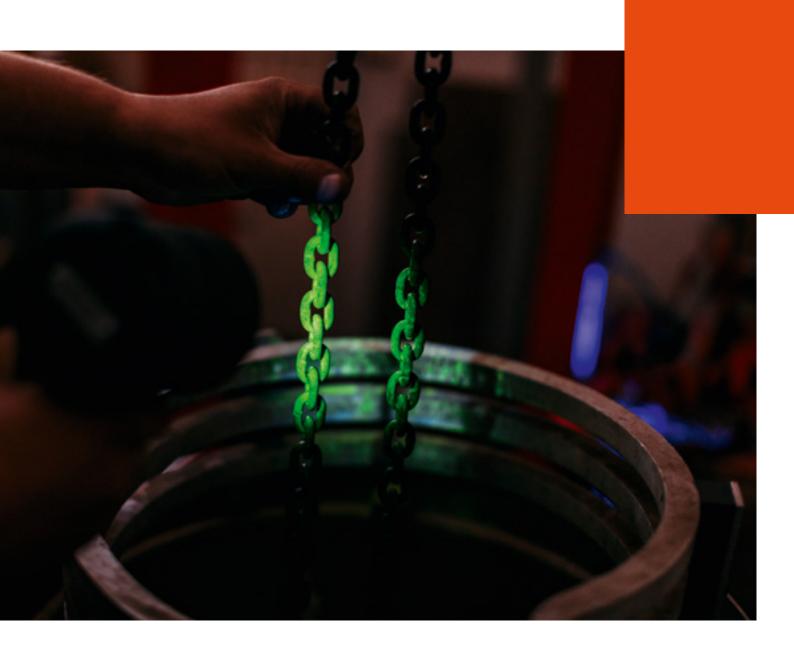
### SHZ test laboratory: Product tests on standard requirements

All SHZ products undergo an intensive testing process before they leave the factory in Großröhrsdorf. The product tests are carried out regularly in our in-house test laboratory according to our SHZ test guidelines.

These clearly exceed the prescribed level of the European standards EN 12195-2 and EN 1492-1/-2.

# Services

# More than you expect



# Testing service

We are happy to support you with the inspection, maintenance and repair of your work equipment. We test lashing straps, Webbing slings, round slings, chains and lifting gear.

\* For more information, please visit our website at: https://www.shz-gmbh.de/ services/inspectionservice?lang=en

# Visual and functional test

- + Our expert testers know what matters
- + Wear, deformations, damage and faults are reliably detected
- + Test location: optionally at SHZ or at your company

# Electromagnetic crack tests:

- This involves applying a fluorescent liquid to your product/ work equipment and then examining it closely with UV light

   so even the smallest cracks can be identified.
- + The test is required by law every 3 years

#### Load tests:

- + With our modern testing machine, we can carry out all relevant load tests up to 50 t for you quickly and easily
- Test site: SHZ test laboratory at the company headquarters in Großröhrsdorf in Saxony

#### Product tests

In our in-house test laboratory we can test lashing straps, as well as Webbing slings and round slings for their breaking strength.

# Testing on testing machine of measuring class 1:

- Lashing straps according to EN 12195-2
- Webbing slings according to EN 1492-1
- Round slings according to EN 1492-2

★ For more information, please visit our website at:

> https://www.shz-gmbh.de/ services/producttests?lang=en





# Lashing calculator

Serves to easily determine the required restraining forces for direct lashing or the required lashing straps for tiedown lashing. On request, the lashing calculator can also be delivered plain, without the SHZ company logo.

Price: 4.00 €/pc



# **Product label (labels)**



On request, we can attach a label with your name or company logo to all the products we manufacture.

To print your company logo, we need it in black and white (no greyscale) as an image file (.jpg; .bmp; .pdf).

You will only incur a one-off set-up fee. The delivery of our products with your label is otherwise cost-neutral for you.

One-off set-up fee: 25.00 €/pc

# **Label Protection**

#### Advantages to you

- Longer durability of the label and thus of the entire product
- Optimum Protection for label and quick reference guide
- The optimal solution for every application
- Only one label Protection variant is possible for each product (no combinations).

		_		suitable for:					
Item no.		Designation	Price €/pc	Lashing strap				Webb	Round
				25 mm	35 mm	50 mm	75 mm	ing slings	slings
LSS		Label hose sleeve	0.80	-	-	×	×	×	×
LST	1	Label Protection sleeve	0.20	-	-	×	-	-	-
LSB		Label Protection tape	0.50	×	×	×	x	-	-
Lsi		Label in loop	0.15	×	×	×	×	-	-
LS	PER	Label sewn all around	0.50	-	×	×	×	×	-
LSF		Folding label with tape overlap	0.30	-	-	×	-	-	-
LSE		Label in the round sling hose	0.80	-	-	-	-	-	×

# Minimum item quantities

There are minimum purchase quantities per type for the following products.

Minimum quantity 10 pieces per type

- Round slings up to and including 2 t / 2 m NL (Code: RE/RD/HRE/ HRD), except Performance Plus
- Endless slings single layer up to and including 2 t / 2 m NL (Code: HS))
- One-way Endless slings up to and including 2 t / 2 m NL (Code: HS...DIN)
- Webbing slings double layered up to and including 2 t / 2 m NL (Code: HMC / MC), except for MCVS (fully drawn)
- Lashing straps 25 mm all sizes and types except lashing strap Hobby+

# **Printed strap**

All straps (up to webbing width 120 mm) for lashing straps or Webbing slings are available with custom prints.

This means that your lashing straps or Webbing slings are clearly identifiable and mix-ups are a thing of the past (for letter printing the limit is 20 characters).

- Printing costs: 0.06 €/m (beyond 20 characters 0.12 €/m)
- Printing colour options:
  - Black Blue

- The minimum quantity is 500 m of strap for custom design to be printed, custom webbing width and strap colour. If the printing quantity is less than 500 m of strap, a minimum quantity surcharge of € 25.00 will be charged.
- One-off costs for logo printing: 100 € for up to 35 mm of strap width 130 € beyond 50 mm of webbing width





Printed letters ■ Black



Printed letters ■ Blue

# **Packing**

We have selected the standard packaging for our products with a view to resource conservation, optimum Protection of our products during transport and efficient procedures during the packaging process. We usually strap our products with an elastic strap and then pack larger batches in euro-pallet boxes and smaller batch sizes in boxes that are suitable for parcel shipping.



# We can still offer you the following additional packaging options:

- Strapping of lashing straps (e.g. FE + LE together)
   Price: 0.25 € / pc
- Packaging of lashing straps in small cartons (e.g. cartons of 10)
   Price: on request depending on product



- Label with your sticker or similar
   Price: on request depending on the product
- Shrink wrap packaging (round slings, Webbing slings, lashing straps 25 and 35 mm):

Item no.	Designation	Price € / shrinkage
Vepa-Folie-KL	Lashing straps 25 and 35 mm (single) Round slings and lifting straps up to 3 t / 6 m	0.35
Vepa-Folie-GR	Lashing straps 50 mm Lashing strap sets (e.g. set of 2 or 4 of 25 mm	0.75



# Lashing straps

# **Own production**

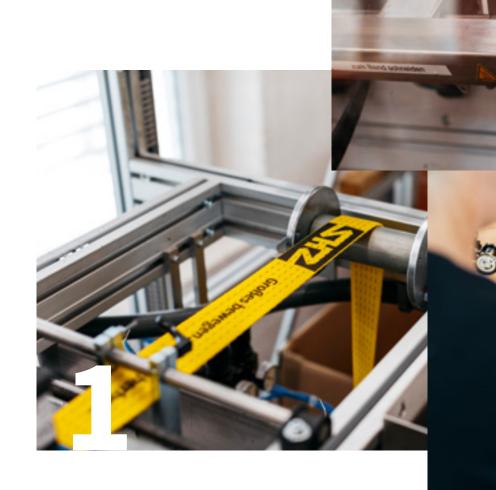
Due to our in-house production, we can offer you a wide variety of lashing straps. All SHZ lashing systems are manufactured in accordance with the standard EN 12195-2 Complementary to our standard products

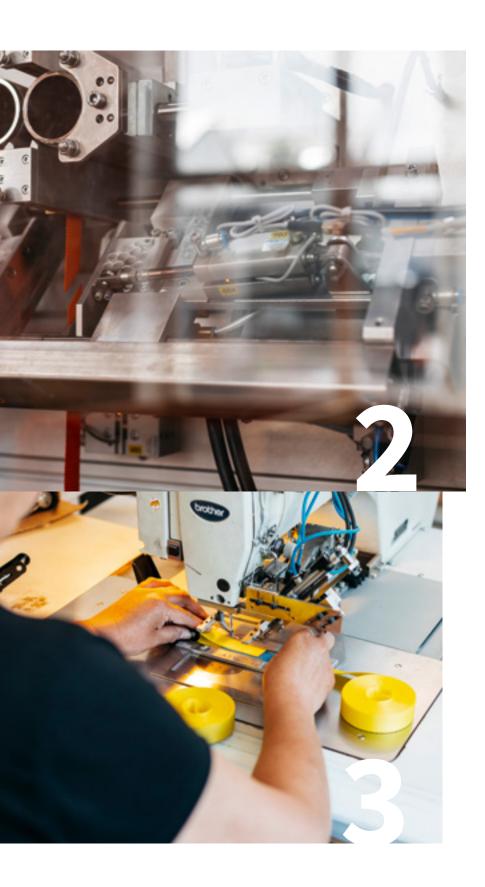
we also produce more sophisticated lashing systems in various lengths – with different ratchets, ratchet tie downs and a wide range of different hooks

## Lashing strap printing

We can print all lashing straps up to a webbing width of 75 mm with text and logo exactly according to your requirements. This way, your products are clearly labelled - and confusion is a thing of the past.

- Letter printing: max. 20 characters
- Printing characters:
  - Black Blue
- Minimum quantity per print design and webbing width: 500 m





# Cutting

Do you need custom strap lengths? No problem. In our in-house production we can cut the strap length exactly according to your requirements. Please feel free to contact us.

## Automatic sewing

## Highest quality made in Germany: High-performance automatic sewing machines and state-of-the-art sewing machines ensure the consistently high quality of our SHZ lashing straps.

# SHZ lashing strap kit

Custom lashing straps - precisely tailored to your needs

1

Select strap type

2

Extra charge for the lengt

3

Hook type

e.g. lashing strap Hobby 2-piece

→ Item no. ZH2

Length 6 m instead of 4 m

→ Item no. ZH206

e.g. S-hook

→ Item no. ZH2060

Base price: 5.80 €/pc = 5.80 € / pc.

Extra charge: 2 x 0.23 €/m

= 0.46 € / pc. (C

(Calculation of extra metre price always in 0.1 m increments)

Extra charge: 0.86 € / pc.

= 0.86 €/pc

4

Select optional label Protection

5

Optional inscription

6

Packing

Label in loop

→ Item no. ZH2060+Lsi

Extra charge: 2 x 0.15 €

= 0.30 € / pc.

(2 labels per lashing strap)

If needed, please specify when ordering (see page 21)

when ordering (see page 21).

If special packaging is required, please specify when ordering (see page 21).

7

Other extras

8

Total price and item number

If further special designs are required, please simply indicate when ordering.

E.g. special length fixed end - Extra charge of 0.50 € / pc.

Our standard length is always listed with the corresponding articles. If a smaller or larger length is desired, the corresponding extra charge will be calculated.

Ratchet Protection – Price on request depending on strap type With this option, an additional strap is sewn under the ratchet to prevent damage to the load.

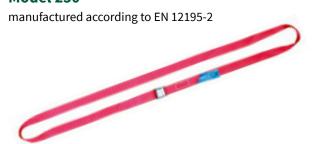
Total price = base price + Multi-metre + hook + label Protection + print + packaging

ZH2060+Lsi: 5.80 € + 0.46 € + 0.86 € + 0.30 € = 7.42 € / pc.





### Lashing strap 25 mm Model 250



Lashing force   LC direkt	125 daN
Lashing force   about	250 daN
SHF	-
STF	-
Material	PES
Webbing width	25 mm
Option of strap colours	<ul><li>Yellow ■ Orange ■ Red</li><li>Blue ■ Green □ White ■ Black</li></ul>

endl	less type length	4.0 m		two-piece Double	e J hook, length 4	l.0 m (0.3 + 3.7 m)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
KL104	2.38	0.23	KL2041	4.75	2.35	2.40	0.23

#### Lashing strap 25 mm Model 400



Lashing force   LC direkt	200 daN
Lashing force   about	400 daN
SHF	-
STF	-
Material	PES
Webbing width	25 mm
Option of strap colours	■ Yellow ■ <b>Orange ■</b> Red ■ Blue ■ Green □ White ■ Black

endle	ess type length	4.0 m		two-piece Double	J hook, length 4	.0 m (0.3 + 3.7 m)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end € / pc.	Additional meter €/m
KL104-400	2.70	0.23	KL2041-400	5.05	2.65	2.40	0.23

## Lashing strap 25 mm Model 500 (Steel)



Lashing force   LC direkt	250 daN
Lashing force   about	500 daN
SHF	-
STF	-
Material	PES
Webbing width	25 mm
Option of strap colours	■ Yellow ■ <b>Orange</b> ■ Red ■ Blue ■ Green □ White ■ Black

endle	ess type length	4.0 m		two-piece Double	e J hook, length 4	l.0 m (0.3 + 3.7 m)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end € / pc.	Loose end € / pc.	Additional meter €/m
KL104-500	3.90	0.23	KL2041-500	6.25	3.85	2.40	0.23

<sup>ightarrow</sup> All 25 mm buckle straps have bevelled and smoothed cut edges for easier insertion of the webbing strap into the buckle.

## **Lashing strap Hobby**

manufactured according to EN 12195-2



Lashing force   LC direkt	400 daN
Lashing force   about	800 daN
SHF	50 daN
STF	125 daN
Material	PES
Webbing width	25 mm
Option of strap colours	■ Yellow ■ <b>Orange</b> ■ Red ■ Blue ■ Green □ White ■ Black

endl	ess type length	4.0 m		two-piece Double	J hook, length 4	l.0 m (0.3 + 3.7 m)	
Item no	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end € / pc.	Additional meter €/m
ZH104	3.50	0.23	ZH2041	5.80	3.40	2.40	0.23

### **Lashing strap Hobby Plus**

manufactured according to EN 12195-2



Lashing force   LC direkt	750 daN
Lashing force   about	1.500 daN
SHF	50 daN
STF	150 daN
Material	PES
Webbing width	25 mm
Option of strap colours	-Yellow - Orange - Blue

endl	endless type length 4.0 m		endless type length 4.0 m two-piece Double J hook, length 4.0 m (0.3 + 3.7 m)				
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
ZHS104	5.50	0.38	ZHS2041	7.70	4.75	2.95	0.38

## Fitting part alternatives 25 mm Lashing straps

Fitting part	Double J hook	S-hook	S-hook lock	D-Ring	Forged eye hook	Flat hook lock	Single stud fitting	Deflection fitting
Item no.	H2501	H2500	H2510	H2504	H2565-B	H2516	H2548	H2528
		3	3		8	O O	$\mathbf{Q}$	0
Extra charge 2-piece €/ pc.	0.00	0.86	2.00	0.16	1.70	0.98	1.84	0.60
Code Hook (h)	1	0	10	4	65	16	48	28
LC max. in daN	750	400	400	750	1250	750	900	500

<sup>→</sup> When ordering individual parts (fixed end or loose end), half the additional price will be charged. Hook dimensions see page 98.



#### Cam buckle straps

#### Universally applicable:

- as a fixing strap for light loads (bicycles, ladders...)
- as a packing strap for loading units
- as assembly aid
- for attaching advertising banners, flags
- in tent construction
- → 25mm Cam buckle straps see page 28.
- $\rightarrow\,$  35mm Cam buckle straps see page 31.
- → 50mm Cam buckle straps see page 41.



# Lashing strap Hobby in stainless steel finish

manufactured according to EN 12195-2



Lashing force   LC direkt	400 daN
Lashing force   about	800 daN
SHF	50 daN
STF	125 daN
Material	PES
Webbing width	25 mm
Option of strap colours	■ Yellow ■ <b>Orange</b> ■ Red ■ Blue ■ Green □ White ■ Black

endless type length 4.0 m			t	wo-piece Double	e J hook, length 4	.0 m (0.3 + 3.7 m)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
ZH104-Edels	7.20	0.23	ZH2041- Stainless steel	12.80	8.60	4.20	0.23

# Lashing strap Hobby PLUS in stainless steel finish

gefertigt nach EN 12195-2



Lashing force   LC direkt	400 daN
Lashing force   about	800 daN
Lashing force endless type   in	1,500 daN
SHF	50 daN
STF	150 daN
Material	PES
Webbing width	25 mm
Option of strap colours	-Yellow - Orange - Blue

#### endless type length 4.0 m two-piece Double J hook, length 4.0 m (0.3 + 3.7 m) Additional Fixed end Additional Item no. Price Item no. complete Loose end € / pc. meter €/m € / pc. € / pc. €/pc. meter €/m ZHS104-ZHS2041-12.20 0.38 18.50 13.75 4.75 0.38 stainless steel stainless steel

## Ratchet strap 35 mm

manufactured according to EN 12195-2



Lashing force   LC direkt	350 daN
Lashing force   about	700 daN
SHF	-
STF	-
Material	PES
Webbing width	35 mm
Option of strap colours	■ Yellow ■ <b>Orange</b> ■ Red ■ Blue ■ Green □ White ■ Black¹

endle	endless type length 4.0 m		two-piece claw hook, length 4.0 m (0.4 + 3.6 m)				
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end € / pc.	Additional meter €/m
KL35-104	4.60	0.40	KL35-2041	7.40	4.10	3.30	0.40

#### Lashing strap Kuli 35

manufactured according to EN 12195-2



Lashing force   LC direkt	1,000 daN
Lashing force   about	2,000 daN
SHF	50 daN
STF	240 daN
Material	PES
Webbing width	35 mm
Option of strap colours	- Yellow - Orange - Red - Blue - Green □ White - Black¹

endless type length 4.0 m		two-piece claw hook, length 4.0 m (0.4 + 3.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
ZK104	5.70	0.40	ZK2041	8.50	5.20	3.30	0.40

## Lashing strap Kuli 35 PLUS

manufactured according to EN 12195-2



Lashing force   LC direkt	1,500 daN
Lashing force   about	3,000 daN
SHF	50 daN
STF	210 daN
Material	PES
Webbing width	35 mm
Option of strap colours	■ Orange ■ Blue

endl	endless type length 4.0 m		two-piece claw hook, length 4.0 m (0.4 + 3.6 m)				
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
ZK3104	8.30	0.62	ZK32041	11.10	7.00	4.10	0.62



## Lashing strap Kuli 35 MAX

manufactured according EN 12195-2



Lashing force   LC direkt	1,500 daN
Lashing force   about	3,000 daN
SHF	50 daN
STF	330 daN
Material	PES
Webbing width	35 mm
Option of strap colours	■ Orange ■ Blue

endle	ess type length	4.0 m		two-piece Double	J hook, length 4	.0 m (0.4 + 3.6 m)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end € / pc.	Loose end €/pc.	Additional meter €/m
ZKE3104	8.85	0.62	ZKE32041	11.65	7.70	3.95	0.62

## Fitting part alternatives 35 mm Lashing straps

Fitting part	Double J hook	U-hook	twisted snap hook	Triangel-ka- rabinerHook	D-Ring	Single J hook	Swivel hook	Single stud fitting (Double)
Item no.	H3501	H3502	H3503	H3505	H3504	H3509	H3527	H3548
			5	8	O	P	J	P
Extra charge 2-piece €/ pc.	0.00	0.30	2.94	2.40	0.10	1.12	3.50	3.50
Code Hook (h)	1	2	3	5	4	9	27	48
LC max. in daN	1,500	1,500	1,500	1,000	1,500	1,500	1,500	1,000

<sup>ightarrow</sup> When ordering individual parts (fixed end or loose end), half the additional price will be charged. Hook dimensions see page 99.

# Lashing strap Kuli 35 in stainless steel finish

manufactured according to EN 12195-2



Lashing force   LC direkt	750 daN			
Lashing force   about	1,500 daN			
SHF	50 daN			
STF	240 daN			
Material	PES			
Webbing width	35 mm			
Option of strap colours	• Yellow <b>• Orange •</b> Red • Blue • Green □ White • Black¹			

 $<sup>^{\</sup>mbox{\tiny 1}}$  Strap colour  $\mbox{\scriptsize W}$  Black with surcharge 10%

endle	endless type length 4.0 m		two-piece Double J hook, length 4.0 m (0.4 + 3.6 m)				
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end € / pc.	Loose end € / pc.	Additional meter €/m
ZK104-Edels	16.40	0.40	ZK2041-Edels	26.20	19.10	7.10	0.40

# **Lashing strap Cargo**

manufactured according to EN 12195-2

Lashing force   LC direkt  Lashing force   about	2,500 daN 5,000 daN	2,000 daN 4,000 daN
SHF	50 daN	50 daN
STF	300 daN	320 daN
Material	PES	PES
Webbing width	50 mm	50 mm
Option of strap colours	<ul><li>Yellow  Orange  Red</li><li>Blue  Green</li></ul>	<ul><li>Orange ■ Blue</li><li>■ Black¹</li></ul>

<sup>&</sup>lt;sup>1</sup> Strap colour ■ Black with surcharge 10%

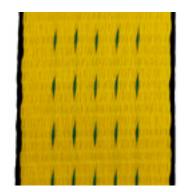


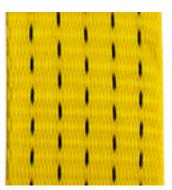
endless type length 8.0 m		two-piece Double J hook, length 8.0 m (0.4 + 7.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
<b>Typ 4,000 /</b> LC 4,000 daN		<b>Typ 2,000</b> / LC 2,000 daN (direct) / 4,000 daN (in the surroundings)					
ZC108	12.50	0.70	ZC2081	15.10	7.80	7.30	0.70
Тур	<b>Typ 5,000</b> / LC 5,000 daN			<b>Typ 2,500</b> / LC 2,500 daN (direct) / 5,000 daN (in the surrounding)			
ZC5108	13,20	0.80	ZC52081	15.80	7.90	7.90	0.80
Dure	DuroLash <sup>2</sup> / LC 5,000 daN			<b>Lash</b> <sup>2</sup> / LC 2,500 da	N (direct) / 5,000 o	daN (in the surrou	nding)
ZD5108	16,65	1.20	ZD52081	19.30	8.25	11.05	1.20

<sup>2</sup> nonly the colour • yellow is available

# **DuroLash - Lasts longer, even in rough conditions**

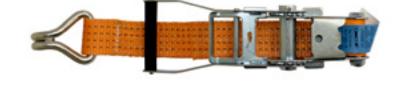
- Increased abrasion resistance due to special twill weave technique, followed by ultrasonic finishing of the webbing strap
- Low wear
- Almost twice the service life possible compared to conventional lashing straps
- High saving potential
- Maximum safety
- Available with our Cargo lashing straps.
   Ergo and BSC
- Only available in the strap colour Yellow





## Parts of a lashing strap





Loose end

Fixed end



Load securing



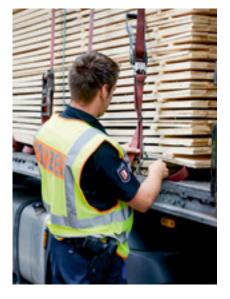
Combination of head lashing and tie-down lashing

# Criteria for discarding lashing straps

To ensure you get through the next check safely, you should inspect your lashing straps before each use and take them out of service if they are damaged in any of the following ways:

- Damage to the webbing strap affecting more than 10 % of the cross-section / webbing width.
- Deformation, hardening, fusing or softening of the webbing strap due to the effects of heat or chemicals.
- In general, lashing straps should be discarded after contact with chemicals

- Missing or illegible labels
- Cracks, notches, deformations or embrittlement of the fitting parts or ratchets
- Heavy wear on fittings or ratchets



# Lashing straps with Ergo long lever pull ratchet

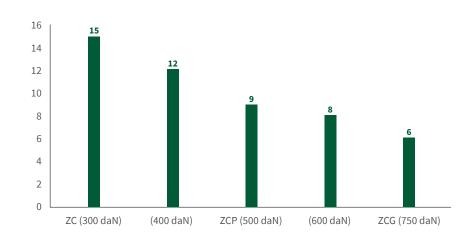
#### Advantages of SHZ Ergo Ratchets:

- Stable hand lever due to solid cross bracing
- Optimum force transmission due to comfortable plastic handle
- Long service life due to the use of spiral springs on the locking slides
- Pull ratchets are tightened by pulling the ratchet lever (downwards).

	Lashing strap Ergo PLUS MAX	Lashing strap Ergo	
Pretensioning force STF	500 daN	750 daN	
Fine toothing	yes	yes	
Double toothed rim	yes	yes	
Main purpose	yes	yes	
Main purpose	Lashing down any cargo	Lashing down "solid" cargo, which can withstand high pretensioning forces	
Special feature	All types with Lsi label	Protection as standard	

#### Calculation example:

- Cargo weight: 4000 kg- Sliding fric. coefficient:  $\mu = 0.3$ - Lashing angle:  $85^{\circ}$ - K-value: 1.5



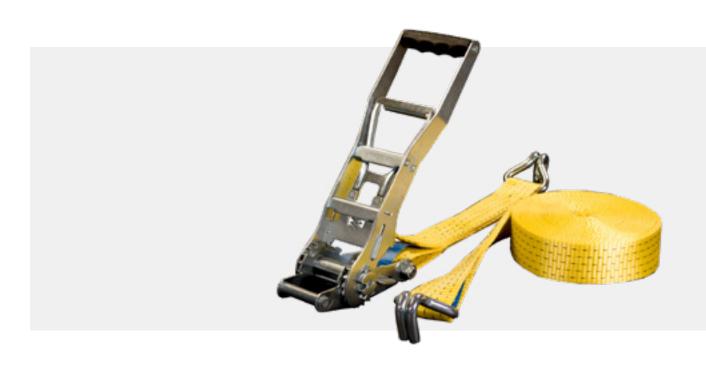
# **Lashing strap Ergo PLUS**

manufactured according to EN 12195-2

\* Strap printing is possible For information and costs see page 21.

Lashing force   LC direkt	2,500 daN	2,000 daN			
Lashing force   about	5,000 daN	4,000 daN			
SHF	50 daN	50 daN			
STF	500 daN	500 daN			
Material	PES	PES			
Webbing width	50 mm	50 mm			
Option of strap colours	<ul><li>Yellow ■ Orange ■ Red</li><li>■ Blue ■ Green</li></ul>	■ Orange ■ Blue ■ Black¹			
Special feature	ll types with Lsi label Protection as standard				

¹ Strap colour ■ Black with surcharge 10%



less type length 8.0 m			two-piece Double J hook, length 8.0 m (0.4 + 7.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m	
Тур	<b>Typ 4,000</b> / LC 4,000 daN			<b>,000</b> / LC 2,000 da	N (direct) / 4,000 d	laN (in the surroun	ding)	
ZCP108+Lsi	16.40	0.70	ZCP2081+Lsi	19.45	12.00	7.45	0.70	
Тур	<b>5,000</b> / LC 5,000	daN		<b>Typ 2,500</b> / LC 2,500 daN (direkt) / 5,000 daN (i.d.Umr)				
ZCP5108+Lsi	17.10	0.80	ZCP52081+Lsi	20.20	12.15	8.05	0.80	
Durc	DuroLash <sup>2</sup> / LC 5,000 daN			DuroLash <sup>2</sup> / LC 2,5	500 daN (direkt) / 5	5,000 daN (i.d.Umr)	)	
ZDP5108+Lsi	20.40	1.20	ZDP52081+Lsi	23.70	12.50	11.20	1.20	

NEW

# Ergo MAX

Tie-downs made easy – with more compact ratchet and extra high pretensioning force



Due to the high pre-tensioning force, you need fewer lashing straps for securing loads. This allows you to reduce your workload and your costs. The Ergo MAX lashing strap is particularly easy on the back.

This is made possible with the long-lever pull ratchet (reverse ratchet), which is tensioned from "top to bottom" - and has particularly fine gearing.

This allows you to achieve significantly higher pre-tensioning forces with the normal manual force (50 daN) when lashing down.

# **Lashing strap Ergo MAX V2**

manufactured according to EN 12195-2

\* Strap printing is possible For information and costs see page 21.

\* Tip
Also available as
DuroLash lashing
strap with particularly
abrasion-resistant
webbing.

Lashing force   LC direkt	2,500 daN	2,000 daN			
Lashing force   about	5,000 daN	4,000 daN			
SHF	50 daN	50 daN			
STF	750 daN	750 daN			
Material	PES	PES			
Webbing width	50 mm	50 mm			
Option of strap colours	■ Yellow       ■ Orange       ■ Blue         ■ Blue       ■ Green       ■ Black¹				
Special feature	All types with Lsi label Protection as standard				

¹ Strap colour ■ Black with surcharge 10%



endless type length 8.0 m			two-piece Double J hook, length 8.0 m (0.4 + 7.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end € / pc.	Loose end €/pc.	Additional meter €/m	
Тур	<b>Typ 4,000</b> / LC 4,000 daN			<b>,000</b> / LC 2,000 da	N (direct) / 4,000 d	aN (in the surroun	nding)	
ZCG108+Lsi	22.25	0.70	ZCG2081+Lsi	25.40	17.95	7.45	0.70	
Тур	<b>5,000</b> / LC 5,000	daN		<b>Typ 2,500</b> / LC 2,500 daN (direkt) / 5,000 daN (i.d.Umr)				
ZCG5108+Lsi	22.95	0.80	ZCG52081+Lsi	26.15	18.10	8.05	0.80	
DuroLash <sup>2</sup> / LC 5,000 daN			ı	DuroLash <sup>2</sup> / LC 2,5	500 daN (direkt) / 5	,000 daN (i.d.Umr)	)	
ZDG5108+Lsi	26.25	1.20	ZDG52081+Lsi	29.70	18.50	11.20	1.20	

# **Lashing strap BSC**

(Belt Slip Control) manufactured according to EN 12195-2

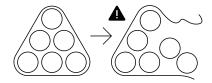
Lashing force   LC direkt	2,500 daN	2,000 daN			
Lashing force   about	5,000 daN	4,000 daN			
SHF	50 daN	50 daN			
STF	400 daN	400 daN			
Material	PES	PES			
Webbing width	50 mm	50 mm			
Option of strap colours	- Yellow - Orange - Red - Blue - Green	<ul><li>Orange ■ Blue</li><li>■ Black¹</li></ul>			
Special feature	Long lever pressure ratchet with fine toothing and BSC function				

<sup>1</sup> Strap colour ■ Black with surcharge 10%



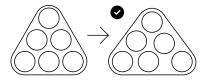
endless type length 8.0 m			two-piece Double J hook, length 8.0 m (0.4 + 7.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m	
Тур	4,000 / LC 4,000	daN	1	yp 2,000 / LC 2,00	00 daN (direkt) / 4	,000 daN (i.d.Um	r)	
ZCL108	17.35	0.70	ZCL2081	20.45	13.15	7.30	0.70	
Тур	<b>5,000</b> / LC 5,000	daN	Тур	<b>Typ 2,500</b> / LC 2,500 daN (direct) / 5,000 daN (in the surrounding)				
ZCL5108	18.05	0.80	ZCL52081	21.20	13.30	7.90	0.80	
Durc	oLash <sup>2</sup> / LC 5,000	daN	Duro	<b>Lash</b> <sup>2</sup> / LC 2,500 da	N (direct) / 5,000	daN (in the surrou	nding)	
ZDL5108	21.40	1.20	ZDL52081	24.70	13.65	11.05	1.20	

<sup>2</sup> nonly the colour • yellow is available



# Problem with the use of conventional lashing straps:

Unloading elastic loads or loads with a risk of tipping poses a considerable risk to the unloader, as conventional lashing straps come loose abruptly due to the belt-slip effect (whip effect).



# Advantages of Lashing strap with BSC ratchet:

We now offer you a solution, because with our new BSC ratchet, securing loads that are at risk of tipping is child's play. Our BSC ratchets allow the strap tension to be released incrementally and the pre-tensioning force to be released in a controlled manner.

## \* Safety notice

When releasing the pre-tensioning device, make sure that the load remains stationary even without securing equipment. If there is a risk of tipping, additional measures, such as securing with slings, must be taken so that the unloader is not endangered. (cf. EN 12195-2)

# Ratchet strap 50 mm

manufactured according to EN 12195-2



Option of strap colours	■ Orange ■ Purple ■ Grey
Webbing width	50 mm
Material	PES
STF	-
SHF	-
Lashing force   about	950 daN
Lashing force   LC direkt	475 daN

endless type length 4.0 m			two-piece claw hook, length 4.0 m (0.4 + 3.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end € / pc.	Additional meter €/m	
KL50-104	7.10	0.64	KL50-2041	10.60	6.10	4.50	0.64	

# Lashing strap Kuli 50

manufactured according to EN 12195-2



Lashing force   LC direkt	1,000 daN
Lashing force   about	2,000 daN
SHF	50 daN
STF	150 daN
Material	PES
Webbing width	50 mm
Option of strap colours	■ Orange ■ Purple ■ Blue ■ Grey ■ Black¹

endless type length 4.0 m			two-piece claw hook, length 4.0 m (0.4 + 3.6 m)					
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end € / pc.	Additional meter €/m	
ZK5104	7.30	0.64	ZK52041	10.80	6.30	4.50	0.64	

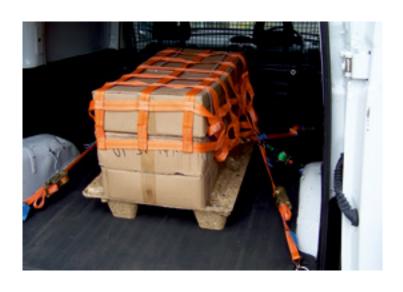
¹ Strap colour ■ Black with surcharge 10%

# **Cargo netting**

We manufacture cargo netting according to customer requirements. In addition to the dimensions of the cargo space, the size of the cargo is also crucial for the net dimensions. We would be happy to provide you with an offer for this.

# We need the following information from you:

- Webbing width
- Net size
- End fitting (type + quantity)
- Dimensions (length + width)





# Fitting part alternatives 50 mm lashing straps

Fitting part	Double J hook	Double J hook long	U-hook	twisted snap hook	D-Ring	Triangle load hook	Flat hook	Rail fitting
Item no.	H5001	H5001-106	H5002	H5003	H5004	H5005	H5006	H5008
						8		
Extra charge 2-piece €/ pc.	0.00	0.94	0.08	4.10	0.56	5.20	8.76	0.00
Code Hook (h)	1	1-106	2	3	4	5	6	8
LC max. in daN	2,500	2,500	2,500	2,500	2,500	2,500	2,500	800

 $<sup>\</sup>rightarrow \text{When ordering individual parts (fixed end or loose end), half the additional price will be charged.}$ 

Fitting part	Single J hook	Double J hook (85mm) keeper	Double J hook (115mm) keeper	Double J hook (74mm) keeper	Chassis Krone hook	Flat hook	Swivel hook	Connect fitting
Item no.	H5009	H5011-085	H5011-115	H5011-074	H5022	H5026	H5027	H5028
	8		P	<b>P</b>			Ţ	
Extra charge 2-piece €/ pc.	3.50	2.24	3.00	1.24	4.50	1.60	2.60	0.70
Code Hook (h)	9	11	11-115	11-74	22	26	27	28
LC max. in daN	2,500	2,500	2,500	1,250	2,000	1,000	2,500	900

 $<sup>\</sup>rightarrow$  When ordering individual parts (fixed end or loose end), half the additional price will be charged.

**\*** Hook dimensions See page 100/101.

# Lashing strap Cargo in stainless steel finish

manufactured according to EN 12195-2

\* Strap printing is possible For information and costs see page 21.

Lashing force   LC direkt	2,000 daN
Lashing force   about	4,000 daN
SHF	50 daN
STF	320 daN
Material	PES
	50 mm
Webbing width	
Option of strap colours	■ Orange ■ Blue ■ Black¹

¹ Strap colour ■ Black with surcharge 10%



endless type length 8.0 m			1	two-piece Double	e J hook, length 8	.0 m (0.4 + 7.6 m)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
ZC108-Edels	32.10	0.70	ZC2081-Edels	45.50	32.90	12.60	0.70



# **Lashing strap Jumbo**

manufactured according to EN 12195-2



Lashing force   LC direkt	5,000 daN
Lashing force   about	10,000 daN
SHF	50 daN
STF	500 daN
Material	PES
Webbing width	75 mm
Option of strap colours	= Yellow

endless type length 4.0 m		two-piece Double J hook, length 4.0 m (0.4 + 3.6 m)				)	
Item no.	Price €/pc.	Additional meter €/m	Item no.	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter €/m
ZJ104	35.50	2.50	ZJ2041	49.10	31.80	17.30	2.50

# Fitting part alternatives 75 mm lashing straps

Fitting part	Double J hook	Triangle snap hook	Steel shackle	Steel shackle with eye hook WA31
Item no.	H7501	H7505	H7520	H7520+WA31
		8	$\overline{\nabla}$	
Extra charge 2-piece €/ pc.	0.00	13.00	17.00	50.00
Code Hook (h)	1	5	20	200
LC max. in daN	5,000	5,000	5,000	5,000

 $<sup>\</sup>rightarrow$  When ordering individual parts (fixed end or loose end), half the additional price will be charged.



**\*** Hook dimensions See page 101.

# **Lashing strap Jumbo Tandem**

manufactured according to EN 12195-2



Lashing force   LC direkt	10,000 daN
Lashing force   about	20,000 daN
SHF	50 daN
STF	not applicable
Material	PES
Webbing width	75 mm
Option of strap colours	- Yellow

Item no.	Hook	Length in m	Price complete € / pc.	Price per extra metre € m
ZJT20420	Steel shackle 20t	4.0 (0.5 + 3.5)	80.30	5.00
ZJT20420Ö	Steel shackle 20t and eye hook WA32	4.0 (0.6 + 3.4)	152.10	5.00

# **★** Not suitable for lashing down

# \* Double stitched

Separate production of fixed or loose ends is not possible.

# **\*** Tip

Even higher lashing forces can be achieved with lashing chains. Furthermore, lashing chains can be used as an alternative to the heavy-duty lashing strap. You will find lashing chains from page 118.



# **Securing vehicles**

#### General information:

Securing cars, minibuses and vans up to 4 t permissible, total mass is explained in VDI Guideline 2700, page 8. The following are instructions on how to use the SHZ car lashings. This is done in accordance with the above-mentioned guideline. A basic distinction is made between securing the sprung mass and securing the wheels, i.e. the unsprung mass.

#### Conclusion:

This method is used to secure motor vehicles on RoRo ships (roll on - roll off).

This is to prevent the vehicles from slipping and the ship from becoming unstable. Lashing straps should be tight but without major pre-tensioning during sea transport. Furthermore, this method is often used for load securing of construction and agricultural machinery. This method is quite unusual for transporting cars and light commercial vehicles on the road.

#### Relevant SHZ products:

- Lashing straps ZJ
- Lashing straps ZC
- Lashing straps ZK
- Lashing chains ZKRR

## **\*** Tip

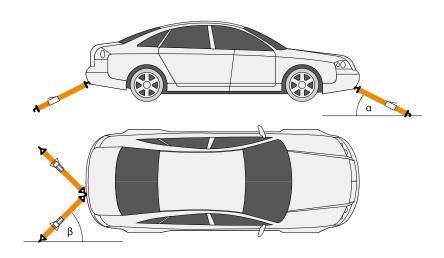
Use the lashing calculator to determine the required restraining force.

#### Securing the sprung mass:

This securing method can be executed in the Shape of direct or diagonal lashing.

### **Requirements:**

 Fixing points on the body of the vehicle to be transported



## Securing the unsprung mass:

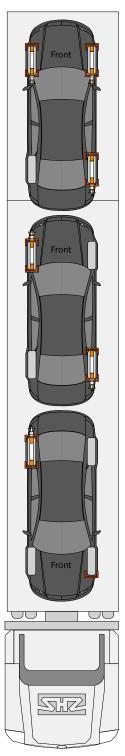
Vehicles on car transporters are usually secured by a combination of Shape-locking and friction-locking load securing.

Shape-locking is established using the crash Protection bar and the friction-locking is established using special lashing straps.



According to VDI Guideline 2700, page 8, the following requirements must be met when securing vehicles on car transporters:





#### Procedure for securing vehicles:

- Apply the parking brake, engage first gear (P position on automatic transmissions) and engage the steering wheel lock.
- Firmly connect and lock the crash
   Protection bar to the carriageway at the required positions.
- Anchor the first hook in the cargo bed so that the strap runs vertically upwards.
- Place the lashing strap over the tyre and anchor the second hook vertically in the loading area,
- Hook the third hook to the outside and lash it down.

### **Requirements:**

- Crash Protection bar, whose height is at least 1/6 of the wheel diameter
- Lashing straps with anti-slip
- Punched loading area to attach lashing straps.

#### Safety instructions:

- Stress hooks only in tension and not in bending
- Do not use defective belts
- Do not twist belts

Loading method	Securing
forward	One wheel chock in front of front wheel and two wheel chocks and lashing strap on diagonally opposite rear wheel
backwards	Two wheel chocks with lashing strap on diagonally opposite wheels
forward oblique	One wheel chock in front of front wheel and two wheel chocks with lashing strap on both rear wheels
backwards diagonally	Two wheel chocks with lashing strap on both front wheels and on one rear wheel

Many tow trucks have a closed loading area so that no liquids can drip onto the road. As the use of three-point lashing straps is not possible here, we recommend direct lashing on all four rims. This requires special lashing straps of the type ZCRS.



Use the lashing calculator to determine the required restraining force .
(Sliding friction coefficient Rubber on metal approx. 0.3)

# Lashing strap WheelLash Loop

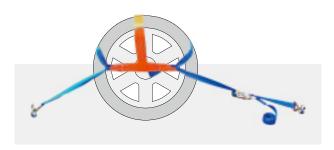
manufactured according to EN 12195-2



Lashing force   LC direkt	2,500 daN 5,000 daN
SHF	50 daN
STF	300 daN
Material	PES
Webbing width	50 mm
Option of strap colours	<ul><li>Yellow Orange Red</li><li>Blue Green</li></ul>
Special features	<ul> <li>Strap elongation &lt; 4 %         (for colour blue)</li> <li>Wheel safety belt with         suspension loop and triangle         tip hook (1-finger)</li> <li>2 application possibilities         Attachment via loop or hook         directly to steel rims</li> </ul>

Item no.	Designation	complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Additional meter€/pc.
ZCRS52029	Lashing strap 2-part 50 mm, total length (in use) L = 2.3 m consisting of fixed end 0.3 m, loose end 1.7 m + additional strap 0.3/0.6 m; with triangle hook (H5009), loose end incl. Additional strap with loop on one side and sewn-on hose sleeve	20.75	10.07	10.68	0.80

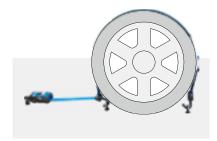
# Lashing strap WheelLash Side 4



Lashing force   LC direkt	1,000 daN
Lashing force   about	2,000 daN
SHF	50 daN
STF	240 daN
Material	PES
Webbing width	35 mm
Option of strap colours	<ul><li>Orange</li></ul>
Special features	<ul> <li>Wheel securing strap 4-piece for lateral wheel lashing</li> </ul>

Item no.	Designation	Price in €/pc.	Price per extra metre €/m
ZKR402,59	Lashing strap 4-piece 35 mm with triangle hook, total length L = 2.5 m (FE: 0.3 m; LE: 2.2 m), Cross/connecting/trapezoidal strap 50 mm, L = 0.4 m, securing tape 50 mm, L = 0.6 m		0.40
Individual pa	nrts		
MC00500,4	Connecting strap 50 mm, BL approx. 2000 kg, L = 0.4 m, Loop inserted and reinforced L = 120 mm	5.30	1.35
MC1-00300,6	Safety strap 50 mm, l = 0.6 m, loop on both sides	5.20	0.60

# Lashing strap WheelLash

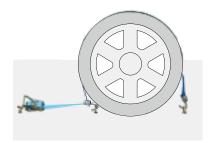


Lashing force   LC direkt	2,500 daN	1,500 daN	
Lashing force   about	5,000 daN	3,000 daN	
SHF	50 daN	50 daN	
STF	250 daN	210 daN	
Material	PES	PES	
Webbing width	50 mm	35 mm	
Option of strap colours	■ Blue	■ Blue	
Special features	<ul> <li>Strap elongation &lt; 4 % (only available in blue)</li> <li>Wheel lock strap with car tie down strap for use on perforated floors</li> </ul>		

Item no.	Designation	Price in €/pc.	Price per extra metre
Webbing width	1 50 mm		
ZCA5202,527	Ratchet with swivel hook (RaZCWH), loose end L = 2.5 m with swivel hook (H5027), 1 Swivel hook and car tie down strap (750 mm) threaded, loose end with stop seam for fixing	22.05	0.80
ZCA5202,59	Ratchet with swivel hook (RaZCWH), Loose end L = 2.5 m with triangle hook (H5009), 1 triangle hook and car tie down strap (750 mm) threaded on, loose end with stop seam for fixing	22.85	0.80
ZCA5202,527+9	Ratchet with swivel hook (RaZCWH), loose end L = 2.5 m with swivel hook (H5027), 1 triangle hook and car tie down strap (750 mm) threaded on, loose end with stop seam for fixing	22.45	0.80
Individual part	es s		
Car tie down strap	Car tie down strap L = 750 mm, for webbing width 50	5.7	-
Webbing width	1 35 mm		
ZKA3202,527	Ratchet with swivel hook (RaZKWH), loose end L = 2.5 m with swivel hook (H3527), 1 Swivel hook and car tie down strap (750 mm) threaded, loose end with stop seam for fixing	19.00	0.62
ZKA3202,527+9	Ratchet with swivel hook (RaZKWH), loose end L = 2.5 m with swivel hook (H3527), 1 triangle hook (H3509) and car tie down strap (750 mm) threaded, loose end with stop seam for fixing	17.85	0.62
Individual part	es .		
Car tie down strap	Car tie down strap L = 750 mm, for webbing width 35	5.3	-



# Lashing strap WheelLash PLUS



Lashing force   LC direkt	2,500 daN	1,500 daN	
Lashing force   about	5,000 daN	3,000 daN	
SHF	50 daN	50 daN	
STF	250 daN	210 daN	
Material	PES	PES	
Webbing width	50 mm	35 mm	
Option of strap colours	■ Blue	■ Blue	
Special features	<ul> <li>Strap elongation &lt; 4 % (only available in blue)</li> <li>Car trailer tie down with a length of 1.0 m for securing larger vehicles/wheels</li> </ul>		

Item no.	Designation	Price in €/pc.	Price per extra metre € / m
Webbing width	50 mm		
ZCC5202,527	Ratchet with swivel hook (RaZCWH), loose end L = 2.5 m with swivel hook (H5027), 1 Swivel hook and car tie down strap (1000 mm) threaded, loose end with stop seam for fixing	23.55	0.80
ZCC5202,59	Ratchet with swivel hook (RaZCWH), Loose end L = 2.5 m with triangle hook (H5009), 1 Triangle hook and car tie down strap (1000 mm) threaded, loose end with stop seam for fixing	24.40	0.80
ZCC5202,527+9	Ratchet with swivel hook (RaZCWH), loose end L = 2.5 m with swivel hook (H5027), 1 Triangle hook and car tie down strap (1000 mm) threaded, loose end with stop seam for fixing	24.00	0.80
Individual part	s		
Car tie down strap	Car tie down strap L = 1000 mm, for webbing width 50	7.6	-
Webbing width	35 mm		
ZKC3202,527	Ratchet with swivel hook (RaZKWH), loose end L = 2.5 m with swivel hook (H3527), 1 Redary swivel hook and car tie down strap (1000 mm); loose end with stop seam for fixing	20.25	0.62
ZKC3202,527+9	Ratchet with swivel hook (RaZKWH), loose end L = 2.5 m with swivel hook (H3527), 1 triangle hook (H3509) and car tie down strap (1000 mm) Loose end with stop seam for fixing	19.10	0.62
Individual part	s		
Car tie down strap	Car trailer tie down L = 1000 mm, for webbing width 35	7.20	-

# NEW

# Lashing strap WheelLash MAX

manufactured according to EN 12195-2







1.0 m



Label Protection in loop (Lsi)

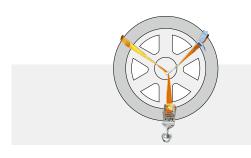


improved ratchet

Lashing force   LC direkt	1,500 daN
Lashing force   about	3,000 daN
SHF	50 daN
STF	330 daN
Material	PES
Webbing width	35 mm
Option of strap colours	■ Blue
Special features	<ul> <li>Car trailer tie down with a length of 1.0 m for securing larger vehicles/wheels</li> <li>Strap elongation &lt; 4 % (only available in blue)</li> <li>Higher pre-tensioning force than conventional wheel securing belts</li> <li>ConShapes to current loading regulations of the automobile manufacturers.</li> <li>With label Protection (Lsi) as standard</li> </ul>

Item no.	Designation	Price in €/pc.	Price per extra metre €/m
Webbing width	35 mm		
ZKEC320327+Lsi	Fixed end 0.25 m with swivel hook (H3527) Loose end L = 2.75 m with swivel hook (H3527), 1 Swivel hook and car tie down strap (1000 mm) threaded, Loose end with stop seam for fixing with label Protection in the loop (Lsi)	23.55	0.62

# Lashing strap WheelLash Ring



Lashing force   LC direkt	1,000 daN
Lashing force   about	2,000 daN
SHF	50 daN
STF	240 daN
Material	PES
Webbing width	35 mm
Option of strap colours	<ul><li>Orange</li></ul>
Special features	<ul><li>for lateral lashing</li><li>for use on lifting frames</li></ul>

Item no.	Designation	Price in €/pc.	Price per extra metre €/m
ZK1R2	Ratchet with swivel hook (RaZKWH),  Loose end L = 2.5 m with D-ring (H3504-9x42x40),  completed with stop seam	10.50	0.40

# Tow slings/rescue belts



Special features

- additionally reinforced loops Breaking load on the protective sheath printed
- For towing and hauling heavy vehicles (trucks, construction machinery) with extra thick hose sleeve



Item no.	Breaking force in daN	Effective length in m	Loop length in mm	Price in €/pc.	Price per extra metre € / m
RE01060-Tow	7,000	6.0	200	55.80	6.45
RE03060-Tow	21,000	6.0	200	72.30	7.20
RE05060-Tow	35,000	6.0	300	97.90	10.70
RE08060-Tow	56,000	6.	300	134.20	15.55
RE12060-Tow	84,000	6.0	500	217.05	26.05

# Side wall strap



Lashing force   LC direkt	500 daN
Lashing force   about	1,000 daN
SHF	50 daN
STF	150 daN
Material	PES
Webbing width	50 mm
Option of strap colours	■ <b>Orange</b> ■ Purple ■ Blue ■ Grey ■ Black
Special features	<ul> <li>for securing goods to ship's sides</li> <li>For side wall thicknesses from 20 - 32 mm</li> <li>Protection of the side wall with rubberised contact surfaces</li> <li>Easy handling, as the end fitting is automatically secured when the ratchet is tightened</li> </ul>

Item no.	Hook	Length in m	Price complete €/pc.	Fixed end €/pc.	Loose end €/pc.	Price per extra meter €/m
ZK520438	Sidewall claw	0.4 / 3.6	20.65	12.00	8.65	0.64

# **Motorbike securing**

manufactured according to EN 12195-2

The SHZ quick lashing system for motorbikes offers optimum Protection while transporting twowheelers on vehicles or trailers.

# Procedure for securing motorbikes:

- Put loops over handles on the handlebar
- Lash ratchet tie down straps
- Affix and lash the rear lashing straps

The handlebar strap guarantees firm fixing of the motorbike.
The rear lashing straps secure the two-wheeler against lateral displacement during cornering.

# Features of motorbike securing at the front:

- Handlebar straps (width 35 mm) to protect the handles
- Hose sleeve (length 30 cm)
   between the handlebar straps
   to protect the paintwork
   from chafing
- Use of 2 ratchets (one on each side) for easier adjustment

# Features of motorbike securing at the rear:

- Use of S-hooks (H2500) with large opening radius
- Hook (H2500) with plastic coating to protect against paint damage





Item no.	Designation	Price in €/pc.	Price per extra meter €/m
ZHSM-V	Motorbike securing at the front, LC 650/ 1300 daN consisting of 2 lashing straps of 25 mm with hose sleeve and handlebar straps, Total length 2 x 2.95 m (FE: 0.2 m/ LE: 2.75 m) completed with stop seams	18.65	0.76
ZHM-H	Securing motorbike at the rear, LC 400/800 daN consisting of 2 lashing straps 25 mm, plastic-coated S-hooks on both sides, L=1.5 m (FE: 0.3 m/ LE: 1.2 m))	12.16	0.46

# ZurrMatic ratchet tie down straps with roll-up mechanism

manufactured according to EN 12195-2



Special features

- Revised mechanism with automatic rolling
- Over 10 % more lashing force with 25 mm variant (LC 340 daN instead of 300 daN)
- With plastic-coated S-hook or pointed hook on both sides
- No tiresome rolling up of the lashing straps by hand
- Tidiness at the click of a buckle, with a handle
- Prestressing force STF = 95 daN with manual force SHF = 50 daN
- Functionality based on conventional ratchet tie down straps to prevent incorrect operation

Item no.	Hook	Webbing width in mm	Length in m	Colour	LC in daN	Price in €/pc.
RZH201.80	S-hook	25	1.8	■ Black	340 / 680	8.40
RZH203.51	Double J hook	25	3.5	■ Green	340 / 680	8.90
RZK52030	S-hook	50	3.0	■ Black	750 / 1,500	18.25
RZK52031	Double J hook	50	3.0	■ Green	750 / 1,500	17.85

# Example of application:



# Container and skip lashing



Lashing force   LC direkt	2,500 daN
Lashing force   about	5,000 daN 50 daN
STF	300 daN
Material	PES
Webbing width	50 mm
Option of strap colours	- Yellow
Special features	<ul> <li>Securing skip containers described in VDI Guideline 2700 Page 17</li> <li>Preferably, use a trapezoidal, Vor X lashing with a fixed connection on the suspension pin.</li> <li>Y lashings can only be used with very light skip containers, as this involves tie-down lashing</li> </ul>

# X-Lashing Direct lashing:

- Triangle hook (H5005)
   (carabiner) with safety
   catch to protect against
   unintentional unhooking
- Reinforced loop on the oblong lifting ring for longer service life
- For X lashing of skips
- Alternatively possible with lashing chain





# Y-Lashing Tie-down lashing:

- Reinforced version with round sling 3 t (load capacity)
- High durability due to round sling with double yescket and reinforced ends
- Protection of the round sling by hose sleeve (IB 5203)
- Cargo lashing strap with triangle hook (H5009)

Item no.	Designation	Price in €/pc.	Price per extra meter €/m
ZC5C-Stopp	Y-Container lashing, Round sling I = 1.30 m, load capacity. 3000 kg and Cargo lashing strap I = 1.55 m, LC = 2500 daN with triangle hook and loop	28.20	0.80
ZC5202.55+AHR	X-Container lashing for direct securing, FE: Triangle hook (H5005) Length: 0.4 m LE: with loop and ring AHR-A16, length: 2.1 m Total length: 2.5 m, LC = 2500 daN	25.60	0.80
ZKRR08x2500+AHR	<b>Lashing chain (1-piece) for securing containers,</b> short end with fork head hook long end with oblong lifting ring AHR-A16 (110 x 60 mm) Total length: 2.5 m, <b>LC = 4000 daN</b>	101.80	10.30
ZKRR10x2500+AHR	Lashing chain (1-piece) for securing containers, short end with fork head hook long end with oblong lifting ring 75 mm) Total length: 2.5 m, LC = LC = 6300 daN	125.50	14.60



# Webbing slings



# **Webbing slings**

Today, textile Webbing slings are gradually replacing steel ropes and chains. The reasons for this are low dead weight along with high loadbearing capacity and the fact that the surfaces of the goods to be transported are not damaged.

We supply loop or steel shackle straps and webbing slings with 1, 2 or 4 strap layers as standard, and even lifting strap adapted to your needs.



# Webbing slings 1-ply



Special features

- Safety factor 1:7
- made from polyester (PES)
- Loop (eye) inserted and reinforced
- Double the bearing surface with the same load capacity

Item no.	WLL in	Colour	Strap width	Length in m / <b>Price in €</b>								Additional
	kg (1x)		in mm	1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	– meter €/m
MC1-0050X	500	■ Purple	30	8.95	9.75	10.60	11.40	12.25	13.05	13.90	14.72	0.82
MC1-0100X	1,000	Green	60	11.95	13.40	14.80	16.20	17.60	19.00	20.40	21.80	1.40
MC1-0150X	1,500	Yellow	90	-	19.30	21.40	23.50	25.60	27.75	29.90	32.05	2.15
MC1-0200X	2,000	■ Grey	120	-	28.05	31.30	34.50	37.75	41.00	44.20	47.45	3.25
MC1-0250X	2,500	■ Red	150	-	36.40	41.05	45.65	50.30	54.90	59.55	64.20	4.65
MC1-0300X	3,000	■ Brown	180	-	-	51.25	57.30	63.45	69.55	75.65	81.75	6.10
MC1-0400X	4,000	■ Blue	240	-	-	71.70	79.60	87.55	95.50	103	111	7.95
MC1-0500X	5,000	Orange	300	-	-	94.50	102	113	124	135	146	11.10

 $<sup>^{2}</sup>$  X: Useful length in m; e.g. 1.0 m  $\rightarrow$  MC1-01001; other lengths and load capacities on request

# Loop dimensions 1-ply Webbing slings (MC1)

Item no.	500 kg =	1,000 kg	1,500 kg -	2,000 kg =	2,500 kg	3,000 kg =	4,000 kg	5,000 kg =
Loop length in mm¹	300	350	400	450	500	600	700	1000
Loop width in mm <sup>2</sup>	30 (1)	30 (1/2)	45 (1/2)	60 (1/2)	75 (1/2)	90 (1/2)	120 (1/2)	150 (1/2)

 $^{1}$  Loop length for short effective lengths (< 2 m or < 3 m from 10 t) may differ 2 , plus chafe Protection/loop reinforcement (approx. 4 - 6mm)

# Webbing slings 2-ply

manufactured according to EN 1492-1



Special features

- Safety factor 1:7 Loop (eye) inserted
- and reinforced Made from polyester (PES)
- Prices for intermediate sizes are rounded up to full 0.5 m

Item no.	WLL in	Colour	Strap width			l	ength in m	n / <b>Price in</b>	€			Additional — meter
	(1x)		in mm	1.0	1.5	2.0	3.0	4.0	5.0	6.0	7.0	€/m
MC0100X	1,000	= Lila	30	7.15	8.05	9.00	10.85	12.30	14.15	16.00	17.80	1.80
MC0200X	2,000	■ Green	60	9.75	11.00	12.30	14.90	17.15	19.40	22.00	24.60	2.45
MC0300X	3,000	Yellow	90	15.20	17.50	19.80	24.10	28.60	33.20	38.80	43.40	4.75
MC0400X	4,000	■ Grey	120	21.95	25.20	28.50	35.75	42.30	49.60	56.80	62.65	6.90
MC0500X	5,000	■ Red	150	-	-	37.80	45.40	53.70	62.00	69.55	77.10	8.05
MC0600X	6,000	■ Brown	180	-	-	48.50	61.00	72.20	83.30	98.05	109	11.85
MC0800X	8,000	■ Blue	240	-	-	63.15	78.60	91.90	107	121	135	13.80
MC1000X	10,000	Orange	300	-	-	-	96.90	110	128	146	162	16.75
MC1200X	12,000	Orange	300	-	-	-	103	118	138	157	176	18.50
MC1500X	15,000	Orange	300	-	-	-	212	260	310	362	412	50.50

<sup>ightarrow</sup> X: Useful length in m; e.g. 1.0 m ightarrow MC01001; other lengths and load capacities on request

# Loop dimensions 2-ply Webbing slings (MC + MCVS)

Item no.	1,000	2,000	3,000	4,000	5,000	6,000	8,000	10,000	12,000	15,000
	kg ■	kg •	kg =	kg ■	kg =	kg ■	kg =	kg •	kg =	kg ■
Loop length in mm <sup>1</sup>	350	350	400	450	500	600	700	1,000	1,000	1,000
Loop width in mm <sup>2</sup>	30	30	45	60	75	90	120	150	150	150
	(1)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)

 $<sup>^{1}</sup>$  Loop length for short effective lengths (< 2 m or < 3 m from 10 t) may differ 2 plus chafe Protection/loop reinforcement (approx. 4-6mm)

NEV

# Webbing slings with fully reinforced loops

Extremely durable

# Your advantages:

- Polyester fabric (PES)
- Load capacity Colour-coded up to WLL 10,000 kg
- Woven tonnage stripes
- Webbing width 30 to 300 mm
- Inlaid and fully reinforced loops for longer durability
- Safety factor 1:7
- Available in various lengths
- Naturally with CE marking





Use edge Protection brackets, hose sleeve or coated straps to protect the webbing strap from sharp edges or rough surfaces (see page 78).

SHZ polyester lifting straps can replace chains and steel cables.
The advantage lies in their low dead weight combined with high loadbearing capacity. All fully reinforced SHZ lifting straps are manufactured

in accordance with EN 1492-1 at the Großröhrsdorf site in Germany.

Made in Germany is still a reality here.

We supply loops and lifting straps with a webbing width of 30 to 300 mm in various lengths as standard.

customised lifting slings for you on request. This enabled by our inhousedevelopment department.

Item no.	WLL in	Colour	Strap			Lengt	h in m / <b>Pri</b> c	ce in €			Additional
	kg (1x)		width in mm	1.0	2.0	3.0	4.0	5.0	6.0	7.0	- meter €/m
MCVS0100X	1,000	■ Purple	30	10.25	12.05	13.95	15.40	17.25	19.10	20.90	1.80
MCVS0200X	2,000	■ Green	60	13.60	16.20	18.80	21.05	23.30	25.90	28.50	2.45
MCVS0300X	3,000	Yellow	90	21.30	25.90	30.20	34.70	39.30	44.95	49.50	4.75
MCVS0400X	4,000	■ Grey	120	-	36.80	44.25	50.95	58.50	65.90	71.90	6.90
MCVS0500X	5,000	■ Red	150	-	60.50	68.30	76.80	85.30	93.10	100.90	8.05
MCVS0600X	6,000	■ Brown	180	-	64.05	77.00	88.50	99.95	115	127	11.85
MCVS0800X	8,000	■ Blue	240	-	79.70	95.65	109	125	140	153	13.80
MCVS1000X	10,000	Orange	300	-	-	169	182	200	218	235	16.75

 $<sup>\</sup>rightarrow$  X: Useful length in m; e.g. 1.0 m  $\rightarrow$  MCVS01001; other lengths and load capacities on request

# Lifting straps 4-ply

manufactured according to EN 1492-1



Special features

- Safety factor 1:7
- Made from polyester (PES)
- For large loads up to 50 t (inU-lift)
- Doubled load-bearing capacity in comparison to "normal" 2-ply Webbing slings
   Less space required, as half
- Less space required, as half the webbing width compared to 2-ply Webbing slings

Item no.	WLL in	Colour	Strap			Lengt	th in m / <b>Pri</b> c	e in €			Additional
	kg (1x)		width in mm	2.0	3.0	4.0	5.0	6.0	7.0	8.0	– meter €/m
MC4-0200X	2,000	■ Purple	30	26.10	31.40	35.25	39.10	42.90	46.75	50.90	4.15
MC4-0300X	3,000	Yellow	50	30.20	36.10	40.65	45.10	49.65	54.10	58.90	4.80
MC4-0400X	4,000	■ Green	75	36.90	45.75	53.10	60.45	67.80	75.20	82.85	7.65
MC4-0600X	6,000	- Yellow	90	52.15	67.50	78.40	89.30	100	111	123	11.80
MC4-0800X	8,000	■ Grey	120	-	95.10	111	127	144	160	176	16.15
MC4-1000X	10,000	■ Red	150	-	116	135	154	173	192	211	19.05
MC4-1200X	12,000	■ Brown	180	-	144	170	196	222	248	274	25.90
MC4-1600X	16,000	■ Blue	240	-	161	193	226	259	291	324	32.60
MC4-2000X	20,000	Orange	300	-	210	253	296	339	382	425	43.00
MC4-2500X	25,000	Orange	300	-	223	270	316	363	410	457	46.70

<sup>ightarrow</sup> X: Useful length in m; e.g. 1.0 m ightarrow MC01001; other lengths and load capacities on request

# Loop dimensions 4-ply Webbing slings (MC4)

Item no.	2,000	3,000	4,000	6,000	8,000	10,000	12,000	16,000	20,000	25,000
	kg ■	kg =	kg =	kg =	kg ■	kg •	kg ■	kg ■	kg =	kg •
Loop length in mm	350	400	500	500	500	1000	1000	1000	1000	1000
Loop width in mm <sup>2</sup>	30	25	30	45	60	75	90	120	150	150
	(1)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)	(1/2)

<sup>&</sup>lt;sup>2</sup> plus chafe Protection/loop reinforcement (approx. 4-6 mm)



# Steel shackle straps 2-ply

manufactured according to EN 1492-1, steel shackle straps according to EN 1677-4



Special features

- Alternative to loop strap, if the loop width exceeds the hook dimensions.
- Particularly suitable for use on cross beams or in series production where loop straps are subject to increased wear.
- Particularly gentle on the choke hitch because the entire width of the strap is supported.

Item no.	WLL in	Colour	Strap width			Effective le	ength in m ,	/ Price in €			Additiona — meter
	kg (1x)		in mm	1.0	2.0	3.0	4.0	5.0	6.0	8.0	€/m
Variant 1: D-clar	np- D-clan	np									
MCDD0100X	1,000	■ Purple	30	18.50	20.75	23.00	24.80	27.00	29.30	33.70	2.20
MCDD0200X	2,000	■ Green	60	25.40	28.50	31.60	34.30	37.00	40.10	45.90	2.90
MCDD0300X	3,000	Yellow	90	38.85	44.30	49.50	54.90	60.40	67.20	78.60	5.70
MCDD0400X	4,000	■ Grey	120	-	63.60	72.30	80.20	88.90	97.60	113.50	7.95
MCDD0500X	5,000	■ Red	150	-	120	130	140	151	162	179.80	8.90
MCDD0600X	6,000	■ Brown	180	-	139	154	165	178	194	220.20	13.10
MCDD0800X	8,000	■ Blue	240	-	197	213	227	242	257	286.80	14.90
MCDD1000X	10,000	Orange	300	-	879	896	910	927	946	980	17.00
Variant 2: D-clar	np- plug tl	hrough clamp	)								
MCDDU0100X	1,000	■ Purple	30	33.85	35.30	36.80	38.45	41.40	44.10	48.50	2.20
MCDDU0200X	2,000	■ Green	60	42.00	43.95	45.90	48.10	51.40	55.30	61.10	2.90
MCDDU0300X	3,000	Yellow	90	55.05	58.60	62.20	65.80	69.60	76.70	88.10	5.70
MCDDU0400X	4,000	■ Grey	120	-	120	128	135	143	151	166.90	7.95
MCDDU0500X	5,000	■ Red	150	-	178	187	196	205	213	230.80	8.90
MCDDU0600X	6,000	■ Brown	180	-	194	208	220	233	249	275.20	13.10
MCDDU0800X	8,000	■ Blue	240	-	292	309	323	339	355	384.80	14.90
MCDDU1000X	10,000	Orange	300	-	1,114	1,132	1,145	1,163	1,181	1,215	17.00
Variant 3: D-clar	np– C-hool	k									
MCDC0100X-30	1,000	■ Purple	30	51.75	53.35	55.25	57.10	59.40	61.85	66.25	2.20
MCDC0200X	2,000	Green	60	73.15	76.25	79.40	82.00	84.75	87.90	93.70	2.90
MCDC0300X	3,000	Yellow	90	101	107	112	117	123	130	141.40	5.70
MCDC0500X	5,000	■ Red	150	-	356	365	374	383	393	408.90	8.90
Variant 4: Loop-	C-hook										
MCC0100X-30	1,000	■ Purple	30	44.95	46.70	49.10	51.00	53.40	55.80	60.20	2.20
MCC0200X	2,000	■ Green	60	66.30	69.40	72.50	75.20	77.90	81.00	86.80	2.90
MCC0300X	3,000	Yellow	90	91.00	96.50	102	113	119	125	136.40	5,70
MCC0500X	5,000	■ Red	150	-	326	334	343	353	362	377.90	8,90

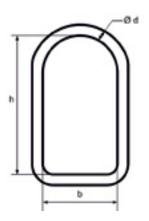
<sup>ightarrow</sup> X: Useful length in m; e.g. 1.0 m ightarrow MC01001; other lengths and load capacities on request

# **Shackle dimensions**

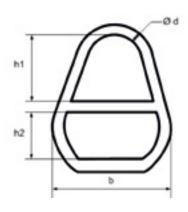
manufactured according to EN 1677-4

# Special features

- Without weld seam, as forged (D-clamp up to 4 t) Breaking load min. 4x WLL Load capacity marking on each clamp



Item no.	WLL in kg	d in mm	b in mm	h in mm	Price in €/pc.
DB030	1,000/30	13	48	100	4.20
DB050	1,000/50	13	65	110	4.20
DB060	2,000	16	65	130	6.20
DB090	3,000	18	110	140	9.25
DB120	4,000	22	130	135	13.20
DB150	5,000	26	175	175	29.00
DB180	6,000	26	205	220	33.90
DB240	8,000	32	270	240	52.80
DB300/10	10,000	42	300	290	387.20



Item no.	WLL in kg	d in mm	h1 in mm	h2 in mm	b in mm	Strap width in mm	Price in € / pc.
DSB030	1,000	13	85	45	121	30	7.30
DSB060	2,000	16	100	46	145	60	11.50
DSB090	3,000	20	131	57	199	90	17.50
DSB120	4,000	22	133	85	244	120	72.60
DSB150	5,000	26	174	100	292	150	103.40
DSB180	6,000	26	179	110	322	180	108.25
DSB240	8,000	32	223	110	420	240	165.00
DSB300/10	10,000	42	250	145	497	300	616.00



# Endless slings



# **One-Way Endless slings**

manufactured according to DIN 60005



Special features

- Suitable for a transport route from the manufacturer to he end consumer.
- Safety factor 5
- Please enquire separately for quantities larger than 500 pcs.



## Tip

Other load capacities / lengths on requestalso available as disposable slings.

Item no. WLL in Colour		Colour	Webbing width in		Effective l	Additional — meter				
	kg (1x)		mm	0.3	0.4	0.5	0.6	1.0	2.0	€/m
HS0750 × XXXX	750	■ Black	50	1.15	1.24	1.32	1.41	1.75	2.78	0.88
HS01000 × XXX-35-DIN	1.000	□White	35	1.43	1.51	1.60	1.69	2.03	3.05	0.88
HS01500 × XXX-50-DIN	1.500	□White	50	1.79	1.92	2.05	2.19	2.72	4.22	1.36
HS02000 × XXX-50-DIN	2.000	■ Orange / □ White	50	-	-	2.39	2.55	3.16	4.85	1.54

 $<sup>\</sup>rightarrow$  XXXX: Size in mm; e.g. 1.0 m  $\rightarrow$  HS0750 × 1000; Other lengths and load capacities on request

# **Endless slings**

manufactured according to EN 1492-1



Special features

Safety factor 7



Item no.	WLL in	Colour	Webbing			Additional						
	kg (1x)		width - in mm	0.5	1.0	1.5	2.0	2.5	3.0	3.5	4.0	– meter €/m
HS01000 × XXXX	1,000	■ Purple	30 / 50	2.15	2.90	3.55	4.20	4.90	5.55	6.20	6.85	1.36
HS02000 × XXXX	2,000	Green	60	3.20	4.25	5.30	6.40	7.45	8.50	9.60	10.65	2.16
HS03000 × XXXX	3,000	- Yellow	90	5.55	7.40	9.30	11.15	13.05	14.90	16.80	18.65	3.76
HS04000 × XXXX	4,000	■ Grey	120	-	10.75	13.60	16.50	19.25	22.05	24.85	27.60	5.60
HS05000 × XXXX	5,000	■ Red	150	-	13.20	16.70	20.20	23.65	27.05	30.50	33.90	6.90
HS06000 × XXXX	6,000	■ Brown	180	-	17.55	22.20	27.50	32.20	36.90	41.60	46.30	9.66
HS08000 × XXXX	8,000	■ Blue	240	-	-	27.45	33.70	39.35	45.00	50.60	56.25	11.56
HS10000 × XXXX	10,000	Orange	300	-	-	35.35	42.50	49.60	57.30	64.50	71.75	14.56

 $<sup>\</sup>rightarrow$  XXXX: Size in mm; e.g. 2 t, L1 = 0.5 m  $\rightarrow$  HS02000 × 1000; Other lengths and load capacities on request

# **Endless slings two-ply**

manufactured according to EN 1492-1



- Safety factor 7 double load capacity with same contact width

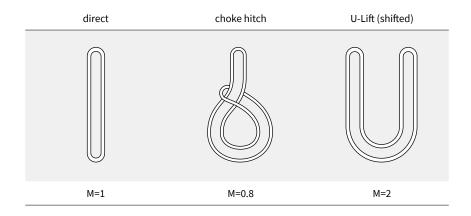


Item no.	WLL in Colour		Webbing		Effective length L1 in m / <b>Price in € per</b>							
	kg (1x)		width in - mm	1.0	2.0	3.0	4.0	5.0	6.0	– meter €/m		
HS2-01000 × XXXX	1,000	Orange	25	9.80	13.35	16.20	19.75	22.55	25.40	3,20		
HS2-02000 × XXXX	2,000	■ Purple	30	11.05	15.75	19.65	24.35	28.30	32.25	4.36		
HS2-03000 × XXXX	3,000	Yellow	50	13.00	18.25	22.75	28.00	32.50	37.00	4.90		
HS2-04000 × XXXX	4,000	■ Green	60	13.95	20.05	25.35	31.45	36.80	42.15	5.76		
HS2-06000 × XXXX	6,000	Yellow	90	21.50	30.45	38.65	46.80	55.00	63.20	8.46		
HS2-08000 × XXXX	8,000	■ Grey	120	30.80	43.50	55.50	68.25	80.25	92.20	12.40		
HS2-10.000 × XXXX	10,000	■ Red	150	39.90	54.70	68.80	83.65	97.75	111.85	14.50		
HS2-12.000 × XXXX	12,000	■ Brown	180	51.70	73.90	94.60	116.05	136.80	157.50	21.26		
HS2-16.000 × XXXX	16,000	■ Blue	240	66.30	92.90	118.65	144.45	171.80	199.20	26.60		
HS2-20.000 × XXXX	20,000	Orange	300	82.40	110.35	142.30	172.65	202.25	231.80	30.00		

 $<sup>\</sup>rightarrow$  XXXX: Size in mm; e.g. 2 t, L1 = 1.0 m  $\rightarrow$  HS02000 × 2000; Other lengths and load capacities on request

# Mode of assembly for Endless slings and round slings

M: Mode factor





# Round slings

# Round slings with single layer

manufactured according to EN 1492-2

#### Special features

- With safety label and sewn-in operating instructions
- With load-bearing capacity identification strip and 7-fold security
- Prices for intermediate sizes are rounded up to full 0.5 m

Item no.	WLL in	Colour			tive length	in m / <b>Pric</b>	e in €	in €			
	kg (1x)		0.5	1.0	1.5	2.0	3.0	4.0	5.0	6.0	— meter €/m
RE005XX <sup>1</sup>	500	Orange	5.15	5.20	6.10	7.35	9.40	11.40	13.95	16.75	2.50
RE010XX	1,000	■ Lila	4.50	4.55	5.30	6.40	8.20	9.90	12.15	14.55	2.05
RE020XX	2,000	■ Green	4.90	5.25	6.55	7.80	10.30	12.70	15.30	18.55	2.70
RE030XX	3,000	Yellow	6.10	6.60	8.50	10.05	13.20	16.90	20.35	24.30	3.65
RE040XX	4,000	■ Grey	6.85	8.60	10.90	13.10	17.60	22.20	26.85	31.80	4.80
RE050XX	5,000	■ Red	8.25	10.75	13.60	16.40	22.00	27.70	33.45	39.35	5.90
RE060XX	6,000	■ Brown	8.95	11.65	14.75	17.95	24.50	31.15	37.85	45.20	7.10
RE080XX	8,000	■ Blue	10.40	14.80	19.65	24.45	34.10	43.75	53.40	63.10	9.85
RE100XX	10,000	Orange	13.95	19.10	25.90	32.65	45.35	58.10	71.60	85.15	13.40

- $\rightarrow$  XX: Useful length in m; e.g. 1.0 m  $\rightarrow$  RE01010; other lengths and load capacities on request
- → Additional charge €/m only valid up to an effective length of 20 m; size 40 m

<sup>1</sup> according to EN 1492-2

# Round slings with double sheath

manufactured according to EN 1492-2

Special features

- With safety label and sewn-in operating instructions
- With load-bearing capacity identification strip and 7-fold security
- Prices for intermediate sizes are rounded up to full 0.5 m

Item no.	WLL in	Colour	ur Effective length in m / <b>Price in €</b>								
	kg (1x)		0.5	1.0	1.5	2.0	3.0	4.0	5.0	6.0	— meter €/m
RD010XX	1,000	■ Purple	4.95	5.35	6.45	7.90	10.35	12.70	15.60	18.70	2.70
RD020XX	2,000	■ Green	5.40	6.05	7.70	9.25	12.40	15.45	18.70	22.55	3.35
RD030XX	3,000	Yellow	6.65	7.55	9.85	11.80	15.65	20.10	24.35	29.10	4.45
RD040XX	4,000	■ Grey	7.30	9.30	11.90	14.40	19.50	24.65	29.90	35.45	5.40
RD050XX	5,000	■ Red	-	12.10	15.50	18.90	25.65	32.45	39.40	46.40	7.05
RD060XX	6,000	■ Brown	-	13.90	17.85	21.95	30.30	38.70	47.20	56.30	8.85
RD080XX	8,000	■ Blue	-	16.80	22.40	27.95	29.20	50.40	61.60	72.85	11.45
RD100XX	10,000	Orange	-	22.55	30.70	38.80	54.25	69.75	86.00	102	16.15

<sup>ightarrow</sup> XX: Useful length in m; e.g. 1.0 m ightarrow RD01010; other lengths and load capacities on request

# **Round slings PerShapeance+**

manufactured according to EN 1492-2



#### Special features

- Load-bearing capacity markings and firmly woven lettering
- Improved fabric structure to reduce wrinkling
- Significantly longer service life compared to conventional round slings due to the higher fabric thickness of the sleeve used.
- It goes without saying that our Performance+ round slings are delivered with a safety label and sewn-in operating instructions.

Item no.	WLL in	Colour	Effective length in m / <b>Price in €</b>								Additional
	kg (1x)		0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0	— meter €/m
RW010XX	1,,000	■ Purple	Ī	6.90	8.60	10.60	12.45	14.25	17.85	21.90	3.90
RW020XX	2,000	■ Green		7.50	9.65	11.75	13.85	16.00	20.25	24.60	4.50
RW030XX	3,000	Yellow		9.70	12.90	15.70	18.50	21.30	27.50	33.50	6.15
RW040XX	4,000	■ Grey	ssibe	12.65	15.55	20.40	24.30	28.15	36.00	43.90	8.05
RW050XX	5,000	■ Red	not possibel	15.40	20.10	24.80	29.45	34.20	43.65	53.20	9.70
RW060XX	6,000	■ Brown		16.50	21.60	26.80	32.10	37.30	47.90	58.60	11.05
RW080XX	8,000	■ Blue		19.95	26.90	33.80	40.70	47.60	61.45	75.50	14.05
RW100XX	10,000	Orange		26.30	35.95	45.60	54.80	64.05	82.55	102	19.15

- ightarrow XX: Useful length in m; e.g. 1.0 m ightarrow RW1010; other lengths and load capacities on request
- → Additional charge €/m only valid up to an effective length of 20 m; size 40 m

# Heavy duty round sling

manufactured according to EN 1492-2



#### Special features

- With safety label and sewn-in operating instructions
- 7 fold safety
- Use of a reinforced single tube

Item no.	WLL in	Colour	Effective length in m / <b>Price in €</b>								Additional
	kg (1x)		1.0	2.0	3.0	4.0	5.0	6.0	7.0	8.0	— meter €/m
RE120XX	12,000	Orange	31.95	52.20	72.50	93.90	114	134	155	176	20.50
RE150XX	15,000	Orange	36.30	60.00	83.80	109	133	156	180	206	24.80
RE200XX	20,000	Orange	48.30	78.90	110	142	174	205	235	267	31.70
RE250XX	25,000	Orange	56.40	91.90	129	167	203	239	276	313	36.60
RE300XX	30,000	Orange	72.90	119	169	217	264	311	357	405	47.00
RE400XX	40,000	Orange	94.30	156	218	281	342	404	465	528	61.90
RE500XX	50,000	Orange	124	208	293	379	464	548	632	718	84.90
RE600XX	60,000	Orange	-	254	355	459	560	661	762	865	102

- ightarrow XX: Useful length in m; e.g. 1.0 m ightarrow RE01010; other lengths and load capacities on request
- → Additional charge €/m only valid up to an effective length of 20 m; size 40 m

NEW

# Heavy duty round sling Performance MAX

Extremely tear and abrasion resistant, 40 % smaller contact width than polyester round slings

Your advantages:

- Ideal for lifting extremely heavy loads up to 300 t
- Very low dead weight: approx. 2.5× lighter than Polyester round slings
- Extremely tear-resistant:
   Jacket made of polyester double sleeve, core made of
   LCP high-performance yarns
- Durable: due to particularly stable, abrasion-resistant sheathing
- Elongation < 1 %</li>
- Temperature range: -40 °C to +100 °C
- Available in various lengths
- Safety factor 1:7
- Manufactured according to EN 1492-2 with CE marking

Its name says it all: The Performance MAX heavy-duty round sling is not only 2.5 times lighter than normal polyester round slings, it also has a 40 % smaller contact width. Space problems in the crane hook or shackle, as with conventional heavy-duty round slings, are now a thing of the past. This makes it ideal

for lifting extremely heavy loads of up to 300 t.

Another advantage:

Because it is manufactured with LCP high-performance yarns, its temperature range is significantly greater than that of comparable round slings made of HMPE. The heavy-duty round sling performance MAX can be

used from -40 °C to +100 °C. And it is also much more sustainable: like all SHZ round slings, it has a particularly stable, abrasion-resistant sheath – and is therefore much more durable than comparable heavy-duty round slings from other suppliers'.

Item no.	V	VLL in t		Colou	r	Sle	eeve wic	lth		port ss in mm		ight per in kg	m NL	Pric €/	
RM100XX		10		Oran	ige		72		13			1.00		I	
RM200XX		20		Orange			85		17			1.70			
RM300XX		30		Oran	ige		110		2	22		2.40			
RM400XX		40		Oran	ige		123		2	26		3.10			
RM500XX		50		Oran	ige		128		2	28	3.80			- ts	
RM600XX		60		■ Oran	ige		135		3	37		4.40		on request	
RM800XX		80		Oran	ige		155		į	54		5.70		ū	
RM1000XX		100		Oran	ige		175		(	53		7.30			
RM1500XX		150		Orange			230		3	34		10.40			
RM2000XX		200		■ Oran	ige		270		1	03		13.80			
RM3000XX		300		Oran	ige		300		1	12		20.30			
	1 t	2 t	3 t	4 t ■	5 t	6 t	8 t	10 t	12 t	15 t	20 t	25 t	30 t	40 t	50 t
Sleeve width single jacket	46	46	57	66	77	85	92	114	156	156	177	177	177	204	230
Sleeve widht double jacket	49	49	60	69	80	85	95	130	-	-	-	-	-	-	-
Sleeve Performance+	46	46	57	65	78	86	93	108	-	-	-	-	-	-	-
Support thickness	4	6	6	6	8	11	12	12	12	14	15	30	35	35	40
Contact widthunder	30	40	50	60	60	75	75	90	110	130	135	135	140	190	210

ightarrow All specifications in mm

#### **Comparison with synthetic fibres**

Material	Polyester (PES)	<b>Aramid</b> Kevlar®, Technora®	<b>High-modulus polyethylene</b> (HPME) Dyneema®, Spectra®	<b>Liquid-Crystal-Polymer</b> (LCP) Vectran®
Strength cN/dtex	7-9	20-25	26-34	26-28
Elongation at break	10-18%	<4%	<4%	<4%
Density Melting	1,38	1,4	0,97	1,4
Point in °C	225	500 (coking)	130	380
Temp. resistance in °C UV	100	250	70	100
UV resistance	very good	bad	very good	bad
Resistance Alkali	good, at low temp	good	very good	very good
Resistance Acid resistance	predominantly good	good	very good	very good
Petrol-oil resistance	very good	very good	very good	very good
Resistance to abrasion	very good	bad	very good	very good
Humidity	unproblematic	unfavourable, breaking force reduction in wet	unproblematic	unproblematic
Creep behaviour	low	low	Detectable at high load	Not available
Areas of application	Standard applications Requirements	Use for high Temperatures	High load capacities, Cut Protection	High load capacities, Cut Protection

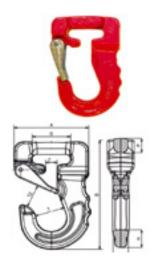
#### Polyester round sling suspension



<b>511</b>						
Item no.	Colour	WLI k		Minimum length in m	Price per 1 m NL	Additional meter€/m
1-Strand						
RSG1-1000 × XXXX	■ Purple	1,0	00	1.0	50.25	4.90
RSG1-2000 × XXXX	■ Green	2,000		1.0	56.60	5.50
RSG1-3000 × XXXX	- Yellow	3,0	00	1.0	77.50	7.80
RSG1-4000 × XXXX	■ Grey	4,0	00	1.5	132.20	9.60
RSG1-5000 × XXXX	■ Red	5,0	00	1.5	135.95	10.70
RSG1-8000 × XXXX	■ Blue	8,0	00	1.5	213.30	15.90
RSG1-12000 × XXXX	■ Orange	12,0	000	1.5	410.25	25.10
RSG1-15000 × XXXX	Orange	15,0	000	1.5	600.85	29.00
2- Strand		0-45°	45-60°			
RSG2-1400 × XXXX	■ Purple	1,400	1,000	1.0	89.95	9.80
RSG2-2800 × XXXX	■ Green	2,800	2,000	1.0	102.00	11.00
RSG2-4200 × XXXX	- Yellow	4,200	3,000	1.0	146.50	15.60
RSG2-5600 × XXXX	■ Grey	5,600	4,000	1.5	253.70	19.20
RSG2-7000 × XXXX	■ Red	7,000	5,000	1.5	258.80	21.40
RSG2-11200 × XXXX	■ Blue	11,200	8,000	1.5	419.50	31.80
RSG2-16800 × XXXX	Orange	16,800	12,000	1.5	783.30	50.20
RSG2-21000 × XXXX	Orange	21,000	15,000	1.5	1,279	58.00
3- Strand		0-45°	45-60°			
RSG3-2100 × XXXX	■ Purple	2,100	1,500	1.0	143.75	14.70
RSG3-4200 × XXXX	■ Green	4,200	3,000	1.0	167.50	16.50
RSG3-6300 × XXXX	- Yellow	6,300	4,500	1.5	235.85	23.40
RSG3-8400 × XXXX	■ Grey	8,400	6,000	1.5	410.95	28.80
RSG3-10500 × XXXX	■ Red	10,500	7,500	1.5	419.00	32.10
RSG3-16800 × XXXX	■ Blue	16,800	12,000	1.5	689.10	47.70
RSG3-25200 × XXXX	■ Orange	25,200	18,000	2.0	1,372	75.30
RSG3-31500 × XXXX	■ Orange	31,500	22,500	2.0	2,115	87.00
4-Strang		0-45°	45-60°			
RSG4-2100 × XXXX	■ Purple	2,100	1,500	1.0	182.00	19.60
RSG4-4200 × XXXX	■ Green	4,200	3,000	1.0	210.00	22.00
RSG4-6300 × XXXX	- Yellow	6,300	4,500	1.5	294.50	31.20
RSG4-8400 × XXXX	■ Grey	8,400	6,000	1.5	520.25	38.40
RSG4-10500 × XXXX	■ Red	10,500	7,500	1.5	530.50	42.80
RSG4-16800 × XXXX	■ Blue	16,800	12,000	1.5	872.50	63.60
RSG4-25200 × XXXX	■ Orange	25,200	18,000	2.0	1,712	100.40
RSG4-31500 × XXXX	Orange	31,500	22,500	2.0	2,669	116.00

 <sup>→</sup> XXXX: Effective length in mm; e.g. 1.0 m
 → RSG2-2800 × 1000; Other lengths and load capacities on request

#### **Round sling hook**



Item no.	Colour		D	imensi	ons in n	nm		Weight	WLL	Price in
	-	В	D	G	Н	Р	Т	in kg	in t	€ / pc.
CJ01	■ Purple	123	41	17	20	16	31	0.70	1.0	33.30
CJ02	■ Green	148	55	21	26	17	40	1.20	2.0	39.05
CJ03	- Yellow	175	55	25	32	25	50	2.20	3.0	58.30
CJ04	■ Grey	223	70	36	40	36	59.5	4.50	4.0	124.90
CJ05	■ Red	223	70	36	40	36	59.5	4.50	5.0	134.60
CJ06	■ Brown	223	70	36	40	36	59.5	4.50	6.0	138.50
CJ08	■ Blue	317	100	45	63	55	80	12.50	8.0	410.00
CJ10	Orange	317	100	45	63	55	80	12.50	10.0	477.00

## Polyester round slings in black for event technology

manufactured according to EN 1492-2

Special features

- With safety label and sewn-in operating instructions
- In accordance with EN 1492-2

Item no.	WLL in	Colour			Effec	tive length	in m / <b>Pric</b>	e in €			Additional
	kg (1x)		0.5	1.0	1.5	2.0	3.0	4.0	5.0	6.0	– meter €/m
RE010XX-SW	1,000	■ Black	4.80	5.00	5.90	7.20	9.30	11.35	13.90	16.65	2.40
RE020XX-SW	2,000	■ Black	5.10	5.55	6.95	8.30	11.05	13.75	16.55	20.05	2.95

- ightarrow XX: Useful length in m; e.g. 1.0 m ightarrow RE01010-SW; other lengths and load capacities on request
- → Surcharge € / m is only valid up to a useful length of 14 m; circumference 28 m; please enquire for longer round slings.

#### Round slings with steel cable insert

manufactured according to EN 1492-2



Special features

- For event technology and theatres
- Label with load capacity information according to BGV C1 and based on EN 1492-2
- Label fully protected in sleeve with velcro strap for opening

Item no.	WLL in	WLL in										
	kg (SF 5)	kg (BGV C1)	0.5	1.0	1.5	2.0	2.5	3.0	4.0	5.0		
RSE010XX	1,000	500	10.45 <sup>1</sup>	13.25 <sup>1</sup>	16.40 <sup>1</sup>	19.80¹	25.20 <sup>1</sup>	27.90¹	36.50 <sup>1</sup>	38.60		
RSE020XX	2,000	1,000	12.95 <sup>1</sup>	18.46 <sup>1</sup>	23.95 <sup>1</sup>	29.40 <sup>1</sup>	38.50 <sup>1</sup>	40.35 <sup>1</sup>	51.80 <sup>1</sup>	61.10		
RSE030XX	3,000	1,500	21.65	21.80	29.20	36.95	50.60	52.45	71.65	87.85		
RSE040XX	4,000	2,000	24.80	25.60	34.90	46.70	58.90	61.80	79.80	97.90		

 $<sup>\</sup>rightarrow$  XX: Useful length in m; e.g. 1.0 m  $\rightarrow$  RSE01010; other lengths and load capacities on request

<sup>&</sup>lt;sup>1</sup> Warehouse item (generally short term delivery)



# **Edge protection**

## **Edge Protection** and hose sleeves

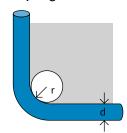
## Reasons for the use of edge protectors:

- Protection of sensitive transport surfaces
- Protection of the strap webbing from dangerous cuts
- Enlargement of the contact surface on sharp edges
- Protection of the strap webbing against abrasion on rough surfaces (e.g. raw wood, concrete elements, rolled steel products) or when turning sharp-edged transport goods.
- Achieving uniform force distribution in the lashing equipment during tie-down lashing

#### Sharp edges:

According to the definition of the Employer's Liability Insurance Association, we speak of a sharp edge when the radius r of the edge of the transport material is smaller than or equal to the thickness d of the lifting strap or round sling.

#### sharp edge if: r ≤ d



#### Polyurethane:

Due to their excellent properties, all SHZ edge protectors are made of polyurethane (PU).

#### PU is characterised by:

- Flexibility in a wide temperature range
- High wear resistance
- Very good weather resistance
- Oil, grease and solvent resistance
- High tear and tear propagation resistance

#### Reinforced single sleeve (only fabric in code colour)

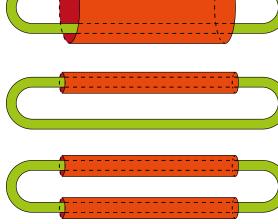
Item no.	Inside width	Price in €/m	Colour	for round slings over the double strand
ES02000-SW	45	0.54	■ Black	1 t
ES+01000-LI	60	2.45	■ Purple	1 t
ES+02000-GN	60	2.45	■ Green	2 t
ES+03000-GE	90	3.18	Yellow	3 t
ES+04000-GR	90	3.18	■ Grey	4 t
ES+05000-RO	100	3.50	■ Red	5 t
ES+06000-BR	100	3.62	■ Brown	6 t
ES+08000-BL	100	3.68	■ Blue	8 t



#### Fabric hoses rubberised on the inside

#### Areas of use:

- Protection of the strap webbing on rough surfaces
- → The hose sleeve adheres to the edge of the goods to be transported, while the lifting strap or round sling can slide freely in the protective sleeve. The hose sleeve must be significantly shorter than the lifting strap or the round sling so that the stretching and positioning of the strap is possible without any problems.



**Type 1:** Hose sleeve over the double strand

Type 2: Hose sleeve over the single strand (single)



Type 3: Hose sleeve over the single strand (double)

Inner diameter in mm

Inside width in mm

rubberised inside, raw white outside



rubberised inside, red PU-coated outside



		Item no.	Price in €/m	Item no.	Price in €/m¹
25	35	-	-	IBAB 2510	4.78
38	60	IB 3802	4.55	IBAB 3811	5.46
52	85	IB 5203	4.80	IBAB 5212	6.00
70	112	-	-	IBAB 7013	9.15
90	144	-	-	IBAB 9015	13.35
100	161	-	-	IBAB10016	13.65
125	198	-	-	IBAB12517	23.65
150	250	-	-	IBAB15018	29.30

<sup>1</sup> Calculation in 0.5m steps

#### Allocation of hose sleeves:

Inner diameter	Inside width	for lifti	ng strap 2-ply	for round slings over the double strand <sup>2</sup>
in mm	in – mm	WLL / t	Webbing width/mm	WLL/t
38	60	1	50	1 and 2
52	85	2	60	3 and 4
70	112	2	75	5 and 6
90	144	3.4	90.120	8 and 10
100	161	-	-	-
125	198	5	150	12 and 15
150	250	6	180	20 and 25

<sup>&</sup>lt;sup>2</sup> Hose sleeves over the single strand available on request

#### **Abrasion resistant cuffs**

#### Features:

- Protection of the strap webbing from rough surfaces
- Can be retrofitted, as equipped with Velcro fastener for opening
- Rubberised inside, outside with red durable PU coating
- Calculable minimum length 0.5 m



Item no. in	Inside width (approx. dimension)	Price for standard length 0.5 m in	Price per extra metre	for li	fting strap 2-ply	for round slings over the single strand
mm	mm	€ / pc.	€/m	WLL/t	Webbing width/mm	WLL / t
ABMA38-0,5	35	10.80	21.70		25	0.5
ABMA52-0,5	60	11.05	22.10	1	30/50	1,2,3
ABMA70-0,5	85	12.40	24.80	2	60	4,5
ABMA90-0,5	115	14.30	28.55	3	90	6,8
ABMA100-0,5	135	14.50	29.05	4	120	10
ABMA125-0,5	170	18.30	36.55	5	150	12,15
ABMA150-0,5	220	19.95	39.90	6	180	20 – 40

#### **PU-hose sleeve**

#### **Features**

#### SHZ PU hose sleeve:

- Excellent gliding properties between strap and protective sleeve due to textile insert.
- Greater flexibility and high
   Protection against strap crushing
   due to rounded edges
- Optimum Protection against penetration of sharp edges by glass fibre scattering (on request)
- Excellent adhesion to moist and oily surfaces due to additional protective fleece on request))

 Closed hose sleeves protect the lifting strap on all sides. Dangerous mix-ups are a thing of the past, as both sides of the protective hose can be used as stop sides.

#### Areas of use:

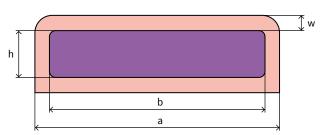
- Protection of the strap webbing on rough surfaces
- Safe turning of sharp-edged transport goods
- Protection of the strap webbing at sharp edges



#### PU1a/b/h/w

# b

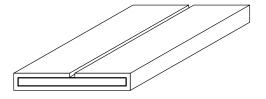
#### PU2 a / b / h / w



Item no.	a in mm	b in mm	h in mm	w in mm	Strap width in mm	Price one side in €/m	Price two side in €/m	Additional price for 1 Glass fibre in €/m
for 2-ply Webbing sl	ings							
PUx 50/40/10/5	50	40	10	5	30	61.35	77.00	25.50
PUx 70/60/12/5	70	60	12	5	50	66.30	76.20	25.95
PUx 80/70/12/5	80	70	12	5	60	67.70	77.40	26.50
PUx 110/100/12/5	110	100	12	5	90	81.80	98.45	37.05
PUx 145/135/12/5	145	135	12	5	120	99.30	129.05	38.50
PUx 170/160/12/5	170	160	12	5	150	113.50	143.10	39.65
PUx 200/190/12/5	200	190	12	5	180	128.75	158.65	42.90
PUx 290/280/15/8	290	280	15	8	240	165.10	206.30	51.80
PUx 330/320/15/8	330	320	15	8	300	258.35	311.15	53.65
for 4-ply Webbing sl	ings							
PUx 50/40/20/5	50	40	20	5	30	75.96	91.60	25.50
PUx 70/60/17/5	70	60	17	5	50	75.02	86.30	26.50
PUx 80/70/24/5	80	70	24	5	60	89.60	99.30	26.50
PUx 95/85/24/5	95	85	24	5	75	94.71	108.05	27.15
PUx 110/100/24/5	110	100	24	5	90	103.57	120.25	37.00
PUx 145/135/24/5	145	135	24	5	120	134.37	167.45	38.50
PUx 170/160/24/5	170	160	24	5	150	135.36	165.10	39.65
PUx 200/190/24/5	200	190	24	5	180	150.98	180.60	42.90
PUx 290/280/30/8	290	280	30	8	240	187.00	228.25	51.80
PUx 330/320/30/8	330	320	30	8	300	280.23	333.00	53.65

- → Valid for lengths up to 4 m, over 4 m please enquire
   → Calculation in 0.5 m steps
- → Minimum calculable length 1.0 m
- → Please enquire separately about prices for 2-sided glass fibre interspersion

Surcharge for clip on sleeve with separating/guiding groove: 10.90  $\varepsilon\,/\,m$ (only possible with hoses on both sides)



#### **PU-Coatings**

#### Areas of use:

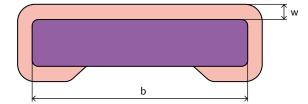
- Protection of the strap webbing on rough surfaces
- Protection of the strap webbing at sharp edges
- In case of short usable lengths of the lifting strap, the fixed coating offers more flexibility than a hose sleeve.

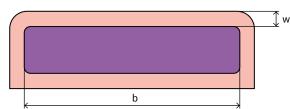


(PU coating 1-sided - without edge)

Webbing slings with coating are not suitable for turning sharp-edged loads because relative movements between the strap and the hose sleeve are not possible.

### PU1 b PU2 b





Item no.	b in mm	w in mm	for 2-ply Webbing slings to - in mm	Price one side in €/m	Price two side in €/m	Surcharge for 1-sided glass fibre interspersion in €/ m
PUx 30	30	5	30	51.30	84.80	23.55
PUx 60	60	5	60	65.30	103.85	23.55
PUx 75	75	5	75	89.20	127.50	24.40
PUx 100	100	5	100	98.80	145.10	34.30
PUx 120	120	5	120	103.85	154,.30	35.05
PUx 150	150	5	150	119.25	177.40	36.75
PUx 180	180	5	180	126.30	198.80	37.60
PUx 240	240	5	240	147.45	247.20	46.10
PUx 300	300	5	300	167.10	271.10	48.85

- → Coating of endless straps plus 25 % surcharge (only 2-ply fabric)
- → Coating steel shackle straps plus 12 % surcharge
- → Calculable minimum coating length 1.0 m
- → Calculation in 0.5 m steps

#### Dyneema®-hose sleeve

#### Features:

- Wall thickness 3 or 5 mm
- Much more flexible than
   PU hose sleeves
- 7 to 8 times higher resistance than polyester
- Low dead weight



Item no.	Outer width in mm	Inside width in mm	Price in €/m	for lifting strap 2-layer in WLL / t	for RS above Double strand in WLL / t
Wall thickness 3 mm	/total thickness 6 mm/	use as abrasion Protecti	on		
SL-DYN3-080	80	74	120.65	1 and 2	1, 2, 3
SL-DYN3-110	110	104	152.60	2 (75 mm)	4, 5, 6
SL-DYN3-130	130	124	177.95	3	8
SL-DYN3-160	160	154	232.90	4	10
SL-DYN3-190	190	184	277.20	5	12. 15
Wall thickness 5 mm	/total thickness 10 mm	/use as cut Protection			
SL-DYN5-085	85	75	226.80	1 and 2	1, 2, 3
SL-DYN5-115	115	105	299.25	2 (75 mm)	4, 5, 6
SL-DYN5-135	135	125	345.45	3	8
SL-DYN5-160	160	150	417.85	4	8, 10
SL-DYN5-190	190	180	518.20	5	-
SL-DYN5-230	230	220	608.60	6	12, 15
SL-DYN5-260	260	250	683.55	-	20, 25
SL-DYN5-290	290	280	750.80	8	30

★ The production of round slings with hose sleeve with the single strand is only possible in selected lengths.

Just ask us about it!

#### Dyneema®-Edge protection

#### Features:

- Contact surface made of the high-tech fibre Dyneema®.
- Very low dead weight
- Adapts flexibly to load and slinging equipment
- Can be retrofitted at any time with Velcro fasteners
- Support thickness approx. 10 mm

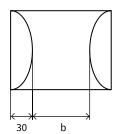


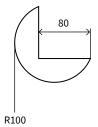
Item no. in mm	Length L in mm	Width B in mm	Number of retaining straps in pcs.	Width of retaining straps in mm	Price in €/pc.
KS-DYN85x300	300	85	2	50	77.20
KS-DYN115x300	300	115	2	50	99.65
KS-DYN135x400	400	135	4	50	114.35
KS-DYN160x400	400	160	4	50	183.25
KS-DYN190x500	500	190	4	50	257.25
KS-DYN230x600	600	230	4	75	430.50
KS-DYN290x700	700	290	4	75	514.50

## Edge protection angle for Webbing slings (PU)

#### Features:

- Easy assignment to the strap width due to colour coding
- Easy adjustment on transport goods edges due to holding magnets





#### Areas of use:

- Protection of the strap webbing at sharp edges
- Protection of the transported goods

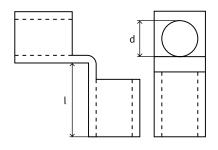


Item no.	Colour	Webbing width in mm	Number of magnet	Price in € / pc.
PU-KW-065	■ Green	60	without	30.50
PU-KW-100	- Yellow	90	without	39.00
PU-KW-125	■ Grey	120	without	47.50
PU-KW-150	■ Red	150	without	56.30
PU-KW-200	■ Black	180	without	73.40
PU-KW-300	Orange	300	without	108.00
PU-KW-065-MAG	■ Green	60	2	47.50
PU-KW-100-MAG	- Yellow	90	4	59.60
PU-KW-125-MAG	■ Grey	120	4	73.40
PU-KW-150-MAG	■ Red	150	4	81.95
PU-KW-200-MAG	■ Black	180	6	116.50
PU-KW-300-MAG	Orange	300	8	159.70

## Edge protection angle for round slings (PU)

#### Areas of use:

- Protection of the round sling on sharp edges
- Protection of the transported goods
- For 3t or 5t round sling over the single strand
- Slotted for subsequent fastening



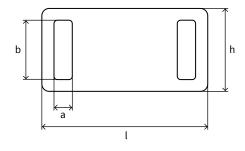


Item no.	Colour	d in mm	l in mm	Price in € / pc.
PU-KSW-030	- Yellow	30	80	12.50
PU-KSW-050	■ Red	50	125	31.50

## Edge protection plates for lashing straps (PU)

#### Areas of use:

- Protection of the strap webbing at sharp edges
- Protection of the transported goods
- Achieving an even distribution of force in the lashing equipment when lashing down
- Thickness approx. 5 mm



Item no.	l in mm	h in mm	b in mm	a in mm	Price in € / pc.
KSPDF 025	250	80	25	10	7.45
KSPDF 035	250	80	35	10	7.60
KSPDF 055 (for 50mm lashing straps)	300	100	55	10	2.15
KSPDF 060	450	100	60	30	26.60
KSPDF 070	450	120	70	30	27.35
KSPDF 080	450	120	80	30	30.55
KSPDF 090	470	130	90	40	32.45
KSPDF 110	470	150	110	40	36.40
KSPDF 130	470	170	130	40	40.25
KSPDF 160	470	200	160	40	44.30
KSPDF 200	470	240	200	40	46.95
KSPDF 220	470	240	220	40	47.75
KSPDF250	500	280	250	40	52.15
KSPDF320	600	400	320	40	72.80
KSPDF420	600	500	420	40	127.95

# Edge Protection rail HUAL

Double web profile – reliably protects goods to be transported and lashing straps from sharp edges



The SHZ edge Protection rail is designed for rough use in building material transports.

temperatures below 0 °C, the SHZ

This ensures that your goods are not damaged and that the lashing straps used do not get cut. Transport your building materials safely with our HUAL edge Protection rails.

- Optimally suited for the transport of building material pallets (bricks)
- High formula elasticity
- High durability even at low temperatures

#### **Dimensions:**

- Side length: 190 x 190 mm
- Material thickness: 19 mm (double-webbed sheet)
- Standard lengths: Length: 2000 mm,4000 mm
- Other lengths on request (sold by the meter)

Item no.	Colour	Length in mm	Price in € / pc.
KSW-HUAL-0,8	<ul><li>Orange</li></ul>	800	13.50
KSW-HUAL-1,0	■ Orange	1,000	16.75
KSW-HUAL-1,21	<ul><li>Orange</li></ul>	1,200	21.20
KSW-HUAL-2,0 <sup>2</sup>	<ul><li>Orange</li></ul>	2,000	34.00
KSW-HUAL-4,0 <sup>2</sup>	Orange	4,000	63.95

<sup>→</sup> other lengths on request

## Edge Protection angle for lashing straps



#### Areas of use:

- Protection of the strap webbing at sharp edges
- Protection of the transported goods
- Achieving uniform force distribution in the lashing equipment during tie-down lashing

## **Edge Protection angle optimised version**



#### Features:

- Made from high quality polypropylene
- Leg length 175x130 mm
- Width 145 mm
- Optimum force on edges
- Suitable for the transport of paper rolls (with groove)
- Break-proof, cold-resistant and dimensionally stable
- Suitable for webbing width 50 mm

Item no.	Colour	Length in mm	Price in € / pc.
KSW-P-OS	■ Black	175 × 130	1.65

<sup>&</sup>lt;sup>1</sup> Shipping only possible by freight forwarding <sup>2</sup> Shipping always ex works



## Accessories

#### **Anti-slip mats**





#### Features:

- Increase of the coefficient of sliding friction μ between load and loading area
- Achievement of defined coefficients of sliding friction
- Reduce the time required to secure the load by reducing the amount of lashing equipment-required (see operating instructions for lashing equipment).
- Increased safety due to the formation of a deformation trough

The anti-slip mat must not be deformed by more than 30 % compared to its original thickness. If this is not guaranteed, the mat thickness must be varied accordingly.

#### Structure:

SHZ anti-slip mats consist of a highstrength compound of rubber granulate with polyurethane binders. This is characterised by:

- Extreme permanent
   elasticity with simultaneous
   high mechanical
   load-bearing capacity
- Longevity
- Recyclability

#### Discard criteria:

- Permanent deformations
- Swollen or chipped areas
- Embrittlement
- Severe soiling
- Damage to the anti-slip mat by aggressive media

	Item no.	Length in mm	Width in mm	Thickness in mm	Price in € / pc.
Rolled material	AR08-8000x1250	8,000	1.250	8	246.80
Straps	AR08-5000x0250	5,000	250	8	20.95
Pads	AR08-200x100	200	100	8	0.55

<sup>→</sup> Other dimensions available on request.

#### Polyester webbing loose



- \* We can manufacture your belts in the colours listed here on request.
- ★ Webbing is delivered loose in pallet boxes or in small boxes for smaller quantities. Unfortunately, delivery in the Shape of rolls is not possible.

Item no.	Colour	Width in mm	Tensile strength in daN	Identification strip	Price in € / pc.
025012	■ Yellow ■ Orange ■ Red ■ Blue ■ Green ■ Black	25	1,200	-	0.22
025022,5	Orange	25	2,250	-	0.34
030045	■ Purple	30	4,500	1	0.62
035030	■ Yellow ■ Orange ■ Red ■ Blue ■ Green	35	3,000	2	0.40
035045	Orange Blue	35	4,500	-	0.62
050022	■ Black	50	2,200	-	0.40
050045	Orange Purple	50	4,500	-	0.62
050060	■ Orange ■ Blue ■ Black	50	6,000	4	0.70
050075	■ Yellow ■ Orange ■ Red ■ Blue ■ Green	50	7,500	5	0.79
060085	■ Green	60	500	2	1.00
075150	= Yellow	75	15,000	-	2.40
090135	Yellow	90	13,500	3	1.69
120180	■ Grey	120	18,000	4	2.75
150225	■ Red	150	22,500	5	3.30
180270	■ Brown	180	27,000	6	4.85
240360	■ Blue	240	36,000	8	5.40
300450	Orange	300	45,000	10	6.60
300500	■ Orange	300	50,000	10	7.50

NEW

# Tension strap retractor with magnetic holders

Quick and easy to roll up



#### Your advantages:

- Enables quick and easy rolling up
- Flexible attachment to a wide variety of metal surfaces thanks to heavy-duty magnets
- Compact and robust construction
- Can be used for loose ends up to 10 m or 18 m in length

This practical tensioning strap retractor makes it easier for you to roll up your straps and helps you to store them properly. You can save a lot of valuable working time.

Because after it is properly rolled up, a tensioning strap is much easier to use when you need to work again –

for example, when it has to be thrown over a high load. Another advantage: Thanks to the high-performance magnets, the tension belt retractor can be attached very stably to a wide variety of metal surfaces – for example, to stanchions, in the cargo area or in the warehouse.

#### It's as simple as that:

- Affix tension strap retractor with the magnets facing downwards
- Pull the end of the ratchet tie dowr strap through the slot and continue to hold the rest of the strap in your hand.
- 3. Turn the crank handle while winding up the strap.
- 4. Remove the rolled-up strap from the strap retractor and store it neatly until the next use. Done.





Item no.	Webbing width in mm	max. Strap length in m	Weight in kg	Price in € / /pc.
GR-50-MAG	50	10.0	1.0	74.30
GR-50-MAG-MAX	50	18.0	1.2	84.50

#### Skip/container nets



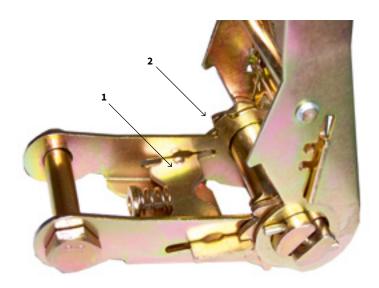
#### Features:

- Good tear resistance
- Made of polypropylene
- Green, knotless
- With robust edge rope and additionally retracted elastic rope

Item no.	Dimensions in m	Mesh size in mm	Material thickness in mm	Price in € / pc.
CN53525	3,5 x 2,5	45	3	34.95
CN53550	3,5 x 5,0	45	3	74.55
CN53560	3,5 x 6,0	45	3	81.00
CN53570	3,5 x 7,0	45	3	98.90
CN53580	3,5 x 8,0	45	3	123.30



## Safety Lock for ratchets



- 1: Pawl
- **2:** Safety lock (also referred to as: double pawl, double lock, lock)



## Ratchets for webbing width 25 mm

Item no.	Designation	Transport- securing	BS in daN	L in mm	B in mm	Weight in kg / 100	Price in €/pc.
RaZH0800-SW	Ratchet Hobby black	no	800	115	27	24.0	1.20
RaZHS1500	Ratchet Hobby PLUS	no	1,500	130	28	40.0	2.35
RaZH0800-Edels	Ratchet Hobby Stainless steel	no	800	112	26	20.0	4.15
RaZHS1500-Edels	Ratchet Hobby+ Stainless steel	no	1,500	131	28	31.0	8.80

## Ratchets for webbing width 35 mm

Item no.	Designation	Transport- securing	BS in daN	L in mm	B in mm	Weight in kg / 100	Price in €/pc.
RaZK35-2000	Ratchet Kuli 35	no	2,000	134	36	45.0	2.65
RaZK35-3000	Ratchet Kuli 35 PLUS	yes	3,000	156	36	60.0	4.20
RaZKE353	Ratchet Kuli 35 MAX	yes	3,000	200	38	70.0	4.65
RaZKWH35-3000	Ratchet Kuli with	yes	3,000	156¹	36	108.0	5.85
RaZK35-Edels	Ratchet Kuli Stainless	no	1,500	137	41	44.0	12.50





## Ratchets for webbing width 50 mm

Item no.	Designation	Transport- securing	BS in daN	L in mm	B in mm	Weight in kg / 100	Price in €/pc.
RaZK50-2000	Ratchet Kuli 50	no	2,000	134	52	54.0	3.15
RaZC5	Ratchet Cargo	yes	5,000	230	52	105.0	5.10
RaZCWH	Ratchet with swivel hook	yes	5,000	1701	52	120.0	7.47
RaZCP5	Long lever pull ratchet Ergo PLUS	yes	5,000	360	52	171.0	9.35
RaZCL5	BSC-Long lever pressure ratchet (BSC Function for step-by-step release)	yes	5,000	310	52	160.0	10.30
RaZCG5	Long lever pull ratchet Ergo MAX	yes	5,000	365	52	196.0	15.10
RaZC-Edels	Ratchet Cargo Stainless steel	yes	4,000	232	53	119.0	24.05

<sup>&</sup>lt;sup>1</sup> Ratchet length without hook

## Ratchets for webbing width 75 mm

Item no.	Designation	Transport- securing	BS in daN	L in mm	B in mm	Weight in kg / 100	Price in €/pc.
RaZJ	Ratchet Jumbo 75 mm	no	10,000	325	78	270.0	18.90



#### Clamp/turnbuckles

Item no.	Designation	BS¹ in daN	L in mm	B in mm	Weight in kg / 100	Price in € / pc.
RaKL0250-25	Cam buckle 25 mm	250	44	25	4.9	0.40
RaKL0450-25	Cam buckle 25 mm	450	55	25	5.5	0.70
RaKL0680-25	Cam buckle 25 mm (weldable)	680	64	25	13.0	1.60
RaKL0800-35	Cam buckle 35 mm	800	60	35	13.0	1.55
RaKL0950-50	Cam buckle 50 mm	950	78	52	25.0	3.00
RaS-5000-50	One-way buckle	5,000	113	50	35.0	2.90

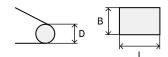
 $<sup>^{\</sup>rm 1}$  Breaking strength of clamp lock, breaking strength in combination with strap may differ

#### Recessed lashing ring



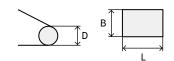
Item no.	Designation	BS¹ in daN	L in mm	B in mm	D in mm	Weigh in kg / 100	Price in €/pc.
ZM-0800-square	Recessed lashing ring (to be lowered into the floor)	2,000	105	105	40	52.0	3.50
ZM-0800-oval	Recessed lashing ring (for screwing onto the floor)	2,500	145	100	35	42.0	3.50





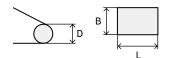
## Hook for webbing width 25 mm

Item no.	Designation		BS in daN	L in mm	B in mm	D in mm	Weightin kg / 100	Price in €/pc.
H2501-1500	Double J hook		1,500	53	26	16	6,2	0.38
H2501-Edels	Double J hook Stainless steel		800	53	27	16	7.0	2.50
H2500	S-hook	$\infty$	900	109	Ø 24	28	11.5	0.73
H2510	S-hook w. Lock	$\infty$	900	118	Ø 26	18	12.5	1.20
H2504	D-Ring	0	1,500	33.5	29	22	2.5	0.28
H2516	Flat hook w. Lock		1,500	56	26	8	5.8	0.80
Н2565-В	Eye hook w. sheet plate lock		2,500	90	Ø 18	10	16.0	1.10
H2548	Single Stud-Fitting/ Airline-fitting		1,800	61	Ø 29	-	4.5	1.14
H2528	Deflection fitting		1,000	48	26	14	4.5	0.60



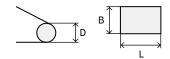
## Hook for webbing width 35 mm

Item no.	Designation		BS in daN	L in mm	B in mm	D in mm	Weight in kg / 100	Price in €/pc.
H3501	Double J hook		3,000	65	37	18	16.0	0.68
H3501-Edels	Double J hook Stainless		3,000	74	35	18	21.0	4.30
H3502	U-hook		3,000	54	37	16	14.0	0.75
Н3509	Single J hook		3,000	90	37	20	25.0	1.20
H3504-9x42x40	D-Ring	0	3,000	60	36	16	10.0	0.65
H3505	Triangle snap hook	20	2,000	118	30	10	25.0	1.80
H3527	Swivel hook (rotatable, outside)	Î٦	3,000	99	37	20	32.0	2.30
H3503	Twisted snap hook	-	3,000	130	37	18	17.0	2.05
H3548	Airline fitting (2-x)/ Double- Stud-Fitting		2,000	100	Ø 39	-	18.5	2.35



## Hook for webbing width 50 mm

Item no.	Designation		BS in daN	L in mm	B in mm	D in mm	Weight in kg / 100	Price in €/pc.
H5001-074	Double J hook 74 mm (with weld point)	<b>()=</b>	5,000	74	51	16	22.0	0.95
H5001-106	Double J hook 106 mm (with weld point)		5,000	106	51	18	33.0	1.30
H5001-Edels	Double J hook stainless steel	<b>=</b>	5,000	85	50	16	41.0	5.90
H5002	U-hook		5,000	60	51	16	17.0	0.90
H5003-D	Twisted snap hook	-	5,000	155	51	20	32.0	2.95
H5004-R	D-Ring (round material)	$\triangleright$	5,000	73	51	12	14.0	1.20
H5005	Triangle snap-hook	<b>SSO</b>	5,000	170	51	19	54.0	3.50
H5006	Flat hook (forged)		5,000	110	51	30	61.0	5.25
H5008	Lashing rail fitting (for combination lashing rail)	QI	1,600	30	51	-	10.0	0.90
H5009	Singel J hook		5,000	130	51	18	45.0	2.65
H5011-74	Double J hook with Lock		2,500	74	51	12	17.0	1.55
H5011-85	Double J hook with Lock		5,000	85	51	12	29.0	2.05
H5011-115	Double J hook with Lock		5,000	112	51	22	45.0	2.40
H5026	Flat hook		2,000	70	51	17	18.0	1.30
H5027	Swivel hook (rotatable, outside)	Î٦	5,000	103	51	20	50.0	2.25
H5028	Deflection fitting	1	1,800	60	51	13	9.0	2.50



## Hook for webbing width 50 mm (Special applications)

Item no.	Designation		BS in daN	L in mm	B in mm	D in mm	Weight in kg / 100	Price in €/pc.
H5022	Chassis Krone hook (for Chassis round hole rail)		4,000	80	51	-	25.0	3.60
H5038	Side wall clamp (for board thickness 20 - 32 mm)	X	1,500 (holding force)	-	51	-	99.0	6.50

## Hook for webbing width 75 mm

Item no.	Designation	BS in daN	L in mm	B in mm	D in mm	Weight in kg / 100	Price in €/pc.
H7501	Double J hook	10,000	130	75	28	84.0	4.45
H7505	Triangle snap hook	10,000	250	75	29	195.0	10.30
H7520	Steel shackle	20,000	150	75	-	112.0	12.40



# Mechanical hand hoists

NEW

# SHZ Premium lever hoist

Compact design, easy handling



- Extremely compact design for confined spaces
- Overload protection through slip clutch included as standard
- Light, but nevertheless stable and shock-resistant design
- High-strength, galvanised load chain according to EN818-7 class T with H-stamp (H1)
- Sturdy swivelling load hook, incl.
   robust safety catch (cast iron)
- Sturdy end stop with handle

Designed for demanding applications: SHZ premium lever hoists have been designed to be extremely compact and can therefore be used in a variety of ways – even in the tightest of spaces.

At the same time, they are very easy to handle: the chain release is The chain release is double-locked and optimised for quick pulling through of the unloaded chain. Whether pulling, lifting or lashing - loads up to 3,200 kg

can be moved easily without complications with this lever hoist. Rotatable load hooks with the loads into position in a highly flexible manner. The standard integrated slipping clutch protects against overloading – and thus guarantees maximum safety. In addition, the automatic load brake and the galvanised load chain ensure that the load is held securely. The encapsulated design prevents

the ingress of dirt and water.
SHZ premium lever hoists are
assembled in Germany – and
subjected to an overload and brake
test before delivery. Furthermore,
only chains from European
production are used. This is how
we guarantee our customers
highest quality and safety.







Item no.	Load-bearing capacity in kg	min. Hook spacing in mm	Standard hub in m	Number of chain strands	Chain size in mm	Weight in kg
PHZ8.0/1.5	800	280	1.5	1	5,6 × 15.8	6
PHZ16/1.5	1,600	335	1.5	1	7,1 × 20.1	8
PHZ32/1.5	3,200	395	1.5	1	10 × 28	15



Price standard stroke incl. 1.5 m chain			Price without chain (supplied with loose hook)		
Item no.	Price in €/pc.	Price per metre in €/m	Item no.	Price in €/pc.	
PHZ8.0/1.5	227.50	17.95	PHZ8.0-SP	192.40	
PHZ16/1.5	297.70	21.20	PHZ16-SP	254.80	
PHZ32/1.5	425.10	28.60	PHZ32-SP	364.00	

#### **SHZ-Mini-Lever hoists**



#### Features:

- Lightweight and handy in aluminium housing
- Supplied in a practical belt pouch
- Standard stroke 1.5 m (other lengths not available currently)
- Galvanised load chain

Item no.	Load capacity in kg	min. Hook spacing in mm	Standard stroke in m	Number of chain strands	Chain size in mm	Weight in kg	Price in €/pc.
MHZ2,5/1,5	250	220	1.5	1	4 x 12	2.5	88.90



#### **SHZ lever hoists**



#### Features:

- Conforms to Machinery
   Directive 2006/42/EC
- Light, compact, yet sturdy and shock-resistant design
- High-strength, galvanised load chain according to EN 818-7 (T) with H-stamp
- Overload test of each manufactured lever hoist before delivery
- Rotatable load hook (incl. securing)
- Handwheel with finger guard

- Time saving thanks to chainfree gear shifting
- Encapsulated construction prevents the penetration of water and dirt
- Sturdy end stop with handle
- Packing according to customer specifications in Germany





Item no.	Loadbearing capacity in kg	min. Hook spacing in mm	Standard hub in m	Number of chain strands	Chain size in mm	Weight in kg
UHZ7.5/1.5	750	330	1,5	1	6 × 18	7
UHZ15/1.5	1,500	385	1,5	1	8 × 24	11
UHZ30/1.5	3,000	485	1,5	1	10×30	21
UHZ60/1.5	6,000	625	1,5	2	10 × 30	31

P	rice standard stro incl. 1.5 m chain	Price without chain (supplied with loose hook)		
Item no.	Price in €/pc.	Mehrmeter- preis in €/m	Item no.	Price in €/pc.
UHZ7.5/1.5	102.00	9.70	UHZ7.5-SP	82.10
UHZ15/1.5	133.30	13.65	UHZ15-SP	110.60
UHZ30/1.5	215.00	20.60	UHZ30-SP	182.00
UHZ60/1.5	341.50	41.85	UHZ60-SP	265.00

#### **SHZ hand chain hoists**







#### Features:

- Conforms to Machinery
   Directive 2006/42/EC
- Fully encapsulated, lightweight and compact design
- High-strength, galvanised load chain according to EN 818-7 (T) with H-stamp
- Overload test of each prefabricated chain hoist before delivery
- With swivelling load hook (incl. securing)

- Full-length studs for easy maintenance, cleaning and repair
- Maximum safety due to double pawl
- Standard lift 3.0 m, hand chain 1.5 m (effective length)
- With galvanised hand chain 5 × 25
- Packing according to customer specifications in Germany

Item no.	Loadbearing capacity in kg	min. Hook spacing in mm	Standard hub in m	Number of chain strands	Chain size in mm	Weight in kg
SFZ10/1×3000	1,000	376	3	1	6 × 18	12.5
SFZ20/1×3000	2,000	470	3	1	8 × 24	20
SFZ30/1×3000	3,000	565	3	1	10 × 30	33
SFZ50/2×3000	5,000	620	3	2	9 × 27	46
SFZ100/4×3000	10,000	765	3	4	9 × 27	75

Price standard stroke incl. 3.0 m chain (hand chain 1.5 m effective length)			Price without chain (delivery with hook)	
Item no.	Price in €/pc.	in preis in		Price in €/pc.
SFZ10/1×3000	115.60	15.20	SFZ10/1-SP	71.90
SFZ20/1×3000	159.85	19.00	SFZ20/1-SP	102.50
SFZ30/1×3000	236.50	24.80	SFZ30/1-SP	157.30
SFZ50/2×3000	320.50	41.40	SFZ50/2-SP	181.30
SFZ100/4×3000	782.40	98.40	SFZ100/4-SP	475.00

## Chain box for SHZ hand chain hoists



Chain size in mm	Holding capacity in m
6 × 18	20
8 × 24	11
10×30	8

 Can be retrofitted to all SHZ hand chain hoists

Item no.	Price in € / pc.
KSP-SFZ	26.90

#### **SHZ** beam clamps



#### Features:

- ConShapes to Machinery
   Directive 2006/42/EC
- Quick creation of attachment points on all I/T profiles (INP, HEB, IPE)
- Flexible use due to extra-large adjustment range
- Robust design for rough operating conditions
- Self-locking, lockable spindle for optimum safety

Item no.	Loadbearing capacity in kg	Net weight in kg	Beam flange width( (min.) in mm	Beam flange width (max.) in mm	Price in €/pc.
BC10	1,000	4.0	75	220	39.80
BC20	2,000	5.0	75	220	43.90
BC30	3,000	9.5	80	320	77.25
BC50	5,000	11.5	90	310	99.40
BC100	10,000	18.0	90	310	248.00

#### **Chassis**

#### Features:

- Conforms to Machinery
   Directive 2006/42/EC
- Maintenance-free due to rollers with ball bearings
- Tilt and fall protection
- Small clear height
- Load bolt with fine thread for easy adaptation to various beam flange widths
- Collision protection
- Delivery with shackle possible
- Can be used at all INP, HEB and IPE profiles

#### **SHZ trolleys**



Item no.	Loadbearing capacity in kg	Net weight in kg	min. Curve radius in m	Beam flange width (min.) in mm	Beam flange width (max.) in mm	Price in €/pc.
RF05-A	500	8.5	0.9	64	220	67.28
RF10-A	1,000	11	1.0	64	220	87.20
RF20-A	2,000	18.5	1.2	88	220	124.50
RF30-A	3,000	31.5	1.3	102	220	205.30
RF50-A	5,000	42.5	1.4	114	220	495.60

# SHZ geared trolleys/ reel trolleys



#### Features:

 Incl. Operating chain effective length 2.5 m (circumference 5.0 m)

Item no.	Loadbearing capacity in kg	Net weight in kg	Beam flange width (min.) in mm	Beam flange width (max.) in mm	Price in €/pc.	Multi-metre chain (NL)in €/m
HFB05-A	500	13.5	64	220	176.10	8.90
HFB10-A	1,000	16.0	64	220	208.10	8.90
HFB20-A	2,000	23.5	88	220	280.10	8.90
HFB30-A	3,000	38.0	102	220	426.90	8.90
HFB50-A	5,000	49.0	114	220	600.30	8.90

# Permanent lifting magnets



- Conforms to Machinery
   Directive 2006/42/EC
- Particularly compact and lightweight construction
- Easy to operate safety lock
- Maximum safety through high-energy magnets
- Suitable for flat and round materials

Item no.	Load-bearing capacity material Flat in kg	Load-bearing capacity Round material in kg	Round material intake in Ø mm	Length in mm	Width in mm	Heig in mm	Weight in kg	Price in €/pc.
NEO-0100	100	50	50 - 300	125	166	120	3.0	278.40
NEO-0300	300	150	50 - 400	200	235	165	10.0	594.75
NEO-0600	600	300	100 - 450	278	265	220	23.0	932.70
NEO-1000	1,000	500	100 - 500	330	375	300	55.0	1,600.00
NEO-2000	2,000	1,000	120 - 600	450	495	390	125.0	3,298.00
NEO-3000	3,000	1,500	200 - 800	525	765	475	218.0	5,674.00



# **SHZ-Wire rope hoists**



#### Features:

- Conforms to Machinery
   Directive 2006/42/EC
- Jerk-free, millimetre-precise work possible in any position
- Low dead weight thanks to robust aluminium housing
- Overload protection by shear bolt in the front hand lever (spare bolt enclosed in the handle of the extension lever)
- Supplied without hauling rope

Item no.	Usable power in kg	Rope feed per double stroke in mm	Lever length in mm	Leverage with Nominal load in N	Rope diameter in mm	Weight in kg	Price in €/pc.
SZ08	800	> 52	800	341	8.4	8	143.50
SZ16	1,600	> 55	1200*	438	11.0	15	218.00
SZ32	3,200	> 28	1200*	438	16.0	26	346.50

# **SHZ-Tow ropes**



- Rope with eye load hook on one side
- Other side pointed for better rope insertion

Item no.	Usable power in kg	Rope diameter in mm	Rope length in m	Price per extra metre €/m	Price in €/pc.
SL08	800	8.4	20	on request	54.50
SL16	1,600	11.0	20	on request	70.30
SL32	3200	16.0	20	on request	124.75

# Plate clamps with swivel bracket



#### Features:

- Conforms to Machinery
   Directive 2006/42/EC
- For safe lifting and turning of sheets, profiles and beams
- Specially hardened gripper jaws
- With 45° swivel eye incl. Cardan joint for secure hold with lateral load or diagonal pull
- No unintentional opening thanks to safety lock
- Easy to set up due to hold-open device

Item no.	Loadbearing capacity in kg	Net weight in kg	Gripping range (min.) in mm	Gripping range (max.) in mm	Price in €/pc.
HKZ05	500	2.0	0	15	88.60
HKZ10	1,000	4.8	0	20	124.20
HKZ20	2,000	6.5	0	25	174.80
HKZ30	3,000	15.0	0	30	276.20
HKZ50	5,000	23.0	0	50	405.40

#### **SHZ-Steel winches**



- Conforms to Machinery
   Directive 2006/42/EC
- Optimum safety thanks to safety crank with double locking pawl and folding handle
- Completely enclosed design for extra-long service life
- Load application on head or claw possible
- Large base plate for safe standing
- With load pressure brake for safe holding of the load

Item no.	Loadbearing capacity in kg	Manual force to lift in daN	Lifting height in mm	Minimum clear height in mm	Minimum claw height in mm	Weight in kg	Price in €/pc.
SW1.5	1,500	28	300	600	60	15	140.50
SW3.0	3,000	35	350	735	70	24	189.80
SW5.0	5,000	40	350	735	80	32	242.50
SW10.0	10,000	58	390	800	100	49	454.30



# Spare parts for SHZ manual hoists

Item no.	Designation	Price in € / pc.
Spare parts for SHZ she	eet metal clamp HKZ	
SB-HKZ07.5	Clamping jaw left for SHZ sheet metal clamp 750 kg	4.55
SB-HKZ10	Clamping jaw left for SHZ sheet metal clamp 1000 kg	5.70
SB-HKZ20	Clamping jaw left for SHZ sheet metal clamp 2000 kg	8.30
SB-HKZ30	Clamping jaw left for SHZ sheet metal clamp 3000 kg	9.90
Spare parts for SHZ win	re rope hoists SZ	
SZ08-SS	Spare shear pin for wire rope hoist SZ08 (800 kg)	1.10
SZ16/32-SS	Spare shear pin for wire rope hoist SZ16 + SZ32 (1600 + 3200 kg)	1.10
Spare parts for SHZ ste	el winches SW	
Lever-SW1.5	Replacement lever set for SHZ steel winch 1,500 kg	27.40
Lever-SW3.0	Replacement lever set for SHZ steel winch 3,000 kg	35.50
Lever-SW5.0	Replacement lever set for SHZ steel winch 5000 kg	38.50
Spare parts for SHZ lev	er hoists UHZ	
Lever-UHZ-750	Replacement lever for lever hoist 750 kg	42.97
Lever-UHZ-1500	Replacement lever for lever hoist 1,500 kg	57.84
Lever-UHZ-3000	Replacement lever for lever hoist 3,000 kg	92.27
Lever-UHZ-6000	Replacement lever for lever hoist 6.000 kg	132.30
HR-UHZ-750	Handwheel for lever hoist 750 kg	9.90
HR-UHZ-1500	Handwheel for lever hoist 1,500 / 3,000 / 6,000 kg	11.40
LHG-UHZ-750	Load hook for SHZ lever hoist 750 kg (load side / bottom)	15.76
LHG-UHZ-1500	Load hook for SHZ lever hoist 1,500 kg (load side / bottom)	25.80
LHG-UHZ-3000	Load hook for SHZ lever hoist 3,000 kg (load side / bottom)	45.80
LHG-UHZ-6000	Load hook for SHZ lever hoist 6,000 kg (load side / bottom)	75.36
Schnepp-UHZ-750	Spare cutter for hook on SHZ lever hoist 750 kg	4.48
Schnepp -UHZ-1500	Spare cutter for hook on SHZ lever hoist 1,500 kg	5.42
Schnepp -UHZ-3000	Spare cutter for hook on SHZ lever hoist 3,000 kg	6.94
Schnepp -UHZ-6000	Spare cutter for hook on SHZ lever hoist 6,000 kg	8.28
GHG-UHZ-750	Equipment hook for SHZ lever hoist 750 kg (top)	22.20
GHG-UHZ-1500	Equipment hook for SHZ lever hoist 1,500 kg (top)	24.96
GHG-UHZ-3000	Equipment hook for SHZ lever hoist 3,000 kg (top)	47.40
GHG-UHZ-6000	Equipment hook for SHZ lever hoist 6,000 kg (top)	99.36
BRS-UHZ-750	Brake disc for lever hoist 750 kg	3.41
BRS-UHZ-1500	Brake disc for lever hoist 1,500 kg	4.09
BRS-UHZ-3000/6000	Brake disc for lever hoist 3,000 and 6,000 kg	5.68

# Spare parts for SHZ manual hoists

Item no.	Designation	Price in€/pc.
Spare parts for SHZ ha	and chain hoists SFZ	
KE-HK-NG05 × 25	Hand chain for SHZ hand chain hoists (5 × 25 mm) in € / m	3.40
LHG-SFZ-1000	Load hook for SHZ chain hoist 1,000 kg (load side / bottom)	16.63
LHG-SFZ-2000	Load hook for SHZ chain hoist 2,000 kg (load side / bottom)	24.58
LHG-SFZ-3000	Load hook for SHZ chain hoist 3,000 kg (load side / bottom)	45.80
LHG-SFZ-5000	Load hook for SHZ chain hoist 3,000 kg (load side / bottom)	54.96
Schnepp-SFZ-1000	Spare cutter for hook on SHZ chain hoist 1,000 kg	4.79
Schnepp-SFZ-2000	Spare cutter for hook on SHZ chain hoist 2,000 kg	5.80
Schnepp-SFZ-3000	Spare cutter for hook on SHZ chain hoist 3,000 kg	6.94
Schnepp-SFZ-5000	Spare cutter for hook on SHZ chain hoist 5000 kg	8.28
GHG-SFZ-1000	Equipment hook for SHZ hand chain hoist 1000 kg (top)	22.50
GHG-SFZ-2000	Equipment hook for SHZ hand chain hoist 2000 kg (top)	25.80
GHG-SFZ-3000	Equipment hook for SHZ hand chain hoist 3000 kg (top)	47.40
GHG-SFZ-5000	Equipment hook for SHZ hand chain hoist 5000 kg (top)	73.44
BRS-SFZ-1000	Brake disc for spur gear block and tackle 1000 kg	4.28
BRS-SFZ-3000/5000	Brake disc for spur gear block and tackle 3000 and 5000 kg	4.79
Spare parts for SHZ p	remium lever hoists PHZ	
BRS-PHZ-0800	Gear wheel with sintered brake disc for PHZ8.0	30.12
BRS-PHZ-1600	Gear wheel with sintered brake disc for PHZ16.0	31.80
BRS-PHZ-3200	Gear wheel with sintered brake disc for PHZ32.0	44.16
GHG-PHZ-0800	Equipment hook (top) for SHZ premium lever hoist 800 kg	23.76
GHG-PHZ-1600	Equipment hook (top) for SHZ premium lever hoist 1,600 kg	35.88
GHG-PHZ-3200	Equipment hook (top) for SHZ premium lever hoist 3,200 kg	47.52
LHG-PHZ-0800	Load hook (bottom) for SHZ premium lever hoist 800 kg	17.95
LHG-PHZ-1600	Load hook (bottom) for SHZ premium lever hoist 1,600 kg	27.46
LHG-PHZ-3200	Load hook (bottom) for SHZ premium lever hoist 3,200 kg	40.46
Hebel-PHZ-0800	Replacement lever for premium lever hoist 800 kg	34.44
Hebel-PHZ-1600	Replacement lever for premium lever hoist 1,600 kg	35.52
Hebel-PHZ-3200	Replacement lever for premium lever hoist 3,200 kg	36.48
Schnepp-PHZ-0800	Replacement cutter for hook on premium lever hoist 800 kg	5.58
Schnepp-PHZ-1600	Replacement cutter for hook on premium lever hoist 1,600 kg	7.14
Schnepp-PHZ-3200	Replacement cutter for hook on premium lever hoist 3,200 kg	8.28



# **Hoist chains**

- According to EN 818-7 (T) for manually operated hoists
- With H-stamp of European manufacture (except hand chain)

Item no.	Dimensions in mm	Load capacity in kg	Labelling	Weight in kg / m	Price in €/pc.
KE-HK-NG05x25 (hand chain)	5 × 25	-	-	0.45	3.40
KE-RS-NG5,6x15,8	5,6 × 15,8	800	H1	0.75	16.25
KE-RS-NG06x18	6×18	1,100	H45	0.80	8.50
KE-RS-NG7,1x20,1	7,1 × 20,1	1,600	H1	1.10	21.80
KE-RS-NG08x24	8 × 24	2,000	H45	1.40	12.60
KE-RS-NG09x27	9 × 27	2,500	H45	1.80	15.20
KE-RS-NG10x28,1	10 × 28,1	3,200	H1	2.20	26.40
KE-RS-NG10x30	10×30	3,200	H45	2.20	17.80



# Chains, ropes, shackles, anchor points

# Lashing chains Grade 80

according to EN 12195-3 Your advantages: Shortening hook with Safety pin Anti-rotation device in the ratchet load tensioner Assembly in Germany

SHZ lashing chains of grade 8 are available in 1- or 2-part versions and are manufactured exclusively in accordance with EN 12195-3. All components are made of quenched and tempered steel in grade 8 (grade 80). All forged parts are produced according to EN 818-4 and the chain according to EN 818-2.

One- piece lashing chain system: hook with safety device, secured against automatic unhooking of the chain and ratchet load tensioner with safety device on both sides Two-piece lashing chain system: ratchet load tensioner with 2 shortening hooks and safety device, with 2 fork head hooks.

# 1- part system



Item no.	Nominal thickness in mm	Lashing force LC in daN	Prestressing force in daN	Weight in kg	Price in €/pc. (L=3.0 m)	Price per extra metre in €
ZKRR06×3000	6	2,200	550	5.3	92.75	7.10
ZKRR08×3000	8	4.000	1000	11.6	100.20	10.30
ZKRR10×3000	10	6,300	1,575	14,7	122.10	14.60
ZKRR13×3000	13	10,000	1500	21.2	237.40	24.75
ZKRR16×3000	16	16,000	2,400	on request	398.30	39.40

# 2- part system



Item no.	Nominal thickness in mm	Lashing force LC in daN	Prestressing force in daN	Weight in kg	Price in €/pc. (L = 3.0 m)	Price per extra metre in €
ZK06×3000-Set	6	2,200	550	5.3	83.10	7.10
ZK08×3000-Set	8	4000	1000	11.6	82.50	10.30
ZK10×3000-Set	10	6,300	1,575	14.7	105.70	14.60
ZK13×3000-Set	13	10,000	1500	22.0	213.95	24.75
ZK16×3000-Set	16	16,000	2,400	on request	360.60	39.40
Ratchet load tight	ener single (wit	h shortening ho	ook)			
RLSP06	6	2,200	550	1.80	26.75	-
RLSP08	8	4000	1000	4.60	32.10	-
RLSP10	10	6,300	1,575	5.60	36.90	-
RLSP13	13	10,000	1500	7.95	55.20	-
RLSP16	16	16,000	2,400	10.00	86.75	-
Single lashing cha	in (without ratc	het load tensio	ner)			
ZK06×3000	6	2,200	-	2.8	56.35	7.10
ZK08×3000	8	4000	-	5.0	50.40	10.30
ZK10×3000	10	6,300	-	6.1	68.80	14.60
ZK13×3000	13	10,000	-	14.1	158.75	24.75
ZK16×3000	16	16,000	-	on request	273.85	39.40



# Lashing chains grade 100

according to EN 12195-3

#### Features:

- Higher lashing force with the same nominal thickness
- Shortening hook with safety catch
- Special quality chain with

permissible application temperature of -40 °C - 200 °C

 Anti-rotation device integrated in the ratchet load tensioner

#### 1- part system

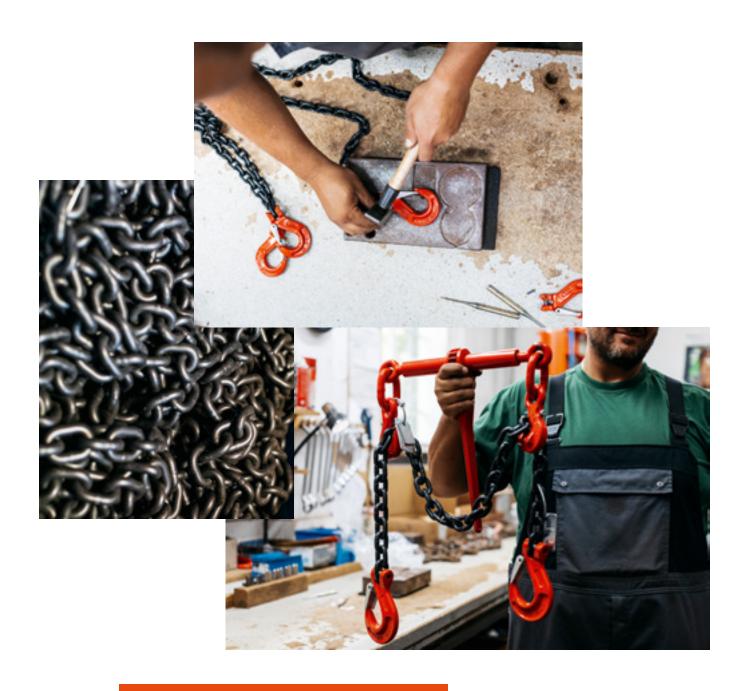


Item no.	Nominal thickness in mm	Lashing capacity LC in daN	Prestressing force in daN	Price in	Price per extra metre in €
ZKRRX08×3000	8	5000	1250	194.50	16.10
ZKRRX10×3000	10	8000	2000	252.75	22.30
ZKRRX13×3000	13	13,400	2000	366.50	34.70

# 2- part system



Item no.	Nominal thickness in mm	Lashing capacity LC in daN	Prestressing force in daN	Price in € / pc. (L = 3.0 m)	Price per extra metre in €
ZKX08×3000-Set	8	5,000	1,250	184.50	16.10
ZKX10×3000-Set	10	8,000	2,000	232.60	22.30
ZKX13×3000-Set	13	13,400	2,000	351.40	34.70
Ratchet load tigh	tener single (with s	shortening hook)			
RLSPX08	8	5,000	1,250	70.00	-
RLSPX10	10	8,000	2,000	81.60	-
RLSPX13	13	13,400	2,000	99.15	-



In our in-house chain and hoist assembly we manufacture sling chains, chain slings, lashing chains and hoists - completely individually according to customer requirements.

Please feel free to contact us.



# High-strength chain slings Quality class 8 (Grade 80)

according to EN 818-4

#### Features:

- Chain painted black
- All parts with prescribed H-stamp

#### Choice of hook:



#### **Hook WA**

- Robust hook with forged trap
- Suitable for almost all applications



#### **Hook GHS**

Robust hook with larger jaw width



#### **Hook SC**

 Self-closing safety load hook (Self-locking)

1-Strand
<b>GK8 (grade 80)</b>



Item no.	Load capacity	Basic price fo	r 1.0 m usable le	Price per extra metre	Shortening	
	in kg (0°)	Hook WA	Hook GHS	Hook SC	in €	hook in €/suspension
G1/aa/06×1000	1,120	43.15	72.30	64.75	7.40	10.05
G1/aa/08×1000	2,000	50.30	86.80	75.80	10.60	10.45
G1/aa/10×1000	3,150	63.85	110.10	96.55	14.75	15.55
G1/aa/13×1000	5,300	104.40	175.70	149.95	25.20	25.40
G1/aa/16×1000	8000	169.60	299.95	246.70	39.50	47.35
G1/aa/20×1000	12,500	314.49	on request	503.97	67.70	77.70
G1/aa/22×1000	15,000	430.19	on request	702.49	90.20	135.70
G1/aa/26×1000	21,200	761.12	on request	on request	134.00	273.20

 $<sup>\</sup>rightarrow \,$  aa: Hook type, e.g. WA

#### 2-Strand GK8 (Grad 80)



Item no.	Load capa	acity in kg	Basic price fo	Basic price for 1.0 m usable length in € / pc.					•	Shortening
	0 - 45°	45 - 60°	Hook WA	Hook WA Hook GHS		extra metre in €	hook in €/suspension			
G2/aa/06×1000	1,600	1,120	73.90	132.10	117.00	14.80	20.10			
G2/aa/08×1000	2,800	2,000	86.10	159.05	137.10	21.20	20.90			
G2/aa/10×1000	4,250	3,150	111.55	204.10	176.95	29.50	31.10			
G2/aa/13×1000	7,500	5,300	187.00	329.55	278.10	50.40	50.80			
G2/aa/16×1000	11,200	8,000	307.70	568.45	461.95	79.00	94.70			
G2/aa/20×1000	17,000	12,500	597.40	on request	976.40	135.40	155.40			
G2/aa/22×1000	21,200	15,000	827.10	on request	1,372.00	180.40	271.40			
G2/aa/26×1000	30,000	21,200	1,448.00	on request	on request	268.00	546.40			

<sup>→</sup> aa: Hook type, e.g. WA



# 3-strand GK8 (grade 80)



Item no.	Load capa	acity in kg	Basic price fo	Basic price for 1.0 m usable length in € / pc.			Shortening hook in
	0 - 45°	45 - 60°	Hook WA	Hook GHS	Hook SC	extra metre in €	nook in €/suspension
G3/aa/06×1000	2,360	1,700	115.10	202.40	179.75	22.20	30.15
G3/aa/08×1000	4,250	3,000	136.55	245.95	213.05	31.80	31.35
G3/aa/10×1000	6,700	4,750	179.95	318.85	278.10	44.25	46.65
G3/aa/13×1000	11,200	8,000	304.95	518.75	441.60	75.60	76.20
G3/aa/16×1000	17,000	11,800	516.30	907.45	747.75	118.50	142.05
G3/aa/20×1000	26,500	19,000	1,091.00	on request	1,659.00	203.10	233.10
G3/aa/22×1000	31,500	22,400	1,424.00	on request	2,241.00	270.60	407.10
G3/aa/26×1000	45,000	31,500	2,569.00	on request	on request	402.00	819.60

 $<sup>\</sup>rightarrow \,$  aa: Hook type, e.g. WA

# 4-strand GK8 (grade 80)



Item no.	Load capa	acity in kg	Basic price fo	Basic price for 1.0 m usable length in € / pc.			Shortening hook in
	0 - 45°	45 - 60°	Hook WA	Hook GHS	Hook SC	extra metre in €	€/suspension
G4/aa/06×1000	2,360	1,700	144.10	260.50	230.35	29.60	40.20
G4/aa/08×1000	4,250	3,000	169.65	315.55	271.65	42.40	41.80
G4/aa/10×1000	6,700	4,750	224.55	409.70	355.40	59.00	62.20
G4/aa/13×1000	11,200	8,000	380.95	666.00	563.20	100.80	101.60
G4/aa/16×1000	17,000	11,800	645.00	1,167	953.60	158.00	189.40
G4/aa/20×1000	26,500	19,000	1,345.00	on request	2,103.00	270.80	310.80
G4/aa/22×1000	31,500	22,400	1,765.00	on request	2,854.00	360.80	542.80
G4/aa/26×1000	45,000	31,500	3,185.00	on request	on request	536.00	1,092.80

<sup>→</sup> aa: Hook type, e.g. WA



# High-strength chain slings Grade 10 (Grade 100)

according to EN 818-4

#### Features:

- Higher load capacity with the same chain size or the same suspension weight compared to quality class 8
- Chain painted blue without H-stamp
- Special quality chain similar to quality class 10
- PAS chain with H-stamp in quality class 10 available on request
- All other parts with prescribed H-stamp (except chain)

#### Choice of hook:



#### **Hook WX**

- Robust hook with forged trap
- Suitable for almost all applications



#### Hook SX

Self-closing safety load hook (Self-locking)

# 1-Strand GK10 (grade 100)



Item no.	Load capacity	Basic price for 1.0 m usable length in € / pc.		Price per	Shortening
	in kg (0°)	Hook WX	Hook SX	extra metre in €	hook in €/suspension
G1/aa/06×1000	1,400	54.15	84.30	13.00	18.10
G1/aa/08×1000	2,500	67.15	102.30	18.10	20.30
G1/aa/10×1000	4,000	84.30	128.60	24.00	24.90
G1/aa/13×1000	6,700	137.60	203.15	39.00	45.60
G1/aa/16×1000	10,000	220.85	318.40	56.40	73.00
G1/aa/20×1000	16,000	405.65	695.60	93.00	107.30
G1/aa/22×1000	19,000	573.55	961.90	128.40	211.10
G1/aa/26×1000	26,500	1,181.00 <sup>1</sup>	on request	210.50	409.40

<sup>→</sup> aa: Hook type, e.g. WX

#### 2-Strand GK10 (grade 100)



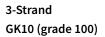
Item no.	Load cap	acity in kg	Basic price for 1.0 m u	Basic price for 1.0 m usable length in € / pc.		Shortening hook in
	0 - 45°	45 - 60°	Hook WX	Hook SX	extra metre in €	€ / suspension
G2/aa/06×1000	2,000	1,400	96.95	157.30	26.00	36.20
G2/aa/08×1000	3,550	2,500	122.60	192.70	36.20	40.60
G2/aa/10×1000	5,600	4,000	159.50	248.20	48.00	49.80
G2/aa/13×1000	9,500	6,700	261.10	392.25	78.00	91.20
G2/aa/16×1000	14,000	10,000	427.95	623.10	112.80	146.00
G2/aa/20×1000	22,400	16,000	759.20	1,339.00	186.00	214.60
G2/aa/22×1000	26,500	19,000	1,088.00	1,865.00	256.80	422.20
G2/aa/26×1000	37,100	26,500	2,289.00 <sup>1</sup>	on request	421.00	818.80

<sup>→</sup> aa: Hook type, e.g. WX

<sup>&</sup>lt;sup>1</sup> Consisting of eye hook and connecting link

<sup>&</sup>lt;sup>1</sup> Consisting of eye hook and connecting link







Item no.	Load cap	acity in kg	Basic price for 1.	Basic price for 1.0 m usable length in € / pc.		Shortening
	0 - 45°	45 - 60°	Hook WX	Hook SX	extra metre in €	hook in €/suspension
G3/aa/06×1000	3,000	2,120	162.40	252.95	39.00	54.30
G3/aa/08×1000	5,300	3,750	207.10	312.30	54.30	60.90
G3/aa/10×1000	8,000	6,000	262.50	395.60	72.00	74.70
G3/aa/13×1000	14,000	10,000	432.30	629.00	117.00	136.80
G3/aa/16×1000	21,200	15,000	701.50	994.20	169.20	219.00
G3/aa/20×1000	33,600	24,000	1,333.00	2,207.00	279.00	321.90
G3/aa/22×1000	40,000	28,000	1,811.00	2,976.00	385.20	633.30
G3/aa/26×1000	55,650	39,750	3,753.00 <sup>1</sup>	on request	631.50	1,228.20

 $<sup>\</sup>rightarrow \,$  aa: Hook type, e.g. WX

# 4-Strand GK10 (grade 100)



Item no.	Load capa	acity in kg	Basic price for 1.	Basic price for 1.0 m usable length in € / pc.		Shortening hook in
	0 - 45°	45 - 60°	Hook WX	Hook SX	extra metre in €	€ / suspension
G4/aa/06×1000	3,000	2,120	205.25	325.95	52.00	72.40
G4/aa/08×1000	5,300	3,750	259.60	399.90	72.40	81.20
G4/aa/10×1000	8,000	6,000	329.95	507.37	96.00	99.60
G4/aa/13×1000	14,000	10,000	545.20	807.40	156.00	182v40
G4/aa/16×1000	21,200	15,000	886.90	1,277.00	225.60	292.00
G4/aa/20×1000	33,600	24,000	1,655.00	2,815.00	372.00	429.20
G4/aa/22×1000	40,000	28,000	2,262.00	3,816.00	513.60	844.40
G4/aa/26×1000	55,650	39,750	4,750.00 <sup>1</sup>	on request	842.00	1,637.60

<sup>→</sup> aa: Hook type, e.g. WX

 $<sup>^{\</sup>mbox{\tiny 1}}$  Consisting of eye hook and connecting link

<sup>&</sup>lt;sup>1</sup> Consisting of eye hook and connecting link



# Stainless steel chain slings grade 6

according to EN 818-4

#### Choice of hook:



**Hook EG** 



Hook EÖ (assembly with connecting link)

# 1-Strand GK6 (grade 60)



Item no.	Load capacity	Basic price for 1.0 n	n usable length in € / pc.	Price per	Shortening	
	in kg (0°)	Hook EG Hook EÖ		extra metre in €	hook in €/suspension	
G1/aa/06×1000	900	277.55	281.75	29.25	105.30	
G1/aa/08×1000	1,600	344.10	356.50	51.95	157.95	
G1/aa/10×1000	2,500	503.50	529.35	74.70	216.80	
G1/aa/13×1000	4,250	-	745.80	129.84	278.80	
G1/aa/16×1000	6,300	-	1,175.00	259.70	495.60	

<sup>→</sup> aa: Hook type, e.g. EG

# 2-Strand GK6 (grade 60)



Item no.	Load cap	acity in kg	Basic price for 1.0 r	n usable length in € / pc.	Price per	Shortening hook in	
	0 - 45°	45 - 60°	Hook EG	Hook EÖ	extra metre in €	€/suspension	
G2/aa/06×1000	1,250	900	513.90	522.30	58.50	210.60	
G2/aa/08×1000	2,240	1,600	654.60	679.40	103.90	315.90	
G2/aa/10×1000	3,500	2,500	966.70	1,020.00	149.40	433.60	
G2/aa/13×1000	5,950	4,250	-	1,460.00	259.68	557.60	
G2/aa/16×1000	8,800	6,300	-	2,305.00	519.40	991.20	

<sup>→</sup> aa: Hook type, e.g. EG





3-Strand GK6 (grade 60)



Item no.	Load cap	acity in kg	Basic price for 1.0 r	n usable length in € / pc.	Price per	Shortening hook in	
	0 - 45°	45 - 60°	Hook EG	Hook EÖ	extra metre in €	€/suspension	
G3/aa/06×1000	1,890	1,350	816.80	829.40	87.75	315.90	
G3/aa/08×1000	2,600	1,850	1,049.00	1,086.00	155.85	473.85	
G3/aa/10×1000	5,250	3,750	1,566.00	1,645.00	224.10	650.40	
G3/aa/13×1000	8,900	6,370	-	2,345.00	389.52	836.40	
G3/aa/16×1000	13,200	9,450	-	3,793.00	779.10	1486.80	

<sup>→</sup> aa: Hook type, e.g. EG

4-Strand GK6 (grade 60)



Item no.	Load cap	acity in kg	Basic price for 1.0 r	n usable length in € / pc.	Price per	Shortening	
	0 - 45°	45 - 60°	Hook EG	Hook EÖ	extra metre in €	hook in €/suspension	
G4/aa/06×1000	1,890	1,350	1,053.00	1.070,00	117.00	421.20	
G4/aa/08×1000	2,600	1,850	1,351.00	1.400,00	207.80	631.80	
G4/aa/10×1000	5,250	3,750	2,020.00	2.125,00	298.80	867.20	
G4/aa/13×1000	8,900	6,370	-	3.033,00	519.36	1115.20	
G4/aa/16×1000	13,200	9,450	-	4.882,00	1038.80	1982.40	

<sup>→</sup> aa: Hook type, e.g. EG



# Manhole ring suspension



#### Features:

- Manhole pipe suspensions are used for lifting manhole pipes and cones.
- Repair of individual parts possible due to modular system.
- Load capacities only valid when using 3 grippers.
- The types SRG15 and SRG30 are suitable for manhole rings and cones according to DIN 4034 part 2.
- Type SRG30A is suitable for manhole rings and cones according to DIN 4034 part 1 and 2.



Item no.	Load capacity in kg (0°)	Clamping range in mm	max. Tube diameter in m	min. Chain length in m	Weight in kg	Price in €/pc.
SRG15×1700	1,500	0-130	2.0	1.70	33	523.50
SRG15×2300	1,500	0-130	3.0	2.30	34	540.10
SRG30×1800	3,000	10-180	2.0	1.80	57	844.00
SRG30×2500	3,000	10-180	3.0	2.50	60	867.00
SRG30A×1800	3,000	90-200	2.0	1.80	66	1,111.00
SRG30A×2500	3,000	90-200	3.0	2.50	69	1,188.00

#### Ersatzgreifer

Item no.	Load capacity in kg (0°)	Clamping range in mm	Pressing surface	Weight in kg	Price in € / pc.
SRG-GR15	1,500	0-130	ribbed	9.0	153.70
SRG-GR30	3,000	10-180	ribbed	15.5	213.80
SRG-GR30A	3,000	90-200	ribbed	18.5	293.95

# Wirerope sling

according to EN 13414-1



#### Features:

- With eye, thimble, load hook, sliding hook or ring
- Grummets also available on request

Rope diameter in	Load capacity WLL in kg	Price —— in
mm	simply direct	 €/pc.
8	700	Ĭ
10	1,000	
12	1,500	
14	2,000	est
16	2,700	request
18	3,150	o o
20	4,000	
22	5,000	
24	6,300	l

# **Suspension gear** according to EN 13414-1



- With 1- to 4 strands
- Length and load capacity according to customer specifications

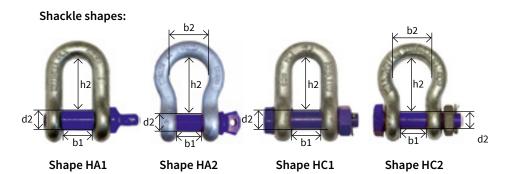
Rope	Two-stran	d WLL in kg	Four-stra	nd WLL in	Price in
diameter in mm	0 - 45°	45 - 60°	0 - 45°	45 - 60°	€/pc.
8	950	700	1,450	1,050	Ī
10	1,400	1,000	2,100	1,500	
12	2,100	1,500	3,200	2,300	
14	2,800	2,000	4,200	3,000	est
16	3,800	2,700	5,700	4,000	request
18	4,400	3,150	6,600	4,700	<u> </u>
20	5,600	4,000	8,400	6,000	
22	7,000	5,000	10,500	7,500	
24	8,800	6,300	13,200	9,400	]



# High strength shackle

#### Features:

- Bolt painted red or blue
- Safety factor 6, i.e. Breaking load corresponds to at least 6 times the loadbearing capacity
- With load capacity marking



#### Straight shape with screw bolt / eye bolt (form HA1)

Item no.		imensions in mm	1	Nominal size	Weight	Load bearing	Price in
	b1	d2	h2	– in Inch	in kg	capacity WLL in t	in €/pc.
Scha-HA1-0.75	13.5	9.5	27.2	5/16	0.11	0.75	1.19
Scha-HA1-1.0	16.8	11.0	32.5	3/8	0.15	1.0	1.85
Scha-HA1-1.5	19	12.7	37.6	7/16	0.21	1.5	2.00
Scha-HA1-2.0	20.6	16.0	40.7	1/2	0.37	2.0	2.73
Scha-HA1-3.25	27	19.0	50	5/8	0.65	3.25	4.53
Scha-HA1-4.75	31.8	22.2	59.5	3/4	1.06	4.75	7.48
Scha-HA1-6.5	36.6	25.4	71	7/8	1.56	6.5	10.54
Scha-HA1-8.5	43	28.5	90.5	1	2.23	8.5	15.61
Scha-HA1-9.5	46	31.7	90	1 1/8	3,28	9.5	21.37
Scha-HA1-12.0	51.5	35.1	100	1 1/4	4.51	12.0	29.82
Scha-HA1-13.5	57	38.0	111	1 3/8	5.93	13.5	41.65
Scha-HA1-17.0	60.5	41.5	124	1 1/2	7.89	17.0	57.13
Scha-HA1-25.0	73	50.8	145.5	1 3/4	13.4	25.0	92.09
Scha-HA1-35.0	82.5	57.1	169.5	2	18.85	35.0	137.67
Scha-HA1-55.0	105	69.8	202	2 1/2	37.86	55.0	290.70

# Curved shape with screw bolt / eyebolt (shape HA2)

Item no.		Dimensio	ns in mm		Nominal size	Weight	Load bearing	Price in
	b1	d2	b2	h2	- in Inch	in kg	capacity WLL in t	#/ pc.
Scha-HA2-0.75	13.5	10	21.5	31	5/16	0.10	0.75	1.27
Scha-HA2-1.0	17	12	26	36.5	3/8	0.13	1.0	1.75
Scha-HA2-1.5	19	14	29.5	43	7/16	0.21	1.5	2.14
Scha-HA2-2.0	20.5	16	33	48	1/2	0.30	2.0	2.94
Scha-HA2-3.25	27	20	43	60.5	5/8	0.64	3.25	4.77
Scha-HA2-4.75	32	22	51	71.5	3/4	1.09	4.75	7.69
Scha-HA2-6.5	36.5	27	58	84	7/8	1.70	6.5	11.83
Scha-HA2-8.5	43	28.5	68	95	1	2.78	8.5	16.59
Scha-HA2-9.5	46	31.7	74	107	1 1/8	3.87	9.5	22.51
Scha-HA2-12.0	51.5	35.1	82	119	1 1/4	5,26	12.0	32.83
Scha-HA2-13.5	57	38	89	131	1 3/8	6.94	13.5	45.38
Scha-HA2-17.0	60.5	41.5	98	148	1 1/2	8.79	17.0	59.19
Scha-HA2-25.0	73	50.8	127	177	1 3/4	14.99	25.0	100.32
Scha-HA2-35.0	82.5	57.1	146	197	2	20.65	35.0	149.89
Scha-HA2-55.0	105	69.8	179	264	2 1/2	41.05	55.0	349.75
Scha-HA2-85.0	· on request				3	75	85.0	on request
Scha-HA2-120.0		on re	quest —		3 1/2	124	120	on request
Scha-HA2-150.0	-	on re	quest —		4	166	150	on request





# Straight form with bolt, nut and cotter pin (form HC1))

Item no.	[	Dimensions in mm	1	Nominal size	Weight	Load bearing	Price in
	b1	d2	h2	– in Zoll	in kg	capacity WLL in t	in €/pc.
Scha-HC1-0.75	13.5	9.5	27.2	5/16	0.13	0.75	1.63
Scha-HC1-1.0	16.8	11.1	32.5	3/8	0,18	1.0	2.03
Scha-HC1-1.5	19	12.7	37.6	7/16	0,24	1.5	2.63
Scha-HC1-2.0	20.6	16	40.7	1/2	0.37	2.0	3.34
Scha-HC1-3.25	27	19	50	5/8	0.65	3.25	5.63
Scha-HC1-4.75	31.8	22.1	59.5	3/4	1.06	4.75	8.51
Scha-HC1-6.5	36.6	25.1	71.5	7/8	1.56	6.5	13.24
Scha-HC1-8.5	43	28.5	82	1	2.32	8.5	18.56
Scha-HC1-9.5	46	31.7	90	1 1/8	3.28	9.5	23.78
Scha-HC1-12.0	51.5	35.1	100	1 1/4	4.51	12.0	34.43
Scha-HC1-13.5	57	38	111	1 3/8	5.93	13.5	45.15
Scha-HC-17.0	60.5	41.5	124	1 1/2	7.89	17.0	58.14
Scha-HC1-25.0	73	50.8	145.5	1 3/4	13.4	25.0	108.40
Scha-HC1-35.0	82.5	57.1	169.5	2	18.85	35.0	151.07
Scha-HC1-55.0	105	69.8	201	2 1/2	37.86	55.0	366.30



Combination shackle with heavy duty round sling

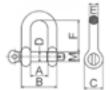
# Curved shape with bolt, nut and cotter pin (shape HC2)

Item no.		Dimensio	ns in mm		Nominal size	Weight	Load bearing	Price in
	b1	d2	b2	h2	– in Zoll	in kg	capacity WLL in t	"ii €/pc.
Scha-HC2-0.75	13.5	9.5	21.3	31	5/16	0.13	0.75	1.61
Scha-HC2-1.0	16.8	11.1	26.2	36.6	3/8	0.17	1.0	2.18
Scha-HC2-1v5	19.0	12.7	29.5	43	7/16	0.25	1.5	2.66
Scha-HC2-2.0	20.6	16.0	33	48	1/2	0.44	2.0	3.61
Scha-HC2-3.25	27.0	19.0	42	60	5/8	0.79	3.25	5.69
Scha-HC2-4.75	31.8	22.1	51	71	3/4	1.26	4.75	8.48
Scha-HC2-6.5	36.6	25.1	58	84	7/8	1.88	6.5	12.56
Scha-HC2-8.5	43.0	28.1	68	95	1	2.78	8.5	18.16
Scha-HC2-9.5	46.0	31.7	74	107	1 1/8	3.87	9.5	25.52
Scha-HC2-12.0	51.5	35.1	82	119	1 1/4	5.26	12.0	37.40
Scha-HC2-13.5	57,0	38.0	89	131	1 3/8	6.94	13.5	46.93
Scha-HC2-17.0	60.5	41.5	98	148	1 1/2	8.79	17.0	63.29
Scha-HC2-25.0	73.0	50.8	127	177	1 3/4	14.99	25.0	119.58
Scha-HC2-35.0	82.5	57.1	146	197	2	20.65	35.0	167.44
Scha-HC2-55.0	105.0	69.8	179	264	2 1/2	41.05	55.0	373.18

# Stainless steel shackle

Straight form with pin and split pin (form C1)





Item no.			Dimer	nsions ir	n mm			Weight in	Load bearing	Price in
	Α	В	С	D	Е	F	М	kg	capacity WLL in t	€/ pc.
Scha-EC1-0.5	18	34	18	9	8	33	M10	0.07	0.5	12.39
Scha-EC1-1.25	25	49	25	13	12	40	M14	0.22	1.25	28.45
Scha-EC1-2.0	32	64	32	17	16	60	M18	0.52	2.0	59.14
Scha-EC1-3.2	41	79	47	21	19	78	M22	0.80	3.2	95.75
Scha-EC1-5.0	56	106	60	29	25	109	M33	2.20	5.0	211.20
Scha-EC1-13.0	76	144	75	38	34	152	M39	7.00	13.0	703.98



# **Chain components and accessories**

Oblong lifting rings without flat spot, grade 8 (according to EN 1677-4)



Item no.	Nominal cha	ain thickness	Dir	nensions in n	nm	Weight	WLL	Price
	1-strand	2-strand	d1	t1	w1	in kg	in t	in €/pc.
AHR-A13	6	6	13	110	60	0.34	1.60	5.39
AHR-A16	8	7	16	110	60	0.53	2.12	7.61
AHR-A18	10	8	18	135	75	0.80	3.15	9.42
AHR-A22	13	10	22	160	90	1.50	5.30	14.95
AHR-A26	16	13	26	180	100	2.30	8.00	22.37
AHR-A32	18	16	32	200	110	3.90	11.20	37.01
AHR-A36	20	18	36	260	140	6.35	16.00	58.65
AHR-A40	22	20	40	300	160	9.00	17.00	87.93
AHR-A45	26	22	45	340	180	12.80	25.00	144.73
AHR-A51	32	26	51	350	190	17.20	33.50	216.26
AHR-A57	36	32	57	400	200	24.20	45.00	406.31

# Suspension fittings without flat spot, grade 8 (according to EN 1677-4)



Item no.	Nominal chain thickness		D	imensio	ns in mr		Weight	WLL in	Price in	
	1-Strand	d1	t1	w1	d2	t2	w2	kg	t (0 - 45°)	€/pc.
AHG-AK18	6	18	135	75	13	54	25	1.16	3.15	19.61
AHG-AK22	8	22	160	90	16	70	34	2.22	4.25	29.75
AHG-AK26	10	26	180	100	18	85	40	3.36	6.70	39.55
AHG-AK32	13	32	200	110	22	115	50	6.02	11.20	66.08
AHG-AK36	16	36	260	140	26	140	65	9.94	17.00	113.88
AHG-AK45	18	45	340	180	32	150	70	18.90	21.20	265.02
AHG-AK5132	20	51	350	190	32	150	70	23.30	26.50	331.84
AHG-AK5136	22	51	350	190	36	170	75	25.80	31.50	405.66
AHG-AK57	26	57	400	200	40	170	80	35.20	45.00	731.16

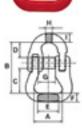
# Connecting link, grade 8 (according to EN 1677-4)



Item no.	Nominal chain thickness		D	imensio	ns in mn	n		Weight	WLL	Price in
	1-Strand	Α	С	0	R	Р	S	in kg	in t	€/pc.
VG-WA58	6	16	18	16.5	43	7.2	6.8	0.07	1.12	8.05
VG-WA59	8	19	25.5	23.5	62	11.5	10	0.25	2.00	9.59
VG-WA61	10	23.8	30	27.5	72	12.6	12.6	0.35	3.15	11.58
VG-WA62	13	28	36	33.3	87.3	19	16.7	0.68	5.30	18.94
VG-WA63	16	34.3	40.5	39.5	103	20.6	20.6	1.10	8.00	30.84
VG-WA64	20	44	48	47	116	23	23	1.70	12.50	42.99
VG-WA65	22	49	51	55	133	26.5	26.5	2.20	15.00	64.69
VG-WA66	26	60	60	66	148	31.5	31.5	4.20	21.20	125.82
VG-WA67	32	80	77	86	190	40	32	7.19	31.50	278.59

# Textile coupler / round sling coupler, grade 8 (according to EN 1677-4)





Item no.	Nominal chain		D	imensio	ns in mn		Weight - in	WLL in	Price in	
	thickness - 1-Strand	Α	В	С	D	F	I	in kg	in t	in €/pc.
TK07/8-8	8	40	58	24	20	14	10	0.28	2.00	17.33
TK10-8	10	40	81	35	30	14	13	0.47	3.15	20.50
TK13-8	13	55	104	48	36	18	16	0.99	5.30	31.00
TK16-8	16	67	115	57	40	24	21	2.00	8.00	55.78
TK20-8	20	82	134	65	50	29	23	2.30	12.50	90.79
TK22-8	22	125	177	100	59	39	27	6.30	15.00	163.46

# High-strength sling chain, grade 8 (according to EN 818-2, painted black)



Item no.			Dimer	sions in mm		Weight in	WLL in	Price in	
	D	permissible	Р	permissible	Li min	Le max	kg/m	t	€/pc.
KE-NG06-8	6	0.24	18	0.5	7.8	22,2	0.80	1.12	7.61
KE-NG08-8	8	0.32	24	0.7	10.4	29,6	1.40	2.0	11.17
KE-NG10-8	10	0.40	30	0.9	13.0	37,0	2.20	3.15	15.65
KE-NG13-8	13	0.52	39	1.2	16.9	48,1	3.80	5.3	25.71
KE-NG16-8	16	0.64	48	1.4	20.8	59,2	5.70	8.0	39.08

Cutting costs: 1.00 € per cut



# **Chain components and accessories**

Shortening hook with fork head, grade 8 (according to EN 1677-4)



Item no.	Nominal chain		D	imensio	ns in mr		Weight - in	WLL in	Price in	
	thickness 1-Strand	Α	В	G	Н	R	Р	kg	t	€/pc.
VH-WA89	6	8	8	22	22	50.5	7.5	0.20	1.12	9.30
VH-WA90	8	10	9	30	24	50	9	0.23	2.00	9.35
VH-WA91	10	13	13	44	31	72	13	0.59	3.15	14.52
VH-WA92	13	17	17	53	38	88	16	1.24	5.30	23.44
VH-WA93	16	20	21	64	60	110	21	2.60	8.00	43.91
VH-WA94	20	24	24	85	65	130	24	4.20	12.50	79.34
VH-WA95	22	26	26	87	68	139	26	5.35	15.00	138.63
VH-WA96	26	30.5	30	100	90	191	30	13.00	21.20	279.02

Shortening claw with clevis (without safety catch), grade 8 (according to EN 1677-4)



Item no.	Nominal chain		D	imensio	ns in mn		Weight in	WLL in	Price in	
	thickness - 1-Strand	Α	В	D	F	Р	L	kg	t	€/pc.
VK-CL06-8	6	8	8	8	45	7.5	17.5	0.21	1.12	16.32
VK-CL07/8-8	8	9.5	9.5	9.5	56	10	22.5	0.48	2.00	17.48
VK-CL10-8	10	12	12	12	78	13	31.5	1.12	3.15	30.84
VK-CL13-8	13	15.5	15.5	15.5	90	16	42	1.83	5.30	46.72
VK-CL16-8	16	19	21	19	106	21	51.5	2.83	8.00	84.11

Shortening claw with clevis and safety catch, grade 8 (according to EN 1677-4)



Item no.	Nominal chain thickness		D	imensio	ns in mm	า		Weight	WLL in	Price in
	1-Strand	Α	В	D	F	Р	L	kg	t	€/pc.
VK-CL06S-8	6	8	8	8	45	7.5	17.5	0.21	1.12	23.63
VK-CL08S-8	8	9.5	9.5	9.5	56	10	22.5	0.48	2.00	29.67
VK-CL10S-8	10	12	12	12	78	13	31.5	1.12	3.15	38.77
VK-CL13S-8	13	15.5	15.5	15.5	90	16	42	1.83	5.30	52.58
VK-CL16S-8	16	19	21	19	106	21	51.5	2.83	8.00	74.30

# Clevis load hook type WA (with forged latch), grade 8 (according to EN 1677-4)



Item no.	Nominal chain		D	imensio	ns in mm	1		Weight	WLL	Price in
	thickness 1-Strand	Α	A1	В	G	Н	R	in kg	in t	€/pc.
LHG-WA79	6	25	19	6.7	14.5	20	73	0.24	1.12	14.84
LHG-WA80	8	29.5	24.5	8.7	19	27	86.3	0.53	2.00	16.01
LHG-WA81	10	35.7	29	12.2	23.5	33	105	0.95	3.15	23.44
LHG-WA82	13	43.5	35	15.3	28.5	40	129	1.67	5.30	43.60
LHG-WA83	16	56	45	18	37	48	155	3.00	8.00	75.65
LHG-WA84	20	61	53	23	51	52	183	5.70	12.50	147.59
LHG-WA85	22	72	62	24.5	50	62	213	8.80	15.00	191.77
LHG-WA86	26	77	73	30	60	75	230	13.50	21.20	367.14

# Clevis load hook type GHS (with forged latch), grade 8 (according to EN 1677-4)



Item no.	Nominal chain thickness	[	Dimensions in mm		Weight	WLL	Price in
	1-Strand	d	t	b	– in kg	in t	€/pc.
LHG-GHS06-8	6	23	100	31	0.60	1.50	40.56
LHG-GHS08-8	8	29	116	36	1.00	2.00	48.60
LHG-GHS10-8	10	31	126	44	1.60	3.15	64.36
LHG-GHS13-8	13	45	175	51	3.50	5.30	103.70
LHG-GHS16-8	16	58	185	58	5.00	8.00	182.64

# Safety load hook with fork head (Self-Locking), grade 8 (according to EN 1677-4)



Item no.	Nominal chain thickness -		D	imensio	ns in mr		Weight	WLL in	Price in	
	1-Strand	Α	В	G	Н	R	Т	in kg	t	€/pc.
LHG-SC-06-8	6	28	7	16	21	94	35	0.50	1.12	38.41
LHG-SC-08-8	8	34	9	20	26	123	43	0.93	2.00	43.91
LHG-SC-10-8	10	45	12	25	30	143	56	1.58	3.15	59.17
LHG-SC-13-8	13	51	15	35	40	180	69	3.20	5.30	91.97
LHG-SC-16-8	16	60	19	36	50	215	80	5.95	8.00	155.16
LHG-SC-20-8	20	70	23	60	67	253	90	9.80	12.50	341.14
LHG-SC-22-8	22	80	26	62	70	287	100	14.40	15.00	469.91



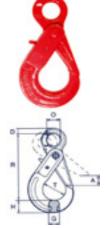
# **Chain components and accessories**

Eye load hook type WA (with forged latch), grade 8 (according to EN 1677-4)



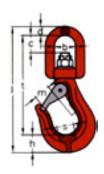
Item no.	Nominal chain thickness		Dime	nsions in	mm		Weight	WLL in	Price in
	1-Strand	A2	D	0	Н	R	in kg	t	€/pc.
ÖH-WA29	6	19	12.5	20	52	72.5	0.27	1.12	9.35
ÖH-WA30	8	26	14.0	25	42	96	0.50	2.00	14.10
ÖH-WA31	10	30	18.0	34	57	117	0.90	3.15	24.23
ÖH-WA32	13	38	19.0	43	34	146	1.50	5.30	41.37
ÖH-WA33	16	45	24.5	50	59	155.5	2.75	8.00	71.63
ÖH-WA34	20	52	27	55	53	203	4.50	12.50	120.42
ÖH-WA35	22	62	30	60	60	224	7.10	15.00	164.45
ÖH-WA36	26	73	35	70	75	237	12.00	21.20	290.75

# Safety load hook with eye (Self-Locking), grade 8 (according to EN 1677-4)



Item no.		D	imensio	ns in mr	Weight	WLL	Price in			
	thickness – 1-Strand	Α	D	0	Н	Т	R	in kg	in t	€/pc.
ÖH-SCÖ-06-8	6	28	11	21	21	35	109	0.51	1.12	34.87
ÖH-SCÖ-08-8	8	34	12	25	26	43	135	0.94	2.00	41.08
ÖH-SCÖ-10-8	10	45	16	33	30	56	168	1.63	3.15	56.06
ÖH-SCÖ-13-8	13	51	20	40	40	69	205	3.25	5.30	85.86
ÖH-SCÖ-16-8	16	60	27	50	50	80	251	6.05	8.00	148.63
ÖH-SCÖ-20-8	20	70	30	60	67	90	290	9.80	12.50	296.42
ÖH-SCÖ-22-8	22	80	32	70	70	100	322	14.40	15.00	415.00

# Sika swivel hooks with brass plain bearing, grade 8 (according to EN 1677-4, not suitable for turning under load)



Item no.	Nominal chain		D	imensio	ns in mr	n	Weight in	WLL in	Price in	
thickness 1-Strand		m	С	b	d	t	h	kg	t	€/pc.
WHS06-8	6	19	25	34	13	137	27	0.70	1.12	108.85
WHS08-8	8	28	31	38	16	178	32	1.30	2.00	137.40
WHS10-8	10	33	33	42	18	200	42	2.40	3.15	173.20
WHS13-8	13	44	55	64	24	281	47	5.20	5.30	317.90

# Swivel hook Self Locking with washer, grade 8 (according to EN 1677-4)

Item no.	Nominal chain thickness –		D	imensio	ns in mn	Weight	WLL in	Price in		
	1-Strand	Α	В	0	D	Н	R	in kg	t	€/pc.
WHS-SC-06-8	6	28	23	33	11	20	150	0.60	1.12	74.61
WHS-SC-08-8	8	34	27	37	13	24	185	1.10	2.00	83.69
WHS-SC-10-8	10	45	35	42	16	30	217	2.00	3.15	132.04
WHS-SC-13-8	13	54	43	48	21	40	271	4.00	5.30	179.16
WHS-SC-16-8	16	62	58	62	22	49	334	6.80	8.00	254.33

# High-strength S-hook, open shape



Item no.		imensions in mn	1	Weight - in	WLL in	Price in
	b	D	a	kg	t	 €/pc.
S10	25	10	80	0.10	0.2	7.76
S13	30	13	100	0.20	0.3	10.33
S16	40	16	130	0.50	0.5	16.84
S18	50	18	160	0.70	0.75	19.18
S20	55	20	180	1.00	1.0	19.91
S22	60	22	200	1.30	1.25	26.06
S26	65	26	220	2.00	1.5	33.60
S32	80	32	260	3.60	2.0	55.76
S36	95	36	320	5.60	3.0	80.01
S40	110	40	360	7.90	4.0	131.40
S45	120	45	400	11.00	5.0	177.49
S50	135	50	450	15.30	6.0	274.86

# High-strength S-hook, closed shape





Item no.		Dimensio	ns in mm		Weight	WLL in	Price in
	b	D	С	a	in kg	in t	€/pc.
S10G	25	10	25	80	0.10	0.2	11.10
S13G	30	13	30	100	0.20	0.3	14.72
S16G	40	16	40	130	0.50	0.5	28.34
S18G	50	18	50	160	0.70	0.75	31.96
S20G	55	20	55	180	1.00	1.0	35.40
S22G	60	22	60	200	1.30	1.25	42.30
S26G	65	26	65	220	2.00	1.5	52.87
S32G	80	32	80	260	3.60	2.0	84.78
S36G	95	36	95	320	5.60	3.0	126.90
S40G	110	40	110	360	7.90	4.0	156.03
S45G	120	45	120	400	11.00	5.0	212.53
S50G	135	50	135	450	15.30	6.0	286.13



# **Chain components and accessories**

# Slip hook/Hook locks



Item no.	Nominal chain thickness 1 strand	for Hook	Price in € / pc.
Schnepp-WA79	6	LHG-WA79 + LHG-WA29	6.36
Schnepp-WA80	8	LHG-WA80 + LHG-WA30	7.36
Schnepp-WA81	10	LHG-WA81 + LHG-WA31	8.18
Schnepp-WA82	13	LHG-WA82 + LHG-WA32	10.78
Schnepp-WA83	16	LHG-WA83	17.32
Schnepp-WA33	16	LHG-WA33	17.31
Schnepp-WA84	20	LHG-WA84 + LHG-WA34	25.59
Schnepp-WA85	22	LHG-WA85 + LHG-WA35	30.10
Schnepp-WA86	26	LHG-WA86 + LHG-WA36	48.69
Schnepp-GHS06/7-8	6	LHG-GHS06-8	10.65
Schnepp-GHS08-8	8	LHG-GHS08-8	12.03
Schnepp-GHS10-8	10	LHG-GHS10-8	15.15
Schnepp-GHS13-8	13	LHG-GHS13-8	26.21
Schnepp-GHS16-8	16	LHG-GHS16-8	29.96

# Bolt and pin for clevis hook



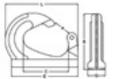
Item no.	Nominal chain thickness 1 strand	for Hook	Price in € / pc.
BS-WA79	6	LHG-WA79	6.73
BS-WA80	8	LHG-WA80	7.92
BS-WA81	10	LHG-WA81	9.58
BS-WA82	13	LHG-WA82	11.88
BS-WA83	16	LHG-WA83	13.32
BS-GHS06/07-8	6	LHG-GHS06-8	5.75
BS-GHS08-8	8	LHG-GHS08-8	8.18
BS-GHS10-8	10	LHG-GHS10-8	10.73
BS-GHS13-8	13	LHG-GHS13-8	14.15
BS-GHS16-8	16	LHG-GHS16-8	26.33

# Identification tag

Item no.		Designation	Weight in kg / St.	Price in € / pc.
ANH-ES-G8		Identification tags for single fall sling chains	0.10	2.75
ANH-MS-G8		Identification tags for multi-strand sling chains	0.10	2.75
ANH-ZK-G8		Identification tag for lashing chains	0.05	2.00
ANH-TEST		Inspection badge with year bar for sling chains and lashing chains	0.05	2.20
ANH-DS		Identification tag for rope or textile	0.10	3.00
DSE+PK		Wire rope end 4 mm (red coated) with aluminium press clamp	0.05	2.00

# Weld-on hook, grade 8





Item no.		Dimensions in mm						WLL	Price in
	Α	В	С	E	G	L	in kg	in t	€/ pc.
ASH1	25	76	59.5	20	25	97	0.48	1.12	18.35
ASH2	26.5	92	67	22	34	114	0.85	2.0	21.36
ASH3	30.5	106	75	24	36	129	1.12	3.0	23.73
ASH5	34.5	136	94	30	45	172	2.50	5.0	36.01
ASH8	34.5	140	94	39	51	177	3.20	8.0	43.26
ASH10	51	175	135	39	53	223	5.20	10.0	79.43



# Anchor points, quality class 8

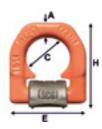
- 180° rotatable

- Safety factor 4



Item no.		Dimensio	ns in mm		Weight	WLL	Price in
	b	h	D	L	in kg	in t	€/pc.
without spring							
APS1000	39.5	40	13	37	0.40	1.12	6.36
APS2000	42	47	14	40	0.46	2,0	7.12
APS3200	45	47	17	44	0.70	3.15	9.08
APS5000	55	56	21	50	1.50	5.3	16.54
APS8000	70	66	26	64	2.50	8.0	26.52
APS15000	97	94	34	86	5.90	15.0	54.34
without spring							
APS1000-F	39.5	40	13	37	0.40	1.12	6.63
APS2000-F	42	47	14	40	0.46	2.0	7.89
AP\$3200-F	45	47	17	44	0.70	3.15	9.77
APS5000-F	55	56	21	50	1.50	5.3	17.73
APS8000-F	70	66	26	64	2.50	8.0	27.23
APS15000-F	97	94	34	86	5.90	15.0	55.95

# Anchor points, quality class 10

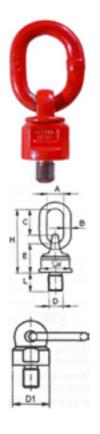


Item no.	Dimensions in mm			Weight in	WLL	Price in	
	Α	С	Н	E	kg	in t	€/pc.
with spring							
APX1500	14	38	79	66	0.39	1.5	21.14
APX2500	16	45	91	77	0.59	2.5	22.76
APX4000	18	51	102	87	0.87	4.0	28.45
APX6700	24	67.3	141	115	2.23	6.7	55.57
APX10000	31	67	157	129	3.33	10.0	76.22
APX16000	45	100	219	190	9.28	16.0	162.96
with spring							
APX1500-F	14	38	79	66	0.39	1.5	24.05
APX2500-F	16	45	91	77	0.59	2.5	25.75
APX4000-F	18	51	102	87	0.87	4.0	32.22
APX6700-F	24	67.3	141	115	2.23	6.7	58.73
APX10000-F	31	67	157	129	3.33	10.0	82.79
APX16000-F	45	100	219	190	9.28	16.0	179.98

# Stop swivel, quality class 8

- 360° rotatable
- Safety factor 4

 Ball bearing for easy alignment under load



Item no.			Dime	Weight	WLL	Price in				
	D	L	Α	В	D1	Н	С	in kg	in t	€/pc.
AW0-M10x18	M10	18	30	13	38	105	46	0.48	0.3	65.14
AW0-M12x25	M12	25	30	13	38	105	46	0.50	0.5	65.14
AW0-M14x20	M14	20	30	13	38	105	46	0.50	0.5	65.14
AW1-M16x30	M16	30	30	13	38	105	46	0.53	1.12	68.10
AW1-M20x30	M20	30	30	13	38	105	46	0.53	1.12	68.10
AW1-M24x30	M24	30	30	13	38	105	46	0.53	1.12	68.10
AW2-M20x40	M20	40	34	16	50	131	57	1.05	2.0	81.86
AW3-M24x30	M24	30	40	19	58	153	70	1.63	3.15	99.05
AW5-M30x35	M30	35	40	20	75	165	65	2.23	5.3	109.78
AW8-M30x35	M30	35	50	22	85	205	90	4.72	8.0	196.13
AW8-M36x54	M36	54	50	22	85	205	90	4.72	8.0	177.31
AW10-M36x50	M36	50	50	22	85	205	90	4.94	10.0	214.60
AW10-M42x50	M42	50	50	22	85	205	90	4.94	10.0	222.54
AW15-M48x60	M48	60	70	30	120	280	120	10.0	15.0	511.84
AW15-M56x78	M56	78	70	30	120	280	120	10.0	15.0	542.74
AW15-M64x96	M64	96	70	30	120	280	120	12.8	15.0	669.72
AW25-M72x108	M72	108	68	40	160	338	127	29.0	25.0	2,698.00
AW30-M80x120	M80	120	68	40	170	338	127	29.0	30.0	2,755.00
AW35-M90x135	M90	135	68	40	170	338	127	29.0	35.0	2,870.00

 $<sup>\,\</sup>rightarrow\,$  Other thread lengths and sizes available on request

# Eyebolt fix (high strength), quality class 8



Item no.	Dimensions in mm							Weight	WLL	Price in
	D	L	Α	В	F	С	Н	in kg	in t	€/pc.
RSF-08	M8	13	25	45	10	25	45	0.09	0.8	10.20
RSF-10	M10	17	25	45	10	25	45	0.11	1.0	12.01
RSF-12	M12	21	35	63	14	35	62	0.27	1.6	13.78
RSF-14	M14	21	35	63	14	35	62	0.29	3.0	14.06
RSF-16	M16	27	35	63	14	35	62	0.31	4.0	14.30

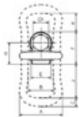
Other sizes available on request



# Stop swivel with clamping yoke Quality class 10

- 360° rotatable
- Not suitable for rotary movements under load
- Safety factor 4
- Captive and corrosionprotected screw

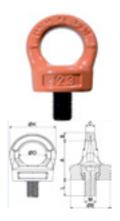






Item no.			Dime		Weight	WLL	Price in			
	М	L	Α	С	D	ı	W	in kg	in t	€/pc.
AWSX0-M8x15	M8	15	57	10	78	25	43	0.27	0.3	64.49
AWSX0-M10x15	M10	15	57	10	78	25	42	0.29	0.63	64.96
AWSX1-M12x23	M12	23	66	14	85	32	40	0.50	1.0	65.57
AWSX1-M16x24	M16	24	66	14	85	32	38	0.51	1.5	74.30
AWSX2-M20x31	M20	31	87	16	111	45	54	1.25	2.5	79.56
AWSX4-M24x37	M24	37	87	16	111	45	51	1.30	4.0	84.35
AWSX4-M27x37	M27	37	109	23	145	60	64	3.15	4.0	153.10
AWSX5-M30x45	M30	45	109	23	145	60	62	3.25	5.0	164.84
AWSX7-M36x50	M36	50	109	23	145	60	60	3.30	7.0	174.25
AWSX8-M36x59	M36	59	136	28	190	70	88	5.90	8.0	360.50
AWSX10-M42x75	M42	75	136	28	190	70	86	6.50	10.0	381.12
AWSX15-M42x61	M42	61	169	36	242	85	121	11.2	15.0	463.52
AWSX20-M48x71	M48	71	169	36	242	95	117	11.6	20.0	500.08

# Eyebolt variable Quality class 10



Item no.			Dime	Weight	WLL in	Price in				
	М	L	D	K	Α	В	С	in kg	t	€/pc.
RSVX-08	M8	12	29	45	44.5	8	10	0.30	0.3	31.90
RSVX-10	M10	16	29	45	44.5	8	10	0.30	0.4	31.90
RSVX-12	M12	18	34	56	53.5	11	11	0.46	0.75	35.15
RSVX-16	M16	24	39	65	56.5	13	14.5	0.90	1.5	41.58
RSVX-20	M20	30	42	70	67	14	17	1.15	2.3	57.30
RSVX-24	M24	36	52	88	80	18	19	2.05	3.2	78.30
RSVX-30	M30	43	62	106	101	22	27	4.00	4.5	109.51
RSVX-36	M36	54	80	154	125	37	38	6.70	7.0	181.85
RSVX-42	M42	64	90	170	148	40	41	9.50	9.0	259.03
RSVX-48	M48	72	95	185	165	45	47	13.40	12.0	309.91

## Eyebolt variable made of stainless steel Quality class 6

- 360° rotatable

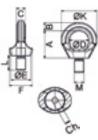
- Safety factor 4

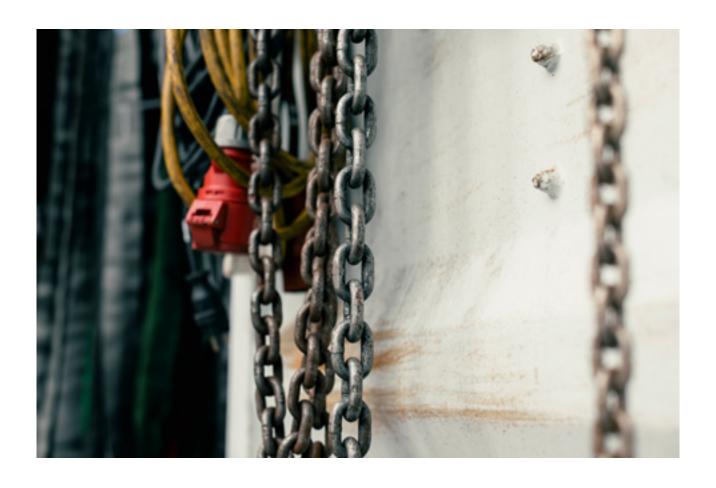
Not suitable for rotary movements under load

- Captive screw



Item no.	Dimensions in mm						Weight	WLL	Price			
	M×L	Α	В	С	D	E	F	K	Ch	in kg	in t	in €/pc.
RSVES-12	M12 × 18	43	12.5	11.5	30	30	36.5	55.5	8	0.21	0.5	97.28
RSVES-16	M16 × 24	49.5	14.5	15.7	35	35	41.8	64.5	10	0.35	1.0	126.71
RSVES-20	M20 × 30	58	16	18	40	42	51.5	74.5	12	0.65	2.0	149.74
RSVES-24	M24 × 36	69	20.5	22	49	50	58	90	12	1.07	2.5	208.64







# Services and tests



#### Order inspection of lashing straps, Webbing slings and round slings

- Test length max. 3 m
- Test force max. 50 t
- Testing on testing machine of measurement class 1
- Tests are carried out according to
   Lashing straps → EN 12195-2
   Round slings → EN EN 1492-2
   Webbing slings → EN 1492-1
- For the testing of a type according to Standard are required:

Lashing straps  $\rightarrow$  4 Examples Of round slings  $\rightarrow$  3 Examples Of Webbing slings  $\rightarrow$  3 Examples

- The inspection costs include the preparation of a report.
- Specified test costs apply in each case to the testing of one example (test item).



Item no.	Description of test scope	Required according to Standard			Number o	of tests - <b>Price ir</b>	n € / Tests
		EN 1492-1	EN 1492-2	EN 12195-2	1 - 14	15 – 24	> 25
PM break	Determination of the breaking force	×	×	×	48.00	36.00	30.00
PM-elongation	Determination of strap elongation			×	30.00	24.00	20.40
PM deformation	Deformation test			×	36.00	30.00	24.00
PM lever	Lever strength test			×	36.00	30.00	24.00
PM-STF	Testing the pretensioning capability <sup>1</sup>			×	96.00	-	-

<sup>&</sup>lt;sup>1</sup> A test includes the 6-fold test of a specimen

## The testing of lashing straps according to the standard includes the following tests:

- 2 × Breaking force
- 2 × Elongation
- 2 × Deformation test
- 1 × Preload capacity
- 1 × Strength test of the ratchet (especially handle)

The testing of a lifting sling or a roundsling includes, according to the standard, the following tests:

3 × Breaking force

## Chain inspection according to UVV 18.4 (VBG 9a)

In the interest of your safety, we offer you our comprehensive chain inspection service.

We check within the framework of the accident prevention regulations UVV 18.4 (VBG 9a). Round steel chains used as slings must be inspected annually by an expert and at least every 3 years to ensure that they are free of cracks. The implementation instruction prescribes a test load with 1.5 times the load-bearing capacity or another non-destructive test method. We test your chains, sling chains and also accessories within the scope of these regulations by means of electromagnetic crack testing procedures.





Chain nominal	Chain groove	Price in € / pc.				
thickness in	length in - m	1 strand	2 strand	3 strand	4 strand	
6	up to 2.0	14.38	24.13	33.13	41.38	
	up to 4.0	20.75	33.56	45.25	58.56	
	Additional meter (for approval > 4 m)	3.13	4.50	6.25	7.88	
	up to 2.0	17.38	28.44	41.19	45.50	
8	up to 4.0	26.75	41.63	58.56	72.00	
	Additional meter (for approval > 4 m)	3.50	6.19	8.88	11.38	
10	up to 2.0	21.63	39.94	46.13	64.56	
	up to 4.0	33.13	55.31	68.69	87.13	
	Additional meter (for approval > 4 m)	4.25	6.75	9.25	11.75	
	up to 2.0	27.69	43.56	63.44	80.38	
13	up to 4.0	39.63	69.06	96.19	107.13	
	Additional meter (for approval > 4 m)	8.44	10.13	15.13	16.75	
	up to 2.0	31.88	56.88	70.38	92.44	
	up to 4.0	43.31	76.88	101.38	130.94	
	Additional meter (for approval > 4 m)	9.25	10.94	15.96	17.69	

Testing of lashing chains:

Price as 1 strand **plus 10.00 €** for visual inspection Ratchet load tensioner

Cleaning or other repairs at cost:

65,00 € / h

Travel flat rate (includes outward & return journey):

up to 10 km  $\rightarrow$  **40,00 €** up to 20 km  $\rightarrow$  **80,00 €** every further 10 km  $\rightarrow$  **30,00 €** 



#### Visual inspection of textileslings, endless slings and round slings



- Visual inspection by a qualified person
- Textile slings are calculated like chain slings ND 6
- Prices also valid for testing lashing straps

Effective length in m	Price in € / pc.
up to 3.0	15.00
up to 8.0	20.00
for lengths > 8.0 m	25.00

## Testing of manual hoists

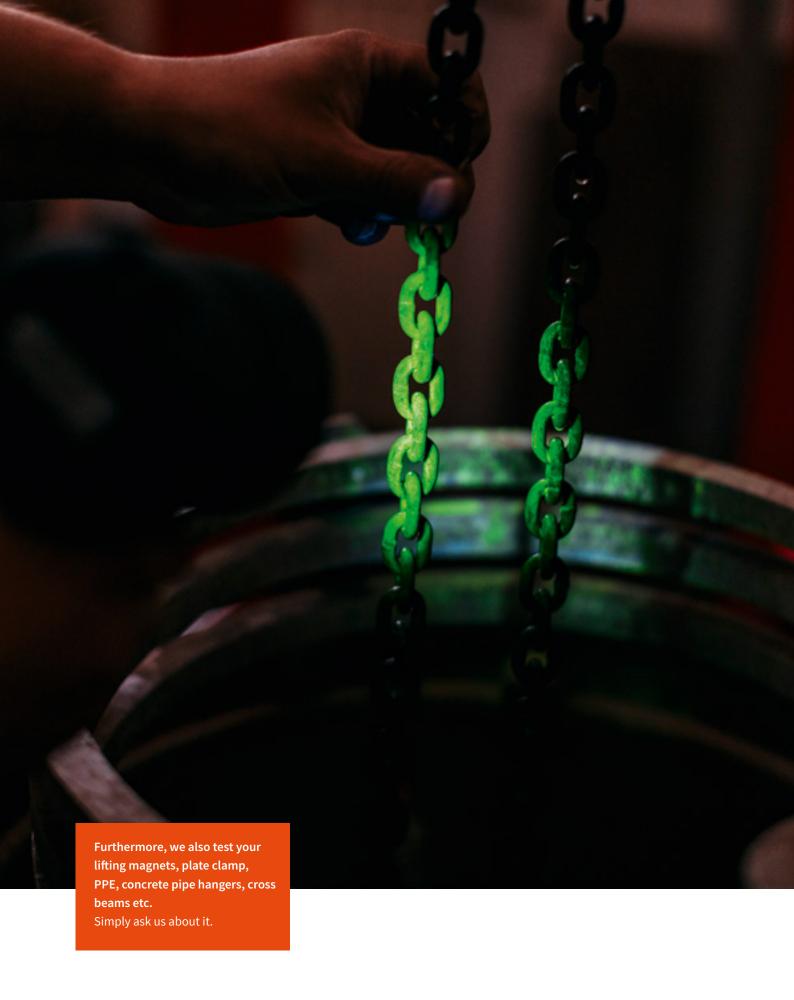


## Testing lever hoists, spur gear cylinder and wire rope hoists:

Overload and

Brake test → **35,00 € / unit**Inspection and maintenance
according to manufacturer's
specifications (at cost) → **65,00 € / h** 

- Disassembly
- Cleaning
- Visual inspection of pawls
- Visual inspection brake discs
- Operating and maintenance instructions must be supplied with the products of other manufacturers.



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# General Terms and Conditions of Delivery and Payment

#### § 1 Scope of application

- These Terms and Conditions of Sale shall apply to all deliveries, services and offers of Sächsische Hebe- und Zurrtechnik GmbH, hereinafter referred to as the Seller, exclusively with respect to entrepreneurs, legal entities under public law or special funds under public law within the meaning of Section 310 (1) of the German Civil Code (BGB). We do not recognise any terms and conditions of the customer that conflict with or deviate from our terms and conditions of sale.
- These Terms and Conditions of Sale shall also apply to all future transactions with the Buyer, insofar as legal transactions of a related nature are concerned.

#### § 2 Offer and conclusion of contract

- The Seller's offers are subject to change and non-binding. The order signed by the buyer or his order by telephone is a binding offer. The Seller is entitled to accept this offer within two weeks by sending an order confirmation or to send the goods within this period.
- Drawings, illustrations, dimensions, weights or other performance data are only binding if they have been expressly agreed in writing.
- No verbal subsidiary agreements have been made. The sales staff of the seller are not authorised to make verbal ancillary agreements or to give verbal assurances which go beyond the content of the written order confirmation.

#### § 3 Prices, packaging costs

- The prices stated in the Seller's order confirmation shall be decisive. The statutory value-added tax is not included in our prices; it will be shown separately in the invoice at the respective statutory rate on the day of invoicing.
- 2. Unless a fixed price agreement has been made, we reserve the right to make

- reasonable price changes due to changes in wages, material and distribution costs for deliveries which take place 3 months or more after conclusion of the contract.
- 3. Packaging will be charged separately unless otherwise agreed.
- For orders with a net value of less than 75 euros, an extra charge of 20 euros will be levied.
- 5. The costs of shipping the goods shall be borne by the buyer.

#### § 4 Delivery and performance time

- Binding delivery dates or deadlines must be in writing.
- 2. The Seller shall not be responsible for delays in delivery and performance due to force majeure, strikes, lock-outs and official hearings, even if they occur at the Seller's suppliers or their sub-suppliers, even in the case of agreed deadlines and dates. They entitle the Seller to postpone the delivery or service for the duration of the hindrance plus a reasonable start-up time or to withdraw from the contract in whole or in part due to the part not yet fulfilled, provided that the hindrance is not only of a short-term nature.
- 3. Unless otherwise stated in the order confirmation, delivery ex works is agreed.

#### § 5 Liability for defects

- Warranty rights of the buyer presuppose that he has duly fulfilled his obligations to inspect and give notice of defects in accordance with § 377 of the German Commercial Code (HGB).
- Obvious defects or manufacturing faults must be notified to the seller immediately after receipt of the goods in writing. Notification of defects shall not affect the due date for payment of the purchase price unless the Seller has recognised the defect in writing or it has been legally established.

- 3. The goods delivered by the transport company are to be checked for completeness and intactness immediately after receipt in the presence of the delivery person. If obvious damage and damage to the packaging can be ascertained, this must be reported immediately to the transport company. The buyer is also obliged to arrange for a note to be made on the shipping documents and to have this acknowledged by the deliverer or by a witness. In this case, the packaging must also be kept.
- 4. In the event of a defect, the Seller shall be liable in accordance with the statutory provisions. The Seller reserves the right to choose the type of subsequent performance. If, despite all due care, the delivered goods show a defect which was already present at the time of the transfer of risk, the Seller shall, at its discretion, either repair the goods or deliver replacement goods, subject to timely notification of defects. The Seller shall always be given the opportunity to remedy the defect within a reasonable period of time. Claims for withdrawal shall remain unaffected by the above provision without restriction.
- 5. Claims for defects shall not exist in the case of only insignificant deviation from the agreed quality, in the case of only insignificant impairment of usability, in the case of natural wear and tear, and in the case of damage arising after the transfer of risk as a result of incorrect or negligent handling, excessive stress, unsuitable operating resources or due to special external influences which are not assumed under the contract. If the customer or a third party carries out improper repair work or modifications, there shall be no claims for defects for these and the resulting consequences.
- 6. Warranty claims become statute-barred within one year.
- 7. Only the direct purchaser is entitled to warranty claims against the seller and these are not assignable.
- 8. Guarantees in the legal sense are not promised.

#### § 6 Liability for damages

- Liability for claims for damages or in tort is limited to intent and gross negligence.
   This limitation does not apply to liability for damages arising from injury to life, body or health. Compensation for damage resulting from improper use is excluded.
- 2. Insofar as liability for damages not based on injury to life, body or health is not excluded for slight negligence, such claims shall become statute-barred within one year beginning with the occurrence of the damage or, in the case of claims for damages due to a defect, from the handover of the complete item. The limitation of liability shall also apply with regard to the personal liability of employees, vicarious agents and representatives of the Seller.

#### § 7 Transfer of risk in case of shipment

1. If the goods are shipped to the buyer at the buyer's request, the risk of accidental loss or accidental deterioration of the goods shall pass to the buyer upon dispatch to the buyer or a third party named by the buyer, at the latest upon leaving the factory/warehouse. This applies irrespective of whether the goods are dispatched from the place of performance or who bears the freight costs. The handover shall be deemed equivalent if the buyer is in default of acceptance.

#### § 8 Retention of title

- The goods shall remain the property of the Seller until all claims (including all current account balance claims) to which the Seller is entitled against the Buyer for any legal reason now or in the future have been satisfied.
- 2. Processing, combination or transformation shall always be carried out for the Seller as manufacturer, but without any obligation for the Seller. If the Seller's ownership lapses as a result of the goods being combined, it is hereby agreed that the Buyer's ownership of the combined goods shall pass to the Seller on a pro rata basis

- (invoice value). The buyer shall keep the property free of charge.
- 3. The buyer is entitled to process or sell the goods in the ordinary course of business. The Buyer hereby assigns to the Seller in full any claims arising from the resale or any other legal grounds by way of security. The Seller revocably authorises the Buyer to collect the claims assigned to the Seller for the Seller's account in its own name.
- 4. In the event of compulsory execution on the reserved goods, in particular seizure, the Buyer shall point out the Seller's ownership and notify the Seller immediately so that it can enforce its ownership rights. Insofar as the third party is not in a position to reimburse the Seller for the judicial or extrajudicial costs incurred in this connection, the Buyer shall be liable for these.

#### § 9 Payment, set-off

- Unless otherwise stated in the order confirmation, the Seller's invoices are payable and due 30 days after the date of the invoice. In the event of payment within 10 days of invoicing, the Seller shall grant a 2% discount. In the event of default in payment, the Buyer shall be obliged to pay the statutory default interest from the date of default, currently 8% above the base interest rate applicable at the time for merchants, and a flat-rate cost charge for each reminder in the amount of 10 EURO each.
- Payment of the invoice shall be deemed to have been made when the Seller can dispose of the amount. In the case of payment by cheque, payment shall be deemed to have been made when the cheque is cashed and no revocation is made.
- The buyer is only entitled to offset if the counterclaims have been legally established or are undisputed. The buyer is only entitled to exercise a right of retention insofar as his counterclaim is based on the same contractual relationship.
- 4. Agreed direct debit shall be made in accordance with § 9 para 1 or on the basis of

the written agreement. The buyer declares that by indicating the current account he is also authorised to dispose of the corresponding account and will ensure sufficient funds. In the event of unsuccessful collection, the buyer shall bear the additional costs for the return debit note and a processing fee of 12 EURO if the account could not be debited due to lack of funds, due to expiry of the account connection or unjustified objection by the account holder. We reserve the right to make further claims. The buyer shall be responsible for proving that no damage or a lesser damage has occurred. In this case, the Seller shall also be entitled to submit the direct debit for the respective due payment obligation a second time.

## § 10 Place of performance, place of jurisdiction

- These terms and conditions and the entire legal relationship between the Seller and the Buyer shall be governed by the laws of the Federal Republic of Germany.
- 2. The place of performance and payment is our registered office in Großröhrsdorf.
- If the customer is a merchant, a legal entity under public law or a special fund under public law, the court responsible for our registered office shall be the exclusive place of jurisdiction.

Großröhrsdorf: 01.06.2022



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