

Lifting equipment

Don't treat carrying heavy loads as a light matter!

The ease with which a crane lifts even the heaviest loads can easily disguise the dangers hidden in this process. The role of the load attachment is particularly often underestimated. However, only if the load is correctly attached can it be prevented from falling down, tipping up or swinging uncontrollably as it is lifted! And what is more: if carefully thought-out load attachments are used properly throughout the job, not only are risks reduced, but time and nerves are saved. For that reason we present you here with a few notes on the correct use of rigging hardware. **Take a little time to read it!** We are confident that it will in practice help you to avoid troublesome and above all dangerous situations.

Our experts will bring you up to speed.

If you have any questions, or would like more information, you can call our experts at any time. Or attend our training on the topic of "Rigging hardware". There we will give you personal, practical preparation for your daily work.

Regulations that carry weight.

The accident protection regulations for load carrying equipment and lifting gear published by the Textiles and Clothing Trade Association (Berufsgenossenschaft für Textilien und Bekleidung) (VBG 9a) and the safety training papers from the Study Group for Metal Industry Trade Associations (Sicherheitslehrbrief für Anschläger der Arbeitsgemeinschaft für Metall Berufsgenossenschaften) (BGI 556) apply to the use of rigging hardware. You can obtain both of these documents by request from the appropriate trade associations. We would be pleased to give you the addresses!

Always outstanding: Rigging hardware that accord with DIN

A variety of standards apply to rigging hardware (such as lifting straps, round sling, chain suspensions), and every manufacturer must observe these. So this is our first

tip:

Never use rigging hardware that doesn't have a label and whose manufacturer is unknown!

You would then never have any certainty that the rigging hardware satisfied the appropriate standard!

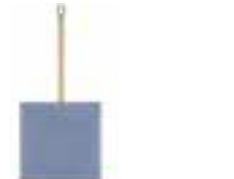
Load-bearing or unbearable? How to find the right rigging hardware.

Rigging hardware must always be marked with a rated load capacity (e.g. 1000 kg). This rated capacity, however, does not mean that it can actually lift 1000 kg!

The reason for this is the various forces that act on the rigging hardware, depending on how the attachment is implemented. This can be illustrated by a simple example: if you carry a case in the usual way, close your body at the side, it is quite easy.

However, if you carry it with your arms raised at a right angle, you need a great deal more strength. The load support material, in this case your arm, is more heavily stressed in this case. To be sure that the rigging hardware can indeed carry the load, you must therefore determine the true working load limit (WLL) in each individual case. For each rigging method a particular load support factor is specified for this purpose.

Direct load support



Here the load support material "only" carries the weight of the load. Load support factor = 1, true working load limit = rated carrying capacity

Direct load support with inclination



Here the load support materials also pull against one another. This means that they must withstand more than the actual load. The greater the angle of inclination, the greater is this opposed force.

0° to 45°
Load support factor = 1.4
45° to 60°
Load support factor = 1.0
Never use an angle greater than 60°!

Strap without inclination



In this case the bending stress at the tying corner reduces the carrying capacity to 80%.
Load support factor = 0.8 per rope

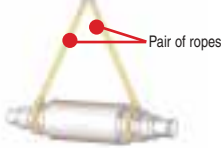


Easy to lift

Rather more difficult to lift

The greater the angle, the more force you need to perform the lift. The actual stress is greater than the weight of the load.

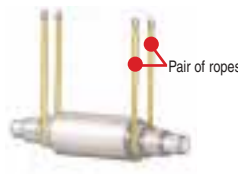
Strap with inclination



This type of rigging is found only with multi-strand load support materials. Here again, the bending stress at the tying corner reduces the load capacity to 80%. It is also necessary to take the angle of inclination into account. The greater the angle of inclination, the lower the carrying capacity of the load support material.

β = 0° to 45°
Load support factor = 1.12
β = 45° to 60°
Load support factor = 0.8

Folded load support without inclination:



In this case the load support material is stressed over two ropes. If these ropes are vertical (angle of inclination < 7°), then the rule is:
For each pair of ropes
Load support factor = 2.0

Folded load support with inclination



If the ropes are inclined, then the rule again here is:
For each pair of ropes
β = 0° to 45°
load support factor = 1.4
β = 45° to 60°
load support factor = 1.0

Load supports with 3 or 4 strand suspension



A 4-strand suspension is treated in principle like a 3-strand suspension. This is because it is, in practice, never possible to adjust the four strands so evenly that they are all equally stressed.

So the rule for 4-leg suspensions, like that for 3-leg suspensions, is:

β = 0° to 45°
load support factor = 2.1β
= 45° to 60°
load support factor = 1.5
Load supports with three and four leg suspensions as straps with inclination

β = 0° to 45°
load support factor = 1.68
β = 45° to 60°
load support factor = 1.2

The true working load limit results from the load support factor and the rated carrying capacity:
WLL = load support factor x rated carrying capacity

You can do this even more easily with our loading tables. They show you what is necessary for every type of load support and every load support method.

We would be happy to supply you with a full set of tables! (You will find more tables on our product pages 24-27)

Important: These figures only apply when all the ropes are evenly (symmetrically) loaded!



Lifting equipment

Correct load attachment, step-by-step.

1. What does the load weigh?

It is clear that the weight of the load plays an important role.

→ Find the weight!

2. Where is the centre of gravity?

If you lift an object that is significantly heavier on the left than on the right by picking it up at the centre, it will tilt to the left. To avoid this, the lifting point must always be directly above the centre of gravity.

→ Place the crane hook above the centre of gravity!



Warning! If the centre of gravity is not in the centre, this also means that the weight is unevenly distributed. It must then be assumed that only two of three or four ropes are actually carrying the load. If the suspension is only using two ropes, it must be assumed that only one is carrying the load.

3. Are attachment points available?

This question is relevant in the choice of attachment type. Important: Only hang rigging hardware correctly on suitable attachment points!

→ Only use proper attachment points!



4. What type of attachment is appropriate?

The technique used depends on practical considerations. On the shape of the load, on whether support points exist, and whether, for instance, a traverse is being used. The crucial point is that the rigging hardware is subject to different stresses depending on the way the support is provided!

→ First determine the type of support, then the necessary carrying capacity!

Information:

Uncertain? We would be happy to help you to find a solution for your lifting and transport problems. Together with our partner, an experienced engineering consultancy, who might also, for instance, help you with complicated calculations. Talk to us!

5. How large is the angle of inclination?

If you choose a type of support that acts at an angle, you must measure the angle of inclination. It must never be more than 60°! You can ask us at any time for a suitable device for measuring the angle.

→ Measure the angle of inclination (never more than 60°)!

6. How great is the true working load?

Find the true working load using this formula: **Rated carrying capacity x load support factor = true working load capacity.** Or look it up in our tables (you will find the tables on pages 24-27). You can ask us at any time for a full set.

7. What kind of surface does the load have? (e.g. delicate, rough, sharp-edged)

This is also important in order to select the proper rigging hardware. Chains, for instance, can damage delicate surfaces. Lifting straps, on the other hand, must themselves be protected from damage from rough surfaces using protective PVC sleeve. Whatever the rigging hardware, edge protection must be used at sharp corners! A corner can be considered sharp if the radius of the corner is the same size or smaller than the thickness of the supporting material.

We offer appropriate edge protection materials for every type of rigging hardware (see page 28).

→ Make sure that the supporting material is not damaged!



8. Will the supporting material come into contact with chemicals? Or will it be subject to high temperatures?

Contact with chemicals and high temperatures can attack or damage rigging hardware. Polyamide lifting straps, for instance, lose carrying capacity when they become wet. Bear this in mind when making the selection, and consult us if in doubt. We will be happy to tell you whether the rigging hardware is suitable for a particular application!

→ Consider the surrounding conditions!

9. What kind of crane hook is being used (size, thickness)?

Particularly when you are using lifting straps with end loops, you must check the connection to the crane hook very carefully! The full width of straps must lie on the crane hook, and must never be positioned on the point of the hook. Only in this way it is even loading ensured, and damage to be avoided. At the same time, the loop must not be too short for the hook. Otherwise it will be pulled apart too much, and the seams could tear out. So do not be miserly with the length of the loop! The loop must be at least 3.5 times as long as the thickness of the crane hook. When the loop is hanging from the hook, the opening angle must not be greater than 20°! Rigging hardware with shackles spare you this consideration.



tip:

Supporting material with traverses: Traverses can make supporting and lifting easier. Provided you observe the following points:

- The crane must also lift the traverse. This means that the load that the crane can lift is reduced by the weight of the traverse.

- Traverses must never be loaded on one side only, otherwise the load can slip out.

- For the same reason, loads must never be supported with reversed angles of inclination.

If you want to use traverses, talk to us! With the assistance of an experienced engineering consultancy we will be happy to support you in the necessary calculations and purchase.

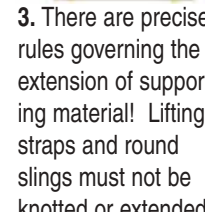
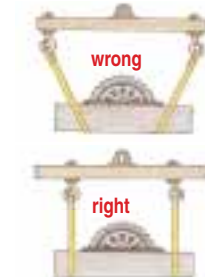


Never forget the golden rules.

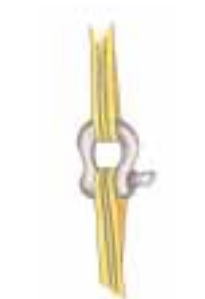
1. Never use lashing equipment as rigging hardware.

Rigging hardware has to satisfy different requirements, and is specially manufactured.

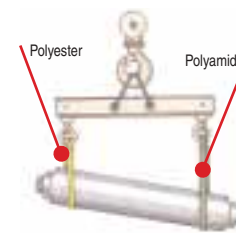
2. Supporting with reversed angle of inclination is forbidden. The supporting equipment can slip away from under the item being lifted.



3. There are precise rules governing the extension of supporting material! Lifting straps and round slings must not be knotted or extended by tying them together, but only connected by the use of appropriate shackles. Just as with other rigging hardware, special connecting elements must be used!



4. Only ever use rigging hardware of the same type. Consider the material being used! Chains, polyester lifting straps and polyamide lifting straps stretch differently when under load, with the result that the load can slip out.



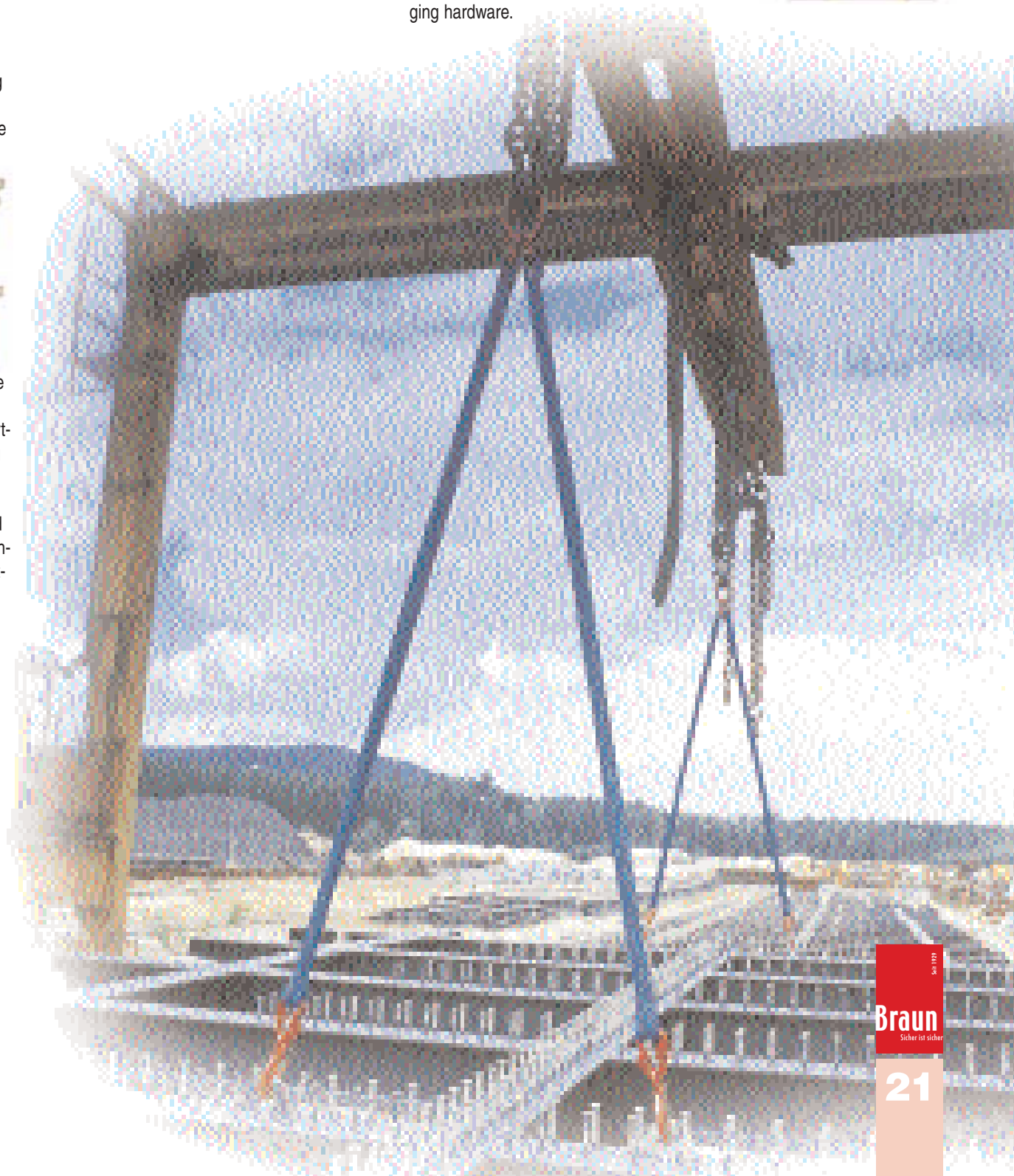
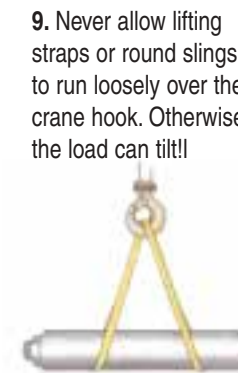
There are large differences in extension, particularly when wet!

5. When threading through, always observe the "natural" threading angle of 120°.

6. Never attempt to retighten materials that have been threaded through! The frictional heat generated can damage the rigging hardware.

7. Always observe the special instructions for the use of any supporting material.

8. Ensure that the supporting material cannot be damaged during lifting. Take particular care to see that edge protection is sufficient!

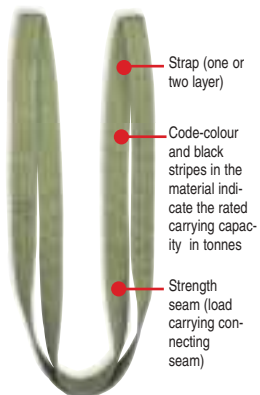


Lifting systems

Lifting straps

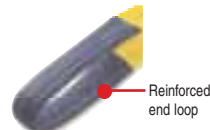
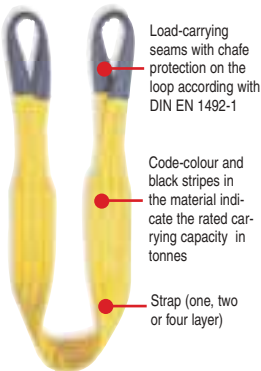
The soft material of lifting straps protects the surfaces of loads, and offers a high carrying capacity in relation to their own weight. For this reason we offer you a wide range of lifting straps. We manufacture them ourselves. In trusted top quality, with matching accessories and with the friendly service and that you have come to expect from us. We give you competent advice, are happy to answer your questions on applications, and provide next day delivery for rush orders that reach us by 10.00 am. Of course, we can also inspect lifting straps for you, and repair them if this is possible.

Endless lifting strap:

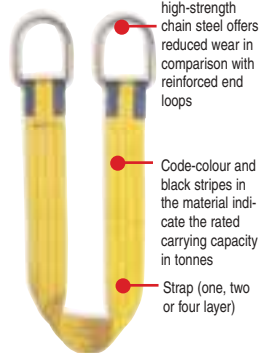


Important: For your own safety, never use no-name lifting straps without labels, manufacturer's or GS mark!

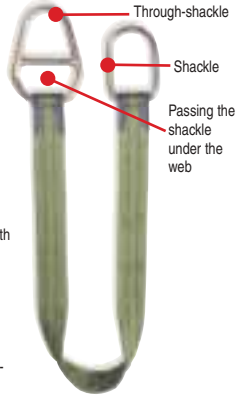
Lifting strap with reinforced end loops



Lifting strap with shackles:

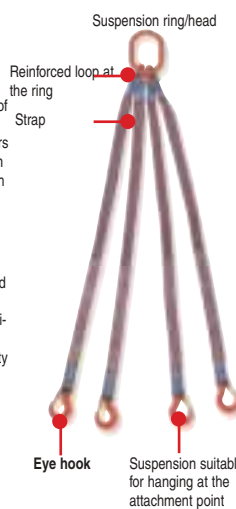


Lifting strap with push-through shackles:

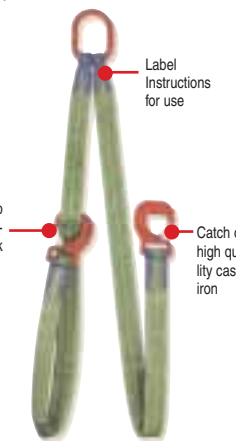


The version with push-through shackles makes threading applications easier.

Lifting strap suspensions with eye hooks



All the iron parts are very strong, and the hooks are made of drop-forged steel.



All our lifting straps are colour-coded. You can therefore see their rated carrying capacity at a glance

violet	1,000 kg
green	2,000 kg
yellow	3,000 kg
grey	4,000 kg
red	5,000 kg
brown	6,000 kg
blue	8,000 kg
orange	10,000 kg

The strap

We manufacture all our lifting straps from polyester, because this material has superior properties:

- Outstanding, optimised stretching behaviour
- Resistant to rotting for high service life
- Good resistance to acids (but always ask the manufacturer before exposing lifting straps to chemicals!)
- Low water absorption, without loss of strength
- High heat resistance (usable from -40°C to +100°C)

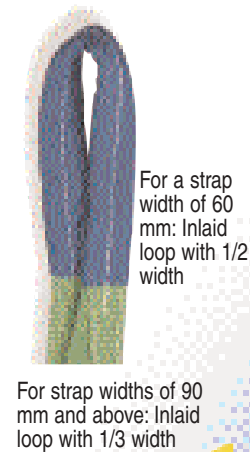
All our lifting straps are, additionally

- PU impregnated for a tenfold increase in chafe protection
- Stretched and stabilised

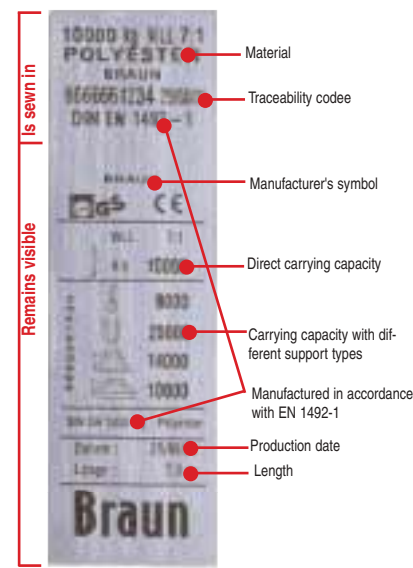
The loop reinforcement

The quality of the loops is of great importance to lifting straps. They must carry the load, and are therefore manufactured by us with particular care. You can trust them because of their:

- Inlaid loops, that simplify secure suspension from crane hooks
- Reinforcement in the "problem zone", i.e. where the loop hangs from the hook
- Even tapering of the loop, so that the load is taken up optimally by the loop
- PU impregnation for a tenfold increase in chafe protection



We offer you two types of loop, both of which have been found particularly effective in practice. Other types, such as reversing loops, can of course be manufactured if requested.



The label

Our labels are made of PVC-coated woven polyester, to ensure a long service life. They are almost impossible to tear off, and the special print remains readable for a long time even when in use.

If requested, we can print your name on all the labels!

For a longer life: servicing, repair, storage

- Check lifting straps before and after use for visible faults
- Only have repairs carried out by the manufacturer
- Use a PVC wear protector for rough surfaces, and a PU sleeve at sharp edges
- Wet lifting straps should only be dried in the air
- Never clean lifting straps with soap
- Lifting straps that have come into contact with acids or alkali-

line solutions should be washed in water before being stored.

- Store lifting straps at room temperature, in dry, clean, well ventilated surroundings
- Avoid direct sunshine, surfaces that easily corrode, and contact with chemicals or flue gases

When it comes to it: the end of the useful life

- Discard lifting straps when
- You notice splits, cuts, notches and breaks in load-carrying fibres
- Damage is found at the seam, the connecting parts or fittings (on lifting strap suspensions)
- The surface is worn away
- The fibres on the surface flake off, are shiny or molten (indications of damage from chemicals or heat)

Lifting straps

EN 1492-1



Lifting straps with 2 end loops

Ein-, One, two and four layer. Constructed as described on pages 20/21.



Loops manufactured with high-precision for your safety.

Load-carrying capacity table 1: Single layer lifting straps with loops. Similar to DIN EN 1492-1

Item No	Loading capacity in kg Direkt L _A =1=WLL	Threaded Parallel L _A = 0,8	Folded β 0°- 45° L _A = 2	Folded β 45°- 60° L _A = 1,4	Folded in mm L _A = 1	Strap width in mm	Loop size - in mm	Strap colour
05..1HB	500	400	1000	700	500	30	350	Green
07..1HB	750	600	1500	1050	750	60	350	Green
10..1HB	1000	800	2000	1400	1000	60	350	Green
15..1HB	1500	1200	3000	2100	1500	90	400	Yellow
20..1HB	2000	1600	4000	2800	2000	120	500	Grey
25..1HB	2500	2000	5000	3500	2500	150	600	Red
30..1HB	3000	2400	6000	4200	3000	180	600	Brown
40..1HB	4000	3200	8000	5600	4000	240	800	Blue
50..1HB	5000	4000	10000	7000	5000	300	800	Orange

Load-carrying capacity table 2: Two-layer lifting straps with loops. In accordance with DIN EN 1492-1

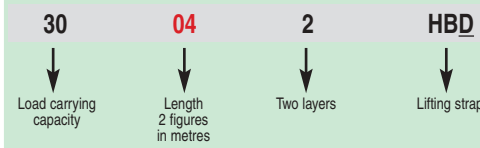
Item No	Loading capacity in kg Direkt L _A =1=WLL	Threaded L _A = 0,8	Folded Parallel L _A = 2	Folded β 0°- 45° L _A = 1,4	Folded β 45°- 60° L _A = 1	Strap width in mm	Loop size in mm	Strap colour identification stripes
10..2HB	1000	800	2000	1400	1000	30	350	Green
15..2HB*	1500	1200	3000	2100	1500	60	350	Green
20..2HB	2000	1600	4000	2800	2000	60	350	Green
30..2HB	3000	2400	6000	4200	3000	90	400	Yellow
40..2HB	4000	3200	8000	5600	4000	120	500	Grey
50..2HB	5000	4000	10000	7000	5000	150	600	Red
60..2HB	6000	4800	12000	8400	6000	180	600	Brown
80..2HB	8000	6400	16000	11200	8000	240	800	Blue
100..2HB	10000	8000	20000	14000	10000	300	800	Orange

*ähnlich DIN EN 1492-1

Load-carrying capacity table 3: Four-layer lifting straps with loops. Similar to DIN EN 1492-1

Item No	Loading capacity in kg Direkt L _A =1=WLL	Threaded L _A = 0,8	Folded Parallel L _A = 2	Folded β 0°- 45° L _A = 1,4	Folded β 45°- 60° L _A = 1	Strap width in mm	Loop size - in mm	Strap colour
20..4HB	2000	1600	4000	2800	2000	30	350	Green
30..4HB	3000	2400	6000	4200	3000	60	350	Green
40..4HB	4000	3200	8000	5600	4000	60	350	Green
60..4HB	6000	4800	12000	8400	6000	90	400	Yellow
80..4HB	8000	6400	16000	11200	8000	120	500	Grey
100..4HB	10000	8000	20000	14000	10000	150	600	Red
120..4HB	12000	9600	24000	16800	12000	180	600	Brown
160..4HB	16000	12800	32000	22400	16000	240	800	Blue
200..4HB	20000	16000	40000	28000	20000	300	800	Orange

Ordering example



Important: You only need to complete the ordering numbers where printed red.

Solution: A two-layer lifting strap with a load capacity of 3000 kg, a length of 4 metres and a push-through shackle (D) (ND means that it does not have a push through shackle). Order protective sleeves individually.

Endless lifting straps, single layer. In accordance with DIN EN 1492-1



Endless lifting straps

One and two layer versions. Single layer lifting straps contact the load over a large area, and are therefore ideal for delicate goods. The two layer lifting straps are noted for their high carrying capacity at a narrow width.



Lifting straps with push-through shackles

Simplify lifting with threading. Reinforced at the regions between the strap and the shackle. See diagram to the right.



Lifting straps with 2 carrying straps

Make it easier to suspend from a crane hook. Reinforced at the regions between the strap and the shackle. See diagram to the right.

Item No	Loading capacity in kg Direkt L _A =1=WLL	Threaded L _A = 0,8	Folded Parallel L _A = 2	Double β 0°- 45° L _A = 1,4	Double β 45°- 60° L _A = 1	Folded once β 0°- 45° L _A = 0,7	Folded once β 45°- 60° L _A = 0,5	Strap width in mm	Strap colour
10..1HBE	1000	800	2000	1400	1000	700	500	30	Green
15..1HBE*	1500	1200	3000	2100	1500	1050	750	60	Green
20..1HBE	2000	1600	4000	2800	2000	1400	1000	60	Green
30..1HBE	3000	2400	6000	4200	3000	2100	1500	90	Yellow
40..1HBE	4000	3200	8000	5600	4000	2800	2000	120	Grey
50..1HBE	5000	4000	10000	7000	5000	3500	2500	150	Red
60..1HBE	6000	4800	12000	8400	6000	4200	3000	180	Brown
80..1HBE	8000	6400	16000	11200	8000	5600	4000	240	Blue
100..1HBE	10000	8000	20000	14000	10000	7000	5000	300	Orange

*ähnlich DIN EN 1492-1

Endless lifting straps, two-layer. Similar to DIN EN 1492-1

Item No	Loading capacity in kg Direct L _A =1 WLL	Threaded L _A = 0,8	Folded Parallel L _A = 2	twice Folded β 0°- 45° L _A = 1,4	twice Folded β 45°- 60° L _A = 1	once Folded β 0°- 45° L _A = 0,7	once Folded β 45°- 60° L _A = 0,5	Strap width in mm	Strap- colour
20..2HBE	2000	1600	4000	2800	2000	1400	1000	30	Green
30..2HBE	3000	2400	6000	4200	3000	2100	1500	60	Green
40..2HBE	4000	3200	8000	5600	4000	2800	2000	60	Green
60..2HBE	6000	4800	12000	8400	6000	4200	3000	90	Yellow
80..2HBE	8000	6400	16000	11200	8000	5600	4000	120	Grey
100..2HBE	10000	8000	20000	14000	10000	7000	5000	150	Red
120..2HBE	12000	9600	24000	16800	12000	8400	6000	180	Brown
160..2HBE	16000	12800	32000	22400	16000	11200	8000	240	Blue
200..2HBE	20000	16000	40000	28000	20000	14000	10000	300	Orange

With push-through shackle, single layer. Carrying capacity: see Table 1, page 24

Item No	Push through shackle dimensions	
	Height in mm	Diameter in mm
05..1HBD	145	13
07..1HBD	156	16
10..1HBD	165	16
15..1HBD	190	18
20..1HBD	240	22
25..1HBD	300	26
30..1HBD	315	26
40..1HBD	365	26
50..1HBD	435	40

With push-through shackle, two-layer. Carrying capacity: see Table 2, page 24

Item No	Push through shackle dimensions	
	Heigh in mm	Diameter in mm
10..2HBD	145	13
15..2HBD	165	16
20..2HBD	165	16
30..2HBD	190	18
40..2HBD	240	22
50..2HBD	300	26
60..2HBD	315	26
80..2HBD	365	26
100..2HBD	435	40

With carrying shackle, single layer. Carrying capacity: see Table 1, page 24

Item No	Carrying shackle dimensions	
	Height in mm	Diameter in mm
05..1HBND	100	13
07..1HBND	130	16
10..1HBND	130	16
15..1HBND	140	18
20..1HBND	130	22
25..1HBND	17	26
30..1HBND	220	26
40..1HBND	235	26
50..1HBND	290	40

With carrying shackles, two-layer. Carrying capacity: see Table 2, page 24

Item No	Carrying shackle dimensions	
	Height in mm	Diameter in mm
10..2HBND	100	13
15..2HBND	130	16
20..2HBND	130	16
30..2HBND	140	18
40..2HBND	130	22
50..2HBND	17	26
60..2HBND	220	26
80..2HBND	235	26
100..2HBND	290	40



Loop reinforcement of the shackle for long service life with professional protection.

Lifting strap suspensions

EN 1492-1

The total weight of lifting strap suspensions is significantly less than chain suspensions with a comparable load carrying capacity. All the metal parts of the suspension are made of high-strength chain components having Quality Class 8.



We supply 2 different hooks for this.



WAO hooks

Our standard, all-purpose hooks.



OHS hooks

The hook with an extra-large mouth opening. This allows you also to use attachment points with large diameters.



Lifting strap suspensions with strap hooks

Our special strap hooks are particularly suitable for threading with delicate goods. Do not forget to also order a PVC chafe protector at the same time, because the threading procedure can cause chafe spots to develop! Carrying capacity with 2 cords up to 45 degrees 2.8 tonnes, threading up to 45 degrees, 2.2 tonnes.

Length of one cord	Item No.
2 metres	20022HGB
3 metres	20032HGB
4 metres	20042HGB
5 metres	20052HGB

Strap slings



Black strap sling

Strap sling 48 mm wide. Available in any length! Narrow strap construction with carrying capacities up to 750 kg. Ideal for wooden frame and prefabricated house construction.

Load-carrying capacity \varnothing 540 kg, SF 7:1

Item No.	Circumference in mm
72602-600	600
72602-800	800
72602-1000	1000
72602-1200	1200
72602-1400	1400
72602-1600	1600
72602-1800	1800
72602-2000	2000



White strap sling

The strap sling for the most demanding applications. Load carrying capacity up to 1000 kg. Manufactured similarly to DIN EN 1492-1 for maximum safety.

Load-carrying capacity \varnothing 1,000 kg, SF 7:1

Item No.	Circumference in mm
72604-600	600
72604-800	800
72604-1000	1000
72604-1200	1200
72604-1400	1400
72604-1600	1600
72604-1800	1800
72604-2000	2000

1-branch lifting strap suspension

Item No.	Load carrying capacity in kg $L_A=1$	Strap width in mm	Strap colour
10..1HGH	1000	30	Purple
20..1HGH	2000	60	Green
30..1HGH	3000	90	Yellow
40..1HGH	4000	120	Grey
50..1HGH	5000	150	Red
60..1HGH	6000	180	Brown
80..1HGH	8000	240	Blue
100..1HGH	10000	300	Orange

2-leg lifting strap suspension

Item No.	Load carrying capacity in kg at an angle of		Strap width in mm	Strap colour
	β 0° - 45° $L_A=1,4$	β 45° - 60° $L_A=1$		
10..2HGH	1400	1000	30	Purple
20..2HGH	2800	2000	60	Green
30..2HGH	4200	3000	90	Yellow
40..2HGH	5600	4000	120	Grey
50..2HGH	7000	5000	150	Red
60..2HGH	8400	6000	180	Brown
80..2HGH	11200	8000	240	Blue
100..2HGH	14000	10000	300	Orange

Ordering example

40 - 04 - 4 HGH

↓ Load carrying capacity 1-strand vertical
↓ Length data in metres E.g. 04 is 4 metres
↓ 4 legs
↓ Lifting strap Suspensions

Important: You only need to complete the ordering numbers where printed red. Please order OHS hooks separately

Solution: A 4-leg lifting strap suspension with a length of 4 meters and WAO hook. Order protective sleeves individually.

3 and 4 cord lifting strap suspensions

Item No.	Item No.	Load carrying capacity in kg at an angle of		Strap width in mm	Strap colour
		β 0° - 45° $L_A=2,1$	β 45° - 60° $L_A=1,5$		
10..3HGH	10..4HGH	2100	1500	30	Purple
20..3HGH	20..4HGH	4200	3000	60	Green
30..3HGH	30..4HGH	6300	4500	90	Yellow
40..3HGH	40..4HGH	8400	6000	120	Grey
50..3HGH	50..4HGH	10500	7500	150	Red
60..3HGH	60..4HGH	12600	9000	180	Brown
80..3HGH	80..4HGH	16800	12000	240	Blue
100..3HGH	100..4HGH	21000	15000	300	Orange

ELASTIC type salvage strap

Its high elasticity and high breaking strain of 8000 kg make it ideal for off-road fans. Available in usable lengths of 2 metres and above. Loop has reinforced stitching, precision work for your safety.

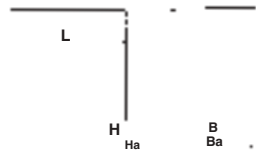
Length	Item No.
2 metres	72420-2
4 metres	72420-4
6 metres	72420-6
8 metres	72420-8
10 metres	72420-10



Braun

Sicher ist sicher

Lifting straps Accessories



PU edge protection

The edge killer! With a perforated plate insert for maximum safety.

Item no.	for strap width	L	B	Ba	H	Ha
72610-30	30 mm	100	40	50	10	20
72610-60	60 mm	100	70	80	12	30
72610-90	90 mm	100	100	110	12	30
72610-120	120 mm	100	135	145	12	30
72610-150	150 mm	150	160	170	12	30
72610-180	180 mm	150	190	200	12	30
72610-240	240 mm	200	280	300	15	40
72610-300	300 mm	200	320	340	20	45

Magnetic edge protection

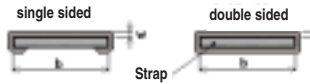
The indispensable protection against all sharp edges. Width 2 or 4 magnets for accurate, easy attachment. Available for all sleeve widths.

Item No.	Number of magnets	For strap widths up to	Same, but without magnets	For Loading up to
72613-40	2	40	72614-40	1 to
72613-65	2	65	72614-65	2 to
72613-100	4	100	72614-100	3 to
72613-125	4	125	72614-125	4 to
72613-150	4	150	72614-150	5 to
72613-200	6	200	72614-200	6 to
72613-300	8	300	72614-300	10 to

Permanent PU coating

For applications where sharp edges are continuously encountered. Single sided or double-sided coating. For all strap widths. Coating up to where the loops begin.

For strap widths b up to	Item nr. single sided	Item nr. double-sided
30 mm	72615-30	72616-30
60 mm	72615-60	72616-60
90 mm	72615-90	72616-90
120 mm	72615-120	72616-120
150 mm	72615-150	72616-150
180 mm	72615-180	72616-180
240 mm	72615-240	72616-240
300 mm	72615-300	72616-300



PVC chafe protective sleeve

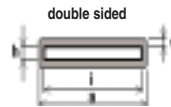
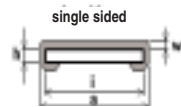
Protective sleeve with Velcro fastening at the side. Particularly suitable for "occasional" use, or over the single cord in endless lifting straps.

Item no.	for strap width
72627-30	30 mm
72627-60	60 mm
72627-90	90 mm
172627-120	120 mm
72627-150	150 mm
72627-180	180 mm
72627-240	240 mm
72627-300	300 mm

PU protective sleeve 1

Protective sleeve with single sided polyurethane coating. As a protection against cuts caused by sharp edges. The sleeve is moveable, and can be used at any desired location. Available at any desired length.

Item no. single-sided	Item no. double-sided	Load carrying capacity	for strap width	a	i	h	w
72611-30	72612-30	1 to	30	50	40	10	5
72611-60	72612-60	2 to	60	80	70	12	5
72611-90	72612-90	3 to	90	110	100	12	5
72611-120	72612-120	4 to	120	145	135	12	5
72611-150	72612-150	5 to	150	170	160	12	5
72611-180	72612-180	6 to	180	200	190	12	5
72611-240	72612-240	8 to	240	260	250	15	8
72611-300	72612-300	10 to	300	330	320	15	8



PU protective sleeve 2

Protective sleeve with double-sided polyurethane coating as cut protection against sharp edges. The sleeve is moveable, and can be used at any desired location. Available at any desired length.

Lifting systems

PVC chafe protection

For rough edges and surfaces.

Item no.	Load carrying capacity for strap width
72620-30	30
72620-60	60
72620-90	90
72620-120	120
72620-150	150
72620-180	180
72620-240	240
72620-300	300

Furniture carrying strap

Item no. 72310 with 6 metres rope
Item no. 70310 without rope
The furniture carrying strap for the professional! For lifting without risk of injury! Cross both sides under the piece of furniture and secure to the free loop. Carrying strap hand woven from hemp, strap width approx. 100 mm, length 1600 mm, with two loops, best-quality hemp rope, 10 mm diameter, each 6 metres long.

Furniture carrying strap, hemp

Item no. 72311, 300 cm circumference. Strap width at the shoulder 80 mm.

Furniture carrying strap, yellow

Item no. 72793, 300 cm circumference. Strap width at the shoulder 75 mm.

These carrying straps are particularly suitable for less delicate items with metal feet, such as washing machines. Engage with the felt covered hook, adjust length with the friction clasp, and lift.

Barrel lifting strap

Barrel lifting strap with special rubber. Holding strap length 200 cm, 5 cm strap width, with 3 lifting loops. Up to 200 kg load carrying capacity.

Flower tray carrying strap

For all flower trays up to a circumference of 200 cm, with two carrying loops.