



DLHONLINE

10

**Important factors
for the selection
of lifting slings**

WHAT YOU NEED TO KNOW?



Choosing the correct sling is clearly critical to the safety of subsequent lifting operations.

It is important to have a description of the load to be lifted, environment and a safe working load when selecting the right sling for the job.

Safe lifting is of paramount importance. Consequently, we try to provide here 10 point guide for the selection of lifting slings and safe use.

While it cannot hope to be comprehensive, it should at the very least provide a useful starting point for those responsible for the hire and purchase of lifting equipment. Further information is readily available from our sales team or on our website: www.dlhonline.co.uk



10 Important factors in the selection of lifting slings

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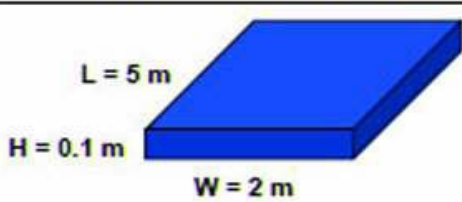
About the load

1. First you need to know something about the load. For example: How much does it weigh?

Knowing the weight of the load is a relatively obvious requirement. It can be obtained in a variety of ways, including from drawings.

CALCULATE WEIGHT
EXAMPLE - FLATS

$WEIGHT = L \times W \times H \times \text{UNIT WEIGHT}$



L = 5 m
H = 0.1 m
W = 2 m

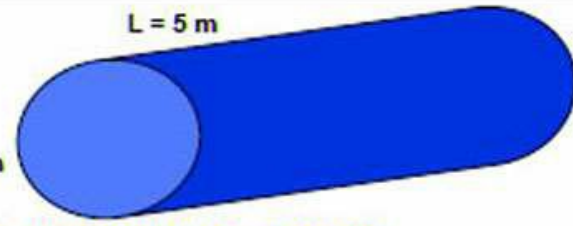
IF STEEL: UNIT WEIGHT = 7.85 t/m³
WEIGHT = 5 m X 2 m X 0.1 m X 7.85 t/m³ = 7.85 t

IF ALUMINUM: UNIT WEIGHT = 2.64 t/m³
WEIGHT = 5 m X 2 m X 0.1 m X 2.64 t/m³ = 2.64 t

IF CONCRETE: UNIT WEIGHT = 2.40 t/m³
WEIGHT = 5 m X 2 m X 0.1 m X 2.40 t/m³ = 2.40 t

CALCULATE WEIGHT
EXAMPLE - SOLID CYLINDER

$WEIGHT = \frac{3.14 \times D^2 \times L \times \text{UNIT WEIGHT}}{4}$



L = 5 m
D = 0.5 m

IF STEEL: UNIT WEIGHT = 7.85 t/m³
WEIGHT = $\frac{3.14 \times 0.5^2 \times 5 \text{ m} \times 7.85 \text{ t/m}^3}{4}$ = 7.70 t

IF CONCRETE: UNIT WEIGHT = 2.40 t/m³
WEIGHT = $\frac{3.14 \times 0.5^2 \times 5 \text{ m} \times 2.40 \text{ t/m}^3}{4}$ = 2.35 t

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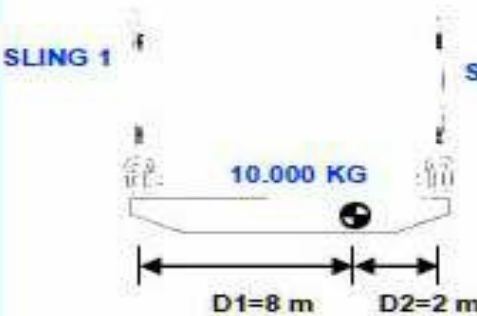
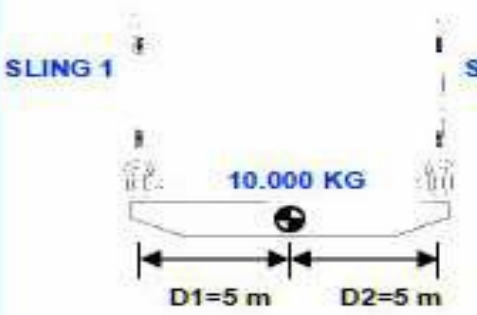
2. Where is the Centre of Gravity?

Knowing the position of the centre of gravity is equally essential so as to position the slings accurately. To lift a load level, the hook of the lifting machine must be directly over the centre of gravity of the load.

If it is not, the load will tilt until the centre of gravity is directly below the hook. If the position of the centre of gravity is not documented, it is possible to estimate it with reasonable accuracy.

However, a little trial and adjustment may be necessary to get it right. The need to allow for adjustment may well influence your choice of sling.

CENTRE OF GRAVITY AND SLING LOADING



WHEN LIFTING VERTICALLY, THE LOAD WILL BE SHARED EQUALLY IF THE CENTRE OF GRAVITY IS PLACED EQUALLY BETWEEN THE PICK POINTS. IF THE WEIGHT OF LOAD IS 10,000 KG, THEN EACH SLING WILL HAVE A LOAD OF 5,000KG AND EACH SHACKLE AND EYEBOLT WILL ALSO HAVE A LOAD OF 5,000 KG.

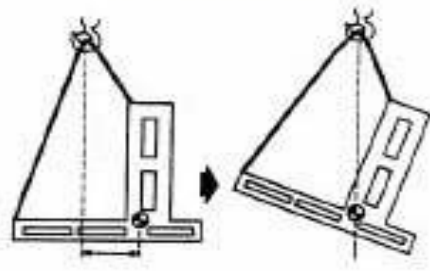
WHEN THE CENTRE OF GRAVITY IS NOT EQUALLY SPACED BETWEEN THE PICK POINTS, THE SLINGS AND FITTINGS WILL NOT CARRY AN EQUAL SHARE OF THE LOAD. THE SLING CONNECTED TO THE PICK POINT CLOSEST TO THE CENTRE OF GRAVITY WILL CARRY THE GREATEST SHARE OF THE LOAD.

SLING 2 IS CLOSEST TO COG. IT WILL HAVE THE GREATEST SHARE OF THE LOAD.

SLING 2 : $10,000 \times 8 / (8 + 2) = 8,000 \text{ KG}$
SLING 1 : $10,000 \times 2 / (8 + 2) = 2,000 \text{ KG}$

LOAD STABILITY AND THE CENTRE OF GRAVITY

CONNECTION TO THE LOAD MUST BE MADE ABOVE THE CENTRE OF GRAVITY. IF NOT, THE LOAD IS UNSTABLE AND WILL SHIFT. KEEP DISTANCE FROM COG TO SLING AS LARGE AS POSSIBLE.



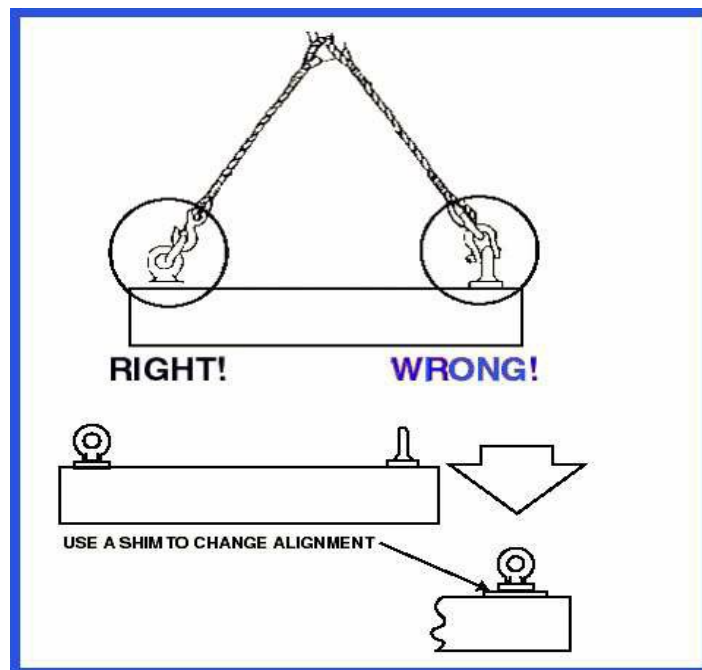
3. How is the Lifting Sling to be attached?

If there are no lifting points, then the lifting sling will have to be attached in some other way.

For example, there may be suitable threaded holes into which a conventional eyebolt, or its modern equivalent, the swivel link bolt (See our eyebolt selection guide), can be screwed.

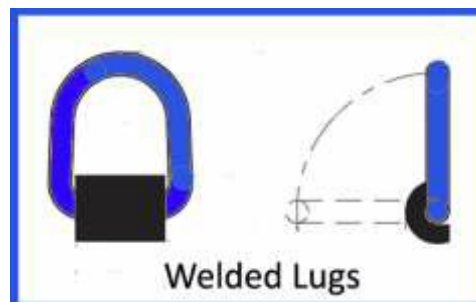
Such threaded holes may be there primarily for another purpose such as for a bolt or stud.

If so, check that the material around the holes is strong enough to bear the share of the load which will be imposed, particularly if it is to be applied at an angle.

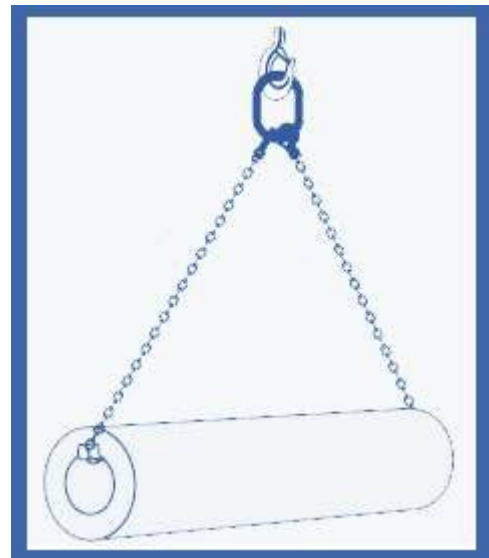
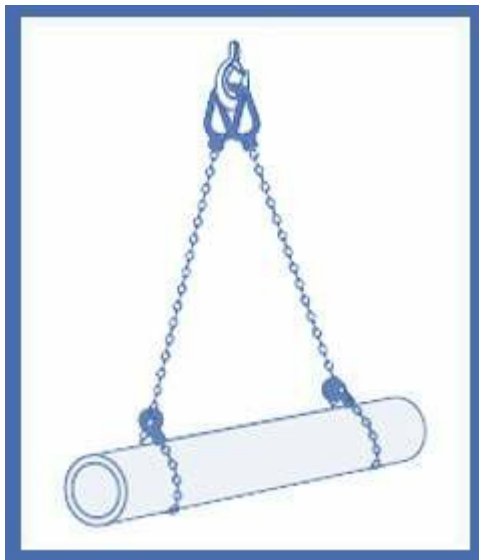
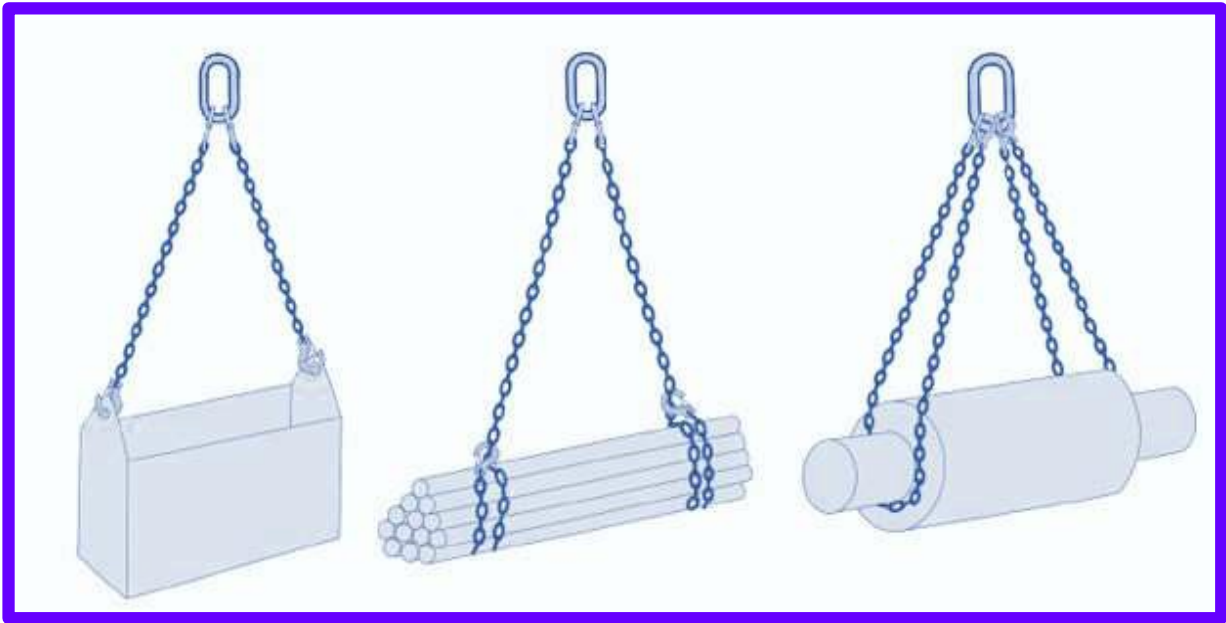


Also check that the eyebolt or swivel link bolt seats fully down and is supported over the whole of its base.

There is also available a comprehensive range of welded lifting lugs which can be specified at the design stage or retro attached to machine skid frames etc.



A frequent solution to the absence of lifting points is to pass the sling through an aperture in the load or wrap it around the load. Passing through an aperture has the advantage of making the load captive.



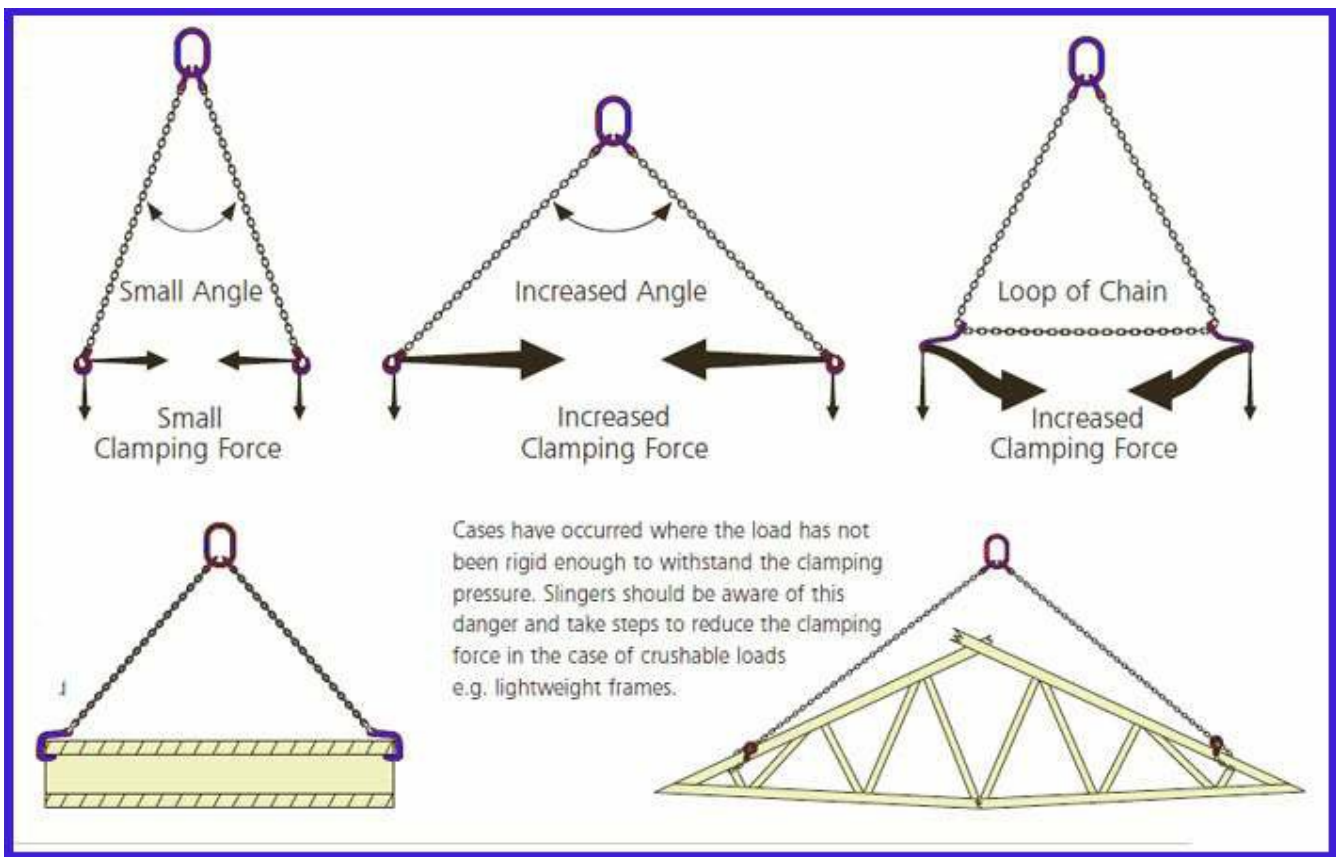
4. Strength of the load

How Fragile is the Load?

In selecting lifting points or making connections, the strength of the load itself must be considered.

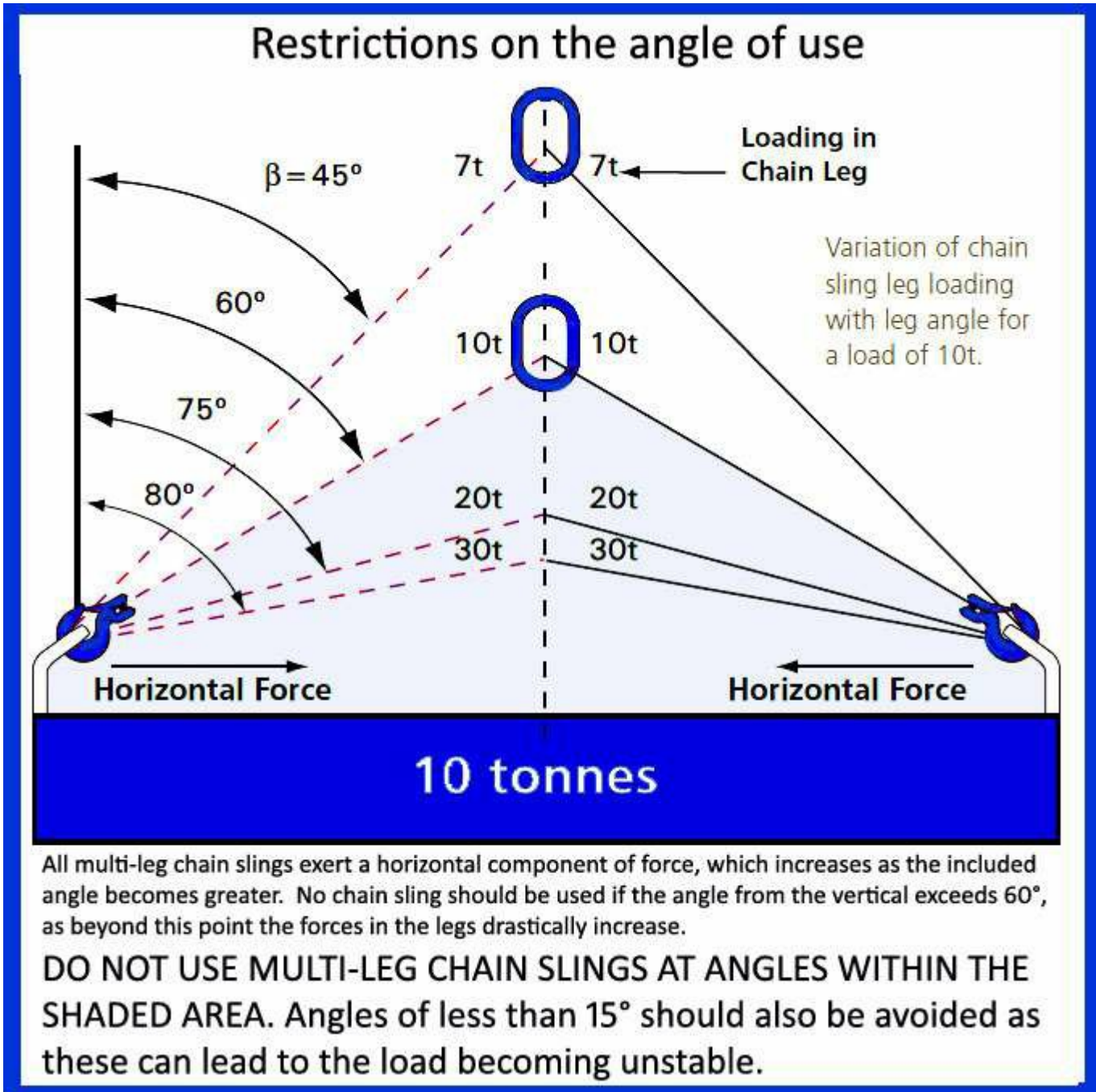
A flexible or fragile load may easily collapse or be damaged by its own self weight if not adequately supported.

Remember that, due to the angle between the legs and the vertical,



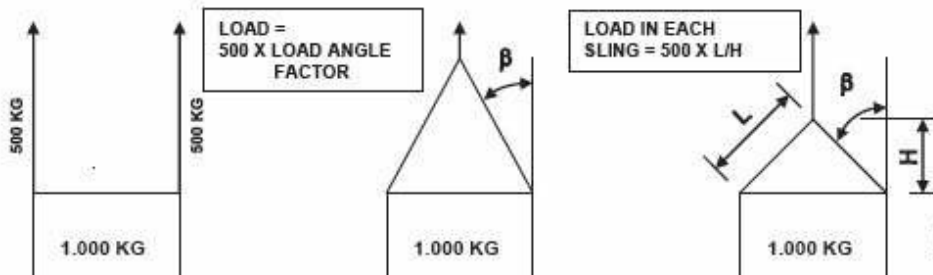
5. Forces on the load

Let us look now at a known load weight to see the effect of the horizontal forces exerted by increasing the sling angle.



On the next page we show how to calculate the sling length for desired angles.

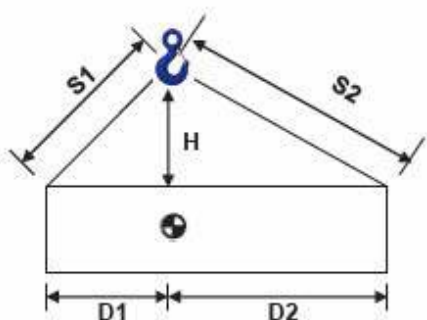
SLING ANGLES



VERTICAL SLING ANGLE β	LOAD ANGLE FACTOR = L/H
0°	1.00
30°	1.16 (1.2)
45°	1.41 (1.4)
60°	2.00 (2.0)

LOAD ON EACH LEG OF SLING =
VERTICAL LOAD X LOAD ANGLE FACTOR

UNEQUAL LEGS



LOAD ON SLING CALCULATED

TENSION 1 = LOAD X D2 X S1/H(D1 + D2)
TENSION 2 = LOAD X D1 X S2/H(D1 + D2)

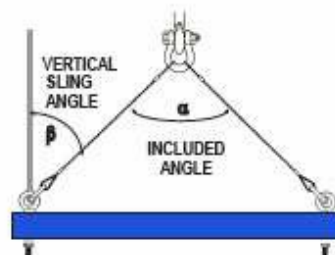
SLING LENGTH FOR DESIRED ANGLE

VERTICAL ANGLE	LENGTH FACTOR	L/H
60 DEGREES	1.15	2
50 DEGREES	1.31	1.55
45 DEGREES	1.41	1.4
40 DEGREES	1.55	1.3
35 DEGREES	1.74	1.21
30 DEGREES	2	1.16

LENGTH = D X (LENGTH FACTOR)

(D = DISTANCE PICK-UP POINT → C.O.G.)

VERTICAL SLING ANGLE = 1/2 INCLUDED ANGLE



HITCHES

WIRE ROPE, CHAIN AND SYNTHETIC SLINGS

WIRE ROPE SLINGS AND CONNECTIONS TO FITTINGS



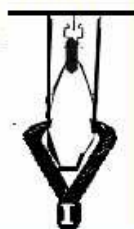
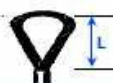
USE A THIMBLE TO
PROTECT SLING AND TO
INCREASE D/d RATIO.

NEVER PLACE EYE OVER A
FITTING WITH A SMALLER
DIAMETER OR WIDTH THAN
THE ROPE'S DIAMETER.

WIRE ROPE SLINGS AND CONNECTIONS TO FITTINGS

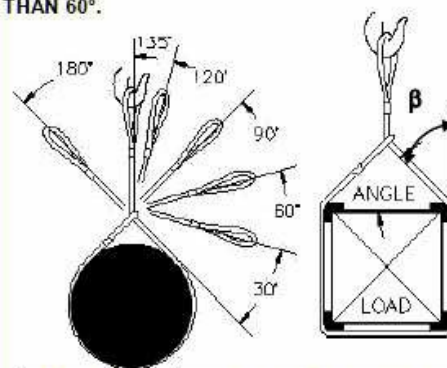
NEVER PLACE A SLING
EYE GREATER THAN ONE
HALF THE NATURAL
LENGTH OF THE EYE (L).

1/3(L) FOR SYNTHETICS.



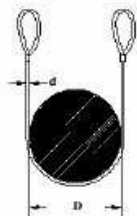
CHOKER HITCHES

A CHOKER HITCH HAS 80% OF THE CAPACITY
OF A SINGLE LEG ONLY IF THE CORNERS ARE
SOFTENED AND THE VERTICAL SLING ANGLE
 β IS SMALLER THAN 60°.
USE BLOCKS TO PREVENT ANGLES GREATER
THAN 60°.



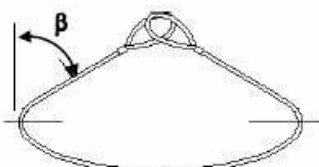
ANGLE OF CHOKER	SLING RATED LOAD PERCENTAGE OF SINGLE LEG SLING CAPACITY
120° - 180°	80%
90° - 119°	65%
60° - 89°	55%
30° - 59°	40%

BASKET HITCH



A BASKET HITCH HAS TWICE THE
CAPACITY OF A SINGLE LEG ONLY IF
THE D/d RATIO $\geq 25/1$ AND LEGS OF
SLING ARE VERTICAL.

AT OTHER ANGLES, SEE TABLE.



ANGLE β	PERCENTAGE OF SINGLE LEG CAPACITY
0	200%
30	170%
45	140%
60	100%

Matching the lifting sling to the load

Having dealt with the fundamental characteristics of the loads, on the following pages we now turn our attention to the various types of lifting slings generally available. In order to select the most appropriate lifting sling for the application.

6. Which type of Sling is suitable?

General purpose slings.

A diverse range of these products is now available but, in terms of correct specification, it is quite possible to outline the key considerations that are common to all.

When selecting a sling for a particular task, the variables will include the sling type (i.e. material), configuration (i.e. number of legs), terminal fittings (e.g. hooks) and the conditions in which it will be used and stored.

Sling types fall into three types: chain, wire rope and textile.

Within each type are a number of variants. Many countries have long established national standards for all these types, but for buyers (in Europe at least) is that many are now covered by harmonised European Standards.

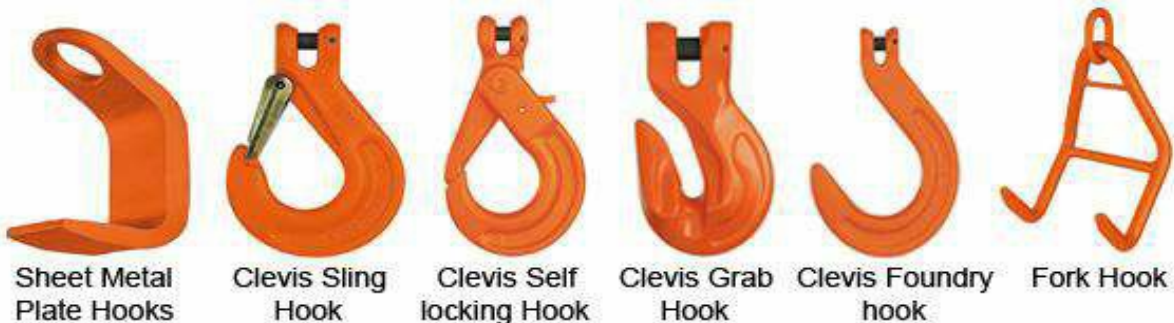
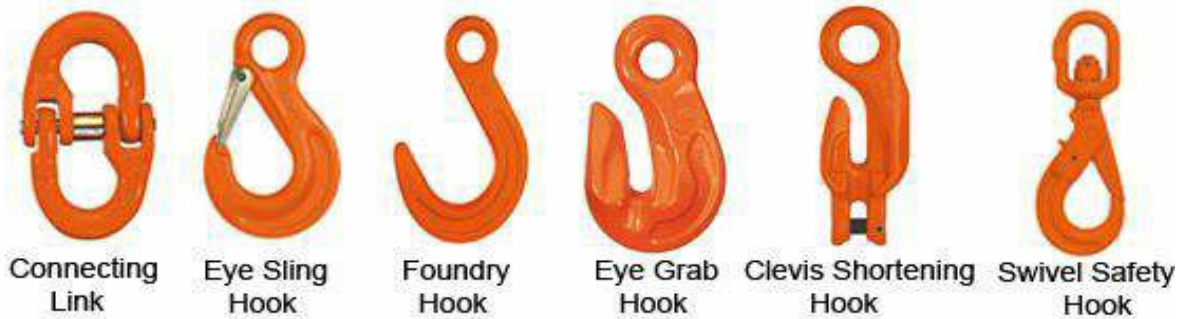
These are written to support European legislation and, as such, can be relied upon to provide a high level of safety.

How should you decide which type and which configuration to use? Each has its own particular characteristics and the best choice will depend to a great extent on the nature of the load.

7. Types of slings

Depending on the type in question, slings are generally available in five basic configurations: single, two, three and four leg, and endless. There are also a variety of terminal fittings to choose from. Depending on the sling type, the choice at the upper terminal is usually restricted to that of a link or a soft eye.

However, at the lower terminals, in addition to the standard sling hook, there is a choice of fittings, many of which are designed to suit specific loads. These terminal fittings include self-locking hooks, pipe hooks, bale hooks, foundry hooks, can hooks and case/carton grabs.

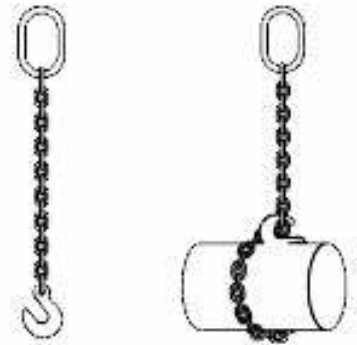
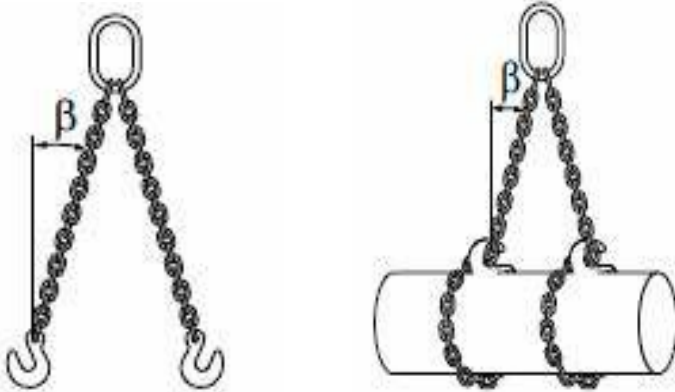


Where appropriate, the use of such purpose-designed fittings is highly recommended.

8. Selecting the correct configuration

Configuration will be influenced by the type of load or loads being handled.

For example, a single leg sling might typically be used for a load which has a single lifting point, or slung in a choke hitch, or in combination with another to effectively create a two leg sling.

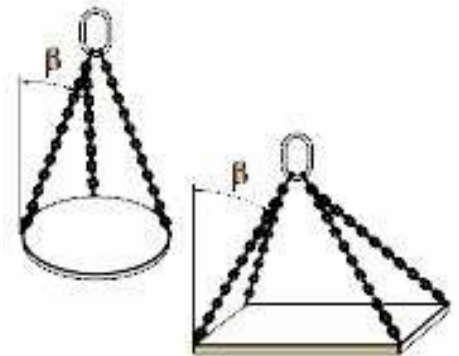


Two leg slings are suitable for a wide range of load types,

The three leg option is commonly used for circular or irregularly shaped loads.

Four leg slings are generally suited to square or rectangular loads.

All multi-leg slings are versatile in that not all the legs need be used, provided this is allowed for in the rating.



Endless slings are usually employed in choke hitch

Loop chains are for cradling the load

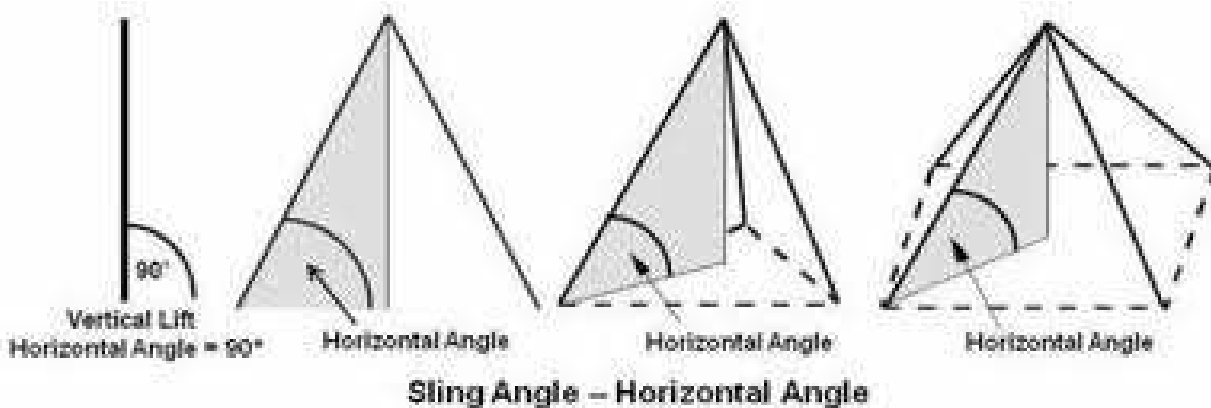


9. Sling ratings

Correct rating of slings is another vital stage of the specification process. The standard rating of all slings assumes certain conditions of use, including environmental conditions (e.g. temperature), the manner in which the sling is attached to the load (e.g. straight leg or choke hitch), and operational conditions (e.g. equal share of load between the sling legs, avoidance of shock loading).

If the actual conditions vary from these, then due allowance must be made. The most common allowances required are for use in choke hitch, for when not all sling legs are in use and where the load is not equally shared between the sling legs. Generally this is done by specifying a sling of appropriately higher capacity.

Detailed explanation of sling rating is complicated. Suffice to say that specifier must always bear in mind that when a multi-leg sling is used with the sling legs at an angle, the load in the individual legs will be increased as the angle to the vertical becomes greater.



Harmonised European Standards use a rating method known as 'uniform load'. This is undoubtedly the most straightforward approach, but for the foreseeable future specifiers and users may also encounter equipment marked according to the trigonometric method.

10. Making the right choice

Chain, wire and textile slings each has their own particular characteristics and the best choice will depend to a great extent on the nature of the load. In this section we show the pros and cons of each material.

Alloy steel chains are strong and able to adapt to the shape of the load. Care should be taken when using chain slings because sudden shocks will damage them. This may result in sling failure and possible injury to workers or damage to the load.

Chain slings must be visually inspected prior to use. During the inspection, pay particular attention to any stretching, nicks, gouges, and wear in excess of the allowances made by the manufacturer. These signs indicate that the sling may be unsafe and must be removed from service immediately.

Misuse or abuse of wire rope slings will result in their failure long before any other factor. Abuse can lead to serious structural damage, resulting in kinks or bird caging. (In bird caging, the wire rope strands are forcibly untwisted and become spread outwards.)

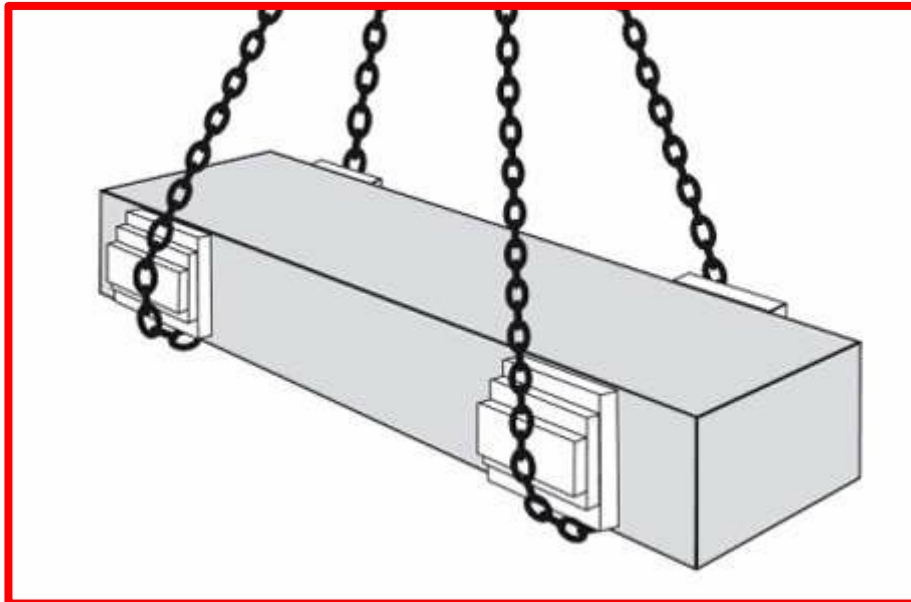
A webbing sling has two eyes at two ends and has a flat construction. It is a very popular design, but has one major disadvantage. The fibres which provide the strength to lift the load are also the ones which come in contact with the load.

Therefore, in case of damage to the yarns, the sling has to be taken out of service.

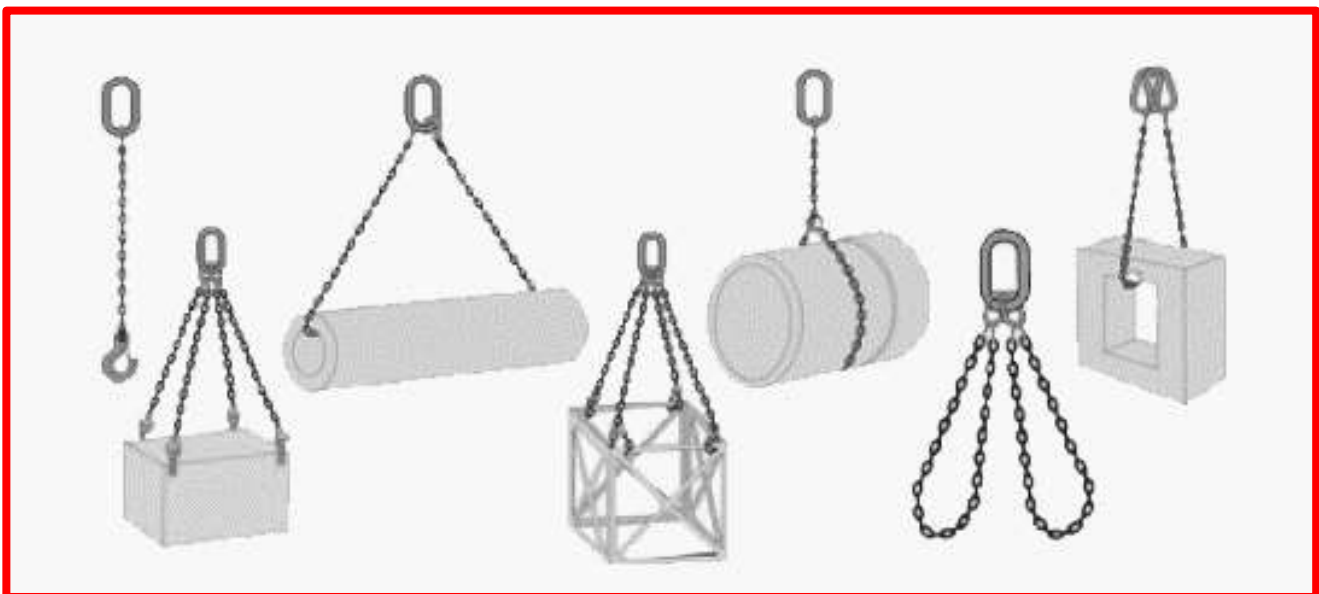
A round sling is an endless hank of yarn wound without any break and is a far better designed sling. The inner core yarn (which provides the strength to lift the load) is protected by the outer casing, which comes into contact with the load. Also the (load) bearing points (the points which go on the crane hook) keep changing, whilst on a webbing sling the points are fixed. (At the "eyes" of sling) and open to wear and tear. If these points are not inspected regularly, they could lead to potential "weak spots" in the sling.

Chain Slings

Chain is generally the most versatile option. It is very flexible, and therefore able to wrap around the load.



Albeit, the heaviest material, it is also durable and, if the sling is fitted with shortening clutches, the leg lengths are easily adjustable to suit the particular load.

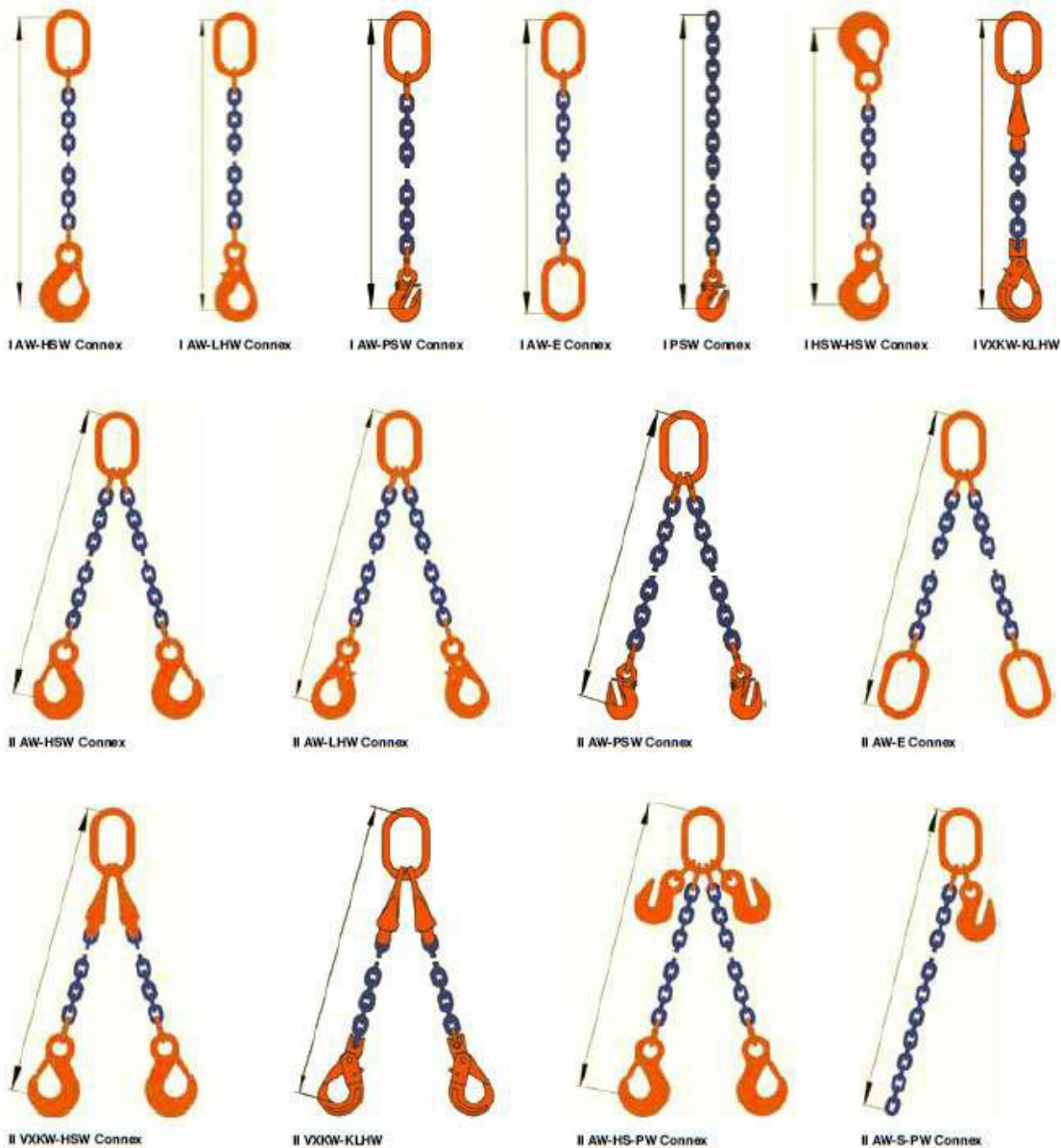


Chain slings tolerate a wide range of operating temperature. By selecting the appropriate grade and rating, this can be extended even further.

pewag winner
Standard sling types

The chain slings shown here are standard sling types. They can – to some degree – also be produced and supplied in other assembly systems than the ones listed below. If you assemble

them yourself, use only original pewag Winner components! For any sling types not shown below, please submit a small sketch indicating the required type. The usual tolerance of length „L“ is +2 chain pitches. Unless stated otherwise, any securing links needed are mounted in the middle of the leg. The sling designation system is the same as that of G8. The additional „W“ in the code of the individual parts points to the higher quality grade.



Information on the safe use of chain slings - [CLICK HERE](#)

For more information read our guide for the selection of alloy steel chain slings – [Click Here](#)

DLH online



III AW-HSW Connex



III AW-LHW Connex



III AW-PSW Connex



III AW-E Connex



IV VXKW-HSW Connex



IV VXKW-KLHW



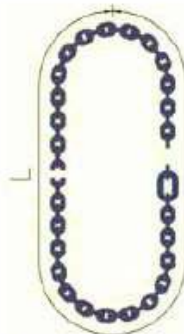
IV AW-HSW Connex



IV AW-E Connex



S



SK (up from dimension 3l)



II AWS Connex



IV AW-S Connex

Until recently the most common grade of alloy lifting chain used for crane chain slings was grade 8. Now, as most major chain manufacturers are shifting to grade 10 lifting chain it has become more cost effective.

This load chart is specifically for **Pewag** manufactured slings but it shows the load capacities for grade 8 and grade 10 Alloy steel chain slings which are the standard used for chain slings in general use.

For more information on chain slings – [Click Here](#)

LOAD CAPACITIES

The load capacities shown are the WORKING LOAD LIMITS of the various sling types, stated according to the standard (Uniform Load) method of rating.

Safety factor 4		Single leg chain slings		2 leg chain slings				3 + 4 leg chain slings		Endless chain slings	Basket chain slings	
Angle of inclination		-	-	up to 45°	45°-60°	up to 45°	45°-60°	up to 45°	45°-60°	-	up to 45°	0°-45°
Load factor		1	0.8	1.4	1	1.12	0.8	2.1	1.5	1.6	1.4	2.1
Code	d	Load capacity [tonnes]										
WIN 5	5mm	1.00	0.80	1.40	1.00	1.12	0.80	2.00	1.50	1.60	1.40	2.00
WIN 6	6mm	1.40	1.12	2.00	1.40	1.60	1.12	3.00	2.12	2.24	2.00	3.00
WIN 7	7mm	1.90	1.50	2.65	1.90	2.12	1.50	4.00	2.80	3.00	2.65	4.00
WIN 8	8mm	2.50	2.00	3.55	2.50	2.80	2.00	5.30	3.75	4.00	3.55	5.30
WIN 10	10mm	4.00	3.15	5.60	4.00	4.25	3.15	8.00	6.00	6.30	5.60	8.00
WIN 13	13mm	6.70	5.30	9.50	6.70	7.50	5.30	14.00	10.00	10.60	9.50	14.00
WIN 16	16mm	10.00	8.00	14.00	10.00	11.20	8.00	21.20	15.00	16.00	14.00	21.20
WIN 19	19mm	14.00	11.20	20.00	14.00	16.00	11.20	30.00	21.20	22.40	20.00	30.00
WIN 22	22mm	19.00	15.00	26.50	19.00	21.20	15.00	40.00	28.00	30.00	26.50	40.00
WIN 26	26mm	26.50	21.20	37.50	26.50	30.00	21.20	56.00	40.00	42.50	37.50	56.00
Ni 26 G8	26mm	21.20	16.95	30.00	21.20	23.70	16.95	45.00	31.50	33.50	30.00	45.00
WIN 32	32mm	40.00	31.50	56.00	40.00	45.00	31.50	85.00	60.00	63.00	56.00	85.00
Ni 32 G8	32mm	31.50	25.20	45.00	31.50	35.20	25.20	67.00	47.50	50.00	45.00	67.00

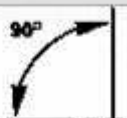
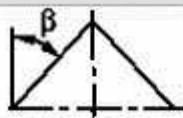
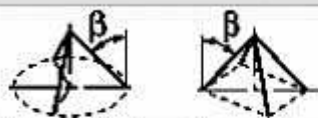

If the chain slings are used in severe conditions (e.g. high temperature, asymmetric load distribution, edge load, impact/shock loads) the maximum load capacity values in the table must be reduced by the load factors below. Please also note the user information on this topic.

Wire Rope Slings

Wire rope offers an economical alternative to chain for many applications and also has advantages of its own.

Wire rope slings are easier to feed under a load and wire rope slings made from galvanised rope and thimbles are more tolerant of marine or similar environments.

They are at their most advantageous when the legs are in a straight pull - suspending a spreader beam, for example. If wrapped around a load, they inevitably become permanently set to the shape of the load, unless a large radius can be maintained.

Working Load Limits Tonnes		One Leg Sling		Two Leg Sling				Three and Four Leg Sling				Endless Sling - Choke Hitch	
Angle to the vertical		0°		0° - 45°		>45° - 60°		0° - 45°		>45° - 60°		0°	
													
Nominal rope Diameter mm	Tensile n/mm²	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core	Fibre Core	Steel Core
8	1960	0.76	0.82	1.06	1.15	0.76	0.82	1.60	1.72	1.14	1.23	1.22	1.31
9	1960	0.96	1.04	1.35	1.45	0.96	1.04	2.02	2.18	1.44	1.56	1.54	1.66
10	1960	1.19	1.28	1.66	1.79	1.19	1.28	2.49	2.69	1.78	1.92	1.90	2.05
11	1960	1.44	1.55	2.01	2.17	1.44	1.55	3.02	3.25	2.16	2.32	2.30	2.48
12	1960	1.71	1.84	2.39	2.57	1.71	1.84	3.59	3.85	2.56	2.75	2.73	2.94
13	1960	2.00	2.17	2.80	3.03	2.00	2.17	4.20	4.55	3.00	3.25	3.20	3.47
14	1960	2.33	2.51	3.26	3.52	2.33	2.51	4.90	5.28	3.50	3.77	3.73	4.02
16	1960	3.05	3.29	4.27	4.60	3.05	3.29	6.40	6.90	4.57	4.93	4.88	5.26
18	1960	3.85	4.15	5.40	5.81	3.85	4.15	8.09	8.71	5.78	6.22	6.17	6.64
20	1960	4.75	5.12	6.66	7.17	4.75	5.12	9.98	10.75	7.13	7.68	7.61	8.19
22	1960	5.75	6.20	8.04	8.69	5.75	6.20	12.06	13.03	8.62	9.31	9.19	9.93
24	1960	6.85	7.38	9.58	10.33	6.85	7.38	14.38	15.50	10.27	11.07	10.95	11.81
26	1960	8.02	8.66	11.23	12.13	8.02	8.66	16.84	18.19	12.03	13.00	12.83	13.86
28	1960	9.31	10.04	13.03	14.06	9.31	10.04	19.54	21.08	13.96	15.06	14.89	16.06
32	1960	12.15	13.12	17.01	18.37	12.15	13.12	25.52	27.56	18.23	19.69	19.44	21.00
36	1960	15.38	16.59	21.53	23.23	15.38	16.59	32.30	34.84	23.07	24.89	24.61	26.55
40	1770	19.09	20.56	26.72	28.78	19.09	20.56	40.09	43.17	28.63	30.84	30.54	32.89
44	1770	22.94	24.78	32.12	34.69	22.94	24.78	48.18	52.04	34.42	37.17	36.71	39.65
48	1770	27.35	29.55	38.29	41.37	27.35	29.55	57.43	62.06	41.02	44.33	43.76	47.28
52	1770	32.12	34.69	44.97	48.57	32.12	34.69	67.45	72.85	48.18	52.04	51.39	55.51
56	1770	37.26	40.20	52.16	56.28	37.26	40.20	78.25	84.41	55.89	60.30	59.62	64.32
60	1770	42.77	46.07	59.87	64.50	42.77	46.07	89.81	96.75	64.15	69.11	68.43	73.71
leg factor KL		1		1.40		1		2.1		1.5		1.6	

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Information on the safe use of wire rope slings - [CLICK HERE](#)



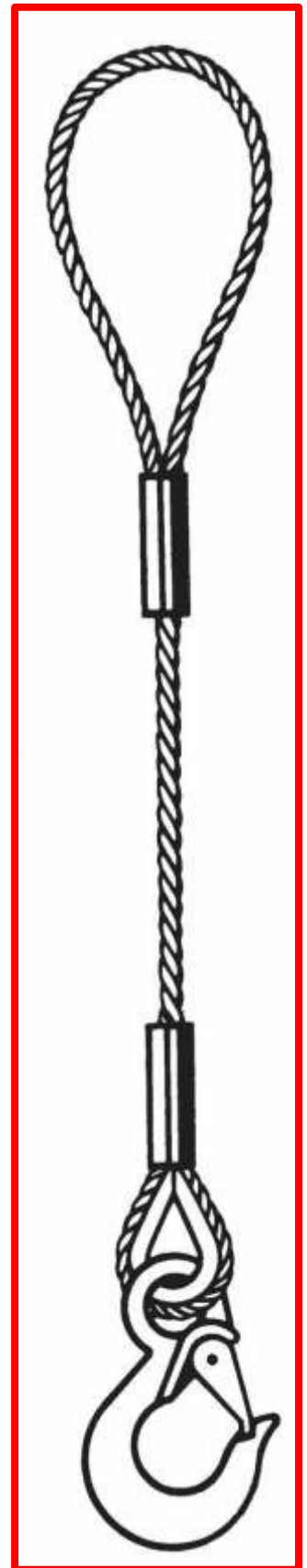
Generally the length of the legs cannot be adjusted by the user, although special top fittings are available for two leg slings, which allow one leg to be shortened as the other is lengthened.



This is useful if adjustment is required to match the centre of gravity of the load.

For more information on the product

[Click Here](#)



Textile Slings




Textile slings include webbing slings, roundslings and fibre rope slings. Compared to wire rope or chain, all have the advantage of being both light and less likely to damage loads with a delicate surface.

Webbing Slings

Webbing slings are made from man-made fibres and can spread the load over a wider area. They are therefore particularly suitable where such support is required.

Information on the safe use of webbing slings - [CLICK HERE](#)

SAFE-LOAD ROUNDSLINGS Seamless (& Side sewn)	FLAT WEBBING SLINGS DUPLEX / ENDLESS
To BS EN 1492-2:2000	To BS EN 1492-1:2000
SAFETY FACTOR 7:1 (EC Utilisation Factor 7:1)	

ROUND SLINGS	ENDLESS & DUPLEX SLINGS	LIFTING MODE	Vertical	Choke	0° Basket	Basket 0-45°	Basket 45-60°
							
		LIFTING FACTOR	x 1	x 0.8	x 2	x 1.4	x 1
Average dia (mm)	Typical width (mm)	COLOUR	Tonnes	Tonnes	Tonnes	Tonnes	Tonnes
18	35	VIOLET	1.0	800kg	2.0	1.4	1.0
20	60	GREEN	2.0	1.6	4.0	2.8	2.0
22	75	YELLOW	3.0	2.4	6.0	4.2	3.0
25	100	GREY	4.0	3.2	8.0	5.6	4.0
27	125	RED	5.0	4.0	10.0	7.0	5.0
32	150	BROWN	6.0	4.8	2.0	8.4	6.0
38	200	BLUE	8.0	6.4	16.0	11.2	8.0
46	250	ORANGE	10.0	8.0	20.0	14.0	10.0
56	300	ORANGE	2.0	9.6	24.0	16.8	2.0
70	*	ORANGE	15.0	12.0	30.0	21.0	15.0
75	*	ORANGE	20.0	16.0	40.0	28.0	20.0
90	*	ORANGE	25.0	20.0	50.0	35.0	25.0



Although they will readily bend to wrap around a load, webbing slings are often stiff enough to feed under or through a load.



The most widely available types are single leg with soft eyes, but they are also available with metal end fittings, which are advantageous on the widest slings.



If required, webbing slings can also be made into multi-leg configurations.

The sling on the left is made with reusable connectors which can be refitted with new sling legs when they wear out or become damaged.

Information on safe use of webbing slings – [Click Here](#)

Round slings



Round slings are also manufactured from man-made fibres and consist of a hank of multiple turns, with the ends of the hank joined together and the whole protected by a woven tubular sleeve.



They are very flexible and will flatten onto the load, spreading the support area in the process. Although roundslings can be made into multi-leg configurations with terminal fittings, this is rare.

Their real advantages come from being light to carry, and the ability to be wrapped or double wrapped around a load and choked to grip it securely.

Information on the safe use of roundslings – [Click Here](#)

Fibre Rope Slings



Fibre ropes are available in a wide range of natural and man-made fibres.

Size for size, these can be ranked in terms of strength (in ascending order, with the weakest first) as follows: sisal, manila, polyethylene, polypropylene, polyester and polyamide (nylon).

With the advent of the round sling, fibre ropes have fallen from popularity.



However, being available in a wider range of materials, they do offer greater freedom to select the type best suited to the environment. All the materials used in textile slings are susceptible to damage from sharp edges, have a relatively limited range of operating temperature and provide varying resistance to chemical attack and prolonged exposure to ultraviolet light.

Natural fibres are also subject to rot and mildew from dampness.

Contact our sales team for sales and information on Fibre rope slings

Information on the safe use of fibre rope slings – [Click Here](#)

Where to obtain more information

For a comprehensive explanation of sling rating specifiers should refer to a suitable reference document, such as the LEEA's Code of Practice for the Safe Use of Lifting Equipment (COPSULE)



Available through us, please contact our technical sales team



Even for a product as apparently straightforward as a sling, the importance of correct specification should never be underestimated.

Slings may be one of the simpler elements of the lifting equipment family, but typically provide the only direct connection with the load.

Unfortunately, too many companies seem unwilling to invest much time or money in this critical yet relatively inexpensive item.

As a result, it is all too common to trace the causes of accidents back to inappropriate selection and/or use of a sling.

A more professional approach to specification is therefore a vital first step in any safe lifting policy.

For more information please refer to the tables provided in the Lifting Equipment section of www.dlhonline.co.uk

For further advice contact our sales team on: 0161 223 1990 or by email: sales@dale-lifting.co.uk

For more information on safe use of lifting equipment [CLICK HERE](#)

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