ALL STAR SAFETY

Lifting accessories

Appointed Person reference

Capacities, masses, dimensions and rigging arrangements

SELECT	CALCULATE	CHECK
Named accessories and WLL by mode	Gross suspended mass and required hook height	Connections, angle limits and actual equipment

A practical reference for AP training and lift-planning work, with manufacturer drawings, higher-capacity product tables, configuration examples and a comparison worksheet.

> **Use the whole lifting arrangement**
> A sling chart is one part of the selection. The load, lifting points, connectors, sling, beam and crane all impose limits. Apply the most restrictive relevant limit and record the arrangement used in the lift plan.

Catalogue values are nominal and tied to the named product and edition. Check the equipment identification, examination status, actual configuration and current manufacturer instructions before use. Historical Q45 data is retained in a labelled training appendix.

All Star Safety Ltd
www.allstarsafety.co.uk

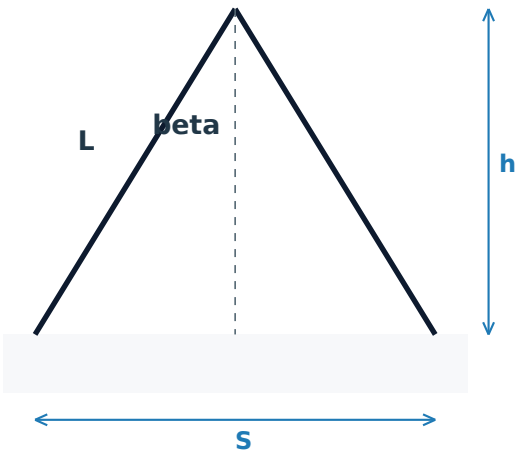
AP lifting accessory reference

Appointed Person training and lift planning | WLL in tonnes (t); mass in kg; dimensions in mm unless stated.

Gross suspended mass
Net load + every suspended accessory = gross mass at the crane hook. Include lifting eyes, shackles, complete sling assemblies, beams, hoists and protection. Exclude items already included in the verified net mass. Count each item once. **1 t = 1,000 kg; 1 m = 1,000 mm.**

Hook height - use defined measurement points

Crane-hook bearing elevation = target load-underside elevation (including clearance) + vertical distance from load underside to lower rigging datum + rigging rise to crane-hook bearing point.



Symmetrical two-leg geometry
beta = angle of each leg from vertical.
Included angle = 2 x beta.

h = L x cos(beta)
h = sqrt[L² - (S/2)²]
L is the free inclined leg length between the defined junction/bearing points.

Use the correct length
An inclined free leg is different from the complete sling EWL. A vertical master-link assembly contributes its own rise. If EWL already includes fittings, do not add them again. Use bearing-to-bearing dimensions and allow for connection overlap.

Planning allowances and angle limits

All Star Safety training conventions | distinguish these from statutory duties and manufacturer limits

> **10% normally; 25% for weight uncertainty**
> For All Star Safety training, use a **10% planning allowance**. Use **25% where there is uncertainty in the established load weight**. Record the reason and the mass to which the allowance is applied. The increased figure is a planning/booking figure; it is separate from the calculated physical gross mass.

These percentages are course conventions, not universal LOLER requirements or manufacturer derating factors. An allowance does not establish an unknown load weight or compensate for an unsuitable lifting arrangement. For site work, the AP must justify the weight basis, contingencies and equipment capacity.

Apply the tightest angle limit in the arrangement

Item / convention	Example permitted included angle
Normal All Star Safety training limit	90° (45° from vertical for equal legs)
A load or its lifting points	60° if specified by its manufacturer
Sling / shackle / lifting point	Only its own permitted mode and angle
Result for this example	60° controls, even if the sling permits 120°

Angles above 90° may be used only where the applicable manufacturers permit the complete arrangement and the lift plan adopts it. A load-specific limit below 90° takes precedence. Some tanks and fabricated items have tighter restrictions; do not assume 60° is a universal tank rule.

> **Included angle is not angle from vertical**
> For a symmetrical two-leg arrangement, **included angle alpha = 2 x beta**, where beta is each leg's angle from vertical. A 60° included limit means beta must be no more than 30°. Check whether each source diagram uses vertical, horizontal or the bolt axis as its reference.

What is mandatory and what is guidance?

Statutory duties: LOLER requires competent planning, suitable supervision, safe execution, and adequate strength/stability of lifting equipment and relevant load attachments. **HSE ACOP/guidance:** assess accessory weight and configuration, compatible attachments and uncertain loads. **This reference:** supplies selected product data and calculation guidance; the 10%/25% and normal 90° figures above are All Star Safety course conventions.

HSE L113: Safe use of lifting equipment | HSE lift-planning guidance

[G1] LOLER regs.4 and 8; HSE L113 paras.93, 244 and 284. Training percentages agreed by All Star Safety.

Build the arrangement before calculating

Use the actual load, hardware, sling geometry and crane chart basis

Step	Record / calculate
1. Define the load	Net mass and source; centre of gravity; lift-point positions, capacities and permitted pull directions.
2. Draw each load path	Load attachment → eye/lug → shackle → sling → top link / beam / hoist → crane hook. Show actual bearing points.
3. Total suspended mass	Sum quantity × complete mass for every item; include all suspended unused chain, protection and handling attachments.
4. Check each capacity	Apply the correct mode, angle, direction and load sharing. Each item carries the relevant equipment and load below it.
5. Calculate required rise	Add only the bearing-to-bearing vertical contributions; project free inclined lengths; allow for overlap, wraps and operating openings.
6. Compare configurations	Recalculate after changing diameter, length, connector, hoist or beam. Check gross mass, angle, fit and available crane-hook height again.

Keep the crane-chart basis consistent
Check the crane manual for hook-block, ball, auxiliary equipment and rigging deductions. Do not deduct or add the same mass twice. Record gross suspended mass, each required chart deduction and any separate planning allowance as distinct lines.

A lower permitted angle can need more headroom

Included angle alpha	Leg angle beta	Free leg L, m	Rise h, m
60°	30°	2.000	1.732
90°	45°	1.414	1.000
120°*	60°	1.155	0.577

Calculated geometry for **two equal free legs and 2.000 m between their lower junction points**: h = (S/2) / tan(beta), L = (S/2) / sin(beta). Top/lower fittings are excluded and must be added using consistent datums. *120° is shown for comparison only; all applicable load/component ratings and manufacturer instructions must permit it, as confirmed in the lift plan; it is outside the normal course limit.

A narrower angle does not make an unidentified lifting point suitable. First establish the attachment rating and permitted pull direction, then select the sling geometry.

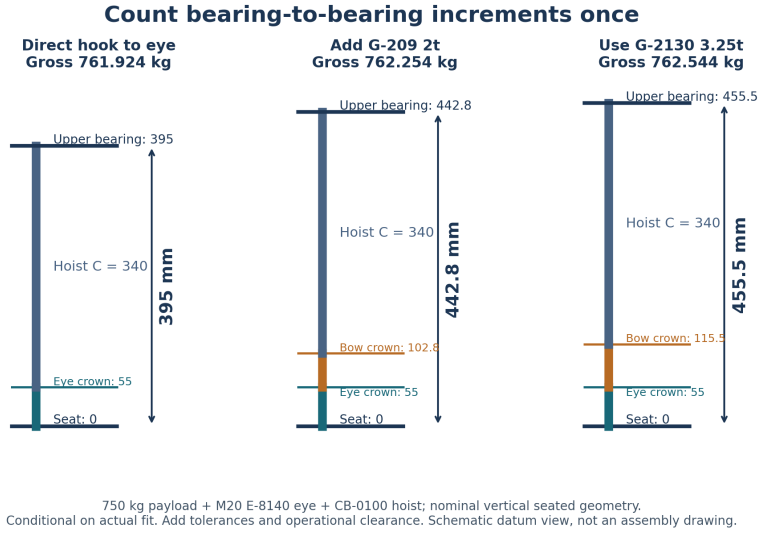
Keep the physical mass and allowance separate
Example only: 10,000 kg net load + 500 kg accessories = **10,500 kg gross**. If the plan explicitly applies its allowance to that full gross: 10% gives **11,550 kg**; 25% gives **13,125 kg**. The physical gross remains 10,500 kg. This example defines its percentage base; record the agreed base for every actual plan.

Worked example - vertical bearing stacks

Three connection options | all heights above the eye mounting seat | nominal dimensions in mm

Given: a 750 kg payload excluding accessories; one fully seated M20 E-8140 eye (0.424 kg; axial WLL 1.2 t); one CB-0100 hoist (1 t; 11.5 kg at 3 m supplied lift). The hoist is at its **340 mm closed bearing-to-bearing headroom**. Each connection is vertical and seated.

Lower connection	Shackle mass kg	Shackle C mm	Upper bearing height mm	Gross mass kg
Hook directly in eye	0	0	395.0	761.924
G-209, 2 t screw-pin	0.330	47.8	442.8	762.254
G-2130, 3.25 t bolt-type	0.620	60.5	455.5	762.544



All Star Safety bearing-datum schematic. Coloured segments are height increments, not accessory shapes.

Eye bearing height: h = g - (c - d)/2 = 71 - (72 - 40)/2 = **55 mm**.
Upper bearing height: h + shackle C + hoist C = 55 + C + 340.
Gross mass: 750 + 0.424 + shackle mass + 11.5 kg.

The pin top contacts the eye inside crown: pin centre = h - B/2. The shackle inside crown is (h - B/2) + B/2 + C = **h + C**. Do not add pin radius, bow thickness, eye thread or the hoist hooks again. The hoist's 3 m supplied lift is travel; it is not 3 m of closed headroom.

> **Conditional geometry - confirm the complete connection fits**
> Check actual eye thickness, pin/jaw fit, hook tip passage, bowl seating, latch closure and freedom from interference. The hook bowl projects below its bearing datum. These calculations do not establish three-dimensional fit or approve a combined assembly. Add manufacturing tolerances and operational clearance.

Gross mass ends at the upper hoist bearing. Add separate rigging above it and use the crane-chart deduction basis. If the verified payload mass already includes its eye, omit that eye mass from the addition.

[S1, S2, S9, S10] Green Pin E-8140 M20, Crosby G-209/G-2130 and Tiger PROCB14 CB-0100.

Complete chain slings - POWERTEX

POWERTEX PCSB-A-026 | Grade 10 | selected 10 mm chain kits | named YOKE fittings

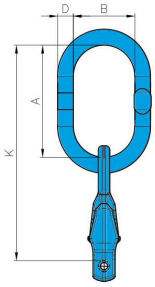
This complete family supplies both published assembly masses and identified fittings. Keep it separate from the Certex Grade 8 tables elsewhere in this reference.

PCSB part code	Legs	EWL m	Complete mass kg	WLL 0-45° t*	WLL >45-60° t*
240501000300010	1	3	10.1	4.0 vertical	-
240501000600010	1	6	17.6	4.0 vertical	-
240801000300010	2	3	18.1	5.6	4.0
240801000600010	2	6	33.1	5.6	4.0

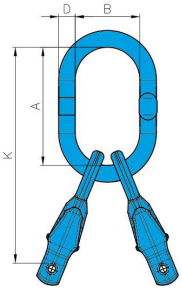
*For two legs, beta is measured from vertical. Single-leg values are in-line vertical WLL. The complete mass includes the chain, top assembly and terminal hook(s).

PCSB one-leg complete length L

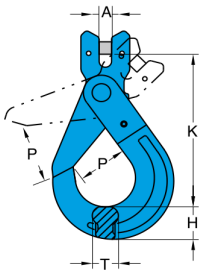
PCSB two-leg complete length L



X-A04-10 one-leg top



X-A05-10 two-leg top



X-026-10 terminal hook

Original manufacturer views: POWERTEX L measurement illustrations and YOKE dimension drawings. The pictured two-leg pose is illustrative, not an angle-specific geometry specification.

Top assembly	A: inside length mm	B: inside width mm	D: section mm	K: drawing mm	Mass kg
X-A04-10	160	95	19	285	2.1
X-A05-10	170	105	22	295	3.8

X-026-10 terminal hook: K = 142 mm, clevis pin centre to saddle; A = 11 mm clevis gap; P = 44 mm throat; H = 30 mm bowl height; T = 26 mm bowl thickness; mass = 1.4 kg. Hook letters have their own meanings; A is not the master's internal length.

> **Do not add built-in fittings twice**
> The complete EWL already includes the top and terminal fittings. The component masses above are already within the kit mass. Their dimensions identify the actual products; K values cannot simply be added to, or subtracted from, EWL to obtain angled rise.

[S16] POWERTEX original kit manual | **[S17]** YOKE original fitting catalogue

[S16] POWERTEX PCSB manual UMPCSB20201203GB p.8. [S17] YOKE Extreme-100 8-2022 pp.23-24, 30.

Worked example - chain length and rise

Use complete EWL for vertical kits; use actual free-leg datums for angled arrangements

Vertical comparison: keep the 750 kg payload and 0.424 kg M20 eye. Use the complete PCSB 10 mm one-leg, 3 m kit (10.1 kg; 4 t vertical WLL). Heights start at the eye mounting seat and end at the upper master bearing.

Connection to eye	Nominal bearing height	Gross mass
PCSB terminal hook directly	55 + 3,000 = **3,055 mm**	**760.524 kg**
Insert G-209, 2 t	55 + 47.8 + 3,000 = **3,102.8 mm**	**760.854 kg**

Adding the shackle adds **47.8 mm** nominal rise and **0.330 kg**. Actual fit, positive length tolerance and operational clearance remain to be checked. The eye's axial limit still controls its own load path; a larger sling does not increase the eye rating.

Angled geometry needs a different length

Exact form with defined datums
$H = a_z + L_{free} \times \cos(\beta) + b_z$
a_z: actual upper fitting drop to the start of the free leg.
L_{free}: taut distance between selected free-leg datums.
b_z: actual lower fitting drop to the load bearing.
beta: angle of that free leg from vertical. Use the actual fitting poses and horizontal offsets as well.

A vertical master contributes rise while its legs incline. Only for a verified fixed vertical top offset a and collinear remainder does **H = a + (L - a) x cos(beta)** apply. Using L x cos(beta) in that model understates rise by a x [1 - cos(beta)].

What the PCSB tables do not resolve: the top shortener's contact path, angle and clevis positions; the terminal pin-radius conversion from centre to contact face; and the actual free span at the planned angle. Do not obtain these values by scaling a photograph or subtracting the printed K dimensions.

A conservative reserve requires a verified maximum

Take no headroom credit for inclination
Obtain **S_{max}**, a verified maximum fully extended bearing-to-bearing path length for the actual complete branch, including positive manufacturing tolerance and the required load-extension allowance. The geometric bound is **$H \leq S_{max}$**. Reserve that height plus the separate local bearing stacks and operational clearance.

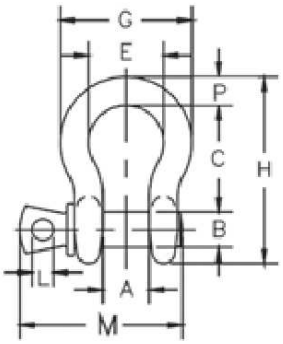
Nominal EWL alone is not a guaranteed maximum. Obtain the supplier/as-built maximum or leave the required positive allowance explicitly unresolved. Shortening a sling while retaining all its chain changes working length but not its complete mass.

[S16, S17, S1, S2] Complete PCSB masses and EWL; fitting dimensions and nominal bearing-stack calculation.

Screw-pin bow shackles

Crosby G-209 | 1-55 t in-line WLL | dimensions in mm

WLL t	Mass kg each	B: pin diameter	A: jaw opening	C: inside length	E: inside bow width
1	0.14	11.2	16.8	36.6	26.2
1.5	0.17	12.7	19.1	42.9	29.5
2	0.33	16	20.6	47.8	33.3
3.25	0.62	19.1	26.9	60.5	42.9
4.75	1.07	22.4	31.8	71.5	51
6.5	1.64	25.4	36.6	84	58
8.5	2.28	28.7	42.9	95.5	68.5
9.5	3.36	31.8	46	108	74
12	4.31	35.1	51.5	119	82.5
13.5	6.14	38.1	57	133	92
17	7.8	41.4	60.5	146	98.5
25	12.6	51	73	178	127
35	20.4	57	82.5	197	146
55	38.9	70	105	267	184



Crosby G-209 manufacturer drawing. Letters match the table; additional source dimensions are not listed.

Fit checks
B: pin into eye/lug hole.
A: jaw around lug thickness.
E: space in the bow.
C: crown to inner pin face.

Check tolerances and bearing suitability, not just whether the parts fit.

Hook height: pin axis to inside crown = C + B/2. For 4.75 t: 71.5 + 22.4/2 = **82.7 mm** (calculated). Match the mating eye datum; do not count the pin radius twice.

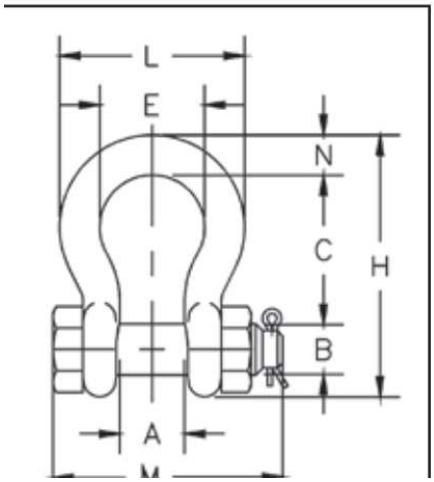
WLL is for centred in-line loading. Use Crosby side-load reductions where applicable. Two legs in the bow may use full WLL up to 120° included angle only under the manufacturer's stated symmetrical arrangement.

[S1] Crosby 2019 metric catalogue p.77. Original Crosby dimension drawing below.

Bolt-type bow shackles

Crosby G-2130 | higher-capacity selection | dimensions in mm

WLL t	Mass kg each	B: pin diameter	A: jaw opening	C: inside length	E: inside bow width
25	15.4	51	73	178	127
35	23.7	57	82.5	197	146
55	44.6	70	105	267	184
85	70	82.5	127	330	200
120	120	95.5	133	372	229
150	153	108	140	368	254



Same letter definitions
B: pin diameter.
A: jaw opening.
C: inside length.
E: inside bow width.

C + B/2 is the calculated pin-axis-to-inside-crown distance for the loaded in-line geometry.

Crosby G-2130 manufacturer drawing. Bolt, nut and cotter-pin retention are included in the selected product.

Select a complete, compatible connection
The larger shackle changes the accessory mass and the connection dimensions. Check pin-to-hole fit, jaw opening, bow seating and the actual loaded orientation. Use the G-2130 mass and geometry together; do not carry over a G-209 weight.

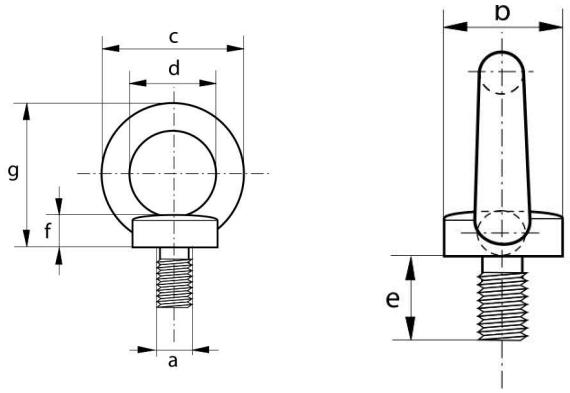
The table gives in-line WLL. Follow the exact Crosby instructions for side loading, multiple legs, pin retention and inspection. Add every separately supplied shackle to the gross load.

[S10] Crosby metric catalogue: G-2130 bolt-type anchor shackles. Separate product from G-209.

Fixed collared lifting eyes

Van Beest / Green Pin E-8140 | C15 steel | metric coarse thread | axial WLL only

Thread / pitch	WLL t	Mass kg	e thread	d clear eye	c outer eye	g height	h* bearing
M6 x 1.00	0.07	0.051	13	20	36	36	28
M8 x 1.25	0.14	0.055	13	20	36	36	28
M10 x 1.50	0.23	0.103	17	25	45	45	35
M12 x 1.75	0.34	0.169	20.5	30	54	53	41
M14 x 2.00	0.49	0.299	27	35	63	60	46
M16 x 2.00	0.7	0.307	27	35	63	62	48
M18 x 2.50	0.9	0.428	30	40	72	71	55
M20 x 2.50	1.2	0.424	30	40	72	71	55
M22 x 2.50	1.5	0.628	39	45	81	80	62
M24 x 3.00	1.8	0.908	36	50	90	90	70
M27 x 3.00	2.5	0.883	39	50	90	90	70
M30 x 3.50	3.2	1.59	45	60	108	109	85
M33 x 3.50	4.3	1.67	45	60	108	110	86
M36 x 4.00	4.6	2.35	54	70	126	128	100



Read the drawing
a: thread; e: thread projection.
d: clear eye diameter.
c: outer eye diameter.
g: height above seating face.

h* = g - (c - d)/2 is calculated seat-to-inside-crown height. Pin centre = h - pin diameter/2.

Original Van Beest E-8140 front and side views; additional drawing letters are not tabulated.

Axial pull only: this catalogue table does not publish numerical angled ratings for E-8140. Use a suitably rated swivel point for an angled pull. Do not substitute a generic eyebolt reduction factor.

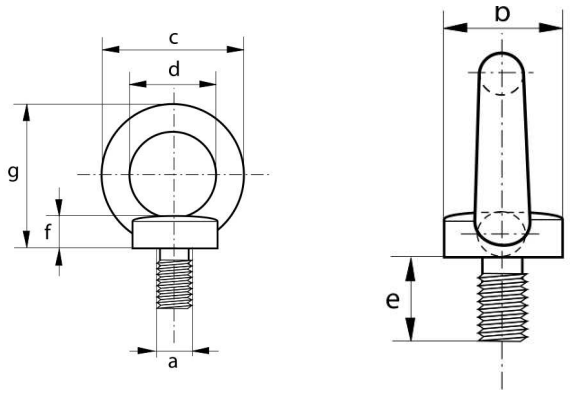
Seat the shoulder fully on a suitable flat face, with correct thread and adequate engagement in verified load material. Do not back off the eye to align it. Thread projection is not a universal required engagement. h* is derived, not a separately published dimension.

[S2] Van Beest lifting-eyes catalogue p.184. Mass each = published kg per 100 / 100.

Fixed collared lifting eyes - larger sizes

Van Beest / Green Pin E-8140 | C15 steel | metric coarse thread | axial WLL only

Thread / pitch	WLL t	Mass kg	e thread	d clear eye	c outer eye	g height	h* bearing
M39 x 4.00	6.1	2.66	54	70	126	130	102
M42 x 4.50	6.3	4.03	63	80	144	147	115
M45 x 4.50	8	5.21	63	80	144	150	118
M48 x 5.00	8.6	6.32	68	90	166	168	130
M56 x 5.50	11.5	8.79	78	100	184	187	145
M64 x 6.00	16	12.4	90	110	206	208	160
M72 x 6.00	20	22.93	100	140	260	260	200
M80 x 6.00	28	32	112	160	296	298	230
M100 x 6.00	40	48	130	180	330	330	255



Read the drawing
a: thread; e: thread projection.
d: clear eye diameter.
c: outer eye diameter.
g: height above seating face.

h* = g - (c - d)/2 is calculated seat-to-inside-crown height. Pin centre = h - pin diameter/2.

Original Van Beest E-8140 front and side views; additional drawing letters are not tabulated.

Axial pull only: this catalogue table does not publish numerical angled ratings for E-8140. Use a suitably rated swivel point for an angled pull. Do not substitute a generic eyebolt reduction factor.

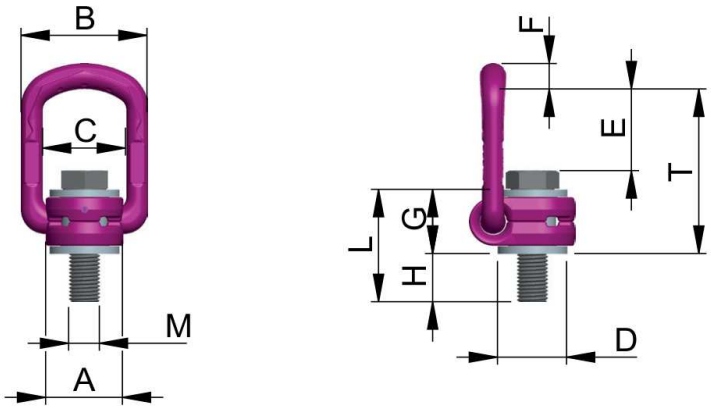
Seat the shoulder fully on a suitable flat face, with correct thread and adequate engagement in verified load material. Do not back off the eye to align it. Thread projection is not a universal required engagement. h* is derived, not a separately published dimension.

[S2] Van Beest lifting-eyes catalogue p.184. Mass each = published kg per 100 / 100.

Swivel lifting points

RUD VLBG-PLUS | standard-thread metric points | WLL per point | dimensions in mm

Thread	WLL t	Mass kg	H thread	C width	E space	F section	T bearing	Torque Nm
M8	0.63	0.3	11	34	40	10	75	30
M10	0.9	0.31	15	34	39	10	75	60
M12	1.35	0.34	18	34	38	10	75	150
M14	1.5	0.5	24	38	39	13.5	85	150
M16	2	0.55	22	38	39	13.5	85	150
M18	2	1.3	37	54	55	17	110	200
M20	3.5	1.3	32	54	55	17	110	400
M24	4.5	1.4	37	54	67	17	125	760



Original RUD standard-thread front and side views. Vario and Hmax dimensions are excluded from these tables.

Drawing key: H = standard thread projection; C = clear ring width; E = clearance above the bolt; F = ring material diameter; T = mounting face to inside crown. With the ring upright, outer envelope = T + F; connecting pin centre = T - pin diameter/2 (both calculated).

Exact part numbers: M8: 8504651; M10: 8504652; M12: 8504653; M14: 8504654; M16: 8504655; M18: 8504656; M20: 8504657; M24: 8504659.

Loading and installation

Use the full RUD load-direction and multiple-point chart at the back. For unsymmetrical loads, each point must be rated for the full load weight unless RUD confirms another arrangement. Same thread size can have different WLLs: match the part number.

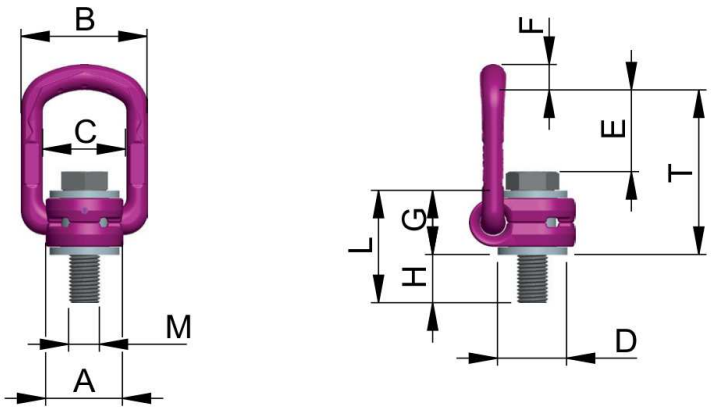
Torque tolerance is ±10%, applied as specified in the full RUD instructions. A correctly seated single lift may use spanner hand-tightening; permanent mounting and turning require the applicable torque and turning restrictions. H is not a universal minimum engagement rule.

[S3] RUD VLBG-PLUS V07, table 3. These current values differ from the historical Q45 VLBG range.

Swivel lifting points - larger sizes

RUD VLBG-PLUS | standard-thread metric points | WLL per point | dimensions in mm

Thread	WLL t	Mass kg	H thread	C width	E space	F section	T bearing	Torque Nm
M30	6.7	3.2	49	65	67	22.5	147	1000
M36 (7 t)	7	3.4	52	65	74	22.5	146	700
M36 (8 t)	8	6.2	63	82	97	26.5	196	800
M42 (10 t)	10	6.7	73	82	94	26.5	196	1000
M42 (15 t)	15	10.9	63	100	109	36	222	1500
M48	20	11.6	73	100	105	36	222	2000



Original RUD standard-thread front and side views. Vario and Hmax dimensions are excluded from these tables.

Drawing key: H = standard thread projection; C = clear ring width; E = clearance above the bolt; F = ring material diameter; T = mounting face to inside crown. With the ring upright, outer envelope = T + F; connecting pin centre = T - pin diameter/2 (both calculated).

Exact part numbers: M30: 8504661; M36 (7 t): 8500829; M36 (8 t): 7983553; M42 (10 t): 7983554; M42 (15 t): 7982966; M48: 7982967.

> **Loading and installation**
> Use the full RUD load-direction and multiple-point chart at the back. For unsymmetrical loads, each point must be rated for the full load weight unless RUD confirms another arrangement. Same thread size can have different WLLs: match the part number.

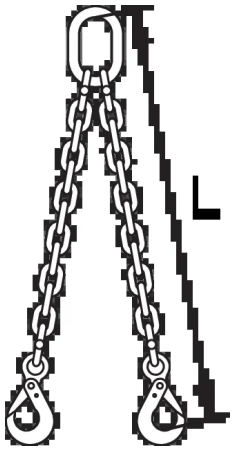
Torque tolerance is ±10%, applied as specified in the full RUD instructions. A correctly seated single lift may use spanner hand-tightening; permanent mounting and turning require the applicable torque and turning restrictions. H is not a universal minimum engagement rule.

[S3] RUD VLBG-PLUS V07, table 3. These current values differ from the historical Q45 VLBG range.

Chain slings - capacities

CERTEX Grade 8 complete assemblies | safety hooks and grab hooks | 8-26 mm chain

Chain mm	1 leg vertical t	2 legs 0-45° t	2 legs >45-60° t	4 legs 0-45° t	4 legs >45-60° t
8	2	2.8	2	4.25	3
10	3.15	4.25	3.15	6.7	4.75
13	5.3	7.5	5.3	11.2	8
16	8	11.2	8	17	11.8
20	12.5	17	12.5	26.5	19
22	15	21.2	15	31.5	22.4
26	21.2	30	21.2	45	31.5



CERTEX measurement guidance: effective sling length L is between bearing points. Principle diagram, not this assembly specification.

Effective working length
EWL includes the fitted end components. This is the complete sling length L shown here, not just bare chain.

Mass tables use the original supplied EWL, including any chain retained when shortening.

Use the rating of the complete assembly
Select the manufacturer's capacity for the number of legs and the angle band. Four legs must not be assumed to share equally. Do not multiply a single-leg WLL by four or use trigonometry to uprate the marked assembly.

The published 16 mm four-leg value at >45-60° is 11.8 t and is retained. Asymmetrical loads need their own assessment. These Certex data must not be transferred to Kuplex, Grade 10 or different fittings. The full Kuplex angle chart is retained separately for exercises naming that range.

[S4] CERTEX one-, two- and four-leg product sheets. Angle beta is measured from vertical.

Chain slings - complete masses

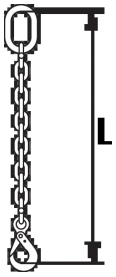
CERTEX Grade 8 | single- and two-leg assemblies | mass in kg | EWL in metres

Single-leg complete assembly (kg)

Chain mm	EWL 2 m	EWL 3 m	EWL 4 m	EWL 5 m	EWL 6 m	EWL 7 m	EWL 8 m
8	4.77	6.19	7.61	9.03	10.45	11.87	13.29
10	7.79	10.01	12.23	14.45	16.67	18.89	21.11
13	14.37	18.12	21.87	25.62	29.37	33.12	36.87
16	23.08	28.65	34.22	39.79	45.36	50.93	56.50
20	37.40	46.50	55.60	64.70	73.80	82.90	92.00
22	55.40	66.40	77.40	88.40	99.40	110.40	121.40
26	74.20	89.50	104.80	120.10	135.40	150.70	166.00

Two-leg complete assembly (kg)

Chain mm	EWL 2 m	EWL 3 m	EWL 4 m	EWL 5 m	EWL 6 m	EWL 7 m	EWL 8 m
8	9.28	12.11	14.94	17.77	20.60	23.43	26.26
10	15.44	19.88	24.31	28.74	33.17	37.60	42.03
13	28.06	35.56	43.06	50.56	58.06	65.56	73.06
16	45.32	56.46	67.60	78.74	89.88	101.02	112.16
20	70.10	88.30	106.50	124.70	142.90	161.10	179.30
22	105.70	127.70	149.70	171.70	193.70	215.70	237.70
26	141.40	172.00	202.60	233.20	263.80	294.40	325.00



Select the mass by **chain diameter, original EWL and number of legs**.

Add separately supplied shackles or eyes. Do not add the built-in top link or hooks again.

CERTEX: L is complete effective working length between bearing points; measurement principle only.

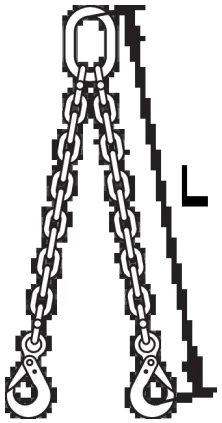
A shortened sling retains its unused chain and original mass. The table does not provide three-leg masses or lengths above 8 m; obtain the corresponding complete assembly figure for those variants.

[S4] Published complete assembly masses, including the fitted top assembly, safety hooks and grab hooks.

Four-leg chains and hook height

CERTEX Grade 8 complete four-leg assemblies | nominal mass in kg | EWL in metres

Chain mm	EWL 2 m	EWL 3 m	EWL 4 m	EWL 5 m	EWL 6 m	EWL 7 m	EWL 8 m
8	19.13	24.80	30.46	36.13	41.80	47.47	53.14
10	31.28	40.14	49.00	57.86	66.72	75.58	84.44
13	57.58	72.58	87.58	102.58	117.58	132.58	147.58
16	93.04	115.32	137.60	159.88	182.16	204.44	226.72
20	149.30	185.70	222.10	258.50	294.90	331.30	367.70
22	214.00	258.00	302.00	346.00	390.00	434.00	478.00
26	279.40	340.60	401.80	463.00	524.20	585.40	646.60



CERTEX measurement principle shown with two legs. Apply the stated complete EWL to the selected four-leg product.

EWL is not free inclined leg length.
The top assembly can remain vertical while the sling legs incline. Its rise must be added to the vertical projection of the free legs.

Allow for overlap at each connection.

> **Exact angled hook height**
> Use the selected sling's dimensioned assembly sketch or the instructor's stated top-link rise and free-leg geometry. Applying cos(beta) to the entire EWL can understate the required headroom. Do not invent a master-link allowance.

Where exact angled geometry is unavailable, obtain a verified maximum complete bearing-path length, including tolerance and load extension, and reserve that full length vertically. Nominal catalogue EWL alone is not a guaranteed maximum. A 26 mm, 8 m, four-leg assembly weighs **646.6 kg** before separate connectors.

[S4] Complete assembly data and CERTEX bearing-point measurement principle.

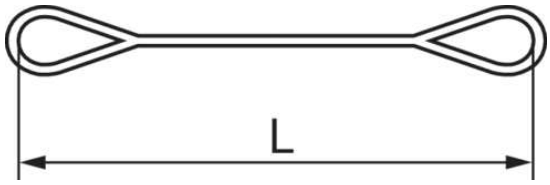
Webbing slings - POWERTEX

POWERTEX PWE polyester eye-and-eye slings | complete product masses | dimensions in mm

Straight WLL t	Colour	Choke t	Basket parallel t	Basket 0-45° t	Basket >45-60° t
1	Violet	0.8	2	1.4	1
2	Green	1.6	4	2.8	2
3	Yellow	2.4	6	4.2	3
4	Grey	3.2	8	5.6	4
5	Red	4	10	7	5
6	Brown	4.8	12	8.4	6
8	Blue	6.4	16	11.2	8
10	Orange	8	20	14	10

Complete PWE sling mass (kg)

WLL t	Body width	EWL 1 m	EWL 2 m	EWL 3 m	EWL 4 m	EWL 5 m	EWL 6 m	EWL 8 m	EWL 10 m
1	30	0.22	0.41	0.59	0.77	0.95	1.14	-	-
2	60	0.43	0.77	1.11	1.46	1.8	2.14	2.84	-
3	90	0.68	1.23	1.77	2.32	2.86	3.4	4.51	-
4	120	-	-	2.38	3.1	3.82	4.54	6.01	-
5	150	-	-	2.97	3.87	4.77	5.67	7.56	-
6	180	-	-	3.37	4.44	5.46	6.48	8.62	-
8	240	-	-	4.9	6.75	8	9.75	12.75	15.75
10	300	-	-	6.3	8.82	10.79	12.76	16.7	20.64



POWERTEX source length drawing: EWL includes the eyes, between inside bearing points.

Body width
Measured across the flat central webbing, perpendicular to its length. It is not the eye opening or the width of folded eye reinforcement.

Body detail by All Star Safety Ltd; schematic, not to scale.

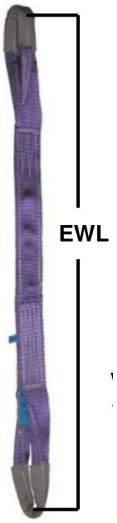
A dash means no mass is supplied here. Values are for the listed PWE variants ending 200. Basket/choke arrangements use length around the load; the full EWL is not vertical rise. Follow the original POWERTEX mode and protection guidance at the back.

[S5, S15] POWERTEX PWE variants and user manual. Angles are measured from vertical.

Webbing slings - 20 tonne range

LiftinGear WEB20XLG polyester duplex slings | 300 mm body width | orange

Straight WLL t	EWL m	Body width mm	Complete mass kg
20	10	300	45
20	12	300	60
20	18	300	75



SafetyLiftinGear / euroSling source product photo (left); LiftinGear EWL measurement example (right, smaller-capacity sling).

Body width = 300 mm across the central orange webbing, perpendicular to its length. The folded/reinforced eyes are not the body-width reference. **EWL includes both eyes**, measured inside bearing to inside bearing as shown.

The table gives the complete mass of the actual 20 t variant. Do not scale it from a smaller PWE sling. The source EWL example illustrates the measurement principle only.

> **Published 20 t mode ratings**
> Straight: **20 t**; choke: **16 t**; basket 0-7°: **40 t**; basket 0-45°: **28 t**; basket >45-60°: **20 t**. Angles are from vertical. Use the original LiftinGear chart at the back and its stated conditions. Allow for load wraps and protection in hook height.

Only the published 10 m, 12 m and 18 m complete masses are supplied. Do not interpolate intermediate lengths or derive kg/m from these entries. Add the mass of separate edge protection and connectors.

[S13] SafetyLiftinGear / LiftinGear WEB20XLG product specifications. Complete published masses only.

Roundslings - SpanSet Eco

SpanSet Round Sling Eco | 1-8 t straight-pull WLL | mass in kg | contact dimensions in mm

Straight WLL t	Colour	Contact width under load	Contact thickness under load
1	Purple	45	6
2	Green	48	7
3	Yellow	60	8
4	Grey	65	10
5	Red	75	10
6	Brown	80	13
8	Blue	80	15

Complete roundsling mass (kg)

Straight WLL t	EWL L1 2 m	EWL L1 3 m	EWL L1 4 m	EWL L1 5 m	EWL L1 6 m
1	0.6	0.9	1.2	1.5	1.8
2	1	1.5	2	2.5	3
3	1.2	1.92	2.4	3.19	3.6
4	1.6	2.79	3.2	4	4.8
5	2	3	4	5	6
6	2.6	3.9	5.2	6.5	7.8
8	3.6	5.4	7.2	9	10.8

SpanSet manufacturer drawing: L1 is effective working length (bearing-to-bearing).

Contact section under load
Width and thickness describe the flattened bearing area, not the unloaded sleeve or eye aperture.

Contact-section sketch by All Star Safety Ltd, not to scale; dimensions apply to the stated product.

The loop circumference is approximately twice L1. Do not double the table mass: it is one complete roundsling. Use the SpanSet sling label and instructions for basket/choke ratings; contact dimensions are not eye aperture dimensions.

[S6] SpanSet UK Round Sling Eco technical datasheet en-16. Individual product masses retained.

Roundslings - 20 to 40 tonnes

SpanSet Magnum-X SMART2 | heavy-duty range | straight-pull WLL | contact dimensions in mm

Straight WLL t	Contact width under load	Contact thickness under load
20	76	15
30	88	20
40	110	24

Complete roundsling mass (kg)

Straight WLL t	EWL L1 4 m	EWL L1 5 m	EWL L1 6 m	EWL L1 7 m	EWL L1 8 m
20	9.6	12	14.4	16.8	19.2
30	14.8	18.5	22.2	25.9	29.6
40	19.2	24	28.8	33.6	38.4

SpanSet manufacturer drawing: L1 is effective working length (bearing-to-bearing).

Contact section under load
Width and thickness describe the flattened bearing area, not the unloaded sleeve or eye aperture.

Contact-section sketch by All Star Safety Ltd, not to scale; dimensions apply to the stated product.

SpanSet Magnum-X SMART2 manufacturer product photograph.

Magnum-X SMART2 is a different construction from Eco. Use this product's masses and under-load contact dimensions together.

A 40 t, 8 m L1 sling weighs **38.4 kg**.

L1 is effective bearing-to-bearing reach, not loop circumference. Masses are the published complete net weights at each listed length; no extrapolation is used. Use the identified SpanSet label and instructions for basket/choke arrangements, bending and edge protection.

[S12] SpanSet Magnum-X SMART2 datasheet en-de-36. Complete net masses at the stated EWL.

Wire-rope slings

LES SlingSafe single-leg slings | 2 m effective working length | soft or thimble eyes at both ends

Rope diameter mm	Vertical WLL t	2 m soft eyes mass kg	2 m thimble eyes mass kg
5	0.3	0.28	0.38
6	0.4	0.41	0.51
8	0.8	0.73	0.85
9	1	0.92	1.08
10	1.2	1.14	1.3
11	1.6	1.38	1.54
12	1.8	1.65	2.03
13	2.1	1.93	2.31
14	2.5	2	2.68
16	3.2	2.82	3.5
18	4.1	3.31	4.55
19	4.6	3.98	5.22
20	5.1	4.86	5.76

LES SlingSafe source illustrations. EWL arrow added for the bearing-to-bearing measurement principle; illustrations are not to scale.

EWL includes the eyes and terminations. Select the mass for soft or thimble eyes at both ends. Rope diameter refers to the steel rope, not the ferrule or eye opening. Add separately supplied shackles/hooks.

These are vertical ratings. Obtain the exact product's mode/angle and bend-diameter guidance before basket or choke selection. The table does not state universal eye-opening dimensions or a reliable mass increment for longer slings; do not multiply the 2 m mass in proportion to length.

[S7] LES SlingSafe family specification table. Complete masses for the stated 2 m variants.

Wire-rope slings - larger capacities

LES SlingSafe single-leg slings | 2 m effective working length | soft or thimble eyes at both ends

Rope diameter mm	Vertical WLL t	2 m soft eyes mass kg	2 m thimble eyes mass kg
22	6.2	5.92	7.44
24	7.3	7.11	9.61
26	8.6	8.42	10.92
28	10	9.85	12.87
32	13.1	13.09	19.45
36	16.5	16.86	26.62
40	20.6	21.12	31.1
44	24.7	25.99	37.11
48	29.5	31.44	46.72
52	34.6	36.86	52.22

LES SlingSafe source illustrations. EWL arrow added for the bearing-to-bearing measurement principle; illustrations are not to scale.

EWL includes the eyes and terminations. Select the mass for soft or thimble eyes at both ends. Rope diameter refers to the steel rope, not the ferrule or eye opening. Add separately supplied shackles/hooks.

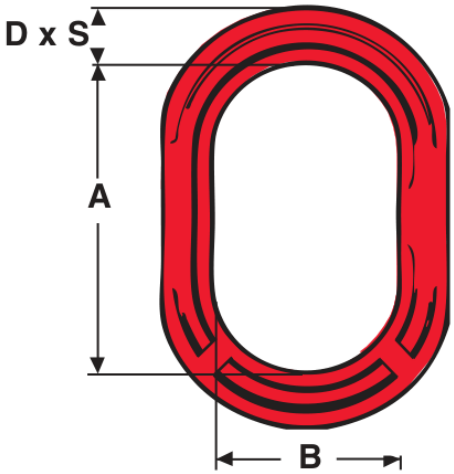
These are vertical ratings. Obtain the exact product's mode/angle and bend-diameter guidance before basket or choke selection. The table does not state universal eye-opening dimensions or a reliable mass increment for longer slings; do not multiply the 2 m mass in proportion to length.

[S7] LES SlingSafe family specification table. Complete masses for the stated 2 m variants.

Master links - Kuplex KM

Crosby Kuplex KM | full Grade 8 application column | dimensions in mm

KM reference	Grade 8 WLL t	Mass kg	A: inside length	B: inside width	Section D x S
KM-A	1.5	0.47	152	76	17 x 12
KM-B	3.2	0.81	152	76	22 x 14
KM-C	6.7	1.7	178	108	30 x 20
KM-D	12.8	4.06	228	127	40 x 27
KM-E	17	5.76	254	140	45 x 28
KM-F	24.1	10.56	305	171	53 x 36
KM-G	35.5	16.58	305	203	69 x 40
KM-HN	46	22.02	340	210	74 x 48



Dimension key
A: internal length.
B: internal width.
D x S: material section.

Match the crane hook and sling fittings against the available internal space and bearing geometry.

Original Crosby Kuplex KM drawing; D and S describe the oval material section.

Component capacity is not complete sling capacity
Select the complete sling arrangement using the manufacturer's chain-size and load-mode guidance. A bare KM link needs the correct auxiliary-link arrangement for three or four legs.

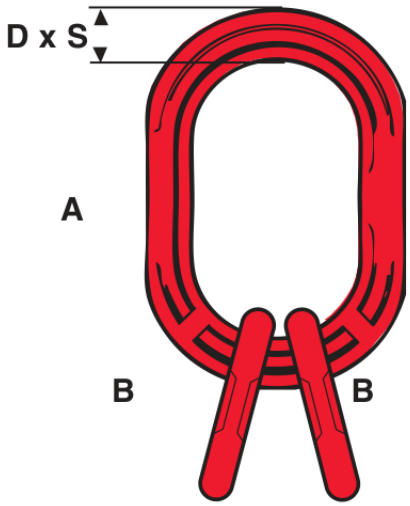
The Certex complete-sling masses already include their own top fittings. This table gives separate Kuplex components, not compulsory additional weights. Internal dimensions support fit checks; headroom depends on loaded orientation and connection overlap.

[S8] Crosby catalogue p.456 (2019); original KM drawing from Crosby 2011 catalogue p.430.

Master-link assemblies - Kuplex

Crosby Kuplex KMML | main link plus two lower links | Grade 8 column | dimensions in mm

Reference	Grade 8 WLL t	Complete mass kg	Link A inside L x W	Link B inside L x W
KMML7	3.2	1.15	152 x 76	63 x 34
KMML10	6.7	2.9	178 x 108	86 x 44
KMML13	12.8	6.18	228 x 127	113 x 70
KMML16	17	10.76	254 x 140	135 x 70
KMML19	23.6	20	305 x 171	155 x 85
KMML23	35.5	35	305 x 203	175 x 105
KMML26	45	48	340 x 210	220 x 135



Inside L x W
L: long internal opening.
W: short internal opening.

The table gives the main link opening and each lower link opening. Use the whole assembly mass once, including both lower links.

Crosby KMML: A identifies the main link; B identifies each lower link. These are component labels.

> **Three-/four-leg application**
> KMML is intended for three-/four-leg slings using the uniform-load method. Follow the manufacturer's complete chain-size selection table and the marked assembly WLL. A capacity match alone does not establish fitting compatibility.

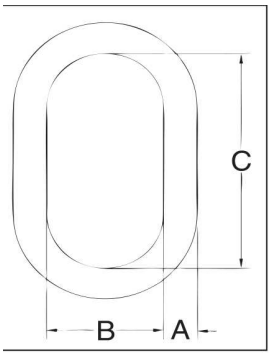
Do not add internal link lengths directly to obtain assembled headroom: the links overlap. Use the actual loaded bearing points. The built-in Certex top assembly is not replaced by this Kuplex example unless the exercise explicitly specifies that construction.

[S8] Crosby catalogue p.456 (2019); original KMML assembly image from Crosby 2011 catalogue p.430.

Larger master links - rope / textile

Crosby A-342 | selected larger sizes | rope and synthetic-sling application | dimensions in mm

Size mm	WLL t	Mass kg	A: section diameter	B: inside width	C: inside length
38W	27.7	8.44	38	150	267
44	38.5	11.4	44	152	305
51	46.5	16.8	51	178	356
57	64.9	24.5	57	203	406
63	72.6	31.1	63	213	406
70	98.4	42.6	70	251	457
76	103	52	76	251	457
83	119	66	83	254	508
89	126	91	89	305	610
95	152	90	95	254	508
102	169	120	102	305	610
108*	160	137	108	305	610
114*	163	156	114	356	711
121*	176	198	121	356	711
127*	179	234	127	381	762



A: round material diameter.
B: internal width.
C: internal length.

W denotes enlarged internal dimensions. * indicates the manufacturer's welded sizes; other listed rows are forged.

Original Crosby A-342 drawing. This family uses different dimension letters from Kuplex KM.

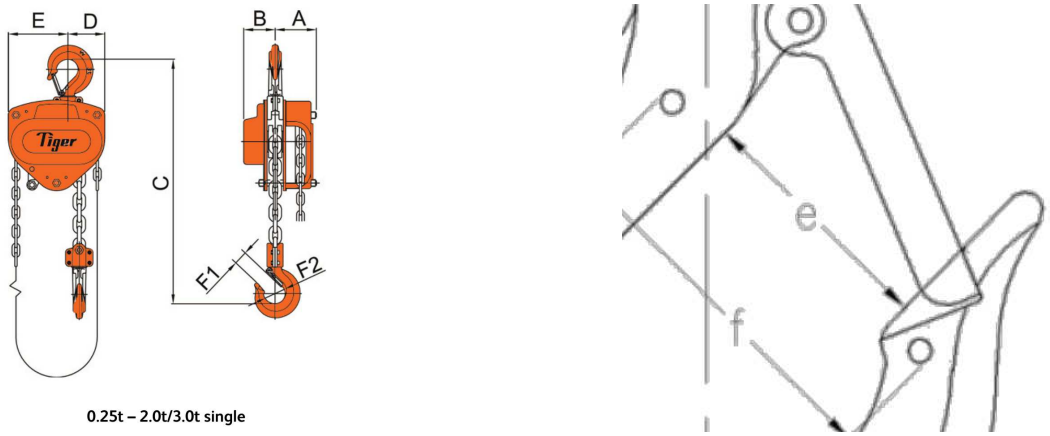
These are rope/textile-use ratings: one leg in line, or the resultant of multiple legs with included angle up to 120° under Crosby's stated conditions. For chain slings use the chain-specific selection table. Keep these masses and dimensions with this A-342 product.

[S11] Crosby 2017 catalogue p.160. Published WLL for rope/textile application, design factor 5:1.

Manual chain blocks

Tiger PROCB14 | standard hook-suspended models | mass at 3 m supplied height of lift

Product code	WLL t	Mass at 3 m kg	Extra mass kg/m lift	Closed headroom mm	e: hook opening mm
CB-0025	0.25	3.8	0.5	240	26
CB-0050	0.5	10.5	1.9	305	29
CB-0100	1	11.5	1.9	340	34
CB-0150	1.5	16	2.1	385	39
CB-0200	2	20	2.4	420	42
CB-0300	3	30.5	3.2	500	42
CB-0500	5	37.5	5.2	575	57
CB-0600	6	45.5	5.3	635	57
CB-0800	8	61	7.5	610	60
CB-1000	10	64	7.5	660	70



Original Tiger drawings: typical small-capacity C headroom and enlarged hook throat-opening e detail.

Closed headroom: minimum distance between the top and bottom hook bearing points. Tiger calls it **C in the table**; the 30/35 t drawing labels the same headroom **G**. Hook throat opening is **e** on the separate hook sketch, not F1/F2.

Mass for a longer supplied height of lift
Mass = table mass + (supplied lift - 3 m) x extra kg/m. Use the supplied chain length, not the current hook separation. For a 20 t block supplied with 6 m lift: 178.5 + 3 x 14.2 = **221.1 kg** (calculated).

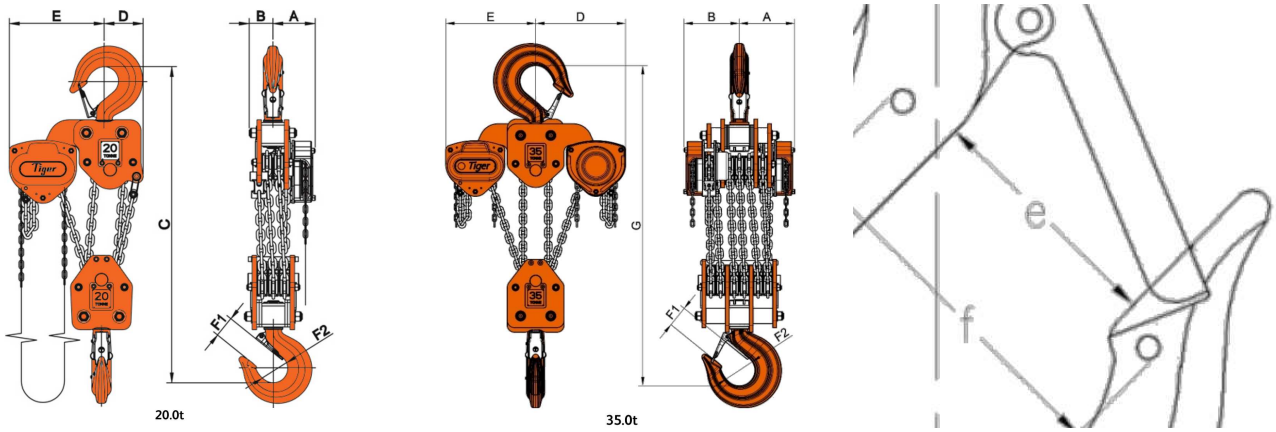
Use the planned operating hook separation for hook height; allow extra opening for levelling. Add complete hoist mass and any separate chain bag/connectors to the crane load. Alternate low-headroom/twin-head models and special chain arrangements need their own data.

[S9] Tiger PROCB14 technical sheet, 27 May 2026, specification and drawings pp.5-8.

Manual chain blocks - larger capacities

Tiger PROCB14 | standard hook-suspended models | mass at 3 m supplied height of lift

Product code	WLL t	Mass at 3 m kg	Extra mass kg/m lift	Closed headroom mm	e: hook opening mm
CB-1500	15	128.5	11.8	840	65
CB-2000	20	178.5	14.2	1050	90
CB-3000	30	307	23.8	1200	101
CB-3500	35	365	27	1200	101



Original Tiger drawings: 20 t (C), 35 t (G), and enlarged hook throat-opening e detail.

Closed headroom: minimum distance between the top and bottom hook bearing points. Tiger calls it **C in the table**; the 30/35 t drawing labels the same headroom **G**. Hook throat opening is **e** on the separate hook sketch, not F1/F2.

> **Mass for a longer supplied height of lift**
> **Mass = table mass + (supplied lift - 3 m) x extra kg/m.** Use the supplied chain length, not the current hook separation. For a 20 t block supplied with 6 m lift: 178.5 + 3 x 14.2 = **221.1 kg** (calculated).

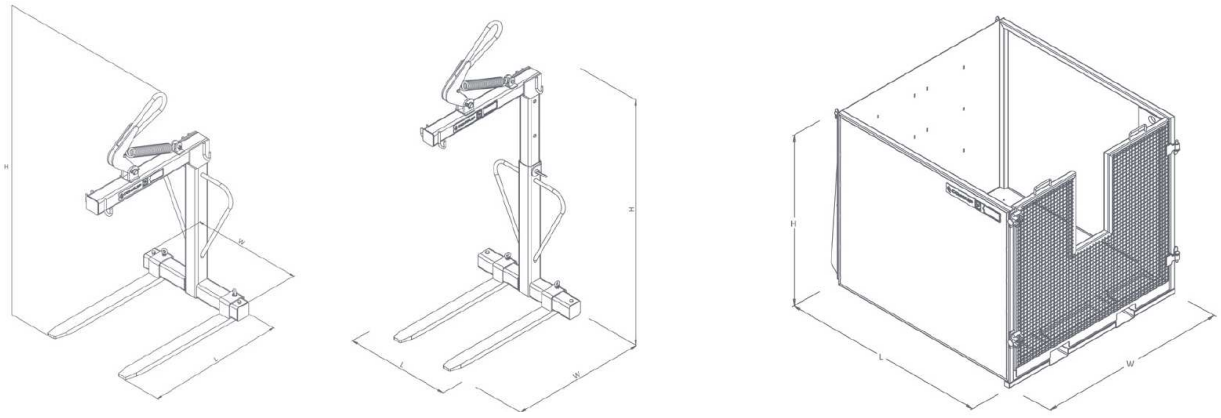
Use the planned operating hook separation for hook height; allow extra opening for levelling. Add complete hoist mass and any separate chain bag/connectors to the crane load. Alternate low-headroom/twin-head models and special chain arrangements need their own data.

[S9] Tiger PROCB14 technical sheet, 27 May 2026, specification and drawings pp.5-8.

Crane forks and matching cage

Conquip self-levelling forks and CA147AC cage | WLL in t; mass in kg; dimensions in mm

Product / model	WLL t	Unit mass kg	L mm	W mm	H overall mm
Fixed forks CA102AE-02000	2.0	150	1180	940	1960
Telescopic forks CA103-02000	2.0	190	1200	950	1975-2600
Matching cage CA147AC-02000	2.0	440	1540	1390	1290



Original Conquip drawings: fixed and telescopic forks (left); matching cage (right). L, W and H are overall envelopes.

Dimension key: L = overall length; W = overall width; H = overall illustrated height. The telescopic H column gives the published minimum and maximum. H is not a measured working hook-bearing height; the self-levelling lifting eye moves.

> **Count the cage mass and reduce available payload**
> Fixed forks + cage: 150 + 440 = **590 kg**. Telescopic forks + cage: 190 + 440 = **630 kg**.
> These are accessory subtotals before the upper sling, separate connectors or additional restraint.
> Forks WLL limits pallet plus contents to **2000 - 440 = 1560 kg** (calculated). Add the forks' own mass at the crane hook.

Conquip recommends the matching cage; the minimum alternative is its specified Safety Restraint Net, whose mass must be added. Seat forks fully in the cage pockets, latch the door and secure the pallet load. Keep tines equally spaced and set telescopic height to the load.

For hook height, establish the actual hook-bearing-to-load-support rise of the assembled forks, cage and upper rig. The forks manual's prose and H2 clearance table disagree; H2 values are therefore not used here.

[S18] Forks instructions and drawings | [S19] Cage instructions and drawings

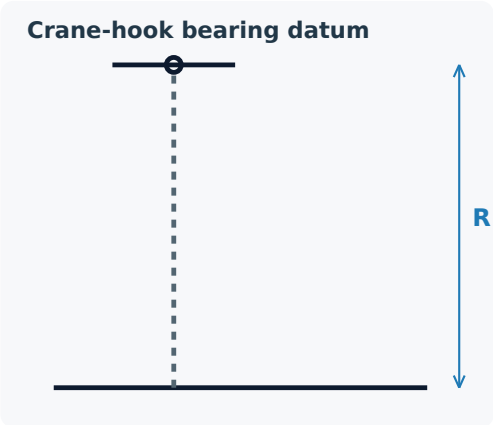
[S18-S19] Conquip Crane Forks Issue 07 and Crane Forks Cage Issue 10 (2025), specification drawings.

Skip lifting cradle - selection record

Complete this record for the exact cradle and skip before adding them to the lift plan

A cradle supports a skip through its designed load path. Compatibility depends on the actual skip footprint, support positions, containment and rigging. A skip capacity in cubic yards does not establish its mass or lifting suitability.

Identification / evidence	Record for this arrangement
Cradle maker, model and serial	_____
Manufacturer drawing / instructions	_____
Cradle WLL and permitted configuration	_____
Skip identity, footprint and support fit	_____
Upper / lower rig and angle restrictions	_____



Cradle load-support plane

All Star Safety datum sketch; schematic only. It does not show or approve a cradle or rigging arrangement.

R: actual working rise
Measure from the surface supporting the skip to the crane-hook bearing datum with the selected rig in its planned working geometry.

Record R on the arrangement drawing. An overall frame height or a chain length alone does not establish R.

Mass item	kg	Evidence / inclusion scope
Empty skip	_____	_____
Contents	_____	_____
Complete cradle, chains and fittings	_____	_____
Separate upper rig / protection	_____	_____
Physical gross suspended mass	_____	Sum once; resolve included fittings

Check: skip plus contents against the cradle rating; complete gross load against the upper rig and crane capacity. Confirm the support and restraint arrangement with the manufacturer. Record R = _____ mm and the required hook-bearing elevation on the lift-plan drawing.

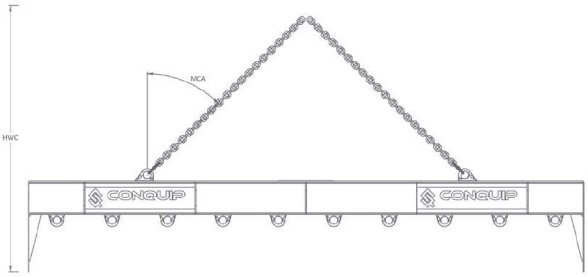
No source-verified cradle product table is provided in this edition. Use the issued manufacturer data or a verified complete-assembly weighing record; do not substitute a similar model's rating, frame-only mass or overall height.

All Star Safety measurement worksheet. No generic cradle WLL, tare or working height is assumed.

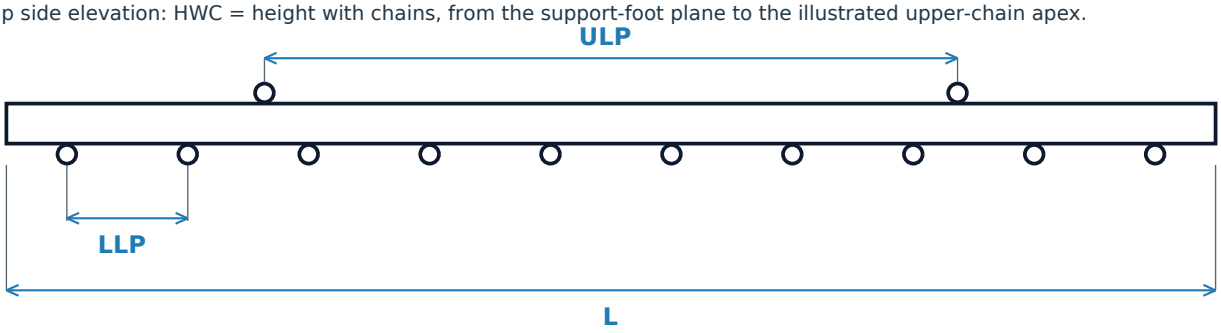
Lifting beams - Conquip

Three standard lengths | each model WLL 5.0 t | dimensions in mm; published unit mass in kg

Model	WLL t	Unit mass kg	L mm	ULP mm	LLP mm	HWC mm
CA233-05000	5.0	170	3000	1986	500	1900
CA235-05000	5.0	260	5000	2866	500	2400
CA237-05000	5.0	350	7000	4000	500	3000



Conquip side elevation: HWC = height with chains, from the support-foot plane to the illustrated upper-chain apex.



All Star Safety dimension schematic from Conquip data; 5 m arrangement shown, not to scale. Match ULP and L to the model row.

L = overall beam length; **ULP** = upper lifting-point centre spacing; **LLP** = marked lower-point pitch. The 7 m model has a larger central gap. **HWC** is an envelope, not the rise between lower and upper loaded bearing points.

> **Confirm the full suspended mass**
> The manual publishes **170 / 260 / 350 kg** as unit weights without identifying whether upper chains and connectors are included. Confirm the issued assembly scope, then add every excluded upper/lower sling, connector and protection item. Do not label these unit figures as complete rigged tare.

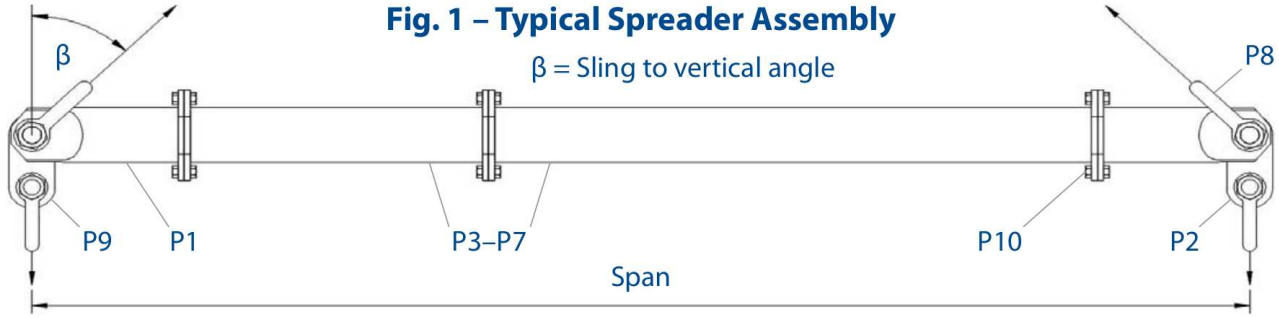
Use both upper attachment points. Maximum upper-chain angle is **45° from vertical** (MCA on the drawing). Balance the load over the selected lower points; use suitable chains and tag lines for long loads. The rating is **5.0 t for all three models**, not per lower point.

Exact hook-height planning still needs the selected lower rigging, loaded connector overlaps and upper bearing datum. [S20] Original instructions and all dimension tables

[S20] Conquip Lifting Beam User Guide Issue 04 (2025), printed pp.5-9; original geometry shown.

Modular spreader - Modulift MOD 6

Three manufacturer configurations | span in m | angles beta measured from vertical | mass in kg



Original Modulift MOD 6 schematic: Span is between end suspension locations; beta is the sling-to-vertical angle.

Span m	Struts between two end units	SWL at 30° t	SWL at 45° t	Known hardware subtotal kg
1.0	1 x 0.6 m	6.0	6.0	16.2
2.4	2 x 1.0 m	6.0	6.0	27.0
3.6	3 x 1.0 m + 1 x 0.2 m	6.0	3.0	37.8

Drawing key: P1 = end unit; P2 = drop link; P3-P7 = struts; P8/P9 = upper/lower beam shackles; P10 = flange fasteners. Each end unit contributes 0.2 m to Span. Strut values above are module lengths, not the assembled Span.

> **These subtotals are not complete tare**
> Each calculated subtotal includes two end units, the listed struts, two drop links, two 4.75 t upper shackles and two 3.25 t lower shackles. It **excludes all flange fasteners, upper/lower sling assemblies and other connectors**. Add verified masses for those items before calculating gross suspended mass.

At **30° from vertical**, the chart requires minimum lengths of **1.0 / 2.4 / 3.6 m for each upper sling** at the respective spans. Select actual slings against the original chart. Sling length is not vertical rise; include the top fitting and the loaded connection geometry.

Restrictions: beta no more than 45°; lower legs no more than 6° from vertical; load only through drop links. Maximum five struts, longest towards the centre. Four specified fastener sets per joint, tightened to 60 Nm. Wire-rope thimble eyes limit beta to 30°. Check the current instructions for the supplied equipment.

The schematic does not dimension vertical bearing offsets, so it cannot establish exact hook-height loss. [S21] Original manufacturer instructions / load chart | Current official MOD 6 component table

[S21] Modulift MOD 6 UK July 2015 instructions pp.1-2; component masses checked against current official table.

Accessory arrangement comparison

Print a copy for each lift; compare the specified options before choosing one

Load / scenario	Arrangement A	Arrangement B
Net mass and evidence	_____	_____
Lift-point spacing / centre of gravity	_____	_____
Controlling angle limit / source	_____	_____

Accessory / part / length	Qty A	Mass A kg	Qty B	Mass B kg
Load lifting points / eyes				
Shackles / separate connectors				
Complete sling assembly				
Beam / forks / cradle / hoist				
Protection / other suspended items				
Total accessory mass				
Gross suspended mass incl. net load				

Height / capacity checks	Arrangement A	Arrangement B
Target underside elevation, including clearance	_____	_____
Load underside to lower rigging datum (vertical)	_____	_____
Lower fittings: vertical contribution	_____	_____
Inclined free-leg vertical rise	_____	_____
Top fittings / hoist / beam rise	_____	_____
Required crane-hook bearing height	_____	_____
Crane available height and capacity	_____	_____

Allowance: ____% applied to _____ kg because _____.
Separate planning figure: _____ kg. **Crane chart basis / deductions:** _____.
Selected arrangement / reason: _____.
AP / date / checked drawing reference: _____.

Mass columns contain quantity × mass each. Exclude lifting points or other items already included in the documented net load mass. Height entries must share a continuous set of bearing datums. Check component fit and restrictions as well as the arithmetic.

Sources and reference charts

Manufacturer / named product sources | editions checked 13 September 2026

[S1] Crosby G-209 shackles - 2019 catalogue, p.77; application guidance p.94.
Open source document / product page

[S2] Van Beest E-8140 fixed lifting eyes - 2019 lifting-eyes catalogue, pp.173 and 184 (PDF pp.2 and 13).
Open source document / product page

[S3] RUD VLBG-PLUS - Instructions V07: load ratings p.7, dimensions/torque p.8, use pp.3-5.
Open source document / product page

[S4] Certex Grade 8 complete chain slings - Two-leg sheet; use the linked one-/four-leg sheets below.
Open source document / product page

[S5] POWERTEX PWE webbing slings - Specific product variants; mode ratings from user manual dated 17 June 2026.
Open source document / product page

[S6] SpanSet Round Sling Eco - UK technical datasheet, en-16: selected complete masses and contact dimensions.
Open source document / product page

[S7] LES SlingSafe wire-rope slings - Single-leg specification table: 2 m soft-eye and thimble-eye variants.
Open source document / product page

[S8] Crosby Kuplex master links - 2019 catalogue, p.456: KM and KMML, Grade 8 application column.
Open source document / product page

Additional CERTEX assembly sheets: one-leg | four-leg. **Crosby:** shackle application guidance.

> **Working conventions**
> Use the product, construction, mode and length stated on each page. Nominal catalogue data do not verify attachment-point or load strength. Do not interpolate unlisted masses or transfer capacities between families. Keep assumptions from the exercise separate from manufacturer ratings.

Sources and reference charts - continued

Manufacturer / named product sources | editions checked 13 September 2026

[S9] Tiger PROCB14 chain blocks - Technical sheet dated 27 May 2026, pp.5-6 and 8.
Open source document / product page

[S10] Crosby G-2130 bolt-type shackles - 2019 metric table, p.79; source drawing from the same G-2130 family.
Open source document / product page

[S11] Crosby A-342 master links - 2017 metric catalogue p.160: rope/textile application.
Open source document / product page

[S12] SpanSet Magnum-X SMART2 - Heavy roundsling data: direct WLL, contact dimensions and complete net masses.
Open source document / product page

[S13] LiftinGear WEB20XLG - 20 t duplex webbing product; selected published complete masses.
Open source document / product page

[S14] CERTEX sling measurement guidance - Effective length L measured between bearing points.
Open source document / product page

[S15] POWERTEX PWE larger variants - Traction Levage: same PWE part range, including 8 t and 10 t masses.
Open source document / product page

Page(s)	Reference	Use
36	Crosby Kuplex 8+10	Full single / two / three-four / endless angle chart.
37-38	RUD VLBG: legacy Q45	Exact historical capacities and dimensions.
39-40	RUD VLBG-PLUS	Current manufacturer load matrix and dimensions.
41	POWERTEX	Original textile mode diagrams and guidance.
42	LiftinGear	Original webbing mode chart.

Keep Q45 VLBG separate from VLBG-PLUS. Crosby Kuplex original chart; LiftinGear webbing chart. Manufacturer names are retained with all extracted drawings; explanatory dimension sketches are labelled as such.

Additional sources and issue notes

Assemblies, handling attachments and All Star Safety planning guidance

[S16] POWERTEX PCSB complete chain assemblies
Open source document / manufacturer page

[S17] YOKE Extreme-100 catalogue No.8-2022
Open source document / manufacturer page

[S18] Conquip Crane Forks User Guide, Issue 07
Open source document / manufacturer page

[S19] Conquip Crane Forks Cage User Guide, Issue 10
Open source document / manufacturer page

[S20] Conquip Lifting Beam User Guide, Issue 04
Open source document / manufacturer page

[S21] Modulift MOD 6 original user instructions, July 2015
Open source document / manufacturer page

[S22] Modulift MOD 6 current product and component data
Open source document / manufacturer page

[G1] HSE L113: Safe use of lifting equipment
Open source document / manufacturer page

> **Reading the data correctly**
> Manufacturer-authored material is identified even where hosted by a supplier. Supplier product tables are labelled as such. A calculated dimension or mass subtotal is marked separately from a published complete assembly value. Blank or unconfirmed fields need equipment-specific information; they do not mean zero.

Issue 3 adds the agreed course allowances and angle conventions, arrangement comparisons, optional handling attachments, an AP worksheet and All Star Safety branding. The legacy Q45 appendix is for exercises identifying that historical range. No manufacturer endorsement of this compilation is implied.

Sources checked 13 September 2026. Follow the edition and actual equipment supplied for the lift.

Crosby Kuplex 8+10 - full angle chart

Use the grade and sling arrangement specified by the exercise. The main mass examples are different named products.

Crosby® Kuplex®

KUPLEX 8 +10™

WORKING LOAD LIMITS - TONNES

The working load limits (WLL) listed in the table below are the maximum weights which slings are designed to carry in general lifting service according to the standard uniform load method of rating.

In exceptionally hazardous conditions or in any other circumstances which might indicate a need for a WLL lower than the designed figure, the degree of hazard should be assessed by a competent person and the working load limit adjusted accordingly. The WLL, which should be marked on the sling itself, or on a securely fixed metal tag, must not be exceeded in any circumstances.

Chain Dia. mm	Grade	Single Leg	Two Leg		Three and Four Leg		Endless
			0°< ß ≤ 45°	45°< ß ≤ 60°	0°< ß ≤ 45°	45°< ß ≤ 60°	
		Factor 1	Factor 1.4	Factor 1	Factor 2.1	Factor 1.5	Factor 1.6
7	8	1.5	2.12	1.5	3.15	2.24	2.5
7	10	2	2.8	2	4.2	3	3.2
8	8	2	2.8	2	4.2	3	3.2
10	8	3.15	4.25	3.15	6.7	4.75	5
10	10	4.0	5.6	4	8.4	6	6.4
13	8	5.3	7.5	5.3	11.2	8	8.5
13	10	6.7	9.5	6.7	14	10	10.7
16	8	8	11.2	8	17	11.8	12.5
16	10	10	14	10	21.2	15	16
19	8	11.2	16	11.2	23.6	17	18
19	10	14	20	14	30	21	22.4
23	8	16	23.6	16	35.5	25	26.5
23	10	21	29.5	21	44	31.5	33.5
26	8	21.2	30	21.2	45	31.5	33.5
26	10	27	38	27	57	40	43
32	8	31.5	45	31.5	67	47.5	50
32	10	40	56	40	85	60	65

CROSBY KUPLEX Grade 8 working load limits are in accordance with EN 818-4

Never exceed the working load limit marked on the sling.
Never use a sling at angles greater than 60˚ from the vertical.

The load imposed on a sling leg increases as the angle of the leg from vertical increases.

Account is taken of this fact when calculating working load limits. For example, a 10mm two-leg sling to be used at angle of 45˚ from the vertical (90˚ included angle) will have a WLL 1.4 times that of a 10mm single leg sling when used vertical, and not 2 times the single leg. That same working load limit applies to all angles from 0˚ -45˚ (0˚ -90˚ included angle.) Where there is likely to be a need to use a sling at an angle greater that 45˚ from the vertical, the sling should have additional markings showing the reduced WLL applying at angles from 45˚ -60˚ from the vertical (included angles from 90˚ -120˚). Refer to 'Restrictions on the Angles of Use' on page 441.

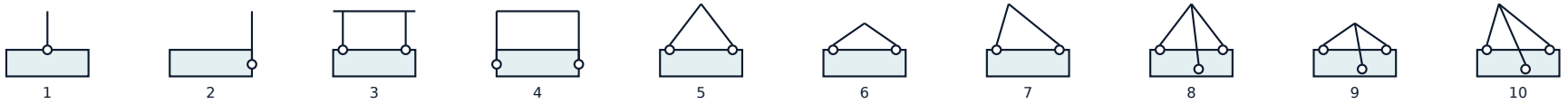
Alternative method of rating.

An alternative method of rating may be used for specific lifting application where the angle at which the slings legs are disposed is predetermined. This method allows greater working load limits at angles less than 45˚ from the vertical, always assuming that the sling legs are disposed symmetrically with each leg accepting an equal share of the load to be lifted. For further details refer to your Crosby KUPLEX distributor.

Trawlex & Kuplex Products

RUD VLBG - legacy Q45 loading chart

Faithful transcription of the supplied historical sheet. Use these values for Q45 when that VLBG range is specified.



VLBG / thread	1: one axial 0°	2: one side 90°	3: two axial 0°	4: two side 90°	2 points 0-45°	2 points >45-60°	2 points asymm.	3/4 points 0-45°	3/4 points >45-60°	3/4 points asymm.
Source factor	1	1	2	2	1.4	1	1	2.1	1.5	1
M8 / 0.3 t	0.3	0.3	0.6	0.6	0.42	0.3	0.3	0.63	0.45	0.3
M10 / 0.63 t	0.63	0.63	1.26	1.26	0.88	0.63	0.63	1.32	0.95	0.63
M12 / 1 t	1.0	1.0	2.0	2.0	1.4	1.0	1.0	2.1	1.5	1.0
M16 / 1.5 t	1.5	1.5	3.0	3.0	2.1	1.5	1.5	3.15	2.25	1.5
M20 / 2.5 t	2.5	2.5	5.0	5.0	3.5	2.5	2.5	5.25	3.75	2.5
M24 / 4 t	4.0	4.0	8.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
M27 / 4 t	4.0	4.0	8.0	8.0	5.6	4.0	4.0	8.4	6.0	4.0
M30 / 5 t	5.0	5.0	10.0	10.0	7.0	5.0	5.0	10.5	7.5	5.0
M36 / 6.5 t	6.5	6.5	13.0	13.0	9.1	6.5	6.5	13.6	9.75	6.5
M36 / 8 t	8.0	8.0	16.0	16.0	11.2	8.0	8.0	16.8	12.0	8.0
M42 / 10 t	10.0	10.0	20.0	20.0	14.0	10.0	10.0	21.0	15.0	10.0
M42 / 15 t	15.0	15.0	30.0	30.0	21.0	15.0	15.0	31.5	22.5	15.0
M48 / 20 t	20.0	20.0	40.0	40.0	28.0	20.0	20.0	42.0	30.0	20.0

All capacities are total load weight in tonnes for the arrangement shown by the source. Columns 1-4: pull is 0° or 90° to the bolt axis. Inclined multi-leg columns: beta is measured from vertical. Points must be bolted correctly and aligned to the pull. The source asymmetrical columns use factor 1; do not apply the symmetrical multipliers to an unequal arrangement.

The source labels its sloping bands 0-45° and 45-60°; this copy shows the second band as >45-60° to avoid a duplicate boundary. These historical values are not interchangeable with the new VLBG-PLUS chart on page 39.

Source: trainer-supplied Q45 handout.pdf, page 1. Historical VLBG; not VLBG-PLUS.

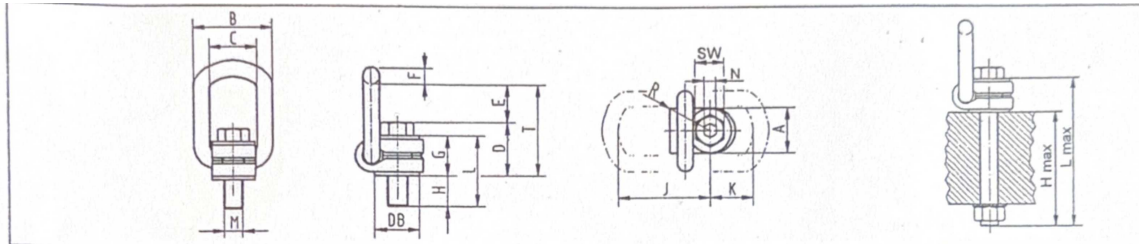
RUD VLBG - legacy Q45 dimensions

Selected columns transcribed from the same historical Q45 chart; dimensions in mm and mass per point in kg.

VLBG / thread	WLL t	Mass kg	H standard thread	C clear width	E clear space	F ring diameter	T source height	Torque Nm
M8 / 0.3 t	0.3	0.4	11	34	40	10	75	30
M10 / 0.63 t	0.63	0.4	16	34	39	10	75	60
M12 / 1 t	1	0.4	21	34	38	10	75	100
M16 / 1.5 t	1.5	0.5	24	36	39	13.5	85	150
M20 / 2.5 t	2.5	1.1	32	54	55	16.5	110	250
M24 / 4 t	4	1.2	37	54	52	16.5	110	350
M27 / 4 t	4	3.1	39	65	69	22.5	147	400
M30 / 5 t	5	3.3	49	65	67	22.5	147	500
M36 / 6.5 t	6.5	3.4	52	65	74	22.5	146	650
M36 / 8 t	8	5.8	63	82	97	26.5	197	800
M42 / 10 t	10	6.4	73	82	84	26.5	197	1000
M42 / 15 t	15	10.9	63	100	110	36	222	1500
M48 / 20 t	20	11.6	73	100	105	36	222	2000

T = mounting face to inside crown with the ring upright. For a connecting pin at the crown, its centre is T - pin diameter/2 above the mounting face. Top envelope = T + F (derived). Side-mounted or tilted rings need their actual geometry. H is thread projection, not a universal required engagement length.

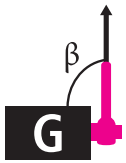
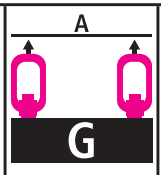
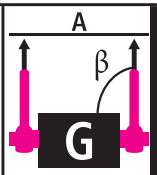
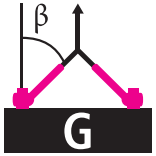
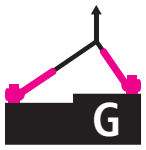
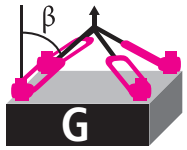
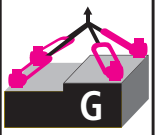
Thread entries identify metric variants. The old source also lists selected imperial equivalents; they are not substituted here. Standard/vario versions and special bolts are different products. Installation torque above is the historical source figure; use the applicable complete instructions for actual equipment.



Source: trainer-supplied Q45 handout.pdf, page 1. RUD attribution retained; selected legacy dimensions transcribed, source diagram below.

RUD VLBG-PLUS - manufacturer load matrix

Current alternative range. This is not the historical VLBG data used in Q45. Capacities are whole-arrangement WLL in tonnes.

Method of lift											
Number of legs		1	1	2	2	2	2	2	3 / 4	3 / 4	3 / 4
Angle of inclination <ß		0°-7°	90°	0°-7°	90°	0-45°	>45-60°	Un-symm.	0-45°	>45-60°	Un-symm.
factor		1	1	2	2	1.4	1	1	2.1	1.5	1
Type	Thread	**WLL in tonnes**. bolted and adjusted to the direction of pull									
VLBG-PLUS 0.63 t	M 8	0.63	0.63	1.26	1.26	0.88	0.63	0.63	1.32	0.95	0.63
VLBG-PLUS 0.9 t	M 10	0.9	0.9	1.8	1.8	1.3	0.9	0.9	1.9	1.35	0.9
VLBG-PLUS 1.35 t	M 12	1.35	1.35	2.7	2.7	1.9	1.35	1.35	2.84	2	1.35
VLBG-PLUS 1.5 t	M 14	1.5	1.5	3	3	2.1	1.5	1.5	3.15	2.15	1.5
VLBG-PLUS 2 t	M 16	2	2	4	4	2.8	2	2	4.25	3	2
VLBG-PLUS 2 t	M 18	2	2	4	4	2.8	2	2	4.25	3	2
VLBG-PLUS 3.5 t	M 20	3.5	3.5	7	7	4.9	3.5	3.5	7.35	5.25	3.5
VLBG-PLUS 4.5 t	M 24	4.5	4.5	9	9	6.3	4.5	4.5	9.5	6.75	4.5
VLBG-PLUS 6.7 t	M 30	6.7	6.7	13.4	13.4	9.5	6.7	6.7	14.1	10	6.7
VLBG-PLUS 7 t	M 36	7	7	14	14	9.8	7	7	14.7	10.5	7
VLBG-PLUS 8 t	M 36	8	8	16	16	11.2	8	8	17	11.8	8
VLBG-PLUS 10 t	M 42	10	10	20	20	14	10	10	21.2	15	10
VLBG-PLUS 15 t	M 42	15	15	30	30	21.2	15	15	31.5	22.4	15
VLBG-PLUS 20 t	M 48	20	20	40	40	28	20	20	42	30	20

At a lift with one strand and two parallel strands where the inclination angles are at the max. ± 7°. the lifting methode can be assumed as a vertical lift.

When lifting with two. three or four leg lifting means. inclination angles of less than 15° shall be avoided. if possible (Risk of instability).

RUD VLBG-PLUS V07, table 2, metric portion of page 7. Original diagrams and numerical values retained.

RUD VLBG-PLUS - dimensions

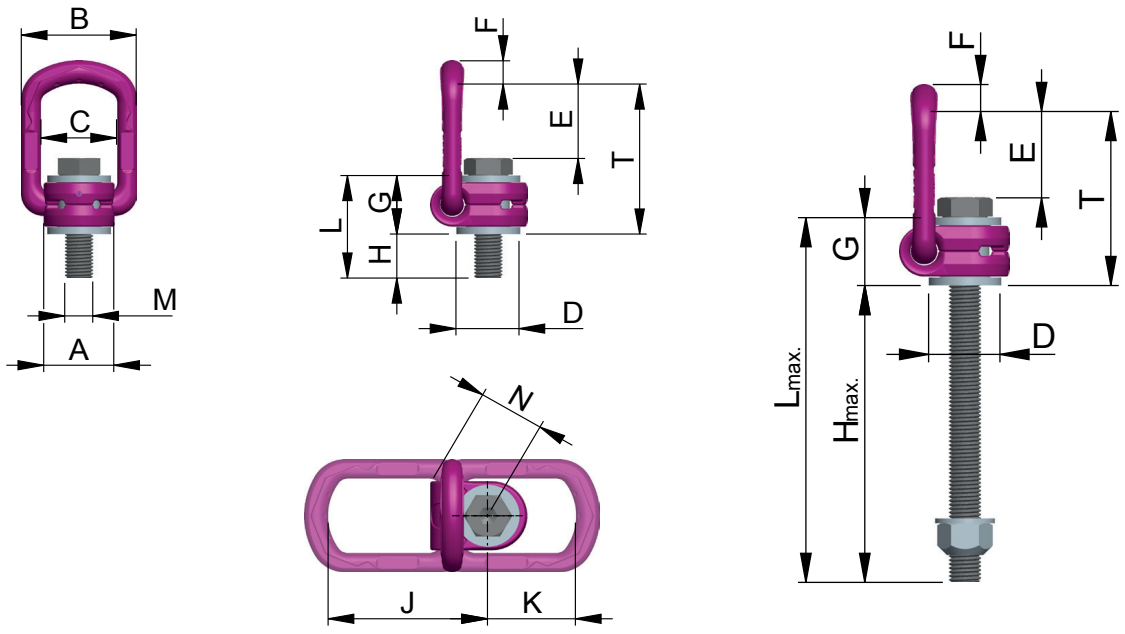
Original manufacturer table and dimension drawings. Match the part, standard/vario thread and WLL.

Type	WLL [t]	weight [kg]	A [mm]	B [mm]	C [mm]	D [mm]	E [mm]	F [mm]	G [mm]	H stand [mm]	H max [mm]	J [mm]	K [mm]	L Stand [mm]	L max [mm]	M	N [mm]	SW	ISK	T [mm]	torque	Art.-No.	
																						Standard	Vario
VLBG-PLUS 0.63t M8	0.63	0.3	30	52	34	24	40	10	29	11	76	75	45	40	105	8	32	13	5	75	30 Nm	8504651	8600470
VLBG-PLUS 0.9t M10	0.9	0.31	30	52	34	24	39	10	29	15	96	75	45	44	125	10	32	17	6	75	60 Nm	8504652	8600471
VLBG-PLUS 1.35t M12	1.35	0.34	32	52	34	26	38	10	29	18	116	75	45	47	145	12	32	19	8	75	150 Nm	8504653	8600472
VLBG-PLUS 1.5t M14	1.5	0.5	34.5	56	38	30	39	13.5	36	24	34	86	47	60	70	14	38	24	10	85	150 Nm	8504654	8600473
VLBG-PLUS 2t M16	2	0.55	34.5	56	38	30	39	13.5	36	22	149	86	47	58	185	16	38	24	10	85	150 Nm	8504655	8600474
VLBG-PLUS 2t M18	2	1.3	50	82	54	45	55	17	43	37	222	113	64	80	90	18	48	30	12	110	200 Nm	8504656	--
VLBG-PLUS 3.5t M20	3.5	1.3	50	82	54	45	55	17	43	32	187	113	64	75	230	20	48	30	12	110	400 Nm	8504657	8600476
VLBG-PLUS 4.5t M24	4.5	1.4	50	82	54	45	67	17	43	37	222	130	78	80	265	24	48	36	14	125	760 Nm	8504659	8600478
VLBG-PLUS 6.7t M30	6.7	3.2	60	103	65	60	67	22.5	61	49	279	151	80	110	340	30	67	46	17	147	1000 Nm	8504661	8600480
VLBG-PLUS 7t M36	7	3.4	60	103	65	60	74	22.5	55	52	--	151	80	107	--	36	67	55	22	146	700 Nm	8500829	--
VLBG-PLUS 8t M36	8	6.2	77	122	82	70	97	26.5	77	63	223	205	113	140	300	36	79	55	22	196	800 Nm	7983553	8600289
VLBG-PLUS 10t M42	10	6.7	77	122	82	70	94	26.5	77	73	273	205	113	150	350	42	79	65	24	196	1000 Nm	7983554	8600290
VLBG-PLUS 15t M42	15	10.9	95	156	100	85	109	36	87	63	413	230	130	150	500*	42	100	65	24	222	1500 Nm	7982966	8600291
VLBG-PLUS 20t M48	20	11.6	95	156	100	95	105	36	87	73	303	230	130	160	350	48	100	75	27	222	2000 Nm	7982967	8600292

Table 3: Dimensioning *Subject to technical modifications*

SW = wrench size
ISK = internal hexagon

* from L=351 mm without internal hexagon



POWERTEX - textile sling modes

Original manufacturer guidance: straight, basket, choke and multiple-leg arrangements.

POWERTEX

formed in the eye of the sling should not exceed 20°.
When connecting a sling with soft eyes to a lifting appliance, the part of the lifting appliance which bears on the sling should be essentially straight, unless the bearing width of the sling is not more than 75 mm in which case the radius of curvature of the lifting appliance attachment should be at least 0,75 times the bearing width of the sling.
Figure D1 illustrates the problem of accommodating webbing on a hook of radius less than 0,75 times the bearing width of the sling.
Wide webbings may be affected by the radius of the inside of the hook as a result of the curvature of the hook preventing uniform loading across the width of the webbing.

Figure D1 inadequate accommodation of a webbing eye on a hook of too small radius

Figure D1

3.3 Slings should not be overloaded: the correct mode factor should be used (*see table*).

	1-leg	U-lift	Laced	1-leg angle		2-leg sling		3-, 4-leg sling	
Angle of inclination				0°- 45°	45°- 60°	0°- 45°	45°- 60°	0°- 45°	45°- 60°
Load factor	1	2	0,8	1,4	1	1,4	1	2,1	1,5
Colour	WLL ton								
Lila	1,0	2,0	0,8	1,4	1,0	1,4	1,0	2,1	1,5
Green	2,0	4,0	1,6	2,8	2,0	2,8	2,0	4,2	3,0
Yellow	3,0	6,0	2,4	4,2	3,0	4,2	3,0	6,3	4,5
Grey	4,0	8,0	3,2	5,6	4,0	5,6	4,0	8,4	6,0
Red	5,0	10,0	4,0	7,0	5,0	7,0	5,0	10,5	7,5
Brown	6,0	12,0	4,8	8,4	6,0	8,4	6,0	12,6	9,0
Blue	8,0	16,0	6,4	11,2	8,0	11,2	8,0	16,8	12,0
Orange	10,0	20,0	8,0	14,0	10,0	14,0	10,0	21,0	15,0
Orange	12,0	24,0	9,6	16,8	12,0	16,8	12,0	25,2	18,0
Orange	15,0	30,0	12,0	21,0	15,0	21,0	15,0	31,5	22,5
Orange	20,0	40,0	16,0	28,0	20,0	28,0	20,0	42,0	30,0
Orange	25,0	50,0	20,0	35,0	25,0	35,0	25,0	52,5	37,5
Orange	30,0	60,0	24,0	42,0	30,0	42,0	30,0	63,0	45,0
Orange	35,0	70,0	28,0	49,0	35,0	49,0	35,0	73,5	52,5
Orange	40,0	80,0	32,0	56,0	40,0	56,0	40,0	84,0	60,0

Working load limits for some modes may be given on the label. In the case of multi-leg slings the maximum angle to the vertical should not be exceeded.

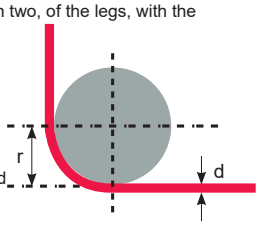
3.4 Good slinging practices should be followed: the slinging, lifting and lowering operations should be planned before commencing the lift.

3.5 Slings be should correctly positioned and attached to the load in a safe manner. Slings should be placed on the load such that they are able to adopt the flattened form and the loading is uniform across their width. They should never be knotted or twisted.
Damage to labels should be prevented by keeping them away from the load, the hook and the angle of choke.

3.6 In the case of multi-leg slings, the WLL values have been determined on the basis that the loading of the sling assembly is symmetrical. This means that when a load is lifted the sling legs are symmetrically disposed in plan and subtended at the same angle to the vertical.
In the case of 3 leg slings, if the legs are not symmetrically disposed in plan the greatest tension is in the leg where the sum of the plan angles to the adjacent legs is greatest. The same effect occurs in 4 leg slings except that the rigidity of the load should also be taken into account.

NOTE With a rigid load the majority of the weight may be taken by only three, or even two, of the legs, with the remaining legs only serving to balance the load.

3.7 Slings should be protected from edges, friction and abrasion, whether from the load or the lifting appliance. Where protection against damage from edges and/or abrasion is supplied as part of the sling, this should be correctly positioned. It may be necessary to supplement this with additional protection.
Definition of a sharp edge:
Radius r (edge) < thickness d of the lifting gear.



3.8 The load should be secured by the sling(s) in such a manner that it cannot topple or fall out of the sling(s) during the lift. Sling(s) should be arranged so that the point of lift is directly above the centre of gravity and the load is balanced and stable. Movement of the sling over the lifting point is possible if the centre of gravity of the load is not below the lifting point.
When using basket hitch, the load should be secure since there is no gripping action as with choke hitch and the sling can roll through the lifting point. For slings which are used in pairs, the use of a spreader is recommended so that the sling legs hang as vertically as possible and to ensure that the load is equally divided between the legs.
When a sling is used in choke hitch, it should be positioned so as to allow the natural (120°) angle to form and avoid heat being generated by friction. A sling should never be forced into position nor an attempt made to tighten the bite. The correct method of securing a load in a double choke hitch is illustrated in figure 3.A (roundsling) and 3.B (webbing slings) double choke hitch provides greater security and helps to prevent the load sliding through the sling.

Figure 3.A

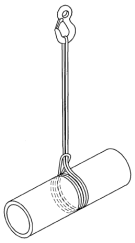


Figure 3.B

3.9 Care should be taken to ensure the safety of personnel during the lift. Persons in the danger area should be warned that the operation is to take place and, if necessary, evacuated from the immediate area.
Hands and other parts of the body should be kept away from the sling to prevent injury as the slack is taken up.
The work with lifting devices and equipment's must be planned, organized and executed in order to prevent hazardous situations.
In accordance with national statutory regulations lifting devices and equipment's must only be used by someone well familiar with the work and having theoretical and practical knowledge of safe use.
Apart from the instruction manual we refer to existing national regulations on each work place.

3.10 A trial lift should be made. The slack should be taken up until the sling is taut. The load should be raised slightly and a check made that it is secure and assumes the position intended. This is especially important with basket or other loose hitches where friction retains the load.

If the load tends to tilt, it should be lowered and attachments re-positioned. The trial lift should be repeated until the stability of the load is ensured.

3.11 Care should be taken when making the lift to ensure that the load is controlled, e.g. to prevent accidental rotation or collision with other objects.
Snatch or shock loading should be avoided as this will increase the forces acting on the sling.
A load in the sling or the sling itself should not be dragged over the ground or rough surfaces.

3.12 The load should be lowered in an equally controlled manner as when lifted.
Trapping the sling when lowering the load should be avoided. The load should not rest on the sling, if this could cause damage and pulling the sling from beneath the load when the load is resting on it should not be attempted.

3.13 On completion of the lifting operation the sling should be returned to proper storage.
When not in use, slings should be stored in clean, dry and well ventilated conditions, at ambient temperature and on a rack, away from any heat sources, contact with chemicals, fumes, corrodible surfaces,

LiftinGear - webbing and roundsling modes

Original branded guidance, including higher-capacity mode ratings and bearing-length illustrations.

LiftinGear
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Polyester Webbing & Round Slings

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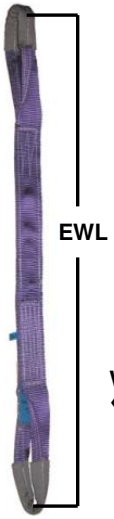

Webbing Slings
- Working load limits from 1 tonne to 20 tonne and to almost any length

Round Slings
- Working load limits from 1 tonne to 30 tonne

ROADCREW
ROADCREW-RIGGING.COM

Black roundslings available
Ideal for event rigging

	Straight Pull	Choke Lift	Basket Lift 0 to 7°	Basket Lift 0 to 45°	Basket Lift 45 to 60°
Colour	tonne	tonne	tonne	tonne	tonne
Violet	1	0.8	2	1.4	1
Green	2	1.6	4	2.8	2
Yellow	3	2.4	6	4.2	3
Grey	4	3.2	8	5.6	4
Red	5	4.0	10	7.0	5
Brown	6	4.8	12	8.4	6
Blue	8	6.4	16	11.2	8
Orange	10	8.0	20	14.0	10
Orange	12	9.6	24	16.8	12
Orange	15	12.0	30	21.0	15
Orange	20	16.0	40	28.0	20
Orange	30	24.0	60	42.0	30

LARGER CAPACITY SLINGS AVAILABLE

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LiftinGear / euroSling catalogue p.31. For the selected webbing range, follow its label and full instructions.