

# Sling Components

Grade 10 • Offshore • Grade 8 • Lifting Points



## GrabiQ

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### WARNING:

Failure to read, understand and comply with the following instructions, working load limits and specifications in this publication may result in serious injury or damage to property.



# GrabiQ<sup>TM</sup>

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## The Flexible and Cost Efficient Chain Sling System.

GrabiQ stands for:

- "Grab" - Built in shortening function allows the user to instantly adjust the chain sling.
- IQ - Intelligent design gives more efficient lifts which making the user more successful.
- IO - Grade 10 material gives 25% added strength as well as lighter slings.
- i - Innovation has been and still is one of our driving forces. Many of our products are unique on the market and are protected by patents.
- Q - Quality. No product leaves our factories without being proof loaded and visually inspected, so that we can guarantee top quality to all customers



### GrabiQ offers:

#### Cost Efficiency

GrabiQ has been designed to integrate multiple functions in each component. This means fewer components in each sling, but with the same and even better function than the old system. A good example of this is our FlexiLeg system, where one master link combined with one 1-leg sling and two 2-leg sling units, completely replaces four master links and ten legs of chain sling. Read more about FlexiLeg on page 2:6.

#### Flexibility in Field

We understand how fast the conditions for a lift can change and we also recognize that time is money in lifting operations - big and small. With the GrabiQ system we have included functions that would otherwise demand additional products or a complete change of chain sling. The user gets a quicker and more ergonomic lifting operation each time when using the GrabiQ system.

# Reduce the Cost - Increase the Efficiency

The GrabiQ system makes your lift quicker, safer and easier.

The all-inclusive chain sling system for coupling, shortening and lifting in grade 10 is designed to improve your lifting actions and make it as quick and easy as possible. Some of the top features are:

- Less components - cost efficient
- Built in shortening function
- Light weight for better ergonomics

## 4-leg sling with shortening function



Only **3** GrabiQ components  
Used to be **15** components



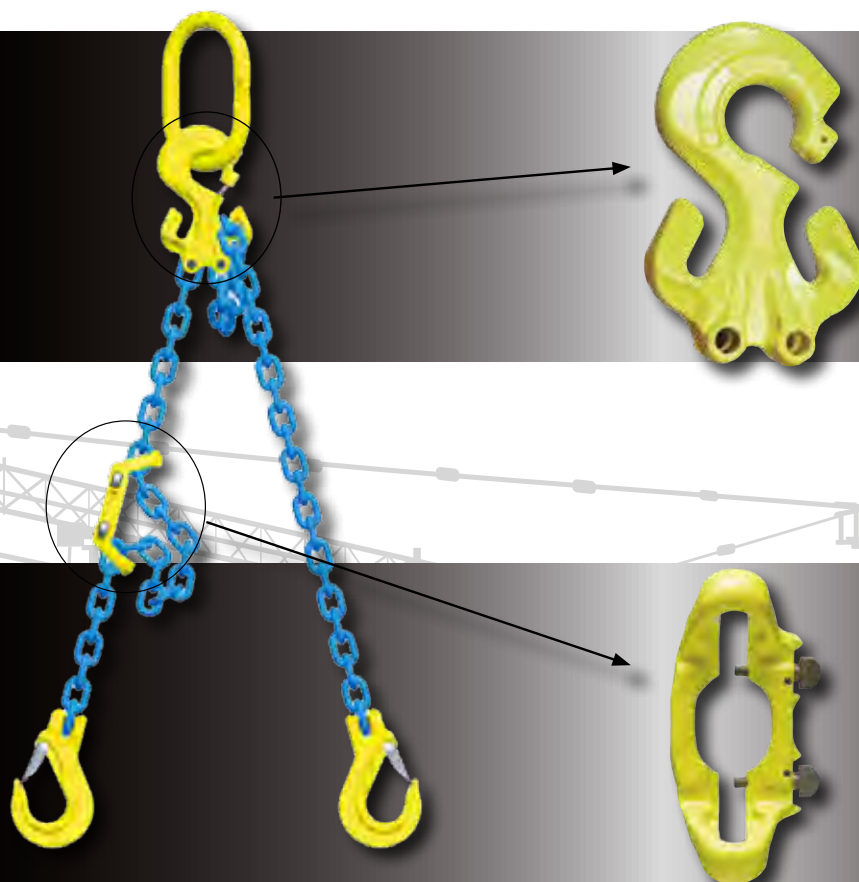
## 2-leg sling with shortening function



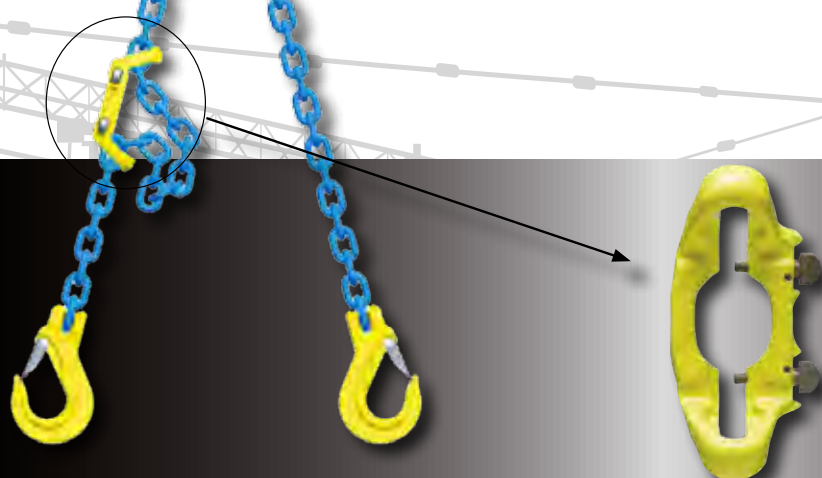
Only **1** GrabiQ component  
Used to be **7** components



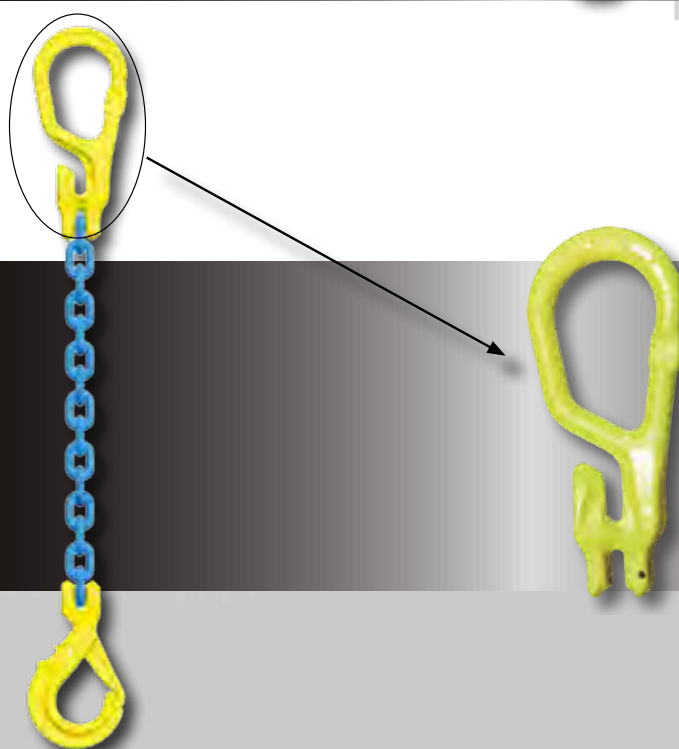
# Designed for Flexibility and Efficiency



The C-grab duo, CGD, has a built in shortening function. For technical specification, see page 2:13.



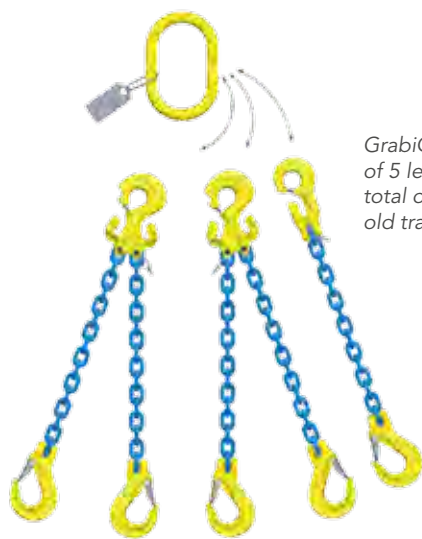
The Midgrab, MIG, offers instant mounting, positioning and shortening on any part of the chain. See page 2:10 for technical specification.



With the "all-in-one" compact top link, MG, every chain leg can instantly be altered. Using the built in shortening function you can alter between a straight lift to a looped sling in a matter of seconds. For technical specification, see page 2:11.

# Less is More with *FlexiLeg™*

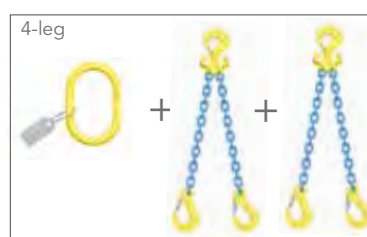
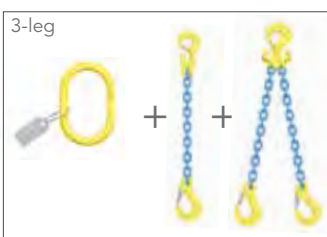
FlexiLeg is a solution that allows you to have an instant leg change. One single master link and a combination of five legs replace four complete slings, a total of ten legs, with the traditional system. By using the unique features of the GrabiQ range, Gunnebo Industries has increased the flexibility even further.



*GrabiQ FlexiLeg – a total of 5 legs replaces the total of 10 legs with the old traditional system.*



Old system - 10 legs in 4 separate chain slings.



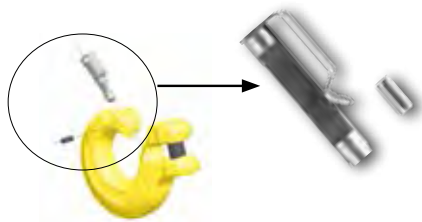
## Why do you want instant leg-change?

- It will enable the user to change slings, leg by leg, which will make it lighter and easier to work with.
- Sling legs that are not being used can easily be removed, thereby increasing safety at the work site.
- The quantity of sling material is greatly reduced, providing cost savings.
- The chain sling can be rebuilt on site, thus increasing efficiency.

| Art. no. | Code                      |
|----------|---------------------------|
| Z101050  | FlexiLeg GBK 6 mm L= 2 m  |
| Z101051  | FlexiLeg EGKN 6 mm L= 2 m |
| Z101052  | FlexiLeg GBK 8 mm L= 2 m  |
| Z101053  | FlexiLeg EGKN 8 mm L= 2 m |
| Z101054  | FlexiLeg GBK 10 mm L= 2 m |

| Art. no. | Code                       |
|----------|----------------------------|
| Z101055  | FlexiLeg EGKN 10 mm L= 2 m |
| Z101056  | FlexiLeg GBK 13 mm L= 2 m  |
| Z101057  | FlexiLeg EGKN 13 mm L= 2 m |
| Z101058  | FlexiLeg GBK 16 mm L= 2 m  |
| Z101059  | FlexiLeg EGKN 16 mm L= 2 m |

## Related products



### QuickPin - For safe exchange of sling legs

- Fits all C-components! (CL, CLD, CG, CGD)
- Has instant close/open function, no tools needed!
- Easy to retro-fit!
- Made of stainless steel for long product life span.



### FlexiTag - For every GrabiQ sling

- Specially designed for FlexiLeg
- Fits all other GrabiQ slings
- WLL and chain size pre-stamped for 1 - 4 legs
- Leg angle 45/60 degree shown in contour
- Made of stainless steel for use in all weather conditions.

# Chain Sling Solutions

## 1-leg Chain Slings



Type: Master link MG, Chain KLA, Safety Hook GBK

| Dim. mm | WLL t* | Total Component length mm |
|---------|--------|---------------------------|
| 6       | 1.5    | 171                       |
| 8       | 2.5    | 296                       |
| 10      | 4.0    | 361                       |
| 13      | 6.7    | 453                       |
| 16      | 10.0   | 527                       |



Type: Master link MG, Chain KLA, Hook with latch EGKN

| Dim. mm | WLL t* | Total Component length mm |
|---------|--------|---------------------------|
| 6       | 1.5    | 231                       |
| 8       | 2.5    | 261                       |
| 10      | 4.0    | 331                       |
| 13      | 6.7    | 408                       |
| 16      | 10     | .0481                     |



Type: Master link MF, C-grab CG, Chain KLA, Safety Hook GBK

| Dim. mm | WLL t* | Total Component length mm |
|---------|--------|---------------------------|
| 6       | 1.5    | 200                       |
| 8       | 2.5    | 346                       |
| 10      | 4.0    | 424                       |
| 13      | 6.7    | 504                       |
| 16      | 10.0   | 621                       |
| 20      | 16.0   | 605                       |

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## 2-leg Chain Sling



Type: Master link MF, C-grab CG, Chain KLA, Hook with latch EGKN

| Dim. mm | WLL t* | Total Component length mm |
|---------|--------|---------------------------|
| 6       | 1.5    | 286                       |
| 8       | 2.5    | 342                       |
| 10      | 4.0    | 415                       |
| 13      | 6.7    | 507                       |
| 16      | 10.0   | 624                       |
| 20      | 16.0   | 605                       |



Type: Master link MGD, Chain KLA, Safety Hook GBK

| Dim. mm | WLL tonnes*                     |                                    | Component length mm |
|---------|---------------------------------|------------------------------------|---------------------|
|         | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                     |
| 6       | 2.1                             | 1.5                                | 235                 |
| 8       | 3.5                             | 2.5                                | 296                 |
| 10      | 5.6                             | 4.0                                | 361                 |
| 13      | 9.5                             | 6.7                                | 453                 |
| 16      | 14.0                            | 10.0                               | 527                 |



Type: Master link MGD, Chain KLA, Latch Hook EGKN

| Dim. mm | WLL tonnes*                     |                                    | Component length mm |
|---------|---------------------------------|------------------------------------|---------------------|
|         | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                     |
| 6       | 2.1                             | 1.5                                | 230                 |
| 8       | 3.5                             | 2.5                                | 261                 |
| 10      | 5.6                             | 4.0                                | 331                 |
| 13      | 9.5                             | 6.7                                | 408                 |
| 16      | 14.0                            | 10.0                               | 481                 |



Type: Master link MF, C-grab Duo CGD, Chain KLA, Safety Hook GBK

| Dim. mm | WLL t*                          |                                    | Components total length mm |
|---------|---------------------------------|------------------------------------|----------------------------|
|         | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                            |
| 6       | 2.1                             | 1.5                                | 291                        |
| 8       | 3.5                             | 2.5                                | 366                        |
| 10      | 5.6                             | 4.0                                | 444                        |
| 13      | 9.5                             | 6.7                                | 534                        |
| 16      | 14.0                            | 10.0                               | 671                        |



Type: Master link MF, C-grab Duo CGD, Chain KLA, Latch Hook EGKN

| Dim. mm | WLL t*                          |                                    | Total Component length |
|---------|---------------------------------|------------------------------------|------------------------|
|         | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                        |
| 6       | 2.1                             | 1.5                                | 286                    |
| 8       | 3.5                             | 2.5                                | 342                    |
| 10      | 5.6                             | 4.0                                | 415                    |
| 13      | 9.5                             | 6.7                                | 507                    |
| 16      | 14.0                            | 10.0                               | 625                    |



Type: Master link MGD, Chain KLA, C-lok CL

| Dim. mm | WLL t*                          |                                    | WLL choked t*                   |                                    | Component total length mm |
|---------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|---------------------------|
|         | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                           |
| 6       | 2.1                             | 1.5                                | 1.6                             | 1.2                                | 187                       |
| 8       | 3.5                             | 2.5                                | 2.7                             | 2.0                                | 230                       |
| 10      | 5.6                             | 4                                  | 4.4                             | 3.2                                | 285                       |
| 13      | 9.5                             | 6.7                                | 7.4                             | 5.4                                | 359                       |
| 16      | 14.0                            | 10.0                               | 11.0                            | 8.0                                | 429                       |

## 3-leg Chain Sling



Type: Master link MF, C-grab CG, C-grab Duo CGD, Chain KLA, Safety Hook GBK

| Dim.<br>mm | WLL t*                          |                                    | Total<br>component<br>length mm |
|------------|---------------------------------|------------------------------------|---------------------------------|
|            | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                                 |
| 6          | 3.1                             | 2.2                                | 311                             |
| 8          | 5.2                             | 3.7                                | 392                             |
| 10         | 8.4                             | 6.0                                | 474                             |
| 13         | 14.0                            | 10.0                               | 604                             |
| 16         | 21.0                            | 15.0                               | 680                             |



Type: Master link MF, C-grab CG, C-grab Duo CGD, Chain KLA, Latch Hook EGKN

| Dim.<br>mm | WLL t*                          |                                    | Total<br>Component<br>length mm |
|------------|---------------------------------|------------------------------------|---------------------------------|
|            | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                                 |
| 6          | 3.1                             | 2.2                                | 306                             |
| 8          | 5.2                             | 3.7                                | 357                             |
| 10         | 8.4                             | 6.0                                | 444                             |
| 13         | 14.0                            | 10.0                               | 559                             |
| 16         | 21.0                            | 15.0                               | 634                             |

## 4-leg Chain Sling



Type: Master link MF, C-grab Duo CGD, Chain KLA, Safety Hook GBK

| Dim.<br>mm | WLL t*                          |                                    | Total<br>Component<br>length mm |
|------------|---------------------------------|------------------------------------|---------------------------------|
|            | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                                 |
| 6          | 3.1                             | 2.2                                | 311                             |
| 8          | 5.2                             | 3.7                                | 392                             |
| 10         | 8.4                             | 6.0                                | 474                             |
| 13         | 14.0                            | 10.0                               | 604                             |
| 16         | 21.0                            | 15.0                               | 680                             |



Type: Master link MF, C-grab Duo CGD, Chain KLA, Latch Hook EGKN

| Dim.<br>mm | WLL t*                          |                                    | Total<br>Component<br>length mm |
|------------|---------------------------------|------------------------------------|---------------------------------|
|            | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                                 |
| 6          | 3.1                             | 2.2                                | 306                             |
| 8          | 5.2                             | 3.7                                | 357                             |
| 10         | 8.4                             | 6.0                                | 444                             |
| 13         | 14.0                            | 10.0                               | 559                             |
| 16         | 21.0                            | 15.0                               | 634                             |

## WLL in tonnes, Grade 10 GrabiQ

| 1-leg      |      | 2-leg                           |                                    | 3- & 4-leg                      |                                    | Choke hitch                     |                                    |
|------------|------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|
| Chain dim. |      | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |
| 6          | 1.5  | 2.1                             | 1.5                                | 3.15                            | 2.24                               | 1.6                             | 1.2                                |
| 7          | 2.0  | 1.8                             | 2.0                                | 4.2                             | 3.0                                | 2.2                             | 1.6                                |
| 8          | 2.5  | 3.5                             | 2.5                                | 5.2                             | 3.7                                | 2.7                             | 2.0                                |
| 10         | 4.0  | 5.6                             | 4.0                                | 8.4                             | 6.0                                | 4.4                             | 3.2                                |
| 13         | 6.7  | 9.5                             | 6.7                                | 14.0                            | 10.0                               | 7.4                             | 5.3                                |
| 16         | 10.0 | 14.0                            | 10.0                               | 21.0                            | 15.0                               | 11.0                            | 8.0                                |
| 20         | 16.0 | 22.4                            | 16.0                               | 33.6                            | 24.0                               | 17.6                            | 12.8                               |
| 22         | 20.0 | 28.0                            | 20.0                               | 42.0                            | 30.0                               | 22.0                            | 16.0                               |
| 26         | 27.0 | 38.2                            | 27.0                               | 57.3                            | 40.5                               | 29.7                            | 21.6                               |

Safety factor 4:1. Working load limits are based upon equally loaded and disposed sling legs.

## Pre-Assembled Chain Sling

### "GrabIQ-in-a-box" - ready to use at arrival

Gunnebo Industries offers the perfect retail solution - pre-assembled chain slings with information tags, supplied with certificate, packed in boxes. Ready to be used the instant they arrive.

#### GrabIQ chain sling benefits:

- 25% additional strength in the new grade 10 which gives lighter lifting slings.
- All top assemblies consist of no more than three components.
- Shortening function of chain legs is integral with no extra components.



### Technical Specification

| Art. no. | Code           | WLL tonnes* | Length m | Choked WLL | Weight kgs |  |
|----------|----------------|-------------|----------|------------|------------|--|
| B790110  | MG1-GBK-6-10   | 1.5         | 2        | -          | 4.1        |  |
| B790111  | MG1-GBK-8-10   | 2.5         | 3        | -          | 6.4        |  |
| B790112  | MG1-GBK-10-10  | 4.0         | 3        | -          | 10.1       |  |
| B790120  | MG1-EGKN-6-10  | 1.5         | 2        | -          | 2.8        |  |
| B790121  | MG1-EGKN-8-10  | 2.5         | 3        | -          | 6          |  |
| B790122  | MG1-EGKN-10-10 | 4.0         | 3        | -          | 9.7        |  |
| B790220  | MG2-EGKN-6-10  | 2.1         | 2        | -          | 7.1        |  |
| B790221  | MG2-EGKN-8-10  | 3.5         | 3        | -          | 11.7       |  |
| B790222  | MG2-EGKN-10-10 | 5.6         | 3        | -          | 17.6       |  |
| B790210  | MG2-GBK-6-10   | 2.1         | 2        | -          | 7.3        |  |
| B790211  | MG2-GBK-8-10   | 3.5         | 3        | -          | 12.3       |  |
| B790212  | MG2-GBK-10-10  | 5.6         | 3        | -          | 18.9       |  |
| B790130  | MG2-CL-6-10    | 2.1         | 6        | 1.6        | 12.4       |  |
| B790131  | MG2-CL-8-10    | 3.5         | 6        | 2.7        | 21.8       |  |
| B790132  | MG2-CL-10-10   | 5.6         | 6        | 4.4        | 34.9       |  |

## 6 mm FlexiLeg Pre-Assembled

| Art. no. | Code                              | Weight kgs |
|----------|-----------------------------------|------------|
| Z101016  | FlexiLeg FMG 221 GBK 6 mm L= 2 m  | 13.8       |
| Z101017  | FlexiLeg FMG 221 EGKN 6 mm L= 2 m | 13.3       |

# Midgrab Chain Shortener, MIG

## Product Features

- Instant mounting and positioning on any part of the chain.
- Shortening in either chain direction; up-down.
- Designed to prevent inadvertent chain disengagement.
- Can be set idle on the chain leg when shortening is not required.
- LC version offers secure mounting with locking set on any desired part of the chain with one chain direction open for shortening.
- CC version offers close-open function in both chain directions for safe retention of the chain.



**Locking Devices for Midgrab MIG** Note! The MIG should be used with at least one locking devices.

### L - fixed locking set

For fixed mounting

Code:

L-8: B14905  
L-10: B14915  
L-13: B14917



### C - close/open locking set

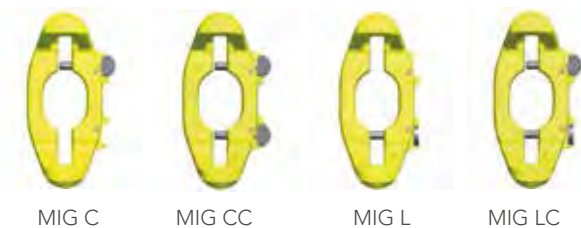
Spring operated locking device. Can be placed either in open or closed position.

Code:

C-8: B14904  
C-10: B14914  
C-13: B14916



## Product Code Guide - Locking options



### MIG with C pins

| Art. no. | Code         | WLL tonnes* | L   | X  | Y  | Weight kgs |
|----------|--------------|-------------|-----|----|----|------------|
| B14303   | MIG CC-8-10  | 2.5         | 95  | 50 | 60 | 0.7        |
| B14313   | MIG CC-10-10 | 4.0         | 125 | 70 | 77 | 1.1        |
| B14323   | MIG CC-13-10 | 6.7         | 150 | 90 | 80 | 2.6        |

### MIG without pins

| Art. no. | Code      | WLL tonnes* | L   | X  | Y  | Weight kgs |
|----------|-----------|-------------|-----|----|----|------------|
| B14300   | MIG-8-10  | 2.5         | 95  | 50 | 60 | 0.6        |
| B14310   | MIG-10-10 | 4.0         | 125 | 70 | 77 | 1.0        |
| B14320   | MIG-13-10 | 6.7         | 150 | 90 | 80 | 2.5        |

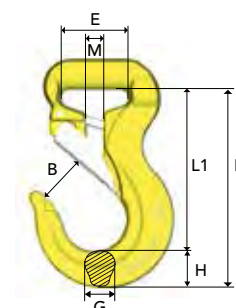


## Roundsling Hook RH

The RH-hook is the perfect load connection solution, combining the advantages of both soft lifting slings and grade 100 components. It can be inserted in any softsling and is quicker and safer to use than the commonly used shackle. The RH-hook is a connector as well as a hook, which gives the user increased flexibility, safer use and increased durability of the soft slings.

The RH-hook comes with a blocking pin, but thanks to the narrow opening it may be used without blocking pin.

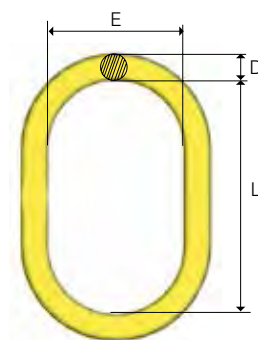
The roundsling hooks are colour coded in order to match the corresponding size of the roundsling: Red=5T / Yellow=3T / Green=2T / Violet=1T



| Art. no. | Code    | WLL tonnes* | B  | E  | G  | L   | H  | M    | Weight kgs |
|----------|---------|-------------|----|----|----|-----|----|------|------------|
| B14490   | RH-1-10 | 1           | 24 | 35 | 17 | 84  | 19 | 8    | 0.5        |
| B14491   | RH-2-10 | 2           | 28 | 40 | 17 | 96  | 22 | 10   | 0.7        |
| B14492   | RH-3-10 | 3           | 33 | 47 | 24 | 117 | 30 | 12   | 1.3        |
| B14493   | RH-5-10 | 5           | 43 | 73 | 27 | 155 | 36 | 16.5 | 3.2        |

## Master Link M

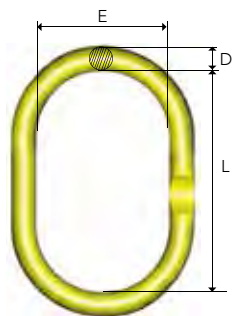
| Art. no. | Code        | WLL tonnes* | L   | E   | D  | Weight kgs |
|----------|-------------|-------------|-----|-----|----|------------|
| Z101271  | M-6-10      | 1.25        | 100 | 60  | 11 | 0.2        |
| Z101272  | M-86-10     | 2.5         | 125 | 70  | 14 | 0.4        |
| Z101273  | M-108-10    | 4.0         | 140 | 80  | 17 | 0.8        |
| Z101274  | M-13-10     | 5.4         | 150 | 90  | 19 | 1.0        |
| Z101267  | M-1310-10   | 7.5         | 160 | 95  | 22 | 1.5        |
| Z101268  | M-1613-10   | 10.0        | 190 | 110 | 28 | 2.8        |
| Z101247  | M-19-10     | 12.0        | 200 | 120 | 30 | 3.5        |
| Z101269  | M-2016-10   | 17.0        | 240 | 140 | 34 | 5.2        |
| Z101270  | M-2220-10   | 25.0        | 250 | 150 | 40 | 7.3        |
| Z101275  | M-2622-10   | 28.0        | 250 | 150 | 42 | 8.7        |
| Z101284  | M-32-10     | 33.0        | 300 | 180 | 45 | 11.7       |
| Z101276  | M-3226-10   | 43.0        | 300 | 200 | 50 | 14.8       |
| Z101277  | M-3632-10   | 56.0        | 350 | 200 | 55 | 20.7       |
| Z101278  | M-4536-10   | 70.0        | 375 | 210 | 60 | 26.4       |
| Z101279  | M-90T-10    | 90.0        | 450 | 250 | 70 | 42.8       |
| Z101280  | M-125T-10** | 125.0       | 450 | 260 | 80 | 57.0       |



\*\* Dimension L and E not acc. to EN 1677-4.

## Master Link MF

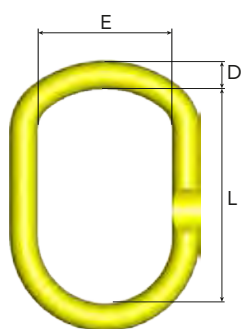
For 1-, 2-, 3- and 4-leg slings. 3- and 4 leg chain slings require CLD / CGD



| Art. no. | Code       | WLL tonnes* | For chain size, mm |       |         | L   | E   | D  | Weight kgs |
|----------|------------|-------------|--------------------|-------|---------|-----|-----|----|------------|
|          |            |             | 1-leg              | 2-leg | 3-4 leg |     |     |    |            |
| B14487   | MF-6-10    | 1.25        | 6                  |       |         | 100 | 60  | 11 | 0.2        |
| B14481   | MF-86-10   | 2.5         | 6, 8               | 6     | -       | 125 | 70  | 14 | 0.4        |
| B14482   | MF-108-10  | 4.0         | 10                 | 8     | 6       | 140 | 80  | 17 | 0.8        |
| B14483   | MF-1310-10 | 7.5         | 13                 | 10    | 8       | 160 | 95  | 22 | 1.5        |
| B14484   | MF-1613-10 | 10.0        | 16                 | 13    | 10      | 190 | 110 | 28 | 2.8        |
| B14485   | MF-2016-10 | 17.0        | 20                 | 16    | 13      | 240 | 140 | 34 | 5.2        |
| B14486   | MF-2220-10 | 25.0        | 22                 | 20    | 16      | 250 | 150 | 40 | 7.3        |

## Master Link MFH

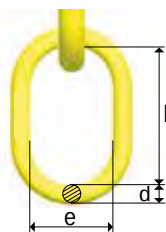
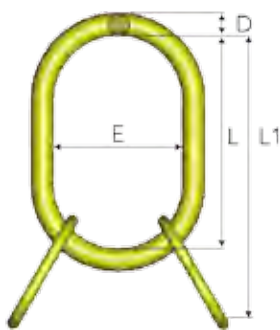
Designed for crane hooks, DIN 15401 MAX. 3- and 4 leg chain slings require CLD / CGD



| Art. no. | Code         | WLL tonnes* | For chain size, mm |       |         | L   | E   | D  | DIN 15401 | DIN 15402 | Weight kgs |
|----------|--------------|-------------|--------------------|-------|---------|-----|-----|----|-----------|-----------|------------|
|          |              |             | 1-leg              | 2-leg | 3-4 leg |     |     |    |           |           |            |
| Z101262  | MFH-1310-10  | 7.5         | 13                 | 10    | 8       | 230 | 125 | 22 | ≤ 12      | ≤ 16      | 1.9        |
| Z101263  | MFH-1613-10  | 10          | 16                 | 13    | 10      | 250 | 135 | 28 | ≤ 12      | ≤ 16      | 3.2        |
| Z101264  | MFH-2016-10  | 17          | 20                 | 16    | 13      | 280 | 135 | 32 | ≤ 16      | ≤ 20      | 4.6        |
| Z101265  | MFH-2220-10  | 28          | 22                 | 20    | 16      | 320 | 175 | 40 | ≤ 25      | ≤ 32      | 8.6        |
| Z101266  | MFHW-2220-10 | 25          | 22                 | 20    | 16      | 355 | 225 | 40 | ≤ 50      | ≤ 63      | 9.9        |

## Master Link with Sublinks, MT

Designed for use with chain or wire rope. For 3- and 4-leg slings.



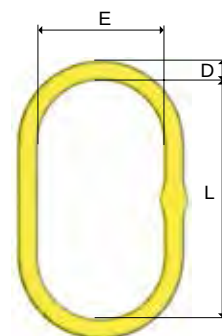
| Art. no. | Code     | WLL tonnes* | L1  | L   | E   | D  | l   | e   | d  | Weight kgs |
|----------|----------|-------------|-----|-----|-----|----|-----|-----|----|------------|
| Z100902  | MT-6-10  | 3.5         | 270 | 150 | 90  | 19 | 120 | 70  | 14 | 1.8        |
| Z100903  | MT-8-10  | 5.2         | 300 | 160 | 95  | 22 | 140 | 80  | 17 | 3.0        |
| Z101359  | MT-9-10  | 6.9         | 340 | 190 | 110 | 28 | 150 | 90  | 19 | 4.9        |
| Z100904  | MT-10-10 | 11.5        | 360 | 200 | 120 | 30 | 160 | 95  | 22 | 6.4        |
| Z100905  | MT-13-10 | 17          | 450 | 250 | 150 | 40 | 200 | 120 | 30 | 14.2       |
| Z100906  | MT-16-10 | 28          | 500 | 300 | 200 | 50 | 200 | 120 | 32 | 23         |
| Z101074  | MT-20-10 | 35          | 550 | 300 | 200 | 55 | 250 | 150 | 40 | 31.5       |
| Z101281  | MT-22-10 | 53          | 610 | 350 | 200 | 60 | 260 | 140 | 45 | 46         |
| Z101282  | MT-26-10 | 70          | 730 | 450 | 250 | 70 | 280 | 160 | 50 | 71         |
| Z101283  | MT-32-10 | 90          | 750 | 450 | 260 | 80 | 280 | 160 | 55 | 91         |

## Master Link, MFX

Oversized, for 1- and 2-leg slings.

| Art. no. | Code        | WLL tonnes* | For chain 1-leg | For chain 2-leg | L   | E   | D  | Weight kgs |
|----------|-------------|-------------|-----------------|-----------------|-----|-----|----|------------|
| Z100550  | MFX-108-10  | 4           | 8, 10           | 8               | 340 | 180 | 25 | 3.7        |
| Z100551  | MFX-1310-10 | 6.7         | 13              | 10              | 340 | 180 | 28 | 4.7        |
| Z100552  | MFX-1613-10 | 10          | 16              | 13              | 340 | 180 | 34 | 7.1        |
| Z101125  | MFX-2016-10 | 16          | 20              | 16              | 340 | 180 | 40 | 9.6        |

Designed for use with CL, CLD, CG and CGD.

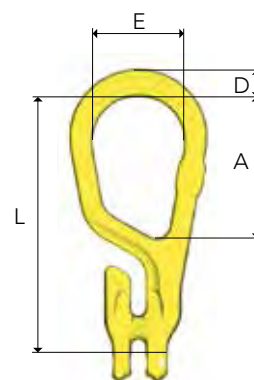


2

## Master Grab MG

"All-in-one" compact top link.

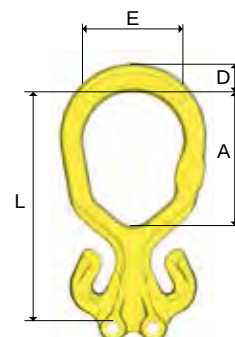
| Art. no. | Code     | WLL tonnes* | L   | A   | E   | D  | Weight kgs |
|----------|----------|-------------|-----|-----|-----|----|------------|
| B14710   | MG-6-10  | 1.5         | 145 | 88  | 60  | 15 | 0.5        |
| B14711   | MG-8-10  | 2.5         | 171 | 92  | 60  | 18 | 0.9        |
| B14712   | MG-10-10 | 4           | 211 | 113 | 75  | 22 | 1.8        |
| B14713   | MG-13-10 | 6.7         | 261 | 138 | 90  | 26 | 3.5        |
| B14714   | MG-16-10 | 10          | 311 | 157 | 105 | 31 | 6.1        |



## Master Grab Duo MGD

"All-in-one" compact top link for 2-leg slings.

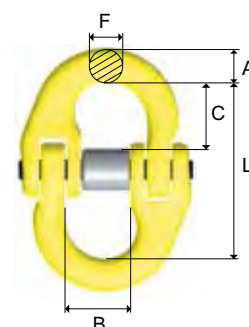
| Art. no. | Code      | WLL tonnes* | L   | A   | E   | D  | Weight kgs |
|----------|-----------|-------------|-----|-----|-----|----|------------|
| B14700   | MGD-6-10  | 2.1         | 144 | 90  | 60  | 17 | 0.7        |
| B14701   | MGD-8-10  | 3.5         | 171 | 100 | 75  | 21 | 1.3        |
| B14702   | MGD-10-10 | 5.6         | 211 | 124 | 90  | 24 | 2.3        |
| B14703   | MGD-13-10 | 9.5         | 262 | 149 | 105 | 31 | 5.2        |
| B14704   | MGD-16-10 | 14          | 310 | 175 | 120 | 35 | 7.9        |

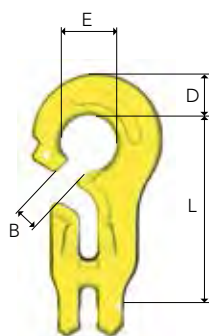


## Coupling Link G

| Art. no. | Code    | WLL tonnes* | L   | B  | F  | A  | C  | Weight kgs |
|----------|---------|-------------|-----|----|----|----|----|------------|
| Z100821  | G-6-10  | 1.5         | 45  | 15 | 7  | 8  | 16 | 0.1        |
| Z101358  | G-7-10  | 2.0         | 56  | 18 | 9  | 11 | 22 | 0.2        |
| Z100822  | G-8-10  | 2.5         | 56  | 18 | 9  | 11 | 22 | 0.2        |
| Z100823  | G-10-10 | 4.0         | 68  | 25 | 12 | 13 | 26 | 0.3        |
| Z100824  | G-13-10 | 6.7         | 89  | 29 | 15 | 17 | 33 | 0.7        |
| Z100825  | G-16-10 | 10.0        | 106 | 36 | 19 | 20 | 40 | 1.4        |
| Z101119  | G-20-10 | 16.0        | 125 | 43 | 23 | 26 | 44 | 2.2        |
| Z101339  | G-22-10 | 20.0        | 152 | 50 | 26 | 28 | 59 | 3.5        |
| Z101365  | G-26-10 | 27.0        | 161 | 58 | 32 | 34 | 61 | 5.7        |

For larger sizes, see Classic Grade 8

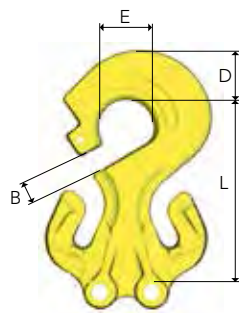




## C-Grab CG

For use with master link, eye hooks and choke.

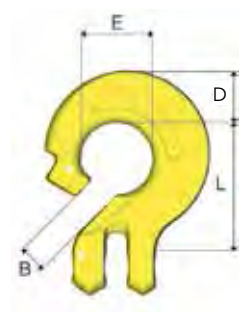
| Art. no. | Code     | WLL tonnes* | L   | B  | E  | D  | Weight kgs |
|----------|----------|-------------|-----|----|----|----|------------|
| B14730   | CG-6-10  | 1.5         | 80  | 11 | 24 | 19 | 0.3        |
| B14731   | CG-8-10  | 2.5         | 107 | 12 | 32 | 24 | 0.7        |
| B14732   | CG-10-10 | 4           | 134 | 15 | 40 | 29 | 1.5        |
| B14733   | CG-13-10 | 6.7         | 172 | 18 | 52 | 38 | 3.2        |
| B14734   | CG-16-10 | 10          | 215 | 22 | 64 | 47 | 6.1        |



## C-Grab CGD

For use with master links.

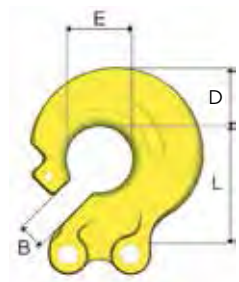
| Art. no. | Code      | WLL tonnes* | L   | B  | E  | D  | Weight kgs |
|----------|-----------|-------------|-----|----|----|----|------------|
| B14720   | CGD-6-10  | 2.1         | 79  | 11 | 24 | 20 | 0.6        |
| B14721   | CGD-8-10  | 3.5         | 107 | 12 | 32 | 29 | 1.1        |
| B14722   | CGD-10-10 | 5.6         | 134 | 15 | 40 | 37 | 2.2        |
| B14723   | CGD-13-10 | 9.5         | 173 | 19 | 48 | 48 | 5.4        |
| B14724   | CGD-16-10 | 14          | 215 | 22 | 64 | 57 | 9.1        |



## C-Lok CL

For use with master links, eye hooks and choke.

| Art. no. | Code     | WLL tonnes* | L   | B  | E  | D  | Weight kgs |
|----------|----------|-------------|-----|----|----|----|------------|
| B14750   | CL-6-10  | 1.5         | 43  | 11 | 24 | 18 | 0.2        |
| B14751   | CL-8-10  | 2.5         | 58  | 12 | 32 | 24 | 0.5        |
| B14752   | CL-10-10 | 4           | 74  | 15 | 40 | 29 | 1.0        |
| B14753   | CL-13-10 | 6.7         | 94  | 18 | 52 | 38 | 2.0        |
| B14754   | CL-16-10 | 10          | 119 | 22 | 64 | 48 | 3.8        |



## C-Lok CLD

For use with master links.

| Art. no. | Code      | WLL tonnes* | L   | B  | E  | D  | Weight kgs |
|----------|-----------|-------------|-----|----|----|----|------------|
| B14740   | CLD-6-10  | 2.1         | 43  | 11 | 24 | 22 | 0.4        |
| B14741   | CLD-8-10  | 3.5         | 58  | 12 | 32 | 29 | 0.6        |
| B14742   | CLD-10-10 | 5.6         | 74  | 15 | 40 | 37 | 1.2        |
| B14743   | CLD-13-10 | 9.5         | 94  | 18 | 52 | 46 | 3.1        |
| B14744   | CLD-16-10 | 14          | 119 | 25 | 64 | 57 | 5.5        |

## Chain GrabIQ Grade 10 (200)

Short link, KL

### Heat treatment

Quenched and tempered.

Note! For chain grade 10 (200) the maximum in service temperature is 200°C.

### Surface treatment

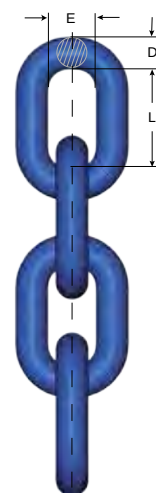
Painted blue

### Marking

10G

| Art. no.<br>Box     | Code      | WLL<br>tonnes | D<br>nom.<br>mm | L<br>»<br>mm | E<br>»<br>mm | Weight<br>kgs/m | MPF<br>kN | Breaking<br>force<br>kN |
|---------------------|-----------|---------------|-----------------|--------------|--------------|-----------------|-----------|-------------------------|
| Z802300 - 1 x 200 m | KLA 6-10  | 1.5           | 6               | 18           | 8            | 0.8             | 35.4      | 56.6                    |
| Z802337 - 1 x 200 m | KLA 7-10  | 2             | 7               | 21           | 10           | 1.1             | 48        | 77.0                    |
| Z802301 - 1 x 200 m | KLA 8-10  | 2.5           | 8               | 24           | 11           | 1.4             | 63        | 102                     |
| Z802302 - 1 x 100 m | KLA 10-10 | 4             | 10              | 30           | 14           | 2.3             | 98        | 158                     |
| Z802303 - 1 x 100 m | KLA 13-10 | 6.7           | 13              | 39           | 18           | 3.8             | 166       | 268                     |
| Z802304 - 1 x 100 m | KLA 16-10 | 10            | 16              | 48           | 22           | 5.6             | 251       | 402                     |
| Z802305 - 1 x 50 m  | KLA 20-10 | 16            | 20              | 60           | 29           | 9.4             | 393       | 762                     |
| Z802246 - 1 x 50 m  | KLA 22-10 | 20            | 22              | 66           | 31           | 11.8            | 490       | 806                     |
| Z802248 - 1 x 50 m  | KLA 26-10 | 27            | 26              | 78           | 37           | 14.6            | 664       | 1062                    |

For larger sizes, see Classic Grade 8



## Chain GrabIQ Grade 10 (400)

Short link, KL

### Heat treatment

Quenched and tempered.

Note! For chain grade 10 (400) the maximum in service temperature is 400°C.

### Surface treatment

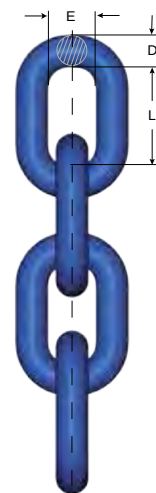
Painted blue

### Marking

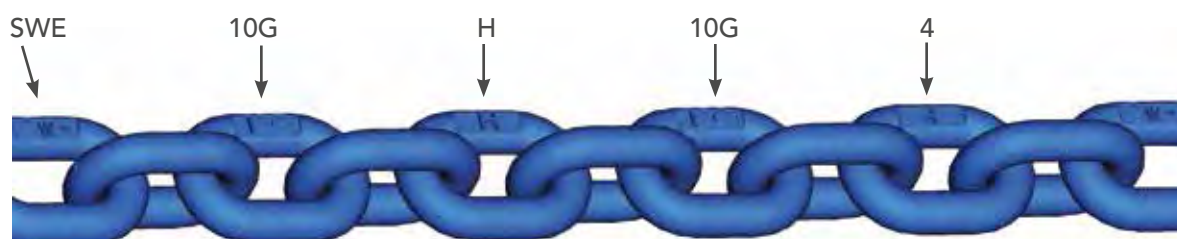
8+

| Art. no.<br>Box     | Code            | WLL<br>tonnes | D<br>nom.<br>mm | L<br>»<br>mm | E<br>»<br>mm | Weight<br>kgs/m | MPF<br>kN | Breaking<br>force<br>kN |
|---------------------|-----------------|---------------|-----------------|--------------|--------------|-----------------|-----------|-------------------------|
| Z802306 - 1 x 200 m | KLA 6-10 (400)  | 1.5           | 6.6             | 18           | 8.9          | 1.0             | 37        | 60                      |
| Z802307 - 1 x 200 m | KLA 8-10 (400)  | 2.5           | 8.8             | 24           | 11.2         | 1.7             | 62.5      | 100                     |
| Z802308 - 1 x 100 m | KLA 10-10 (400) | 4             | 11.0            | 30           | 14.4         | 2.6             | 100       | 160                     |
| Z802309 - 1 x 100 m | KLA 13-10 (400) | 6.7           | 14.3            | 39           | 19.2         | 4.5             | 162       | 260                     |
| Z802310 - 1 x 100 m | KLA 16-10 (400) | 10            | 17.3            | 48           | 23.0         | 6.7             | 250       | 402                     |

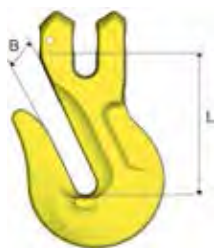
For larger sizes, see Classic Grade 8



## Marking and Traceability of Gunnebo industries Chain

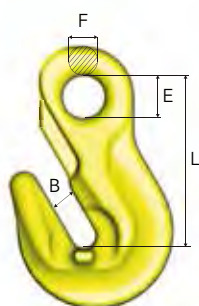


## Grab Hook GG



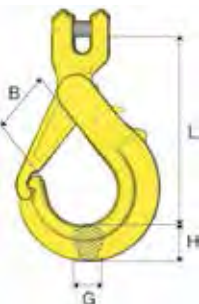
| Art. no. | Code     | WLL tonnes* | L   | B    | Weight kgs |
|----------|----------|-------------|-----|------|------------|
| Z100845  | GG-7-10  | 2           | 57  | 10   | 0.3        |
| B14771   | GG-8-10  | 2.5         | 57  | 10.5 | 0.4        |
| B14772   | GG-10-10 | 4           | 76  | 12   | 0.9        |
| B14773   | GG-13-10 | 6.7         | 97  | 16   | 1.8        |
| B14774   | GG-16-10 | 10          | 124 | 20   | 3.1        |
| Z101152  | GG-20-10 | 16          | 147 | 26   | 7.0        |

## Grab Hook OG



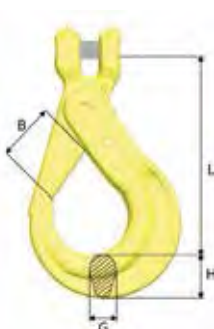
| Art. no. | Code      | WLL tonnes* | L   | B    | E  | F  | Weight kgs |
|----------|-----------|-------------|-----|------|----|----|------------|
| Z101296  | OG-7/8-10 | 2.5         | 65  | 10.5 | 17 | 12 | 0.3        |
| Z101297  | OG-10-10  | 4.0         | 85  | 12   | 20 | 16 | 0.7        |
| Z101298  | OG-13-10  | 6.7         | 104 | 16.2 | 26 | 22 | 1.6        |
| Z101299  | OG-16-10  | 10          | 131 | 20   | 32 | 24 | 2.8        |
| Z101300  | OG-20-10  | 16          | 167 | 26.4 | 41 | 28 | 6.1        |
| Z101301  | OG-22-10  | 20          | 187 | 26   | 46 | 32 | 8.6        |
| Z101302  | OG-26-10  | 27          | 228 | 32   | 55 | 38 | 14         |

## Safety Hook GBK



| Art. no. | Code      | WLL tonnes* | L   | B  | G  | H  | Weight kgs |
|----------|-----------|-------------|-----|----|----|----|------------|
| Z100758  | GBK-6-10  | 1.5         | 87  | 26 | 15 | 17 | 0.4        |
| Z100849  | GBK-7-10  | 2           | 114 | 36 | 20 | 22 | 0.5        |
| Z100759  | GBK-8-10  | 2.5         | 119 | 36 | 20 | 22 | 0.8        |
| Z100760  | GBK-10-10 | 4           | 150 | 47 | 22 | 29 | 1.4        |
| Z100761  | GBK-13-10 | 6.7         | 172 | 53 | 29 | 38 | 2.7        |
| Z100762  | GBK-16-10 | 10          | 208 | 68 | 30 | 45 | 4.4        |

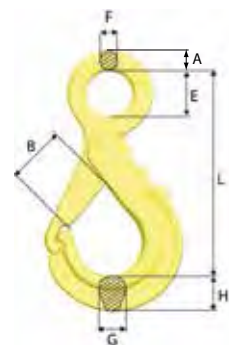
## Safety Hook BKG



| Art. no. | Code      | WLL tonnes* | L   | B  | G  | H  | Weight kgs |
|----------|-----------|-------------|-----|----|----|----|------------|
| Z101110  | BKG-6-10  | 1.5         | 91  | 29 | 15 | 21 | 0.5        |
| Z101098  | BKG-7-10  | 2           | 120 | 37 | 17 | 22 | 0.5        |
| Z101100  | BKG-8-10  | 2.5         | 121 | 37 | 17 | 26 | 0.9        |
| Z101026  | BKG-10-10 | 4           | 144 | 45 | 21 | 31 | 1.5        |
| Z101034  | BKG-13-10 | 6.7         | 180 | 55 | 30 | 40 | 3.0        |
| Z101042  | BKG-16-10 | 10          | 219 | 62 | 37 | 50 | 5.5        |
| Z101091  | BKG-20-10 | 16          | 240 | 68 | 44 | 62 | 9.6        |

## Safety Hook OBK

| Art. no. | Code         | WLL<br>tonnes* | A  | L   | B  | E  | F  | G  | H  | Weight<br>kgs |
|----------|--------------|----------------|----|-----|----|----|----|----|----|---------------|
| Z101048  | OBK-6-10     | 1.5            | 12 | 103 | 26 | 22 | 9  | 15 | 17 | 0.4           |
| Z101143  | OBK-7/8-10   | 2.5            | 14 | 139 | 37 | 28 | 10 | 20 | 22 | 0.8           |
| Z101145  | OBK-10-10    | 4.0            | 16 | 170 | 47 | 34 | 13 | 22 | 29 | 1.3           |
| Z101147  | OBK-13-10    | 6.7            | 21 | 206 | 53 | 44 | 15 | 29 | 38 | 2.6           |
| Z101141  | OBK-16-10    | 10.0           | 26 | 251 | 68 | 56 | 19 | 29 | 45 | 4.4           |
| Z101240  | OBK-18/20-10 | 16.0           | 28 | 293 | 74 | 60 | 22 | 44 | 56 | 7.3           |

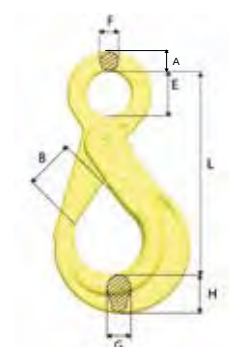


2

## Safety Hook BK

| Art. no. | Code        | WLL<br>tonnes* | A  | L   | B   | E  | F  | G  | H  | Weight<br>kgs |
|----------|-------------|----------------|----|-----|-----|----|----|----|----|---------------|
| Z101108  | BK-6-10     | 1.5            | 12 | 109 | 29  | 22 | 10 | 15 | 21 | 0.5           |
| Z101097  | BK-7/8-10   | 2.5            | 14 | 138 | 37  | 28 | 11 | 17 | 26 | 0.9           |
| Z101024  | BK-10-10    | 4.0            | 16 | 168 | 45  | 34 | 13 | 21 | 31 | 1.5           |
| Z101032  | BK-13-10    | 6.7            | 20 | 207 | 55  | 44 | 16 | 30 | 40 | 3.0           |
| Z101040  | BK-16-10    | 10.0           | 26 | 254 | 62  | 56 | 20 | 37 | 50 | 5.5           |
| Z101089  | BK-18/20-10 | 16.0           | 30 | 289 | 68  | 60 | 22 | 44 | 62 | 9.0           |
| Z101325  | BK-22-10    | 20.0           | 32 | 320 | 80  | 70 | 24 | 50 | 62 | 11.3          |
| Z101326  | BK-26-10    | 27.0           | 35 | 342 | 100 | 80 | 25 | 54 | 68 | 16.5          |

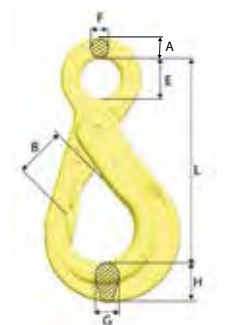
For larger sizes, see Classic Grade 8



## Safety Hook BKD

The double latch BK-hook with recessed trigger.

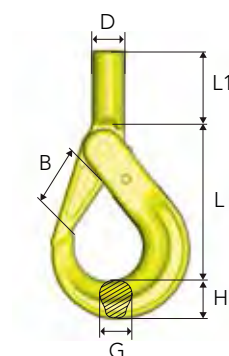
| Art. no. | Code         | WLL<br>tonnes* | A  | L   | B  | E  | F  | G  | H  | Weight<br>kgs |
|----------|--------------|----------------|----|-----|----|----|----|----|----|---------------|
| Z101154  | BKD-13-10    | 6.7            | 20 | 207 | 44 | 45 | 16 | 30 | 40 | 3.2           |
| Z101155  | BKD-16-10    | 10.0           | 26 | 254 | 48 | 56 | 20 | 37 | 50 | 5.8           |
| Z101156  | BKD-18/20-10 | 16.0           | 30 | 290 | 57 | 60 | 22 | 44 | 62 | 9.1           |
| Z101373  | BKD-26-10 OS | 27.0           | 35 | 345 | 72 | 80 | 25 | 50 | 69 | 14.5          |

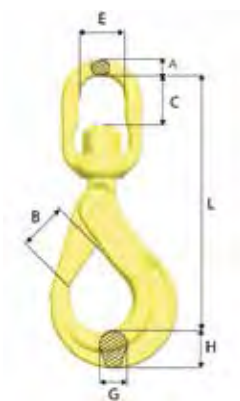


## Shank Safety Hook BKT

| Art. no. | Code       | WLL<br>tonnes* | L   | B  | L1 | D  | dmin | G  | H  | Weight<br>kgs |
|----------|------------|----------------|-----|----|----|----|------|----|----|---------------|
| Z1011120 | BKT-6-10   | 1.5            | 90  | 29 | 36 | 20 | 11   | 15 | 21 | 0.5           |
| Z1011020 | BKT-7/8-10 | 2.5            | 111 | 37 | 47 | 24 | 13   | 17 | 26 | 0.9           |
| Z1010690 | BKT-10-10  | 4.0            | 133 | 45 | 51 | 29 | 16   | 21 | 31 | 1.6           |

d min = the smallest permitted shank dimension after machining.  
Note! After machining of the shank, proof loading must be carried out.

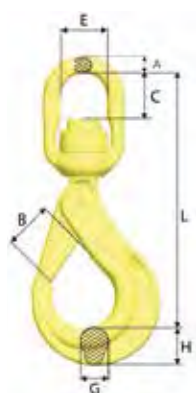




## Swivel Safety Hook BKL

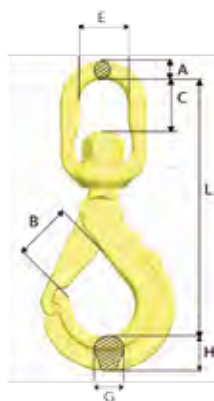
| Art. no. | Code         | WLL tonnes* | L   | B  | C  | E  | A  | G  | H  | Weight kgs |
|----------|--------------|-------------|-----|----|----|----|----|----|----|------------|
| Z101114  | BKL-6-10     | 1.5         | 149 | 29 | 23 | 33 | 11 | 15 | 21 | 0.7        |
| Z101104  | BKL-7/8-10   | 2.5         | 183 | 37 | 27 | 38 | 12 | 17 | 26 | 1.2        |
| Z101028  | BKL-10-10    | 4.0         | 218 | 45 | 37 | 44 | 15 | 21 | 31 | 2.0        |
| Z101036  | BKL-13-10    | 6.7         | 282 | 55 | 49 | 48 | 19 | 30 | 40 | 4.0        |
| Z101044  | BKL-16-10    | 10          | 341 | 62 | 65 | 61 | 25 | 37 | 50 | 7.2        |
| Z101093  | BKL-18/20-10 | 16          | 368 | 68 | 70 | 72 | 31 | 44 | 62 | 11.4       |

## Swivel Safety Hook BKLK with ball-bearing



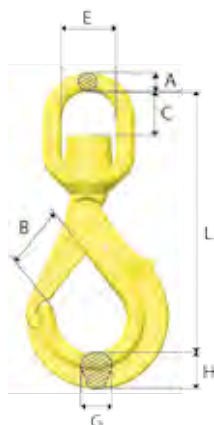
| Art. no. | Code          | WLL tonnes* | L   | B   | C   | E   | A  | G  | H  | Weight kgs |
|----------|---------------|-------------|-----|-----|-----|-----|----|----|----|------------|
| Z101116  | BKLK-6-10     | 1.5         | 149 | 29  | 24  | 33  | 11 | 15 | 21 | 0.7        |
| Z101106  | BKLK-7/8-10   | 2.5         | 183 | 37  | 27  | 38  | 12 | 17 | 26 | 1.2        |
| Z101030  | BKLK-10-10    | 4.0         | 218 | 45  | 35  | 44  | 15 | 21 | 31 | 2.0        |
| Z101038  | BKLK-13-10    | 6.7         | 280 | 55  | 45  | 48  | 19 | 30 | 40 | 4.0        |
| Z101046  | BKLK-16-10    | 10.0        | 339 | 59  | 61  | 61  | 25 | 37 | 50 | 7.4        |
| Z101095  | BKLK-18/20-10 | 16.0        | 368 | 68  | 59  | 72  | 31 | 44 | 62 | 11.5       |
| Z101294  | BKLK-22-10 OS | 20.0        | 436 | 79  | 80  | 80  | 35 | 50 | 62 | 16.8       |
| Z101295  | BKLK-26-10 OS | 27.0        | 486 | 100 | 110 | 102 | 45 | 54 | 68 | 26         |

For larger sizes, see Classic Grade 8



## Swivel Safety Hook with Griplatch LBK

| Art. no. | Code       | WLL tonnes* | L   | B  | C  | E  | A  | G  | H  | Weight kgs |
|----------|------------|-------------|-----|----|----|----|----|----|----|------------|
| Z100978  | LBK-7/8-10 | 2.5         | 177 | 37 | 27 | 38 | 12 | 20 | 22 | 1.1        |
| Z100960  | LBK-10-10  | 4.0         | 214 | 47 | 37 | 44 | 15 | 22 | 29 | 1.8        |
| Z100993  | LBK-13-10  | 6.7         | 262 | 53 | 45 | 48 | 19 | 29 | 38 | 3.5        |
| Z100995  | LBK-16-10  | 10          | 324 | 68 | 66 | 61 | 25 | 30 | 45 | 5.9        |

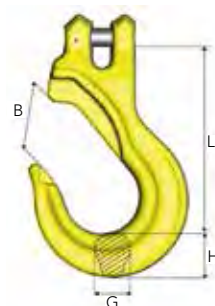


## Swivel Safety Hook with Griplatch LKBK with ball-bearing

| Art. no. | Code        | WLL tonnes* | L   | B  | C  | E  | A  | G  | H  | Weight kgs |
|----------|-------------|-------------|-----|----|----|----|----|----|----|------------|
| Z100980  | LKBK-7/8-10 | 2.5         | 176 | 37 | 27 | 38 | 12 | 20 | 22 | 1.1        |
| Z100962  | LKBK-10-10  | 4.0         | 213 | 47 | 35 | 44 | 15 | 22 | 29 | 1.9        |
| Z100997  | LKBK-13-10  | 6.7         | 261 | 53 | 43 | 48 | 19 | 29 | 38 | 3.6        |
| Z100999  | LKBK-16-10  | 10.0        | 323 | 68 | 61 | 61 | 25 | 30 | 45 | 6.2        |

## Sling Hook EGK

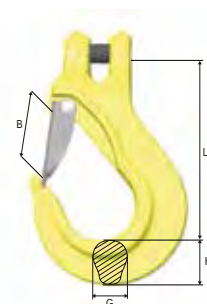
| Art. no. | Code      | WLL tonnes* | L   | B  | G  | H  | Weight kgs |
|----------|-----------|-------------|-----|----|----|----|------------|
| Z100915  | EGK-6-10  | 1.5         | 86  | 28 | 17 | 20 | 0.4        |
| Z100918  | EGK-7-10  | 2.0         | 95  | 32 | 17 | 22 | 0.5        |
| Z100938  | EGK-8-10  | 2.5         | 95  | 32 | 17 | 23 | 0.5        |
| Z100942  | EGK-10-10 | 4.0         | 121 | 41 | 23 | 31 | 1.0        |
| Z100946  | EGK-13-10 | 6.7         | 145 | 49 | 28 | 38 | 2.0        |
| Z100950  | EGK-16-10 | 10          | 170 | 61 | 36 | 46 | 3.8        |
| Z101138  | EGK-20-10 | 16          | 209 | 70 | 42 | 60 | 7.3        |



2

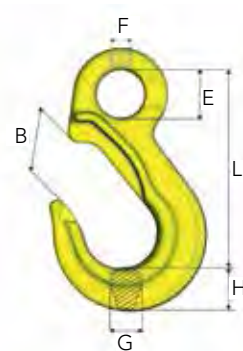
## Sling Hook EGKN with latch

| Art. no. | Code       | WLL tonnes* | L   | B    | G  | H  | Weight kgs |
|----------|------------|-------------|-----|------|----|----|------------|
| B14460   | EGKN-6-10  | 1.5         | 86  | 24,5 | 17 | 20 | 0.4        |
| Z100843  | EGKN-7-10  | 2.0         | 95  | 28   | 17 | 23 | 0.5        |
| B14461   | EGKN-8-10  | 2.5         | 95  | 28   | 17 | 23 | 0.5        |
| B14462   | EGKN-10-10 | 4.0         | 121 | 35   | 23 | 31 | 1.1        |
| B14463   | EGKN-13-10 | 6.7         | 145 | 42   | 28 | 38 | 2.2        |
| B14464   | EGKN-16-10 | 10          | 170 | 52   | 36 | 46 | 4.0        |
| Z101127  | EGKN-20-10 | 16          | 209 | 61   | 42 | 60 | 7.6        |



## Sling Hook EK

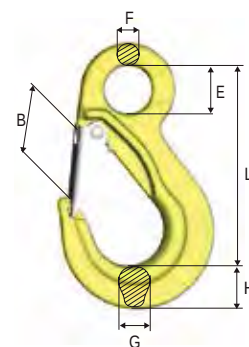
| Art. no. | Code     | WLL tonnes* | L     | B  | E    | F  | G  | H  | Weight kgs |
|----------|----------|-------------|-------|----|------|----|----|----|------------|
| Z101162  | EK- 6-10 | 1.5         | 94    | 29 | 22   | 10 | 17 | 20 | 0.4        |
| Z101164  | EK- 8-10 | 2.5         | 109   | 32 | 28   | 12 | 17 | 23 | 0.5        |
| Z101166  | EK-10-10 | 4.0         | 134   | 42 | 34   | 14 | 23 | 30 | 0.9        |
| Z101168  | EK-13-10 | 6.7         | 166   | 49 | 44   | 18 | 28 | 38 | 2.0        |
| Z101170  | EK-16-10 | 10          | 203   | 60 | 56   | 22 | 36 | 47 | 3.8        |
| Z101306  | EK-20-10 | 16          | 229.2 | 71 | 60.5 | 26 | 42 | 60 | 6.3        |
| Z101307  | EK-22-10 | 20          | 267   | 83 | 64   | 31 | 43 | 67 | 8.5        |
| Z101308  | EK-26-10 | 27          | 301   | 95 | 66   | 32 | 51 | 75 | 12.6       |



For larger sizes, see Classic Grade 8

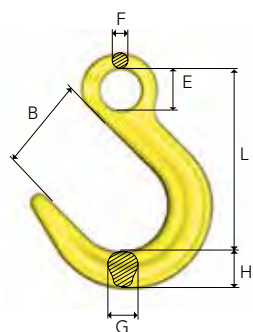
## Sling Hook EKN with latch

| Art. no. | Code      | WLL tonnes* | L     | B  | E    | F  | G  | H  | Weight kgs |
|----------|-----------|-------------|-------|----|------|----|----|----|------------|
| Z101128  | EKN- 6-10 | 1.5         | 94    | 24 | 22   | 10 | 17 | 20 | 0.4        |
| Z101130  | EKN- 8-10 | 2.5         | 108   | 28 | 28   | 13 | 17 | 23 | 0.5        |
| Z101132  | EKN-10-10 | 4           | 134   | 37 | 34   | 14 | 23 | 30 | 1          |
| Z101134  | EKN-13-10 | 6.7         | 166   | 42 | 44   | 18 | 28 | 38 | 2.1        |
| Z101136  | EKN-16-10 | 10          | 203   | 50 | 56   | 22 | 36 | 47 | 3.9        |
| Z101327  | EKN-20-10 | 16          | 229.2 | 60 | 60.5 | 26 | 42 | 60 | 6.3        |
| Z101328  | EKN-22-10 | 20          | 267   | 73 | 64   | 31 | 43 | 67 | 8.7        |
| Z101329  | EKN-26-10 | 27          | 301   | 82 | 66   | 32 | 51 | 75 | 13.2       |



For larger sizes, see Classic Grade 8

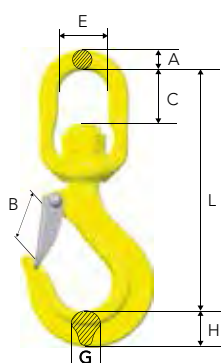
## Foundry Hook OKE



| Art. no. | Code       | WLL tonnes* | L   | B   | E  | F  | G  | H  | Weight kgs |
|----------|------------|-------------|-----|-----|----|----|----|----|------------|
| Z100853  | OKE-7/8-10 | 2.5         | 124 | 63  | 28 | 12 | 21 | 26 | 0.8        |
| Z100854  | OKE-10-10  | 4           | 151 | 76  | 34 | 15 | 26 | 30 | 1.4        |
| Z100855  | OKE-13-10  | 6.7         | 184 | 90  | 44 | 19 | 33 | 39 | 2.8        |
| Z100898  | OKE-16-10  | 10          | 218 | 102 | 56 | 23 | 40 | 46 | 4.9        |
| Z101340  | OKE-20-10  | 16          | 247 | 114 | 60 | 27 | 46 | 60 | 7.2        |
| Z101341  | OKE-22-10  | 20          | 275 | 120 | 64 | 31 | 60 | 70 | 11.3       |
| Z101342  | OKE-26-10  | 27          | 300 | 113 | 70 | 35 | 64 | 77 | 16         |

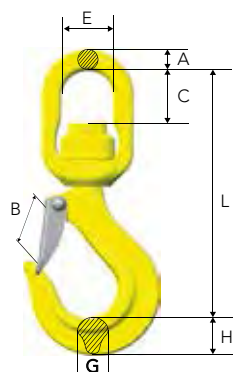
For larger sizes, see Classic Grade 8

## Swivel Latch Hook LKN



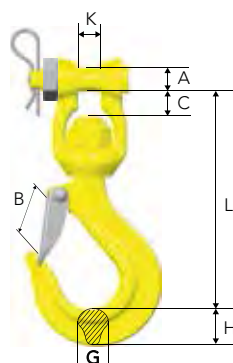
| Art. no. | Code       | WLL tonnes* | For chain dim. mm | L   | B  | C  | E  | A  | G  | H  | Weight appr. kgs |
|----------|------------|-------------|-------------------|-----|----|----|----|----|----|----|------------------|
| Z101345  | LKN-7/8-10 | 2.5         | 7, 8              | 155 | 28 | 28 | 38 | 12 | 18 | 24 | 0.8              |
| Z101346  | LKN-10-10  | 4.0         | 10                | 192 | 35 | 37 | 44 | 15 | 23 | 31 | 1.5              |
| Z101347  | LKN-13-10  | 6.7         | 13                | 238 | 40 | 47 | 48 | 19 | 28 | 38 | 3.1              |
| Z101348  | LKN-16-10  | 10.0        | 16                | 295 | 53 | 65 | 61 | 25 | 34 | 43 | 5.3              |

## Swivel Latch Hook LKNK with ball bearing



| Art. no. | Code        | WLL tonnes* | For chain dim. | L   | B  | C  | E  | A  | G  | H  | Weight appr. kgs |
|----------|-------------|-------------|----------------|-----|----|----|----|----|----|----|------------------|
| Z101349  | LKNK-7/8-10 | 2.5         | 7, 8           | 154 | 28 | 28 | 38 | 12 | 18 | 24 | 0.9              |
| Z101350  | LKNK-10-10  | 4.0         | 10             | 191 | 35 | 35 | 44 | 15 | 23 | 31 | 1.6              |
| Z101351  | LKNK-13-10  | 5.4         | 13             | 236 | 40 | 45 | 48 | 19 | 28 | 38 | 3.3              |
| Z101352  | LKNK-16-10  | 10.0        | 16             | 293 | 53 | 62 | 61 | 25 | 34 | 43 | 5.6              |

## Clevis Swivel Hook LKNG

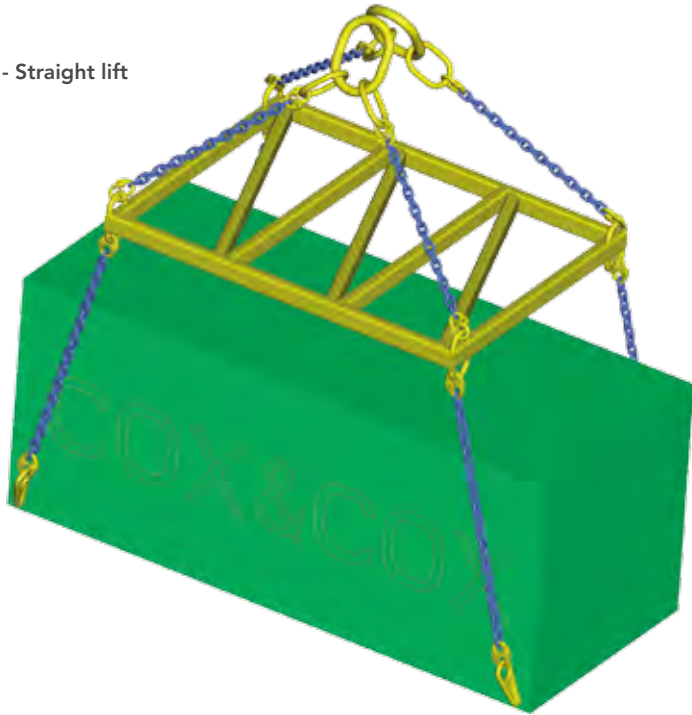


| Art. no. | Code       | WLL tonnes* | For chain dim. | L   | B  | C  | A  | G  | H  | K  | Weight appr. kgs |
|----------|------------|-------------|----------------|-----|----|----|----|----|----|----|------------------|
| Z101353  | LKNG-16-10 | 10.0        | 16             | 258 | 53 | 30 | 28 | 34 | 43 | 27 | 5.7              |

# Container Hook CH

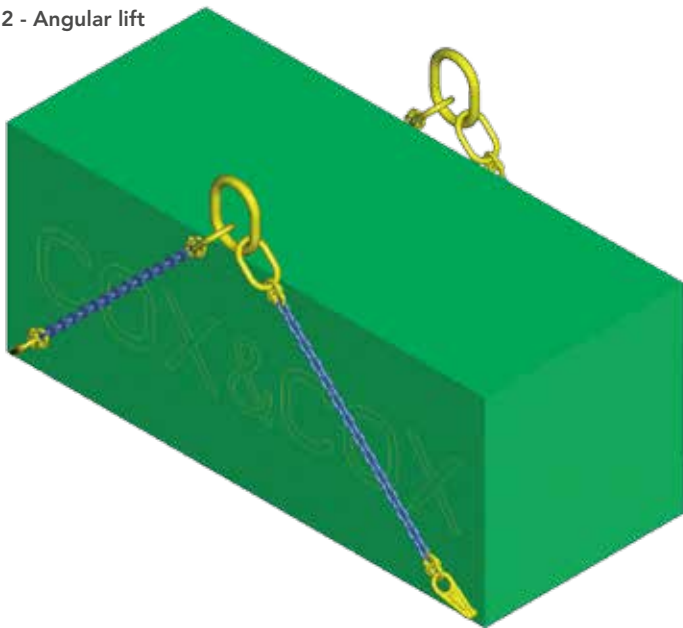
Made for lifting containers in their lower fittings.

Alt. 1 - Straight lift



4 x CH straight

Alt. 2 - Angular lift



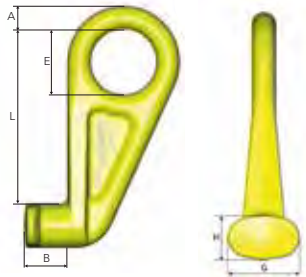
2 x CH turned  
45° left

+



2 x CH turned  
45° right

| Art. no. | Code            | WLL<br>tonnes* | A  | L   | E  | B  | H  | G  | Weight<br>kgs |
|----------|-----------------|----------------|----|-----|----|----|----|----|---------------|
| Z101220  | CH-3            | 12.5           | 25 | 187 | 70 | 46 | 47 | 75 | 3.8           |
| Z101221  | CH-3, 45° left  | 12.5           | 25 | 187 | 70 | 46 | 47 | 75 | 3.8           |
| Z101219  | CH-3, 45° right | 12.5           | 25 | 187 | 70 | 46 | 47 | 75 | 3.8           |

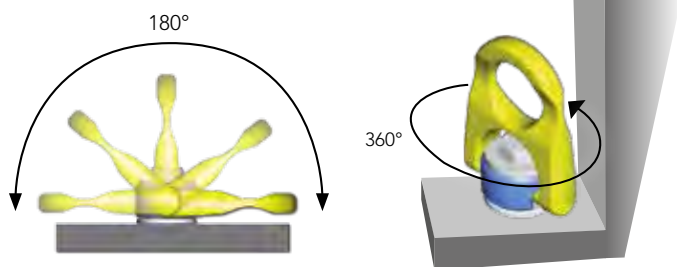


## Rotating Lifting Points RLP and ERLP

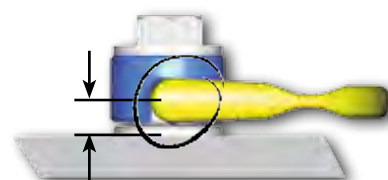
Gunnebo Industries' Rotating Lifting Point (RLP) has a dismountable D-ring to enable assembly of roundsling, master link, link or hook directly onto the lifting point. It is equipped with a hexagon screw to make it easy to disassemble/assemble with a wrench. The ERLP is designed to fit more confined spaces to where the space for rotation is limited and has a fixed eye. Both lifting points rotates 360° and pivots 180°, making them strong, flexible and reliable.



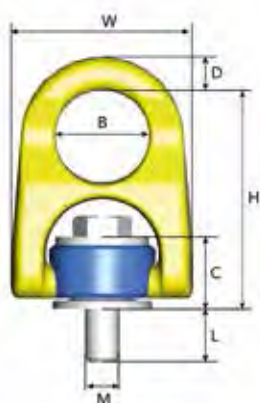
### Optimal rotation and pivot



### Optimal load distribution



The bow on both the RLP and the ERLP have a low position, greatly reducing the stress on the bolt, as well as the impact on the surface that the lifting points are screwed in to. This makes the RLP/ERLP strong and reliable lifting points that are gentle to the loads being transported.



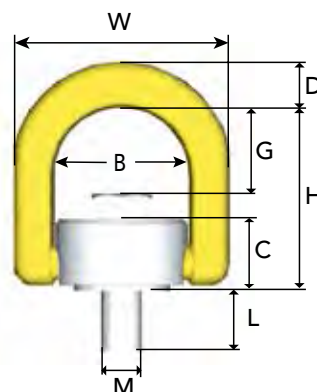
### Rotating Lifting Point ERLP

Slim design to fit in confined spaces.

| Art. no. | Code        | L  | M   | B   | D  | C  | H    | W  | Weight (kgs) |
|----------|-------------|----|-----|-----|----|----|------|----|--------------|
| Z101260  | ERLP-M8-10  | 15 | M8  | Ø27 | 10 | 20 | 63   | 52 | 0.2          |
| Z101261  | ERLP-M10-10 | 20 | M10 | Ø27 | 10 | 20 | 63   | 52 | 0.2          |
| Z101252  | ERLP-M12-10 | 19 | M12 | Ø38 | 15 | 31 | 91.8 | 73 | 0.8          |
| Z101253  | ERLP-M16-10 | 24 | M16 | Ø38 | 15 | 31 | 91.8 | 73 | 0.8          |

## Rotating Lifting Point RLP

| Art. no. | Code       | L    | M   | B    | D    | G    | C    | H   | W   | Weight<br>kgs |
|----------|------------|------|-----|------|------|------|------|-----|-----|---------------|
| Z100095  | RLP-M8-10  | 15   | M8  | Ø42  | 12   | 35   | 17.5 | 60  | 64  | 0.3           |
| Z100096  | RLP-M10-10 | 20   | M10 | Ø42  | 12   | 34   | 17.5 | 60  | 64  | 0.3           |
| Z100097  | RLP-M12-10 | 19   | M12 | Ø57  | 19   | 46.5 | 28   | 85  | 91  | 1.0           |
| Z100098  | RLP-M16-10 | 24   | M16 | Ø57  | 19   | 44   | 28   | 85  | 91  | 1.0           |
| Z100092  | RLP-M20-10 | 32   | M20 | Ø83  | 28   | 56   | 39.3 | 111 | 133 | 2.8           |
| Z100094  | RLP-M24-10 | 37   | M24 | Ø83  | 28   | 53   | 39.3 | 111 | 133 | 3.0           |
| Z100714  | RLP-M30-10 | 49.5 | M30 | Ø114 | 34   | 69.5 | 56   | 144 | 182 | 7.0           |
| Z100713  | RLP-M36-10 | 61   | M36 | Ø114 | 34   | 65.5 | 56   | 144 | 182 | 7.3           |
| Z100707  | RLP-M42-10 | 65.5 | M42 | Ø149 | 40.4 | 90   | 70   | 185 | 229 | 14.0          |
| Z100708  | RLP-M48-10 | 75.5 | M48 | Ø149 | 40.4 | 86   | 70   | 185 | 229 | 14.5          |



## RLP with UNC thread

| Art. no. | Code          | Threads/<br>inch | L  | B   | D  | G  | C    | H   | W   | Weight<br>kgs |
|----------|---------------|------------------|----|-----|----|----|------|-----|-----|---------------|
| Z100838  | RLP-UNC-5/16" | 18               | 21 | Ø42 | 12 | 35 | 17.5 | 60  | 64  | 0.3           |
| Z100839  | RLP-UNC-3/8"  | 16               | 27 | Ø42 | 12 | 34 | 17.5 | 60  | 64  | 0.3           |
| Z100840  | RLP-UNC-7/16" | 14               | 23 | Ø57 | 19 | 47 | 28   | 85  | 91  | 1.0           |
| Z100841  | RLP-UNC-5/8"  | 11               | 29 | Ø57 | 19 | 44 | 28   | 85  | 91  | 1.0           |
| Z100842  | RLP-UNC-3/4"  | 10               | 37 | Ø83 | 28 | 56 | 39.3 | 111 | 133 | 2.8           |

L= The effective thread length below RLP house.

## Extra Long Bolt for RLP

| Art. no. | Bolt      | L<br>(mm) | Weight<br>(kgs) |
|----------|-----------|-----------|-----------------|
| Z7681688 | M8 x 120  | 99        | 0.44            |
| Z7681695 | M10 x 120 | 99        | 0.73            |
| Z7681707 | M12 x 120 | 89        | 1.05            |
| Z7681716 | M16 x 200 | 169       | 2.92            |
| Z7681725 | M20 x 200 | 158       | 4.84            |
| Z7681740 | M24 x 200 | 158       | 7.22            |
| Z7681795 | M30 x 200 | 141       | 1.21            |
| Z7681808 | M36 x 200 | 141       | 1.81            |



## Working Load Limits (tonnes) for RLP/ERLP

| No. of legs         | 1     | 1     | 2     | 2     | 2 symmetric |        | 3 & 4 symmetric |        |
|---------------------|-------|-------|-------|-------|-------------|--------|-----------------|--------|
| $\beta$             | 0°    | 90°   | 0°    | 90°   | 0-45°       | 45-60° | 0-45°           | 45-60° |
| Load factor         | *)    | 1     | *)    | 2     | 1.4         | 1      | 2.1             | 1.5    |
| M8-10 and 5/16 UNC  | 0.60  | 0.30  | 1.20  | 0.60  | 0.42        | 0.30   | 0.63            | 0.45   |
| M10-10 and 3/8 UNC  | 1.00  | 0.50  | 2.00  | 1.00  | 0.70        | 0.50   | 1.05            | 0.75   |
| M12-10 and 7/16 UNC | 1.50  | 0.75  | 3.00  | 1.50  | 1.00        | 0.75   | 1.60            | 1.13   |
| M16-10 and 5/8 UNC  | 3.00  | 1.50  | 6.00  | 3.00  | 2.10        | 1.50   | 3.15            | 2.25   |
| M20-10 and 3/4 UNC  | 5.00  | 2.50  | 10.00 | 5.00  | 3.50        | 2.50   | 5.25            | 3.75   |
| M24-10              | 7.00  | 3.50  | 14.00 | 7.00  | 4.90        | 3.50   | 7.35            | 5.25   |
| M30-10              | 12.00 | 6.00  | 24.00 | 12.00 | 8.40        | 6.00   | 12.60           | 9.00   |
| M36-10              | 14.00 | 8.00  | 28.00 | 16.00 | 11.20       | 8.00   | 16.80           | 12.00  |
| M42-10              | 16.00 | 14.00 | 32.00 | 28.00 | 19.60       | 14.00  | 29.40           | 21.00  |
| M48-10              | 20.00 | 16.00 | 40.00 | 32.00 | 22.40       | 16.00  | 33.60           | 24.00  |

In case of asymmetric loading we recommend following loading:

- 2-leg as corresponding 1-leg.
- 3- or 4-leg as corresponding 2-leg.

\*) Provided only axial loading takes place, i.e. no bending force applied in the direction of the thread

# Offshore Components



**GUNNEBO**  
Industries

# Innovation and Quality With a Purpose

We have developed products to meet the stringent requirements of the offshore oil & gas industry for many years. The working conditions are tough and products have to be able to sustain extreme conditions. Our double latch hook, BKD, was developed with the aerospace industry as a role model; if one system fails another one is ready to save the situation. The extra latch on the BKD will retain the load in case an unintended opening of the first latch should occur. Read more about the BKD on page 2:27.

Our lifting systems have been valued for their long durability and quality. Regardless of the environmental conditions, our systems have provided lifting operations with high safety. Our quality systems give us the tools to work with continuous improvements and we will always put our great efforts into our mission to create the best available in the market. Our quality is there with a purpose

## DNV 2.7-1 certificate

We are type-approved by DNV to manufacture master links and shackles in accordance with DNV 2.7.1 specification. The approval verifies that Gunnebo Industries has a high consistent level of production stability in the entire process, from raw material to the finished product.



# Arctic Offshore Master Links

Type Approved to DNV 2.7-1



Adverse weather and rough sea conditions - sometimes in combination with extremely low temperatures - must be included in the design and safety factor of container lifting sets. The heat treatment of the components must ensure proper ductility and strength to sustain shock loads which may be imposed when the container is lifted from the deck of a vessel.

The lifting sets (chain or wire rope sling, shackles and master links) must be specially designed for the purpose to lift offshore containers. One of the main differences compared to the onshore standard or specification, is that it allows for the dynamic forces at sea by adding an extra enhancement factor to increase the level of safety. Another difference is that the requirements and testing of materials that will be used in cold environments, are more extensive.

## Arctic Offshore Master Link MT



## Arctic Offshore Master Link M



## Design Temperature -40 °C

The Arctic Offshore Master links are highly suitable to withstand shock loads and fatigue, even in extremely cold conditions. The new master link range has a design temperature of -40 °C, making it suitable for even the harshest weather conditions such as the North Sea.

## High Visibility colour

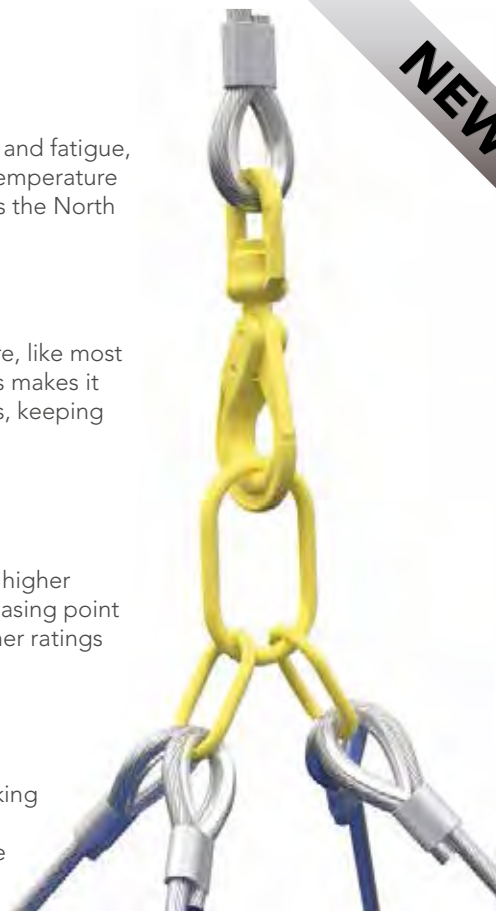
To even further increase the safety on the work site, the Arctic master links are, like most of Gunnebo Industries' offshore range, painted in a high visibility colour. This makes it easier for the operator to detect the lifting gear in severe weather conditions, keeping both load and personnel safe.

## Improved Working Load Limits

It comes in an optimized range where each master link will have a wider and higher working load limit span than the old range. This makes it easier from a purchasing point of view, as well as decreasing the risk of incorrect use. A table for the container ratings and recommended master links can be found on the next page.

## 100% Proof Loading

All lifts require reliable products with the highest safety to ensure a safe working environment as well as to protect the load. Gunnebo Industries perform rigorous testing in their factories before the product is released. 100 % of the components of all batches are proof loaded 2.5 times their working load limit and visually inspected by competent personnel. This is done without exception to guarantee highest quality and safety for the end user. For the Arctic master links there is also a stress relieving additional heat treatment to make the product as suitable as possible for the harsh marine environment.

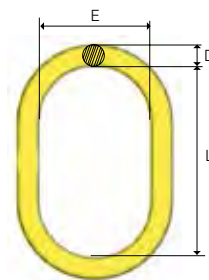


## Arctic Offshore Master Link M

DNV 2.7-1 Type Approved

| Art. no. | Code        | WLL<br>tonnes<br>4:1 | Max.<br>Container<br>rating* (kgs) | L   | E   | D  | Weight<br>kgs |
|----------|-------------|----------------------|------------------------------------|-----|-----|----|---------------|
| Z101397  | M-7T-10 OS  | 7.6                  | 2 500                              | 160 | 95  | 22 | 1.5           |
| Z101387  | M-12T-10 OS | 12.5                 | 7 500                              | 270 | 140 | 28 | 3.8           |
| Z101388  | M-18T-10 OS | 18.5                 | 13 500                             | 270 | 140 | 32 | 5.1           |
| Z101389  | M-29T-10 OS | 29.2                 | 25 000                             | 270 | 140 | 40 | 8.2           |
| Z101394  | M-40T-10 OS | 40.0                 | N/A                                | 300 | 180 | 45 | 11.9          |
| Z101395  | M-48T-10 OS | 48.0                 | N/A                                | 300 | 200 | 50 | 15.2          |
| Z101396  | M-60T-10 OS | 60.0                 | N/A                                | 350 | 200 | 55 | 20.6          |

\* For further information, see DNV 2.7-1

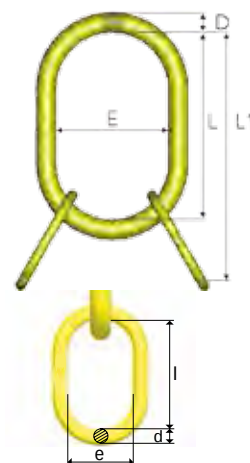


## Arctic Offshore Master Link MT

DNV 2.7-1 Type Approved

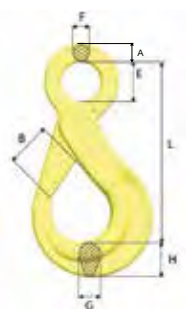
| Art. no. | Code         | WLL<br>tonnes<br>4:1 | Max.<br>Container<br>rating* (kgs) | L1  | L   | E   | D  | I   | e   | d  | Weight<br>kgs |
|----------|--------------|----------------------|------------------------------------|-----|-----|-----|----|-----|-----|----|---------------|
| Z101398  | MT-7T-10 OS  | 7.8                  | 3 000                              | 340 | 190 | 110 | 28 | 150 | 90  | 19 | 5.0           |
| Z101390  | MT-12T-10 OS | 12.5                 | 7 500                              | 430 | 270 | 140 | 28 | 160 | 95  | 22 | 6.8           |
| Z101391  | MT-18T-10 OS | 18.5                 | 13 500                             | 460 | 270 | 140 | 32 | 190 | 110 | 28 | 10.8          |
| Z101392  | MT-29T-10 OS | 29.2                 | 25 000                             | 470 | 270 | 140 | 40 | 200 | 120 | 32 | 16.2          |
| Z101393  | MT-40T-10 OS | 40.0                 | N/A                                | 570 | 300 | 180 | 45 | 270 | 140 | 40 | 28.2          |

\* For further information, see DNV 2.7-1



## Determination of WLL as stated in DNV 2.7-1

| Container rating (kgs) | Enhancement factor | Min. required WLL (t) | Recommended Masterlink M | Recommended Masterlink MT |
|------------------------|--------------------|-----------------------|--------------------------|---------------------------|
| 500                    | -                  | 7                     | M-7T-10 OS               | MT-7T-10 OS               |
| 1000                   | -                  | 7                     |                          |                           |
| 1500                   | -                  | 7                     |                          |                           |
| 2000                   | 3.500              | 7                     |                          |                           |
| 2500                   | 2.880              | 7.20                  |                          |                           |
| 3000                   | 2.600              | 7.80                  | M-12T-10 OS              | MT-12T-10 OS              |
| 3500                   | 2.403              | 8.41                  |                          |                           |
| 4000                   | 2.207              | 8.83                  |                          |                           |
| 4500                   | 1.962              | 8.83                  |                          |                           |
| 5000                   | 1.766              | 8.83                  |                          |                           |
| 5500                   | 1.766              | 9.71                  |                          |                           |
| 6000                   | 1.766              | 10.59                 |                          |                           |
| 6500                   | 1.733              | 11.26                 |                          |                           |
| 7000                   | 1.700              | 11.90                 |                          |                           |
| 7500                   | 1.666              | 12.50                 |                          |                           |
| 8000                   | 1.633              | 13.07                 | M-18T-10 OS              | MT-18T-10 OS              |
| 8500                   | 1.600              | 13.60                 |                          |                           |
| 9000                   | 1.567              | 14.10                 |                          |                           |
| 9500                   | 1.534              | 14.57                 |                          |                           |
| 10000                  | 1.501              | 15.01                 |                          |                           |
| 10500                  | 1.479              | 15.53                 |                          |                           |
| 11000                  | 1.457              | 16.02                 |                          |                           |
| 11500                  | 1.435              | 16.50                 |                          |                           |
| 12000                  | 1.413              | 16.95                 |                          |                           |
| 12500                  | 1.391              | 17.38                 |                          |                           |
| 13000                  | 1.368              | 17.79                 |                          |                           |
| 13500                  | 1.346              | 18.18                 |                          |                           |
| 14000                  | 1.324              | 18.54                 |                          |                           |
| 14500                  | 1.302              | 18.88                 |                          |                           |
| 15000                  | 1.280              | 19.20                 |                          |                           |
| 15500                  | 1.267              | 19.64                 |                          |                           |
| 16000                  | 1.254              | 20.06                 |                          |                           |
| 16500                  | 1.240              | 20.47                 |                          |                           |
| 17000                  | 1.227              | 20.86                 |                          |                           |
| 17500                  | 1.214              | 21.24                 |                          |                           |
| 18000                  | 1.201              | 21.61                 |                          |                           |
| 18500                  | 1.188              | 21.97                 |                          |                           |
| 19000                  | 1.174              | 22.31                 | M-29-10 OS               | MT-29-10 OS               |
| 19500                  | 1.161              | 22.64                 |                          |                           |
| 20000                  | 1.148              | 22.96                 |                          |                           |
| 20500                  | 1.143              | 23.44                 |                          |                           |
| 21000                  | 1.139              | 23.92                 |                          |                           |
| 21500                  | 1.135              | 24.39                 |                          |                           |
| 22000                  | 1.130              | 24.86                 |                          |                           |
| 22500                  | 1.126              | 25.33                 |                          |                           |
| 23000                  | 1.121              | 25.79                 |                          |                           |
| 23500                  | 1.117              | 26.25                 |                          |                           |
| 24000                  | 1.112              | 26.70                 |                          |                           |
| 24500                  | 1.108              | 27.15                 |                          |                           |
| 25000                  | 1.104              | 27.59                 |                          |                           |



## Safety Hook BK Offshore

Requirements acc. to DNV 2.7-1

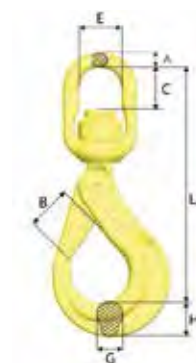
| Art. no. | Code        | WLL tonnes 4:1 | WLL tonnes 5:1 | L   | B   | E  | F  | G  | H  | Weight kgs |
|----------|-------------|----------------|----------------|-----|-----|----|----|----|----|------------|
| Z101355  | BK-26-10 OS | 27             | 21.8           | 342 | 100 | 80 | 25 | 50 | 68 | 14.6       |
| Z101364  | BK-32-8 OS  | 32.8           | 26.2           | 400 | 120 | 90 | 30 | 62 | 86 | 23.6       |

## Swivel Safety Hook BKLK Offshore

Requirements acc. to DNV 2.7-1

| Art. no. | Code             | WLL<br>tonnes<br>4:1 | WLL<br>tonnes<br>5:1 | L   | B   | C   | E   | A  | G  | H  | Weight<br>kgs |
|----------|------------------|----------------------|----------------------|-----|-----|-----|-----|----|----|----|---------------|
| Z700928  | BKLK-13-10 W OS  | 6.7                  | 5.3                  | 307 | 55  | 72  | 61  | 25 | 30 | 40 | 4.9           |
| Z100174  | BKLK-16-10 W OS  | 10                   | 8                    | 367 | 62  | 88  | 82  | 26 | 37 | 50 | 8.4           |
| Z101356  | BKLK-18/20-10 OS | 16                   | 12.8                 | 368 | 68  | 60  | 72  | 31 | 44 | 65 | 11.9          |
| Z101294  | BKLK-22-10 OS    | 20                   | 16                   | 436 | 79  | 80  | 80  | 35 | 50 | 62 | 16.8          |
| Z101295  | BKLK-26-10 OS    | 27                   | 21.6                 | 486 | 100 | 110 | 102 | 45 | 54 | 68 | 26.5          |
| Z101344  | BKLK-32-8 OS     | 32.8                 | 26.2                 | 533 | 120 | 110 | 102 | 45 | 62 | 86 | 32.3          |

13-20 mm and 26 mm can be supplied with double latch



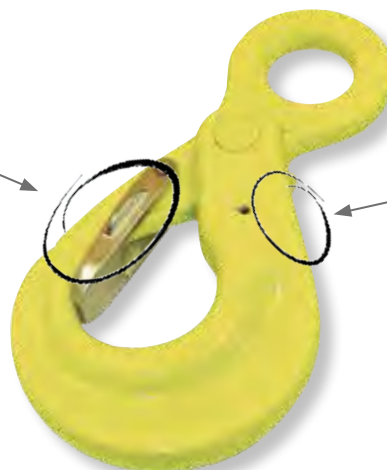
## Safety Hook BK and BKLK with Double Latch

### With recessed trigger

Due to the motion of the sea when loading and unloading offshore, direct impact on the hook could cause the latch to unintentionally open when not being under load, risking the load to unhitch. The double latch safety hook has an extra latch retaining the load in this case, keeping both load and personnel safe.

#### Double Latch

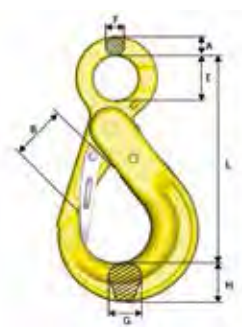
Should the hook latch accidentally open, either through direct impact or excessive wear on the trigger, the extra latch is there to retain the load safely. The latch does not cause inconvenience for the operator and may save their lives if something goes wrong



#### Recessed Trigger

To avoid the trigger from being hit or damaged it has been recessed into the hook. This prevents the latch further from accidentally opening.

| Art. no. | Code         | WLL<br>tonnes* | A  | L   | B  | E  | F  | G  | H  | Weight<br>kgs |
|----------|--------------|----------------|----|-----|----|----|----|----|----|---------------|
| Z101154  | BKD-13-10    | 6.7            | 20 | 207 | 44 | 45 | 16 | 30 | 40 | 3.2           |
| Z101155  | BKD-16-10    | 10             | 26 | 254 | 48 | 56 | 20 | 37 | 50 | 5.8           |
| Z101156  | BKD-18/20-10 | 16             | 30 | 290 | 52 | 60 | 22 | 44 | 62 | 9.1           |
| Z101373  | BKD-26-10 OS | 27             | 35 | 345 | 72 | 80 | 25 | 54 | 69 | 14.5          |



## See our offshore shackles in Chapter 3



Standard Shackle No 855



Super Shackle No 858



Arctic Shackle No 856



ROV Shackle No 860

# Classic Components



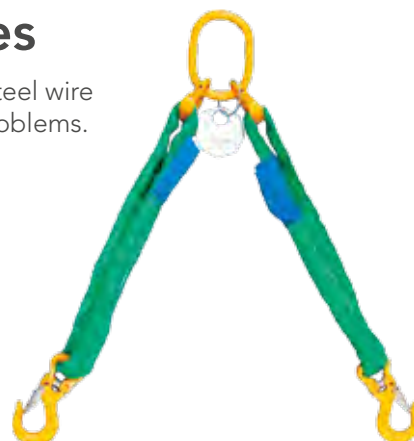
**GUNNEBO**  
Industries

# The SK-system - Endless Possibilities

A range of specialized components for safe and easy assembly to chain, steel wire rope, webbing and roundsling, designed to solve your below-the-hook problems.

The Polyester Sling System provides:

- Universal coupling of components to chain, wire and synthetic slings.
- Quick and simple assembly - only a hammer needed.
- Easy assembly - standardized dimensions within each size range effectively eliminates the incorrect assembly of components with different safe working loads.
- Heavy hoisting with strong yet lightweight equipment, all components are manufactured from alloy steel for use with Grade 8 chain.



2

## SKA - pin & collar

The SKA set, containing pin and collar, can be used to connect all products in the SK-range. This creates a multitude of available combinations, each adaptable to the unique lifting situation.

The SKA-set gives you flexibility - it can be disassembled and put in new combinations, to provide solutions for a versatile lifting environment.



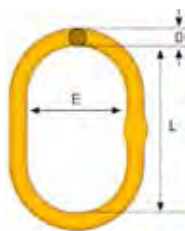
## SKLI/SKLU

Electrically insulated, lubricated, sealed roller bearing swivel. Fully rotational even at maximum load. Tested to resist 1.000 V. Suitable for protection of overhead cranes during welding operations on suspended loads.

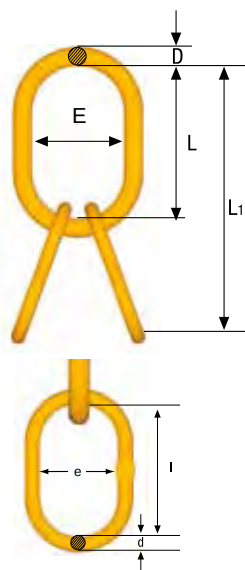
By using the SKLI/SKLU with the SK-system you get a versatile solution that will fit almost any situation.

For technical specifications see page 2:30 - 2:31

## Master Link MF EN 1677-4



| Art. no. | Code       | WLL tonnes* | L   | E   | D  | Weight kgs |
|----------|------------|-------------|-----|-----|----|------------|
| Z100860  | MF-86-10   | 2.5         | 125 | 70  | 14 | 0.4        |
| Z100861  | MF-108-10  | 4           | 140 | 80  | 17 | 0.8        |
| Z100862  | MF-1310-10 | 7.5         | 160 | 95  | 22 | 1.5        |
| Z100863  | MF-1613-10 | 10          | 190 | 110 | 28 | 2.5        |
| Z100864  | MF-2016-10 | 17          | 240 | 140 | 34 | 5.2        |
| Z100865  | MF-2220-10 | 25          | 250 | 150 | 40 | 7.3        |

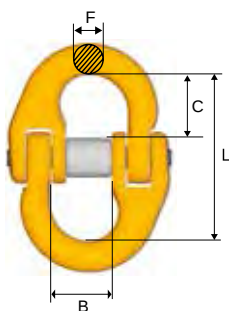


## Master Link with Sub Links MT EN 1677-4

| Art. no. | Code       | WLL tonnes* | For chain 3-4 leg | L1  | L   | E   | D  | I   | e   | d  | Weight kgs |
|----------|------------|-------------|-------------------|-----|-----|-----|----|-----|-----|----|------------|
| Z100888  | MT-6-10**  | 3.5         | 6                 | 270 | 150 | 90  | 19 | 120 | 70  | 14 | 1.8        |
| Z100889  | MT-8-10**  | 5.2         | 7, 8              | 300 | 160 | 95  | 22 | 140 | 80  | 17 | 3          |
| Z100890  | MT-10-10** | 11.5        | 10                | 360 | 200 | 120 | 30 | 160 | 95  | 22 | 6.4        |
| Z100891  | MT-13-10** | 17          | 13                | 450 | 250 | 150 | 40 | 200 | 120 | 30 | 14.2       |
| Z100892  | MT-16-10** | 28          | 16                | 500 | 300 | 200 | 50 | 200 | 120 | 32 | 23         |

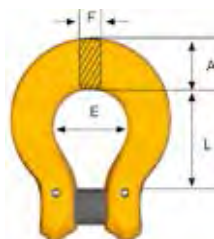
\*\* With flattened section for use with BL

## Coupling Link G EN 1677-1



| Art. no. | Code      | WLL tonnes* | For chain dim. | L   | B  | F  | A  | C  | Weight kgs |
|----------|-----------|-------------|----------------|-----|----|----|----|----|------------|
| Z622882  | G-6-8     | 1.12        | 6              | 45  | 15 | 7  | 8  | 17 | 0.1        |
| Z279333  | G-7/8-8   | 2           | 7, 8           | 56  | 18 | 9  | 11 | 22 | 0.2        |
| Z279430  | G-10-8    | 3.2         | 10             | 68  | 25 | 9  | 11 | 26 | 0.3        |
| Z279537  | G-13-8    | 5.4         | 13             | 89  | 29 | 12 | 13 | 33 | 0.7        |
| Z279634  | G-16-8    | 8           | 16             | 105 | 36 | 15 | 17 | 40 | 1.2        |
| Z279731  | G-18/20-8 | 12.5        | 19             | 125 | 43 | 19 | 20 | 47 | 1.9        |
| Z279838  | G-22-8    | 15.5        | 22             | 152 | 50 | 23 | 26 | 59 | 3.0        |
| Z349171  | G-26-8    | 21.6        | 26             | 161 | 58 | 26 | 28 | 61 | 5.2        |
| Z349189  | G-32-8    | 32.8        | 32             | 200 | 70 | 32 | 34 | 77 | 9.5        |

## Berglok Chain Coupler BL EN 1677-1



| Art. no. | Code     | WLL tonnes* | For chain dim. | L  | E  | F  | A  | Weight kgs |
|----------|----------|-------------|----------------|----|----|----|----|------------|
| Z622036  | BL-6-8   | 1.12        | 6              | 27 | 20 | 9  | 14 | 0.1        |
| Z195823  | BL-7/8-8 | 2.0         | 7, 8           | 35 | 25 | 11 | 18 | 0.2        |
| Z208022  | BL-10-8  | 3.2         | 10             | 45 | 32 | 14 | 22 | 0.4        |
| Z217820  | BL-13-8  | 5.4         | 13             | 56 | 40 | 17 | 28 | 0.8        |
| Z208226  | BL-16-8  | 8.0         | 16             | 68 | 50 | 22 | 35 | 1.4        |

## Chain Classic Grade 8 EN 818-2 Short link chain, KL

### Heat treatment

Quenched and tempered.

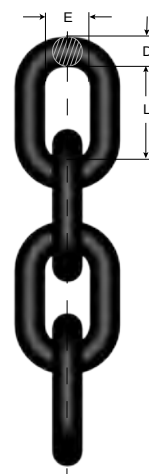
### Surface treatment

Painted black  
Painted yellow

### Marking

8E

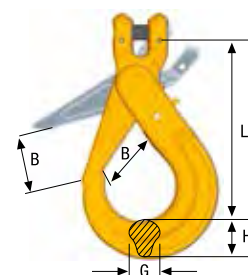
| Art.no<br>Box       | Code      | D<br>nom. | L  | E   | Weight<br>kgs/m | WLL<br>tonnes * | Manufact.<br>proof force<br>kN | Breaking<br>force<br>kN |
|---------------------|-----------|-----------|----|-----|-----------------|-----------------|--------------------------------|-------------------------|
| Z802174 - 1 x 200 m | KLB 6-8E  | 6         | 18 | 8.5 | 0.8             | 1.1             | 28.3                           | 45.2                    |
| Z802175 - 1 x 200 m | KLB 7-8E  | 7         | 21 | 10  | 1.1             | 1.5             | 38.5                           | 61.6                    |
| Z802176 - 1 x 200 m | KLB 8-8E  | 8         | 24 | 11  | 1.4             | 2.0             | 50.3                           | 80.4                    |
| Z802156 - 1 x 100 m | KLB 10-8E | 10        | 30 | 14  | 2.2             | 3.2             | 78.5                           | 126                     |
| Z802157 - 1 x 100 m | KLB 13-8E | 13        | 39 | 18  | 3.7             | 5.4             | 133                            | 212                     |
| Z802177 - 1 x 100 m | KLB 16-8E | 16        | 48 | 22  | 5.6             | 8.0             | 201                            | 322                     |
| Z801203 - 1 x 100 m | KLB 19-8E | 19        | 57 | 26  | 7.8             | 11.6            | 284                            | 454                     |
| Z801228 - 1 x 50 m  | KLB 22-8E | 22        | 66 | 30  | 10.6            | 15.5            | 380                            | 608                     |
| Z801231 - 1 x 50 m  | KLB 26-8E | 26        | 78 | 35  | 14.8            | 21.6            | 531                            | 849                     |
| Z801232 - 1 x 25 m  | KLB 32-8E | 32.8      | 96 | 43  | 21.6            | 32.0            | 804                            | 1290                    |



## Safety hook BKG

EN 1677-3

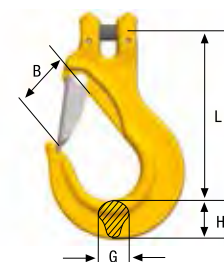
| Art. no. | Code      | WLL<br>tonnes* | For<br>chain dim. | L   | B  | G  | H  | Weight appr.<br>kgs |
|----------|-----------|----------------|-------------------|-----|----|----|----|---------------------|
| Z297222  | BKG-7/8-8 | 2.0            | 7, 8              | 120 | 37 | 17 | 26 | 0.9                 |
| Z295929  | BKG-10-8  | 3.2            | 10                | 143 | 45 | 21 | 30 | 1.5                 |
| Z291527  | BKG-13-8  | 5.4            | 13                | 179 | 55 | 30 | 39 | 2.8                 |
| Z291624  | BKG-16-8  | 8.0            | 16                | 217 | 62 | 37 | 48 | 5.1                 |



## Sling hook EGKN with latch

EN 1677-2

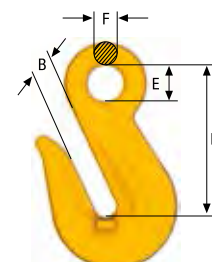
| Art. no. | Code       | WLL<br>tonnes* | For<br>chain dim. | L   | B  | G  | H  | Weight appr.<br>kgs |
|----------|------------|----------------|-------------------|-----|----|----|----|---------------------|
| Z100744  | EGKN-7/8-8 | 2.0            | 7, 8              | 95  | 29 | 17 | 22 | 0.5                 |
| Z100772  | EGKN-10-8  | 3.2            | 10                | 121 | 37 | 19 | 29 | 0.9                 |
| Z100773  | EGKN-13-8  | 5.4            | 13                | 147 | 42 | 27 | 36 | 2.0                 |
| Z100774  | EGKN-16-8  | 8.0            | 16                | 170 | 49 | 34 | 44 | 3.6                 |

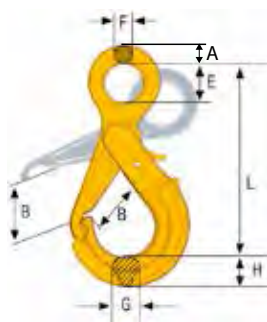


## Grab hook OG EN 1677-1

Not for use with Berglok. No reduction of working load limit, thanks to supporting lugs on either side of hook to prevent chain link deformation.

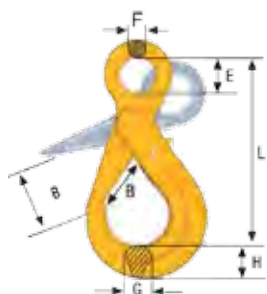
| Art. no. | Code     | WLL<br>tonnes* | For<br>chain dim. | L   | B  | E  | F  | Weight appr.<br>kgs |
|----------|----------|----------------|-------------------|-----|----|----|----|---------------------|
| Z100811  | OG-7/8-8 | 2              | 7, 8              | 65  | 10 | 16 | 10 | 0.3                 |
| Z291022  | OG-10-8  | 3.2            | 10                | 85  | 12 | 20 | 12 | 0.6                 |
| Z295220  | OG-13-8  | 5.4            | 13                | 104 | 15 | 25 | 16 | 1.2                 |
| Z296221  | OG-16-8  | 8              | 16                | 130 | 19 | 30 | 19 | 2.4                 |





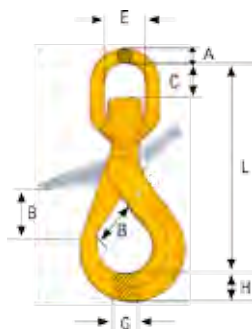
## Safety Hook OBK with griplatch EN 1677-3

| Art. no. | Code     | WLL tonnes* | For chain dim. | A  | L   | B  | E  | F  | G  | H  | Weight kgs |
|----------|----------|-------------|----------------|----|-----|----|----|----|----|----|------------|
| Z100218  | OBK-22-8 | 15.5        | 22             | 30 | 335 | 87 | 70 | 22 | 40 | 57 | 10.2       |



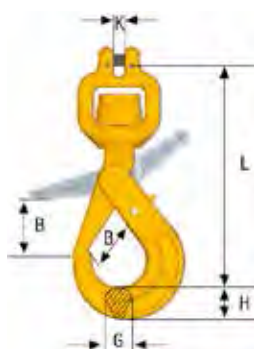
## Safety Hook BK EN 1677-3

| Art. no. | Code    | WLL tonnes* | For chain dim. | L   | B   | E  | F  | G  | H  | Weight kgs |
|----------|---------|-------------|----------------|-----|-----|----|----|----|----|------------|
| Z101357  | BK-32-8 | 32.8        | 32             | 400 | 120 | 90 | 30 | 62 | 86 | 23.8       |



## Safety Hook BCLK EN 1677-3

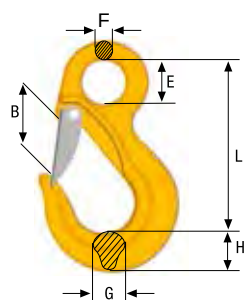
| Art. no. | Code         | WLL tonnes* | For chain dim. | L   | B   | C   | E   | A  | G  | H  | Weight kgs |
|----------|--------------|-------------|----------------|-----|-----|-----|-----|----|----|----|------------|
| Z101344  | BCLK-32-8 OS | 32.8        | 32             | 533 | 120 | 110 | 102 | 45 | 62 | 86 | 32.3       |



## Clevis Swivel Safety Hook BKH with ball bearing EN 1677-3

| Art. no. | Code      | WLL tonnes* | For chain dim. | L   | B  | K   | G  | H  | Weight kgs |
|----------|-----------|-------------|----------------|-----|----|-----|----|----|------------|
| Z336222  | BKH-6-8   | 1.12        | 6              | 145 | 28 | 6.8 | 15 | 21 | 0.7        |
| Z700809  | BKH-7/8-8 | 2.0         | 7,8            | 181 | 37 | 8.8 | 17 | 26 | 1.2        |

## Sling Hook EK (without latch) and EKN (with latch)

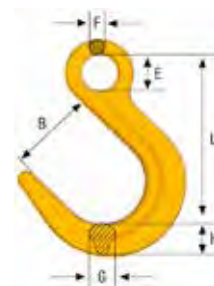


| Art. no.                                        | Code      | WLL tonnes* | For chain dim. | L   | B   | E   | F    | G   | H   | Weight kgs |
|-------------------------------------------------|-----------|-------------|----------------|-----|-----|-----|------|-----|-----|------------|
| <b>EN 1677-2</b>                                |           |             |                |     |     |     |      |     |     |            |
| Z100720                                         | EK-32-8   | 32          | 32             | 333 | 105 | 76  | 38   | 61  | 80  | 17.7       |
| Z100725                                         | EKN- 32-8 | 32.8        | 32             | 333 | 93  | 76  | 38   | 61  | 80  | 17.9       |
| <b>DIN 7540 - Also available in ROV version</b> |           |             |                |     |     |     |      |     |     |            |
| Z101382                                         | DK-50T-8  | 50          |                | 442 | 124 | 84  | 50.5 | 89  | 116 |            |
| Z101361                                         | DKN-50T-8 | 50          |                | 442 | 124 | 84  | 50.5 | 89  | 116 |            |
| Z101384                                         | DK-80T-8  | 80          |                | 610 | 155 | 102 | 63   | 110 | 145 |            |
| Z101363                                         | DKN-80T-8 | 80          |                | 610 | 155 | 102 | 63   | 110 | 145 |            |

## Foundry Hook OKE

EN 1677-1

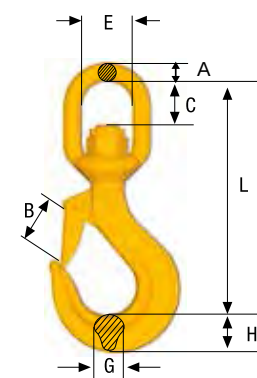
| Art. no. | Code     | WLL tonnes* | For chain dim. | L   | B   | E  | F  | G  | H  | Weight appr. kgs |
|----------|----------|-------------|----------------|-----|-----|----|----|----|----|------------------|
| Z645564  | OKE-32-8 | 32          | 32             | 384 | 145 | 90 | 42 | 77 | 94 | 30               |



## Swivel Latch Hook LKN

EN 1677-2

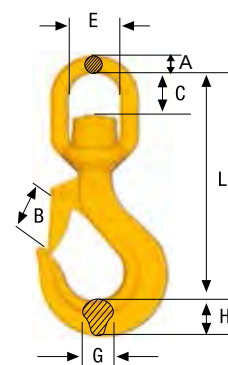
| Art. no. | Code        | WLL tonnes* | For chain dim. mm | L   | B  | C  | E  | A  | G  | H  | Weight appr. kgs |
|----------|-------------|-------------|-------------------|-----|----|----|----|----|----|----|------------------|
| Z142647  | LKN-7/8-8   | 2           | 7, 8              | 154 | 28 | 28 | 38 | 12 | 18 | 24 | 0.8              |
| Z142744  | LKN-10-10** | 4.0         | 10                | 192 | 35 | 37 | 44 | 15 | 23 | 31 | 1.5              |
| Z142841  | LKN-13-8    | 5.4         | 13                | 238 | 40 | 47 | 48 | 19 | 28 | 36 | 3                |
| Z142948  | LKN-16-8    | 8           | 16                | 295 | 53 | 65 | 61 | 25 | 35 | 44 | 5.1              |



## Swivel Latch Hook LKNK with ball bearing

EN 1677-2

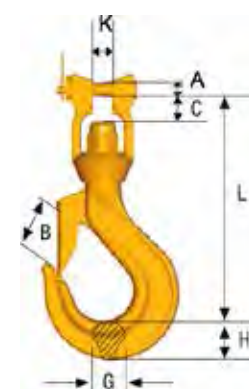
| Art. no. | Code         | WLL tonnes* | For chain dim. | L   | B  | C  | E  | A  | G  | H  | Weight appr. kgs |
|----------|--------------|-------------|----------------|-----|----|----|----|----|----|----|------------------|
| Z700908  | LKNK-7/8-8   | 2           | 7, 8           | 156 | 29 | 28 | 38 | 12 | 18 | 24 | 0.9              |
| Z700909  | LKNK-10-10** | 4.0         | 10             | 191 | 35 | 35 | 44 | 15 | 23 | 31 | 1.6              |
| Z700910  | LKNK-13-8    | 5.4         | 13             | 236 | 40 | 45 | 48 | 19 | 28 | 36 | 3.2              |
| Z700911  | LKNK-16-8    | 8           | 16             | 295 | 53 | 63 | 61 | 25 | 35 | 44 | 5.3              |



## Clevis Swivel Hook LKNG

EN 1677-2

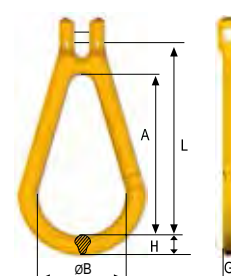
| Art. no. | Code      | WLL tonnes* | For chain dim. | L   | B  | C  | A  | G  | H  | K  | Weight appr. kgs |
|----------|-----------|-------------|----------------|-----|----|----|----|----|----|----|------------------|
| Z700494  | LKNG-16-8 | 8           | 16             | 258 | 53 | 30 | 28 | 35 | 44 | 27 | 5.6              |



## Clevis Egglink CEL

EN 1677-1

| Art. no. | Code      | WLL tonnes* | For chain dim. | A   | B  | G  | H  | L   | Weight kgs |
|----------|-----------|-------------|----------------|-----|----|----|----|-----|------------|
| Z700968  | CEL-7/8-8 | 2           | 7, 8           | 80  | 40 | 14 | 15 | 100 | 0.4        |
| Z700969  | CEL-10-8  | 3.2         | 10             | 100 | 50 | 18 | 19 | 126 | 0.7        |
| Z700970  | CEL-13-8  | 5.4         | 13             | 130 | 65 | 23 | 25 | 162 | 1.5        |

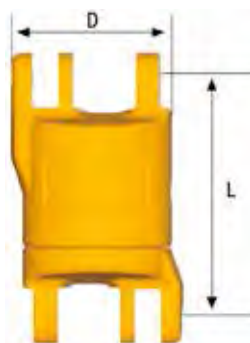


# Roller-Bearing Swivel, SKLI/SKLU

EN 1677-1

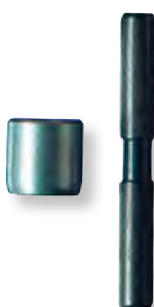
Electrically insulated, lubricated, sealed roller bearing swivel. Fully rotational even at maximum load. Tested to resist 1.000 V. Suitable for protection of overhead cranes during welding operations on suspended loads.

The Gunnebo Industries SKLI is equipped with a heavy duty roller bearing, enabling high durability and safe use also under severe load. It also has heavy duty nylon insulation inside to decrease friction when in use. The SKLI is compatible with the entire Gunnebo Industries SK-range for versatile use.

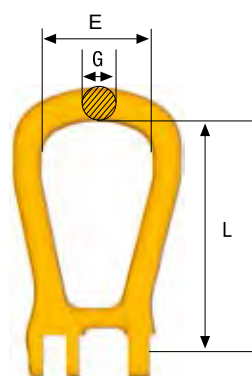


| Art. no. | Code         | WLL tonnes* | For chain dim. | L   | D   | Weight kgs |
|----------|--------------|-------------|----------------|-----|-----|------------|
| Z100316  | SKLI-7/8-8   | 2           | 7, 8           | 75  | 48  | 0.7        |
| Z100414  | SKLI-10-8    | 3.2         | 10             | 97  | 59  | 1.3        |
| Z100415  | SKLI-13-8    | 5.4         | 13             | 120 | 75  | 2.8        |
| Z100416  | SKLI-16-8    | 8           | 16             | 137 | 90  | 4.6        |
| Z100417  | SKLI-18/20-8 | 12.5        | 19             | 159 | 104 | 7.3        |
| RS16520  | SKLU-22-8*   | 15.5        | 22             | 160 | 109 | 9.2        |
| RS16530  | SKLU-26-8*   | 21.6        | 26             | 207 | 135 | 18.3       |

\* Uninsulated



| Art. no. | Code        | Weight kgs |
|----------|-------------|------------|
| Z700674  | SKA-6-8     | 0.01       |
| Z323624  | SKA-7/8-8   | 0.02       |
| Z318024  | SKA-10-8    | 0.04       |
| Z303822  | SKA-13-8    | 0.08       |
| Z303725  | SKA-16-8    | 0.14       |
| Z145048  | SKA-18/20-8 | 0.26       |
| Z133530  | SKA-22-8    | 0.35       |
| Z605407  | SKA-26-8    | 0.63       |

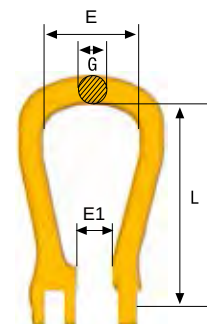


## Master Link SKG (closed) EN 1677-1

| Art. no. | Code        | WLL tonnes* | For chain dim. | L   | E   | G  | Weight kgs |
|----------|-------------|-------------|----------------|-----|-----|----|------------|
| Z419684  | SKG-7/8-8   | 2           | 7, 8           | 99  | 50  | 14 | 0.3        |
| Z419781  | SKG-10-8    | 3.2         | 10             | 127 | 66  | 18 | 0.6        |
| Z419888  | SKG-13-8    | 5.4         | 13             | 145 | 72  | 22 | 1.1        |
| Z419985  | SKG-16-8    | 8           | 16             | 175 | 82  | 25 | 1.5        |
| Z420086  | SKG-18/20-8 | 12.5        | 19             | 204 | 105 | 30 | 3.0        |

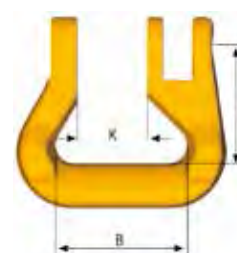
**Master Link SKO (open)****EN 1677-1**

| Art. no. | Code        | WLL<br>tonnes* | For<br>chain dim. | L   | E   | G  | E1 | Weight<br>kgs |
|----------|-------------|----------------|-------------------|-----|-----|----|----|---------------|
| Z418683  | SKO-7/8-8   | 2              | 7, 8              | 99  | 50  | 14 | 15 | 0.3           |
| Z418780  | SKO-10-8    | 3.2            | 10                | 127 | 66  | 18 | 20 | 0.6           |
| Z419383  | SKO-13-8    | 5.4            | 13                | 145 | 72  | 22 | 25 | 1             |
| Z419480  | SKO-16-8    | 8              | 16                | 175 | 82  | 25 | 30 | 1.5           |
| Z419587  | SKO-18/20-8 | 12.5           | 19                | 204 | 105 | 30 | 36 | 2.9           |

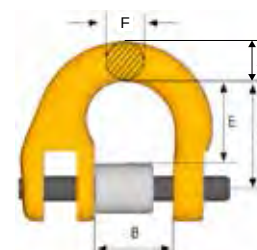
**Roundsling Coupling SKR****EN 1677-1**

Special shape for full WLL of the roundsling

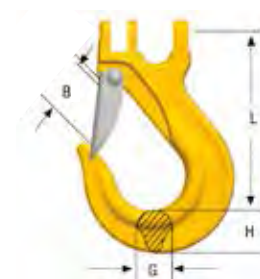
| Art. no. | Code        | WLL<br>tonnes* | L   | B   | K  | Weight<br>kgs |
|----------|-------------|----------------|-----|-----|----|---------------|
| Z127840  | SKR-7/8-8   | 2              | 35  | 40  | 18 | 0.2           |
| Z143143  | SKR-10-8    | 3.2            | 42  | 47  | 24 | 0.4           |
| Z302538  | SKR-13-8    | 5.4            | 50  | 53  | 29 | 0.7           |
| Z143240  | SKR-16-8    | 8              | 62  | 67  | 35 | 1.3           |
| Z143347  | SKR-18/20-8 | 12.5           | 71  | 80  | 43 | 1.9           |
| Z100057  | SKR-22-8    | 15.5           | 111 | 125 | 50 | 5.3           |
| Z100055  | SKR-26-8    | 21.6           | 129 | 150 | 58 | 8.9           |

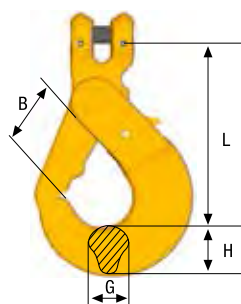
**Half-link SKT (incl. locking set)****EN 1677-1**

| Art. no. | Code        | WLL<br>tonnes* | For<br>chain dim. | L   | B  | F  | A  | E  | Weight<br>kgs |
|----------|-------------|----------------|-------------------|-----|----|----|----|----|---------------|
| Z426286  | SKT-7/8-8   | 2              | 7, 8              | 28  | 18 | 9  | 11 | 22 | 0.1           |
| Z426383  | SKT-10-8    | 3.2            | 10                | 34  | 25 | 11 | 13 | 26 | 0.2           |
| Z426480  | SKT-13-8    | 5.4            | 13                | 44  | 30 | 15 | 16 | 33 | 0.4           |
| Z426587  | SKT-16-8    | 8              | 16                | 52  | 36 | 19 | 20 | 40 | 0.6           |
| Z426684  | SKT-18/20-8 | 12.5           | 19                | 63  | 43 | 22 | 23 | 48 | 1.1           |
| Z100225  | SKT-22-8    | 15.5           | 22                | 76  | 50 | 24 | 26 | 60 | 1.7           |
| Z100226  | SKT-26-8    | 21.6           | 26                | 80  | 58 | 30 | 33 | 61 | 2.6           |
| Z100227  | SKT-32-8    | 32.8           | 32                | 100 | 70 | 38 | 40 | 78 | 4.9           |

**Sling Hook ESKN/SKN with latch****EN 1677-2**

| Art. no. | Code         | WLL<br>tonnes* | For<br>chain dim. | L   | B  | G  | H  | Weight<br>kgs |
|----------|--------------|----------------|-------------------|-----|----|----|----|---------------|
| Z424682  | SKN-7/8-8    | 2.0            | 7, 8              | 90  | 27 | 18 | 21 | 0.4           |
| Z424789  | SKN-10-8     | 3.2            | 10                | 115 | 34 | 23 | 29 | 0.8           |
| Z101214  | ESKN-13-8    | 5.4            | 13                | 145 | 42 | 28 | 36 | 1.8           |
| Z100786  | ESKN-16-8    | 8.0            | 16                | 178 | 54 | 38 | 43 | 3.4           |
| Z100781  | ESKN-18/20-8 | 12.5           | 19                | 197 | 59 | 49 | 51 | 5.1           |



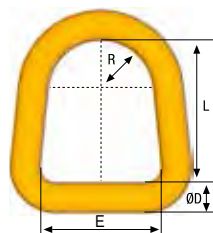


## Container Hook BKGC

EN 1677-3

| Art. no. | Code      | WLL tonnes* | For chain dim. | L   | B  | G  | H  | Weight kgs |
|----------|-----------|-------------|----------------|-----|----|----|----|------------|
| Z100240  | BKGC-13-8 | 5.4         | 13             | 164 | 55 | 27 | 43 | 3.2        |
| Z100242  | BKGC-16-8 | 8           | 16             | 160 | 55 | 27 | 43 | 3.4        |

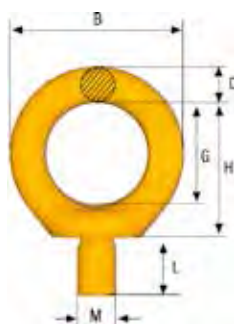
(Spare part: RDOBK-16 to both sizes)



## Master Link D

| Art. no. | Code   | WLL tonnes* | E  | D  | L  | R  | Weight kgs |
|----------|--------|-------------|----|----|----|----|------------|
| Z700877  | D-14-8 | 2.5         | 55 | 14 | 65 | 24 | 0.4        |
| Z700878  | D-17-8 | 4           | 64 | 17 | 62 | 29 | 0.5        |
| Z700880  | D-22-8 | 8           | 76 | 22 | 90 | 33 | 1          |

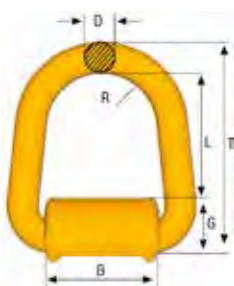
The loadbearing width must be at least 0.5 x E



## Eye Lifting Point ELP

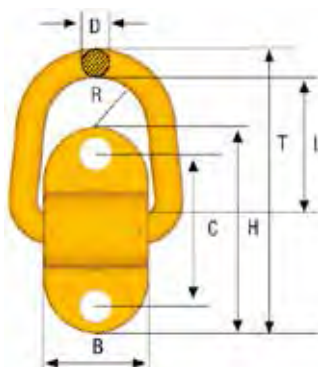
| Art. no. | Code     | WLL tonnes* | B   | D  | G  | H  | L  | M   | Weight kgs |
|----------|----------|-------------|-----|----|----|----|----|-----|------------|
| Z100434  | ELP-16-8 | 1**         | 72  | 16 | 42 | 55 | 24 | M16 | 0.4        |
| Z100435  | ELP-20-8 | 1**         | 72  | 16 | 42 | 58 | 30 | M20 | 0.4        |
| Z100436  | ELP-24-8 | 2**         | 88  | 19 | 48 | 69 | 36 | M24 | 0.9        |
| Z100437  | ELP-30-8 | 3**         | 106 | 22 | 60 | 84 | 45 | M30 | 1.4        |

\*\* In case of 1-leg application where loading is limited to straight loading in the direction of thread (no bending force) it is possible to use ELP with four times higher WLL. Note! Threaded depths need to be at least 1xM for steel, 1,25xM for cast iron and 2xM for aluminium alloy.



## Weldable Lifting Point WLP

| Art. no. | Code   | WLL tonnes* | B  | D  | G  | L  | R  | T   | Weight kgs |
|----------|--------|-------------|----|----|----|----|----|-----|------------|
| Z700900  | WLP-1T | 1           | 50 | 14 | 27 | 53 | 24 | 95  | 0.5        |
| Z700901  | WLP-3T | 3           | 58 | 17 | 34 | 48 | 29 | 97  | 0.8        |
| Z700902  | WLP-5T | 5           | 64 | 22 | 41 | 73 | 33 | 135 | 1.8        |



## Screw-on Lifting Point SLP

| Art. no. | Code      | WLL tonnes* | B  | C   | D  | H   | L  | M   | T   | R  | Weight kgs |
|----------|-----------|-------------|----|-----|----|-----|----|-----|-----|----|------------|
| Z700903  | SLP-1T    | 1           | 50 | 72  | 14 | 98  | 55 | M14 | 139 | 24 | 0.8        |
| Z700904  | SLP-3T    | 3           | 58 | 84  | 17 | 114 | 50 | M16 | 144 | 29 | 1.3        |
| Z700986  | SLP-5T*** | 5           | 64 | 116 | 22 | 160 | 74 | M20 | 203 | 33 | 2.6        |

\*\*\* Can be supplied with spring for stay up function

Working Load Limits for ELP / WLP / SLP on page 2:44

How do you transform your excavator into a crane?

# Universal Weld-On Hook, UKN

For excavators, construction machinery, lifting beams etc. Specified by leading excavator manufacturers.

## Welding Instructions for UKN

**WARNING!** WELDING OPERATION SHOULD BE CARRIED OUT BY A TRAINED WELDER.

### ELECTRODES

Electrodes or wire must be for use with non-alloy or low-alloy steel. Electrodes must not be wet. Do not use rusty welding wire.

### Following types are recommended:

ISO 2560, DIN EN 499, BS EN 499, AWS A 5.1 E 7018 or equal.

### B. POSITIONING

These are universal hooks and can be welded on to different supporting materials (e.g. girder). If the hook is welded on to a bucket it should be placed so that:

1. it will withstand all strains caused by different positions of the bucket.
2. any damage to the coupling element which might be caused by the other parts of the excavator is avoided.
3. the user will not be injured (pinched or cut).
4. any unintentional unhooking of the coupling element will be made impossible.
5. the coupling element can be easily hooked and unhooked.
6. it doesn't hamper excavation and lifting.

The hook should be placed in the middle at the upper part of the bucket. The position should be protected, but also easy to reach. Figure shows two different positions.

Before use a competent person shall certify that the hook may be taken into use. Always take into consideration the tensile strength and thickness of the supporting material. Proof load testing may be required

### C. WELDING

Before welding, the surfaces must be cleaned thoroughly from rust, paint or similar.

**NOTE!** At temperatures below 0°C the welding surfaces should be preheated.

Positioning of the hook should be done by spot welding in each corner. Next, the bottom joint is to be welded and must be carried out continuously (well filled all around). Welding torch or electrode should be held at 45° (see figure), to obtain required penetration. When the top joint is to be welded, a larger electrode may be chosen. Minimum value of throat thickness, A, (see table) must be achieved. Cracks or pores are not permitted.

**NOTE!** The welded joint must NOT be cooled by water. Only non-forced air cooling, is allowed. The pin (axle) should be lubricated until the hook has reached ambient temperature

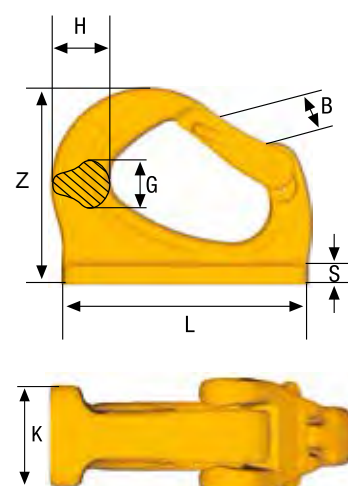
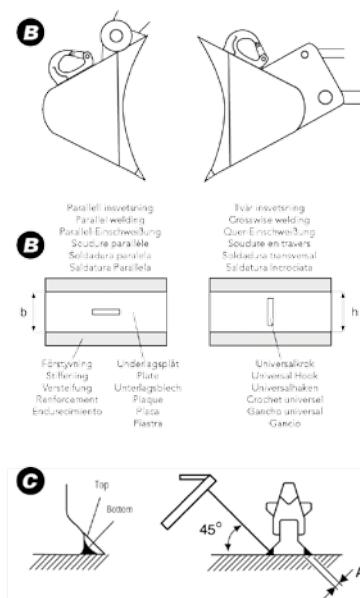
In service temperature: -40 °C to +200 °C without reduction of the WLL

Can also be provided unpainted

| Art. no. | Code      | WLL tonnes** | B  | G  | H  | K  | L    | S  | Z   | Weight kgs |
|----------|-----------|--------------|----|----|----|----|------|----|-----|------------|
| Z1002560 | UKN-0,75* | 0.75         | 20 | 13 | 20 | 19 | 81.5 | 5  | 56  | 0.2        |
| Z6511810 | UKN-1*    | 1            | 27 | 17 | 25 | 25 | 95   | 6  | 72  | 0.6        |
| Z7009060 | UKN-2*    | 2            | 33 | 20 | 30 | 30 | 114  | 8  | 86  | 0.9        |
| Z6455730 | UKN-3     | 3            | 30 | 23 | 32 | 35 | 132  | 10 | 105 | 1.3        |
| Z6521160 | UKN-4     | 4            | 30 | 29 | 38 | 42 | 140  | 11 | 114 | 2.0        |
| Z6455800 | UKN-5     | 5            | 34 | 30 | 47 | 45 | 165  | 12 | 131 | 3.2        |
| Z6515390 | UKN-8     | 8            | 34 | 40 | 51 | 50 | 172  | 13 | 133 | 3.6        |
| Z6456030 | UKN-10    | 10           | 47 | 43 | 58 | 55 | 220  | 14 | 170 | 8.2        |
| Z1007850 | UKN-15    | 15           | 55 | 50 | 67 | 60 | 240  | 15 | 188 | 9.8        |

\* Welding plate slightly curved

\*\* Safety factor 5:1



If welding on to an excavator or its accessories we recommend that when necessary the working load limit is reduced, to meet legislative requirements. Please contact your distributor for further information.



Set for BK/BKG Safety hooks consists of trigger, stainless steel spring, retaining pin and assembly kit.

## Spare Part RDBK (with assembly kit)

### Recessed trigger

| Art. no. | Code       | Weight kgs |
|----------|------------|------------|
| Z100282  | RDBK-6     | 0.02       |
| Z100283  | RDBK-8     | 0.03       |
| Z100284  | RDBK-10    | 0.03       |
| Z100285  | RDBK-13    | 0.05       |
| Z100286  | RDBK-16    | 0.10       |
| Z100297  | RDBK-18/20 | 0.21       |
| Z100287  | RDBK-22    | 0.20       |
| Z100280  | RDBK-26    | 0.50       |
| Z100294  | RDBK-32-8  | 0.40       |

### Standard trigger

| Art. no. | Code       | Weight kgs |
|----------|------------|------------|
| Z1002820 | RDBK-6     | 0.01       |
| Z1002830 | RDBK-8     | 0.03       |
| Z1002840 | RDBK-10    | 0.03       |
| Z1002850 | RDBK-13    | 0.05       |
| Z1002860 | RDBK-16    | 0.12       |
| Z100292  | RDBK-28/32 | 0.45       |



Set for OBK/GBK Safety hooks consists of trigger, stainless steel spring, retaining pin and assembly kit.

## Spare Part RDOBK / GBK (with assembly kit)

| Art. no. | Code        | Weight kgs |
|----------|-------------|------------|
| Z100281  | RDOBK-6     | 0.01       |
| Z100288  | RDOBK-7/8   | 0.02       |
| Z100289  | RDOBK-10    | 0.03       |
| Z100290  | RDOBK-13    | 0.05       |
| Z100291  | RDOBK-16    | 0.08       |
| Z100297  | RDOBK-18/20 | 0.21       |
| Z100323  | RDOBK-22-8  | 0.35       |



## Spare Part RDBKD (with assembly kit)

| Art. no. | Code                     | Weight kgs |
|----------|--------------------------|------------|
| Z101157  | RDBKD-13 double latch    |            |
| Z101158  | RDBKD-16 double latch    |            |
| Z101159  | RDBKD-18/20 double latch |            |



## Spare Part GKN / OKN

| Art. no. | Code          | Weight kgs |
|----------|---------------|------------|
| Z622175  | GKN/OKN-7/8-8 | 0.05       |
| Z622183  | GKN/OKN-10-8  | 0.09       |
| Z622206  | GKN/OKN-13-8  | 0.13       |
| Z622214  | GKN-16-8      | 0.22       |

Set consists of latch, stainless steel spring and rivet.

## Spare Part LKN / LKNK / EKN / OKN / EGKN / RH / ESKN

| Art.no. | Code                   | Weight kgs |
|---------|------------------------|------------|
| Z100445 | RDEKN- 6 / OKN / RH 1  | 0.03       |
| Z100447 | RDEKN- 7/8 /LKN / RH 2 | 0.05       |
| Z100450 | RDEKN-10 / LKN / RH 3  | 0.06       |
| Z100449 | RDEKN-13 / LKN / RH 5  | 0.13       |
| Z100217 | RDEKN-16 / LKN         | 0.20       |
| Z100453 | RDEKN-18/20            | 0.26       |
| Z100452 | RDEKN-22               | 0.42       |
| Z100742 | RDEKN-26               | 0.53       |
| Z100743 | RDEKN-32               | 0.60       |



Set consists of latch, stainless steel spring and rivet.

2

## Spare Part Set SKN, OKN and LKN (old version)

| Art. no. | Code            | Weight kgs |
|----------|-----------------|------------|
| Z420581  | SKN/LKN-7/8-8   | 0.05       |
| Z420688  | SKN/LKN-10-8    | 0.10       |
| Z420785  | SKN/LKN-13-8    | 0.14       |
| Z420989  | SKN/OKN-16-8    | 0.22       |
| Z421087  | SKN/OKN-18/20-8 | 0.27       |
| Z700698  | OKN-22-8        | 0.48       |



Set consists of latch, stainless steel spring and rivet.

## Spare Part UKN

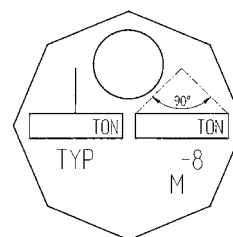
| Art. no. | Code       | Weight kgs |
|----------|------------|------------|
| Z100258  | RDUKN-0.75 | 0.06       |
| Z700264  | RDUKN-1    | 0.12       |
| Z700958  | RDUKN-2    | 0.20       |
| Z700266  | RDUKN-3/4  | 0.20       |
| Z700268  | RDUKN-5/8  | 0.36       |
| Z700269  | RDUKN-10   | 0.88       |
| Z700984  | RDUKN-15   | 1.20       |



Spare part set RDUKN (msp) consists of forged latch, pin, stainless steel spring and retaining pin.

## Id-tag Stainless

| Art.no. | Code   |
|---------|--------|
| Z100004 | Id-tag |

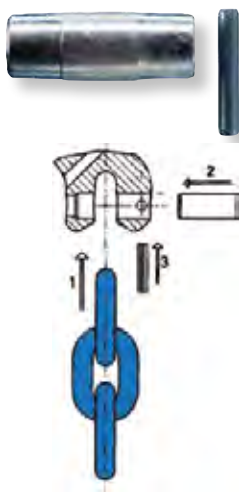


## Sling Id-tag Stainless steel



| Art. no. | Code                                 |
|----------|--------------------------------------|
| B14841   | Flexitag 6 mm with ferrule and wire  |
| B14842   | Flexitag 8 mm with ferrule and wire  |
| B14843   | Flexitag 10 mm with ferrule and wire |
| B14844   | Flexitag 13 mm with ferrule and wire |
| B14845   | Flexitag 16 mm with ferrule and wire |
| Z100971  | Flexitag 6 mm                        |
| Z100972  | Flexitag 8 mm                        |
| Z100973  | Flexitag 10 mm                       |
| Z100974  | Flexitag 13 mm                       |
| Z100975  | Flexitag 16 mm                       |
| Z101077  | Flexitag 20 mm                       |
| Z100899  | Flexitag Neutral                     |

## Load Pin Set CLS



| Art. no. | Code   | Weight<br>kgs/ea |
|----------|--------|------------------|
| B14930   | CLS- 6 | 0.01             |
| B14931   | CLS- 8 | 0.02             |
| B14932   | CLS-10 | 0.04             |
| B14933   | CLS-13 | 0.09             |
| B14934   | CLS-16 | 0.16             |
| B14935   | CLS-20 | 0.26             |

Clevis connection set (CLS) consists of one load pin and one spring retaining pin.

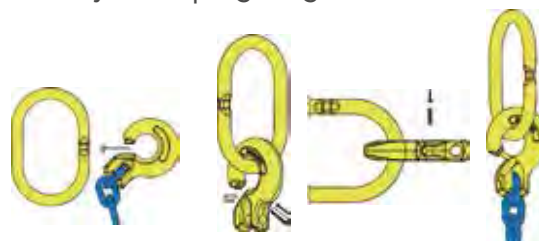
## Spare Part CS



| Art. no. | Code                | Weight<br>kgs/ea |
|----------|---------------------|------------------|
| B14920   | CS- 6-10            | 0.01             |
| B14921   | CS- 8-10 / RH-1& -2 | 0.01             |
| B14922   | CS-10-10 / RH-3     | 0.01             |
| B14923   | CS-13-10            | 0.03             |
| B14924   | CS-16-10 / RH-5     | 0.05             |

The C-connection set CS, for CG, CGD, CL, CLD and RH hook, consists of one blocking pin and one spring retaining pin, for locking.

## Assembly: C-coupling - C-grab/C-lok with MF



## Close/Open Locking Set FlexiLeg Quick Pin

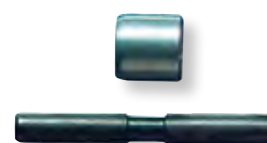
| Art. no. | Code     | Weight<br>kgs |
|----------|----------|---------------|
| Z101010  | QP-6-10  | 0.01          |
| Z101011  | QP-8-10  | 0.01          |
| Z101012  | QP-10-10 | 0.01          |
| Z101013  | QP-13-10 | 0.03          |
| Z101014  | QP-16-10 | 0.06          |



## Spare Part Set SKA

| Art. no. | Code        | Weight kgs |
|----------|-------------|------------|
| Z100989  | SKA- 6-10   | 0.01       |
| Z100933  | SKA- 7/8-10 | 0.02       |
| Z100934  | SKA-10-10   | 0.04       |
| Z100990  | SKA-13-10   | 0.08       |
| Z100991  | SKA-16-10   | 0.14       |
| Z101176  | SKA-20-10   | 0.26       |
| Z650555  | SKA-22-10   | 0.35       |
| Z650556  | SKA-26-10   | 0.63       |

| Art. no. | Code        | Weight kgs |
|----------|-------------|------------|
| Z700674  | SKA-6-8     | 0.01       |
| Z323624  | SKA-7/8-8   | 0.02       |
| Z318024  | SKA-10-8    | 0.04       |
| Z303822  | SKA-13-8    | 0.08       |
| Z303725  | SKA-16-8    | 0.14       |
| Z145048  | SKA-18/20-8 | 0.26       |
| Z133530  | SKA-22-8    | 0.35       |
| Z605407  | SKA-26-8    | 0.63       |
| Z650554  | SKA-32-8    | 1.05       |



SKA locking set for G-link, consists of a load pin and locking collar.

## Spare Part Set Berglok BLA

| Art. no. | Code      | Weight kgs |
|----------|-----------|------------|
| Z275649  | BLA-6-8   | 0.01       |
| Z275347  | BLA-7/8-8 | 0.02       |
| Z275444  | BLA-10-8  | 0.04       |
| Z275648  | BLA-13-8  | 0.08       |
| Z276047  | BLA-16-8  | 0.15       |
| Z276241  | BLA-19-8  | 0.26       |

Set for Berglok and Clevis type connections. Consists of one load pin and two retaining pins.



## Locking Set Midgrab MIG

| Art. no. | Code | Weight<br>kgs |
|----------|------|---------------|
| B14904   | C-8  | 0.02          |
| B14905   | L-8  | 0.02          |
| B14914   | C-10 | 0.02          |
| B14915   | L-10 | 0.02          |
| B14916   | C-13 | 0.08          |
| B14917   | L-13 | 0.05          |



L - Permanent locking function



C - Close/open function

# Information For Safe Use and Maintenance

The following information aims to give advice and explain the most common questions in order to ensure safe and proper use of lifting equipment.

It is of the utmost importance that this information is known to the user, and in accordance with the Machinery Directive 2006/42/EC this information must be delivered to the customer.

## Extreme Environments

The in-service temperature effects the WLL as follows:

| Temperature (°C) | Reduction of WLL     |                      |                     |                            |
|------------------|----------------------|----------------------|---------------------|----------------------------|
|                  | Grade 10 chain (400) | Grade 10 chain (200) | Grade 10 components | Grade 8 chain & components |
| -40 to +200 °C   | 0 %                  | 0 %                  | 0 %                 | 0 %                        |
| +200 to +300 °C  | 10 %                 | Not allowed          | 10 %                | 10 %                       |
| +300 to +400 °C  | 25 %                 | Not allowed          | 25 %                | 25 %                       |

Upon return to normal temperature, the sling reverts to its full capacity within the above temperature range. Chain slings should not be used above or below these temperatures. **Note! A chain sling with Grade 10 (200) chain must not be used in temperatures above 200 °C.**

- Chain and components must not be used in alkaline (>pH10) or acidic conditions (<pH6).
- Comprehensive and regular examination must be carried out when used in severe or corrosive inducing environments.
- In uncertain situations consult your Gunnebo Industries dealer.

## Surface Treatment

**Note!** Hot-dip galvanizing or plating is not allowed outside the control of the manufacturer.

## Protect Yourself and Others

- Before each use the chain sling should be checked for obvious damage or deterioration.
- Know the weight of the load, the centre of gravity and ensure it is ready to move and no obstacles will obstruct the lift.
- Check the conformity of the load with the WLL of the ID tag for the specific working configuration. *Never use a sling without a legible valid ID tag!*
- Prepare the landing site.
- Never overload a sling and avoid shock loading.
- Never use an improper sling configuration.
- Never use a worn out or damaged sling.
- Never ride on the load.
- Never walk or stand under a suspended load.
- Take into consideration that the load may swing or rotate.
- Watch your feet and fingers while loading/unloading.
- Always ensure that your back is clear.

## General Advice

- Ensure that the sling is precisely as ordered.
- Ensure that the manufacturers certificate is in order.
- Ensure that the ID-tag corresponds to the information on the certificate (the following ID tag information is compulsory: WLL, number of chain legs, nominal size (mm) individual ID-mark, manufacturer, CE-marking and year of manufacturing).
- Ensure that all details of the chain sling are recorded.
- Ensure that the staff using the chain sling has received the appropriate information and training.

## Asymmetrical Loading Conditions

For unequally loaded chain legs we recommend that the WLL are determined as follows:

- 2-leg slings calculated as the corresponding 1-leg sling
- 3 and 4-leg slings calculated as the corresponding 1-leg sling. (If it is certain that 2-legs are equally carrying the major part of the load, it can be calculated as the corresponding 2-leg sling.

## Safe Use

A chain sling is usually attached to the load and the crane by means of terminal fittings such as hooks, links etc.

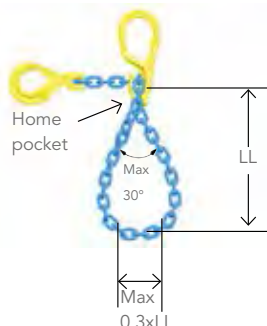
When frequently using a sling to it's maximum load, we recommend increasing the sling size by one dimension.



Chain should be without twists or knots, if the chain leg needs length adjustment use a shortening device. The lifting point should be seated well down in the terminal fitting, never on the point or wedged in the opening. The terminal fitting should be free to incline in any direction.

The chain may be passed under or through the load to form a choke hitch or basket hitch. The chain should be allowed to assume it's natural angle and should not be hammered down.

Where choke hitch is employed the WLL of the chain sling should be reduced by 20% (unless the LK choker hook is used)



Endless chain slings shall be rated in the same way as a 2-legged sling.

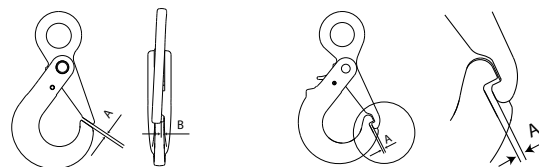
Home pocket loop shall have an internal loop top angle of max. 30°. Rule of thumb: Cross dimension of the load shall be max. 0.3 times the loop length (LL)

Definition: The home pocket is the shortening pocket of the top component directly above the clevis to which the chain is connected.

## Maintenance

Periodic thorough examination must be carried out at least every 12 months or more frequently according to local statutory regulations, type of use and past experience.

1. Overloaded chain slings must be taken out of service.
2. If the lifting equipment is more than 25 years old, it must be recorded in the inspection register. An investigation into both its previous operating history and its current use should be made, as there is a potentially significant risk of fatigue, environmental impact etc.
3. Chain and components including load pins which have been damaged, deformed, elongated, bent or showing signs of cracks or gouges shall be replaced. Carefully grind away small sharp cuts and burrs. Additional testing by magnetic particle inspection and/or proof loading at max. 2 x WLL may be carried out.
4. Check the function of latches, triggers and retaining pins / bushes, replace when necessary. Always use Gunnebo Lifting original spare parts.
5. Max. clearance between hook and latch. Note: For a Griplatch hook measure the difference between dimension A with unloaded spring and dimension A when the latch is pressed against the hook. Clearance B not applicable.



| Size  | Max. A (mm). | Max. B (mm). |
|-------|--------------|--------------|
| 6     | 2,2          | 3,5          |
| 7/8   | 2,7          | 4,5          |
| 10    | 3            | 6            |
| 13    | 3,3          | 7            |
| 16    | 4            | 9            |
| 18/20 | 5,5          | 10           |
| 22    | 6            | 11           |
| 26    | 6,5          | 12           |
| 28    | 7            | 13           |

## Sharp edges

Use edge protectors to prevent sharp edges from damaging the chain. If lifting over sharp edges reduce the working load with the following reduction factor.

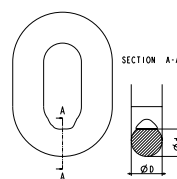


| Edge load        | $R > 2 \times \text{chain } \varnothing$ | $R > \text{chain } \varnothing$ | $R < \text{chain } \varnothing$ |
|------------------|------------------------------------------|---------------------------------|---------------------------------|
| Reduction factor | 1.0                                      | 0.7                             | 0.5                             |

- The angle of the edge must not be below 90°.
- Chain links shall be protected from being bent or deformed and from receiving cuts or gouges.
- Chain sling WLL is to be reduced when chain is rigged over an edge radius R less than two (2) x chain diameter (d).
- Reduced WLL equals chain sling WLL from identification tag x reduction factor.
- Slings shall be padded or protected from the edges of their loads when the edge radius is less than 0.5 of the chain diameter(d).
- Slings shall be rigged to prevent chain from sliding over a load edge radius while lifting.
- Slings used in basket hitch shall have the loads balanced to prevent slipping.

When lifting with chain directly on lugs the lug diameter > 3x the pitch of the chain, otherwise the WLL must be reduced by 50%.

6. The wear of the chain and component shall in no place exceed 10% of the original dimensions. The chain link wear - max. 10% - is defined as the reduction of the mean diameter measured in two directions.



$$\frac{d_1 + d_2}{2} > 0,9d_{nn}$$

$d_n$  = nominal diameter

# Quality Assurance

## Type Testing

In order to prove the design, material, heat treatment and method of manufacture, each size of component and chain has been type tested in the finished condition in order to demonstrate that the component and chain possesses the required mechanical properties. The following testing procedures are particularly relevant:

### Test for Deformation

The Manufacturing Proof Force (MPF) for the relevant size of the component is applied and removed. The dimensions after proof loading shall not alter from the original dimensions within the tolerances prescribed in our specifications and in the international standards.

### Static Tensile Test

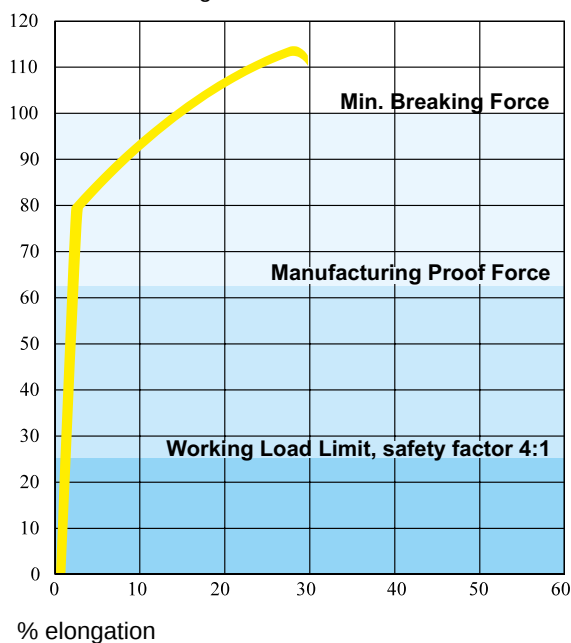
The Breaking Force (BF) for each component and size is verified. The verified value shall be at least equal to the Minimum Breaking Force (MBF) value. The MBF value is equal to the Working Load Limit (WLL) multiplied by the safety factor.

### Fatigue Test

By fatigue testing in pulsator testing machines the toughest conditions of service are simulated.

## Stress / Elongation Diagram

Chain grade 10, type KL  
% of min. Breaking Force



## Manufacturing Testing

During manufacture continuous process tests are carried out according to the requirements in our specifications and in the latest international standards. The following testing procedures are particularly relevant:

### Proof Force

Each individual component and chain link is tested to the Manufacturing Proof Force (MPF) level before delivery. The MPF level is 2.5 times the WLL, equal to 62,5% of the Minimum Breaking Force.

### Non Destructive Test / Visual Inspection

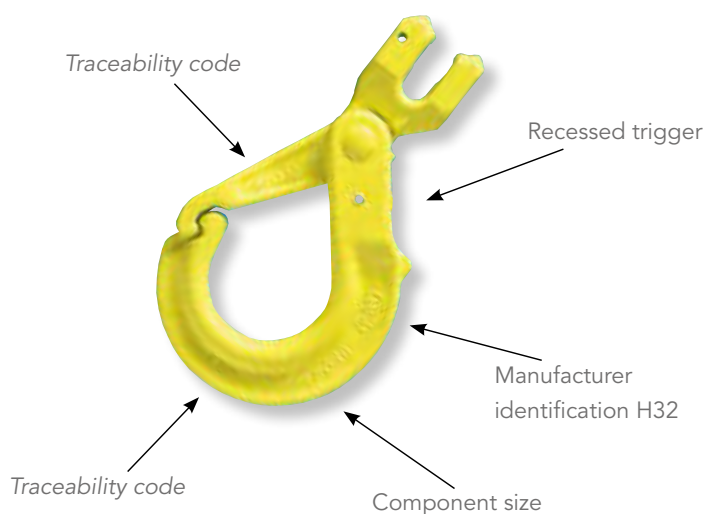
3% of every production batch of forged components are subject to magnetic particle or dye penetrating examination. Visual inspection is carried out on each chain link and each forged component to detect defects.

### Static Tensile and Ultimate Elongation test

During manufacture, samples are tested and the Minimum Breaking Force (MBF) value and the total ultimate elongation are verified.

### Bending Deflection

During manufacturing, of chain and master links, samples are taken and the minimum bend deflection is verified.



# Working Load Limits

## Grade 10 GrabiQ (tonnes)

| 1-leg      |      | 2-leg                           |                                    | 3- & 4-leg                      |                                    | Choke hitch                     |                                    |
|------------|------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|
| Chain dim. |      | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |
| 6          | 1.5  | 2.1                             | 1.5                                | 3.15                            | 2.2                                | 1.6                             | 1.2                                |
| 7          | 2.0  | 2.8                             | 2.0                                | 4.2                             | 3.0                                | 2.2                             | 1.6                                |
| 8          | 2.5  | 3.5                             | 2.5                                | 5.2                             | 3.7                                | 2.7                             | 2                                  |
| 10         | 4.0  | 5.6                             | 4.0                                | 8.4                             | 6.0                                | 4.4                             | 3.2                                |
| 13         | 6.7  | 9.5                             | 6.7                                | 14.0                            | 10.0                               | 7.4                             | 5.3                                |
| 16         | 10.0 | 14.0                            | 10.0                               | 21.0                            | 15.0                               | 11.0                            | 8.0                                |
| 20         | 16.0 | 22.4                            | 16.0                               | 33.6                            | 24.0                               | 17.6                            | 12.8                               |
| 22         | 20.0 | 28.0                            | 20.0                               | 42.0                            | 30.0                               | 22.0                            | 16.0                               |
| 26         | 27.0 | 38.2                            | 27.0                               | 57.3                            | 40.5                               | 29.7                            | 21.6                               |

Safety factor 4:1. Working load limits are based upon equally loaded and disposed sling legs.

## Grade 8 Classic (tonnes)

EN 818-4:1996

| 1-leg         |      | 2-leg                           |                                    | 3-leg & 4-leg                   |                                    | Choked endless sling |
|---------------|------|---------------------------------|------------------------------------|---------------------------------|------------------------------------|----------------------|
| Chain dim. mm |      | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° | $\beta$ 0-45°<br>$\alpha$ 0-90° | $\beta$ 45-60°<br>$\alpha$ 90-120° |                      |
| 6             | 1.1  | 1.6                             | 1.1                                | 2.36                            | 1.7                                | 1.8                  |
| 7             | 1.50 | 2.12                            | 1.5                                | 3.15                            | 2.24                               | 2.5                  |
| 8             | 2.0  | 2.8                             | 2.0                                | 4.25                            | 3.0                                | 3.15                 |
| 10            | 3.15 | 4.25                            | 3.15                               | 6.7                             | 4.75                               | 5.0                  |
| 13            | 5.3  | 7.5                             | 5.3                                | 11.2                            | 8.0                                | 8.5                  |
| 16            | 8.0  | 11.2                            | 8.0                                | 17.0                            | 11.8                               | 12.5                 |
| 19            | 11.2 | 16.0                            | 11.2                               | 23.6                            | 17.0                               | 18.0                 |
| 22            | 15.0 | 21.2                            | 15.0                               | 31.5                            | 22.4                               | 23.6                 |
| 26            | 21.2 | 30.0                            | 21.2                               | 45.0                            | 31.5                               | 33.5                 |
| 32            | 31.5 | 45.0                            | 31.5                               | 67.0                            | 47.5                               | 50.0                 |

Safety factor 4:1. Working load limits are based upon equally loaded and disposed sling legs.

## Rules for Correct WLL

Where choke hitch is employed, the WLL of the chain sling should be reduced by 20 % (unless the LK choker hook is used).

## Asymmetrical Loading Conditions

For unequally loaded chain slings, the following approach to permissible loads is recommended:

- A two-legged system is treated as a single-legged system.
- A three- or four-legged system is treated as a two-legged system.

**Note!** Different standards apply for Australia, see page 2:47 for further information.

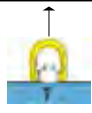
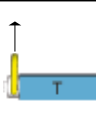
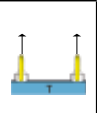
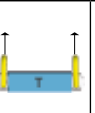
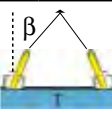
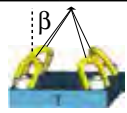
## Working Load Limits (tonnes) for ELP / WLP / SLP

| 1-leg    |             | 2-leg                           |                                 | 3- and 4-leg                    |                                 |
|----------|-------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Typ      | WLL tonnes* | $\alpha$ 0-90°<br>$\beta$ 0-45° | $\alpha$ 90-120° $\beta$ 45-60° | $\alpha$ 0-90°<br>$\beta$ 0-45° | $\alpha$ 90-120° $\beta$ 45-60° |
| ELP-16-8 | 1**         | 1.4                             | 1                               | 2.1                             | 1.5                             |
| ELP-20-8 | 1,5**       | 2.1                             | 1.5                             | 3.2                             | 2.3                             |
| ELP-24-8 | 2**         | 2.8                             | 2                               | 4.2                             | 3                               |
| ELP-30-8 | 3**         | 4.2                             | 3                               | 6.3                             | 4.5                             |
| ELP-36-8 | 4**         | 5.6                             | 4                               | 8.4                             | 6                               |
| WLP-1T   | 1           | 1.4                             | 1                               | 2.1                             | 1.5                             |
| WLP-3T   | 3           | 4.2                             | 3                               | 6.3                             | 4.5                             |
| WLP-5T   | 5           | 7                               | 5                               | 10.5                            | 7.5                             |
| SLP-1T   | 1           | 1.4                             | 1                               | 2.1                             | 1.5                             |
| SLP-3T   | 3           | 4.2                             | 3                               | 6.3                             | 4.5                             |
| SLP-5T   | 5           | 7                               | 5                               | 10.5                            | 7.5                             |

\*\*Note! The above loads apply to normal usage and equally loaded legs. For asymmetric loaded chain slings, the following is recommended:

- A two-legged system is rated as a single-legged system.
- A three- or four-legged system is rated as a two-legged system.

## Working Load Limits (tonnes) for RLP

|                     |  |  |  |  |  |  |
|---------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| No. of legs         | 1                                                                                   | 1                                                                                   | 2                                                                                   | 2                                                                                   | 2 symmetric                                                                          | 3 & 4 symmetric                                                                       |
| $\beta$             | 0°                                                                                  | 90°                                                                                 | 0°                                                                                  | 90°                                                                                 | 0-45°                                                                                | 45-60°                                                                                |
| Load factor         | *)                                                                                  | 1                                                                                   | *)                                                                                  | 2                                                                                   | 1.4                                                                                  | 1                                                                                     |
| M8-10 and 5/16 UNC  | 0.60                                                                                | 0.30                                                                                | 1.20                                                                                | 0.60                                                                                | 0.42                                                                                 | 0.30                                                                                  |
| M10-10 and 3/8 UNC  | 1.00                                                                                | 0.50                                                                                | 2.00                                                                                | 1.00                                                                                | 0.70                                                                                 | 0.50                                                                                  |
| M12-10 and 7/16 UNC | 1.50                                                                                | 0.75                                                                                | 3.00                                                                                | 1.50                                                                                | 1.00                                                                                 | 0.75                                                                                  |
| M16-10 and 5/8 UNC  | 3.00                                                                                | 1.50                                                                                | 6.00                                                                                | 3.00                                                                                | 2.10                                                                                 | 1.50                                                                                  |
| M20-10 and 3/4 UNC  | 5.00                                                                                | 2.50                                                                                | 10.00                                                                               | 5.00                                                                                | 3.50                                                                                 | 2.50                                                                                  |
| M24-10              | 7.00                                                                                | 3.50                                                                                | 14.00                                                                               | 7.00                                                                                | 4.90                                                                                 | 3.50                                                                                  |
| M30-10              | 12.00                                                                               | 6.00                                                                                | 24.00                                                                               | 12.00                                                                               | 8.40                                                                                 | 6.00                                                                                  |
| M36-10              | 14.00                                                                               | 8.00                                                                                | 28.00                                                                               | 16.00                                                                               | 11.20                                                                                | 8.00                                                                                  |
| M42-10              | 16.00                                                                               | 14.00                                                                               | 32.00                                                                               | 28.00                                                                               | 19.60                                                                                | 14.00                                                                                 |
| M48-10              | 20.00                                                                               | 16.00                                                                               | 40.00                                                                               | 32.00                                                                               | 22.40                                                                                | 16.00                                                                                 |

\*) Provided only axial loading takes place, ie no bending force applied in the direction of the thread

In case of asymmetric loading we recommend following loading:

- 2-leg as corresponding 1-leg
- 3 and 4-leg slings calculated as the corresponding 1-leg sling. (If it is certain that 2-legs are equally carrying the major part of the load, it can be calculated as the corresponding 2-leg sling)

# Working Load Limits for Australia



## WLL tonnes Grade 10 GrabiQ in Australia

| Sling type       | 1-leg    | 1-leg      | 1-leg       | 2-, 3-, and 4-leg straight slings |      |      | 2-, 3-, and 4-leg reeved slings |      |      |
|------------------|----------|------------|-------------|-----------------------------------|------|------|---------------------------------|------|------|
| Condition of use | Straight | Adjustable | Choke hitch | 60°                               | 90°  | 120° | 60°                             | 90°  | 120° |
| Load factor      | 1        | 1          | 0.8         | 1.73                              | 1.41 | 1    | 1.3                             | 1.06 | 0.75 |
| Chain size (mm)  |          |            |             |                                   |      |      |                                 |      |      |
| 6                | 1.5      | 1.5        | 1.2         | 2.6                               | 2.1  | 1.5  | 1.95                            | 1.6  | 1.1  |
| 7                | 2.0      | 2.0        | 1.6         | 3.5                               | 2.8  | 2.0  | 2.6                             | 2.1  | 1.5  |
| 8                | 2.5      | 2.5        | 2.0         | 4.3                               | 3.5  | 2.5  | 3.2                             | 2.7  | 1.9  |
| 10               | 4.0      | 4.0        | 3.2         | 6.9                               | 5.7  | 4.0  | 5.2                             | 4.2  | 3.0  |
| 13               | 6.7      | 6.7        | 5.4         | 11.6                              | 9.5  | 6.7  | 8.7                             | 7.1  | 5.0  |
| 16               | 10.0     | 10.0       | 8.0         | 17.3                              | 14.1 | 10.0 | 13.0                            | 10.6 | 7.5  |
| 20               | 16.0     | 16.0       | 12.8        | 27.7                              | 22.6 | 16.0 | 20.8                            | 17.0 | 12.0 |
| 22               | 20.0     | 20.0       | 16.0        | 34.6                              | 28.2 | 20.0 | 26.0                            | 21.2 | 15.0 |
| 26               | 26.5     | 26.5       | 21.2        | 45.9                              | 37.5 | 26.5 | 34.4                            | 28.1 | 19.9 |

| Sling type       | Basket slings |      |      | Endless choke sling | Home pocket loop |                  |                  |
|------------------|---------------|------|------|---------------------|------------------|------------------|------------------|
|                  | 1-leg         |      |      |                     | 2-, 3- and 4-leg |                  |                  |
| Condition of use | 60°           | 90°  | 120° |                     | α max 30°        | 60°<br>α max 30° | 90°<br>α max 30° |
| Load factor      | 1.3           | 1.06 | 0.75 | 1.5                 | 1                | 1.73             | 1.4              |
| Chain size (mm)  |               |      |      |                     |                  |                  |                  |
| 6                | 1.95          | 1.6  | 1.1  | 2.3                 | 1.5              | 2.6              | 2.1              |
| 7                | 2.6           | 2.1  | 1.5  | 3.0                 | -                | -                | -                |
| 8                | 3.2           | 2.7  | 1.9  | 3.8                 | 2.5              | 4.3              | 3.5              |
| 10               | 5.2           | 4.2  | 3.0  | 6.0                 | 4.0              | 6.9              | 5.7              |
| 13               | 8.7           | 7.1  | 5.0  | 10.1                | 6.7              | 11.6             | 9.5              |
| 16               | 13.0          | 10.6 | 7.5  | 15.0                | 10.0             | 17.3             | 14.1             |
| 20               | 20.8          | 17.0 | 12.0 | 24.0                | -                | -                | -                |
| 22               | 26.0          | 21.2 | 15.0 | 30.0                | -                | -                | -                |
| 26               | 34.4          | 28.1 | 19.9 | 39.8                | -                | -                | -                |

## WLL tonnes Grade 8 Classic According to AS 3775.2-2004 (see Note 1)

|       |             |                                |              |                             |      |      |                           |      |      | Endless sling             |      |      |              |
|-------|-------------|--------------------------------|--------------|-----------------------------|------|------|---------------------------|------|------|---------------------------|------|------|--------------|
| Diam. | Direct load | Adjustable sling with deration | Reeved sling | Straight sling (see Note 2) |      |      | Reeved sling (see Note 2) |      |      | Basket hitch (see Note 2) |      |      | Reeved sling |
|       |             |                                |              | 60°                         | 90°  | 120° | 60°                       | 90°  | 120° | 60°                       | 90°  | 120° |              |
| 6     | 1.1         | 1.1                            | 0.8          | 1.9                         | 1.6  | 1.1  | 1.5                       | 1.2  | 0.8  | 1.5                       | 1.2  | 0.8  | 1.7          |
| 7     | 1.5         | 1.5                            | 1.1          | 2.6                         | 2.1  | 1.5  | 2.0                       | 1.6  | 1.1  | 2.0                       | 1.6  | 1.1  | 2.3          |
| 8     | 2.0         | 2.0                            | 1.5          | 3.5                         | 2.8  | 2.0  | 2.6                       | 2.1  | 1.5  | 2.6                       | 2.1  | 1.5  | 3.0          |
| 10    | 3.2         | 3.2                            | 2.4          | 5.5                         | 4.5  | 3.2  | 4.1                       | 3.4  | 2.4  | 4.1                       | 3.4  | 2.4  | 4.8          |
| 13    | 5.3         | 5.3                            | 4.0          | 9.2                         | 7.5  | 5.3  | 6.9                       | 5.6  | 4.0  | 6.9                       | 5.6  | 4.0  | 8.0          |
| 16    | 8.0         | 8.0                            | 6.0          | 13.8                        | 11.3 | 8.0  | 10.4                      | 8.5  | 6.0  | 10.4                      | 8.5  | 6.0  | 12.0         |
| 19    | 11.2        | 11.2                           | 8.4          | 19.4                        | 15.8 | 11.2 | 14.6                      | 11.9 | 8.4  | 14.6                      | 11.9 | 8.4  | 16.8         |
| 22    | 15.0        | 15.0                           | 11.3         | 26.0                        | 21.2 | 15.0 | 19.5                      | 15.9 | 11.3 | 19.5                      | 15.9 | 11.3 | 22.5         |
| 26    | 21.2        | 21.2                           | 15.9         | 36.7                        | 29.9 | 21.2 | 27.6                      | 22.5 | 15.9 | 27.6                      | 22.5 | 15.9 | 31.8         |
| 32    | 31.5        | 31.5                           | 23.6         | 54.5                        | 44.4 | 31.5 | 41.0                      | 33.4 | 23.6 | 41.0                      | 33.4 | 23.6 | 47.3         |

NOTE:

1) For engineered lifts, see Clause 7.2(b) in AS 3775.2-2004

2) The determination of the angle of the multi-leg sling is the largest included angle at the apex of the configuration.