

## COMPANY

- GRADUP
- SAFETY FACTORS
- FIXED EYE BOLTS OR SWIVEL LIFTING RINGS?
- CODIPRO AT YOUR DISPOSAL
- THE EXPERT CHARTER
- APPROVAL
- TRAINING CENTER
- CODITRACER

## UNTERNEHMEN

- GRADUP
- DIE SICHERHEITSAKTOREN
- FESTE RINGSCHRAUBEN ODER ANSCHLAGWIRBEL ?
- CODIPRO STETS ZU IHREN DIENSTEN
- DIE EXPERTENCHARTA
- DIE TYPENPRÜFUNG
- SCHULUNGEN
- CODITRACER

## SOCIÉTÉ

- GRADUP
- LES COEFFICIENTS DE SÉCURITÉ
- ANNEAU FIXE OU ARTICULÉ ?
- CODIPRO À VOTRE SERVICE
- LA CHARTE DE L'EXPERT
- HOMOLOGATION
- CENTRE DE FORMATION
- CODITRACER

## EMPRESA

- GRADUP
- LOS COEFICIENTES DE SEGURIDAD
- ¿CÁNCAMO FIJO O ARTICULADO?
- CODIPRO A SU DISPOSICIÓN
- LA CARTA DEL EXPERTO
- CERTIFICACIÓN
- CENTRO DE CAPACITACIÓN
- CODITRACER



The CODIPRO team, always listening to the market and keeping an eye on its trends, works constantly to improve and develop its range of **swivel lifting rings**.

The GRADUP range has been especially developed to be the quintessential swivel lifting ring, particularly in terms of the quality of the **raw materials** used.

The CODIPRO research department, supported by advice from internationally renowned research centers, selected the best quality steel to achieve the best balance between tensile strength, breaking load and fatigue strength.

Each component of the GRADUP lifting rings' hinge system has also been reviewed. The outer crowding dimensions, the screw couplings and the openings are compatible with CODIPRO lifting rings already on the market.

This major innovation, the GRADUP lifting ring, is the fruit of more than 45 years' experience combined with in-depth research.



**Gradup**

## Grade 6, 8, 10, 12, etc. Why GRADUP?



*DSR lifting ring assembly*

The quality of the steel is the essential characteristic of a swivel lifting ring. In the world of lifting, it is normal to speak in terms of class of steel, or "grade". This "grade" is what it's all about for a chain, because the diameter of the chain combined with the class of the material is what gives the lifting capacity. In recent years, some "grades" that are higher than others have appeared on the market. Based on this, many manufacturers are offering lifting rings of class 10, 12, 14, etc. These descriptions are not relevant for lifting devices with multiple components, such as a swivel lifting ring. This is why CODIPRO is seeking to move away from this trend that is almost entirely based on marketing promotions.

By creating the GRADUP (or optimized grade) range, CODIPRO is offering a breakthrough innovation. In a swivel lifting ring with multiple components, each element is subject to different constraints. In order to offer maximum strength, each separate piece must be conceived so that the materials used and the design are the most appropriate for its function within the overall device. With the release of the GRADUP brand, CODIPRO is now offering an ultra-safe and ultra-high-performance lifting ring.

## When should GRADUP be used?

Anytime and anywhere in a traditional industrial environment: the GRADUP swivel lifting rings are designed to be used within a temperature range of  $-20^{\circ}\text{C}$  to  $+200^{\circ}\text{C}$  ( $-4^{\circ}\text{F}$  to  $+392^{\circ}\text{F}$ ). Use recommendations provided in 15 languages give a detailed description of the conditions for use.

For extreme applications such as offshore use, or very low/very high temperatures, etc. our engineers at the CODIPRO research department are available to provide details about the composition of our lifting rings: strength, chemical composition, mechanical strength, tensile strength, etc.

## What certifications have been given to the GRADUP range?

All CODIPRO swivel lifting rings comply strictly with the points in the Machinery Directive 2006/42/CE.

The EN 1677-1 standard (January 2009) applicable to “forged steel components of Grade 8” is restrictive with regard to the quality of the steel that can be used. With its innovative GRADUP range, CODIPRO has gone further, using higher-performance steels.

CODIPRO has committed to complying with the essential points of the EN 1677-1 standard: the way in which the components must be produced, tested and certified.

All lifting rings in the GRADUP range also comply with the ASME B30.26-2010 standard. They can be used in the USA with no specific safety measures.



## What are the benefits of the GRADUP range?

- Each GRADUP lifting ring has an **individual traceability number** that is specific to CODIPRO.
- The GRADUP lifting rings are **100 % compatible with lifting rings in the existing** SEB, DSR, DSS ranges, etc. They are simply **more effective**.
- The optimization of the raw materials enables a significant improvement in WLL: **up to 11 % additional WLL** (23 % in safety factor 4).
- In keeping with its mission statement: "Our QUALITY = Your SAFETY", CODIPRO is offering certified lifting rings stamped with the **5:1 safety factor**, which means they can be used throughout the world, including in the USA. CODIPRO also provides all the necessary information for a use with a **4:1 safety factor**, as defined under the EN 1677-1 standard.
- A lifting ring is intrinsically stronger when it is used **linearly** (= an angle of 0°). Under these conditions, the GRADUP lifting rings offer **improved WLL**, the values for which are defined in the tables at the end of the catalogue.
- An **anti-corrosion coating** means that the unpainted parts of the CODIPRO swivel lifting rings are resistant to salt mist spray for 600 hours.
- The **tightening torque** is **stamped** on all lifting rings in the GRADUP range.
- As a producer of lifting fittings, CODIPRO is especially concerned with the orange color (RAL 2002), which is always associated with SAFETY. This particular shade, which has been a feature of the CODIPRO brand for many years, allowing users to distinguish CODIPRO's lifting rings from all the copies available on the market that could put operators' lives in danger.



Model SEB



Model FE.DSR



Model DSS

# SAFETY FACTORS

## How is the safety factor calculated?

In order to guarantee your safety, each CODIPRO swivel lifting ring has to undergo a series of very strict tests:

- > Breaking tests;
- > Proof load tests at 2.5 x WLL;
- > Fatigue tests.

Calculation of the safety factor is based on the results of breaking tests. It is the ratio of the WLL (Working Load Limit) to the breaking test. For example, a ring with a WLL of 1 t with a 5:1 safety factor will have to obtain a breaking load of at least 5 t.

## CODIPRO favours the 5:1 factor

True to its values, CODIPRO has always favoured the 5:1 factor because it remains the best guarantee of quality and safety. This is why CODIPRO - GRADUP rings are engraved with the WLL of the 5:1 factor. In addition to enhanced safety, thanks to the 5:1 factor, our lifting rings can be used on every continent with no restrictions.

## 4:1 and/or 5:1 Safety Factor

CODIPRO now offers swivel lifting rings with two safety factors: 4:1 as well as 5:1.

In Europe, it is customary to use the 4:1 safety factor. Moreover, it is this factor which is specified in the EN 1677-1 standard. For the sake of clarity and transparency, CODIPRO approved all of its GRADUP rings to a 4:1 factor to allow the informed operator to use it under these conditions.

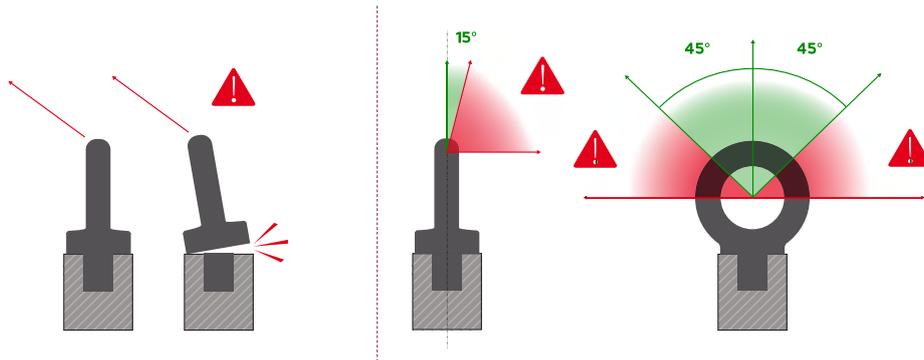
Along the same lines, in its load chart, CODIPRO gives values based on various load angles with factors of 5:1 AND 4:1 (see "Load Angle Chart" chapter).



Historically, CODIPRO rings with a diameter greater than M45 were already approved to the 4:1 safety factor. This is why GRADUP DSS rings with a diameter greater than M45 are engraved with both WLL's of safety factor 4:1 and 5:1.

# FIXED EYE BOLTS OR SWIVEL LIFTING RINGS?

**Traditional fixed eye bolts** (also known as DIN 580 rings) are intended for straight lifting: at a 0° angle to the direction of pulling. They are strictly prohibited for perpendicular lifting: at a 90° angle to the pulling direction.



**Swivel lifting rings** are specially designed for turning loads.

CODIPRO rings can be used in any kind of hoisting situation whether there is an angle or for a straight lift, and/or for all types of lifting.

The design of CODIPRO swivel rings allows pulling from any angle and rotating safely under load. Painted in orange (RAL 2002), the color is a sign for safety. The indelible engravings of CODIPRO rings state:

- > The compliance to EC directives;
- > GRADUP steel quality;
- > The recommended tightening torque;
- > The manufacturer brand;
- > Traceability marks of each component (blacksmith + batch number);
- > The thread diameter;
- > The WLL;
- > And... an **individual traceability number**.

This individual number allows you to access all documents related to the ring (instruction manual, CE certificate, technical data sheet, etc.) via our application CODITRACER.

	FIXED eye bolt	SWIVEL lifting ring
Straight lift	✓	✓
90° lift	✗	✓
Automatic alignment of the shackle	✗	✓
Rotation under load	✗	✓
High WLL	✗	✓
Individual traceability	✗	✓

# CODIPRO AT YOUR DISPOSAL

For more than 45 years, CODIPRO has been providing lifting equipment distribution professionals with expertise, technology and all the skills of a manufacturer that has become a major player in the international market.

From single items to large ranges, from standard to specific, CODIPRO manufactures and sells a complete range of swivel lifting rings for many sectors such as the molding industry, material handling, transport, logistics, the shipbuilding industry, offshore, lifting, aeronautics and wind power.

## Technical expertise

The safety of people and goods is one of CODIPRO's core values. The design and manufacture of swivel lifting rings must be flawless and require a very high level of technical expertise. CODIPRO offers a full range of lifting rings with a WLL of up to 125 tons.



## Research & development

Thanks to the close collaboration between its engineering department and several European Research Centers, CODIPRO places great emphasis on the research and development of its products. Always attentive to the market and changing needs, the R&D department strives to make continuous improvements to the materials' strength and develop new rings. The new GRADUP range is the result of this continual innovation.

## Quality & environment



*Hardness tensile testing machine*

CODIPRO pays particular attention to the quality of its swivel lifting rings throughout the manufacturing process, and each production step confirms strictly with the ISO 9001 and ISO 14001 quality management systems and the standards in force, i.e. the harmonized European lifting standards and the Machinery Directive 2006/42/CE.

Thanks to the ISO 27001 certification, CODIPRO confirms the reliability of its processes implemented in terms of cybersecurity. The implementation of this norm ensures thus that data is both optimally used and securely stored.

The new CODIPRO - GRADUP swivel lifting rings are manufactured in keeping with the standard EN 1677-1 and even go beyond that for many aspects. This means that they comply with essential safety requirements and are subject to very strict and frequent checks.

# CODIPRO AT YOUR DISPOSAL

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To ensure your **safety**, several types of tests must be carried out to check the **strength and quality** of the swivel lifting rings:

- > Breaking test;
- > Proof test load at WLL x 2.5;
- > Fatigue testing: pull/release tests on a series of 20,000 cycles at WLL x 1.5.

To provide even more safety, CODIPRO is equipped with a test bench allowing testing up to 80 tons to be carried out internally. The tests are then validated by an external certification body.

## Customer service



*Evelyne WEYNAND, Sales Department*

At CODIPRO, cooperation between customer, distributor and producer is a central priority. Through its clear and transparent «EXPERT Charter», CODIPRO is committed to being attentive to its partners and providing service. Provision of technical advice, finding solutions, responsiveness, and the availability of various services are all core values implemented by all employees.

# THE EXPERT CHARTER

CODIPRO supplies its swivel lifting rings via a network of distributors. The quality of the information provided depends on the skills of these distributors. That is why CODIPRO has decided to support its loyal distributors and help them develop their skills.

This innovative approach by CODIPRO reflects its values of honesty, professionalism and transparency.

Henceforth classified as EXPERTS, CODIPRO's distributors have the benefit of coaching, the content of which is described in the «EXPERT Charter».

The privileges reserved for EXPERT distributors enable them to stand out in the highly competitive swivel lifting ring market.

By joining together in a letter of commitment, CODIPRO and its EXPERTS are strengthening their existing links and contributing towards their growth and prosperity.

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## EDITORIAL

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Your EXPERT CHARTER, which was first released in 2014, is now available in its 4<sup>th</sup> version!

Why a new version? Simply because the context in which we grow together is constantly changing and especially because we are evolving by listening to your needs.

During the first CODIPRO DAYS organized in 2019, you asked for directly accessible marketing materials, you advised us to innovate with simple products that are easy to use, in order to stay ahead of competitors. Finally, you asked us to clarify the role of the EXPERTS in the relationship with LIFTEUROP, the other ALIPA company active in the lifting sector.

On behalf of the entire CODIPRO team, I am proud to be able to present our answers to you. Our portal, available on [codipro.net](http://codipro.net), gives you personalized access to all the marketing material you need. The QLR (Quick Lift Ring) is probably the most innovative answer we could give to your wish for product novelty. Finally, our new commercial organization ALIPA-Lifting and the integration of LIFTEUROP in this EXPERT CHARTER 2022 will, I am convinced, provide the desired clarity.

The only and unique aim of all these actions is to make you more competitive in expanding into new markets.

Dear EXPERTS, we listen to you... and we also keep our promises. In my 2019 editorial, I promised you a digital revolution that will enable us to remain competitive in Industry 4.0. This was not just talk: CODITRACER was born... CODITRACER is the future...

I cannot close this introduction without recalling the foundations of this EXPERT CHARTER: Honesty - Professionalism - Transparency. It is in this state of mind that we, and in particular our team of Business Developers, wish to make our common growth live.

Looking forward to finally seeing you again,

  
**CHRISTOPHE LOSANGE**  
DIRECTOR



2022 Version

# APPROVAL

Creator, designer and producer of high quality safety swivel lifting rings, Codipro wants to give its clients the best advice and develop with them customized solutions to ensure the safety of both goods and people.

## 1. Why an approval?

The Machinery Directive 2006/42/CE states that:

- > All the lifting equipment have to be CE marked;
- > A declaration of conformity and an instruction manual must be provided with each delivery;
- > The manufacturer must be clearly identified.

### 2006/42/CE European directive extract

#### Scope

**This Directive applies to the following products:**

- a) machinery;
- b) interchangeable equipment;
- c) safety components;
- d) lifting accessories;
- e) chains, ropes and webbing.

#### Mechanical strength

Machinery and lifting accessories must be designed and constructed in such a way as to prevent failure [...] Strength calculations must take account of the value of the static test coefficient chosen to guarantee an adequate level of safety. That coefficient has, as a general rule, the following values:

- a) manually-operated machinery and lifting accessories.

#### Lifting accessories and their components

Lifting accessories and their components must be sized [...].

Moreover:

- a) all metallic components making up, or used with, a sling must have a working coefficient chosen in such a way as to guarantee an adequate level of safety; this coefficient is, as a general rule, equal to 4;
- b) in order to verify that an adequate working coefficient has been attained, the manufacturer or his authorised representative must, for each type of component perform the appropriate tests or have such test performed. [...].

The CODIPRO swivel lifting rings are in all respects consistent with the legislation.



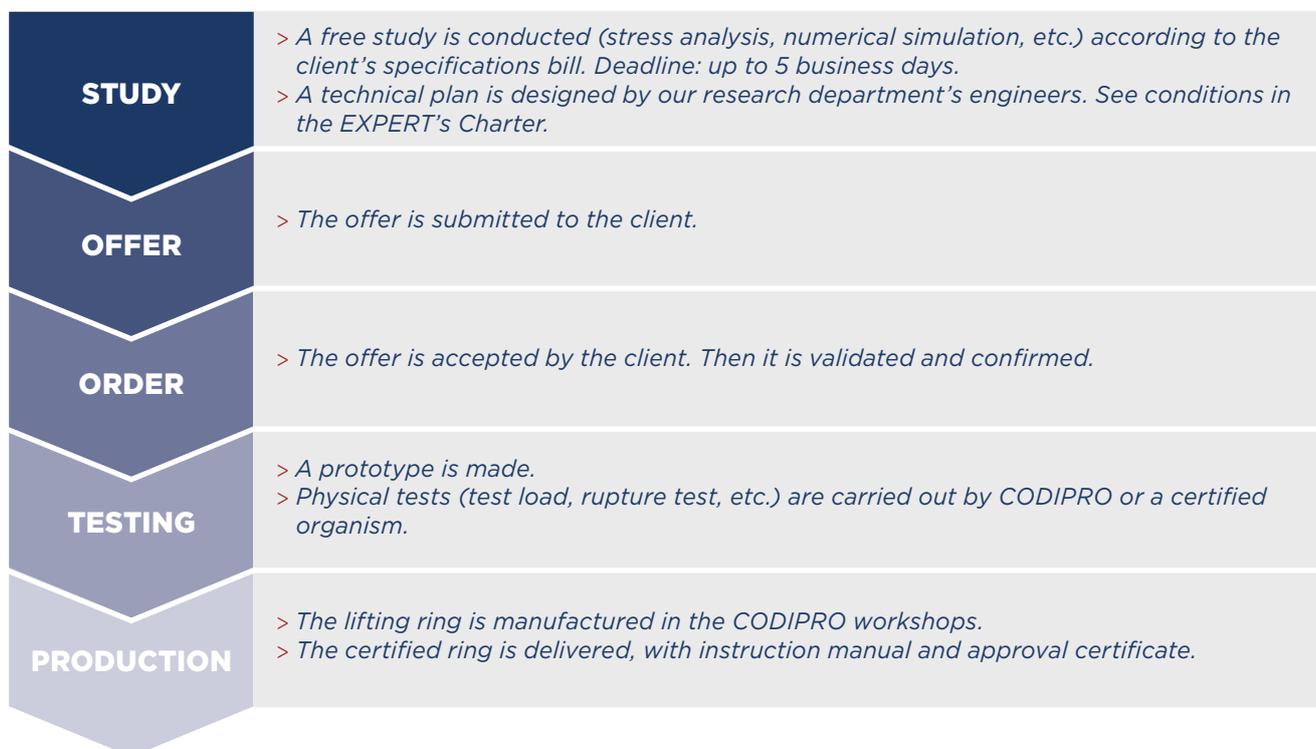
# APPROVAL

## 2. When is an approval necessary?

All the lifting rings manufactured by CODIPRO are approved:

- > The standard lifting rings are approved according to the European directive 2006/42/CE.
- > Moreover they are tested and produced according to the EN 1677-1 standard;
- > The non-standard lifting rings are approved according to the Machinery Directive 2006/42/CE.

## 3. How is a specific order processed?



## 4. How exactly is the approval carried out?

### > Study of the technical feasibility

Engineers from the CODIPRO research department study the client's specifications bill and design a model (stress analysis, numerical simulation, etc.).

### > Tests or calculation notes taking into account:

- The result of the test load;
- The resistance to destruction;
- The fatigue.

### > Edition of the tests reports

### > Writing of a certificate of conformity taking into account the following items:

- Safety coefficient consistent with the Machinery Directive 2006/42/CE ;
- Individual traceability;
- Cracks checking.

# TRAINING CENTER

The lifting profession is becoming increasingly regulated, affecting the choice, verification, conditions of use, and maintenance of equipment, as well as staff training.

Since it is only possible to explain something well with proper knowledge, CODIPRO provides its partners/EXPERTS with different types of trainings based on individual needs.

## Training - the figures

- > 1 team of traveling instructors
- > 15 years of experience in lifting / safety training
- > 550 trained experts
- > 3000 people have been trained in 15 years
- > 13 training workshop available
- > 500,000 km: Distance traveled by the instructors



Sébastien DEBLIRE, Key Account Manager

## Training offered by CODIPRO

- 1) Training material adapted to the profile of the participants (EXPERTS or end users).
- 2) Programs available in 4 languages
- 3) Training provided by personnel who are experienced in lifting techniques
- 4) Its workshop and technical staff are available for training sessions in Wiltz, Luxembourg
- 5) Online or face to face



**Your contact person:** Sébastien DEBLIRE - Training Manager  
E-mail : [sdeblire@codipro.net](mailto:sdeblire@codipro.net) - Tel. : +352 26 81 54 41 - Cell phone : +32 496 61 60 51  
Presentation sheets for the various training sessions are available on request

# CODITRACER

## What is CODITRACER?

CODITRACER is a traceability tool that ensures the traceability of the ring in each step of its way: in the production of the raw material, in the assembly of the ring, in its distribution and in its use.

Each ring has a traceability number. This number simply has to be entered into the software to access all information related to the rings, such as the instruction manuals, technical data sheets or the certificates of conformity.



Developed on the basis of Blockchain technology, it guarantees the security and confidentiality of information.

## The advantages of CODITRACER?

### Information in real time

Instant 24/7 access to general information: certificate of conformity, instruction manual, technical data sheet, etc.

### Maximal Traceability

Supported by the BLOCKCHAIN technology, traceability of the rings from the launch of the GRADUP range until today.

### Authentication and security

Reliable and forgery-proof origin and data of CODIPRO's products.

### Enhanced digitalization process

Speed of processing of requests and dematerialization of documents (environmental directive 2018/852).

### Controlled cost

The software is FREE OF CHARGE.

### Proof of quality

Lifting rings now guaranteed for 7 years!



CODITRACER is available on App Store, Play Store and through CODIPRO's website ([www.codipro.net](http://www.codipro.net)).



## GRADUP

- DSR
- DSS
- MEGA.DSS
- GIGA.DSS
- SEB
- FE.DSR
- FE.DSS
- FE.SEB
- QL.DSR



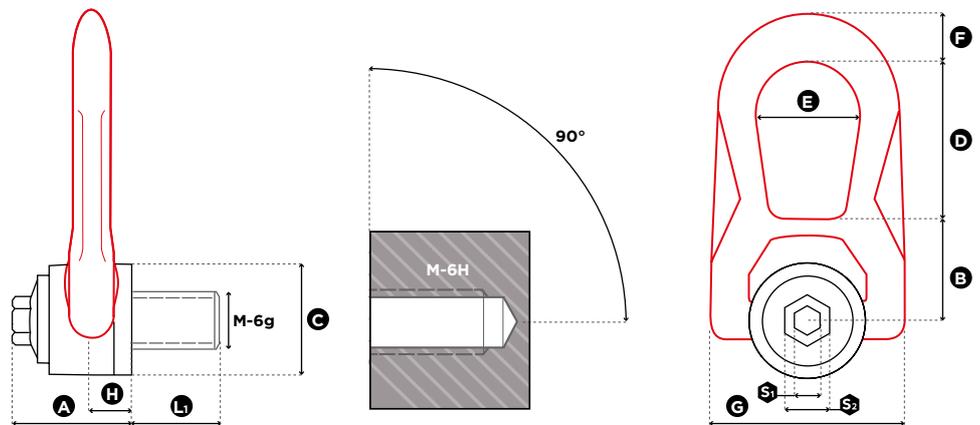
# DSR

## GradUp



METRIC THREADS

### DOUBLE SWIVEL RING



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
DSR M 5 UP	M 5 (x0,8)	0,07	0,10	15	3	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 6 UP	M 6 (x1)	0,15	0,20	15	4	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 8 UP	M 8 (x1,25)	0,40	0,50	15	6	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 10 UP	M 10 (x1,5)	0,70	0,90	18	10	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 12 UP	M 12 (x1,75)	1,05	1,30	21	15	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 14 UP	M 14 (x2)	1,40	1,80	23	30	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR M 16 UP	M 16 (x2)	2,00	2,30	27	50	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR M 18 UP	M 18 (x2,5)	2,30	2,30	27	70	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR M 20 2t5 UP	M 20 (x2,5)	2,50	2,50	30	100	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR M 20 3t2 UP	M 20 (x2,5)	2,90	3,20	25	100	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR M 22 UP	M 22 (x2,5)	3,50	4,50	33	120	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR M 24 UP	M 24 (x3)	4,40	5,50	36	160	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR M 27 UP	M 27 (x3)	5,70	6,00	40	200	14	24	62	55	60	83	55	25	115	19	2,7	5.95
DSR M 30 6t3 UP	M 30 (x3,5)	6,00	6,30	45	250	14	24	62	55	60	83	55	25	115	19	2,7	5.95
DSR M 30 8t UP	M 30 (x3,5)	6,70	8,00	45	250	14	30	80	77	78	98	71	26	141	28	5,4	11.90
DSR M 36 UP	M 36 (x4)	8,00	8,50	54	320	14	30	80	77	78	98	71	26	141	28	5,4	11.90
DSR M 42 UP	M 42 (x4,5)	8,50	9,00	63	400	14	30	80	77	78	98	71	26	141	28	5,5	12.13

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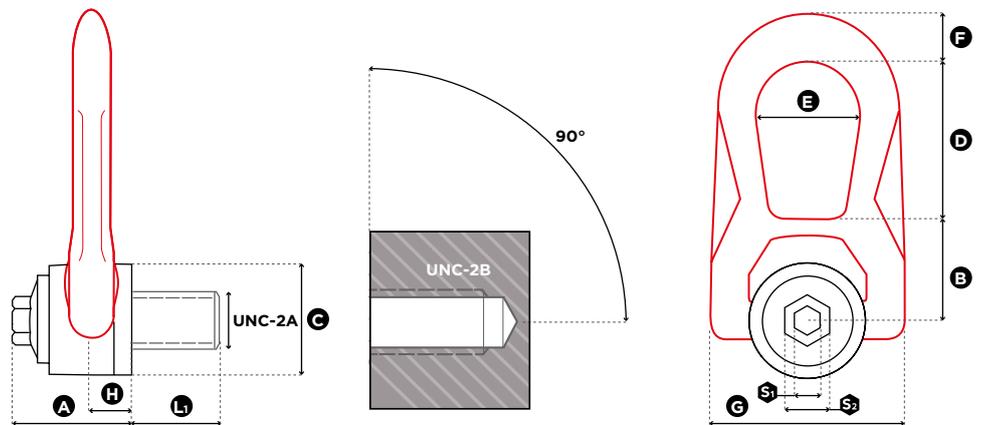
# DSR

## GradUp



UNC THREADS

### DOUBLE SWIVEL RING



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S1 (mm)	S2 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
DSR U 025 UP	UNC 1/4"-20	330	450	13	3	8	16	32	30	30	38	27	14	53	95	0,3	0.66
DSR U 516 UP	UNC 5/16"-18	1,000	1,200	15	5	8	16	32	30	30	38	27	14	53	95	0,3	0.66
DSR U 038 UP	UNC 3/8"-16	1,300	1,600	17	8	8	16	32	30	30	38	27	14	53	95	0,3	0.66
DSR U 050 UP	UNC 1/2"-13	2,400	2,800	21	12	8	16	32	30	30	38	27	14	53	95	0,3	0.66
DSR U 058 UP	UNC 5/8"-11	3,900	4,900	27	40	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR U 075 UP	UNC 3/4"-10	5,250	5,250	30	80	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR U 078 UP	UNC 7/8"-9	7,900	9,800	33	90	14	24	62	55	60	83	55	25	115	19	2,5	5.51
DSR U 100 UP	UNC 1"-8	11,200	12,500	36	125	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR U 118 UP	UNC 1" 1/8-7	11,500	13,000	42	160	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR U 125 UP	UNC 1" 1/4-7	13,500	13,500	45	200	14	24	62	55	60	83	55	25	115	19	2,7	5.95

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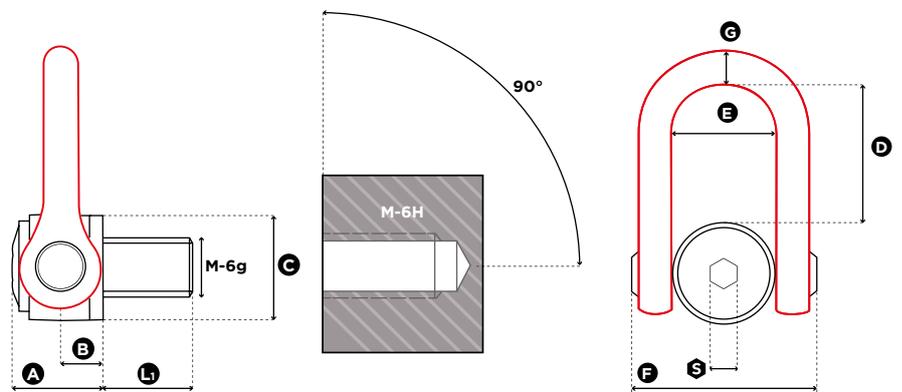
# DSS

## GradUp



METRIC THREADS

### DOUBLE SWIVEL SHACKLE



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
DSS M 24 UP	M 24 (x3)	4,50	5,50	36	160	19	61	31	70	98	73	149	33	5,4	11.90
DSS M 30 UP	M 30 (x3,5)	7,70	8,50	45	250	19	61	31	70	98	73	149	33	5,5	12.13
DSS M 33 UP	M 33 (x3,5)	8,50	10,50	50	250	19	61	31	70	98	73	149	33	5,5	12.13
DSS M 36 UP	M 36 (x4)	11,00	12,00	54	320	19	61	31	70	98	73	149	33	5,5	12.13
DSS M 36x3 UP	M 36 (x3)	11,00	12,00	54	320	19	61	31	70	98	73	149	33	5,5	12.13
DSS M 39 UP	M 39 (x4)	12,00	14,00	58	320	19	61	31	70	98	73	149	33	5,7	12.57
DSS M 42 UP	M 42 (x4,5)	13,00	15,00	63	400	19	61	31	70	98	73	149	33	5,8	12.79
DSS M 42x3 UP	M 42 (x3)	13,00	15,00	63	400	19	61	31	70	98	73	149	33	5,8	12.79
DSS M 45 UP	M 45 (x4,5)	14,50	16,00	63	400	19	61	31	70	98	73	149	33	5,9	13.01
DSS M 48 UP	M 48 (x5)	17,00	20,00	68	600	19	79	38	90	123	91	182	45	11,0	24.25
DSS M 48x3 UP	M 48 (x3)	17,00	20,00	68	600	19	79	38	90	123	91	182	45	11,0	24.25
DSS M 48x4 UP	M 48 (x4)	17,00	20,00	68	600	19	79	38	90	123	91	182	45	11,0	24.25
DSS M 52 UP	M 52 (x5)	19,00	21,00	68	600	19	79	38	90	123	91	182	45	11,2	24.69
DSS M 56 UP	M 56 (x5,5)	22,00	25,00	78	600	19	79	38	90	123	91	182	45	11,3	24.91
DSS M 56x4 UP	M 56 (x4)	22,00	25,00	78	600	19	79	38	90	123	91	182	45	11,4	25.13
DSS M 64 UP	M 64 (x6)	25,00	32,10	90	600	19	79	38	95	123	91	182	45	12,2	26.90
DSS M 64x4 UP	M 64 (x4)	25,00	32,10	90	600	19	79	38	95	123	91	182	45	12,2	26.90
DSS M 72 UP	M 72 (x6)	22,00	25,00	90	600	19	79	38	95	123	91	182	45	14,0	30.86
DSS M 72x4 UP	M 72 (x4)	22,00	25,00	90	600	19	79	38	95	123	91	182	45	14,0	30.86
DSS M 80 UP	M 80 (x6)	25,00	32,10	90	600	19	79	38	100	123	91	182	45	15,0	33.07
DSS M 90 UP	M 90 (x6)	25,00	32,10	90	600	19	79	38	100	123	91	182	45	15,5	34.17
DSS M 100 UP	M 100 (x6)	25,00	32,10	90	600	19	79	38	110	123	91	182	45	16,5	36.38

02.2024

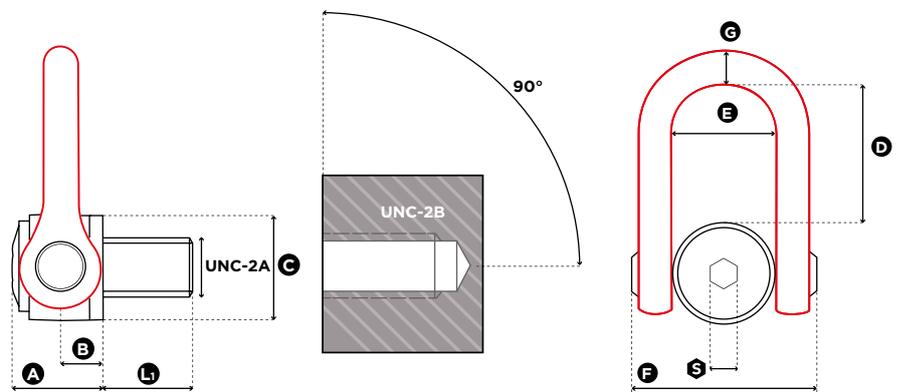
# DSS

## GradUp



UNC THREADS

### DOUBLE SWIVEL SHACKLE



1 in = 25.4 mm

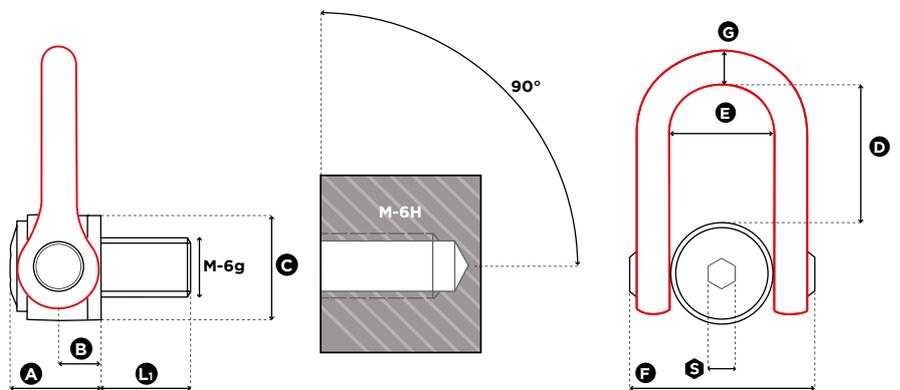
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
DSS U 100 UP	UNC 1"-8	10,000	13,000	36	125	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 125 UP	UNC 1" 1/4-7	15,000	19,000	45	200	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 138 UP	UNC 1" 3/8-6	21,000	22,000	54	240	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 150 UP	UNC 1" 1/2-6	22,000	27,000	54	240	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 175 UP	UNC 1" 3/4-5	27,000	33,000	63	300	19	61	31	70	98	73	149	33	5,9	13.01
DSS U 200 UP	UNC 2"-4,5	38,000	50,000	76	450	19	79	38	90	123	91	182	45	11,1	24.47
DSS U 250 UP	UNC 2" 1/2-4	48,500	55,000	90	450	19	79	38	95	123	91	182	45	12,2	26.90

02.2024

# MEGA.DSS+

## MEGA DOUBLE SWIVEL SHACKLE

GradUp



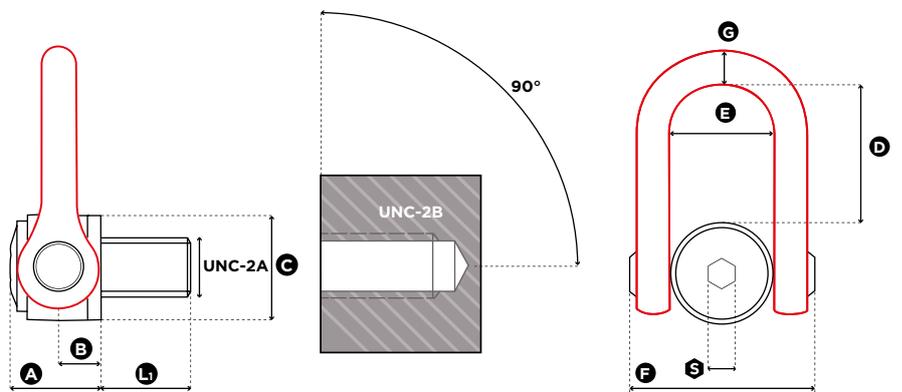
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
MEGA.DSS+ M 64 UP	M 64 (x6)	30,00	35,00	100	600	36	127	64	140	186	143	278	69	42,0	92,59
MEGA.DSS+ M 72 UP	M 72 (x6)	35,00	40,00	110	700	36	127	64	140	186	143	278	69	43,0	94,80
MEGA.DSS+ M 72x4 UP	M 72 (x4)	35,00	40,00	110	700	36	127	64	140	186	143	278	69	43,0	94,80
MEGA.DSS+ M 80 UP	M 80 (x6)	40,00	50,00	120	800	36	127	64	140	186	143	278	69	44,5	98,11
MEGA.DSS+ M 90 UP	M 90 (x6)	50,00	60,00	135	900	36	127	64	140	186	143	278	69	46,5	102,51
MEGA.DSS+ M 100 UP	M 100 (x6)	60,00	70,00	150	1000	36	127	64	140	186	143	278	69	49,0	108,03

# MEGA.DSS+

## MEGA DOUBLE SWIVEL SHACKLE

GradUp



1 in = 25.4 mm

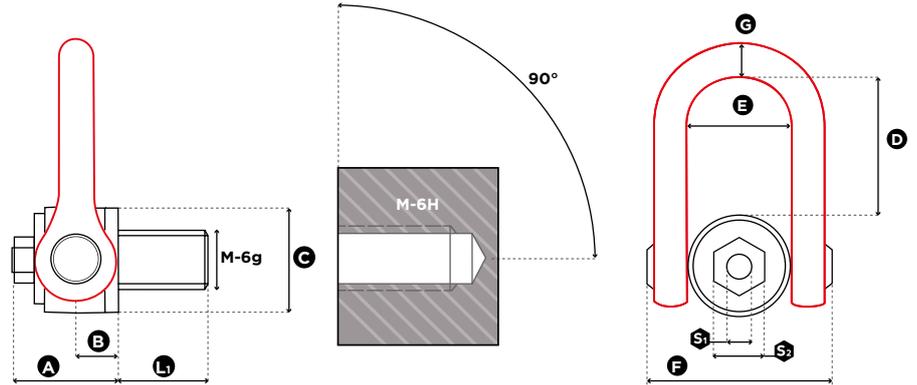
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
MEGA.DSS+ U 275 UP	UNC 2" 3/4-4	66,000	77,000	105	520	36	127	64	140	186	143	278	69	42,5	93.70
MEGA.DSS+ U 300 UP	UNC 3" -4	77,000	88,000	115	520	36	127	64	140	186	143	278	69	43	94.80
MEGA.DSS+ U 325 UP	UNC 3" 1/4-4	88,000	110,000	125	590	36	127	64	140	186	143	278	69	44,5	98.11
MEGA.DSS+ U 350 UP	UNC 3" 1/2-4	88,000	110,000	135	665	36	127	64	140	186	143	278	69	46	101.41
MEGA.DSS+ U 375 UP	UNC 3" 3/4-4	110,000	132,000	145	740	36	127	64	140	186	143	278	69	47	103.62
MEGA.DSS+ U 400 UP	UNC 4" -4	132,000	154,000	150	740	36	127	64	140	186	143	278	69	49	108.03

# GIGA.DSS GIGA.DSS+Q

METRIC THREADS

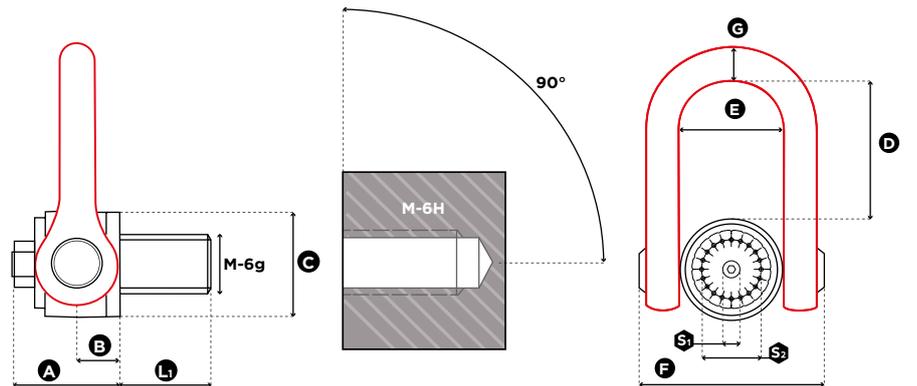
## GIGA DOUBLE SWIVEL SHACKLE

GradUp



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
GIGA.DSS M 150 UP	M 150 (x6)	125,00	228	2000	41	105	271	115	290	353	302	544	103	268	590.84



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
GIGA.DSS+Q M 150 UP	M 150 (x6)	125,00	230	160	21	XZN N12 DIN 34824	267	115	290	353	302	544	103	268	590.84

02.2024



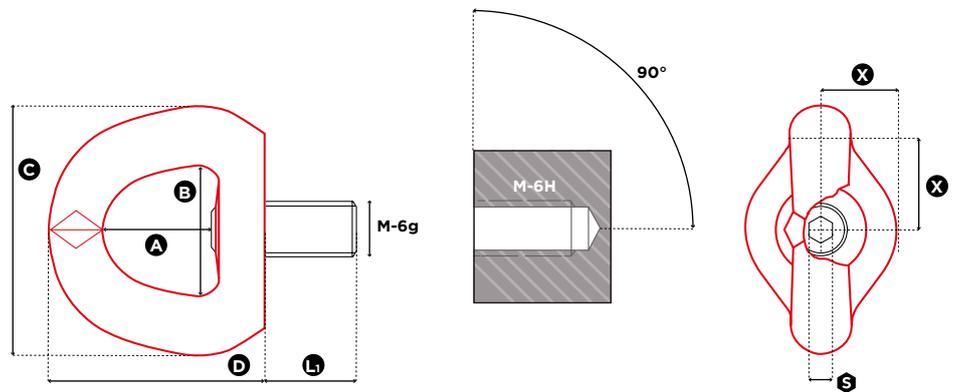
# SEB

## GradUp



### SWIVEL EYE BOLT

METRIC THREADS



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)			A (mm)	B (mm)	C (mm)	D (mm)	Weight	
												(kg)	(lbs)
SEB M 8 UP	M 8 (x1,25)	0,40	0,50	14	6	20	6	30	34	60	57	0,24	0,53
SEB M 10 UP	M 10 (x1,5)	0,50	0,70	17	10	20	6	30	34	60	57	0,24	0,53
SEB M 12 UP	M 12 (x1,75)	0,80	0,90	21	15	20	6	30	34	60	57	0,24	0,53
SEB M 16 UP	M 16 (x2)	1,40	1,80	27	50	35	8	38	45	88	80	0,8	1,76
SEB M 20 UP	M 20 (x2,5)	2,00	2,70	30	100	35	8	38	45	88	80	0,8	1,76
SEB M 24 3t8 UP	M 24 (x3)	3,20	3,80	36	160	35	14	38	45	88	80	0,8	1,76
SEB M 24 4t2 UP	M 24 (x3)	3,40	4,20	36	160	50	14	58	70	115	106	2,6	5,73
SEB M 30 UP	M 30 (x3,5)	5,50	6,30	45	250	50	14	58	70	115	106	2,7	5,95
SEB M 36 UP	M 36 (x4)	9,00	11,00	54	320	70	14	83	94	168	155	7,0	15,43
SEB M 42 UP	M 42 (x4,5)	12,00	15,00	63	400	70	14	83	94	168	155	7,0	15,43
SEB M 48 UP	M 48 (x5)	15,00	16,00	70	600	70	19	80	94	168	155	7,0	15,43

02.2024

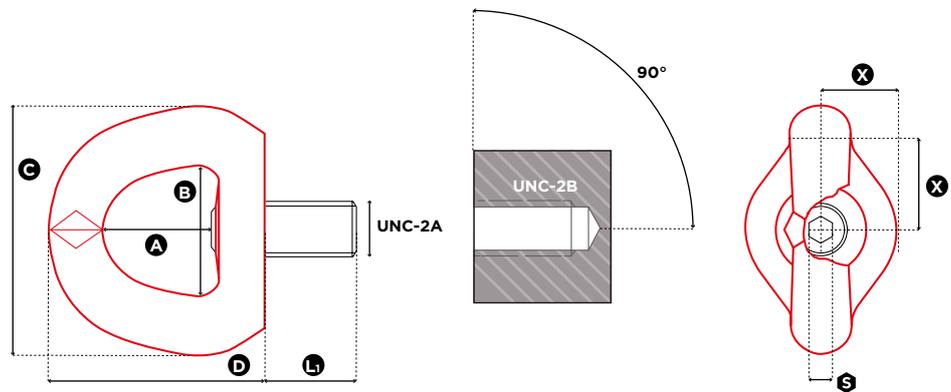
# SEB

## GradUp



### SWIVEL EYE BOLT

UNC THREADS



1 in = 25.4 mm

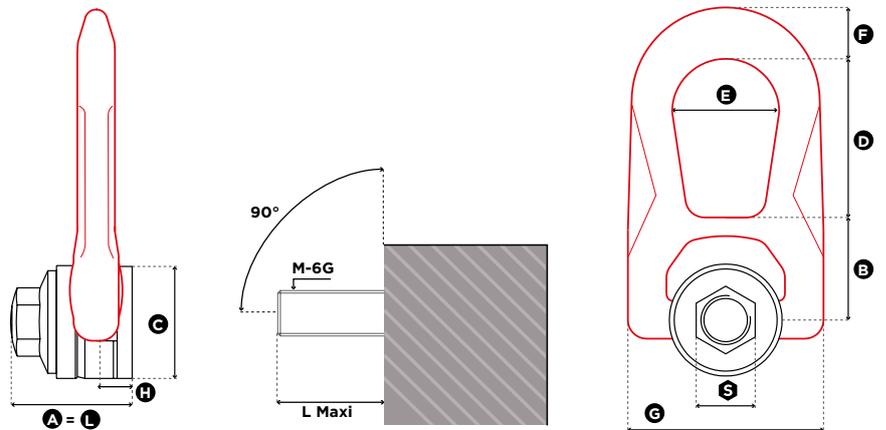
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	X (mm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight	
												(kg)	(lbs)
SEB U 038 UP	UNC 3/8"-16	1,200	1,500	17	8	20	6	30	34	60	57	0,24	0.53
SEB U 050 UP	UNC 1/2"-13	1,800	1,950	21	12	20	6	30	34	60	57	0,24	0.53
SEB U 058 UP	UNC 5/8"-11	3,200	4,000	27	40	35	8	38	45	88	80	0,8	1.76
SEB U 075 UP	UNC 3/4"-10	4,750	5,900	30	80	35	8	38	45	88	80	0,8	1.76
SEB U 100 UP	UNC 1"-8	7,500	9,300	36	125	50	14	58	70	115	106	2,6	5.73
SEB U 125 UP	UNC 1" 1/4-7	12,200	13,800	45	200	70	14	58	70	115	106	2,8	6.17
SEB U 150 UP	UNC 1" 1/2-6	20,000	25,000	62	240	70	14	83	94	168	155	7	15.43
SEB U 200 UP	UNC 2"-4,5	33,000	35,200	70	450	70	19	83	94	168	155	7,3	16.09

02.2024

# FE.DSR

## FEMALE DOUBLE SWIVEL RING

GradUp



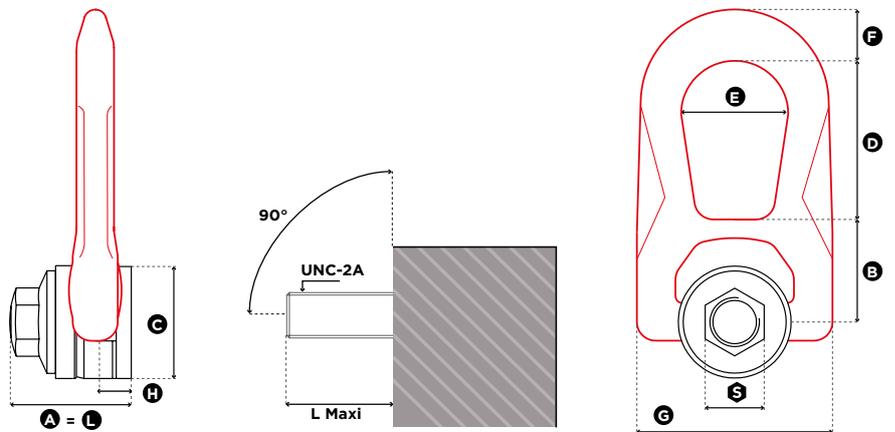
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	L Maxi (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
															(kg)	(lbs)
FE.DSR M 8 UP	M 8 (x1,25)	0,40	0,50	45	6	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR M 10 UP	M 10 (x1,5)	0,70	0,90	45	10	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR M 12 UP	M 12 (x1,75)	1,05	1,30	45	15	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR M 14 UP	M 14 (x2)	1,40	1,80	45	30	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR M 16 UP	M 16 (x2)	2,00	2,30	45	50	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR M 18 UP	M 18 (x2,5)	2,30	2,30	62	70	24	62	55	60	83	55	25	115	19	2,6	5,73
FE.DSR M 20 UP	M 20 (x2,5)	2,50	2,50	62	100	24	62	55	60	83	55	25	115	19	2,6	5,73
FE.DSR M 22 UP	M 22 (x2,5)	3,50	4,50	62	120	24	62	55	60	83	55	25	115	19	2,6	5,73

# FE.DSR

## FEMALE DOUBLE SWIVEL RING

GradUp



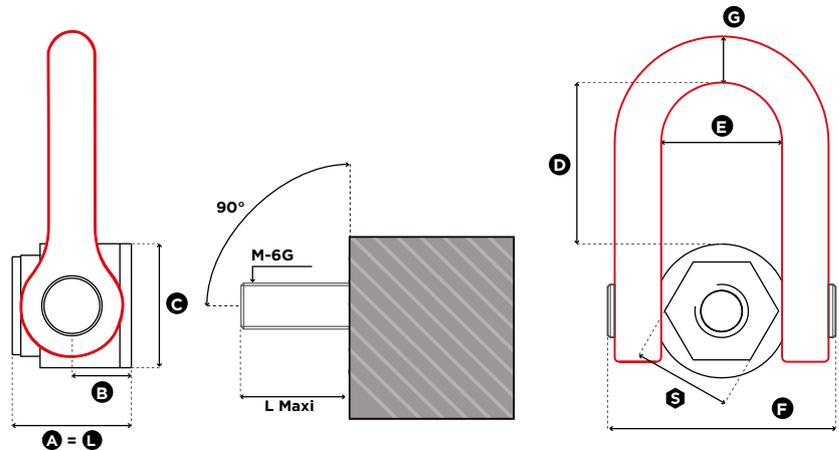
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	L Maxi (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
															(kg)	(lbs)
FE.DSR U 025 UP	UNC 1/4"-20	330	450	45	3	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR U 516 UP	UNC 5/16"-18	1,000	1,200	45	5	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR U 038 UP	UNC 3/8"-16	1,300	1,600	45	8	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR U 050 UP	UNC 1/2"-13	2,400	2,800	45	12	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR U 058 UP	UNC 5/8"-11	3,900	4,900	45	40	20	45	40	45	53	38	17	76	13	0,9	1,98
FE.DSR U 075 UP	UNC 3/4"-10	5,250	5,250	62	80	24	62	55	60	83	55	25	115	19	2,6	5,73
FE.DSR U 078 UP	UNC 7/8"-9	7,900	9,800	62	90	24	62	55	60	83	55	25	115	19	2,6	5,73

# FE.DSS

## FEMALE DOUBLE SWIVEL SHACKLE

GradUp



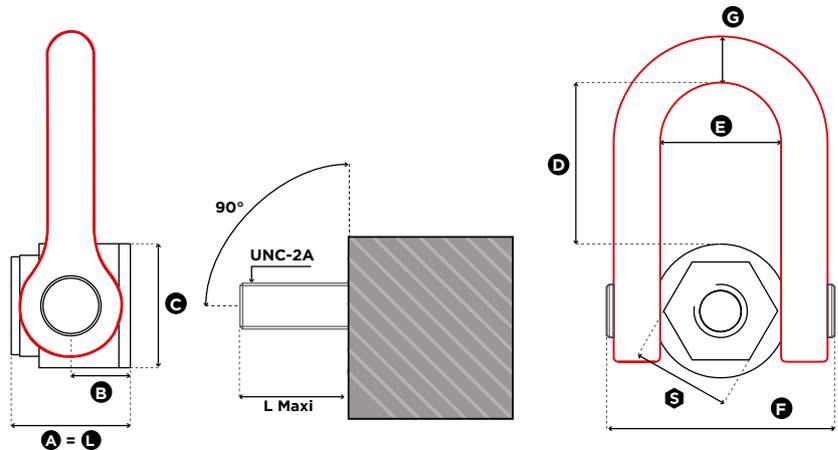
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	L Maxi (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
FE.DSS M 24 UP	M 24 (x3)	4,50	5,50	66	160	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS M 27 UP	M 27 (x3)	5,20	6,50	66	200	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS M 30 UP	M 30 (x3,5)	7,50	8,50	66	250	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS M 33 UP	M 33 (x3,5)	8,00	10,50	66	250	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS M 36 UP	M 36 (x4)	10,00	12,00	66	320	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS M 39 UP	M 39 (x4)	12,00	14,00	89	320	60	89	38	95	123	91	182	45	10,0	22.05
FE.DSS M 42 UP	M 42 (x4,5)	13,00	15,00	89	400	60	89	38	95	123	91	182	45	10,0	22.05
FE.DSS M 45 UP	M 45 (x4,5)	14,50	16,00	89	400	60	89	38	95	123	91	182	45	10,0	22.05
FE.DSS M 48 UP	M 48 (x5)	17,00	20,00	89	600	60	89	38	95	123	91	182	45	10,0	22.05
FE.DSS M 52 UP	M 52 (x5)	19,00	21,00	89	600	60	89	38	95	123	91	182	45	10,0	22.05

# FE.DSS

## FEMALE DOUBLE SWIVEL SHACKLE

GradUp



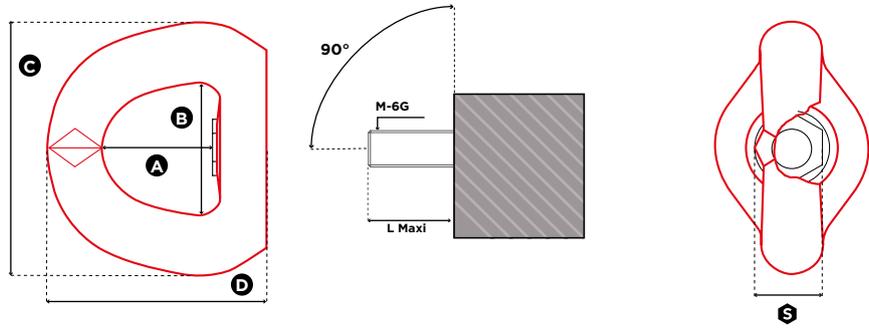
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	L Maxi (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
FE.DSS U 100 UP	UNC 1"-8	10,000	13,000	66	125	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS U 125 UP	UNC 1" 1/4-7	15,000	19,000	66	200	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS U 138 UP	UNC 1" 3/8-6	21,000	22,000	66	240	50	66	31	70	98	73	149	33	5,1	11.24
FE.DSS U 150 UP	UNC 1" 1/2-6	22,000	27,000	89	240	60	89	38	95	123	91	182	45	10	22.05
FE.DSS U 200 UP	UNC 2"-4,5	38,000	50,000	89	450	60	89	38	95	123	91	182	45	10	22.05

# FE.SEB

## FEMALE SWIVEL EYE BOLT

# GradUp



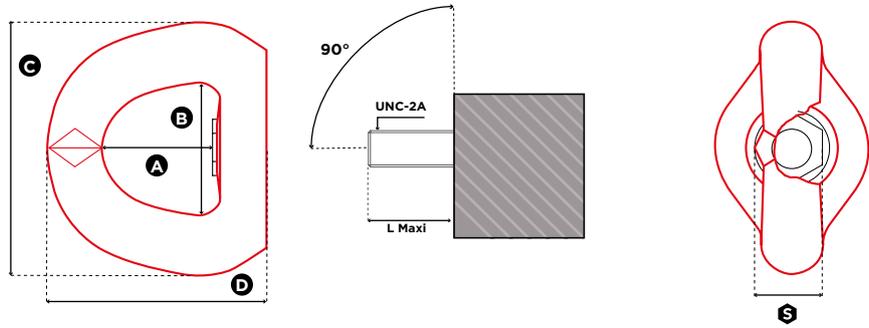
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	L Maxi (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight	
											(kg)	(lbs)
FE.SEB M 8 UP	M 8 (x1.25)	0.40	0.50	22	6	21	38	45	88	80	0.8	1.76
FE.SEB M 10 UP	M 10 (x1.5)	0.50	0.70	22	10	21	38	45	88	80	0.8	1.76
FE.SEB M 12 UP	M 12 (x1.75)	0.80	0.90	22	15	21	38	45	88	80	0.8	1.76
FE.SEB M 16 UP	M 16 (x2)	1.40	1.80	22	50	21	38	45	88	80	0.8	1.76
FE.SEB M 20 UP	M 20 (x2.5)	2.00	2.70	35	100	36	55	70	115	106	2.5	5.51
FE.SEB M 24 UP	M 24 (x3)	3.40	4.20	48	160	40	77	94	168	155	6.3	13.89
FE.SEB M 30 UP	M 30 (x3.5)	5.50	6.30	48	250	40	77	94	168	155	6.3	13.89
FE.SEB M 36 UP	M 36 (x4)	9.00	11.00	48	320	40	77	94	168	155	6.3	13.89

**FE.SEB**

**FEMALE SWIVEL EYE BOLT**

**GradUp**



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	L Maxi (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight	
											(kg)	(lbs)
FE.SEB U 038 UP	UNC 3/8"-16	1,200	1,500	22	8	21	38	45	88	80	0,8	1.76
FE.SEB U 050 UP	UNC 1/2"-13	1,800	1,950	22	12	21	38	45	88	80	0,8	1.76
FE.SEB U 058 UP	UNC 5/8"-11	3,200	4,000	22	40	21	38	45	88	80	0,8	1.76
FE.SEB U 075 UP	UNC 3/4"-10	4,750	5,900	35	80	36	55	70	115	106	2,5	5.51
FE.SEB U 100 UP	UNC 1"-8	7,500	9,300	48	125	40	77	94	168	155	6,3	13.89
FE.SEB U 125 UP	UNC 1" 1/4-7	12,200	13,800	48	200	40	77	94	168	155	6,3	13.89

# QL.DSR

## QUICK LIFT DOUBLE SWIVEL RING

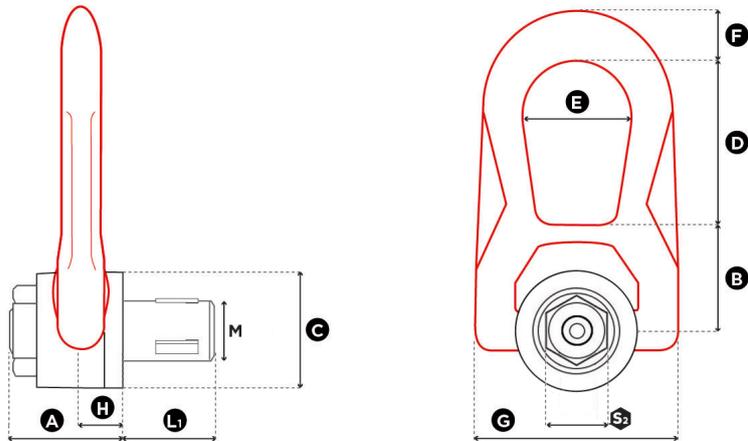
METRIC THREADS

# GradUp



# QLR

Quick Lift Ring



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
														(kg)	(lbs)
QL.DSR M 8	M 8 (x1,25)	0,25	17,5	20	18	31	30	30	38	27	14	53	9,5	0,3	0.66
QL.DSR M 10	M 10 (x1,5)	0,40	19,5	30	18	31	30	30	38	27	14	53	9,5	0,3	0.66
QL.DSR M 12	M 12 (x1,75)	0,65	23	60	27	40	40	45	53	38	17	76	13	0,9	1.98
QL.DSR M 14	M 14 (x2)	0,70	23	80	27	40	40	45	53	38	17	76	13	0,9	1.98
QL.DSR M 16	M 16 (x2)	1,05	27	100	27	40	40	45	53	38	17	76	13	0,9	1.98
QL.DSR M 20	M 20 (x2,5)	1,70	30	160	40	55	55	60	83	55	25	115	19	2,6	5.73
QL.DSR M 24	M 24 (x3)	2,50	36	180	40	55	55	60	83	55	25	115	19	2,6	5.73
QL.DSR M 27	M27 (x3)	3,00*	40	*	40	55	55	60	83	55	25	115	19	2,7	5.95
QL.DSR M 30	M30 (x3,5)	3,50	45	200	40	55	55	60	83	55	25	115	19	2,7	5.95

\* In certification process / En cours d'homologation / In Entwicklungsphase / En proceso de homologación

02.2024

# QL.DSR

## QUICK LIFT DOUBLE SWIVEL RING

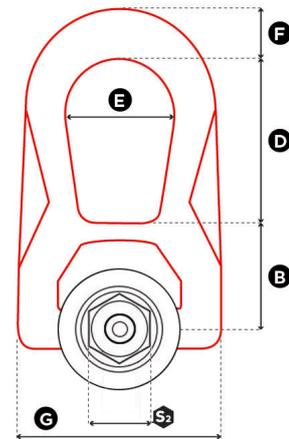
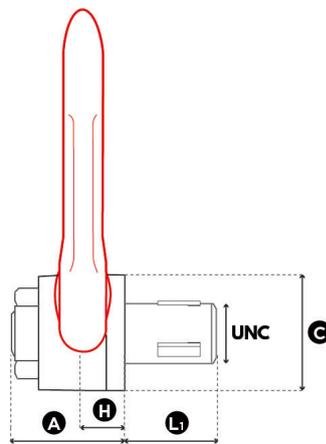
UNC THREADS

# GradUp



# QLR

Quick Lift Ring



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
														(kg)	(lbs)
QL.DSR U 050	UNC 1/2"-13	1.300	23	45	27	40	40	45	53	38	17	76	13	0,9	1.98
QL.DSR U 075	UNC 3/4"-10	3.400*	30	*	40	55	55	60	83	55	25	115	19	2,6	5.73
QL.DSR U 100	UNC 1"-8	5.000*	36	*	40	55	55	60	83	55	25	115	19	2,6	5.73

\* In certification process / En cours d'homologation / In Entwicklungsphase / En proceso de homologación

# STAINLESS STEEL / ACIER INOXYDABLE / EDELSTAHL / ACERO INOXIDABLE

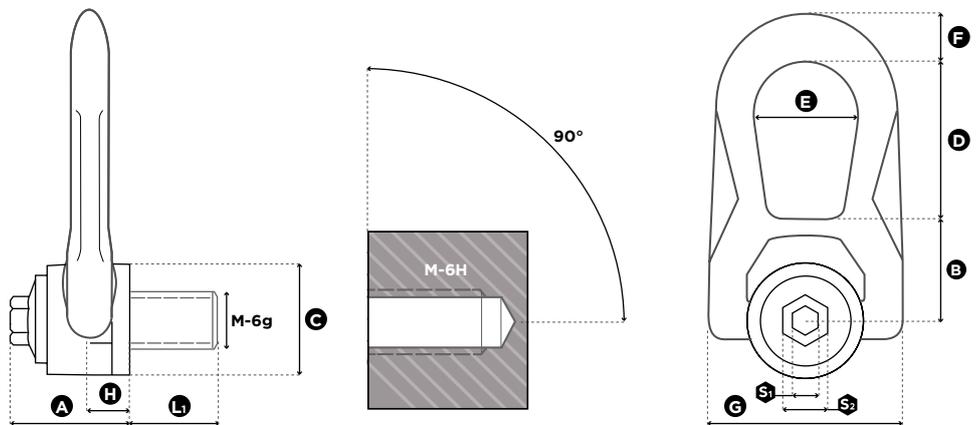
- SS.DSR
- SS.DSS
- SS.SEB
- SS.FE.DSR
- SS.FE.DSS
- SS.QL.DSR



# SS.DSR

## STAINLESS STEEL DOUBLE SWIVEL RING

METRIC THREADS



1 in = 25.4 mm

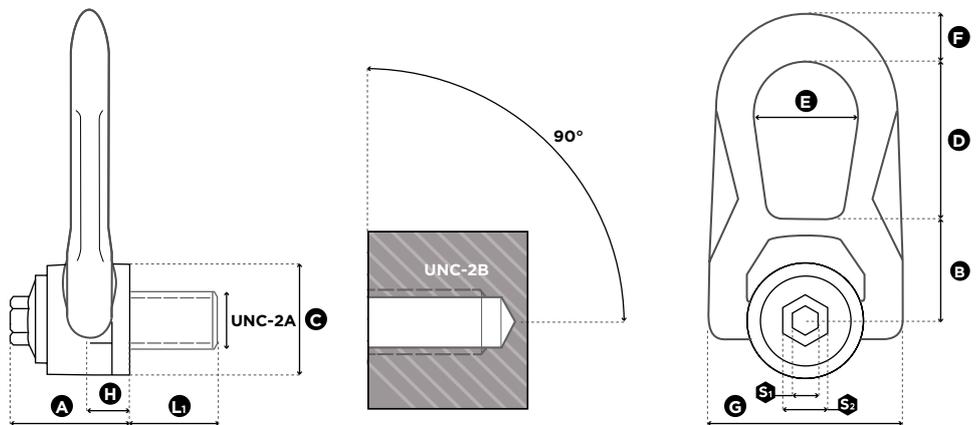
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
SS.DSR M 6	M 6 (x1)	0,10	0,15	15	4	8	16	32	30	30	39	28	13	53	9,5	0,3	0,66
SS.DSR M 8	M 8 (x1,25)	0,30	0,30	16	6	8	16	32	30	30	39	28	13	53	9,5	0,3	0,66
SS.DSR M 10	M 10 (x1,50)	0,50	0,50	16	10	8	16	32	30	30	39	28	13	53	9,5	0,3	0,66
SS.DSR M 12	M 12 (x1,75)	0,80	0,80	19	15	8	16	32	30	30	39	28	13	53	9,5	0,3	0,66
SS.DSR M 14	M 14 (x2)	1,00	1,00	29	30	8	20	44	40	45	53	38	17	76	13	0,9	1,98
SS.DSR M 16	M 16 (x2)	1,40	1,50	26	50	8	20	44	40	45	53	38	17	76	13	0,9	1,98
SS.DSR M 18	M 18 (x2,5)	1,40	1,50	30	70	8	20	44	40	45	53	38	17	76	13	1,0	2,20
SS.DSR M 20	M 20 (x2,5)	1,40	1,60	30	100	8	20	44	40	45	53	38	17	76	13	1,0	2,20
SS.DSR M 22	M 22 (x2,5)	2,20	2,20	42	120	14	24	62	55	60	83	56	25	115	19	2,5	5,51
SS.DSR M 24	M 24 (x3)	2,70	2,70	42	160	14	24	62	55	60	83	56	25	115	19	2,6	5,73
SS.DSR M 27	M 27 (x3)	2,80	2,90	42	200	14	24	62	55	60	83	56	25	115	19	2,7	5,95
SS.DSR M 30	M 30 (x3,5)	3,00	3,50	47	250	14	24	62	55	60	83	56	25	115	19	2,8	6,17

02.2024

# SS.DSR

## STAINLESS STEEL DOUBLE SWIVEL RING

UNC THREADS



1 in = 25.4 mm

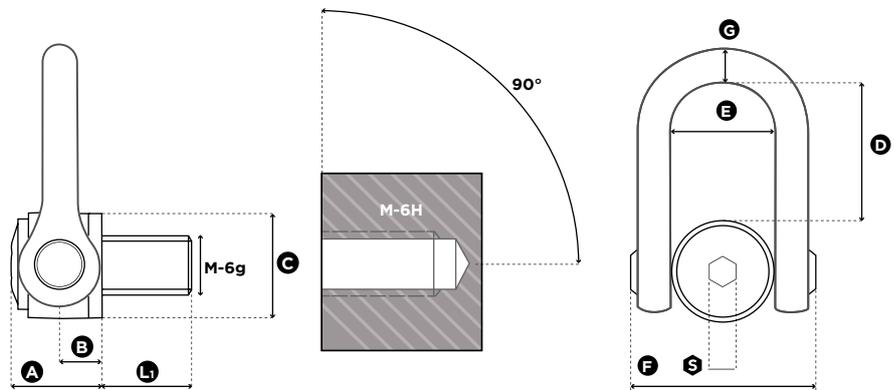
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
SS.DSR U 025	UNC 1/4"-20	400	500	13	3	8	16	32	30	30	39	28	13	53	9,5	0,3	0.66
SS.DSR U 516	UNC 5/16"-18	600	650	15	5	8	16	32	30	30	39	28	13	53	9,5	0,3	0.66
SS.DSR U 038	UNC 3/8"-16	1,000	1,000	17	8	8	16	32	30	30	39	28	13	53	9,5	0,3	0.66
SS.DSR U 050	UNC 1/2"-13	1,800	1,850	21	12	8	16	32	30	30	39	28	13	53	9,5	0,3	0.66
SS.DSR U 058	UNC 5/8"-11	2,500	3,000	27	40	8	20	44	40	45	53	38	17	76	13	0,9	1.98
SS.DSR U 075	UNC 3/4"-10	3,600	3,800	30	80	8	20	44	40	45	53	38	17	76	13	0,9	1.98
SS.DSR U 078	UNC 7/8"-9	5,000	5,100	33	90	14	24	62	55	60	83	56	25	115	19	2,5	5.51
SS.DSR U 100	UNC 1"-8	6,000	6,000	36	125	14	24	62	55	60	83	56	25	115	19	2,6	5.73

02.2024

# SS.DSS

## STAINLESS STEEL DOUBLE SWIVEL SHACKLE

METRIC THREADS



1 in = 25.4 mm

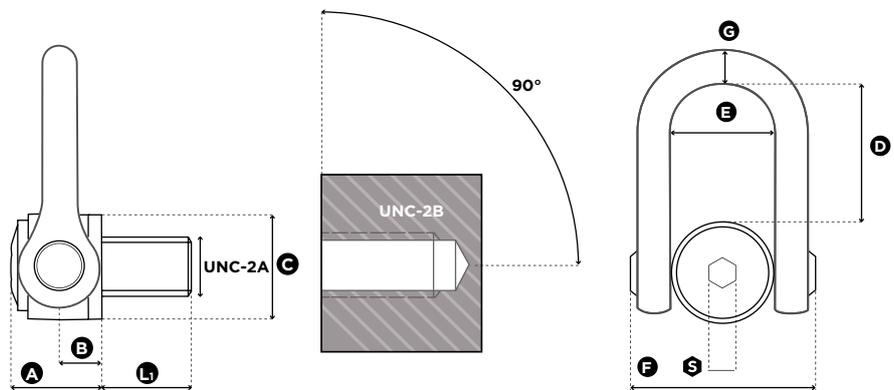
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
SS.DSS M 24	M 24 (x3)	2,70	2,70	36	160	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS M 30	M 30 (x3,5)	3,50	3,50	45	250	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS M 33	M 33 (x3,5)	3,50	3,50	50	250	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS M 36	M 36 (x4)	5,00	5,00	54	320	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS M 36x3	M 36 (x3)	5,00	5,00	54	320	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS M 39	M 39 (x4)	5,00	5,00	54	320	19	61	31	70	98	73	149	30	5,4	11.90
SS.DSS M 42	M 42 (x4,5)	6,00	6,00	63	400	19	61	31	70	98	73	149	30	5,4	11.90
SS.DSS M 42x3	M 42 (x3)	6,00	6,00	63	400	19	61	31	70	98	73	149	30	5,4	11.90
SS.DSS M 45	M 45 (x4,5)	6,00	6,00	63	400	19	61	31	70	98	73	149	30	5,7	12.57
SS.DSS M 48	M 48 (x5)	6,40	6,40	68	600	19	79	38	90	123	91	182	41	11,0	24.25
SS.DSS M 48x3	M 48 (x3)	6,40	6,40	68	600	19	79	38	90	123	91	182	41	11,0	24.25
SS.DSS M 48x4	M 48 (x4)	6,40	6,40	68	600	19	79	38	90	123	91	182	41	11,0	24.25
SS.DSS M 52	M 52 (x5)	6,40	6,40	68	600	19	79	38	90	123	91	182	41	11,2	24.69
SS.DSS M 56	M 56 (x5,5)	8,00	8,00	78	600	19	79	38	90	123	91	182	41	11,3	24.91
SS.DSS M 56x4	M 56 (x4)	8,00	8,00	78	600	19	79	38	90	123	91	182	41	11,4	25.13

02.2024

# SS.DSS

## STAINLESS STEEL DOUBLE SWIVEL SHACKLE

UNC THREADS



1 in = 25.4 mm

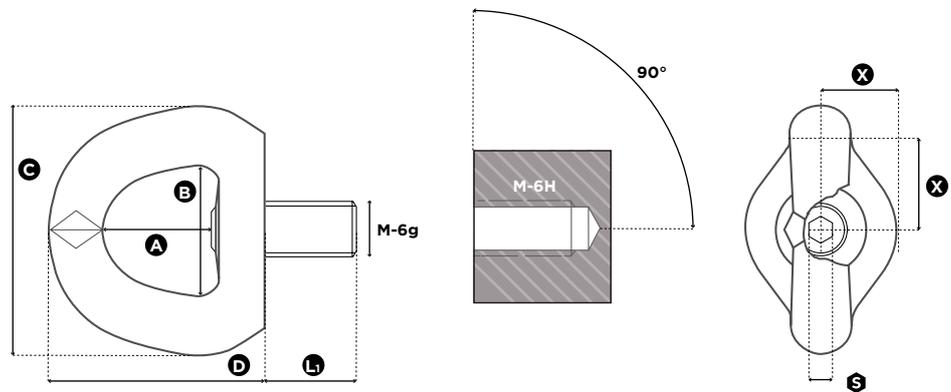
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
SS.DSS U 100	UNC 1"-8	6,000	6,000	36	125	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS U 125	UNC 1" 1/4-7	7,500	7,500	45	200	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS U 138	UNC 1" 3/8-6	7,500	7,500	54	240	19	61	31	70	98	73	149	30	5,2	11.46
SS.DSS U 150	UNC 1" 1/2-6	11,000	11,000	54	240	19	61	31	70	98	73	149	30	5,4	11.90
SS.DSS U 200	UNC 2" 4,5	14,000	14,000	76	450	19	79	38	90	123	91	182	41	11,1	24.47

02.2024

# SS.SE.B

## STAINLESS STEEL SWIVEL EYE BOLT

METRIC THREADS



1 in = 25.4 mm

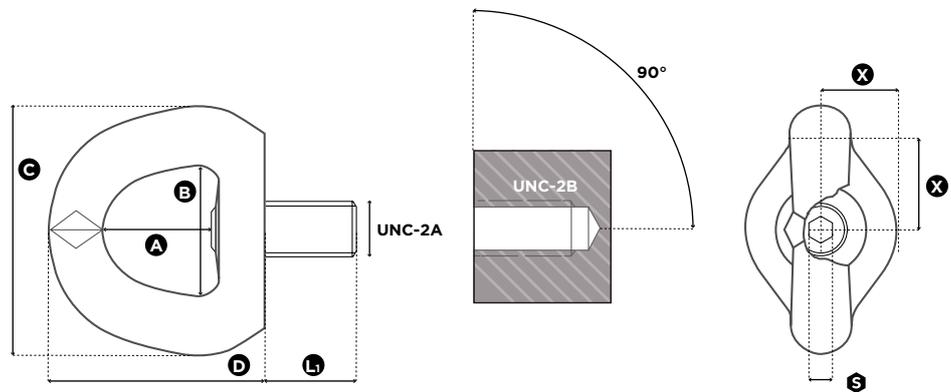
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)		<b>S</b> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight	
												(kg)	(lbs)
SS.SE.B M 8	M 8 (x1,25)	0,20	0,20	14	6	20	6	30	34	60	57	0,24	0,53
SS.SE.B M 10	M 10 (x1,5)	0,30	0,30	17	10	20	6	30	34	60	57	0,24	0,53
SS.SE.B M 12 0,4t	M 12 (x1,75)	0,40	0,40	21	15	20	6	30	34	60	57	0,24	0,53
SS.SE.B M 12	M 12 (x1,75)	0,55	0,55	21	15	35	8	38	45	90	80	0,80	1,76
SS.SE.B M 16	M 16 (x2)	1,20	1,20	27	50	35	8	38	45	90	80	0,82	1,81
SS.SE.B M 20	M 20 (x2,5)	1,50	1,50	30	100	35	8	38	45	90	80	0,84	1,85
SS.SE.B M 24	M 24 (x3)	2,50	2,50	36	100	50	8	38	45	90	80	0,90	1,98

02.2024

# SS.SEB

## STAINLESS STEEL SWIVEL EYE BOLT

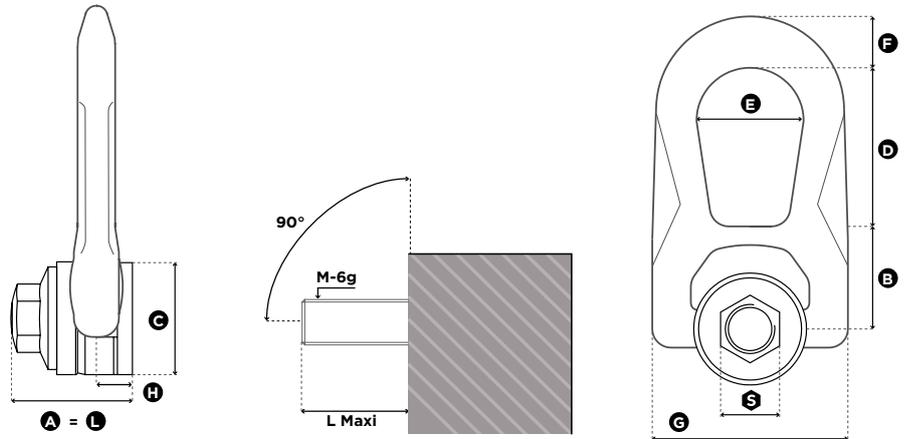
UNC THREADS



1 in = 25.4 mm

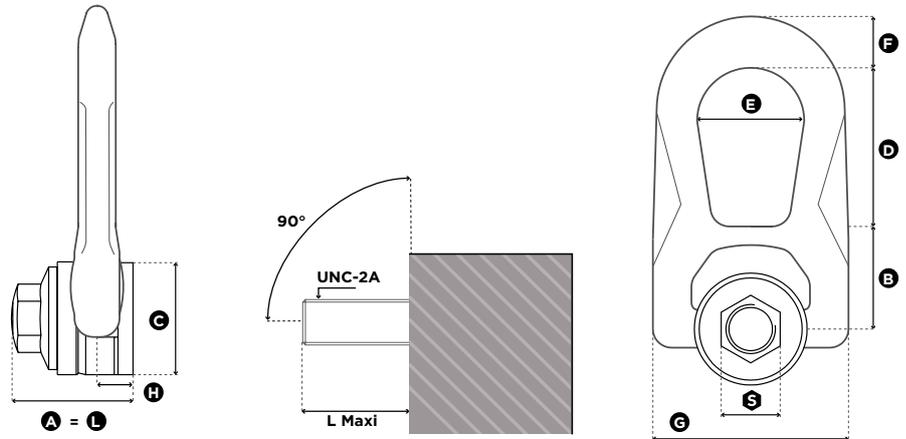
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)			A (mm)	B (mm)	C (mm)	D (mm)	Weight	
												(kg)	(lbs)
SS.SEB U 038	UNC 3/8"-16	550	550	17	8	20	6	30	34	60	57	0,24	0.53
SS.SEB U 050	UNC 1/2"-13	880	880	21	12	20	6	30	34	60	57	0,24	0.53

02.2024



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	L Maxi (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
															(kg)	(lbs)
SS.FE.DSR M 8	M 8 (x1,25)	0,30	0,30	43	6	20	43	40	45	53	38	17	76	13	0,9	1,98
SS.FE.DSR M 10	M 10 (x1,50)	0,50	0,50	43	10	20	43	40	45	53	38	17	76	13	0,9	1,98
SS.FE.DSR M 12	M 12 (x1,75)	0,80	0,80	43	15	20	43	40	45	53	38	17	76	13	0,9	1,98
SS.FE.DSR M 14	M 14 (x2)	1,00	1,00	43	30	20	43	40	45	53	38	17	76	13	0,9	1,98
SS.FE.DSR M 16	M 16 (x2)	1,40	1,50	43	50	20	43	40	45	53	38	17	76	13	0,9	1,98
SS.FE.DSR M 18	M 18 (x2,5)	1,40	1,50	62	70	24	62	55	58	83	56	25	115	19	2,6	5,73
SS.FE.DSR M 20	M 20 (x2,5)	1,40	1,60	62	100	24	62	55	58	83	56	25	115	19	2,6	5,73
SS.FE.DSR M 22	M 22 (x2,5)	2,20	2,20	62	120	24	62	55	58	83	56	25	115	19	2,6	5,73



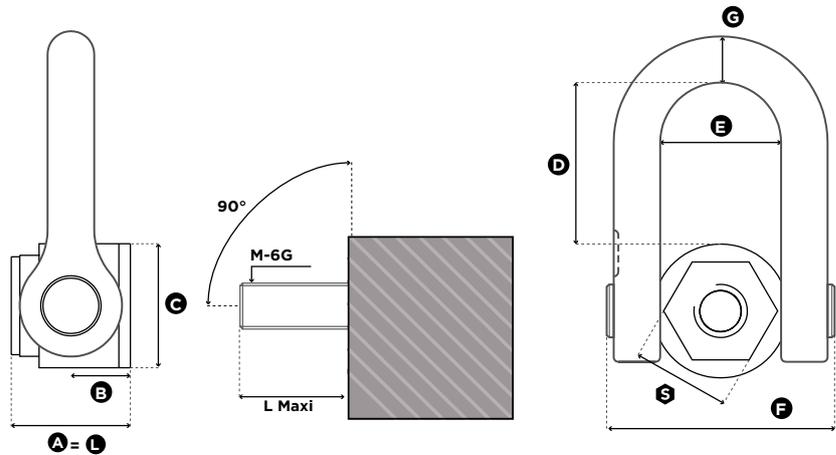
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	L Maxi (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
															(kg)	(lbs)
SS.FE.DSR U 516	UNC 5/16"-18	600	650	43	5	20	43	40	45	53	38	17	76	13	0,9	1.98
SS.FE.DSR U 038	UNC 3/8"-16	1,000	1,000	43	8	20	43	40	45	53	38	17	76	13	0,9	1.98
SS.FE.DSR U 050	UNC 1/2"-13	1,800	1,800	43	12	20	43	40	45	53	38	17	76	13	0,9	1.98
SS.FE.DSR U 058	UNC 5/8"-11	2,500	3,000	43	40	20	43	40	45	53	38	17	76	13	0,9	1.98
SS.FE.DSR U 075	UNC 3/4"-10	3,600	3,800	62	80	24	62	55	58	83	56	25	115	19	2,6	5.73
SS.FE.DSR U 078	UNC 7/8"-9	5,000	5,100	62	90	24	62	55	58	83	56	25	115	19	2,6	5.73

# SS.FE.DSS

## STAINLESS STEEL FEMALE DOUBLE SWIVEL SHACKLE

METRIC THREADS



1 in = 25.4 mm

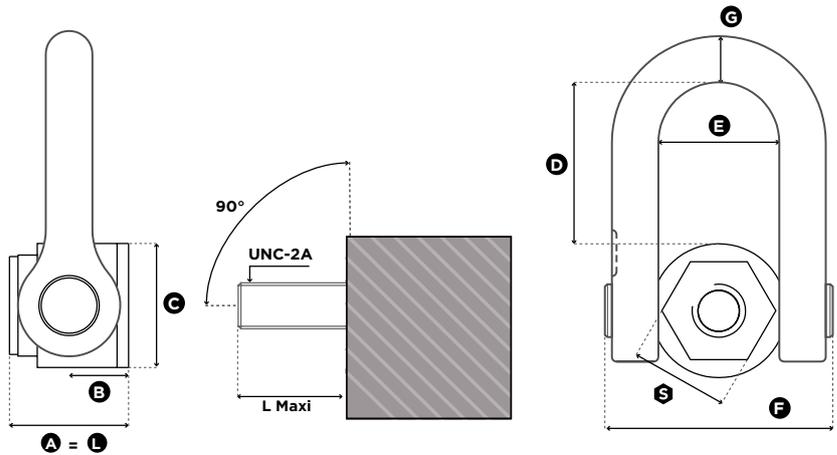
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	L Maxi (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
SS.FE.DSS M 24	M 24 (x3)	2,70	2,70	66	160	50	66	31	70	98	73	149	30	5,8	12,79
SS.FE.DSS M 30	M 30 (x3,5)	3,50	3,50	66	250	50	66	31	70	98	73	149	30	5,8	12,79
SS.FE.DSS M 33	M 33 (x3,5)	3,50	3,50	66	250	50	66	31	70	98	73	149	30	5,8	12,79
SS.FE.DSS M 36	M 36 (x4)	5,00	5,00	66	320	50	66	31	70	98	73	149	30	5,8	12,79

02.2024

# SS.FE.DSS

## STAINLESS STEEL FEMALE DOUBLE SWIVEL SHACKLE

UNC THREADS



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	L Maxi (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
SS.FE.DSS U 100	UNC 1"-8	6,000	6,000	66	125	50	66	31	70	98	73	149	30	5,4	11.90
SS.FE.DSS U 125	UNC 1" 1/4-7	7,500	7,500	66	200	50	66	31	70	98	73	149	30	5,4	11.90
SS.FE.DSS U 138	UNC 1" 3/8-6	7,500	7,500	66	240	50	66	31	70	98	73	149	30	5,4	11.90
SS.FE.DSS U 150	UNC 1" 1/2-6	11,000	11,000	89	240	60	89	38	95	123	91	182	41	12	26.46

02.2024

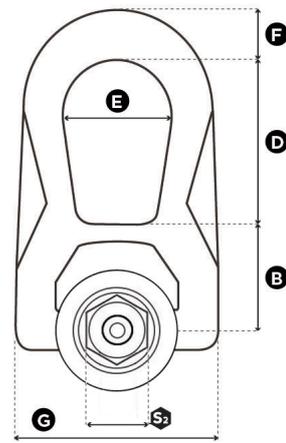
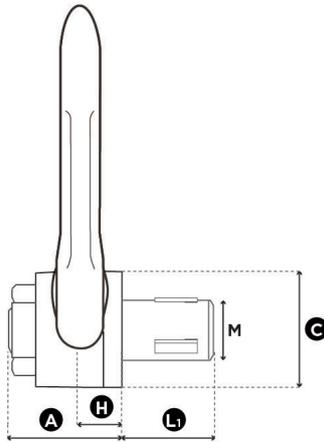
# SS.QL.DSR

## STAINLESS STEEL QUICK LIFT DOUBLE SWIVEL RING

METRIC THREADS



**QLR**  
Quick Lift Ring



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
														(kg)	(lbs)
SS.QL.DSR M 8	M 8 (x1,25)	0,25	17,5	20	18	31	30	30	38	27	14	53	9,5	0,3	0,66
SS.QL.DSR M 10	M 10 (x1,5)	0,40	19,5	30	18	31	30	30	38	27	14	53	9,5	0,3	0,66
SS.QL.DSR M 12	M 12 (x1,75)	0,65	23	60	27	40	40	45	53	38	17	76	13	0,9	1,98
SS.QL.DSR M 14	M 14 (x2)	0,70	23	80	27	40	40	45	53	38	17	76	13	0,9	1,98
SS.QL.DSR M 16	M 16 (x2)	1,05	27	100	27	40	40	45	53	38	17	76	13	0,9	1,98
SS.QL.DSR M 20	M 20 (x2,5)	1,70	30	160	40	55	55	60	83	55	25	115	19	2,6	5,73
SS.QL.DSR M 24	M 24 (x3)	2,50	36	180	40	55	55	60	83	55	25	115	19	2,6	5,73

Reference	Diameter	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
														(kg)	(lbs)
SS.QL.DSR M 30	M 30 (x3,5)	3,50	45	200	40	55	55	60	83	55	25	115	19	2,7	5,95

02.2024

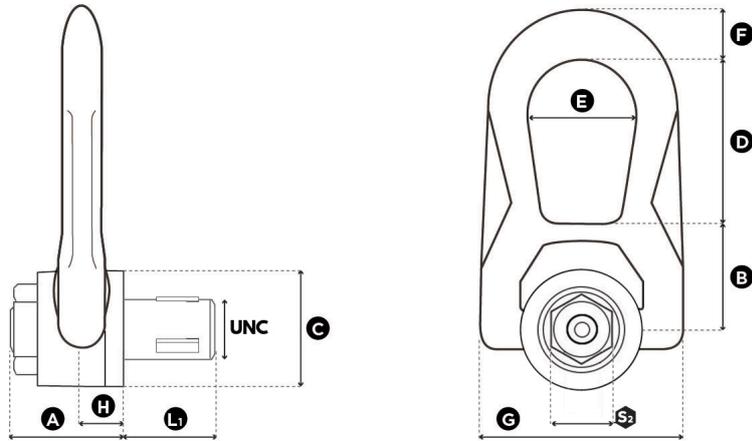
# SS.QL.DSR

## STAINLESS STEEL QUICK LIFT DOUBLE SWIVEL RING

UNC THREADS



**QLR**  
Quick Lift Ring



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
														(kg)	(lbs)
SS.QL.DSR U 050	UNC 1/2"-13	1,300	23	45	27	40	40	45	53	38	17	76	13	0,9	1.98
SS.QL.DSR U 075	UNC 3/4"-10	3,400*	30	*	40	55	55	60	83	55	25	115	19	2,6	5.73
SS.QL.DSR U 100	UNC 1"-8	5,000*	36	*	40	55	55	60	83	55	25	115	19	2,6	5.73

\* In certification process / En cours d'homologation / In Entwicklungsphase / En proceso de homologación

02.2024

## SPECIAL LIFTING SOLUTIONS

- DSP
- DSH
- TSR
- DSR/OS.DSR
- DSS/OS.DSS
- DSS 8UN
- DSR+SPACER
- CSS
- SLM40
- SLM80
- ARC
- WE.DSR / WE.DSS
- PE.SEB / SS.PE.SEB
- ADA

[www.codipro.net](http://www.codipro.net)

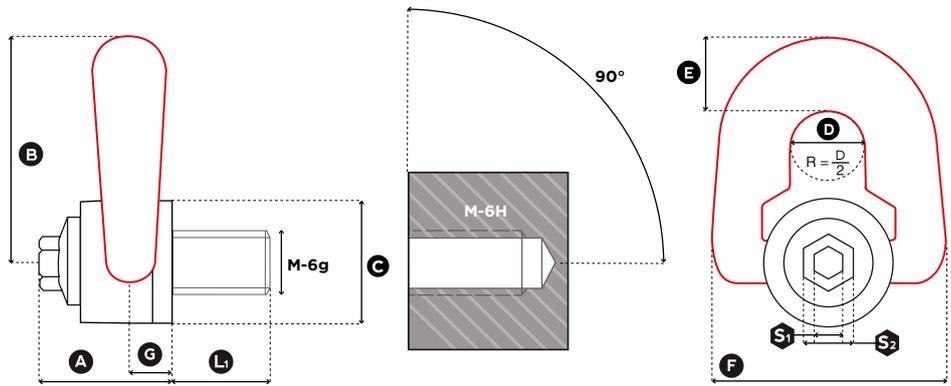
  
**CODIPRO**  
GROUP  
LIPA



# DSP

METRIC THREADS

## DOUBLE SWIVEL LIFTING POINT



1 in = 25.4 mm

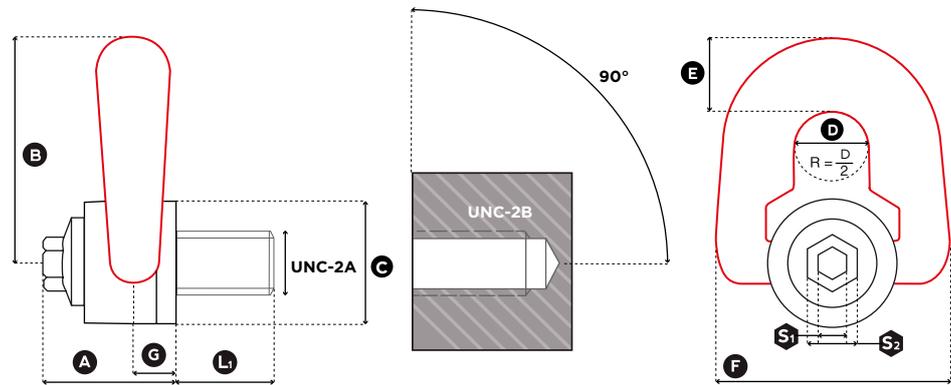
Reference	Diameter	SF 5:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
DSP M 8	M 8 (x1,25)	0,40	15	6	8	16	33	56	30	19	19	58	9,5	0,3	0.66
DSP M 10	M 10 (x1,50)	0,70	18	10	8	16	33	56	30	19	19	58	9,5	0,3	0.66
DSP M 12	M 12 (x1,75)	1,05	21	15	8	16	33	56	30	19	19	58	9,5	0,3	0.66
DSP M 14	M 14 (x2)	1,40	23	30	8	20	45	81	45	25	27	79	13	0,9	1.98
DSP M 16	M 16 (x2)	2,00	27	50	8	20	45	81	45	25	27	79	13	0,9	1.98
DSP M 18	M 18 (x2,5)	2,30	27	70	8	20	45	81	45	25	27	79	13	1,0	2.20
DSP M 20	M 20 (x2,5)	2,50	30	100	8	20	45	81	45	25	27	79	13	1,0	2.20

02.2024

# DSP

UNC THREADS

## DOUBLE SWIVEL LIFTING POINT

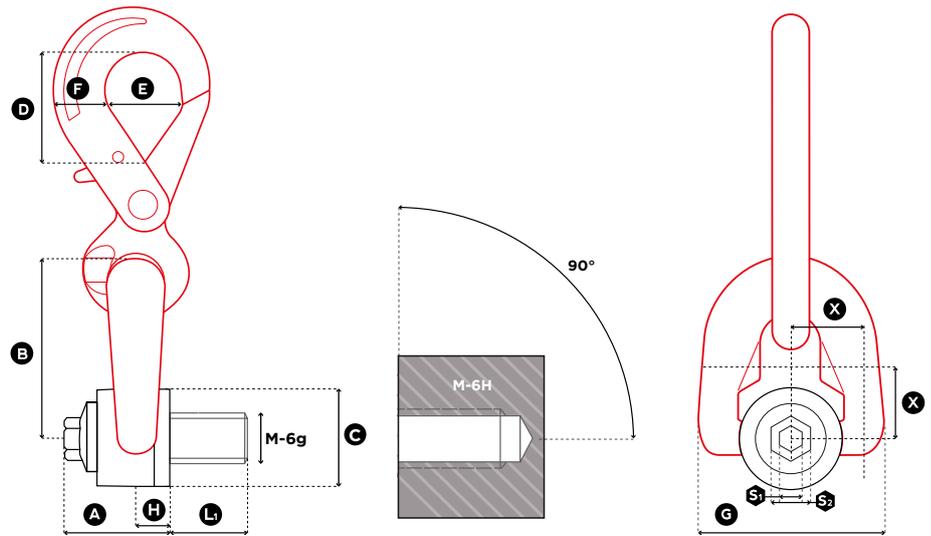


1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
DSP U 516	UNC 5/16"-18	1,000	15	7	8	16	33	56	30	19	19	58	9,5	0,3	0.66
DSP U 038	UNC 3/8"-16	1,300	18	8	8	16	33	56	30	19	19	58	9,5	0,3	0.66
DSP U 050	UNC 1/2"-13	2,400	21	12	8	16	33	56	30	19	19	58	9,5	0,3	0.66
DSP U 058	UNC 5/8"-11	3,900	27	40	8	16	45	81	45	25	27	79	13	1	2.20
DSP U 075	UNC 3/4"-10	5,250	30	80	8	16	45	81	45	25	27	79	13	1	2.20

02.2024

## DOUBLE SWIVEL HOOK

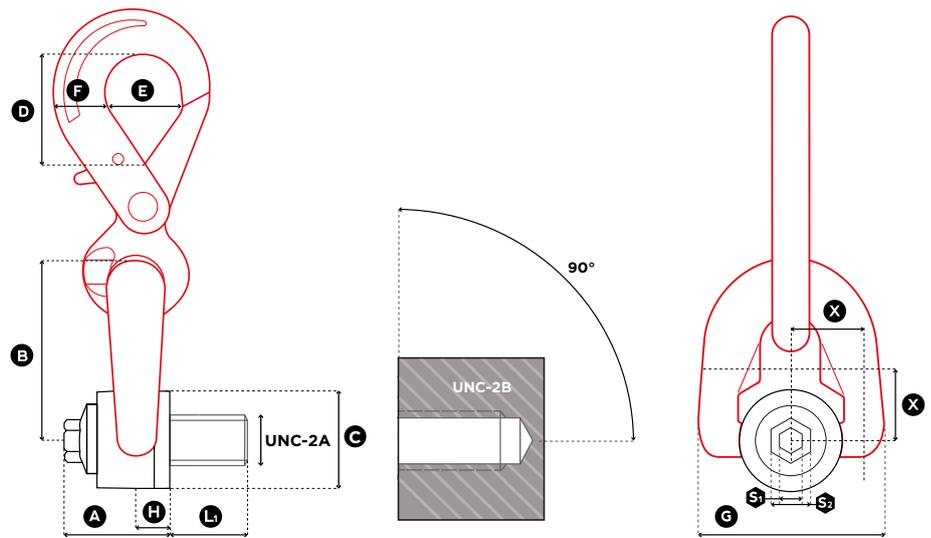


1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L1 (mm)	Torque (Nm)		S1 (mm)	S2 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
<b>DSH M 8</b>	M 8 (x1,25)	<b>0,40</b>	15	6	18	8	16	33	56	30	44	32	23	58	9,5	0,8	1.76
<b>DSH M 10</b>	M 10 (x1,50)	<b>0,70</b>	18	10	18	8	16	33	56	30	44	32	23	58	9,5	0,8	1.76
<b>DSH M 12</b>	M 12 (x1,75)	<b>1,05</b>	21	15	18	8	16	33	56	30	44	32	23	58	9,5	0,8	1.76
<b>DSH M 14</b>	M 14 (x2)	<b>1,40</b>	23	30	24	8	20	45	81	45	75	50	36	79	13,0	1,9	4.19
<b>DSH M 16</b>	M 16 (x2)	<b>2,00</b>	27	50	24	8	20	45	81	45	75	50	36	79	13,0	2,0	4.41
<b>DSH M 18</b>	M 18 (x2,5)	<b>2,30</b>	27	70	24	8	20	45	81	45	75	50	36	79	13,0	2,0	4.41
<b>DSH M 20</b>	M 20 (x2,5)	<b>2,50</b>	30	100	24	8	20	45	81	45	75	50	36	79	13,0	2,0	4.41

# DSH

## DOUBLE SWIVEL HOOK



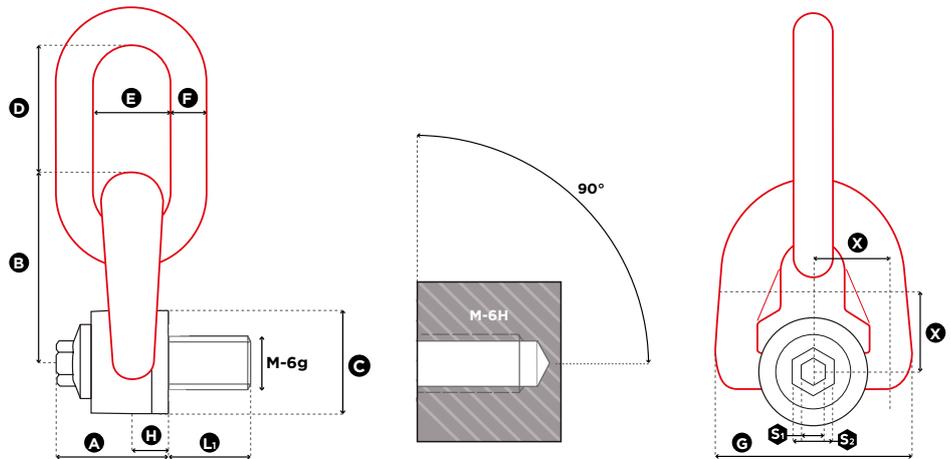
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)		S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
DSH U 516	UNC 5/16"-18	1,000	15	7	18	8	16	33	56	30	44	32	23	58	9,5	0,8	1.76
DSH U 038	UNC 3/8"-16	1,300	18	8	18	8	16	33	56	30	44	32	23	58	9,5	0,8	1.76
DSH U 050	UNC 1/2"-13	2,400	21	12	18	8	16	33	56	30	44	32	23	58	9,5	0,8	1.76
DSH U 058	UNC 5/8"-11	3,900	27	40	24	8	20	45	81	45	75	50	36	79	13	1,9	4.19
DSH U 075	UNC 3/4"-10	5,250	30	80	24	8	20	45	81	45	75	50	36	79	13	2	4.41

# TSR

METRIC THREADS

## TRIPLE SWIVEL RING



1 in = 25.4 mm

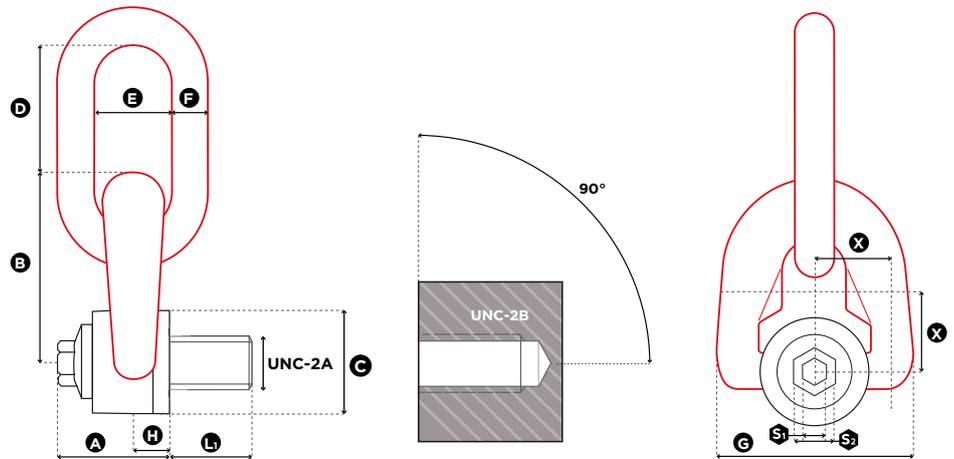
Reference	Diameter	SF 5:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)		S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
TSR M 8	M 8 (x1,25)	0,40	15	6	18	8	16	33	56	30	41	25	10	58	9,5	0,4	0.88
TSR M 10	M 10 (x1,50)	0,70	18	10	18	8	16	33	56	30	41	25	10	58	9,5	0,4	0.88
TSR M 12	M 12 (x1,75)	1,05	21	15	18	8	16	33	56	30	41	25	10	58	9,5	0,4	0.88
TSR M 14	M 14 (x2)	1,40	23	30	24	8	20	45	81	45	48	34	16	79	13,0	1,1	2.43
TSR M 16	M 16 (x2)	2,00	27	50	24	8	20	45	81	45	48	34	16	79	13,0	1,2	2.65
TSR M 18	M 18 (x2,5)	2,30	27	70	24	8	20	45	81	45	48	34	16	79	13,0	1,2	2.65
TSR M 20	M 20 (x2,5)	2,50	30	100	24	8	20	45	81	45	48	34	16	79	13,0	1,2	2.65
TSR M 22*	M 22 (x2,5)	3,00	33	120	45	14	24	62	105	60	80	45	20	106	19,0	2,8	6.17
TSR M 24*	M 24 (x3)	4,00	36	160	45	14	24	62	105	60	80	45	20	106	19,0	2,9	6.39
TSR M 27*	M 27 (x3)	5,00	36	200	45	14	24	62	105	60	80	45	20	106	19,0	2,9	6.39
TSR M 30*	M 30 (x3,5)	6,30	45	250	45	14	24	62	105	60	80	45	20	106	19,0	3,0	6.61
TSR M 36*	M 36 (x4)	10,00	54	320	54	19	30	81	140	80	111	71	30	148	26,5	7,6	16.76
TSR M 42*	M 42 (x4,5)	12,50	63	400	58	19	30	84	146	80	111	71	30	148	26,5	7,8	17.20

Reference	Diameter	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)		S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
TSR M 48	M 48 (x5)	20,00	68	600	69	19	30	100	178	110	135	90	42	180	33,0	17,5	38.58
TSR M 56	M 56 (x5,5)	22,00	78	600	73	19	30	104	184	110	135	90	42	190	33,0	18,0	39.68

\* On request / Sur demande / Auf Anfrage / Bajo solicitud

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### TRIPLE SWIVEL RING



1 in = 25.4 mm

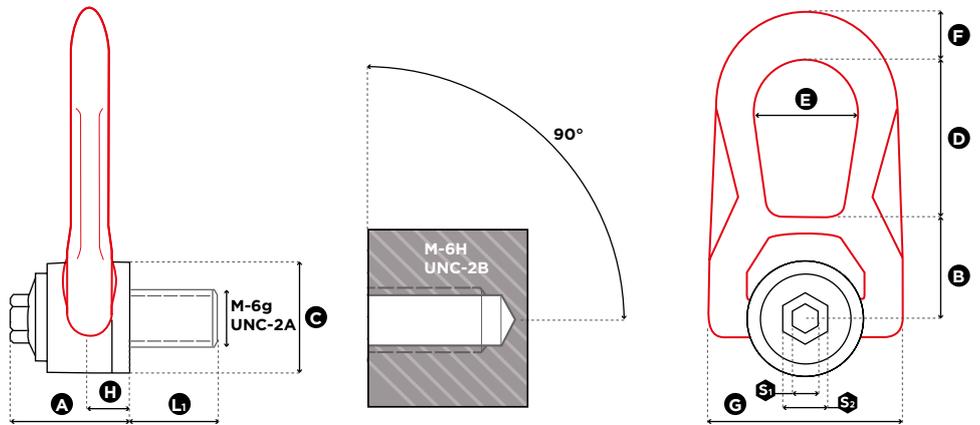
Reference	Diameter	SF 5:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)		S1 (mm)	S2 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
TSR U 516	UNC 5/16"-18	1,000	15	7	18	8	16	33	56	30	41	25	10	58	9,5	0,4	0.88
TSR U 038	UNC 3/8"-16	1,300	18	8	18	8	16	33	56	30	41	25	10	58	9,5	0,4	0.88
TSR U 050	UNC 1/2"-13	2,400	21	12	18	8	16	33	56	30	41	25	10	58	9,5	0,4	0.88
TSR U 058	UNC 5/8"-11	3,900	27	40	24	8	20	45	81	45	56	37	14	79	13	1,1	2.43
TSR U 075	UNC 3/4"-10	5,250	30	80	24	8	20	45	81	45	56	37	14	79	13	1,2	2.65
TSR U 078*	UNC 7/8"-9	6,600	33	90	41	14	24	62	84	60	80	45	20	106	19	2,7	5.95
TSR U 100*	UNC 1"-8	10,000	36	125	41	14	24	62	84	60	80	45	20	106	19	2,8	6.17
TSR U 125*	UNC 1" 1/4-7	14,000	46	200	41	14	24	84	146	80	111	71	30	106	26,5	7,1	15.65
TSR U 150*	UNC 1" 1/2-6	20,000	61	240	54	19	30	84	146	80	111	71	30	148	26,5	7,7	16.98

1 in = 25.4 mm

Reference	Diameter	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)		S1 (mm)	S2 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
TSR U 200	UNC 2" 4,5	50,000	76	450	66	19	30	104	184	110	135	90	42	190	33	17,7	39.02

\* On request / Sur demande / Auf Anfrage / Bajo solicitud

## DOUBLE SWIVEL RING OFFSHORE APPLICATIONS - INTERNAL USE



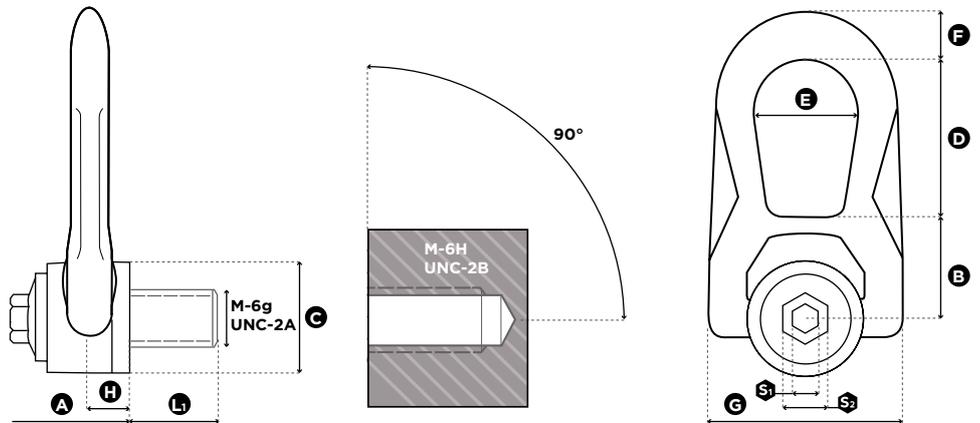
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
DSR M 10 UP	M 10 (x1.50)	0,70	0,90	18	10	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 12 UP	M 12 (x1.75)	1,05	1,30	21	15	8	16	33	30	30	38	27	14	53	9,5	0,3	0.66
DSR M 16 UP	M 16 (x2)	2,00	2,30	27	50	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR M 20 3t2 UP	M 20 (x2.5)	2,90	3,20	25	100	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR M 24 UP	M 24 (x3)	4,40	5,50	36	160	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR M 30 6t3 UP	M 30 (x3.5)	6,00	6,30	45	250	14	24	62	55	60	83	55	25	115	19	2,7	5.95

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
DSR U 038 UP	UNC 3/8"-16	1,300	1,600	17	8	8	16	32	30	30	38	27	14	53	95	0,3	0.66
DSR U 050 UP	UNC 1/2"-13	2,400	2,800	21	12	8	16	32	30	30	38	27	14	53	95	0,3	0.66
DSR U 058 UP	UNC 5/8"-11	3,900	4,900	27	40	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR U 075 UP	UNC 3/4"-10	5,250	5,250	30	80	8	20	45	40	45	53	38	17	76	13	0,9	1.98
DSR U 100 UP	UNC 1"-8	11,200	12,500	36	125	14	24	62	55	60	83	55	25	115	19	2,6	5.73
DSR U 125 UP	UNC 1" 1/4-7	13,500	13,500	45	200	14	24	62	55	60	83	55	25	115	19	2,7	5.95



## DOUBLE SWIVEL RING OFFSHORE APPLICATIONS - EXTERNAL USE



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L <sub>1</sub> (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
OS.DSR M 10 UP	M 10 (x1.50)	0,70	0,90	18	10	8	16	33	30	30	38	27	14	53	9,5	0,3	0,66
OS.DSR M 12 UP	M 12 (x1.75)	1,05	1,30	21	15	8	16	33	30	30	38	27	14	53	9,5	0,3	0,66
OS.DSR M 16 UP	M 16 (x2)	2,00	2,30	27	50	8	20	45	40	45	53	38	17	76	13	0,9	1,98
OS.DSR M 20 3t2 UP	M 20 (x2.5)	2,90	3,20	25	100	14	24	62	55	60	83	55	25	115	19	2,6	5,73
OS.DSR M 24 UP	M 24 (x3)	4,40	5,50	36	160	14	24	62	55	60	83	55	25	115	19	2,6	5,73
OS.DSR M 30 6t3 UP	M 30 (x3.5)	6,00	6,30	45	250	14	24	62	55	60	83	55	25	115	19	2,7	5,95

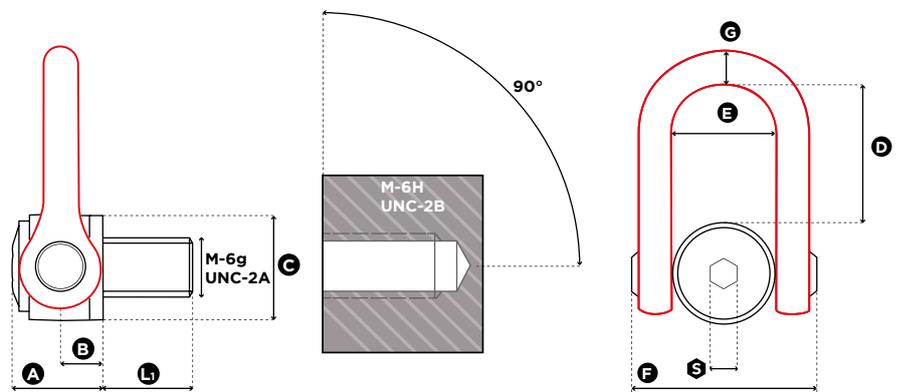
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L <sub>1</sub> (mm)	Torque (ft-lb)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
OS.DSR U 038 UP	UNC 3/8"-16	1,300	1,600	17	8	8	16	32	30	30	38	27	14	53	95	0,3	0,66
OS.DSR U 050 UP	UNC 1/2"-13	2,400	2,800	21	12	8	16	32	30	30	38	27	14	53	95	0,3	0,66
OS.DSR U 058 UP	UNC 5/8"-11	3,900	4,900	27	40	8	20	45	40	45	53	38	17	76	13	0,9	1,98
OS.DSR U 075 UP	UNC 3/4"-10	5,250	5,250	30	80	8	20	45	40	45	53	38	17	76	13	0,9	1,98
OS.DSR U 100 UP	UNC 1"-8	11,200	12,500	36	125	14	24	62	55	60	83	55	25	115	19	2,6	5,73
OS.DSR U 125 UP	UNC 1" 1/4-7	13,500	13,500	45	200	14	24	62	55	60	83	55	25	115	19	2,7	5,95



# DSS

METRIC / UNC THREADS

## DOUBLE SWIVEL SHACKLE OFFSHORE APPLICATIONS - INTERNAL USE



1 in = 25.4 mm

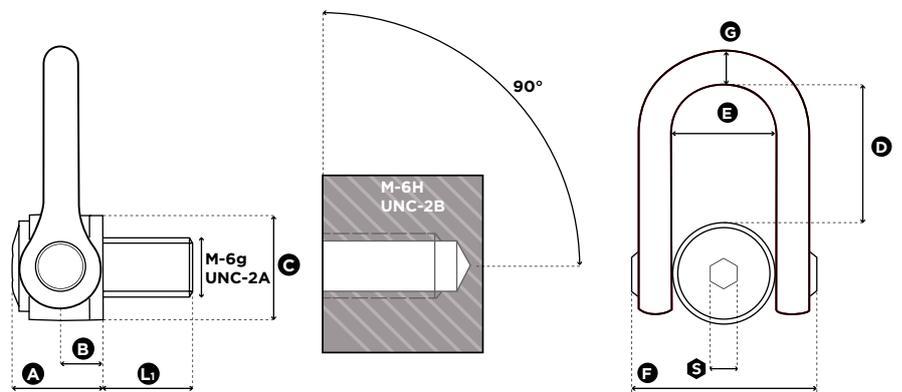
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
DSS M 24 UP	M 24 (x3)	4,50	5,50	36	160	19	61	31	70	98	73	149	33	5,4	11.90
DSS M 30 UP	M 30 (x3.5)	7,70	8,50	45	250	19	61	31	70	98	73	149	33	5,5	12.13
DSS M 36 UP	M 36 (x4)	11,00	12,00	54	320	19	61	31	70	98	73	149	33	5,5	12.13
DSS M 42 UP	M 42 (x4,5)	13,00	15,00	63	400	19	61	31	70	98	73	149	33	5,8	12.79

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (inch)	Torque (ft-lb)	S (inch)	A (inch)	B (inch)	C (inch)	D (inch)	E (inch)	F (inch)	G (inch)	Weight	
														(kg)	(lbs)
DSS U 100 UP	UNC 1"-8	10,000	13,000	36	125	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 125 UP	UNC 1" 1/4-7	15,000	19,000	45	200	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 150 UP	UNC 1" 1/2-6	22,000	27,000	54	240	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 175 UP	UNC 1" 3/4-5	27,000	33,000	63	300	19	61	31	70	98	73	149	33	5,9	13.01

03.2024



## DOUBLE SWIVEL SHACKLE OFFSHORE APPLICATIONS - EXTERNAL USE



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
OS.DSS M 24 UP	M 24 (x3)	4,50	5,50	36	160	19	61	31	70	98	73	149	33	5,4	11.90
OS.DSS M 30 UP	M 30 (x3.5)	7,70	8,50	45	250	19	61	31	70	98	73	149	33	5,5	12.13
OS.DSS M 36 UP	M 36 (x4)	11,00	12,00	54	320	19	61	31	70	98	73	149	33	5,5	12.13
OS.DSS M 42 UP	M 42 (x4,5)	13,00	15,00	63	400	19	61	31	70	98	73	149	33	5,8	12.79

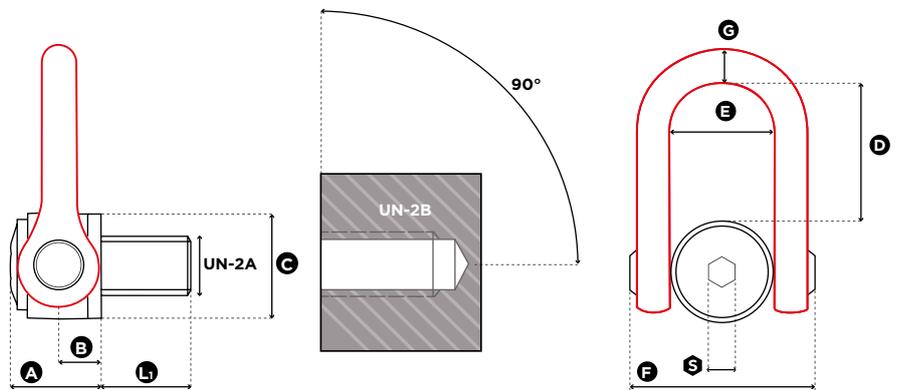
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
OS.DSS U 100 UP	UNC 1"-8	10,000	13,000	36	125	19	61	31	70	98	73	149	33	5,4	11.90
OS.DSS U 125 UP	UNC 1" 1/4-7	15,000	19,000	45	200	19	61	31	70	98	73	149	33	5,4	11.90
OS.DSS U 150 UP	UNC 1" 1/2-6	22,000	27,000	54	240	19	61	31	70	98	73	149	33	5,4	11.90
OS.DSS U 175 UP	UNC 1" 3/4-5	27,000	33,000	63	300	19	61	31	70	98	73	149	33	5,9	13.01



# DSS 8UN

8UN THREADS

## DOUBLE SWIVEL SHACKLE



1 in = 25.4 mm

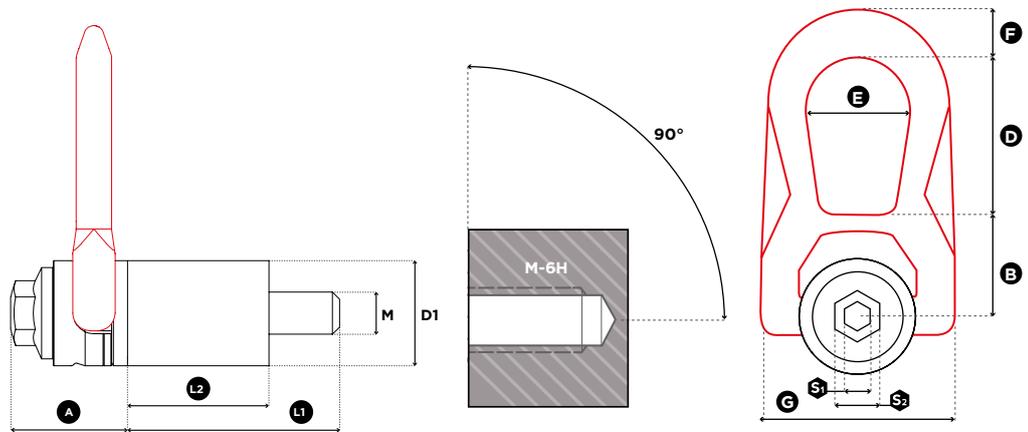
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
														(kg)	(lbs)
DSS U 118 8UN	UN 1" 1/8-8	11,000	11,000	45	150	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 125 8UN	UN 1" 1/4-8	14,000	14,000	45	200	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 138 8UN	UN 1" 3/8-8	20,000	20,000	54	240	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 150 8UN	UN 1" 1/2-8	20,000	20,000	54	240	19	61	31	70	98	73	149	33	5,4	11.90
DSS U 175 8UN	UN 1" 3/4-8	27,000	27,000	63	300	19	61	31	70	98	73	149	33	5,9	13.01
DSS U 200 8UN	UN 2"-8	50,000	50,000	76	450	19	79	38	90	123	91	182	45	11,1	24.47



# DSR + SPACER

## DOUBLE SWIVEL RING WITH SPACER

METRIC THREADS



Reference	Diameter M1	SF 4:1 WLL (t)	Standard L2 (mm)	Standard L1 (mm)	Torque (Nm)	S <sub>1</sub> (mm)	S <sub>2</sub> (mm)	A (mm)	B (mm)	D <sub>1</sub> (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
																(kg)	(lbs)
DSR M8 SPA3050	M 8 (x1.25)	0,17	50	65	6	8	16	33	30	30	38	27	14	53	9,5	0,6	1.32
DSR M10 SPA3050	M 10 (x1.50)	0,25	50	68	10	8	16	33	30	30	38	27	14	53	9,5	0,6	1.32
DSR M12 SPA3050	M 12 (x1.75)	0,35	50	71	15	8	16	33	30	30	38	27	14	53	9,5	0,6	1.32
DSR M16 SPA4550	M 16 (x2)	0,93	50	77	50	8	20	45	40	45	53	38	17	76	13	1,5	3.31
DSR M16 SPA45100	M 16 (x2)	0,56	100	127	50	8	20	45	40	45	53	38	17	76	13	2,0	4.41
DSR M20 SPA4550	M 20 (x2.5)	1,36	50	80	100	8	20	45	40	45	53	38	17	76	13	1,5	3.31
DSR M20 SPA45100	M 20 (x2.5)	0,81	100	130	100	8	20	45	40	45	53	38	17	76	13	2,0	4.41
DSR M24 SPA6050	M 24 (x3)	2,35	50	86	160	14	24	62	55	60	83	55	25	115	19	3,5	7.72
DSR M24 SPA60100	M 24 (x3)	1,50	100	136	160	14	24	62	55	60	83	55	25	115	19	4,2	9.26
DSR M30 SPA6050	M 30 (x3.5)	3,49	50	95	250	14	24	62	55	60	83	55	25	115	19	3,5	7.72
DSR M30 SPA60100	M 30 (x3.5)	2,19	100	145	250	14	24	62	55	60	83	55	25	115	19	4,2	9.26

Other variants available upon request / Autres variantes sur demande /  
Weitere Varianten auf Anfrage / Otras variantes bajo solicitud

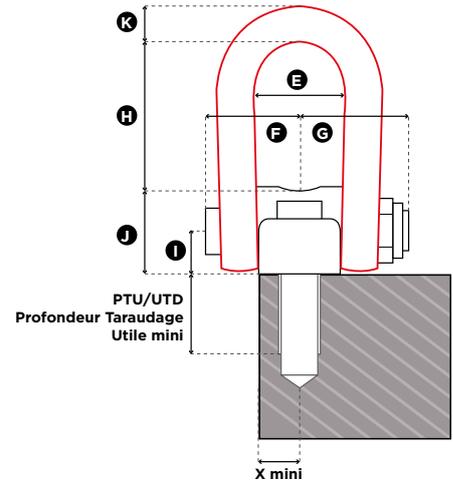
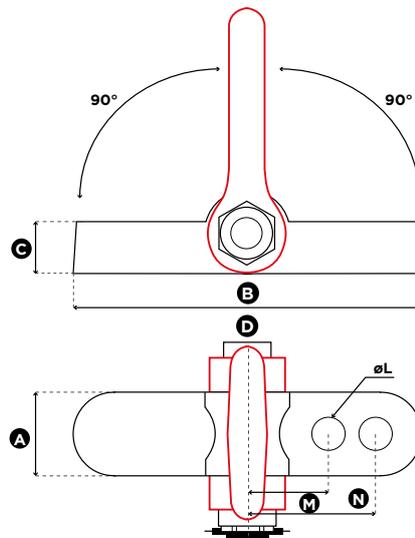
02.2024



## CENTRAL SAFETY SHACKLE



Lifting	0 - 90°
Levage	0 - 90°
Hebung	0 - 90°
Elevación	0 - 90°



1 in = 25.4 mm

Reference	SF 4:1 WLL (t)	X mini	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	I (mm)	J (mm)	K (mm)	Weight	
														(kg)	(lbs)
CSS 20	20	40	80	220	50	62	90	88	98	132	38	76	41,0	12,7	28.00
CSS 32	32	40	80	330	50	62	90	88	98	132	38	76	41,0	16,7	36.82
CSS 55	55	53	105	540	85	191	184	160	170	267	85	175	79,5	90,0	198.42

Drilling and fastening by screws DIN 912-12.9 / Perçage et fixation par vis DIN 912-12.9 / Bohrung und Montage mit Schrauben DIN 912-12.9 / Taladro y fijación por DIN 912-12.9

1 in = 25.4 mm

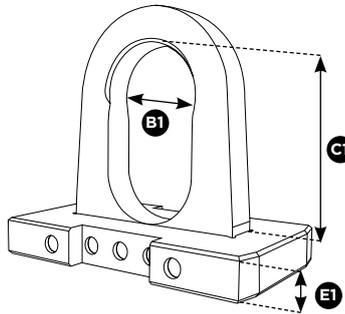
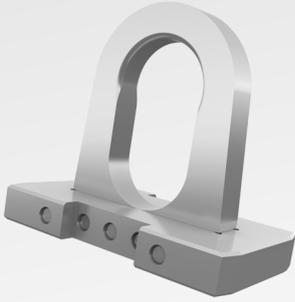
Reference	Drilling/Perçage/Bohrung/Taladro			PTU/UTD Useful Minimum Thread Depth (mm)	Quantity Quantité Menge Cantidad	Model Modèle Modell Modelo	Length Longueur Länge Longitud (mm)	Head / Tête / Schraubenkopf / Encima		Torque (Nm)
	Ø L	M (mm)	N (mm)					Diam (mm)	Height / Hauteur / Höhe / Altura (mm)	
CSS 20	38	70	/	54	2	M36	100	54	36	600
CSS 32	38	70	130	54	4	M36	100	54	36	600
CSS 55	50	133	210	85	4	M48	160	72	48	600



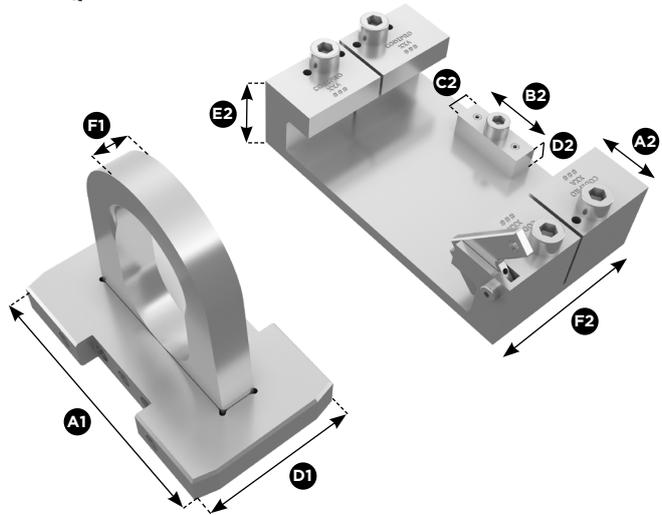
# SLM

## LIFTING SYSTEM FOR MOULD UP TO 40 TONS

METRIC THREADS



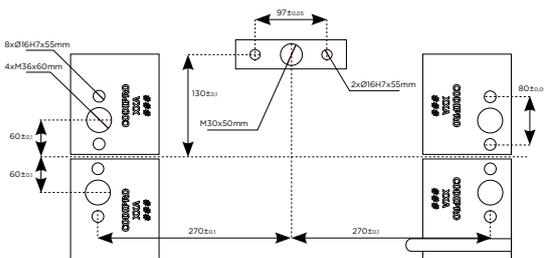
LOCK CONTROL INCLUDED



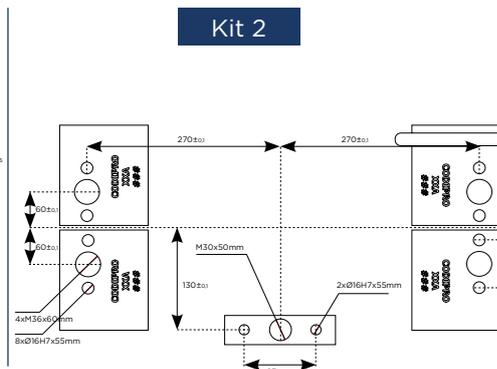
Reference	A1 (mm)	B1 (mm)	C1 (mm)	D1 (mm)	E1 (mm)	F1 (mm)	A2 (mm)	B2 (mm)	C2 (mm)	D2 (mm)	E2 (mm)	F2 (mm)
SLM40	470	170	300	270	65	60	120	150	50	50	130	342
SLM40H	470	170	400	270	65	60	120	150	50	50	130	342

Parts	Weight	
	(kg)	(lbs)
Subset Base	85,0	187.39
Subset Base H	88,0	194.01
Subset Slide	60,0	145.50

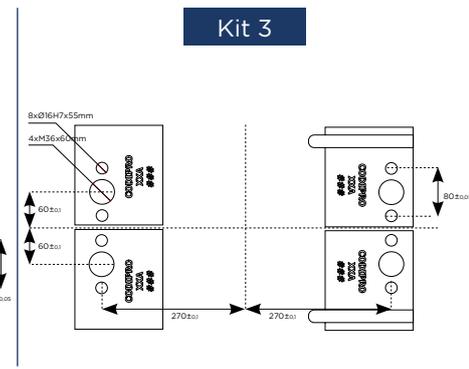
Kit 1



Kit 2

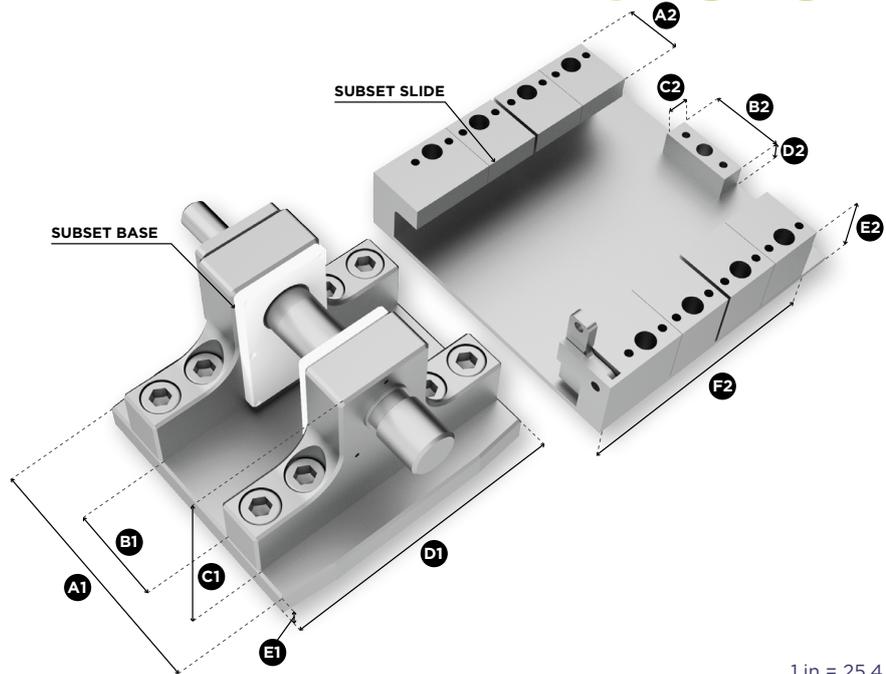


Kit 3



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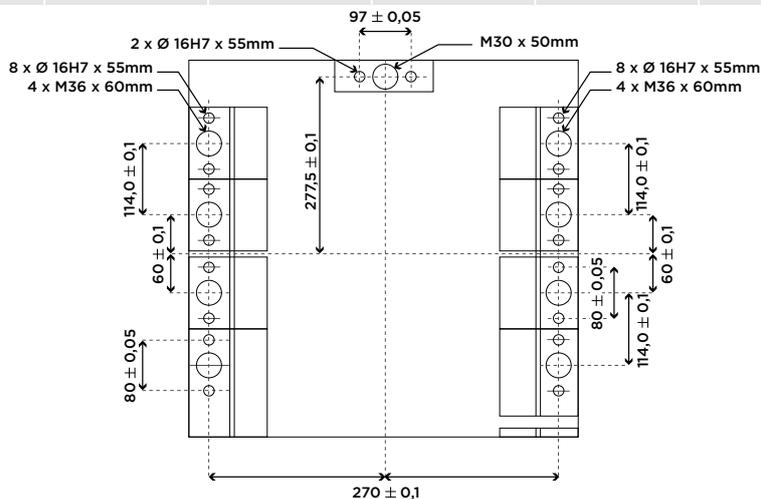




1 in = 25.4 mm

A1 (mm)	B1 (mm)	C1 (mm)	D1 (mm)	E1 (mm)
470	170	315	500	60

A2 (mm)	B2 (mm)	C2 (mm)	D2 (mm)	E2 (mm)	F2 (mm)	Weight			
						Subset base		Subset Slide	
(kg)	(lbs)	(kg)	(lbs)						
120	150	50	50	130	517,5	262,0	577.61	98,0	216.05

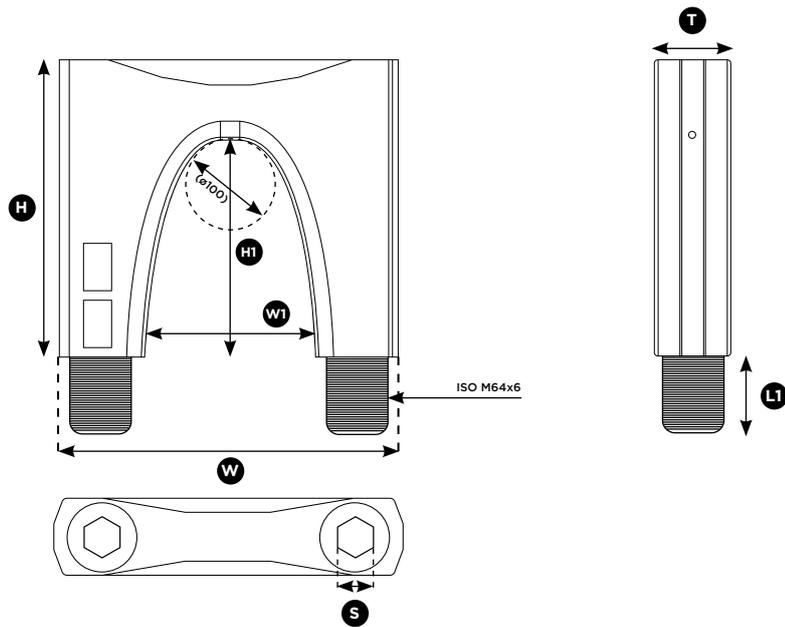




# ARC

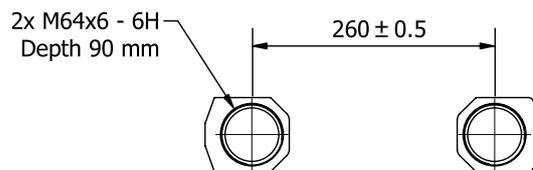
## LIFTING SYSTEM FOR MOULD UP TO 50 TONS

METRIC THREADS



Réf	H (mm)	W (mm)	T (mm)	L1 / ISO M64x6 (mm)	Min drilling hole depth ISO M64x6 / 6H (mm)
ARC 50	315	360	80	85	90

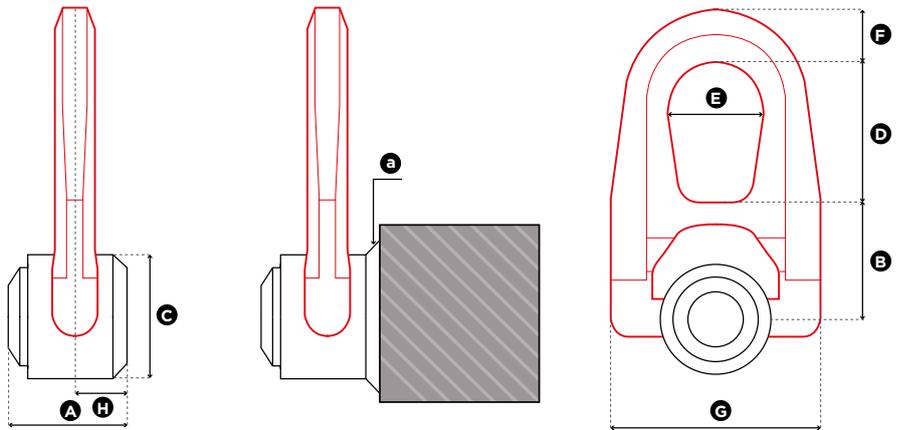
H1 (mm)	W1 (mm)	S (mm)	Torque (Nm)	Weight		SF 5:1 WLL (t)	SF 4:1 WLL (t)
				(kg)	(lbs)		
230	180	36	1000	50	110.23	50,00	63,00



02.2024

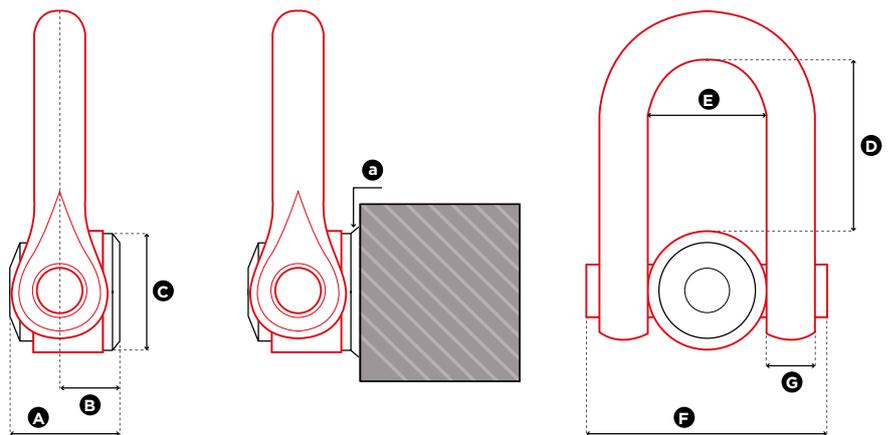


## WELD-ON SWIVEL HOIST RING



1 in = 25.4 mm

Reference	SF 5:1 WLL (t)	SF 5:1 WLL (lbs)	a (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight	
												(kg)	(lbs)
WE.DSR 2	2,00	4,400	5	44	40	45	53	38	17	76	20	0,9	1.98
WE.DSR 5	5,00	11,000	6	60	55	60	83	55	25	115	24	2,6	5.73



1 in = 25.4 mm

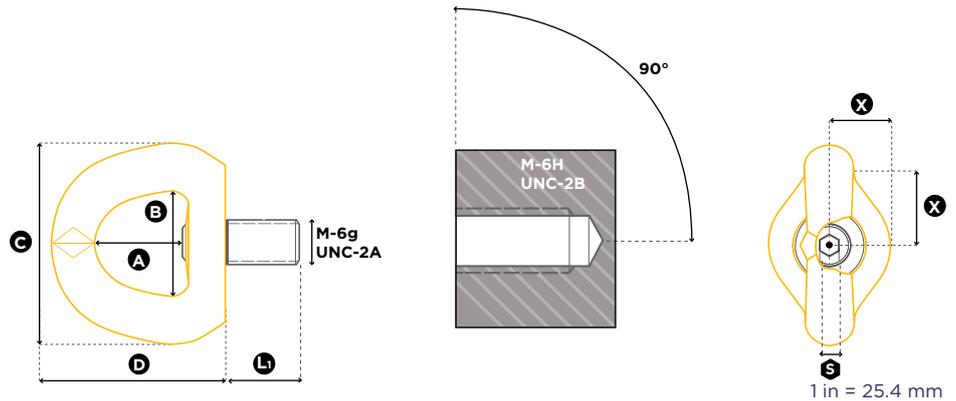
Reference	SF 5:1 WLL (t)	SF 5:1 WLL (lbs)	a (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight	
											(kg)	(lbs)
WE.DSS 10	10,00	22,000	7	74	44	70	104	73	149	33	5,5	12.13



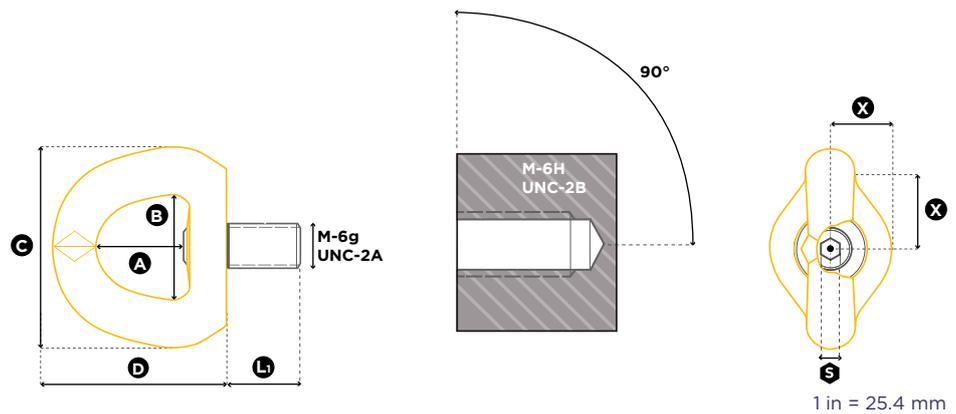
# PE.SEB SS.PE.SEB

METRIC THREADS

## FALL PROTECTION ANCHORAGE POINT



Reference	Diameter	Number of persons		Standard L <sub>1</sub> (mm)	Torque (Nm)		S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight	
		EN 795:2012	CEN/TS 16415:2013									(kg)	(lbs)
PE.SEB M 12	M 12 (x1,75)	1 pers.	2 pers.	21	15	20	6	30	34	60	57	0,24	0.53
PE.SEB M 16	M 16 (x2)	1 pers.	2 pers.	27	50	35	8	38	45	88	80	0,80	1.76
PE.SEB M 20	M 20 (x2,5)	1 pers.	2 pers.	30	100	35	8	38	45	88	80	0,80	1.76



Reference	Diameter	Number of persons		Standard L <sub>1</sub> (mm)	Torque (Nm)		S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight	
		EN 795:2012	CEN/TS 16415:2013									(kg)	(lbs)
SS.PE.SEB M 12	M 12 (x1,75)	1 pers.	2 pers.	21	15	35	8	38	45	90	80	0,80	1.76
SS.PE.SEB M 16	M 16 (x2)	1 pers.	2 pers.	27	50	35	8	38	45	90	80	0,82	1.81
SS.PE.SEB M 20	M 20 (x2,5)	1 pers.	2 pers.	30	100	35	8	38	45	90	80	0,84	1.85
SS.PE.SEB M 24	M 24 (x3)	1 pers.	2 pers.	36	150	35	8	38	45	90	80	0,90	1.98

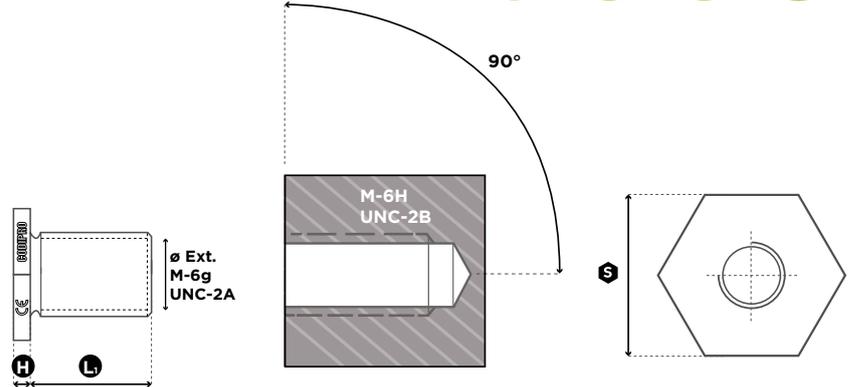
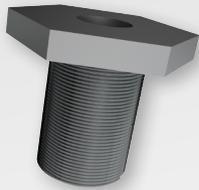
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# ADA

## THREAD ADAPTOR

METRIC / UNC THREADS



1 in = 25.4 mm

Reference	Ext. Diameter	Max. Int. Diameter		L <sub>1</sub> (mm)	Torque (Nm)	S (mm)	H (mm)
		M ISO	UNC				
ADA M 24	M 24 (x3)	18	5/8"	36	160	50	10
ADA M 30	M 30 (x3,5)	20	7/8"	45	250	50	10
ADA M 36	M 36 (x4)	27	1"	54	320	65	10
ADA M 42	M 42 (x4,5)	33	1" 1/4	63	400	75	10
ADA M 48	M 48 (x5)	39	1" 1/2	68	600	75	10
ADA M 56	M 56 (x5,5)	42	1" 3/4	78	600	95	10
ADA M 64	M 64 (x6)	52	2"	90	600	95	10
ADA M 100	M 100 (x6)	80	3" 1/2	100	600	155	15

1 in = 25.4 mm

Reference	Ext. Diameter	Max. Int. Diameter		L <sub>1</sub> (mm)	Torque (ft-lb)	S (mm)	H (mm)
		M ISO	UNC				
ADA U 078	UNC 7/8"-9	16	5/8"	33	90	50	10
ADA U 100	UNC 1"-8	18	3/4"	36	125	50	10
ADA U 125	UNC 1"1/4-7	24	7/8"	45	200	50	10
ADA U 138	UNC 1" 3/8-6	27	1"	54	240	65	10
ADA U 150	UNC 1" 1/2-6	30	1" 1/8	61	240	75	10
ADA U 200	UNC 2"-4 1/2	39	1" 1/2	68	450	95	10
ADA U 275	UNC 2" 3/4-4	56	2" 1/4	90	520	155	10
ADA U 400	UNC 4"-4	80	3" 1/4	100	740	155	15

WLL of the adaptor plate = WLL of the CODIPRO lifting ring placed on top. ATTENTION: to be used exclusively with CODIPRO swivel lifting rings. /  
 La CMU de l'adaptateur = CMU de l'anneau CODIPRO fixé. ATTENTION : utiliser uniquement avec des anneaux de levage articulés CODIPRO. /  
 Die Tragfähigkeit des Adapters = Tragfähigkeit der CODIPRO-Ringschraube im angeschraubten Zustand. ACHTUNG: gebrauchen Sie die Teile  
 nur mit drehbaren Ringschrauben der Marke CODIPRO. / La CMU del adaptator = CMU del cáncamo CODIPRO apretado. CUIDADO : utilizar  
 exclusivamente con los cáncamos giratorios de marca CODIPRO.

Other variants available upon request / Autres variantes sur demande / Weitere Varianten auf Anfrage  
 / Otras variantes bajo solicitud

02.2024





## EXTRAS

- BLOCKING SPRING
- CENTERING
- RFID
- TORQUE KEY
- LASHING
- SCP
- O.L.D.

## EXTRAS

- HALTEFEDER
- ZENTRIERUNG
- RFID
- DREHMOMENTSCHLÜSSEL
- ZURRPUNKTE
- SCP
- O.L.D.

## EXTRAS

- RESSORT DE MAINTIEN
- CENTRAGE
- RFID
- EMBOUT DE SERRAGE
- ARRIMAGE
- SCP
- O.L.D.

## EXTRAS

- RESORTE DE FIJACIÓN
- CENTRAJE
- RFID
- LLAVE DE FIJACIÓN
- ESTIBA
- SCP
- O.L.D.

EXTRAS



# BLOCKING SPRING

RESSORT DE MAINTIEN  
HALTEFEDER  
RESORTE DE FIJACIÓN

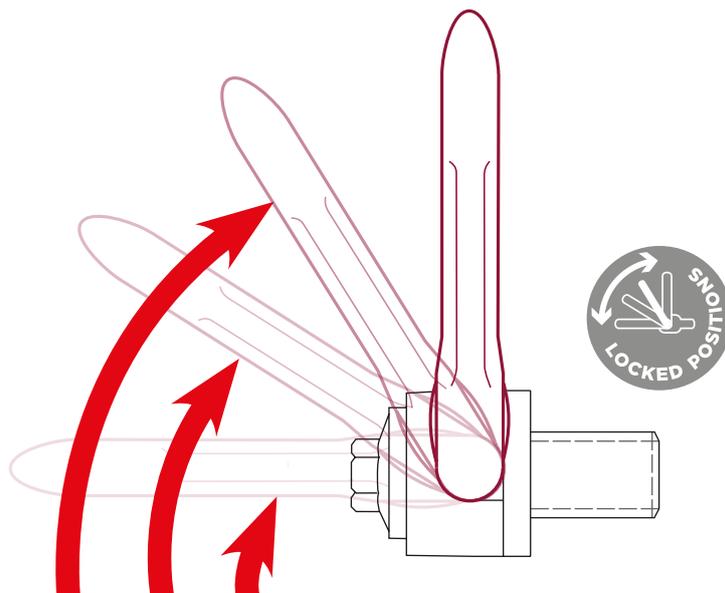


## MORE ERGONOMIC

- Allows the shackle to be maintained in its position
- No hindrance to the rotation of the ring during lifting process
- Available on models DSR / DSS / DSP / DSH / TSR

## PLUS ERGONOMIQUE

- Permet de maintenir la manille dans sa position
- Aucune entrave à la rotation de l'anneau lors du levage
- Disponible pour les modèles DSR / DSS / DSP / DSH / TSR



## ERGONOMISCHER

- Schäkel kann in seiner Position gehalten werden
- Ringschraube kann während des Hebevorgangs frei rotieren
- Verfügbar für die Modelle DSR / DSS / DSP / DSH / TSR

## MÁS ERGONÓMICO

- Permite mantener el anillo en su posición
- Ningún obstáculo traba a la rotación del cáncamo durante la elevación
- Disponible para todos los modelos DSR / DSS / DSP / DSH / TSR

# CENTERING

CENTRAGE  
ZENTRIERUNG  
CENTRAJE

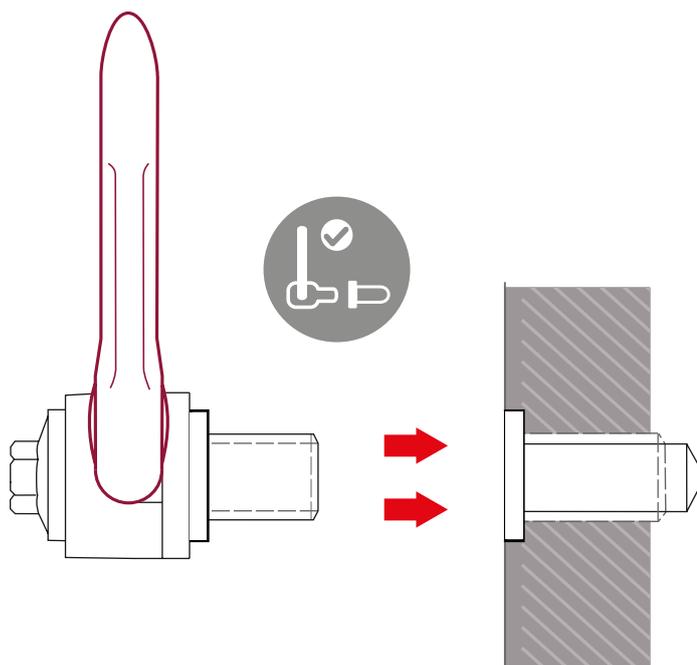


## MORE SAFETY

- Reinforcement of the weakest point at 90°
- Increases the shearing off diameter
- Available on request

## SÉCURITÉ ACCRUE

- Renforcement du point faible à 90°
- Augmente le diamètre de cisaillement
- Disponible sur demande

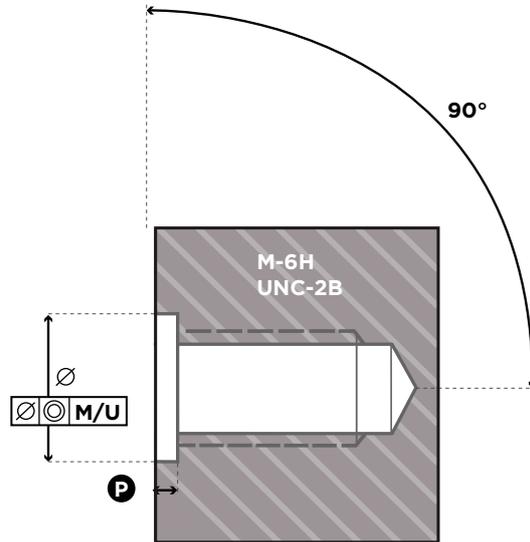


## NOCH MEHR SICHEREIT

- Verstärkung des schwachpunktes bei 90°-Hebung
- Vergrößert den Abscherdurchmesser
- Auf Anfrage erhältlich

## AÚN MÁS SEGURIDAD

- Fortalecimiento del punto débil (90°)
- Aumento del diámetro de cizalladura
- Disponible bajo petición



Metric	Ø (mm)	P (mm)
M 5	16 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 6	16 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 8	16 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 10	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 12	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 14	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 16	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 18	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 20	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 22	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 24	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 27	36 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 30	36 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 33	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 36	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 39	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 42	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 45	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 48	64 $\begin{smallmatrix} +0,60 \\ +0,10 \end{smallmatrix}$	8 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 52	64 $\begin{smallmatrix} +0,60 \\ +0,10 \end{smallmatrix}$	8 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 56	64 $\begin{smallmatrix} +0,60 \\ +0,10 \end{smallmatrix}$	8 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
M 64	74 $\begin{smallmatrix} +0,60 \\ +0,10 \end{smallmatrix}$	10 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$

UNC	Ø (mm)	P (mm)
1/4"	16 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
5/16"	16 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
3/8"	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
1/2"	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
5/8"	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
3/4"	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	3 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
7/8"	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
1"	30 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
1" 1/4	36 $\begin{smallmatrix} +0,30 \\ 0 \end{smallmatrix}$	4 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
1" 3/8	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
1" 1/2	48 $\begin{smallmatrix} +0,50 \\ +0,10 \end{smallmatrix}$	6 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
2"	64 $\begin{smallmatrix} +0,60 \\ +0,10 \end{smallmatrix}$	8 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$
2" 1/2	74 $\begin{smallmatrix} +0,60 \\ +0,10 \end{smallmatrix}$	10 $\begin{smallmatrix} +1 \\ +0,5 \end{smallmatrix}$

1	DSR in stock / DSR en stock / DSR auf Lager / DSR en stock
1	DSS in stock / DSS en stock / DSS auf Lager / DSS en stock
✓	On request / Sur demande / Auf Anfrage / Bajo solicitud

# RFID

## RADIO FREQUENCY IDENTIFICATION

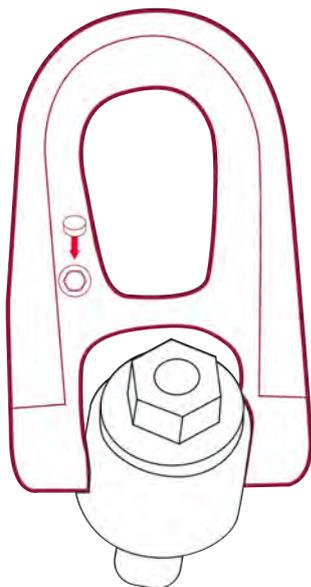


### OPTIMAL IDENTIFICATION AND TRACEABILITY

- Easy integration into the DSR and DSS models
- Quick and efficient data reading, tracking and management
- Cost-savings and shorter control time
- Process reliability

### IDENTIFICATION ET TRAÇABILITÉ OPTIMALES

- Intégration aisée sur les modèles DSR et DSS
- Lecture, suivi et gestion des informations efficaces et rapides
- Réduction des coûts et de la durée des contrôles
- Fiabilité du processus



DSS



DSR

#### **RFID tag technical details**

RF Protocol: ISO 15693  
Operating Frequency: HF - 13.56 MHz  
Capability: Read/Write  
IP Rating: IP68  
Max. Temperature Exposure: 212°F/ 100°C  
Min. Temperature Exposure: -40°F/ -40°C

### OPTIMALE KENNZEICHNUNG UND RÜCKVERFOLGBARKEIT

- Einfache Integration in die DSR- und DSS-Modelle
- Schnelle und effiziente Auslesung, Rückverfolgbarkeit und Verwaltung der Informationen
- Zeit- und Kostenersparnis bei UVV-Prüfungen
- Zuverlässige und fehlerfreie Datenspeicherung

### OPTIMIZACIÓN DE LA TRAZABILIDAD Y DE LA IDENTIFICACIÓN

- Fácil de incorporar en los modelos DSR y DSS
- Lectura, control y gestión de las informaciones rápidos y eficientes
- Reducción de los costes y del tiempo de revisión
- Fiabilidad del proceso

10.2021

# TORQUE KEY

EMBOUT DE SERRAGE  
DREHMOMENTSCHLÜSSEL  
LLAVE DE FIJACIÓN

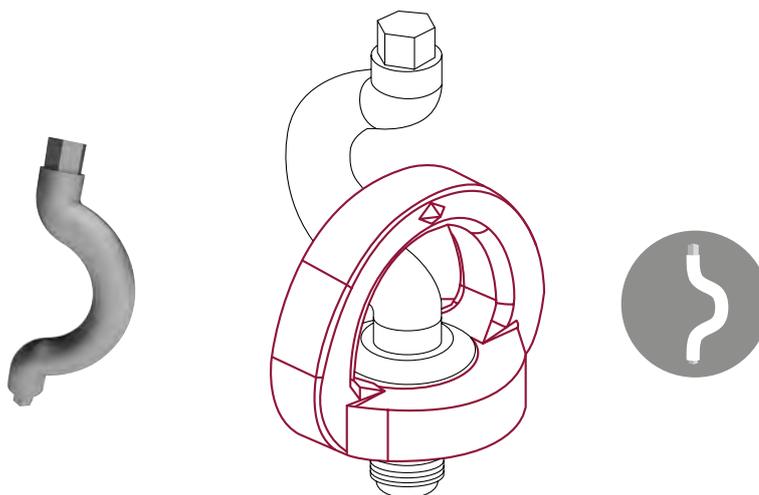


## FOR SEB MODELS M8 TO M24

- Easy tightening
- Allows to apply the recommended torque value
- Adapted for torque spanners
- Corrosion protection
- 3 sizes available

## POUR MODÈLES SEB M8 À M24

- Facilité de serrage
- Permet d'appliquer le couple de serrage recommandé
- Adapté pour les clés dynamométriques
- Protection contre la corrosion
- 3 tailles disponibles



## FÜR SEB MODELLE M8 BIS M24

- Leichteres Einschrauben
- Ermöglicht die Anwendung des empfohlenen Drehmoments
- Für Drehmomentschlüssel geeignet
- Korrosionsschutz
- 3 verfügbare Größen

## PARA LOS MODELOS DEL SEB M8 AL M24

- Facilidad de apriete
- Permite aplicar par de apriete recomendado
- Adaptado para las llaves dinamométricas
- Protección contra la corrosión
- Disponible en 3 tallas

	SEB M 8 UP	SEB M 10 UP	SEB M 12 UP	SEB M 16 UP	SEB M 20 UP	SEB M 24 UP
key SEB - 1	X	X	X			
key SEB - 2				X	X	
key SEB - 3						X

10.2021

# LASHING

ARRIMAGE  
ZURRPUNKTE  
ESTIBA

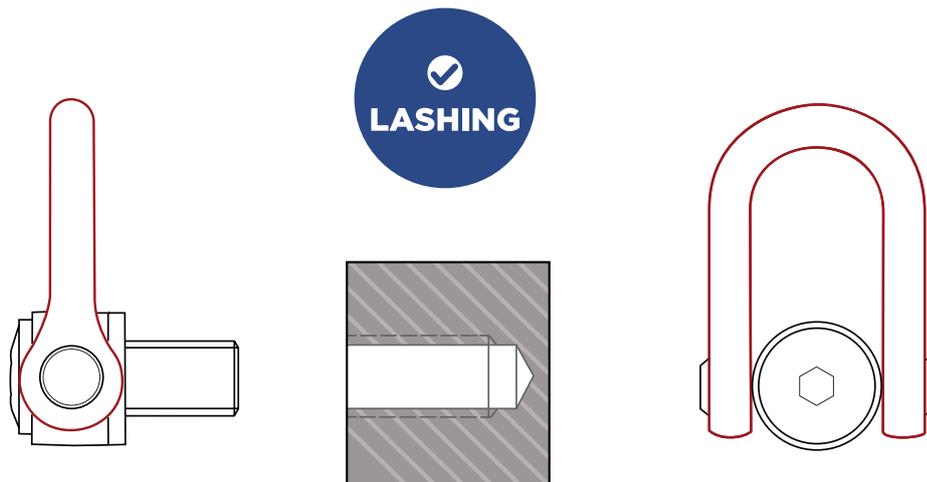


## CERTIFIED FOR LASHING

- Double use: lashing + lifting
- Double marking LC & WLL
- Slight extra cost
- Available on the whole range

## HOMOLOGUÉ POUR ARRIMAGE

- Double utilisation : arrimage + levage
- Double gravure LC & CMU
- Faible surcoût
- Disponible sur toute la gamme



## ZERTIFIZIERT ALS ZURRPUNKT

- Doppelte Anwendungsmöglichkeit:  
Ladungssicherungs- und Hebemittel
- Zweifache Gravur LC & WLL
- Geringe Mehrkosten
- Verfügbar für die komplette Produktpalette

## HOMOLOGADOS PARA ESTIBAR

- Doble utilización: estiba + elevación
- Doble grabado LC & CMU
- Coste adicional mínimo
- Disponible para toda la gama

10.2021

# SCP

## SURFACE CONTACT PROTECT

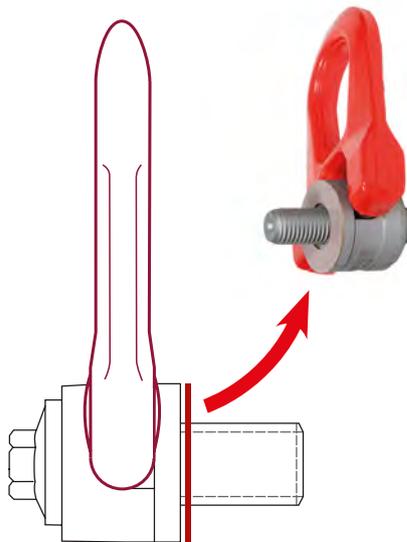
# SCP

### ADHESIVE PROTECTIVE WASHER

- Insignificant lever arm thanks to its thickness of 250 µm
- No scratches or paint removal thanks to the proper bolt tightening
- Easy to replace in case of excessive wear
- Optional with the DSR and DSS lifting rings

### RONDELLE ADHÉSIVE DE PROTECTION

- Bras de levier négligeable par son épaisseur de 250 µm
- Évite les griffes ou l'enlèvement de peinture dû à la fixation par vissage de l'anneau
- Simple à remplacer en cas d'usure
- Optionnel pour les anneaux DSR et DSS



### SELBSTKLEBENDE SCHUTZFOLIE

- Fast keine Verlängerung des Hebelarms durch ein Foliendicke von 250 µm
- Vermeidet Beschädigungen and der Last, die gehoben wird
- Leicht zu ersetzen
- Optional für DSR- und DSS-Anschlagwirbel

### ARANDELA ADHESIVA DE PROTECCIÓN

- Efecto palanca desdeñable por su espesor de 250 µm
- Elimina los riesgos de garras o de retirada de pintura debido a la fijación del cáncamo
- Simple a sustituir en caso de desgaste
- Opcional por los cáncamos DSR y DSS

# O.L.D.

OVERLOAD DETECTOR  
INDICATEUR DE SURCHARGE  
ÜBERLASTANZEIGER  
INDICADOR DE SOBRECARGA

# O.L.D.

## ENHANCED SECURITY

- Visual warning of non-compliance with the WLL
- Easy check of ring conformity
- Available on models DSR and DSS

## SÉCURITÉ RENFORCÉE

- Avertissement visuel de non-respect de la CMU
- Contrôle facile de la conformité de l'anneau
- Disponible pour modèles DSR et DSS

- Removable plastic cover
- Capot amovible en plastique
- Abnehmbarer Kunststoffdeckel
- Cubierta extraíble de plástico



- Plastic fixing cover
- Capot de fixation en plastique
- Befestigungskappe aus Kunststoff
- Tapa de fijación de plástico

- Metal base with deformable lamellae
- Socle en métal avec lamelles déformables
- Metallsockel mit verformbaren Lamellen
- Base de metal con láminas deformables

## ERHÖHTE SICHERHEIT

- Warnung vor der Nichteinhaltung der Tragfähigkeit
- Einfache Überprüfung der Ringkonformität
- Verfügbar für die Modelle DSR und DSS

## MAYOR SEGURIDAD

- Aviso visual de incumplimiento de la CMU
- Facilidad de control de la conformidad del cáncamo
- Disponible para los modelos DSR y DSS

10.2021

## CUSTOMIZED

- BOLT - NUT - WASHER
- THREAD
- SPACER
- DOUBLE CENTRING
- BELL TYPE LIFTING RING
- CUSTOM ENGRAVING - ALITAG
- SURFACE TREATMENT
- MISCELLANEOUS APPLICATIONS

## SONDERANFERTIGUNGEN

- SCHRAUBE - MUTTER - SCHEIBE
- GEWINDE
- ABSTANDSHALTER
- BEIDSEITIGE ZENTRIERSCHEIBEN
- ANSCHLAGWIRBEL MIT BUCHSE
- INDIVIDUELLE GRAVUR - ALITAG
- OBERFLÄCHENBEHANDLUNG
- VERSCHIEDENE ANWENDUNGEN

## SUR-MESURE

- AXE - ÉCROU - RONDELLE
- FILETAGE
- ENTRETOISE
- DOUBLE CENTRAGE
- ANNEAU CLOCHE
- GRAVURE PERSONNALISÉE - ALITAG
- TRAITEMENT DE SURFACE
- APPLICATIONS DIVERSES

## A MEDIDA

- EJE - TUERCA - ARANDELA
- ROSCA
- DISTANCIADOR
- DOBLE CENTRAJE
- CÁNCAMO GIRATORIO ARTICULADO CON ADAPTADOR HEMBRA
- GRABADO PERSONALIZADO - ALITAG
- TRATAMIENTO DE SUPERFICIE
- VARIAS APLICACIONES



# BOLT NUT WASHER

AXE - ÉCROU - RONDELLE  
SCHRAUBE - MUTTER - SCHEIBE  
EJE - TUERCA - ARANDELA



## WITH THE EXACTNESS OF A TENTH OF A MILLIMETER

- Partially threaded bolts
- Nut and washer available on request
- Special bolt lengths available on request

## AU MILLIMÈTRE PRÈS

- Possibilité de réaliser une partie lisse et/ou une partie fileté
- Ecrou et rondelle disponibles sur demande
- Axe coupé au millimètre près disponible sur demande



## AUF DEN MILLIMETER GENAU

- Fertigung von Teilgewinden möglich
- Auf Anfrage mit Mutter und Scheibe verfügbar
- Maßanfertigungen auf Anfrage erhältlich

## AL MILÍMETRO

- Posibilidad de diseñar un cáncamo con un eje que tenga una parte lisa y/o una parte roscada
- Tuerca y arandela disponibles bajo solicitud
- Eje cortado al milímetro bajo solicitud

# THREAD

FILETAGE  
GEWINDE  
ROSCA



## AVAILABLE THREADS

→ Please refer to chapter « Other » for the thread chart

## FILETAGES DISPONIBLES

→ Voir chapitre « Other » pour consulter notre tableau des filetages courants



Thread / Filetage / Gewinde / Rosca		
M	UNJ	WW/BSW
MF	UNJF	BSF
UNC	8UN	Rd
UNF	G/BSPP	...

## VERFÜGBARE GEWINDE

→ Siehe Kapitel « Sonstiges » zur Einsicht der Gewindetabelle

## ROSCAS DISPONIBLES

→ El recapitulativo de las roscas comunes está en el capítulo «Other»

# SPACER

ENTRETOISE  
ABSTANDSHALTER  
DISTANCIADOR

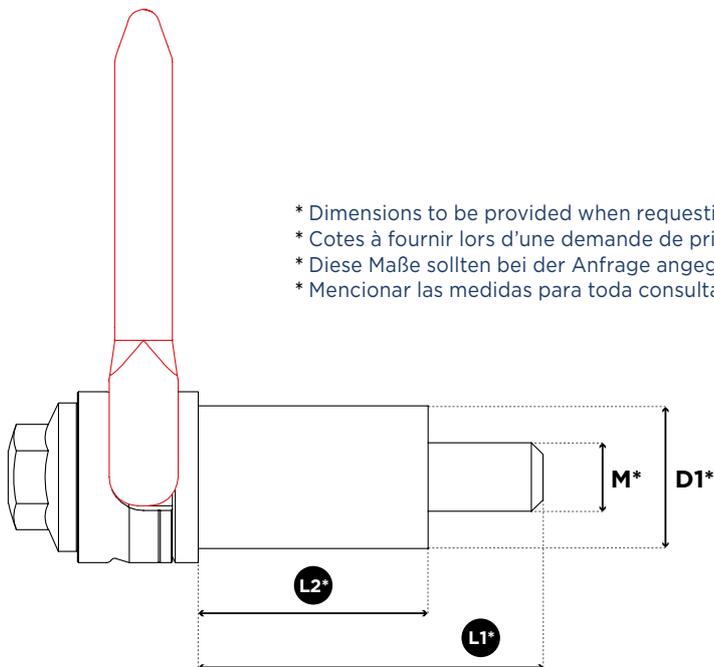


## When should this certified system composed of a lifting ring with a spacer be used?

→ If the design of the workpiece to be lifted prevents the mobility of the shackle, this system solves the issue by moving away.

## Quand utiliser ce système homologué composé d'un anneau + une entretoise ?

→ Si la géométrie de la pièce à lever empêche la bonne mobilité de la manille, ce système résoudra la problématique en s'écartant.



## Wann soll dieses zertifizierte System, bestehend aus Abstandshalter und Anschraubwirbel verwendet werden?

→ In Fällen, wo das Gewinde für den Anschraubwirbel nur schwierig zugänglich ist oder die Gegebenheiten der Last die freie Drehung des Anschraubwirbels einschränken. Der Abstandshalter bietet die Möglichkeit, sich von der Last zu entfernen.

## ¿Cuándo recurrir al sistema homologado compuesto de un cáncamo + un distanciador?

→ Cuando el contexto de izaje reduce la movilidad de la manila. Así este sistema va a resolver el problema alejándose de la pieza a izar.

# DOUBLE CENTRING

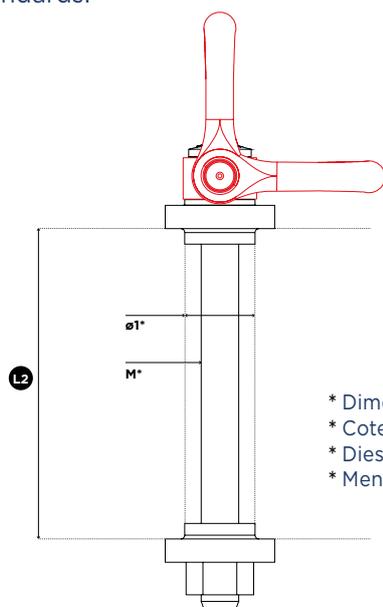
DOUBLE CENTRAGE  
DOPPELZENTRIERUNG  
DOBLE CENTRAJE



## When should the ring with double centering be used?

- In case of lifting through an unthreaded hole, the double centering ensures perfect stability of the ring during the lifting operation;
- In case of a big diameter hole and a low weight to be lifted, the double centering system avoids the use of an oversized lifting ring.

Certified system according to applicable standards.



- \* Dimensions to be provided when requesting a quotation
- \* Cotes à fournir lors d'une demande de prix
- \* Diese Maße sollten bei der Anfrage angegeben werden
- \* Mencionar las medidas para toda consulta de precio

## Wann sollte man eine « Doppelzentrierung » verwendet werden?

- Wenn eine Bohrung ohne Gewinde zum Anheben der Last benutzt werden soll, bieten die Zentrierscheiben einen perfekten Sitz des Anschraubwirbels in der Last ;
- Wenn eine zu groß dimensionierte Bohrung zum Heben benutzt werden soll. Hier ermöglichen die Zentrierscheiben eine Kostenersparnis sowie den Einsatz von kleineren Anschraubwirbeln die für die Last ausgelegt sind.

Zertifiziert nach den geltenden Normen.

## Quand utiliser l'anneau à double centrage ?

- Si perçage lisse, le double centrage garantit une parfaite stabilité de l'anneau avec la pièce à lever ;
- Si gros diamètre de perçage et petite charge à lever, l'anneau équipé du double centrage évite l'utilisation d'un anneau surdimensionné.

Système homologué selon les normes en vigueur.



## ¿Cuándo utilizar un cáncamo con doble centrage?

- Cuando el cáncamo atraviesa una pieza y que el hueco es liso, el doble centrage garantiza una estabilidad perfecta del cáncamo con la pieza a levantar;
- Cuando el diámetro del hueco es muy ancho y la CMU muy baja, el doble centrage evita el uso de un cáncamo sobredimensionado.

Sistema homologado según las normas vigentes.

# BELL TYPE LIFTING RING

ANNEAU CLOCHE  
WIRBELRINGSCHRAUBE MIT BUCHSE  
CÁNCAMO GIRATORIO ARTICULADO  
CON ADAPTADOR HEMBRA

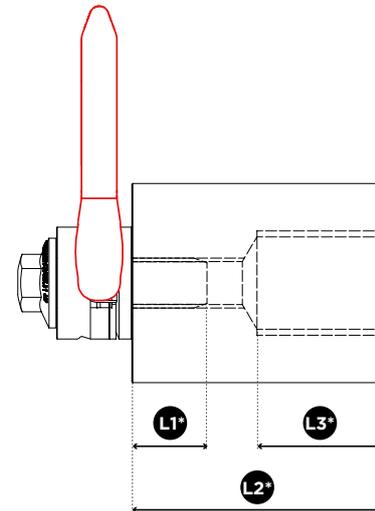
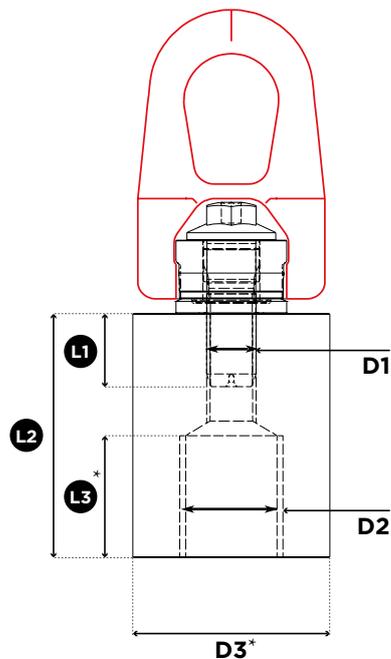


## When should a use the bell type lifting ring be used?

- Similar application as for female hoist rings but specially designed for threaded shafts with a large diameter but low weights to lift;
- Available for all thread types.

## Quand utiliser l'anneau cloche ?

- Utilisation similaire aux anneaux femelles mais spécialement élaboré lorsqu'il y a un important diamètre de tige filetée avec une faible charge à lever ;
- Disponible pour tout type de filetage.



- \* Dimensions to be provided when requesting a quotation
- \* Cotes à fournir lors d'une demande de prix
- \* Diese Maße sollten bei der Anfrage angegeben werden
- \* Mencionar las medidas para toda consulta de precio

## Wann sollt eine Anschlagwirbel mit Buchse verwendet werden ?

- Gleiche Anwendungen wie für Anschlagwirbel mit Innengewinde, jedoch speziell entwickelt für große Gewindedurchmesser bei weniger schweren Lasten;
- Alle Gewindearten erhältlich.

## ¿Cuándo utilizar un cáncamo giratorio articulado con adaptador hembra?

- Se usa de igual manera que los cáncamos hembra solo que están diseñados para izajes con una CMU baja y un diámetro de perno roscado muy ancho ;
- Disponible para todo tipo de rosca.

# CUSTOM MARKING - ALITAG

GRAVURE PERSONNALISÉE - ALITAG  
INDIVIDUELLE GRAVUR - ALITAG  
GRABADO INDIVIDUAL - ALITAG



- Even more personalized on request and available on the entire product range
- Encore plus personnalisé sur demande et possible sur toute la gamme
- Noch kundenspezifischer und für alle Anschlagwirbel erhältlich
- Bajo solicitud se puede personalizar el grabado a gusto para toda la gama.



# SURFACE TREATMENT

# TRAITEMENT DE SURFACE OBERFLÄCHENBEHANDLUNG TRATAMIENTO DE SUPERFICIE



CODIPRO offers various types of surface treatments  
CODIPRO propose différents types de traitement de surface  
CODIPRO bietet verschiedene Oberflächenbehandlungen an  
CODIPRO propone varios tipos de tratamiento de superficie

<ul style="list-style-type: none"> <li>→ White zinc plating</li> <li>→ Zingage blanc</li> <li>→ Weiß-Verzinkung</li> <li>→ Zincado blanco</li> </ul>	<ul style="list-style-type: none"> <li>→ Black zinc plating</li> <li>→ Zingage noir</li> <li>→ Schwarz-Verzinkung</li> <li>→ Zincado negro</li> </ul>	<ul style="list-style-type: none"> <li>→ Yellow zinc chromate plating*</li> <li>→ Zingage bichromaté jaune*</li> <li>→ Gelb-Verzinkung*</li> <li>→ Zincado bicromatado amarillo*</li> </ul>
<ul style="list-style-type: none"> <li>→ Nickel plating</li> <li>→ Nickelage</li> <li>→ Vernickelung</li> <li>→ Niquelado</li> </ul>	<ul style="list-style-type: none"> <li>→ Black oxide plating</li> <li>→ Oxydation noire</li> <li>→ Schwarz-Oxid Beschichtung</li> <li>→ Oxido negro</li> </ul>	<ul style="list-style-type: none"> <li>→ Phosphate coating</li> <li>→ Phosphatation</li> <li>→ Phosphatierung</li> <li>→ Fosfatación</li> </ul>
<ul style="list-style-type: none"> <li>→ Hard chrome plating*</li> <li>→ Chromatage dur*</li> <li>→ Hartverchromung*</li> <li>→ Cromado duro*</li> </ul>	<ul style="list-style-type: none"> <li>→ Special color</li> <li>→ Peinture spécifique</li> <li>→ Sonderlackierung</li> <li>→ Pintura específica</li> </ul>	<p>...</p>

\*REACH regulation sept 17

In case that the required surface treatment is not part of the table below, please contact us.

Si le traitement que vous cherchez ne figure pas dans ce tableau, contactez-nous.

Kontaktieren Sie uns wenn die Oberflächenbehandlung die Sie suchen, nicht in der Tabelle aufgeführt ist.

Si el tratamiento de superficie que buscáis no figura en la tabla, contáctenos.



## MISCELLANEOUS APPLICATIONS

APPLICATIONS DIVERSES  
VERSCHIEDENE ANWENDUNGEN  
VARIAS APLICACIONES



- Certified system
- Système homologué
- Zertifiziertes System
- Sistema homologado





## INFORMATION

- CERTIFICATE OF CONFORMITY
- USE RECOMMENDATIONS
- REVISION PROCEDURE
- FIXATION TYPES

## INFORMATIONEN

- KONFORMITÄTSEKTLÄRUNG
- GEBRAUCHSANWEISUNG
- VERFAHREN ZUR INSTANDSETZUNG
- BEFESTIGUNGSBEISPIELE

## INFORMATIONS

- CERTIFICAT DE CONFORMITÉ
- NOTICES D'INSTRUCTIONS
- PROCÉDURE DE REMISE EN ÉTAT
- TYPES DE FIXATION

## INFORMACIONES

- CERTIFICADO DE CONFORMIDAD
- MANUAL DE INSTRUCCIONES
- PROCESO DE REVISIÓN
- TIPOS DE FIJACIÓN



# CERTIFICATE OF CONFORMITY

# CERTIFICAT DE CONFORMITÉ KONFORMITÄTSBESCHEINIGUNG CERTIFICADO DE CONFORMIDAD



## A CERTIFICATE OF CONFORMITY IS AVAILABLE FOR:

- Swivel lifting rings
- Fall protection anchorage points: PE.SEB / SS.PE.SEB
- Weld-on swivel lifting rings: WE.DSR / WE.DSS
- Lifting system for moulds up to 80 tons: SLM

## UN CERTIFICAT DE CONFORMITÉ EST DISPONIBLE POUR :

- Les anneaux de levage
- Les anneaux antichute pour la sécurité des personnes : PE.SEB / SS.PE.SEB
- Les anneaux articulés à souder : WE.DSR / WE.DSS
- Le système de levage pour moules jusqu'à 80 t : SLM

## KONFORMITÄTSBESCHEINIGUNG IST VERFÜGBAR FÜR:

- Anschlagwirbel
- Anschlagpunkte zur Personensicherung: PE.SEB / SS.PE.SEB
- Anschweißbare Anschlagwirbel: WE.DSR / WE.DSS
- Sonderhebevorrichtung zum Heben von Gussformen bis zu 80 t: SLM

## EXISTE UN CERTIFICADO DE CONFORMIDAD PARA :

- Los cáncamos giratorios articulados
- Los cáncamos giratorios anticaídas para la seguridad de las personas : PE.SEB / SS.PE.SEB
- Los cáncamos giratorios soldables : WE.DSR / WE.DSS
- El sistema de elevación para moldes hasta 80 toneladas : SLM



### EC DECLARATION OF CONFORMITY<sup>1</sup> SAMPLE

Fabricant / Manufacturer / Hersteller / Fabricante<sup>2</sup>  
 Personne autorisée à constituer le dossier technique / Person authorized to compile the technical file / Bevollmächtigter für die Zusammenstellung der technischen Unterlagen / Persona facultada para elaborar el expediente técnico<sup>3</sup> **CODIPROLUX SA**  
 25, Salzbaach  
 L-9559 WILTZ

Description de la machine / Description of the machine  
 Beschreibung der Maschine / Descripción del equipo<sup>4</sup> **CODIPRO**  
 Accessoire de levage CODIPRO  
 Lifting Equipment/CODIPRO  
 Anschlagmittelzubehör CODIPRO  
 Accesorio de elevación CODIPRO

Type d'anneau et dimension / Ring type and dimension /  
 Ringachraubentyp / Tipo de cáncamo y dimensión<sup>5</sup>

Désignation / Designation / Bezeichnung / Designación<sup>6</sup>

CMU 5:1 / WLL 5:1 / Tragfähigkeit 5:1 / CMU 5:1<sup>7</sup>

CMU 4:1 / WLL 4:1 / Tragfähigkeit 4:1 / CMU 4:1<sup>7</sup>

Contrôle anti-fissures / Anti-cracking test /  
 Rissprüfung / Control anti-crack<sup>8</sup> 100 %

Force d'épreuve / Proof force /  
 Prüfkraft / Test de prueba de carga<sup>9</sup> CMU / WLL x 2,5

Type d'acier / Steelgrade / Stahlsorte / Tipo de acero<sup>10</sup> Alu/Alloy/Legierung/Legisto/Aleación<sup>11</sup>

Conforme à / In compliance with / Entspricht / Conforme a<sup>12</sup> 2006/42/CE - 2006/42/EG - 2006/42/EG  
 ASME B30.26  
 EN 12034 - 3.1. Certificate

Testé selon / Tested according to /  
 Geprüft nach / Comprobado según<sup>13</sup> EN 1577-1

Les produits hors catalogues sont certifiés pour une utilisation jusqu'à 10 000 cycles / Uncatalogued products are certified for a use up to 10 000 cycles /  
 Vollkatalogprodukten, die nicht im Katalog publiziert werden, sind bis zu 10 000 Zyklen zertifiziert / Productos descatalogados están certificados para un uso hasta  
 10 000 ciclos.<sup>14</sup>

Les anneaux doivent être utilisés conformément à toutes les recommandations décrites dans la notice d'instruction et notre documentation technique.  
 The anchorage must be used in accordance with our recommendations explained in the use recommendations and in technical literature / Die  
 Ringachrauben müssen nach den Empfehlungen verwendet werden, die in der Betriebsanleitung und des technischen Dokumenten aufgeführt sind /  
 Los cáncamos deben ser utilizados conforme a todas las recomendaciones descritas en nuestro catálogo técnico y en el manual de instrucciones.<sup>15</sup>

La machine répond à l'ensemble des dispositions pertinentes de la directive 2006/42/CE. The machinery fulfills all the relevant provisions of the  
 Directive 2006/42/EC / Die Maschine erfüllt alle einschlägigen Bestimmungen der Richtlinie 2006/42/EG / La máquina cumple todas las disposiciones  
 pertinentes de la Directiva 2006/42/CE.<sup>16</sup>

   **Christophe LOSANGE, Manager**  
 Responsable national / Verantwortliche Person/Authorized person in charge/  
 Responsable autorizada<sup>17</sup>

Wiltz.

**CODIPRO** [www.codipro.net](http://www.codipro.net) - [info@codipro.net](mailto:info@codipro.net)  
 25, Salzbaach - L-9559 WILTZ - Tel.: +352 26 81 54 1 - Fax: +352 81 05 17

**USE  
RECOMMENDATIONS**

**NOTICES D'INSTRUCTIONS  
GEBRAUCHSANLEITUNG  
MANUAL DE INSTRUCCIONES**



**USE RECOMMENDATIONS  
IS AVAILABLE FOR:**

- Swivel lifting rings
- Fall protection anchorage points: PE.SEB / SS.PE.SEB
- Weld-on swivel lifting rings: WE.DSR / WE.DSS
- Lifting system for moulds up to 80 tons: SLM

**UNE NOTICE D'INSTRUCTIONS  
EST DISPONIBLE POUR :**

- Les anneaux de levage
- Les anneaux antichute pour la sécurité des personnes : PE.SEB / SS.PE.SEB
- Les anneaux articulés à souder : WE.DSR / WE.DSS
- Le système de levage pour moules jusqu'à 80 t : SLM

**EINE GEBRAUCHSANLEITUNG  
IST VERFÜGBAR FÜR:**

- Anschlagwirbel
- Anschlagpunkte zur Personensicherung: PE.SEB / SS.PE.SEB
- Anschweißbare Wirbelringe: WE.DSR / WE.DSS
- Sonderhebevorrichtung zum Heben von Werkzeugen bis zu 80t: SLM

**EXISTE UN MANUAL DE INS-  
TRUCCIONES PARA:**

- Los cáncamos giratorios articulados
- Los cáncamos giratorios anticaídas para la seguridad de las personas : PE.SEB / SS.PE.SEB
- Los cáncamos giratorios soldables : WE.DSR / WE.DSS
- El sistema de elevación para moldes hasta 80 toneladas : SLM



# REVISION PROCEDURE

# PROCÉDURE DE REMISE EN ÉTAT VERFAHREN ZUR INSTANDSETZUNG PROCEDIMIENTO PARA LA REVISIÓN

## CODIPRO ANALYZES YOUR SWIVEL LIFTING RINGS FOR FREE

CASE	CODIPRO'S ACTION
The ring does meet safety standards	CODIPRO draws up a certificate of control.
The ring does NOT meet safety standards but can be repaired	CODIPRO automatically proceeds to the reconditioning of the ring as soon as it has been checked, according to the price list for bringing into conformity.
The ring does NOT meet safety standards being irreparable or too old	CODIPRO draws up a certificate of control and the ring is classified out of service with an identification tag

## CODIPRO PROCÈDE À L'ANALYSE GRATUITE DE VOS ANNEAUX DE LEVAGE

POSSIBILITÉ	RÉACTION DE CODIPRO
L'anneau est conforme	CODIPRO établit un certificat de contrôle.
L'anneau n'est pas conforme mais réparable	CODIPRO procède automatiquement à la remise en état de l'anneau dès son contrôle suivant le tarif de remise en conformité.
L'anneau n'est pas réparable ou trop ancien	CODIPRO établit un certificat de contrôle et l'anneau est identifié hors service au moyen d'une plaque d'identification.



## CODIPRO FÜHRT DIE PRÜFUNG IHRER RINGSCHRAUBEN KOSTENLOS DURCH

SZENARIO	REAKTION VON CODIPRO
Die Ringschraube ist konform	CODIPRO erstellt ein Kontrollzertifikat.
Die Ringschraube ist nicht konform, aber reparierbar	CODIPRO nimmt bei der Kontrolle automatisch die Instandsetzung der Ringschraube nach dem dafür geltenden Tarif vor.
Die Ringschraube ist nicht reparierbar oder zu alt	CODIPRO erstellt ein Kontrollzertifikat. Die Ringschraube wird mit einem Kennzeichnungsanhänger als „nicht konform“ eingestuft.

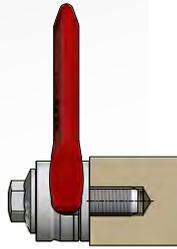
## CODIPRO REvisa LOS CÁNCAMOS DE ELEVACIÓN SIN GASTOS ADICIONALES

CASO	ACCIÓN DE CODIPRO
El cáncamo sigue conforme	CODIPRO expide un certificado de control.
El cáncamo ya no está conforme pero reparable	Tras el control, CODIPRO procede automáticamente a la reparación del cáncamo con arreglo a la tarifa de reparación correspondiente.
El cáncamo no es conforme, demasiado viejo o irreparable	CODIPRO expide un certificado de control. El cáncamo se marca como "Fuera de servicio" por medio de una placa de identificación

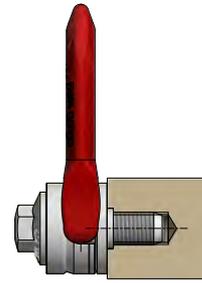
More information on request  
Plus d'informations sur demande  
Weitere Informationen auf Anfrage  
Más información bajo solicitud

## FIXATION TYPES

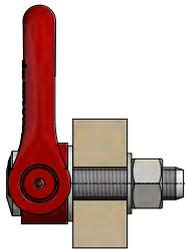
## TYPES DE FIXATION BEFESTIGUNGSBEISPIELE TIPOS DE FIJACIÓN



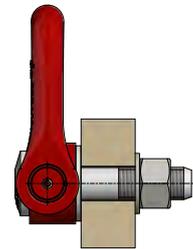
- Threaded swivel lifting ring
- Anneau mâle à visser
- Anschlagwirbel
- Cáncamo roscado macho



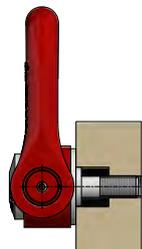
- Threaded swivel lifting ring with centring
- Anneau mâle à visser avec centrage
- Anschlagwirbel mit Zentrierung
- Cáncamo roscado con centraje



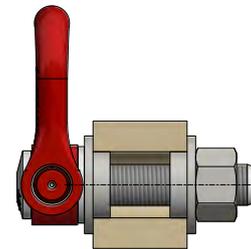
- Unthreaded hole with nut and washer
- Perçage lisse avec écrou et rondelle
- Glatte Bohrung mit Mutter und Scheibe
- Hueco liso con tuerca y arandela



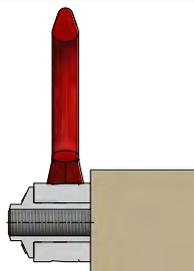
- Partially threaded hole with nut and washer
- Perçage partiellement fileté avec écrou et rondelle
- Bohrung mit Teilgewinde sowie Mutter und Scheibe
- Hueco en parte roscado con tuerca y arandela



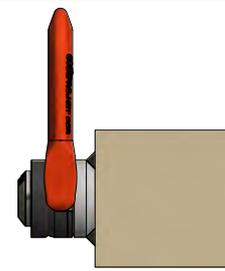
- Partially threaded hole
- Trou lisse partiellement taraudé
- Bohrung mit Teilgewinde
- Hueco liso, parcialmente roscado



- Swivel lifting ring with double centring
- Anneau avec double centrage
- Anschlagwirbel mit beidseitigen Zentrierscheiben
- Cáncamo articulado con doble centraje



- Female swivel lifting ring
- Anneau femelle à visser
- Anschlagwirbel mit Innengewinde
- Cáncamo articulado hembra



- Weld-on swivel lifting ring
- Anneau à souder
- Anschweißwirbel
- Cáncamo soldable

# LOAD ANGLE CHART / TABLEAU DES ANGLES DE LEVAGE / HEBEWINKELTABELLE / TABLA DE LOS ANGULOS DE ELEVACIÓN

- DSR / FE.DSR / OS.DSR
- QL.DSR / SS.QL.DSR
- DSS / FE.DSS / OS.DSS
- MEGA.DSS / GIGA.DSS
- SEB / FE.SEB
- SS.DSR / SS.FE.DSR
- SS.DSS / SS.FE.DSS
- SS.SEB
- DSP
- DSH
- TSR
- DSS 8UN
- DSR+SPACER
- WE.DSR / WE.DSS

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# DSR / FE.DSR / OS.DSR



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

METRIC THREADS		Torque (Nm)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
DSR M 5 UP	3	0,30	0,60	0,10	0,20	0,14	0,10	0,10	0,21	0,15	0,10	
DSR M 6 UP	4	0,40	0,80	0,20	0,40	0,28	0,20	0,20	0,42	0,30	0,20	
DSR / FE.DSR M 8 UP	6	1,00	2,00	0,50	1,00	0,70	0,50	0,50	1,05	0,75	0,50	
DSR / FE.DSR / OS.DSR M 10 UP	10	1,50	3,00	0,90	1,80	1,26	0,90	0,90	1,89	1,35	0,90	
DSR / FE.DSR / OS.DSR M 12 UP	15	1,50	3,00	1,30	2,60	1,82	1,30	1,30	2,73	1,95	1,30	
DSR / FE.DSR M 14 UP	30	2,60	5,20	1,80	3,60	2,52	1,80	1,80	3,78	2,70	1,80	
DSR / FE.DSR / OS.DSR M 16 UP	50	2,80	5,60	2,30	4,60	3,22	2,30	2,30	4,83	3,45	2,30	
DSR / FE.DSR M 18 UP	70	2,50	5,00	2,30	4,60	3,22	2,30	2,30	4,83	3,45	2,30	
DSR / FE.DSR M 20 UP 2t5	100	2,80	5,60	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50	
DSR / OS.DSR M 20 3t2 UP	100	3,20	6,40	3,20	6,40	4,48	3,20	3,20	6,72	4,80	3,20	
DSR / FE.DSR M 22 UP	120	6,00	12,00	4,50	9,00	6,30	4,50	4,50	9,45	6,75	4,50	
DSR / OS.DSR M 24 UP	160	6,50	13,00	5,50	11,00	7,70	5,50	5,50	11,55	8,25	5,50	
DSR M 27 UP	200	6,50	13,00	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	
DSR / OS.DSR M 30 6t3 UP	250	6,50	13,00	6,30	12,60	8,82	6,30	6,30	13,23	9,45	6,30	
DSR M 30 8t UP	250	9,00	18,00	8,00	16,00	11,20	8,00	8,00	16,80	12,00	8,00	
DSR M 36 UP	320	10,00	20,00	8,50	17,00	11,90	8,50	8,50	17,85	12,75	8,50	
DSR M 42 UP	400	10,00	20,00	9,00	18,00	12,60	9,00	9,00	18,90	13,50	9,00	

max. load in t

4:1

UNC THREADS		Torque (ft-lb)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	2	Asymmetric	3 > 4	3 > 4	Asymmetric
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
DSR / FE.DSR U 025 UP	3	900	1,800	450	900	630	450	450	945	675	450	
DSR / FE.DSR U 516 UP	5	2,200	4,400	1,200	2,400	1,680	1,200	1,200	2,520	1,800	1,200	
DSR / FE.DSR / OS.DSR U 038 UP	8	3,200	6,400	1,600	3,200	2,240	1,600	1,600	3,360	2,400	1,600	
DSR / FE.DSR / OS.DSR U 050 UP	12	3,400	6,800	2,800	5,600	3,920	2,800	2,800	5,880	4,200	2,800	
DSR / FE.DSR / OS.DSR U 058 UP	40	5,900 / 6,200	11,800 / 12,400	4,900	9,800	6,860	4,900	4,900	10,290	7,350	4,900	
DSR / FE.DSR / OS.DSR U 075 UP	80	6,200	12,400	5,250	10,500	7,350	5,250	5,250	11,025	7,875	5,250	
DSR / FE.DSR U 078 UP	90	13,500	27,000	9,800	19,600	13,720	9,800	9,800	20,580	14,700	9,800	
DSR / OS.DSR U 100 UP	125	13,500	27,000	12,500	25,000	17,500	12,500	12,500	26,250	18,750	12,500	
DSR U 118 UP	160	13,500	27,000	13,000	26,000	18,200	13,000	13,000	27,300	19,500	13,000	
DSR / OS.DSR U 125 UP	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	20,250	13,500	

max. load in lbs

# DSR / FE.DSR / OS.DSR



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	Asymmetric		3 → 4		
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	Asymmetric
DSR M 5 UP	3	0,20	0,40	0,07	0,14	0,10	0,07	0,07	0,15	0,11	0,07	
DSR M 6 UP	4	0,30	0,60	0,15	0,30	0,21	0,15	0,15	0,32	0,23	0,15	
DSR / FE.DSR M 8 UP	6	0,80	1,60	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40	
DSR / FE.DSR / OS.DSR M 10 UP	10	1,30	2,60	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70	
DSR / FE.DSR / OS.DSR M 12 UP	15	1,50	3,00	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05	
DSR / FE.DSR M 14 UP	30	2,50	5,00	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40	
DSR / FE.DSR / OS.DSR M 16 UP	50	2,70	5,40	2,00	4,00	2,80	2,00	2,00	4,20	3,00	2,00	
DSR / FE.DSR M 18 UP	70	2,50	5,00	2,30	4,60	3,22	2,30	2,30	4,83	3,45	2,30	
DSR / FE.DSR M 20 2t5 UP	100	2,80	5,60	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50	
DSR / OS.DSR M 20 3t2 UP	100	3,20	6,40	2,90	5,80	4,06	2,90	2,90	6,09	4,35	2,90	
DSR / FE.DSR M 22 UP	120	5,50	11,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	
DSR / OS.DSR M 24 UP	160	6,00	12,00	4,40	8,80	6,16	4,40	4,40	9,24	6,60	4,40	
DSR M 27 UP	200	6,00	12,00	5,70	11,40	7,98	5,70	5,70	11,97	8,55	5,70	
DSR / OS.DSR M 30 6t3 UP	250	6,30	12,60	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	
DSR M 30 8t UP	250	9,00	18,00	6,70	13,40	9,38	6,70	6,70	14,07	10,05	6,70	
DSR M 36 UP	320	9,00	18,00	8,00	16,00	11,20	8,00	8,00	16,80	12,00	8,00	
DSR M 42 UP	400	9,50	19,00	8,50	17,00	11,90	8,50	8,50	17,85	12,75	8,50	

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	Asymmetric		3 → 4		
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	Asymmetric
DSR / FE.DSR U 025 UP	3	650	1,300	330	660	462	330	330	693	495	330	
DSR / FE.DSR U 516 UP	5	1,800	3,600	1,000	2,000	1,400	1,000	1,000	2,100	1,500	1,000	
DSR / FE.DSR / OS.DSR U 038 UP	8	2,500	5,000	1,300	2,600	1,820	1,300	1,300	2,730	1,950	1,300	
DSR / FE.DSR / OS.DSR U 050 UP	12	3,000	6,000	2,400	4,800	3,360	2,400	2,400	5,040	3,600	2,400	
DSR / FE.DSR / OS.DSR U 058 UP	40	5,900	11,800	3,900	7,800	5,460	3,900	3,900	8,190	5,850	3,900	
DSR / FE.DSR / OS.DSR U 075 UP	80	5,900	11,800	5,250	10,500	7,350	5,250	5,250	11,025	7,875	5,250	
DSR / FE.DSR U 078 UP	90	13,500	27,000	7,900	15,800	11,060	7,900	7,900	16,590	11,850	7,900	
DSR / OS.DSR U 100 UP	125	13,500	27,000	11,200	22,400	15,680	11,200	11,200	23,520	16,800	11,200	
DSR U 118 UP	160	13,500	27,000	11,500	23,000	16,100	11,500	11,500	24,150	17,250	11,500	
DSR / OS.DSR U 125 UP	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	20,250	13,500	

max. load in lbs

# QL.DSR / SS.QL.DSR



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°

L : Load

5:1

METRIC THREADS		Torque (Nm)											
Number of rings	Lifting angle $\beta$		1	2	1	2	2		Asymmetric	3 → 4			
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	Asymmetric	
QL.DSR / SS.QL.DSR M 8		20	0,25	0,50	0,25	0,50	0,35	0,25	0,25	0,53	0,38	0,25	
QL.DSR / SS.QL.DSR M 10		30	0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40	
QL.DSR / SS.QL.DSR M 12		60	0,65	1,30	0,65	1,30	0,91	0,65	0,65	1,37	0,98	0,65	
QL.DSR / SS.QL.DSR M 14		80	0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70	
QL.DSR / SS.QL.DSR M 16		100	1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05	
QL.DSR / SS.QL.DSR M 20		160	1,70	3,40	1,70	3,40	2,38	1,70	1,70	3,57	2,55	1,70	
QL.DSR / SS.QL.DSR M 24		180	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50	
QL.DSR M 30		200	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	
SS.QL.DSR M 30		200	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	

max. load in t

4:1

5:1

UNC THREADS		Torque (ft-lb)											
Number of rings	Lifting angle $\beta$		1	2	1	2	2		Asymmetric	3 → 4			
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	Asymmetric	
QL.DSR / SS.QL.DSR U 050		45	1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,950	1,300	

max. load in lbs



# DSS / FE.DSS / OS.DSS



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

METRIC THREADS	Torque (Nm)																						
		Number of rings	1	2	1	2	2		Asymmetric	3 → 4		3 → 4		Asymmetric									
		Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric											
		Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric											
DSS / FE.DSS / OS.DSS M 24 UP	160	9,00	18,00	5,50	11,00	7,70	5,50	5,50	11,55	8,25	5,50												
FE.DSS M 27 UP	200	10,00	20,00	6,50	13,00	9,10	6,50	6,50	13,65	9,75	6,50												
DSS / FE.DSS / OS.DSS M 30 UP	250	14,00 / 12,00	28,00 / 24,00	8,50	17,00	11,90	8,50	8,50	17,85	12,75	8,50												
DSS / FE.DSS M 33 UP	250	14,50	29,00	10,50	21,00	14,70	10,50	10,50	22,05	15,75	10,50												
DSS / FE.DSS / OS.DSS M 36 UP	320	15,00	30,00	12,00	24,00	16,80	12,00	12,00	25,20	18,00	12,00												
DSS M 36X3 UP	320	15,00	30,00	12,00	24,00	16,80	12,00	12,00	25,20	18,00	12,00												
DSS / FE.DSS M 39 UP	320	17,00	34,00	14,00	28,00	19,60	14,00	14,00	29,40	21,00	14,00												
DSS / FE.DSS / OS.DSS M 42 UP	400	15,50 / 19,00	31,00 / 38,00	15,00	30,00	21,00	15,00	15,00	31,50	22,50	15,00												
DSS M 42x3 UP	400	15,50	31,00	15,00	30,00	21,00	15,00	15,00	31,50	22,50	15,00												
DSS / FE.DSS M 45 UP	400	15,00	30,00	16,00	32,00	22,40	16,00	16,00	33,60	24,00	16,00												
DSS / FE.DSS M 48 UP	600	22,00	44,00	20,00	40,00	28,00	20,00	20,00	42,00	30,00	20,00												
DSS M 48x3 UP	600	22,00	44,00	20,00	40,00	28,00	20,00	20,00	42,00	30,00	20,00												
DSS M 48x4 UP	600	22,00	44,00	20,00	40,00	28,00	20,00	20,00	42,00	30,00	20,00												
DSS / FE.DSS M 52 UP	600	23,00	46,00	21,00	42,00	29,40	21,00	21,00	44,10	31,50	21,00												
DSS M 56 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00												
DSS M 56x4 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00												
DSS M 64 UP	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	48,15	32,10												
DSS M 64x4 UP	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	48,15	32,10												
DSS M 72 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00												
DSS M 72x4 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00												
DSS M 80 UP	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	48,15	32,10												
DSS M 90 UP	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	48,15	32,10												
DSS M 100 UP	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	48,15	32,10												

max. load in t

4:1

UNC THREADS	Torque (ft-lb)																						
		Number of rings	1	2	1	2	2		Asymmetric	3 → 4		3 → 4		Asymmetric									
		Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric											
		Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric											
DSS / FE.DSS / OS.DSS U 100 UP	125	19,000	38,000	13,000	26,000	18,200	13,000	13,000	27,300	19,500	13,000												
DSS / FE.DSS / OS.DSS U 125 UP	200	30,000	60,000	19,000	38,000	26,600	19,000	19,000	39,900	28,500	19,000												
DSS / FE.DSS U 138 UP	240	32,000	64,000	22,000	44,000	30,800	22,000	22,000	46,200	33,000	22,000												
DSS / FE.DSS / OS.DSS U 150 UP	240	33,000	66,000	27,000	54,000	37,800	27,000	27,000	56,700	40,500	27,000												
DSS / OS.DSS U 175 UP	300	33,000	66,000	33,000	66,000	46,200	33,000	33,000	69,300	49,500	33,000												
DSS / FE.DSS U 200 UP	450	50,000	100,000	50,000	100,000	70,000	50,000	50,000	105,000	75,000	50,000												
DSS U 250 UP	450	55,000	110,000	55,000	110,000	77,000	55,000	55,000	115,500	82,500	55,000												

max. load in lbs

# DSS / FE.DSS / OS.DSS



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
DSS / FE.DSS / OS.DSS M 24 UP	160	9,00	18,00	4,50	9,00	6,30	4,50	4,50	9,45	6,75	4,50	
FE.DSS M 27 UP	200	10,00	20,00	5,20	10,40	7,28	5,20	5,20	10,92	7,80	5,20	
DSS / FE.DSS / OS.DSS M 30 UP	250	14,00 / 12,00	28,00 / 24,00	7,70 / 7,50	15,40 / 15,00	10,78 / 10,50	7,70 / 7,50	7,70 / 7,50	16,17 / 15,75	11,55 / 11,25	7,70 / 7,50	
DSS / FE.DSS M 33 UP	250	14,50	29,00	8,50 / 8,00	17,00 / 16,00	11,90 / 11,20	8,50 / 8,00	8,50 / 8,00	17,85 / 16,80	12,75 / 12,00	8,50 / 8,00	
DSS / FE.DSS / OS.DSS M 36 UP	320	15,00	30,00	11,00 / 10,00	22,00 / 20,00	15,40 / 14,00	11,00 / 10,00	11,00 / 10,00	23,10 / 21,00	16,50 / 15,00	11,00 / 10,00	
DSS M 36X3 UP	320	15,00	30,00	11,00	22,00	15,40	11,00	11,00	23,10	16,50	11,00	
DSS / FE.DSS M 39 UP	320	15,00	30,00	12,00	24,00	16,80	12,00	12,00	25,20	18,00	12,00	
DSS / FE.DSS / OS.DSS M 42 UP	400	15,00	30,00	13,00	26,00	18,20	13,00	13,00	27,30	19,50	13,00	
DSS M 42x3 UP	400	15,00	30,00	13,00	26,00	18,20	13,00	13,00	27,30	19,50	13,00	
DSS / FE.DSS M 45 UP	400	15,00	30,00	14,50	29,00	20,30	14,50	14,50	30,45	21,75	14,50	
DSS / FE.DSS M 48 UP	600	22,00	44,00	17,00	34,00	23,80	17,00	17,00	35,70	25,50	17,00	
DSS M 48x3 UP	600	22,00	44,00	17,00	34,00	23,80	17,00	17,00	35,70	25,50	17,00	
DSS M 48x4 UP	600	22,00	44,00	17,00	34,00	23,80	17,00	17,00	35,70	25,50	17,00	
DSS / FE.DSS M 52 UP	600	23,00	46,00	19,00	38,00	26,60	19,00	19,00	39,90	28,50	19,00	
DSS M 56 UP	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	33,00	22,00	
DSS M 56x4 UP	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	33,00	22,00	
DSS M 64 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00	
DSS M 64x4 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00	
DSS M 72 UP	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	33,00	22,00	
DSS M 72x4 UP	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	33,00	22,00	
DSS M 80 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00	
DSS M 90 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00	
DSS M 100 UP	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	37,50	25,00	

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
DSS / FE.DSS / OS.DSS U 100 UP	125	19,000	38,000	10,000	20,000	14,000	10,000	10,000	21,000	15,000	10,000	
DSS / FE.DSS / OS.DSS U 125 UP	200	30,000	60,000	15,000	30,000	21,000	15,000	15,000	31,500	22,500	15,000	
DSS / FE.DSS U 138 UP	240	31,000	62,000	21,000	42,000	29,400	21,000	21,000	44,100	31,500	21,000	
DSS / FE.DSS / OS.DSS U 150 UP	240	31,000	62,000	22,000	44,000	30,800	22,000	22,000	46,200	33,000	22,000	
DSS / OS.DSS U 175 UP	300	33,000	66,000	27,000	54,000	37,800	27,000	27,000	56,700	40,500	27,000	
DSS / FE.DSS U 200 UP	450	50,000	100,000	38,000	76,000	53,200	38,000	38,000	79,800	57,000	38,000	
DSS U 250 UP	450	55,000	110,000	48,500	97,000	67,900	48,500	48,500	101,850	72,750	48,500	

max. load in lbs

# MEGA.DSS+



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

### METRIC THREADS

max. load in t

	Torque (Nm)										
		Number of rings	1	2	1	2	2		3 → 4		
		Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°
>Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
MEGA.DSS+ M 64 UP	600	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	52,50	35,00
MEGA.DSS+ M 72 UP	700	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	60,00	40,00
MEGA.DSS+ M 72x4 UP	700	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	60,00	40,00
MEGA.DSS+ M 80 UP	800	50,00	100,00	50,00	100,00	70,00	50,00	50,00	105,00	75,00	50,00
MEGA.DSS+ M 90 UP	900	60,00	120,00	60,00	120,00	84,00	60,00	60,00	126,00	90,00	60,00
MEGA.DSS+ M 100 UP	1000	70,00	140,00	70,00	140,00	98,00	70,00	70,00	147,00	105,00	70,00

4:1

### UNC THREADS

max. load in lbs

	Torque (ft-lb)										
		Number of rings	1	2	1	2	2		3 → 4		
		Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°
>Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
MEGA.DSS+ U 275 UP	520	77,000	154,000	77,000	154,000	107,800	77,000	77,000	161,700	115,500	77,000
MEGA.DSS+ U 300 UP	520	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	132,000	88,000
MEGA.DSS+ U 325 UP	590	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	165,000	110,000
MEGA.DSS+ U 350 UP	665	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	165,000	110,000
MEGA.DSS+ U 375 UP	740	132,000	264,000	132,000	264,000	184,800	132,000	132,000	277,200	198,000	132,000
MEGA.DSS+ U 400 UP	740	154,000	308,000	154,000	308,000	215,600	154,000	154,000	323,400	231,000	154,000

# MEGA.DSS+ / GIGA.DSS



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°

L : Load

5:1

### METRIC THREADS

max. load in t	Torque (Nm)										
	Number of rings	1	2	1	2	2		3 → 4			
	Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
	Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°				
MEGA.DSS+ M 64 UP	600	30,00	60,00	30,00	60,00	42,00	30,00	30,00	63,00	45,00	30,00
MEGA.DSS+ M 72 UP	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	52,50	35,00
MEGA.DSS+ M 72x4 UP	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	52,50	35,00
MEGA.DSS+ M 80 UP	800	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	60,00	40,00
MEGA.DSS+ M 90 UP	900	50,00	100,00	50,00	100,00	70,00	50,00	50,00	105,00	75,00	50,00
MEGA.DSS+ M 100 UP	1000	60,00	120,00	60,00	120,00	84,00	60,00	60,00	126,00	90,00	60,00
GIGA.DSS M 150 UP	2000	125,00	250,00	125,00	250,00	175,00	125,00	125,00	262,50	187,50	125,00
GIGA.DSS+Q M 150 UP	160	125,00	250,00	125,00	250,00	175,00	125,00	125,00	262,50	187,50	125,00

5:1

### UNC THREADS

max. load in lbs	Torque (ft-lb)										
	Number of rings	1	2	1	2	2		3 → 4			
	Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
	Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°				
MEGA.DSS+ U 275 UP	520	66,000	132,000	66,000	132,000	92,400	66,000	66,000	138,600	99,000	66,000
MEGA.DSS+ U 300 UP	520	77,000	154,000	77,000	154,000	107,800	77,000	77,000	161,700	115,500	77,000
MEGA.DSS+ U 325 UP	590	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	132,000	88,000
MEGA.DSS+ U 350 UP	665	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	132,000	88,000
MEGA.DSS+ U 375 UP	740	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	165,000	110,000
MEGA.DSS+ U 400 UP	740	132,000	264,000	132,000	264,000	184,800	132,000	132,000	277,200	198,000	132,000

# SEB / FE.SE.B



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2		Asymmetric	3 → 4		
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SEB M 8 UP / FE.SE.B M 8 UP	6		0,80	1,60	0,50	1,00	0,70	0,50	0,50	1,05	0,75	0,50
SEB M 10 UP / FE.SE.B M 10 UP	10		1,60	3,20	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70
SEB M 12 UP / FE.SE.B M 12 UP	15		1,90	3,80	0,90	1,80	1,26	0,90	0,90	1,89	1,35	0,90
SEB M 16 UP / FE.SE.B M 16 UP	50		3,20	6,40	1,80	3,60	2,52	1,80	1,80	3,78	2,70	1,80
SEB M 20 UP / FE.SE.B M 20 UP	100		6,50	13,00	2,70	5,40	3,78	2,70	2,70	5,67	4,05	2,70
SEB M 24 3t8 UP	160		8,00	16,00	3,80	7,60	5,32	3,80	3,80	7,98	5,70	3,80
SEB M 24 4t2 UP / FE.SE.B M 24 UP	160		7,00	14,00	4,20	8,40	5,88	4,20	4,20	8,82	6,30	4,20
SEB M 30 UP / FE.SE.B M 30 UP	250		10,00	20,00	6,30	12,60	8,82	6,30	6,30	13,23	9,45	6,30
SEB M 36 UP / FE.SE.B M 36 UP	320		12,00	24,00	11,00	22,00	15,40	11,00	11,00	23,10	16,50	11,00
SEB M 42 UP	400		15,00	30,00	15,00	30,00	21,00	15,00	15,00	31,50	22,50	15,00
SEB M 48 UP	600		18,00	36,00	16,00	32,00	22,40	16,00	16,00	33,60	24,00	16,00

max. load in t

4:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2		Asymmetric	3 → 4		
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SEB U 038 UP / FE.SE.B U 038 UP	8		3,500	7,000	1,500	3,000	2,100	1,500	1,500	3,150	2,250	1,500
SEB U 050 UP / FE.SE.B U 050 UP	12		4,200	8,400	1,950	3,900	2,730	1,950	1,950	4,095	2,925	1,950
SEB U 058 UP / FE.SE.B U 058 UP	40		7,000	14,000	4,000	8,000	5,600	4,000	4,000	8,400	6,000	4,000
SEB U 075 UP / FE.SE.B U 075 UP	80		15,000	30,000	5,900	11,800	8,260	5,900	5,900	12,390	8,850	5,900
SEB U 100 UP / FE.SE.B U 100 UP	125		15,000	30,000	9,300	18,600	13,020	9,300	9,300	19,530	13,950	9,300
SEB U 125 UP / FE.SE.B U 125 UP	200		22,000	44,000	13,800	27,600	19,320	13,800	13,800	28,980	20,700	13,800
SEB U 150 UP	240		25,000	50,000	25,000	50,000	35,000	25,000	25,000	52,500	37,500	25,000
SEB U 200 UP	450		39,600	79,200	35,200	70,400	49,280	35,200	35,200	73,920	52,800	35,200

max. load in lbs

# SEB / FE.SE.B



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric
			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SEB M 8 UP / FE.SE.B M 8 UP	6	0,70	1,40	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40	
SEB M 10 UP / FE.SE.B M 10 UP	10	1,20	2,40	0,50	1,00	0,70	0,50	0,50	1,05	0,75	0,50	
SEB M 12 UP / FE.SE.B M 12 UP	15	1,70	3,40	0,80	1,60	1,12	0,80	0,80	1,68	1,20	0,80	
SEB M 16 UP / FE.SE.B M 16 UP	50	3,20	6,40	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40	
SEB M 20 UP / FE.SE.B M 20 UP	100	5,00	10,00	2,00	4,00	2,80	2,00	2,00	4,20	3,00	2,00	
SEB M 24 3t8 UP	160	6,30	12,60	3,20	6,40	4,48	3,20	3,20	6,72	4,80	3,20	
SEB M 24 4t2 UP / FE.SE.B M 24 UP	160	7,00	14,00	3,40	6,80	4,76	3,40	3,40	7,14	5,10	3,40	
SEB M 30 UP / FE.SE.B M 30 UP	250	8,50	17,00	5,50	11,00	7,70	5,50	5,50	11,55	8,25	5,50	
SEB M 36 UP / FE.SE.B M 36 UP	320	12,00	24,00	9,00	18,00	12,60	9,00	9,00	18,90	13,50	9,00	
SEB M 42 UP	400	12,00	24,00	12,00	24,00	16,80	12,00	12,00	25,20	18,00	12,00	
SEB M 48 UP	600	15,00	30,00	15,00	30,00	21,00	15,00	15,00	31,50	22,50	15,00	

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric
			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SEB U 038 UP / FE.SE.B U 038 UP	8	2,800	5,600	1,200	2,400	1,680	1,200	1,200	2,520	1,800	1,200	
SEB U 050 UP / FE.SE.B U 050 UP	12	3,800	7,600	1,800	3,600	2,520	1,800	1,800	3,780	2,700	1,800	
SEB U 058 UP / FE.SE.B U 058 UP	40	7,000	14,000	3,200	6,400	4,480	3,200	3,200	6,720	4,800	3,200	
SEB U 075 UP / FE.SE.B U 075 UP	80	12,000	24,000	4,750	9,500	6,650	4,750	4,750	9,975	7,125	4,750	
SEB U 100 UP / FE.SE.B U 100 UP	125	15,000	30,000	7,500	15,000	10,500	7,500	7,500	15,750	11,250	7,500	
SEB U 125 UP / FE.SE.B U 125 UP	200	19,000	38,000	12,200	24,400	17,080	12,200	12,200	25,620	18,300	12,200	
SEB U 150 UP	240	25,000	50,000	20,000	40,000	28,000	20,000	20,000	42,000	30,000	20,000	
SEB U 200 UP	450	39,600	79,200	33,000	66,000	46,200	33,000	33,000	72,600	49,500	33,000	

max. load in lbs

# SS.DSR / SS.FE.DSR



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

METRIC THREADS		Torque (Nm)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	Asymmetric	3 → 4	Asymmetric	Asymmetric	
			0°	0°	0°	0°	0° → 45°	45° → 60°	0° → 45°	45° → 60°	Asymmetric	
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°	0° → 45°	45° → 60°	Asymmetric	
SS.DSR M 6	4		0,25	0,50	0,15	0,30	0,21	0,15	0,15	0,31	0,23	0,15
SS.DSR M 8 / SS.FE.DSR M 8	6		0,50	1,00	0,30	0,60	0,42	0,30	0,30	0,63	0,45	0,30
SS.DSR M 10 / SS.FE.DSR M 10	10		0,90	1,80	0,50	1,00	0,70	0,50	0,50	1,05	0,75	0,50
SS.DSR M 12 / SS.FE.DSR M 12	15		1,00	2,00	0,80	1,60	1,12	0,80	0,80	1,68	1,20	0,80
SS.DSR M 14 / SS.FE.DSR M 14	30		1,60	3,20	1,00	2,00	1,40	1,00	1,00	2,10	1,50	1,00
SS.DSR M 16 / SS.FE.DSR M 16	50		1,90	3,80	1,50	3,00	2,10	1,50	1,50	3,15	2,25	1,50
SS.DSR M 18 / SS.FE.DSR M 18	70		1,90	3,80	1,50	3,00	2,10	1,50	1,50	3,15	2,25	1,50
SS.DSR M 20 / SS.FE.DSR M 20	100		1,90	3,80	1,60	3,20	2,24	1,60	1,60	3,36	2,40	1,60
SS.DSR M 22 / SS.FE.DSR M 22	120		3,50	7,00	2,20	4,40	3,08	2,20	2,20	4,62	3,30	2,20
SS.DSR M 24	160		3,50	7,00	2,70	5,40	3,78	2,70	2,70	5,67	4,05	2,70
SS.DSR M 27	200		3,60	7,20	2,90	5,80	4,06	2,90	2,90	6,09	4,35	2,90
SS.DSR M 30	250		3,70	7,40	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50

max. load in t

4:1

UNC THREADS		Torque (ft-lb)										
Number of rings	Lifting angle $\beta$		1	2	1	2	2	Asymmetric	3 → 4	Asymmetric	Asymmetric	
			0°	0°	0°	0°	0° → 45°	45° → 60°	0° → 45°	45° → 60°	Asymmetric	
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°	0° → 45°	45° → 60°	Asymmetric	
SS.DSR U 025	3		850	1,700	500	1,000	700	500	500	1,050	750	500
SS.DSR U 516 / SS.FE.DSR U 516	5		1,100	2,200	650	1,300	910	650	650	1,365	975	650
SS.DSR U 038 / SS.FE.DSR U 038	8		1,800	3,600	1,000	2,000	1,400	1,000	1,000	2,100	1,500	1,000
SS.DSR U 050 / SS.FE.DSR U 050	12		2,500	5,000	1,800	3,600	2,520	1,800	1,800	3,780	2,700	1,800
SS.DSR U 058 / SS.FE.DSR U 058	40		4,500 / 4,400	9,000 / 8,800	3,000	6,000	4,200	3,000	3,000	6,300	4,500	3,000
SS.DSR U 075 / SS.FE.DSR U 075	80		4,500	9,000	3,800	7,600	5,320	3,800	3,800	7,980	5,700	3,800
SS.DSR U 078 / SS.FE.DSR U 078	90		8,500	17,000	5,100	10,200	7,140	5,100	5,100	10,710	7,650	5,100
SS.DSR U 100	125		8,500	17,000	6,000	12,000	8,400	6,000	6,000	12,600	9,000	6,000

max. load in lbs

# SS.DSR / SS.FE.DSR



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2		Asymmetric	3 → 4		
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SS.DSR M 6	4		0,20	0,40	0,10	0,20	0,14	0,10	0,10	0,21	0,15	0,10
SS.DSR M 8 / SS.FE.DSR M 8	6		0,40	0,80	0,30	0,60	0,42	0,30	0,30	0,63	0,45	0,30
SS.DSR M 10 / SS.FE.DSR M 10	10		0,70	1,40	0,50	1,00	0,70	0,50	0,50	1,05	0,75	0,50
SS.DSR M 12 / SS.FE.DSR M 12	15		0,90	1,80	0,80	1,60	1,12	0,80	0,80	1,68	1,20	0,80
SS.DSR M 14 / SS.FE.DSR M 14	30		1,20	2,40	1,00	2,00	1,40	1,00	1,00	2,10	1,50	1,00
SS.DSR M 16 / SS.FE.DSR M 16	50		1,50	3,00	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40
SS.DSR M 18 / SS.FE.DSR M 18	70		1,50	3,00	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40
SS.DSR M 20 / SS.FE.DSR M 20	100		1,50	3,00	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40
SS.DSR M 22 / SS.FE.DSR M 22	120		2,80	5,60	2,20	4,40	3,08	2,20	2,20	4,62	3,30	2,20
SS.DSR M 24	160		2,80	5,60	2,70	5,40	3,78	2,70	2,70	5,67	4,05	2,70
SS.DSR M 27	200		2,90	5,80	2,80	5,60	3,92	2,80	2,80	5,88	4,20	2,80
SS.DSR M 30	250		3,00	6,00	3,00	6,00	4,20	3,00	3,00	6,30	4,50	3,00

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2		Asymmetric	3 → 4		
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SS.DSR U 025	3		650	1,300	400	800	560	400	400	840	600	400
SS.DSR U 516 / SS.FE.DSR U 516	5		900	1,800	600	1,200	840	600	600	1,260	900	600
SS.DSR U 038 / SS.FE.DSR U 038	8		1,400	2,800	1,000	2,000	1,400	1,000	1,000	2,100	1,500	1,000
SS.DSR U 050 / SS.FE.DSR U 050	12		2,000	4,000	1,800	3,600	2,520	1,800	1,800	3,780	2,700	1,800
SS.DSR U 058 / SS.FE.DSR U 058	40		3,500	7,000	2,500	5,000	3,500	2,500	2,500	5,250	3,750	2,500
SS.DSR U 075 / SS.FE.DSR U 075	80		3,500	7,000	3,600	7,200	5,040	3,600	3,600	7,560	5,400	3,600
SS.DSR U 078 / SS.FE.DSR U 078	90		7,000	14,000	5,000	10,000	7,000	5,000	5,000	10,500	7,500	5,000
SS.DSR U 100	125		7,000	14,000	6,000	12,000	8,400	6,000	6,000	12,600	9,000	6,000

max. load in lbs

# SS.DSS / SS.FE.DSS



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°

L : Load

4:1

max. load in t	METRIC THREADS											
	Torque (Nm)											
	Number of rings	1	2	1	2	2			3 → 4			
	Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric	
>Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°			
SS.DSS M 24 / SS.FE.DSS M 24	160	2,70	5,40	2,70	5,40	3,78	2,70	2,70	5,67	4,05	2,70	
SS.DSS M 30 / SS.FE.DSS M 30	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	
SS.DSS M 33 / SS.FE.DSS M 33	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	
SS.DSS M 36 / SS.FE.DSS M 36	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
SS.DSS M 36x3	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
SS.DSS M 39	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
SS.DSS M 42	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	
SS.DSS M 42x3	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	
SS.DSS M 45	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	
SS.DSS M 48	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	9,60	6,40	
SS.DSS M 48x3	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	9,60	6,40	
SS.DSS M 48x4	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	9,60	6,40	
SS.DSS M 52	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	9,60	6,40	
SS.DSS M 56	600	8,00	16,00	8,00	16,00	11,20	8,00	8,00	16,80	12,00	8,00	
SS.DSS M 56x4	600	8,00	16,00	8,00	16,00	11,20	8,00	8,00	16,80	12,00	8,00	

4:1

max. load in lbs	UNC THREADS											
	Torque (ft-lb)											
	Number of rings	1	2	1	2	2			3 → 4			
	Lifting angle $\beta$	0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric	
>Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°			
SS.DSS U 100 / SS.FE.DSS U 100	125	6,000	12,000	6,000	12,000	8,400	6,000	6,000	12,600	9,000	6,000	
SS.DSS U 125 / SS.FE.DSS U 125	200	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	11,250	7,500	
SS.DSS U 138 / SS.FE.DSS U 138	240	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	11,250	7,500	
SS.DSS U 150 / SS.FE.DSS U 150	240	11,000	22,000	11,000	22,000	15,400	11,000	11,000	23,100	16,500	11,000	
SS.DSS U 200	450	14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	21,000	14,000	

# SS.DSS / SS.FE.DSS



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SS.DSS M 24 / SS.FE.DSS M 24	160	2,70	5,40	2,70	5,40	3,78	2,70	2,70	5,67	4,05	2,70	
SS.DSS M 30 / SS.FE.DSS M 30	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	
SS.DSS M 33 / SS.FE.DSS M 33	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	5,25	3,50	
SS.DSS M 36 / SS.FE.DSS M 36	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
SS.DSS M 36X3	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
SS.DSS M 39	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
SS.DSS M 42	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	
SS.DSS M 42x3	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	9,00	6,00	

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SS.DSS U 100 / SS.FE.DSS U 100	125	6,000	12,000	6,000	12,000	8,400	6,000	6,000	12,600	9,000	6,000	
SS.DSS U 125 / SS.FE.DSS U 125	200	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	11,250	7,500	
SS.DSS U 138 / SS.FE.DSS U 138	240	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	11,250	7,500	
SS.DSS U 150 / SS.FE.DSS U 150	240	11,000	22,000	11,000	22,000	15,400	11,000	11,000	23,100	16,500	11,000	

max. load in lbs



4:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SS.SE8 M 8	6		0,40	0,80	0,20	0,40	0,28	0,20	0,20	0,42	0,20	0,20
SS.SE8 M 10	10		0,60	1,20	0,30	0,60	0,42	0,30	0,30	0,63	0,30	0,30
SS.SE8 M 12 0,4t	15		0,80	1,60	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40
SS.SE8 M 12	15		0,55	1,10	0,55	1,10	0,77	0,55	0,55	1,15	0,83	0,55
SS.SE8 M 16	50		1,20	2,40	1,20	2,40	1,68	1,20	1,20	2,52	1,80	1,20
SS.SE8 M 20	100		1,50	3,00	1,50	3,00	2,10	1,50	1,50	3,15	2,25	1,50
SS.SE8 M 24	100		2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50

max. load in t

4:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
SS.SE8 U 038	8		1,100	2,200	550	1,100	770	550	550	1,155	550	550
SS.SE8 U 050	12		1,760	3,520	880	1,760	1,232	880	880	1,848	880	880

max. load in lbs



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)												
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric		0° → 45°	45° → 60°	Asymmetric	
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric		0° → 45°	45° → 60°	Asymmetric	
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°			0° → 45°	45° → 60°		
SS.SE8 M 8	6		0,40	0,80	0,20	0,40	0,28	0,20	0,20		0,42	0,20	0,20	
SS.SE8 M 10	10		0,60	1,20	0,30	0,60	0,42	0,30	0,30		0,63	0,30	0,30	
SS.SE8 M 12 0,4t	15		0,80	1,60	0,40	0,80	0,56	0,40	0,40		0,84	0,40	0,40	
SS.SE8 M 12	15		0,55	1,10	0,55	1,10	0,77	0,55	0,55		1,15	0,83	0,55	
SS.SE8 M 16	50		1,20	2,40	1,20	2,40	1,68	1,20	1,20		2,52	1,80	1,20	
SS.SE8 M 20	100		1,50	3,00	1,50	3,00	2,10	1,50	1,50		3,15	2,25	1,50	
SS.SE8 M 24	100		2,50	5,00	2,50	5,00	3,50	2,50	2,50		5,25	3,75	2,50	

max. load in t

5:1

UNC THREADS		Torque (ft-lb)												
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric		0° → 45°	45° → 60°	Asymmetric	
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric		0° → 45°	45° → 60°	Asymmetric	
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°			0° → 45°	45° → 60°		
SS.SE8 U 038	8		1,100	2,200	550	1,100	770	550	550		1,155	550	550	
SS.SE8 U 050	12		1,760	3,520	880	1,760	1,232	880	880		1,848	880	880	

max. load in lbs



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

METRIC THREADS		Torque (Nm)										
	Number of rings		1	2	1	2	2			3 → 4		
	Lifting angle $\beta$		0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
max. load in t	DSP M 8	6	0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40
	DSP M 10	10	0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70
	DSP M 12	15	1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05
	DSP M 14	30	1,40	2,80	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40
	DSP M 16	50	2,00	4,00	2,00	4,00	2,80	2,00	2,00	4,20	3,00	2,00
	DSP M 18	70	2,30	4,60	2,30	4,60	3,22	2,30	2,30	4,83	3,45	2,30
	DSP M 20	100	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50

5:1

UNC THREADS		Torque (ft-lb)										
	Number of rings		1	2	1	2	2			3 → 4		
	Lifting angle $\beta$		0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
max. load in lbs	DSP U 516	7	1,000	2,000	1,000	2,000	1,400	1,000	1,000	2,100	1,500	1,000
	DSP U 038	8	1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,950	1,300
	DSP U 050	12	2,400	4,800	2,400	4,800	3,360	2,400	2,400	5,040	3,600	2,400
	DSP U 058	40	3,900	7,800	3,900	7,800	5,460	3,900	3,900	8,190	5,850	3,900
	DSP U 075	80	5,250	10,500	5,250	10,500	7,350	5,250	5,250	11,025	7,875	5,250



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°

L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
DSH M 8	6		0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40
DSH M 10	10		0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70
DSH M 12	15		1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05
DSH M 14	30		1,40	2,80	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40
DSH M 16	50		2,00	4,00	2,00	4,00	2,80	2,00	2,00	4,20	3,00	2,00
DSH M 18	70		2,30	4,60	2,30	4,60	3,22	2,30	2,30	4,83	3,45	2,30
DSH M 20	100		2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Lifting angle $\beta$			0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
Loading angle $\alpha$			0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
DSH U 516	7		1,000	2,000	1,000	2,000	1,400	1,000	1,000	2,100	1,500	1,000
DSH U 038	8		1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,950	1,300
DSH U 050	12		2,400	4,800	2,400	4,800	3,360	2,400	2,400	5,040	3,600	2,400
DSH U 058	40		3,900	7,800	3,900	7,800	5,460	3,900	3,900	8,190	5,850	3,900
DSH U 075	80		5,250	10,500	5,250	10,500	7,350	5,250	5,250	11,025	7,875	5,250

max. load in lbs

# TSR



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°

L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings	Lifting angle $\beta$		1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
TSR M 8	6	0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40	
TSR M 10	10	0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70	
TSR M 12	15	1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05	
TSR M 14	30	1,40	2,80	1,40	2,80	1,96	1,40	1,40	2,94	2,10	1,40	
TSR M 16	50	2,00	4,00	2,00	4,00	2,80	2,00	2,00	4,20	3,00	2,00	
TSR M 18	70	2,30	4,60	2,30	4,60	3,22	2,30	2,30	4,83	3,45	2,30	
TSR M 20	100	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50	
TSR M 22	120	3,00	6,00	3,00	6,00	4,20	3,00	3,00	6,30	4,50	3,00	
TSR M 24	160	4,00	8,00	4,00	8,00	5,60	4,00	4,00	8,40	6,00	4,00	
TSR M 27	200	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	7,50	5,00	
TSR M 30	250	6,30	12,60	6,30	12,60	8,82	6,30	6,30	13,23	9,45	6,30	
TSR M 36	320	10,00	20,00	10,00	20,00	14,00	10,00	10,00	21,00	15,00	10,00	
TSR M 42	400	12,50	25,00	12,50	25,00	17,50	12,50	12,50	26,25	18,75	12,50	
TSR M 48	600	20,00	40,00	20,00	40,00	28,00	20,00	20,00	42,00	30,00	20,00	
TSR M 56	600	22,00	44,00	22,00	44,00	30,80	22,00	22,00	46,20	33,00	22,00	

max. load in t

4:1

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings	Lifting angle $\beta$		1	2	1	2	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
TSR U 516	7	1,000	2,000	1,000	2,000	1,400	1,000	1,000	2,100	1,500	1,000	
TSR U 038	8	1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,950	1,300	
TSR U 050	12	2,400	4,800	2,400	4,800	3,360	2,400	2,400	5,040	3,600	2,400	
TSR U 058	40	3,900	7,800	3,900	7,800	5,460	3,900	3,900	8,190	5,850	3,900	
TSR U 075	80	5,250	10,500	5,250	10,500	7,350	5,250	5,250	11,025	7,875	5,250	
TSR U 078	90	6,600	13,200	6,600	13,200	9,240	6,600	6,600	13,860	9,900	6,600	
TSR U 100	125	10,000	20,000	10,000	20,000	14,000	10,000	10,000	21,000	15,000	10,000	
TSR U 125	200	14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	21,000	14,000	
TSR U 150	240	20,000	40,000	20,000	40,000	28,000	20,000	20,000	42,000	30,000	20,000	
TSR U 200	450	50,000	100,000	50,000	100,000	70,000	50,000	50,000	105,000	75,000	50,000	

max. load in lbs

4:1

# DSS 8UN



## LOAD ANGLE CHART

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

max. load in lbs	8UN THREADS	Torque (Nm)											
	Number of rings		1	2	1	2	2				3 → 4		
	Lifting angle $\beta$		0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric	
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°		
DSS U 118 8UN	150	11,000	22,000	11,000	22,000	15,400	11,000	11,000	23,100	16,500	11,000		
DSS U 125 8UN	200	14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	21,000	14,000		
DSS U 138 8UN	240	20,000	40,000	20,000	40,000	28,000	20,000	20,000	42,000	30,000	20,000		
DSS U 150 8UN	240	20,000	40,000	20,000	40,000	28,000	20,000	20,000	42,000	30,000	20,000		
DSS U 175 8UN	300	27,000	54,000	27,000	54,000	37,800	27,000	27,000	56,700	40,500	27,000		
DSS U 200 8UN	450	50,000	100,000	50,000	100,000	70,000	50,000	50,000	105,000	75,000	50,000		

5:1

max. load in lbs	8UN THREADS	Torque (ft-lb)											
	Number of rings		1	2	1	2	2				3 → 4		
	Lifting angle $\beta$		0°	0°	0°	0°	0° → 45°	45° → 60°	Asymmetric	0° → 45°	45° → 60°	Asymmetric	
	Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°		
DSS U 118 8UN	150	11,000	22,000	11,000	22,000	15,400	11,000	11,000	23,100	16,500	11,000		
DSS U 125 8UN	200	14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	21,000	14,000		
DSS U 138 8UN	240	20,000	40,000	20,000	40,000	28,000	20,000	20,000	42,000	30,000	20,000		
DSS U 150 8UN	240	20,000	40,000	20,000	40,000	28,000	20,000	20,000	42,000	30,000	20,000		
DSS U 175 8UN	300	27,000	54,000	27,000	54,000	37,800	27,000	27,000	56,700	40,500	27,000		
DSS U 200 8UN *	/	/	/	/	/	/	/	/	/	/	/	/	

\* In certification process / En cours d'homologation / In Entwicklungsphase / En proceso de homologación



## OTHER

- SELECTION CHART
- THREAD CHART
- LOAD ANGLE CHART - SUMMARY
- PICTOGRAM LEGEND

## SONSTIGES

- AUSWAHLTABELLE
- GEWINDETABELLE
- HEBEWINKELTABELLE -  
INHALTSVERZEICHNIS
- PIKTOGRAMM-LEGENDE

## AUTRE

- TABLEAU DE SÉLECTION
- TABLEAU DE FILETAGE
- TABLEAU DES ANGLES DE LEVAGE -  
SOMMAIRE
- LÉGENDE DES PICTOGRAMMES

## OTRO

- TABLA RECAPITULATIVA
- TABLA DE ROSCA
- TABLA DE LOS ÁNGÜLOS  
DE ELEVACIÓN - RESUMEN
- LEYENDA DE LOS PICTOGRAMAS

# CODIPRO SELECTION CHART - TABLEAU DE SELECTION - AUSWAHLTABELLE - TABLA RECAPITULATIVA

	Double Swivel Ring design							Double Swivel Shackle design						Swivel Eye Bolt design			Alternative designs			Fall protection		
	DSR	FE.DSR	QL.DSR	WE.DSR	SS.DSR	SS.FE.DSR	SS.QL.DSR	DSS	MEGA.DSS+	GIGA.DSS	FE.DSS	WE.DSS	SS.DSS	SS.FE.DSS	SEB	FE.SE	SS.SE	DSP	DSH	TSR	PE.SE	SS.PE.SE
	M 5 - M 42	M 8 - M 22	M 8 - M 30	welding	M 6 - M 30	M 8 - M 22	M 8 - M 30	M 24 - M 100	M 64 - M 100	M 150	M 24 - M 52	welding	M 24 - M 56	M 24 - M 36	M 8 - M 48	M 8 - M 36	M 8 - M 24	M 8 - M 20	M 8 - M 20	M 8 - M 56	M 12 - M 16 - M 20	M 12 - M 16 - M 20 - M 24
	0,07t - 9t	0,4t - 4,5t	0,25t - 3,5t	2t / 5t	0,1t - 3,5t	0,3t - 2,2t	0,25t - 3,5t	4,5t - 32,1t	30t - 70t	125 t	4,5t - 21t	10t	2,7t - 8t	2,7t - 5t	0,4t - 16t	0,4t - 11t	0,2t - 2,5t	0,4t - 2,5t	0,4t - 2,5t	0,4t - 22t	1-2 pers.	1-2 pers.
	1/4" - 1" 1/4	1/4" - 7/8"	1/2"	welding	1/4" - 1"	5/16" - 7/8"	1/2"	1" - 2" 1/2	2" 3/4 - 4"	N/A	1" - 2"	welding	1" - 2"	1" - 1" 1/2	3/8" - 2"	3/8" - 1" 1/4	3/8" - 1/2"	5/16" - 3/4"	5/16" - 3/4"	5/16" - 2"	N/A	N/A
	330 - 13,500 lbs	330 - 9,800 lbs	1,300 lbs	4,400 / 11,000 lbs	400 - 6,000 lbs	600 - 5,100 Lbs	1,300 lbs	10,000 - 55,000 lbs	66,000 - 154,000 lbs	N/A	10,000 - 50,000 lbs	22,000 lbs	6,000 - 14,000 lbs	6,000 - 11,000 lbs	1,200 - 35,200 lbs	1,200 - 13,800 lbs	550 - 880 lbs	1,000 - 5,250 lbs	1,000 - 5,250 lbs	1,000 - 50,000 lbs	N/A	N/A
	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1	5:1
	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1	4:1
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-	-	✓	✓	✓	-	-
	✓	✓	✓	-	-	-	-	✓	✓	✓	✓	-	-	✓	✓	-	-	-	-	-	-	-
	✓	✓	✓	-	-	-	-	✓	✓	✓	✓	-	-	✓	✓	-	-	✓	✓	✓	✓	-
	-	-	-	-	✓	✓	-	-	-	-	-	-	✓	✓	-	-	✓	-	-	-	-	✓
	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	✓	✓
	✓	✓	-	✓	✓	✓	-	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	-	-
	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
	★	★	★	★	-	-	★	★	-	-	★	★	-	-	-	-	-	-	-	-	-	-
	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★	★
	★	-	-	-	-	-	-	★	-	-	-	-	-	-	★	-	-	★	★	★	-	-

★ Optional ☆ On request N/A: Not Applicable

# THREAD CHART - TABLEAU DE FILETAGE - GEWINDETABELLE - TABLA DE ROSCA

METRIC THREADS						OTHER THREADS								ROUND THREADS		CYLINDRICAL GAS THREADS (G or BSPP)			
SIZE	NOMINAL DIAMETER (in mm)	DISTANCE BETWEEN 2 THREADS (IN MM)				SIZE	NOMINAL DIAMETER		NUMBER OF THREADS PER INCH						SIZE	THREAD PITCH	SIZE	NOMINAL DIAMETER (mm)	NUMBER OF THREADS PER INCH
		STANDARD THREAD PITCH	FINE THREAD PITCH				inch	mm	UNC	UNF	UNJF	BSW	BSF	8 UN					
M 4	4	0,7	0,5														1/16" G	7,72	28
M 5	5	0,8	0,5														1/8" G	9,73	28
M 6	6	1	0,75			1/4"	0,25	6,35	20	28	28	20	26				1/4" G	13,16	19
M 7	7	1	0,75																
M 8	8	1,25	1	0,75		9/32"	0,28	7,14					26	Rd8	✓				
M 9	9	1,25	1	0,75		5/16"	0,31	7,95	18	24	24	18	22	Rd9	✓				
M 10	10	1,5	1,25	1	0,75	3/8"	0,38	9,56	16	24	24	16	20	Rd10	✓	3/8" G	16,66	19	
M 11	11	1,5	1	0,75		7/16"	0,43	11,11	14	20	20	14	18	Rd11	✓				
M 12	12	1,75	1,5	1,25	1	1/2"	0,50	12,70	13	20	20	12	16	Rd12	✓	1/2" G	20,96	14	
M 14	14	2	1,5	1,25	1	9/16"	0,56	14,22	12	18	18	12	16	Rd14	✓				
M 15	15		1,5	1		5/8"	0,63	15,88	11	18	18	11	14			5/8" G	22,91	14	
M 16	16	2	1,5	1		11/16"	0,69	17,48	11				14	Rd16	✓				
M 17	17		1,5	1		3/4"	0,75	19,05	10	16	16	10	12			3/4" G	26,44	14	
M 18	18	2,5	2	1,5	1	13/16"	0,81	20,65					12	Rd18	✓				
M 20	20	2,5	2	1,5	1	7/8"	0,88	22,23	9	14	14	9	11	Rd20	✓	7/8" G	30,2	14	
M 22	22	2,5	2	1,5	1	1"	1,00	25,40	8	12/14	12	8	10	Rd22	✓	1" G	33,25	11	
M 24	24	3	2	1,5	1	1"1/8	1,13	28,58	7	12	12	7	9	8	Rd24	✓	1"1/8 G	37,9	11
M 25	25		2	1,5	1	1"1/4	1,26	31,75	7	12	12	7	9	8	Rd26	✓	1"1/4 G	41,91	11
M 27	27	3	2	1,5	1	1"3/8	1,38	34,93	6	12	12	6	8	8			1"3/8 G	44,32	11
M 28	28		2	1,5	1	1"1/2	1,50	38,10	6	12	12	6	8	8	Rd28	✓	1"1/2 G	47,8	11
M 30	30	3,5	3	2	1,5	1"5/8	1,63	41,28				5	8	8	Rd30	✓			
M 32	32		2	1,5		1"3/4	1,75	44,45	5			5	7	8	Rd32	✓	1"3/4 G	53,75	11
M 33	33	3,5	3	2	1,5	1"7/8	1,88	47,63				4,5		8	Rd34	✓			
M 35	35		2	1,5		2"	2,00	50,80	4,5			4,5	7	8			2" G	59,61	11
M 36	36	4	3	2	1,5	2"1/4	2,25	57,15	4,5			4	6	8	Rd36	✓	2"1/4 G	65,71	11
M 39	39	4	3	2	1,5	2"1/2	2,50	63,50	4			4	6	8	Rd38	✓	2"1/2 G	75,18	11
M 40	40		3	2	1,5	2"3/4	2,75	69,85	4			3,5	6	8	Rd40	✓	2"3/4 G	81,53	11
M 42	42	4,5	4	3	2	3"	3,00	76,20	4			3,5	5	8	Rd42	✓	3" G	87,88	11
M 45	45	4,5	4	3	2	3"1/4	3,25	82,55	4			3,25	5	8	Rd44	✓	3"1/4 G	93,98	11
M 48	48	5	4	3	2	3"1/2	3,50	88,90	4			3,25	4,5	8	Rd46	✓	3"1/2 G	100,33	11
M 50	50		3	2	1,5	3"3/4	3,75	95,25	4			3	4,5	8	Rd48	✓			
M 52	52	5	4	3	2	4"			4			3	4,5	8	Rd50	✓			
M 55	55		4	3	2									Rd52	✓				
M 56	56	5,5	4	3	2									Rd55	✓				
M 58	58		4	3	2									Rd58	✓				
M 60	60	5,5	4	3	2									Rd60	✓				
M 62	62		4	3	2									Rd62	✓				
M 64	64	6	4	3	2														
M 65	65		4	3	2														
M 68	68	6	4	3	2														
M 70	70	6	4	3	2														
M 72	72	6	4	3	2														
M 75	75	6	4	3	2														
M 76	76	6	4	3	2														
M 80	80	6	4	3	2														
M 85	85	6	4	3	2														
M 90	90	6	4	3	2														
M 95	95	6	4	3	2														
M 100	100	6	4	3	2														

1	In stock / En stock / Auf Lager / En stock
1	Lead Time: max. 5 days - delivery time excluded / Délai max. 5 jours hors transport / Lieferzeit: 5 Werktage ohne Transport / Plazo max. 5 dias laborales sin transporte
✓	Different threads pitch available / Plusieurs pas disponibles / Mehrere Gewindesteigungen erhältlich / Varios pasos disponibles



Non-exhaustive list ; for the feasibility of a thread type not included in this table do not hesitate to contact CODIPRO  
 Liste non exhaustive ; pour la faisabilité d'un filetage non repris dans ce tableau, n'hésitez pas à contacter CODIPRO  
 Liste nicht vollständig ; bei Gewindearten, die nicht aufgeführt sind, kontaktieren Sie CODIPRO  
 Para una rosca que no figura en la tabla, por favor, contáctenos ya que la lista retoma solo una parte de las roscas posibles.

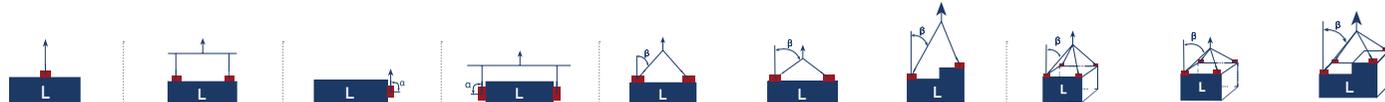
# GRADUP LOAD ANGLE CHART

## SUMMARY METRIC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

max. load in t



DSR



DSS



MEGA-DSS



SEB



Lifting Type											
Number of rings		1	2	1	2	2		3 → 4			
Lifting angle $\beta$		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°				
Size	Torque (Nm)										
M 5	3	0,30	0,60	0,10	0,20	0,14	0,10	0,10	0,21	0,10	0,10
M 6	4	0,40	0,80	0,20	0,40	0,28	0,20	0,20	0,42	0,20	0,20
M 8	6	1,00	2,00	0,50	1,00	0,70	0,50	0,50	1,05	0,50	0,50
M 10	10	1,50	3,00	0,90	1,80	1,26	0,90	0,90	1,89	0,90	0,90
M 12	15	1,50	3,00	1,30	2,60	1,82	1,30	1,30	2,73	1,30	1,30
M 14	30	2,60	5,20	1,80	3,60	2,52	1,80	1,80	3,78	1,80	1,80
M 16	50	2,80	5,60	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
M 18	70	2,50	5,00	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
M 20 2t5	100	2,80	5,60	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50
M 20 3t2	100	3,20	6,40	3,20	6,40	4,48	3,20	3,20	6,72	3,20	3,20
M 22	120	6,00	12,00	4,50	9,00	6,30	4,50	4,50	9,45	4,50	4,50
M 24	160	6,50	13,00	5,50	11,00	7,70	5,50	5,50	11,55	5,50	5,50
M 27	200	6,50	13,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00
M 30 6t3	250	6,50	13,00	6,30	12,60	8,82	6,30	6,30	13,23	6,30	6,30
M 30 8t	250	9,00	18,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00
M 36	320	10,00	20,00	8,50	17,00	11,90	8,50	8,50	17,85	8,50	8,50
M 42	400	10,00	20,00	9,00	18,00	12,60	9,00	9,00	18,90	9,00	9,00
M 24	160	9,00	18,00	5,50	11,00	7,70	5,50	5,50	11,55	5,50	5,50
M 30	250	14,00	28,00	8,50	17,00	11,90	8,50	8,50	17,85	8,50	8,50
M 33	250	14,50	29,00	10,50	21,00	14,70	10,50	10,50	22,05	10,50	10,50
M 36	320	15,00	30,00	12,00	24,00	16,80	12,00	12,00	25,20	12,00	12,00
M 36x3	320	15,00	30,00	12,00	24,00	16,80	12,00	12,00	25,20	12,00	12,00
M 39	320	17,00	34,00	14,00	28,00	19,60	14,00	14,00	29,40	14,00	14,00
M 42	400	15,50	31,00	15,00	30,00	21,00	15,00	15,00	31,50	15,00	15,00
M 42x3	400	15,50	31,00	15,00	30,00	21,00	15,00	15,00	31,50	15,00	15,00
M 45	400	15,00	30,00	16,00	32,00	22,40	16,00	16,00	33,60	16,00	16,00
M 48	600	22,00	44,00	20,00	40,00	28,00	20,00	20,00	42,00	20,00	20,00
M 48x3	600	22,00	44,00	20,00	40,00	28,00	20,00	20,00	42,00	20,00	20,00
M 48x4	600	22,00	44,00	20,00	40,00	28,00	20,00	20,00	42,00	20,00	20,00
M 52	600	23,00	46,00	21,00	42,00	29,40	21,00	21,00	44,10	21,00	21,00
M 56	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 56x4	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 64	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	32,10	32,10
M 64x4	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	32,10	32,10
M 72	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 72x4	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 80	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	32,10	32,10
M 90	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	32,10	32,10
M 100	600	32,10	64,20	32,10	64,20	44,94	32,10	32,10	67,41	32,10	32,10
M 64	600	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	35,00	35,00
M 72	700	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	40,00	40,00
M 72x4	700	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	40,00	40,00
M 80	800	50,00	100,00	50,00	100,00	70,00	50,00	50,00	105,00	50,00	50,00
M 90	900	60,00	120,00	60,00	120,00	84,00	60,00	60,00	126,00	60,00	60,00
M 100	1000	70,00	140,00	70,00	140,00	98,00	70,00	70,00	147,00	70,00	70,00
M 8	6	0,80	1,60	0,50	1,00	0,70	0,50	0,50	1,05	0,50	0,50
M 10	10	1,60	3,20	0,70	1,40	0,98	0,70	0,70	1,47	0,70	0,70
M 12	15	1,90	3,80	0,90	1,80	1,26	0,90	0,90	1,89	0,90	0,90
M 16	50	3,20	6,40	1,80	3,60	2,52	1,80	1,80	3,78	1,80	1,80
M 20	100	6,50	13,00	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70
M 24 3t8	160	8,00	16,00	3,80	7,60	5,32	3,80	3,80	7,98	3,80	3,80
M 24 4t2	160	7,00	14,00	4,20	8,40	5,88	4,20	4,20	8,82	4,20	4,20
M 30	250	10,00	20,00	6,30	12,60	8,82	6,30	6,30	13,23	6,30	6,30
M 36	320	12,00	24,00	11,00	22,00	15,40	11,00	11,00	23,10	11,00	11,00
M 42	400	15,00	30,00	15,00	30,00	21,00	15,00	15,00	31,50	15,00	15,00
M 48	600	18,00	36,00	16,00	32,00	22,40	16,00	16,00	33,60	16,00	16,00

# GRADUP LOAD ANGLE CHART

## SUMMARY UNC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

max. load in lbs

	Lifting Type	L		L		L		L		L		L		L	
		1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric				
	Number of rings	1	2	1	2	2		2		3 → 4		3 → 4		3 → 4	
	Lifting angle $\beta$	0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	Asymmetric
	Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°		0° → 45°	45° → 60°		
	Size	Torque (ft-lb)													
DSR	1/4"	3	900	1,800	450	900	630	450	450	945	450	450			
	5/16"	5	2,200	4,400	1,200	2,400	1,680	1,200	1,200	2,520	1,200	1,200			
	3/8"	8	3,200	6,400	1,600	3,200	2,240	1,600	1,600	3,360	1,600	1,600			
	1/2"	12	3,400	6,800	2,800	5,600	3,920	2,800	2,800	5,880	2,800	2,800			
	5/8"	40	5,900	11,800	4,900	9,800	6,860	4,900	4,900	10,290	4,900	4,900			
	3/4"	80	6,200	12,400	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250			
	7/8"	90	13,500	27,000	9,800	19,600	13,720	9,800	9,800	20,580	9,800	9,800			
	1"	125	13,500	27,000	12,500	25,000	17,500	12,500	12,500	26,250	12,500	12,500			
	1" 1/8"	160	13,500	27,000	13,000	26,000	18,200	13,000	13,000	27,300	13,000	13,000			
	1" 1/4"	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	13,500	13,500			
DSS	1"	125	19,000	38,000	13,000	26,000	18,200	13,000	13,000	27,300	13,000	13,000			
	1" 1/4"	200	30,000	60,000	19,000	38,000	26,600	19,000	19,000	39,900	19,000	19,000			
	1" 3/8"	240	32,000	64,000	22,000	44,000	30,800	22,000	22,000	46,200	22,000	22,000			
	1" 1/2"	240	33,000	66,000	27,000	54,000	37,800	27,000	27,000	56,700	27,000	27,000			
	1" 3/4"	300	33,000	66,000	33,000	66,000	46,200	33,000	33,000	69,300	33,000	33,000			
	2"	450	50,000	100,000	50,000	100,000	70,000	50,000	50,000	105,000	50,000	50,000			
MEGA.DSS	2" 1/2"	450	55,000	110,000	55,000	110,000	77,000	55,000	55,000	115,500	55,000	55,000			
	2" 3/4"	520	77,000	154,000	77,000	154,000	107,800	77,000	77,000	161,700	77,000	77,000			
	3"	520	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	88,000	88,000			
	3" 1/4"	590	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	110,000	110,000			
	3" 1/2"	665	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	110,000	110,000			
	3" 3/4"	740	132,000	264,000	132,000	264,000	184,800	132,000	132,000	277,200	132,000	132,000			
SEB	4"	740	154,000	308,000	154,000	308,000	215,600	154,000	154,000	323,400	154,000	154,000			
	3/8"	8	3,500	7,000	1,500	3,000	2,100	1,500	1,500	3,150	1,500	1,500			
	1/2"	12	4,200	8,400	1,950	3,900	2,730	1,950	1,950	4,095	1,950	1,950			
	5/8"	40	7,000	14,000	4,000	8,000	5,600	4,000	4,000	8,400	4,000	4,000			
	3/4"	80	15,000	30,000	5,900	11,800	8,260	5,900	5,900	12,390	5,900	5,900			
	1"	125	15,000	30,000	9,300	18,600	13,020	9,300	9,300	19,530	9,300	9,300			
	1" 1/4"	200	22,000	44,000	13,800	27,600	19,320	13,800	13,800	28,980	13,800	13,800			
1" 1/2"	240	25,000	50,000	25,000	50,000	35,000	25,000	25,000	52,500	25,000	25,000				
2"	450	39,600	79,200	35,200	70,400	49,280	35,200	35,200	73,950	35,200	35,200				

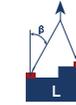
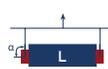
# GRADUP LOAD ANGLE CHART

## SUMMARY METRIC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

max. load in t



DSR



Lifting Type		1	2	1	2	2			3 → 4		
Number of rings		1	2	1	2	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Lifting angle $\beta$		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
Size	Torque (Nm)										
M 5	3	0,20	0,40	0,07	0,14	0,10	0,07	0,07	0,15	0,07	0,07
M 6	4	0,30	0,60	0,15	0,30	0,21	0,15	0,15	0,32	0,15	0,15
M 8	6	0,80	1,60	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40
M 10	10	1,30	2,60	0,70	1,40	0,98	0,70	0,70	1,47	0,70	0,70
M 12	15	1,50	3,00	1,05	2,10	1,47	1,05	1,05	2,21	1,05	1,05
M 14	30	2,50	5,00	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
M 16	50	2,70	5,40	2,00	4,00	2,80	2,00	2,00	4,20	2,00	2,00
M 18	70	2,50	5,00	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
M 20 2t5	100	2,80	5,60	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50
M 20 3t2	100	3,20	6,40	2,90	5,80	4,06	2,90	2,90	6,09	2,90	2,90
M 22	120	5,50	11,00	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50
M 24	160	6,00	12,00	4,40	8,80	6,16	4,40	4,40	9,24	4,40	4,40
M 27	200	6,00	12,00	5,70	11,40	7,98	5,70	5,70	11,97	5,70	5,70
M 30 6t3	250	6,30	12,60	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00
M 30 8t	250	9,00	18,00	6,70	13,40	9,38	6,70	6,70	14,07	6,70	6,70
M 36	320	9,00	18,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00
M 42	400	9,50	19,00	8,50	17,00	11,90	8,50	8,50	17,85	8,50	8,50

QL.SDR



M 8	20	0,25	0,50	0,25	0,50	0,35	0,25	0,25	0,53	0,38	0,25
M 10	30	0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40
M 12	60	0,65	1,30	0,65	1,30	0,91	0,65	0,65	1,37	0,98	0,65
M 14	80	0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70
M 16	100	1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05
M 20	160	1,70	3,40	1,70	3,40	2,38	1,70	1,70	3,57	2,55	1,70
M 24	180	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50

DSS



M 24	160	9,00	18,00	4,50	9,00	6,30	4,50	4,50	9,45	4,50	4,50
M 30	250	14,00	28,00	7,70	15,40	10,78	7,70	7,70	16,17	7,70	7,70
M 33	250	14,50	29,00	8,50	17,00	11,90	8,50	8,50	17,85	8,50	8,50
M 36	320	15,00	30,00	11,00	22,00	15,40	11,00	11,00	23,10	11,00	11,00
M 36x3	320	15,00	30,00	11,00	22,00	15,40	11,00	11,00	23,10	11,00	11,00
M 39	320	15,00	30,00	12,00	24,00	16,80	12,00	12,00	25,20	12,00	12,00
M 42	400	15,00	30,00	13,00	26,00	18,20	13,00	13,00	27,30	13,00	13,00
M 42x3	400	15,00	30,00	13,00	26,00	18,20	13,00	13,00	27,30	13,00	13,00
M 45	400	15,00	30,00	14,50	29,00	20,30	14,50	14,50	30,45	14,50	14,50
M 48	600	22,00	44,00	17,00	34,00	23,80	17,00	17,00	35,70	17,00	17,00
M 48x3	600	22,00	44,00	17,00	34,00	23,80	17,00	17,00	35,70	17,00	17,00
M 48x4	600	22,00	44,00	17,00	34,00	23,80	17,00	17,00	35,70	17,00	17,00
M 52	600	23,00	46,00	19,00	38,00	26,60	19,00	19,00	39,90	19,00	19,00
M 56	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	22,00	22,00
M 56x4	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	22,00	22,00
M 64	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 64x4	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 72	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	22,00	22,00
M 72x4	600	25,00	50,00	22,00	44,00	30,80	22,00	22,00	46,20	22,00	22,00
M 80	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 90	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00
M 100	600	25,00	50,00	25,00	50,00	35,00	25,00	25,00	52,50	25,00	25,00

# GRADUP LOAD ANGLE CHART

## SUMMARY METRIC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

MEGA/GIGA.  
DSS



SEB



max. load in t

Lifting Type											
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle $\beta$		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
Size	Torque (Nm)										
M 64	600	30,00	60,00	30,00	60,00	42,00	30,00	30,00	63,00	45,00	30,00
M 72	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	52,50	35,00
M 72x4	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	52,50	35,00
M 80	800	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	60,00	40,00
M 90	900	50,00	100,00	50,00	100,00	70,00	50,00	50,00	105,00	75,00	50,00
M 100	1000	60,00	120,00	60,00	120,00	84,00	60,00	60,00	126,00	90,00	60,00
M 150	2000	125,00	250,00	125,00	250,00	175,00	125,00	125,00	262,50	125,00	125,00
M 8	6	0,70	1,40	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40
M 10	10	1,20	2,40	0,50	1,00	0,70	0,50	0,50	1,05	0,50	0,50
M 12	15	1,70	3,40	0,80	1,60	1,12	0,80	0,80	1,68	0,80	0,80
M 16	50	3,20	6,40	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
M 20	100	5,00	10,00	2,00	4,00	2,80	2,00	2,00	4,20	2,00	2,00
M 24 3t8	160	6,30	12,60	3,20	6,40	4,48	3,20	3,20	6,72	3,20	3,20
M 24 4t2	160	7,00	14,00	3,40	6,80	4,76	3,40	3,40	7,14	3,40	3,40
M 30	250	8,50	17,00	5,50	11,00	7,70	5,50	5,50	11,55	5,50	5,50
M 36	320	12,00	24,00	9,00	18,00	12,60	9,00	9,00	18,90	9,00	9,00
M 42	400	12,00	24,00	12,00	24,00	16,80	12,00	12,00	25,20	12,00	12,00
M 48	600	15,00	30,00	15,00	30,00	21,00	15,00	15,00	31,50	15,00	15,00

# GRADUP LOAD ANGLE CHART

## SUMMARY UNC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

max. load in lbs

	Lifting Type											
		Number of rings	1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric
	Lifting angle $\beta$	0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	
	Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°		
	Size	Torque (ft-lb)										
DSR	1/4"	3	650	1,300	330	660	462	330	330	693	330	330
	5/16"	5	1,800	3,600	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
	3/8"	8	2,500	5,000	1,300	2,600	1,820	1,300	1,300	2,730	1,300	1,300
	1/2"	12	3,000	6,000	2,400	4,800	3,360	2,400	2,400	5,040	2,400	2,400
	5/8"	40	5,900	11,800	3,900	7,800	5,460	3,900	3,900	8,190	3,900	3,900
	3/4"	80	5,900	11,800	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250
	7/8"	90	13,500	27,000	7,900	15,800	11,060	7,900	7,900	16,590	7,900	7,900
	1"	125	13,500	27,000	11,200	22,400	15,680	11,200	11,200	23,520	11,200	11,200
	1" 1/8"	160	13,500	27,000	11,500	23,000	16,100	11,500	11,500	24,150	11,500	11,500
	1" 1/4"	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	13,500	13,500
DSS	1"	125	19,000	38,000	10,000	20,000	14,000	10,000	10,000	21,000	10,000	10,000
	1" 1/4"	200	30,000	60,000	15,000	30,000	21,000	15,000	15,000	31,500	15,000	15,000
	1" 3/8"	240	31,000	62,000	21,000	42,000	29,400	21,000	21,000	44,100	21,000	21,000
	1" 1/2"	240	31,000	62,000	22,000	44,000	30,800	22,000	22,000	46,200	22,000	22,000
	1" 3/4"	300	33,000	66,000	27,000	54,000	37,800	27,000	27,000	56,700	27,000	27,000
	2"	450	50,000	100,000	38,000	76,000	53,200	38,000	38,000	79,800	38,000	38,000
MEGA.DSS	2" 1/2"	450	55,000	110,000	48,500	97,000	67,900	48,500	48,500	101,850	48,500	48,500
	2" 3/4"	520	66,000	132,000	66,000	132,000	92,400	66,000	66,000	138,600	99,000	66,000
	3"	520	77,000	154,000	77,000	154,000	107,800	77,000	77,000	161,700	115,500	77,000
	3" 1/4"	590	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	132,000	88,000
	3" 1/2"	665	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	132,000	88,000
	3" 3/4"	740	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	165,000	110,000
SEB	4"	740	132,000	264,000	132,000	264,000	184,800	132,000	132,000	277,200	198,000	132,000
	3/8"	8	2,800	5,600	1,200	2,400	1,680	1,200	1,200	2,520	1,200	1,200
	1/2"	12	3,800	7,600	1,800	3,600	2,520	1,800	1,800	3,780	1,800	1,800
	5/8"	40	7,000	14,000	3,200	6,400	4,480	3,200	3,200	6,720	3,200	3,200
	3/4"	80	12,000	24,000	4,750	9,500	6,650	4,750	4,750	9,975	4,750	4,750
	1"	125	15,000	30,000	7,500	15,000	10,500	7,500	7,500	15,750	7,500	7,500
	1" 1/4"	200	19,000	38,000	12,200	24,400	17,080	12,200	12,200	25,620	12,200	12,200
1" 1/2"	240	25,000	50,000	20,000	40,000	28,000	20,000	20,000	42,000	20,000	20,000	
2"	450	39,600	79,200	33,000	66,000	46,200	33,000	33,000	72,600	33,000	33,000	



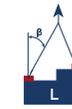
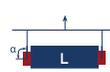
# LOAD ANGLE CHART

## SUMMARY METRIC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

max. load in t



SS.DSR



SS.DSS



SS.SEB



Lifting Type	1		2		1		2		2		3 → 4	
	Number of rings	1	2	1	2	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	
Lifting angle $\beta$	0°	0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	
Loading angle $\alpha$	0°	0°	90°	90°	0° → 45°	45° → 60°			0° → 45°	45° → 60°		
Size	Torque (Nm)											
M 6	4	0,25	0,50	0,15	0,30	0,21	0,15	0,15	0,31	0,15	0,15	
M 8	6	0,50	1,00	0,30	0,60	0,42	0,30	0,30	0,63	0,30	0,30	
M 10	10	0,90	1,80	0,50	1,00	0,70	0,50	0,50	1,05	0,50	0,50	
M 12	15	1,00	2,00	0,80	1,60	1,12	0,80	0,80	1,68	0,80	0,80	
M 14	30	1,60	3,20	1,00	2,00	1,40	1,00	1,00	2,10	1,00	1,00	
M 16	50	1,90	3,80	1,50	3,00	2,10	1,50	1,50	3,15	1,50	1,50	
M 18	70	1,90	3,80	1,50	3,00	2,10	1,50	1,50	3,15	1,50	1,50	
M 20	100	1,90	3,80	1,60	3,20	2,24	1,60	1,60	3,36	1,60	1,60	
M 22	120	3,50	7,00	2,20	4,40	3,08	2,20	2,20	4,62	2,20	2,20	
M 24	160	3,50	7,00	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70	
M 27	200	3,60	7,20	2,90	5,80	4,06	2,90	2,90	6,09	2,90	2,90	
M 30	250	3,70	7,40	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50	
M 24	160	2,70	5,40	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70	
M 30	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50	
M 33	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50	
M 36	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00	
M 36x3	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00	
M 39	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00	
M 42	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00	
M 42x3	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00	
M 45	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00	
M48	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40	
M 48x3	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40	
M 48x4	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40	
M 52	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40	
M 56	600	8,00	16,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00	
M 56x4	600	8,00	16,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00	
M 8	6	0,40	0,80	0,20	0,40	0,28	0,20	0,20	0,42	0,20	0,20	
M 10	10	0,60	1,20	0,30	0,60	0,42	0,30	0,30	0,63	0,30	0,30	
M 12 0,4t	15	0,80	1,60	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40	
M 12	15	0,55	1,10	0,55	1,10	0,77	0,55	0,55	1,16	0,55	0,55	
M 16	50	1,20	2,40	1,20	2,40	1,68	1,20	1,20	2,52	1,20	1,20	
M 20	100	1,50	3,00	1,50	3,00	2,10	1,50	1,50	3,15	1,50	1,50	
M 24	100	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50	

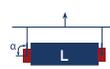
# LOAD ANGLE CHART

## SUMMARY UNC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

4:1

max. load in lbs



SS.DSR



SS.DSS



SS.SEB



Lifting Type											
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle $\beta$		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
Size	Torque (ft-lb)										
1/4"	3	850	1,700	500	1,000	700	500	500	1,050	500	500
5/16"	5	1,100	2,200	650	1,300	910	650	650	1,365	650	650
3/8"	8	1,800	3,600	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
1/2"	12	2,500	5,000	1,800	3,600	2,520	1,800	1,800	3,780	1,800	1,800
5/8"	40	4,500	9,000	3,000	6,000	4,200	3,000	3,000	6,300	3,000	3,000
3/4"	80	4,500	9,000	3,800	7,600	5,320	3,800	3,800	7,980	3,800	3,800
7/8"	90	8,500	17,000	5,100	10,200	7,140	5,100	5,100	10,710	5,100	5,100
1"	125	8,500	17,000	6,000	12,000	8,400	6,000	6,000	12,600	6,000	6,000
1"	125	6,000	12,000	6,000	12,000	8,400	6,000	6,000	12,600	6,000	6,000
1" 1/4	200	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	7,500	7,500
1" 3/8	240	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	7,500	7,500
1" 1/2	240	11,000	22,000	11,000	22,000	15,400	11,000	11,000	23,100	11,000	11,000
2"	450	14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	14,000	14,000
3/8"	8	1,100	2,200	550	1,100	770	550	550	1,155	550	550
1/2"	12	1,760	3,520	880	1,760	1,232	880	880	1,848	880	880

# LOAD ANGLE CHART

## SUMMARY METRIC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

max. load in t

Lifting Type											
Number of rings		1	2	1	2	2		3 → 4			
Lifting angle $\beta$		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
Size	Torque (Nm)										
M 6	4	0,20	0,40	0,10	0,20	0,14	0,10	0,10	0,21	0,10	0,10
M 8	6	0,40	0,80	0,30	0,60	0,42	0,30	0,30	0,63	0,30	0,30
M 10	10	0,70	1,40	0,50	1,00	0,70	0,50	0,50	1,05	0,50	0,50
M 12	15	0,90	1,80	0,80	1,60	1,12	0,80	0,80	1,68	0,80	0,80
M 14	30	1,20	2,40	1,00	2,00	1,40	1,00	1,00	2,10	1,00	1,00
M 16	50	1,50	3,00	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
M 18	70	1,50	3,00	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
M 20	100	1,50	3,00	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
M 22	120	2,80	5,60	2,20	4,40	3,08	2,20	2,20	4,62	2,20	2,20
M 24	160	2,80	5,60	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70
M 27	200	2,90	5,80	2,80	5,60	3,92	2,80	2,80	5,88	2,80	2,80
M 30	250	3,00	6,00	3,00	6,00	4,20	3,00	3,00	6,30	3,00	3,00
M 8	20	0,25	0,50	0,25	0,50	0,35	0,25	0,25	0,53	0,38	0,25
M 10	30	0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,60	0,40
M 12	60	0,65	1,30	0,65	1,30	0,91	0,65	0,65	1,37	0,98	0,65
M 14	80	0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	1,05	0,70
M 16	100	1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,58	1,05
M 20	160	1,70	3,40	1,70	3,40	2,38	1,70	1,70	3,57	2,55	1,70
M 24	180	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	3,75	2,50
M 24	160	2,70	5,40	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70
M 30	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50
M 33	250	3,50	7,00	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50
M 36	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00
M 36x3	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00
M 39	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00
M 42	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00
M 42x3	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00
M 8	6	0,40	0,80	0,20	0,40	0,28	0,20	0,20	0,42	0,20	0,20
M 10	10	0,60	1,20	0,30	0,60	0,42	0,30	0,30	0,63	0,30	0,30
M 12 0,4t	15	0,80	1,60	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40
M 12	15	0,55	1,10	0,55	1,10	0,77	0,55	0,55	1,15	0,55	0,55
M 16	50	1,20	2,40	1,20	2,40	1,68	1,20	1,20	2,52	1,20	1,20
M 20	100	1,50	3,00	1,50	3,00	2,10	1,50	1,50	3,15	1,50	1,50
M 24	100	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50

SS.DSR



SS.QL.DSR



SS.DSS



SS.SEB



# LOAD ANGLE CHART

## SUMMARY UNC

$\alpha$  max : 90° /  $\beta$  max : 60°  
L : Load

5:1

max. load in lbs

Lifting Type											
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle $\beta$		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Loading angle $\alpha$		0°	0°	90°	90°	0° → 45°	45° → 60°		0° → 45°	45° → 60°	
Size	Torque (ft-lb)										
1/4"	3	650	1,300	400	800	560	400	400	840	400	400
5/16"	5	900	1,800	600	1,200	840	600	600	1,260	600	600
3/8"	8	1,400	2,800	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
1/2"	12	2,000	4,000	1,800	3,600	2,520	1,800	1,800	3,780	1,800	1,800
5/8"	40	3,500	7,000	2,500	5,000	3,500	2,500	2,500	5,250	2,500	2,500
3/4"	80	3,500	7,000	3,600	7,200	5,040	3,600	3,600	7,560	3,600	3,600
7/8"	90	7,000	14,000	5,000	10,000	7,000	5,000	5,000	10,500	5,000	5,000
1"	125	7,000	14,000	6,000	12,000	8,400	6,000	6,000	12,600	6,000	6,000
SS.DSS											
1"	125	6,000	12,000	6,000	12,000	8,400	6,000	6,000	12,600	6,000	6,000
1" 1/4	200	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	7,500	7,500
1" 3/8	240	7,500	15,000	7,500	15,000	10,500	7,500	7,500	15,750	7,500	7,500
1" 1/2	240	11,000	22,000	11,000	22,000	15,400	11,000	11,000	23,100	11,000	11,000
SS.SEB											
3/8"	240	1,100	2,200	550	1,100	770	550	550	1,155	550	550
1/2"	240	1,760	3,520	880	1,760	1,232	880	880	1,848	880	880

SS.DSR



SS.DSS



SS.SEB



# LEGENDE

1. Technische Informationen    2. Qualität und Zertifizierung    3. Service

GRADUP-Stahl Wirbelringschraube	Sonderlösungen auf Wunsch
Drehbar unter Last	Keine Mindestbestellmenge
360° drehbar	Kurze Lieferzeit garantiert
180° schwenkbar	Kontrolle und Reparatur
Sicherheitsfaktor 5	Drehmomentschlüssel
Sicherheitsfaktor 4	Haltefedern auf Wunsch
Verzinkung	CODITRACER: Traceability-Tool für Codipro-Ringschrauben
100% rissgeprüfte Wirbelringschrauben	Zentrierung auf Wunsch
Lastwechseltest	Technische Schulung auf Wunsch
Edelstahl 316L	Verfügbare App auf Android
PSA-Anschlagpunkt	Verfügbare App auf Apple
Zwei Verschraubungsmöglichkeiten	Händlerportal/Extranet
Zulässiger Temperaturbereich von -20°C bis +200°C	7 Jahren Garantie
Innengewinde	RFID auf Wunsch verfügbar
Außengewinde	3D Zeichnungen zum Download verfügbar
Höchstbelastung bis zu 125 Tonnen	Gebrauchsanweisung verfügbar über CODIPTRACER
Metrisches Gewinde	Konformitätszertifikat verfügbar über CODIPTRACER
Zollgewinde	Zertifiziert nach ISO 9001
Schmiedeteile	Zertifiziert nach ISO 14001
Einsatz als Zurrpunkt möglich	Zertifiziert nach ISO 27001
Kontrolle	Made in Luxembourg
Langzeitfettung	Getestet nach der Norm EN 1677-1
Anschlagwirbel für eine schnelle Montage - Quik lift Ring	Entspricht der Norm EN 795:2012
Individueller Rückverfolgbarkeitscode	

# LEGEND

1. Technical information    2. Quality & certification    3. Service

GRADUP steel ring	Other variants available on request
Swiveling under load	Unit production
360° rotation	Fast delivery guaranteed
180° articulation	Control and reconditioning
Safety factor of 5:1	Torque key
Safety factor of 4:1	Blocking springs available on request
Zinc-coating	CODITRACER: traceability and management tool of CODIPRO lifting rings
Control anti-crack on 100% of products	Centring version available on request
Fatigue test	Sales training available on request
Stainless Steel 316L	App available on Android
Ring for fall protection	App available on Apple
Two ways of tightening	Distributor portal/Extranet
Material developed for temperature between -20°C and +200°C	Worldwide presence
Female version	RFID available on request
Male version	3D download available
WLL up to 125 tons	Use recommendations available via CODITRACER
Metrical thread	Certificate of compliance available via CODITRACER
UNC thread	Certified ISO 9001
Forging production	Certified ISO 14001
Possible use for lashing	Certified ISO 27001
Visual control	Made in Luxembourg
Permanent lubrication	Tested according to standard EN 1677-1
Lifting ring for a quick anchoring - Quik Lift Ring	Comply to standard EN 795:2012
Individual traceability number	

# LEYENDA

1. Información técnica

2. Calidad y certificación

3. Servicio

	Cáncamo de acero GRADUP
	Rotación bajo carga
	Rotación a 360°
	Articulación a 180°
	Coefficiente de seguridad 5:1
	Coefficiente de seguridad 4:1
	Galvanización
	100% de nuestros cáncamos están aprobados anti fisuras
	Prueba de fatiga
	Acero inoxidable 316L
	Cáncamo anti caídas para seguridad de las personas
	Doble posibilidad de fijación
	Material concebido para temperaturas de uso de -20°C hasta +200°C
	Versión hembra
	Versión macho
	CMU hasta 125 toneladas
	Versión métrica
	Versión UNC
	Producción en forja
	Posibilidad de uso para estibar
	Control visual
	Engrase permanente
	Cáncamo de elevación de anclaje rápido - Quick Lift Ring
	Código de trazabilidad individual

	Otras opciones disponibles bajo solicitud
	Producción por unidad
	Garantía de plazo de entrega corto
	Control y reparaciones posibles por Codipro
	Llave de fijación
	Clips de sujeción disponibles bajo solicitud
	CODITRACER : instrumento de gestión y rastreabilidad
	Versión con centraje disponible bajo solicitud
	Formación tecnico-commercial disponible bajo solicitud
	Aplicación disponible en Android
	Aplicación disponible en Apple
	Portal distribuidor/Extranet
	Garantía de 7 años
	RFID disponible bajo solicitud
	Fichero 3D disponible para descargar
	Manual de instrucciones disponible a través de CODITRACER
	Certificado de conformidad disponible a través de CODITRACER
	Certificado ISO 9001
	Certificado ISO 14001
	Certificado ISO 27001
	Hecho en Luxemburgo
	Puesto a prueba según la norma EN 1677-1
	Conforme a la norma EN 795:2012

# LÉGENDE

1. Information technique

2. Qualité & certification

3. Service

	Anneau d'acier GRADUP
	Retournement sous charge
	Rotation à 360°
	Articulation à 180°
	Coefficient de sécurité 5:1
	Coefficient de sécurité 4:1
	Zingage
	100% des anneaux testés anti-fissures
	Test de fatigue
	Acier inoxydable 316L
	Anneau pour la sécurité des personnes
	Double possibilité de serrage
	Matériel conçu pour une température d'utilisation entre -20°C et +200°C
	Version femelle
	Version mâle
	CMU jusque 125 tonnes
	Version métrique
	Version UNC
	Production en forge
	Utilisation pour arrimage possible
	Contrôle visuel
	Graissage permanent
	Anneau de levage à ancrage rapide - Quick Lift Ring
	Code de traçabilité individuelle

	Autres variantes disponibles sur demande
	Production possible à l'unité
	Livraison rapide garantie
	Contrôle et remise en état
	Embout de serrage SEB
	Clips de maintien disponibles sur demande
	CODITRACER : outil de gestion et de traçabilité
	Versión avec centraje disponible sur demande
	Formation technico-commercial disponible sur demande
	Application disponible sur Android
	Application disponible sur Apple
	Portail distributeur/Extranet
	Garantie 7 ans
	RFID disponible sur demande
	Téléchargement 3D disponible
	Notice d'instruction disponible via CODITRACER
	Certificat de conformité disponible via CODITRACER
	Certifié ISO 9001
	Certifié ISO 14001
	Certifié ISO 27001
	Fabriqué au Luxembourg
	Testé selon la norme EN 1677-1
	Conforme à la norme EN 795:2012