

EDITORIAL



**«At CODIPRO,
innovation is in our
genes»**

Since its integration into ALIPA Group during 2004, CODIPRO has been in a state of constant development.

This development is reflected in some very significant events: new buildings, many more employees, communication tools that are adapted to new technologies, workshops redesigned to maintain maximum flexibility despite sales volumes multiplying by ten, etc.

Such growth has enabled our teams to develop their expertise and allowed us to acquire new techniques; all this means that we can now aspire to a very high level of competitiveness.

However, none of these changes have been on the scale of the current developments taking place at CODIPRO.

The new product range, which will be launched at the beginning of 2018, is the result of a long-standing collaboration between our technical teams and European research centers.

This range, GRADUP, is the very best that we can achieve today based on our key criteria: WLL, Design, Competitiveness. Read on to find out all the details and key features of the GRADUP brand.

In this constantly challenging and changing environment, we stayed loyal to our values. More than ever, “Our QUALITY = Your SAFETY” is undoubtedly what best defines CODIPRO. Located right in the heart of Europe, we are proud to display the label “Made in Luxembourg” - a seal of quality, innovation and professionalism.

As the only manufacturer to focus 100% on swivel lifting rings, CODIPRO has an in-depth knowledge of local and international standards and legislation. By way of possible involvement in European Committee for Standardization, we are able to bring lifting rings to market that comply with the very latest changes in regulations. CODIPRO lifting rings come with instructions in multiple languages and an individual certificate of compliance, so that they can be used worldwide.

The safety swivel lifting rings manufactured by CODIPRO are available via a network of partner distributors known as “EXPERTS”. A charter, in which clarity and transparency are key words, defines the roles of the three parties involved in this business relationship: CODIPRO, the EXPERTS and the end users.

I cannot finish without saying that we will continue to evolve. I must not reveal too much, but can confirm that our next innovation is just about to be launched on the market... Who was talking about digitization?

Kind regards,

Christophe LOSANGE
Director

12.2018

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CODIPRO
 GROUP
 LIPA

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 40 years' experience combined with in-depth research.



Grade 6, 8, 10, 12... 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 can 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°C to +200°C (-4°F to +392°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 ?

- Individually packed in a transparent, resealable pack containing the use recommendations and the certificate of compliance, 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 information needed for 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.

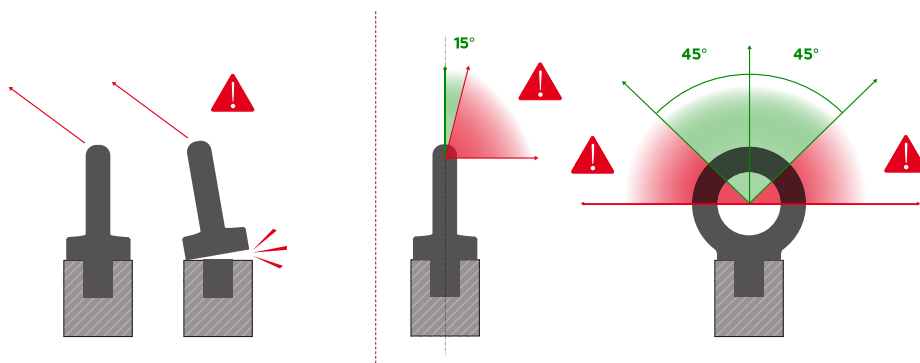
Along the same lines, in its load chart, CODIPRO gives values based on various load angles with factors of 5:1 AND 4:1 (see "Load Angle Chart" chapter).



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 OR SWIVEL EYE BOLT ?

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 direction of pulling.



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 anchoring.

The design of CODIPRO swivel rings allows pulling from any angle and to rotate 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**.

Each ring is packed in a bag including its individual certificate of conformity and use recommendations.

It is recommended to use lifting rings with bolts that are firmly connected to the whole system; this eliminates the risk of replacing it with an unsuitable one.

	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 40 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 batches, from standard to special, 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. Ever 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.

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

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 «CODIPRO's 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

In 2014, an initial "EXPERT CHARTER" laid the foundation for a lasting relationship between user, distributor and CODIPRO. Loyalty to the EXPERT was strengthened by the 2017 version of this CHARTER. Today, our EXPERTS have embraced this CHARTER. Now it's time to take them a step further: CODIPRO DAYS, CODIMASTER, CODIMASTER-BOX, etc.

CODIPRO is constantly evolving. The launch of the new GRADUP range in 2018 surpassed the most optimistic forecasts, and innovation is already at work on the digital revolution.

I invite you to browse through this CHARTER, which clearly explains how we will grow together in keeping with our values: Honesty - Professionalism - Transparency.

In this 2019 version of the CHARTER, CODIPRO wishes to strengthen the ties that bind it to its EXPERTS. Simpler classification and refined privileges are among the new concepts to discover—concepts that will allow us to remain competitive in industry 4.0.

With very warm regards,



Christophe LOSANGE
Director

2019 Version



CERTIFICATION

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.



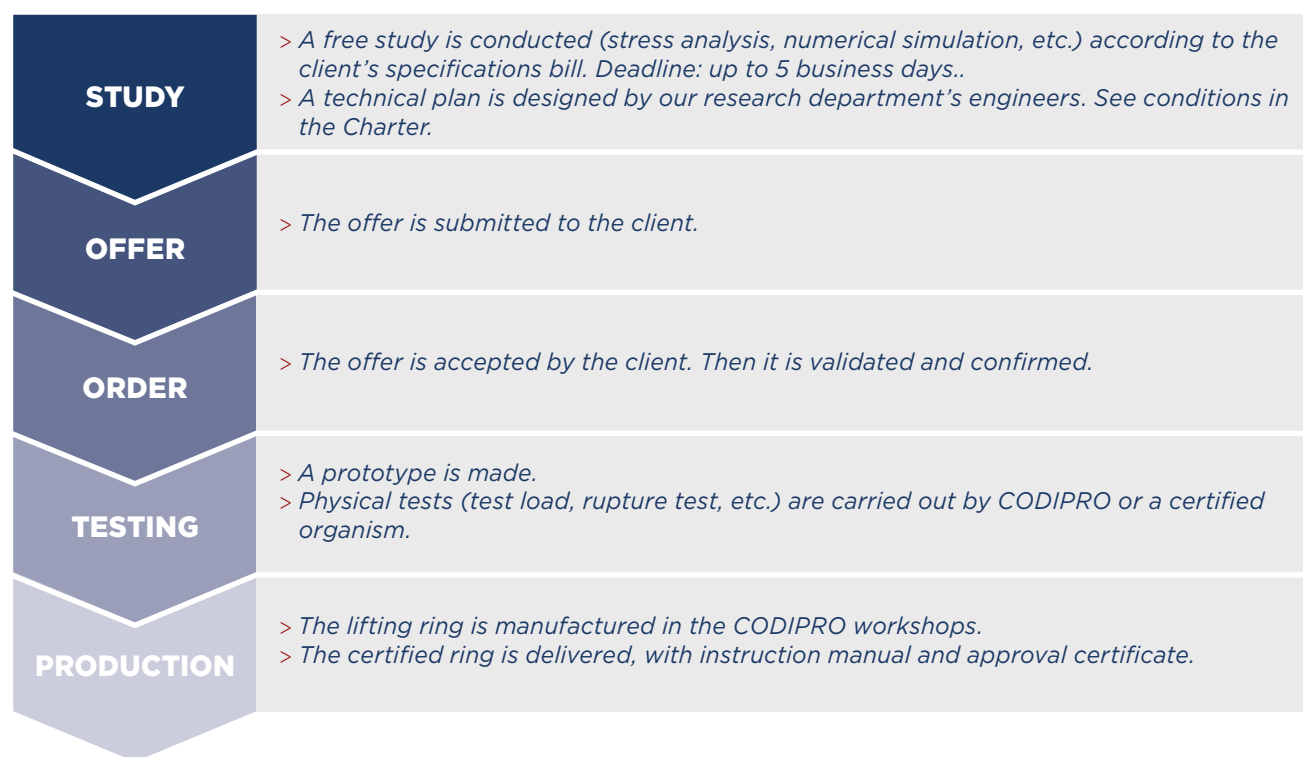
CERTIFICATION

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 EN1677-1 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

- > 7 traveling instructors
- > 10 years of experience in lifting / safety training
- > 500 trained experts
- > 2500 people have been trained in 10 years
- > 4 training supports available
- > 400,000 km: Distance traveled by the instructors



Benoît COP, Export Manager

Training offered by CODIPRO

- 1) A training support for the EXPERTS, approved by EXPERTS
- 2) A training support for the end user of CODIPRO rings
- 3) Programs available in 6 languages
- 4) Training provided by personnel who are experienced in lifting techniques
- 5) Its workshop and technical staff are available for training sessions in Wiltz, Luxembourg



*Jim AUJAY, Sales Manager
Lifting & Rigging Specialty Sales (USA)*

Your contact person: Benoît COP - Training Manager
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Presentation sheets for the various training sessions are available on request

GRADUP

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

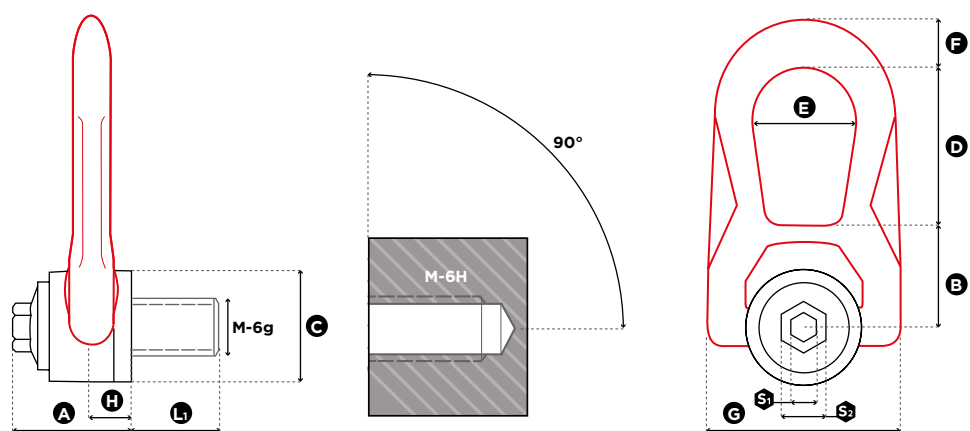
DSR

GradUp



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 ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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

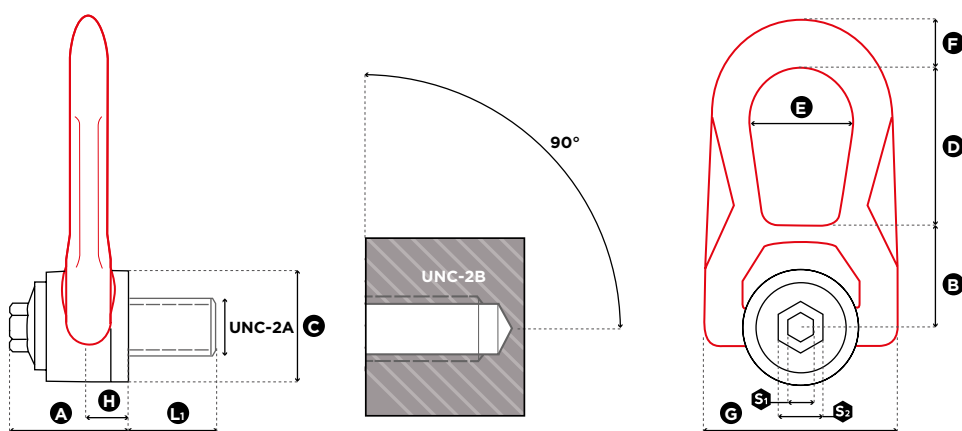
DSR

GradUp



DOUBLE SWIVEL RING

UNC THREADS



1 in = 25.4 mm

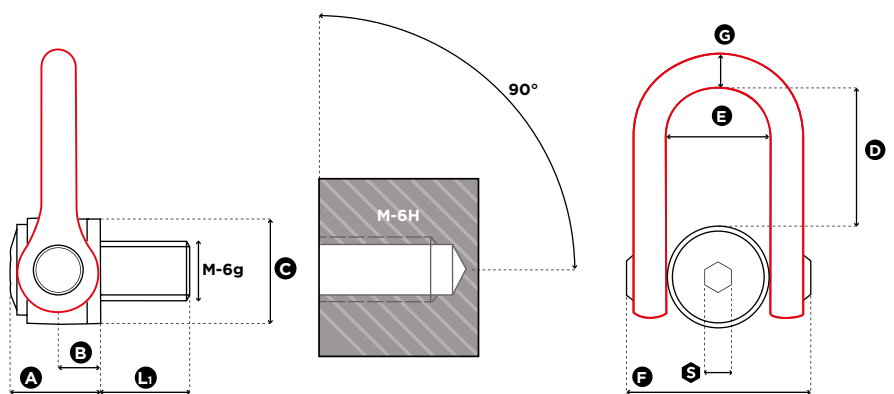
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
DSR U 025 UP	UNC 1/4"-20	330	450	13	3	8	16	32	30	30	38	27	14	53	9,5	0,3
DSR U 516 UP	UNC 5/16"-18	1,000	1,200	15	5	8	16	33	30	30	38	27	14	53	9,5	0,3
DSR U 038 UP	UNC 3/8"-16	1,300	1,600	17	8	8	16	33	30	30	38	27	14	53	9,5	0,3
DSR U 050 UP	UNC 1/2"-13	2,400	2,800	21	12	8	16	33	30	30	38	27	14	53	9,5	0,3
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
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
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
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
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
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

DSS

GradUp



DOUBLE SWIVEL SHACKLE



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)
DSS M 24 UP	M 24 (x3)	4,50	5,50	36	160	19	61	31	70	98	73	149	33	5,4
DSS M 30 UP	M 30 (x3,5)	7,70	8,50	45	250	19	61	31	70	98	73	149	33	5,5
DSS M 33 UP	M 33 (x3,5)	8,50	10,50	50	250	19	61	31	70	98	73	149	33	5,5
DSS M 36 UP	M 36 (x4)	11,00	12,00	54	320	19	61	31	70	98	73	149	33	5,5
DSS M 36x3 UP	M 36 (x3)	11,00	12,00	54	320	19	61	31	70	98	73	149	33	5,5
DSS M 39 UP	M 39 (x4)	12,00	14,00	58	320	19	61	31	70	98	73	149	33	5,7
DSS M 42 UP	M 42 (x4,5)	13,00	15,00	63	400	19	61	31	70	98	73	149	33	5,8
DSS M 42x3 UP	M 42 (x3)	13,00	15,00	63	400	19	61	31	70	98	73	149	33	5,8
DSS M 45 UP	M 45 (x4,5)	14,50	16,00	63	400	19	61	31	70	98	73	149	33	5,9
DSS M 48 UP	M 48 (x5)	17,00	20,00	68	600	19	79	38	90	123	91	182	45	11,0
DSS M 48x3 UP	M 48 (x3)	17,00	20,00	68	600	19	79	38	90	123	91	182	45	11,0
DSS M 48x4 UP	M 48 (x4)	17,00	20,00	68	600	19	79	38	90	123	91	182	45	11,0
DSS M 52 UP	M 52 (x5)	19,00	21,00	68	600	19	79	38	90	123	91	182	45	11,2
DSS M 56 UP	M 56 (x5,5)	22,00	25,00	78	600	19	79	38	90	123	91	182	45	11,3
DSS M 56x4 UP	M 56 (x4)	22,00	25,00	78	600	19	79	38	90	123	91	182	45	11,4
DSS M 64 UP	M 64 (x6)	25,00	32,10	90	600	19	79	38	95	123	91	182	45	12,2
DSS M 64x4 UP	M 64 (x4)	25,00	32,10	90	600	19	79	38	95	123	91	182	45	12,2
DSS M 72 UP	M 72 (x6)	22,00	25,00	90	600	19	79	38	95	123	91	182	45	14,0
DSS M 72x4 UP	M 72 (x4)	22,00	25,00	90	600	19	79	38	95	123	91	182	45	14,0
DSS M 80 UP	M 80 (x6)	25,00	32,10	90	600	19	79	38	100	123	91	182	45	15,0
DSS M 90 UP	M 90 (x6)	25,00	32,10	90	600	19	79	38	100	123	91	182	45	15,5
DSS M 100 UP	M 100 (x6)	25,00	32,10	90	600	19	79	38	110	123	91	182	45	16,5

12.2018

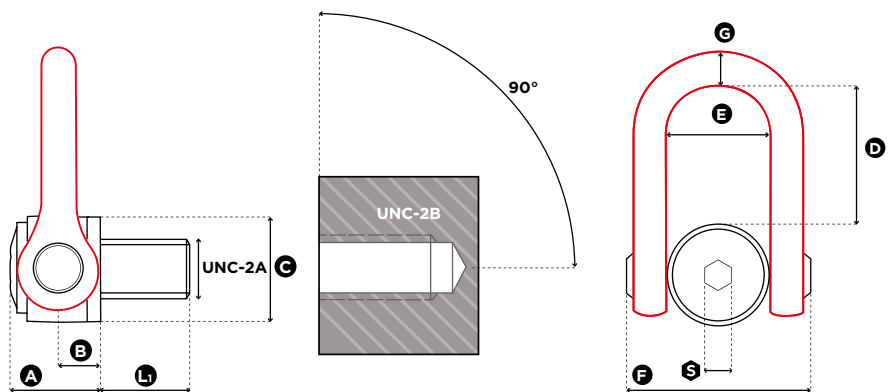
DSS

GradUp



DOUBLE SWIVEL SHACKLE

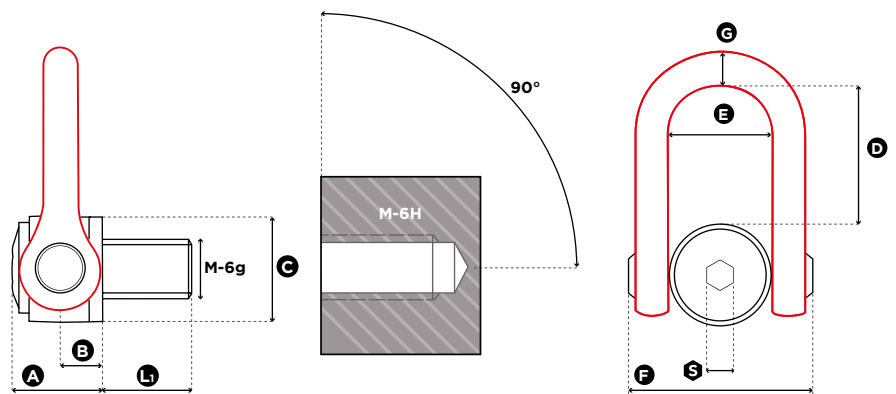
UNC THREADS



1 in = 25.4 mm

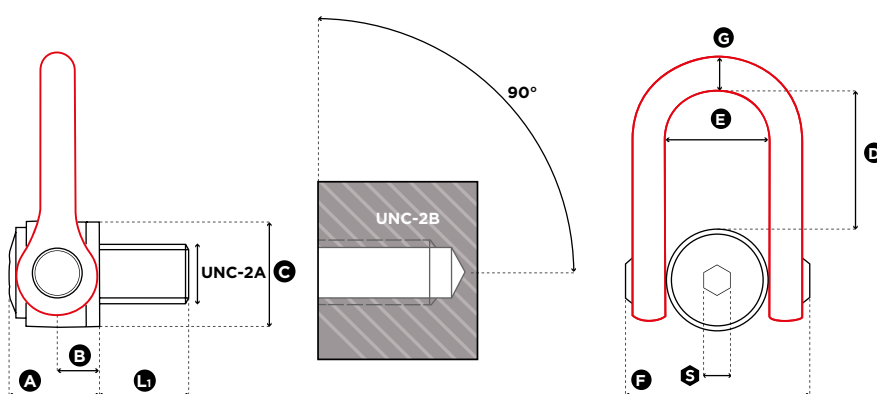
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
DSS U 100 UP	UNC 1"-8	10,000	13,000	36	125	19	61	31	70	98	73	149	33	5,4
DSS U 125 UP	UNC 1" 1/4-7	15,000	19,000	45	200	19	61	31	70	98	73	149	33	5,4
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
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
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
DSS U 200 UP	UNC 2"-4,5	38,000	50,000	76	450	19	79	38	90	123	91	182	45	11,1
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

12.2018

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 ₁ (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
MEGA.DSS M 64 UP	M 64 (x6)	26,00	33,00	100	600	36	127	64	140	186	143	278	69	42,0
MEGA.DSS M 72 UP	M 72 (x6)	28,00	35,00	110	700	36	127	64	140	186	143	278	69	43,0
MEGA.DSS M 72x4 UP	M 72 (x4)	28,00	35,00	110	700	36	127	64	140	186	143	278	69	43,0
MEGA.DSS M 80 UP	M 80 (x6)	32,00	40,00	120	800	36	127	64	140	186	143	278	69	44,5
MEGA.DSS M 90 UP	M 90 (x6)	36,00	45,00	135	900	36	127	64	140	186	143	278	69	46,5
MEGA.DSS M 100 UP	M 100 (x6)	48,00	60,00	150	1000	36	127	64	140	186	143	278	69	49,0

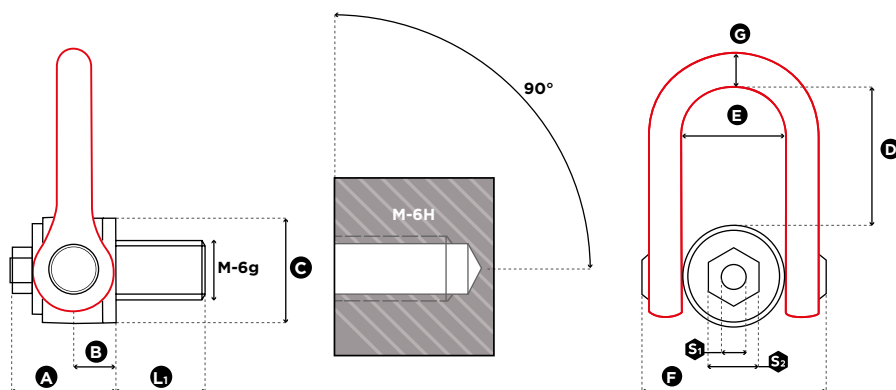
MEGA.DSS**MEGA DOUBLE SWIVEL SHACKLE****GradUp**

1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
MEGA.DSS U 275 UP	UNC 2" 3/4-4	60,000	75,000	105	520	36	127	64	140	186	143	278	69	42,5
MEGA.DSS U 300 UP	UNC 3" -4	64,000	80,000	115	520	36	127	64	140	186	143	278	69	43,0
MEGA.DSS U 325 UP	UNC 3" 1/4-4	72,000	90,000	125	590	36	127	64	140	186	143	278	69	44,5
MEGA.DSS U 350 UP	UNC 3" 1/2-4	76,000	95,000	135	665	36	127	64	140	186	143	278	69	46,0
MEGA.DSS U 375 UP	UNC 3" 3/4-4	80,000	100,000	145	740	36	127	64	140	186	143	278	69	47,0
MEGA.DSS U 400 UP	UNC 4" -4	88,000	110,000	150	740	36	127	64	140	186	143	278	69	49,0

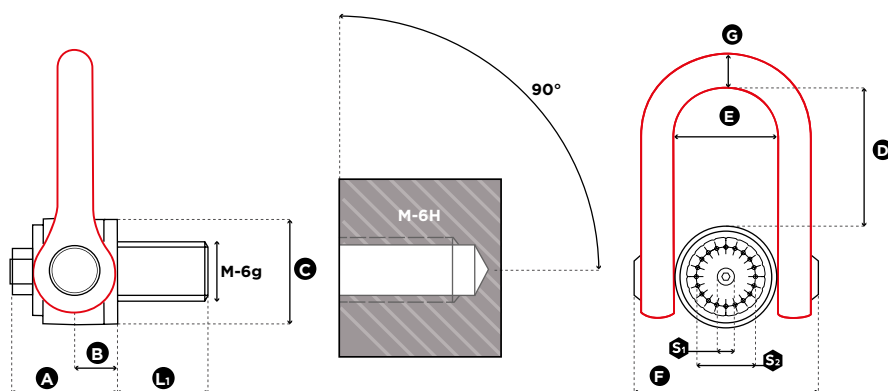
GIGA DOUBLE SWIVEL SHACKLE

Gradup



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)	Weight (kg)
GIGA.DSS M 150 UP	M 150 (x6)	125,00	228	2000	41	105	271	115	290	353	302	544	103	268



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)	Weight (kg)
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

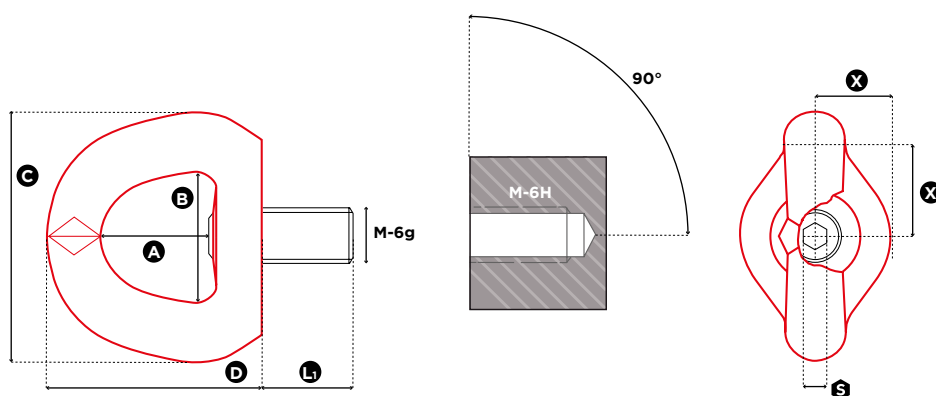
SEB

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)	X (mm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
SEB M 8 UP	M 8 (x1,25)	0,40	0,50	14	6	20	6	30	34	60	57	0,24
SEB M 10 UP	M 10 (x1,5)	0,50	0,70	17	10	20	6	30	34	60	57	0,24
SEB M 12 UP	M 12 (x1,75)	0,80	0,90	21	15	20	6	30	34	60	57	0,24
SEB M 16 UP	M 16 (x2)	1,40	1,80	27	50	35	8	38	45	88	80	0,8
SEB M 20 UP	M 20 (x2,5)	2,00	2,70	30	100	35	8	38	45	88	80	0,8
SEB M 24 3t8 UP	M 24 (x3)	3,20	3,80	36	160	35	14	38	45	88	80	0,8
SEB M 24 4t2 UP	M 24 (x3)	3,40	4,20	36	160	50	14	58	70	115	106	2,6
SEB M 30 UP	M 30 (x3,5)	5,50	6,30	45	250	50	14	58	70	115	106	2,7
SEB M 36 UP	M 36 (x4)	9,00	11,00	54	320	70	14	83	94	168	155	7,0
SEB M 42 UP	M 42 (x4,5)	12,00	15,00	63	400	70	14	83	94	168	155	7,0
SEB M 48 UP	M 48 (x5)	15,00	16,00	68	600	70	19	80	94	168	155	7,0

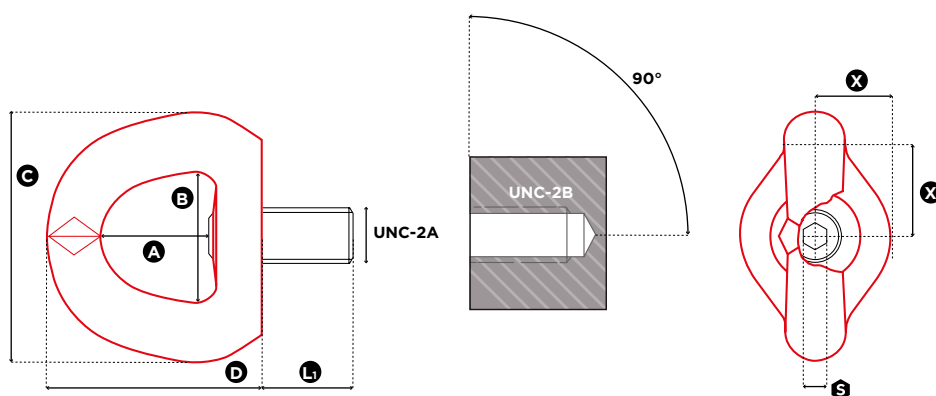
SEB

GradUp



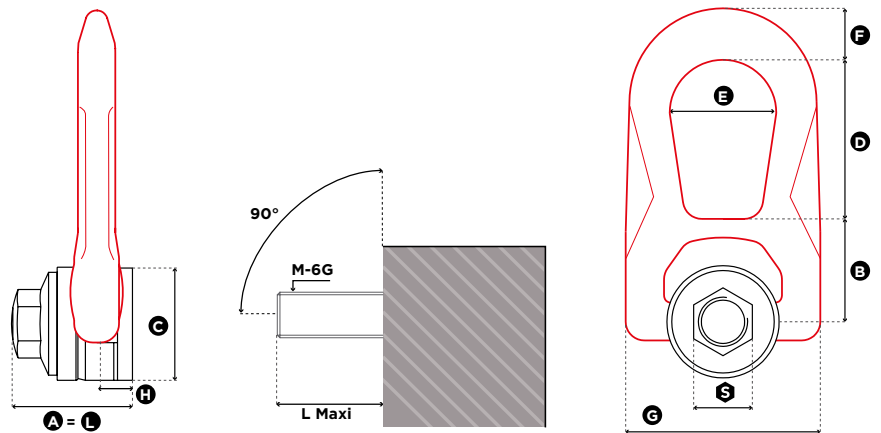
SWIVEL EYE BOLT

UNC THREADS



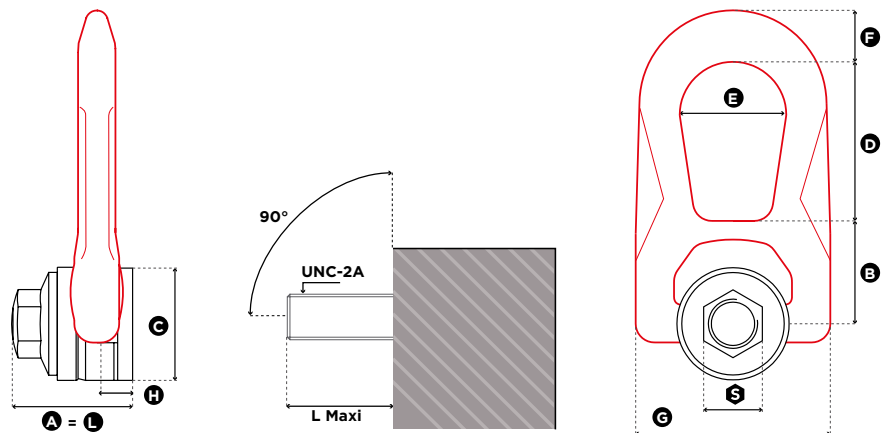
1 in = 25.4 mm

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

FE.DSR**FEMALE DOUBLE SWIVEL RING****GradUp**

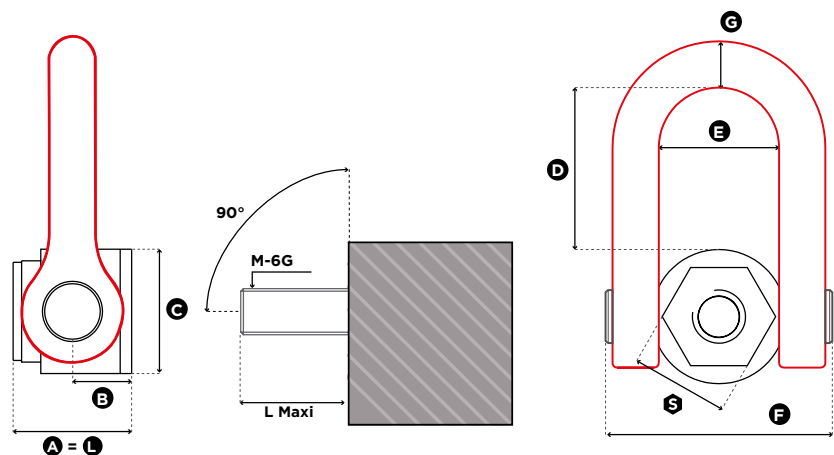
1 in = 25.4 mm

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)
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
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
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
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
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
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
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
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

FE.DSR**FEMALE DOUBLE SWIVEL RING****GradUp**

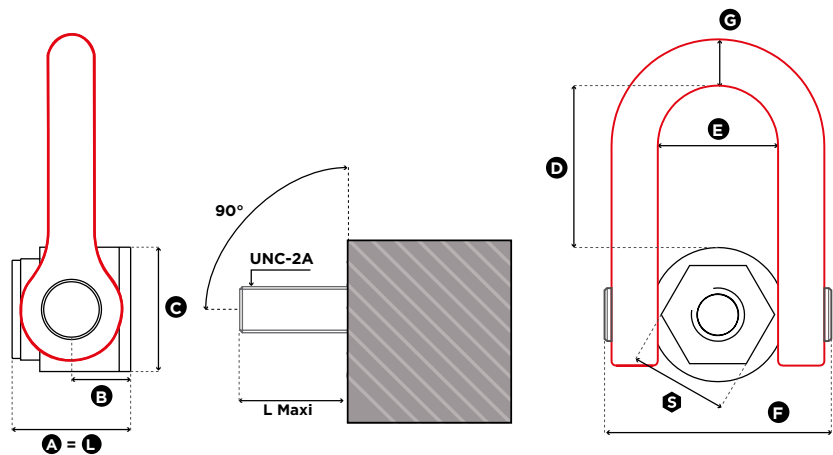
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	L Maxi (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
FE.DSR U 025 UP	UNC 1/4"-20	330	450	45	3	20	45	40	45	53	38	17	76	13	0,9
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
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
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
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
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
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

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)
FE.DSS M 24 UP	M 24 (x3)	4,50	5,50	66	160	50	66	31	70	98	73	149	33	5,1
FE.DSS M 27 UP	M 27 (x3)	5,20	6,50	66	200	50	66	31	70	98	73	149	33	5,1
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
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
FE.DSS M 36 UP	M 36 (x4)	10,00	12,00	66	320	50	66	31	70	98	73	149	33	5,1
FE.DSS M 39 UP	M 39 (x4)	12,00	14,00	89	320	60	89	38	95	123	91	182	45	10,0
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
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
FE.DSS M 48 UP	M 48 (x5)	17,00	20,00	89	600	60	89	38	95	123	91	182	45	10,0
FE.DSS M 52 UP	M 52 (x5)	19,00	21,00	89	600	60	89	38	95	123	91	182	45	10,0

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 (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
FE.DSS U 100 UP	UNC 1"-8	10,000	13,000	66	125	50	66	31	70	98	73	149	33	5,1
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
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
FE.DSS U 150 UP	UNC 1" 1/2-6	22,000	27,000	89	240	60	89	38	95	123	91	182	45	10,0
FE.DSS U 200 UP	UNC 2"-4,5	38,000	50,000	89	450	60	89	38	95	123	91	182	45	10,0

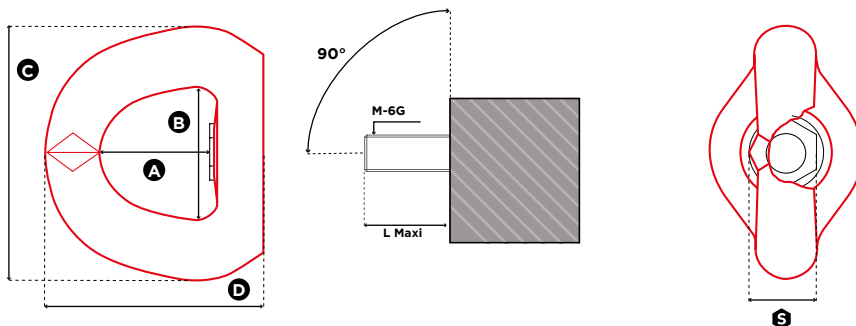
FE.SEB

GradUp



FEMALE SWIVEL EYE BOLT

METRIC THREADS



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	L Maxi (mm)	Torque (Nm)	 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
FE.SEB M 8 UP	M 8 (x1,25)	0,40	0,50	22	6	21	38	45	88	80	0,8
FE.SEB M 10 UP	M 10 (x1,5)	0,50	0,70	22	10	21	38	45	88	80	0,8
FE.SEB M 12 UP	M 12 (x1,75)	0,80	0,90	22	15	21	38	45	88	80	0,8
FE.SEB M 16 UP	M 16 (x2)	1,40	1,80	22	50	21	38	45	88	80	0,8
FE.SEB M 20 UP	M 20 (x2,5)	2,00	2,70	35	100	36	55	70	115	106	2,5
FE.SEB M 24 UP	M 24 (x3)	3,40	4,20	48	160	40	77	94	168	155	6,3
FE.SEB M 30 UP	M 30 (x3,5)	5,50	6,30	48	250	40	77	94	168	155	6,3
FE.SEB M 36 UP	M 36 (x4)	9,00	11,00	48	320	40	77	94	168	155	6,3

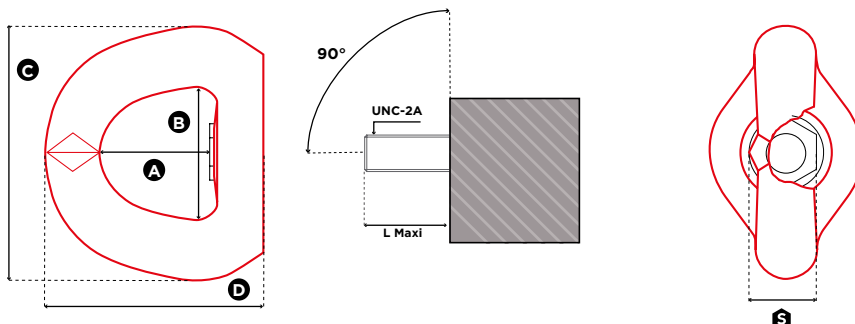
FE.SEB

GradUp



FEMALE SWIVEL EYE BOLT

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)	Weight (kg)
FE.SEB U 038 UP	UNC 3/8"-16	1,200	1,500	22	8	21	38	45	88	80	0,8
FE.SEB U 050 UP	UNC 1/2"-13	1,800	1,950	22	12	21	38	45	88	80	0,8
FE.SEB U 058 UP	UNC 5/8"-11	3,200	4,000	22	40	21	38	45	88	80	0,8
FE.SEB U 075 UP	UNC 3/4"-10	4,750	5,900	35	80	36	55	70	115	106	2,5
FE.SEB U 100 UP	UNC 1"-8	7,500	9,300	48	125	40	77	94	168	155	6,3
FE.SEB U 125 UP	UNC 1" 1/4-7	12,200	13,800	48	200	40	77	94	168	155	6,3

STAINLESS STEEL / ACIER INOXYDABLE / EDELSTAHL / ACERO INOXIDABLE

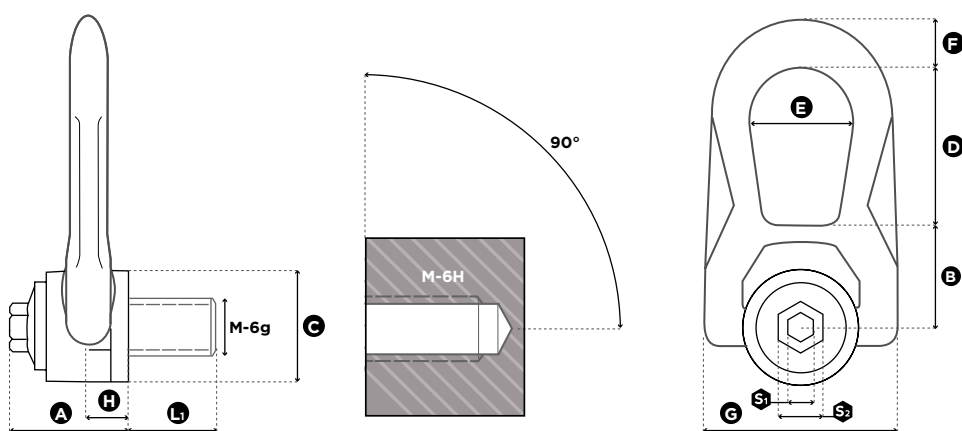
- SS.DSR
- SS.DSS
- SS.SEB

- SS.FE.DSR
- SS.FE.DSS

SS.DSR

STAINLESS STEEL DOUBLE SWIVEL RING

METRIC THREADS



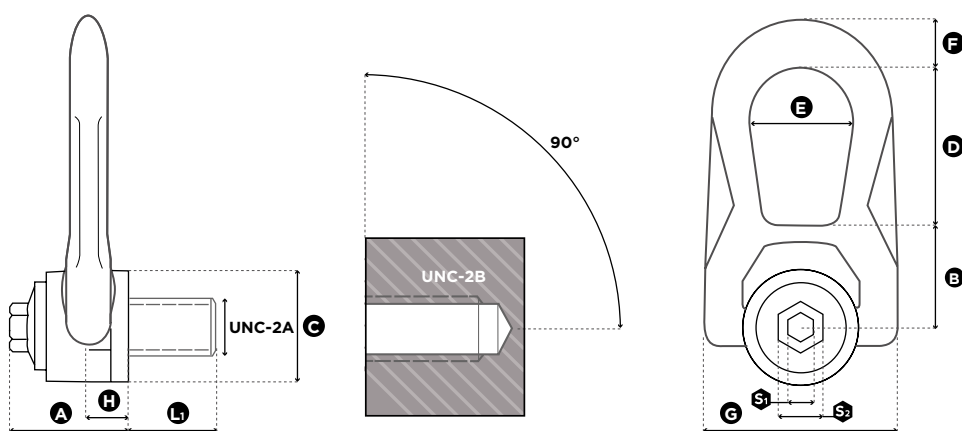
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
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
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
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
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
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
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
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
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
SS.DSR M 22	M 22 (x2,5)	2,20	2,20	42	120	14	24	62	55	58	83	56	25	115	19	2,5
SS.DSR M 24	M 24 (x3)	2,70	2,70	42	160	14	24	62	55	58	83	56	25	115	19	2,6
SS.DSR M 27	M 27 (x3)	2,80	2,90	42	200	14	24	62	55	58	83	56	25	115	19	2,7
SS.DSR M 30	M 30 (x3,5)	3,00	3,50	47	250	14	24	62	55	58	83	56	25	115	19	2,8

SS.DSR

STAINLESS STEEL DOUBLE SWIVEL RING

UNC THREADS



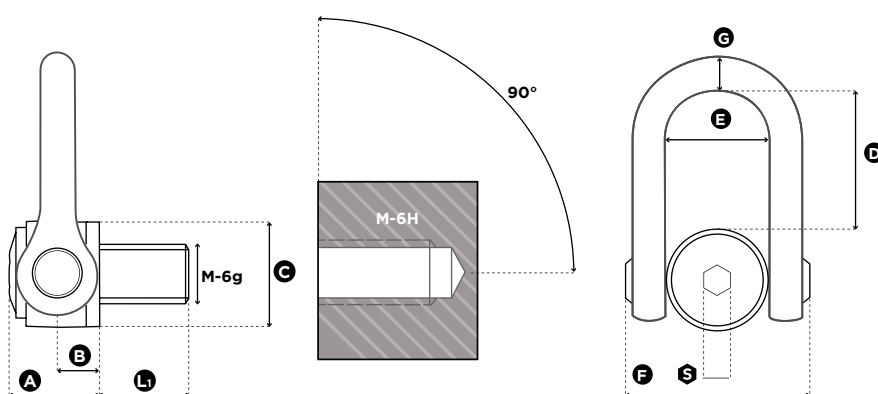
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
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
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
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
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
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
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
SS.DSR U 078	UNC 7/8"-9	5,000	5,100	33	90	14	24	62	55	58	83	56	25	115	19	2,5
SS.DSR U 100	UNC 1"-8	6,000	6,000	36	125	14	24	62	55	58	83	56	25	115	19	2,6

SS.DSS

STAINLESS STEEL DOUBLE SWIVEL SHACKLE

METRIC THREADS



1 in = 25.4 mm

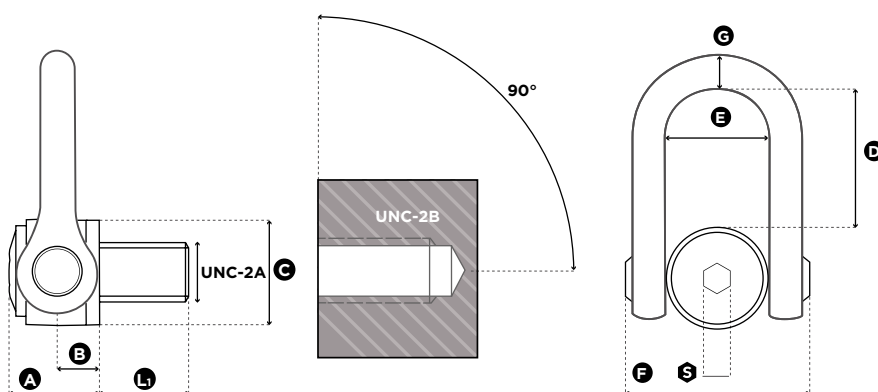
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SS.DSS M 24	M 24 (x3)	2,70	2,70*	36	160	19	61	31	70	98	73	149	30	5,2
SS.DSS M 30	M 30 (x3,5)	3,50	3,50*	45	250	19	61	31	70	98	73	149	30	5,2
SS.DSS M 33	M 33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

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

SS.DSS

STAINLESS STEEL DOUBLE SWIVEL SHACKLE

UNC THREADS



1 in = 25.4 mm

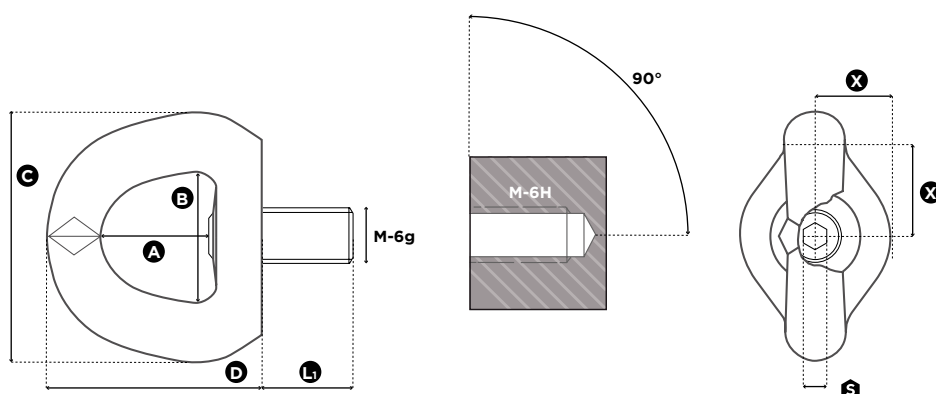
Reference	Diameter	SF 5:1 WLL (lbs)	SF 4:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SS.DSS U 100	UNC 1"-8	6,000	6,000*	40	125	3/4"	61	31	70	98	73	149	30	5,2
SS.DSS U 125	UNC 1" 1/4-7	7,500	7,500*	45	200	3/4"	61	31	70	98	73	149	30	5,2
SS.DSS U 138	UNC 1" 3/8-6	7,500	7,500*	54	240	3/4"	61	31	70	98	73	149	30	5,2
SS.DSS U 150	UNC 1" 1/2-6	11,000	11,000*	61	240	3/4"	61	31	70	98	73	149	30	5,4
SS.DSS U 200	UNC 2" 4,5	/ *	14,000	76	450	3/4"	79	38	90	123	91	182	41	11,1

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

SS.SEB

STAINLESS STEEL SWIVEL EYE BOLT

METRIC THREADS



1 in = 25.4 mm

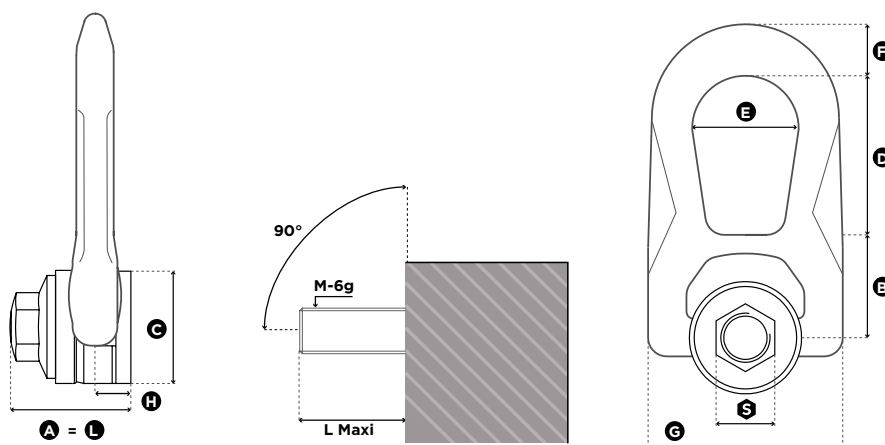
Reference	Diameter	SF 5:1 WLL (t)	SF 4:1 WLL (t)	Standard L ₁ (mm)	Torque (Nm)		 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
SS.SEB M 12	M 12 (x1,75)	0,55	0,55*	21	15	20	8	38	45	90	80	0,80
SS.SEB M 16	M 16 (x2)	1,20	1,20*	27	50	35	8	38	45	90	80	0,82
SS.SEB M 20	M 20 (x2,5)	1,50	1,50*	30	100	35	8	38	45	90	80	0,84
SS.SEB M 24	M 24 (x3)	2,50	2,50*	36	100	50	8	38	45	90	80	0,90

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

SS.FE.DSR

STAINLESS STEEL FEMALE DOUBLE SWIVEL RING

METRIC THREADS



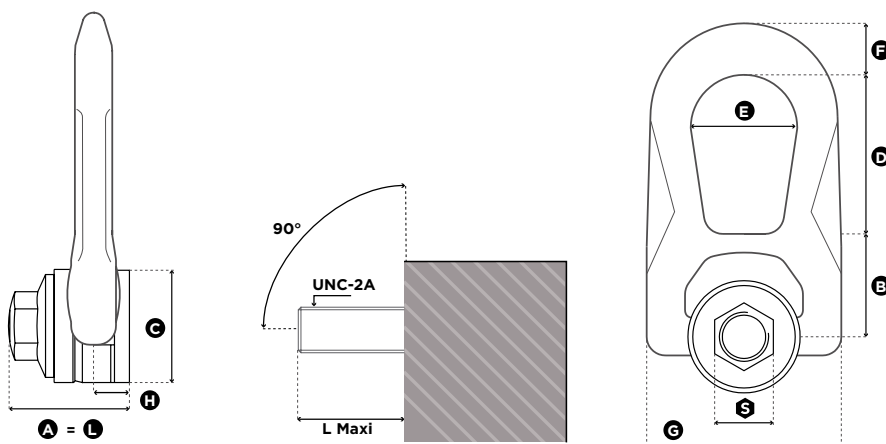
1 in = 25.4 mm

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)	H (mm)	Weight (kg)
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
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
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
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
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
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
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
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

SS.FE.DSR

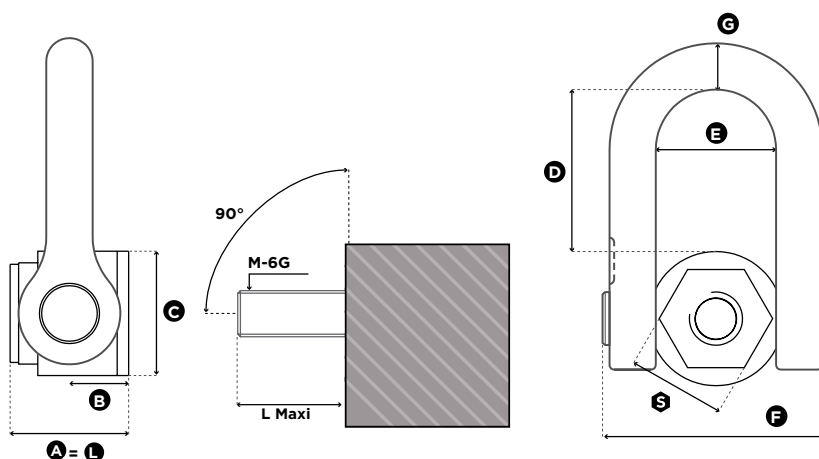
STAINLESS STEEL FEMALE DOUBLE SWIVEL RING

UNC THREADS



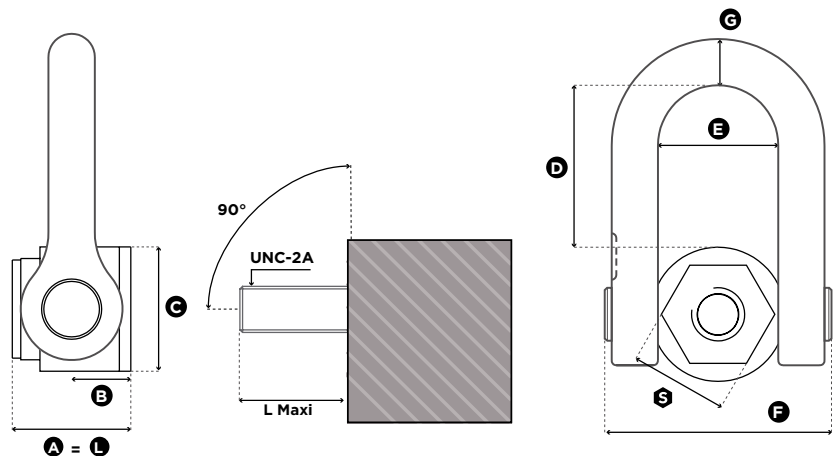
1 in = 25.4 mm

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)	H (mm)	Weight (kg)
SS.FE.DSR U 516	UNC 5/16"-18	600	650	43	5	20	43	40	45	53	38	17	76	13	0,9
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
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
SS.FEDSR U 058	UNC 5/8"-11	2,500	3,000	43	40	20	43	40	45	53	38	17	76	13	0,9
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
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

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)
SS.FE.DSS M 24	M 24 (x3)	2,70	2,70	66	160	50	66	31	70	98	73	149	30	5,8
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
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
SS.FE.DSS M 36	M 36 (x4)	5,00	5,00	66	320	50	66	31	70	98	73	149	30	5,8

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 (Nm)	S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
SS.FE.DSS U 100	UNC 1"-8	6,000	6,000*	66	125	50	66	31	70	98	73	149	30	5,4
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
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
SS.FE.DSS U 150	UNC 1" 1/2-6	11,000	11,000*	89	240	60	89	38	95	123	91	182	41	12,0

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

12.2018

SPECIAL LIFTING SOLUTIONS

- DSP
- DSH
- TSR
- CSS
- SLM
- WE.DSR / WE.DSS
- PE.SEB / SS.PE.SEB
- ADA

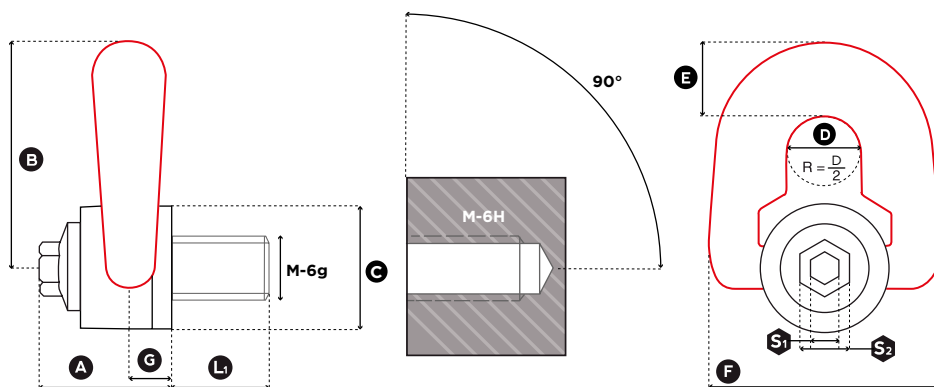
www.codipro.net


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ALIPA

DSP

METRIC THREADS

DOUBLE SWIVEL LIFTING POINT



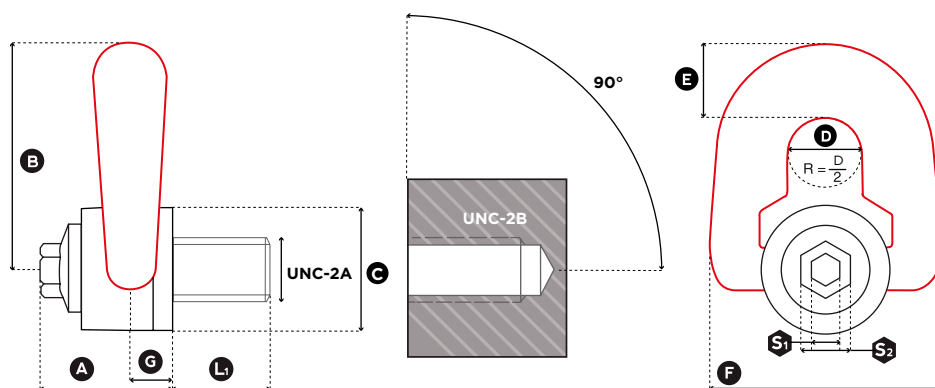
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
DSP M 8	M 8 (x1,25)	0,40	15	6	8	16	33	56	30	19	19	58	9,5	0,3
DSP M 10	M 10 (x1,50)	0,70	18	10	8	16	33	56	30	19	19	58	9,5	0,3
DSP M 12	M 12 (x1,75)	1,05	21	15	8	16	33	56	30	19	19	58	9,5	0,3
DSP M 14	M 14 (x2)	1,40	23	30	8	20	45	81	45	25	27	79	13	0,9
DSP M 16	M 16 (x2)	2,00	27	50	8	20	45	81	45	25	27	79	13	0,9
DSP M 18	M 18 (x2,5)	2,30	27	70	8	20	45	81	45	25	27	79	13	1,0
DSP M 20	M 20 (x2,5)	2,50	30	100	8	20	45	81	45	25	27	79	13	1,0

DSP

UNC THREADS

DOUBLE SWIVEL LIFTING POINT



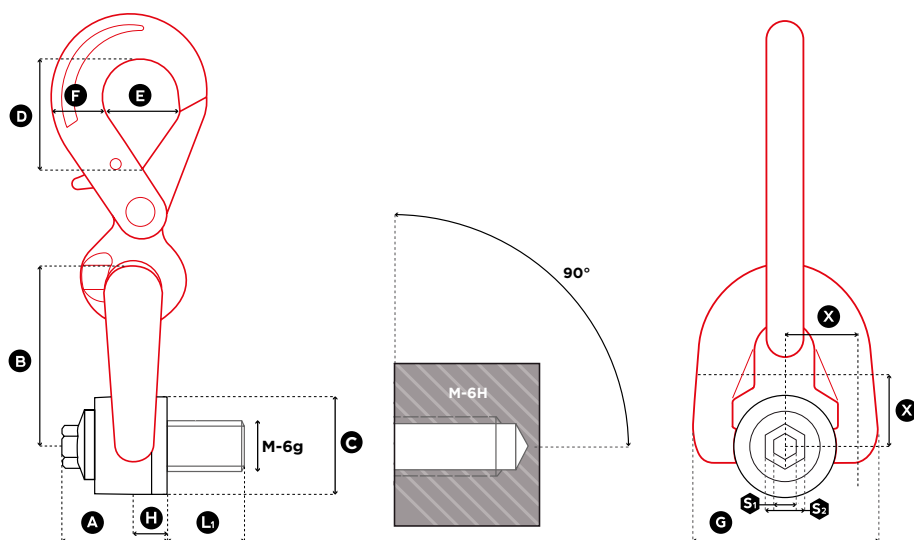
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	Standard L ₁ (mm)	Torque (ft-lb)	S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
DSP U 516	UNC 5/16"-18	1,000	15	7	8	16	33	56	30	19	19	58	9,5	0,3
DSP U 038	UNC 3/8"-16	1,300	17	8	8	16	33	56	30	19	19	58	9,5	0,3
DSP U 050	UNC 1/2"-13	2,400	21	12	8	16	33	56	30	19	19	58	9,5	0,3
DSP U 058	UNC 5/8"-11	3,900	27	40	8	16	45	81	45	25	27	79	13,0	1,0
DSP U 075	UNC 3/4"-10	5,250	30	80	8	16	45	81	45	25	27	79	13,0	1,0

DSH

DOUBLE SWIVEL HOOK

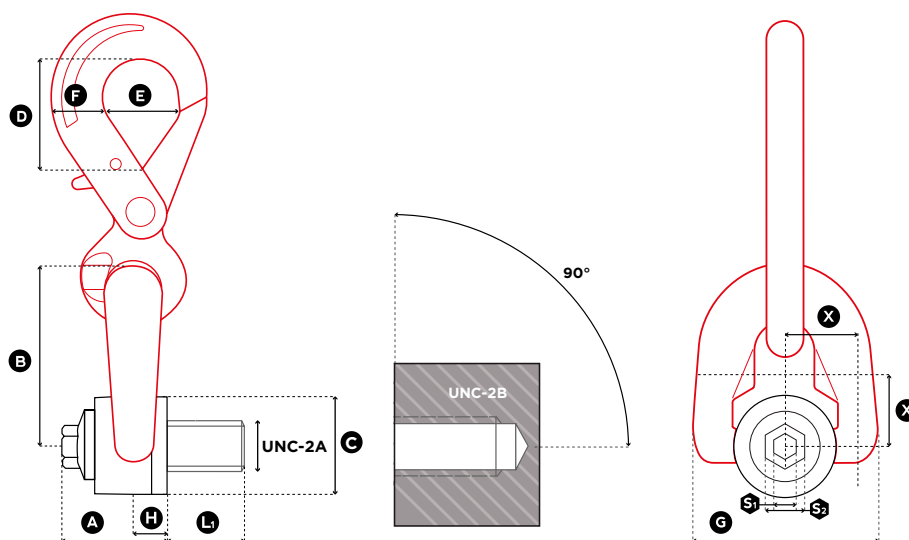
METRIC THREADS



1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (t)	Standard L1 (mm)	Torque (Nm)	X (mm)	S1 (mm)	S2 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
DSH M 8	M 8 (x1,25)	0,40	15	6	18	8	16	33	56	30	44	32	23	58	9,5	0,8
DSH M 10	M 10 (x1,50)	0,70	18	10	18	8	16	33	56	30	44	32	23	58	9,5	0,8
DSH M 12	M 12 (x1,75)	1,05	21	15	18	8	16	33	56	30	44	32	23	58	9,5	0,8
DSH M 14	M 14 (x2)	1,40	23	30	24	8	20	45	81	45	65	46	29	79	13,0	1,9
DSH M 16	M 16 (x2)	2,00	27	50	24	8	20	45	81	45	65	46	29	79	13,0	2,0
DSH M 18	M 18 (x2,5)	2,30	27	70	24	8	20	45	81	45	65	46	29	79	13,0	2,0
DSH M 20	M 20 (x2,5)	2,50	30	100	24	8	20	45	81	45	65	46	29	79	13,0	2,0

DOUBLE SWIVEL HOOK



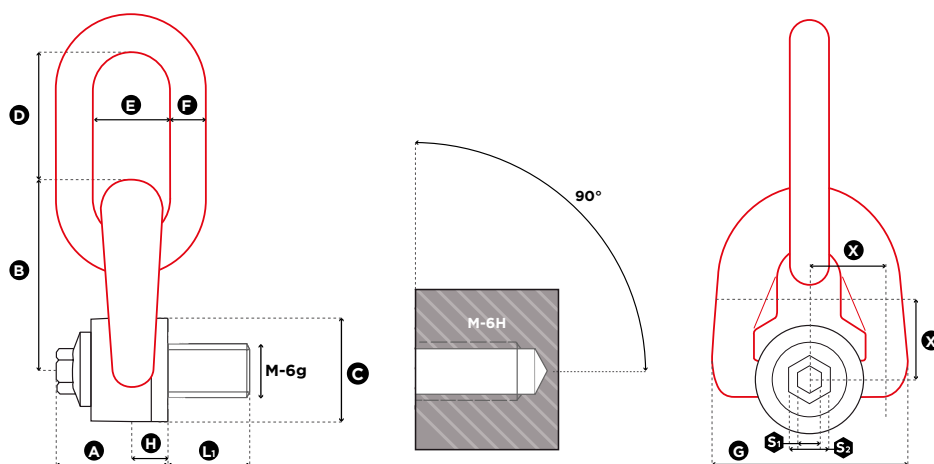
1 in = 25.4 mm

Reference	Diameter	SF 5:1 WLL (lbs)	Standard L1 (mm)	Torque (ft-lb)	X (mm)	S1 (mm)	S2 (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
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
DSH U 038	UNC 3/8"-16	1,300	17	8	18	8	16	33	56	30	44	32	23	58	9,5	0,8
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
DSH U 058	UNC 5/8"-11	3,900	27	40	24	8	20	45	81	45	58	46	29	79	13,0	1,9
DSH U 075	UNC 3/4"-10	5,250	30	80	24	8	20	45	81	45	58	46	29	79	13,0	2,0

TSR

TRIPLE SWIVEL RING

METRIC THREADS



1 in = 25.4 mm

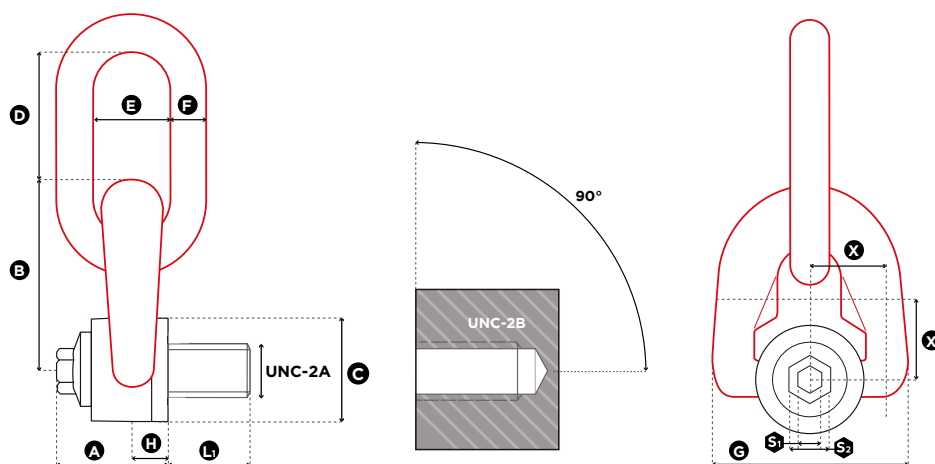
Reference	Diameter	SF 5:1 WLL (t)	Standard L ₁ (mm)	Torque (Nm)		S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
TSR M 8	M 8 (x1,25)	0,40	14	6	18	8	16	33	56	30	41	25	10	58	9,5	0,4
TSR M 10	M 10 (x1,50)	0,70	17	10	18	8	16	33	56	30	41	25	10	58	9,5	0,4
TSR M 12	M 12 (x1,75)	1,05	21	15	18	8	16	33	56	30	41	25	10	58	9,5	0,4
TSR M 14	M 14 (x2)	1,40	23	30	24	8	20	45	81	45	56	37	14	79	13,0	1,1
TSR M 16	M 16 (x2)	2,00	27	50	24	8	20	45	81	45	56	37	14	79	13,0	1,2
TSR M 18	M 18 (x2,5)	2,30	27	70	24	8	20	45	81	45	56	37	14	79	13,0	1,2
TSR M 20	M 20 (x2,5)	2,50	30	100	24	8	20	45	81	45	56	37	14	79	13,0	1,2
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
TSR M 24	M 24 (x3)	4,00	36	160	45	14	24	62	105	60	80	45	20	106	19,0	2,9
TSR M 27	M 27 (x3)	5,00	36	200	45	14	24	62	105	60	80	45	20	106	19,0	2,9
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
TSR M 36	M 36 (x4)	10,00	54	320	54	19	30	81	140	80	111	71	30	148	26,5	7,6
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

Reference	Diameter	SF 4:1 WLL (t)	Standard L ₁ (mm)	Torque (Nm)		S ₁ (mm)	S ₂ (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
TSR M 48	M 48 (x5)	20,00	68	600	69	19	30	100	178	110	135	90	42	180	33,0	17,5
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

TSR

TRIPLE SWIVEL RING

UNC THREADS



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)
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
TSR U 038	UNC 3/8"-16	1,300	17	8	18	8	16	33	56	30	41	25	10	58	9,5	0,4
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
TSR U 058	UNC 5/8"-11	3,900	27	40	24	8	20	45	81	45	56	37	14	79	13,0	1,1
TSR U 075	UNC 3/4"-10	5,250	30	80	24	8	20	45	81	45	56	37	14	79	13,0	1,2
TSR U 078	UNC 7/8"-9	6,600	33	90	41	14	24	62	84	60	80	45	20	106	19,0	2,7
TSR U 100	UNC 1"-8	10,000	36	125	41	14	24	62	84	60	80	45	20	106	19,0	2,8
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
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

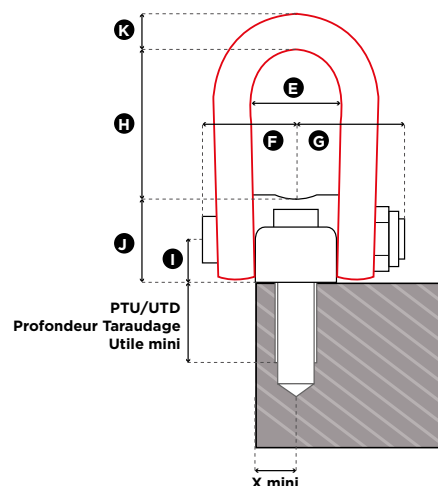
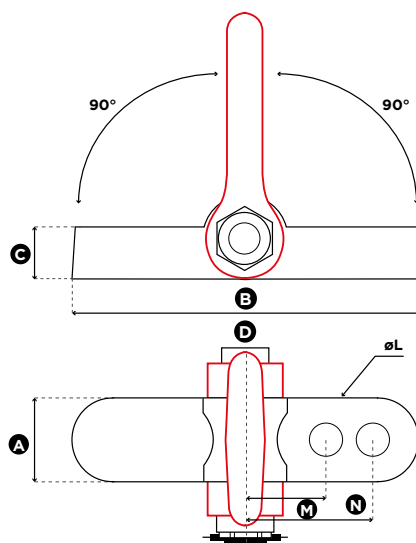
1 in = 25.4 mm

Reference	Diameter	SF 4:1 WLL (lbs)	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)
TSR U 200	UNC 2" 4,5	50,000	76	450	66	19	30	104	184	110	135	90	42	190	33,0	17,7

CENTRAL SAFETY SHACKLE



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



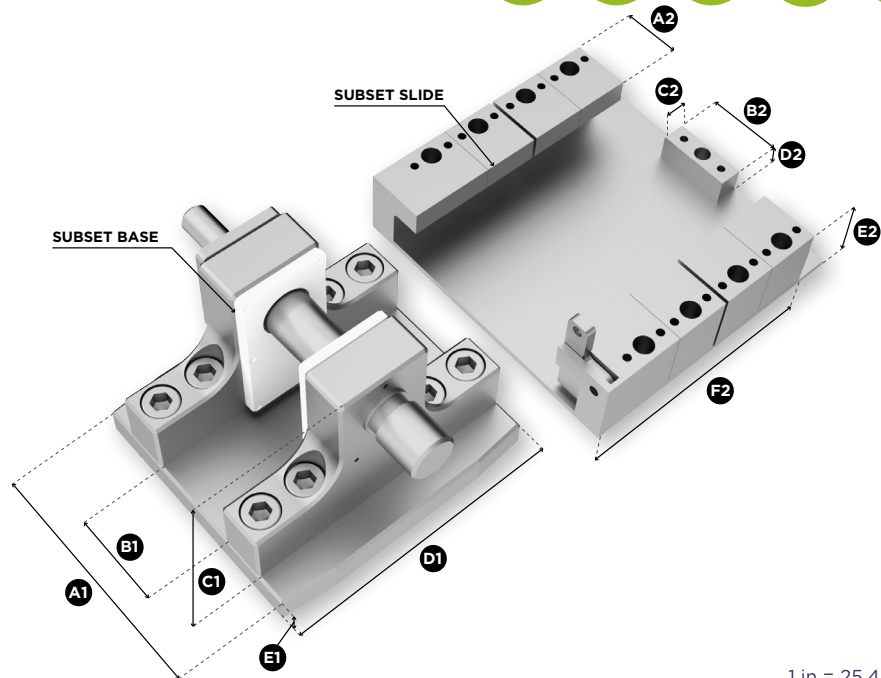
1 in = 25.4 mm

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)
CSS 20	20	40	80	220	50	62	90	88	98	132	38	76	41,0	12,7
CSS 32	32	40	80	330	50	62	90	88	98	132	38	76	41,0	16,7
CSS 55	55	53	105	540	85	191	184	160	170	267	85	175	79,5	90,0

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

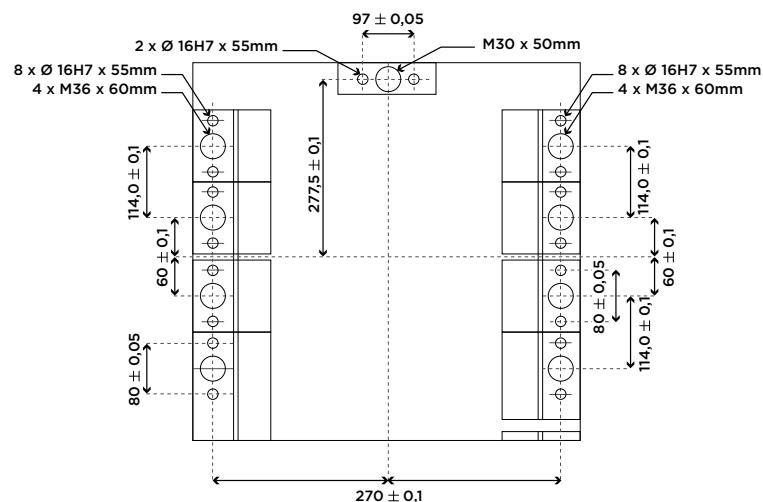
Reference	Drilling/Perçage/ Bohrung/Taladro			PTU/ UTD	Screw/Vis/Schraube/Tornillo					
	Ø L	M (mm)	N (mm)	Useful Minimum Thread Depth (mm)	Quantity Quantité Menge Cantidad	Model Modèle Modell Modelo	Length Longueur Länge Longitud (mm)	Head / Tête / Schraubenkopf / Encima		Torque (Nm)
								Diam (mm)	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



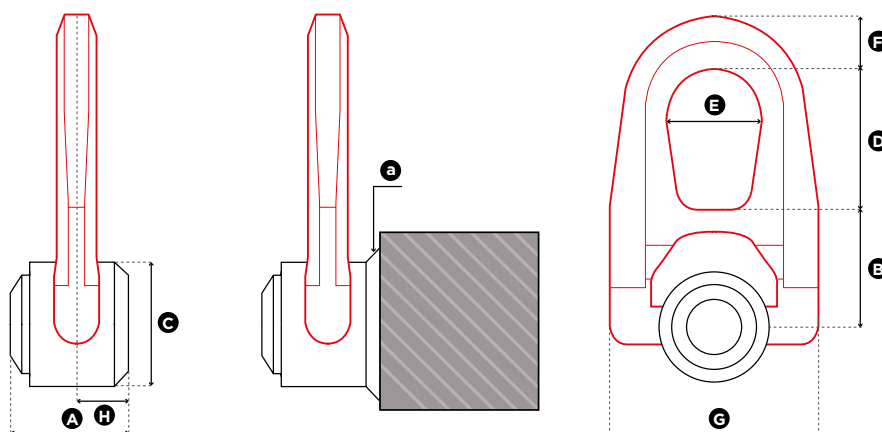
1 in = 25.4 mm

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)
120	150	50	50	130	517,5

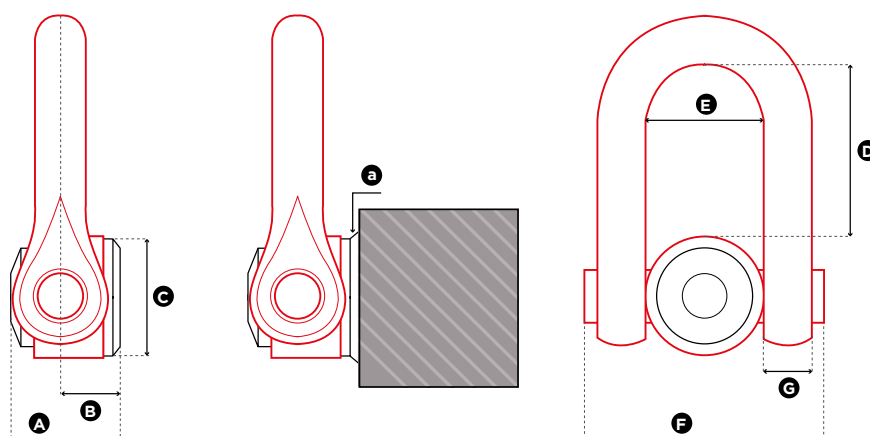


WELD-ON SWIVEL HOIST RING



1 in = 25.4 mm

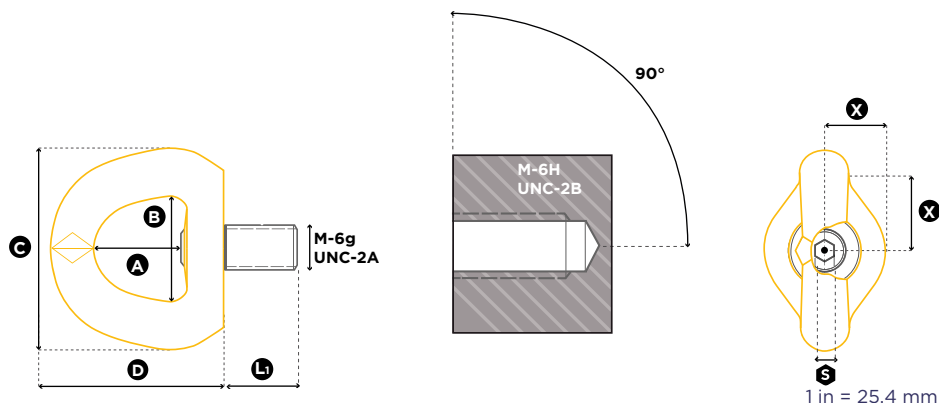
Reference	SF 5:1 WLL (t)	SF 5:1 WLL (lbs)	a (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	H (mm)	Weight (kg)
WE.DSR 2	2,00	4,400	5	44	40	45	53	38	17	76	20	0,9
WE.DSR 5	5,00	11,000	6	60	55	60	83	55	25	115	24	2,6



1 in = 25.4 mm

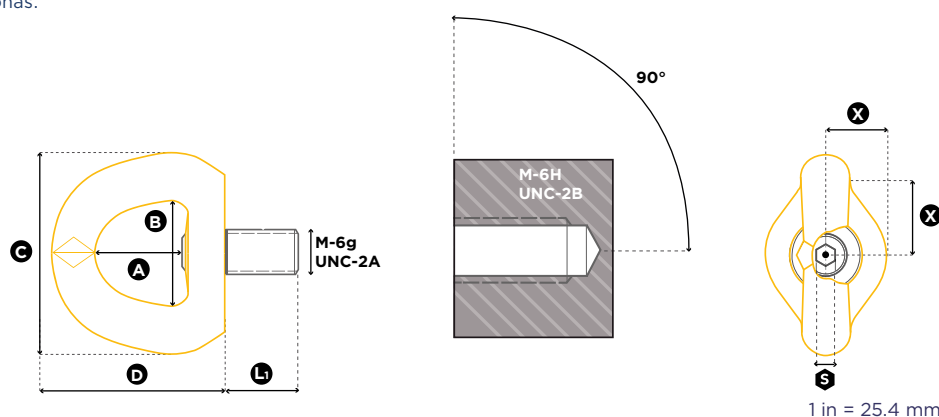
Reference	SF 5:1 WLL (t)	SF 5:1 WLL (lbs)	a (mm)	A (mm)	B (mm)	C (mm)	D (mm)	E (mm)	F (mm)	G (mm)	Weight (kg)
WE.DSS 10	10,00	22,000	7	74	44	70	104	73	149	33	5,5

FALL PROTECTION ANCHORAGE POINT



Reference	Diameter	Number of persons	Standard L ₁ (mm)	Torque (Nm)		S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
PE.SEB M 12	M 12 (x1,75)	1 pers.	21	15	20	6	30	34	60	57	0,24
PE.SEB M 16	M 16 (x2)	1 pers.*	27	50	35	8	38	45	88	80	0,80
PE.SEB M 20	M 20 (x2,5)	1 pers.*	30	100	35	8	38	45	88	80	0,80

* The DIN CEN / TS 16415:2013-04 allows use for more than one person. / La norme DIN CEN / TS 16415:2013-04 prévoit l'utilisation pour plus d'une personne. / Die DIN CEN/TS 16415:2013-04 gestattet eine Benutzung von mehrere Personen. / La norma DIN CEN/TS 16415:2013-04 autoriza una utilización para varias personas.



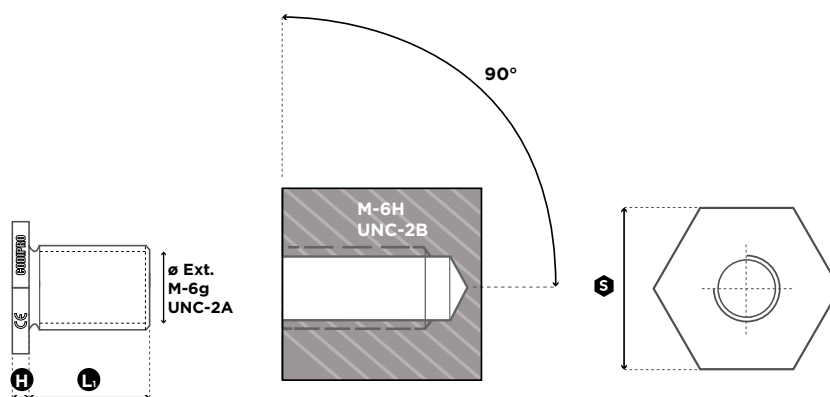
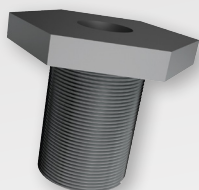
Reference	Diameter	Number of persons	Standard L ₁ (mm)	Torque (Nm)		S (mm)	A (mm)	B (mm)	C (mm)	D (mm)	Weight (kg)
SS.PE.SEB M 12	M 12 (x1,75)	1 pers.	21	15	20	8	38	45	90	80	0,80
SS.PE.SEB M 16	M 16 (x2)	1 pers.*	27	50	35	8	38	45	90	80	0,82
SS.PE.SEB M 20	M 20 (x2,5)	1 pers.*	30	100	35	8	38	45	90	80	0,84
SS.PE.SEB M 24	M 24 (x3)	1 pers.*	36	150	50	8	38	45	90	80	0,90

Comply to EN 795:2012. Please read our user's manual before use. / Conforme à la norme EN 795:2012. Consulter la notice d'instruction avant utilisation. / Entsprechend EN 795:2012. Bitte beachten Sie die Gebrauchsanweisung vor jeder Anwendung. / Conforme a la EN 795:2012. Consultar el manual de instrucciones antes de utilizar el producto.

ADA

ADAPTOR

METRIC / UNC THREADS



1 in = 25.4 mm

Reference	Ext. Diameter	Max. Int. Diameter		L ₁ (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 ₁ (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.

12.2018

A close-up photograph of a Telesis Pinstamp TMP1700 Marking System. The device is a dark grey, rectangular unit with a black label that reads "TELESIS® PINSTAMP®" and "TMP1700 MARKING SYSTEM". A white nozzle is positioned above a red, U-shaped component. A person wearing a white glove is holding the red component. The background is a wooden workbench.

TELESIS® PINSTAMP®

TMP1700

MARKING SYSTEM

EXTRAS

- BLOCKING SPRING
- CENTRING
- RFID
- TORQUE KEY
- LASHING

EXTRAS

- HALTEFEDER
- ZENTRIERUNG
- RFID
- DREHMOMENTSCHLÜSSEL
- ZURRPUNKTE

EXTRAS

- RESSORT DE MAINTIEN
- CENTRAGE
- RFID
- EMBOUT DE SERRAGE
- ARRIMAGE

EXTRAS

- RESORTE DE FIJACIÓN
- CENTRAJE
- RFID
- ADAPTADOR DE LLAVE DE MOMENTO DE ROTACIÓN
- SUJECIÓN

EXTRAS

BLOCKING SPRING

RESSORT DE MAINTIEN
HALTEFEDER
RESORTE DE FIJACIÓN

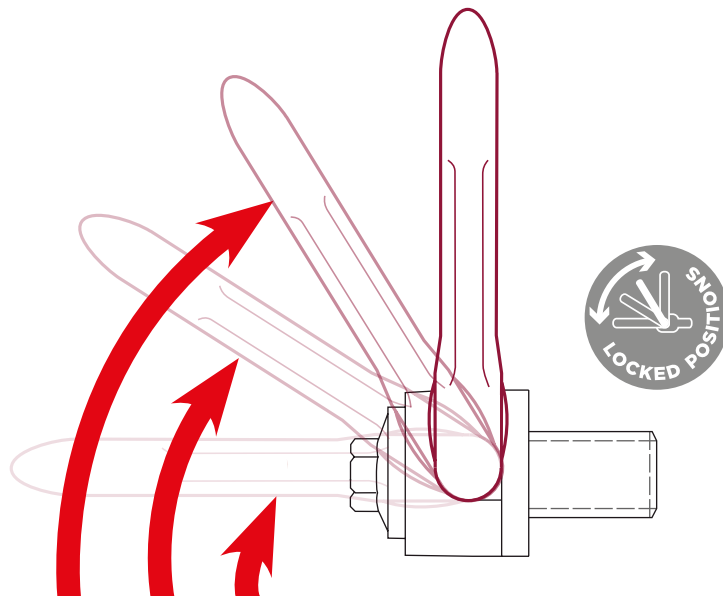


MORE ERGONOMIC

- 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
- Kein Hindernis bei der Rotation der Ringschraube beim Heben
- 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

CENTRING

CENTRAGE
ZENTRIERUNG
CENTRAJE

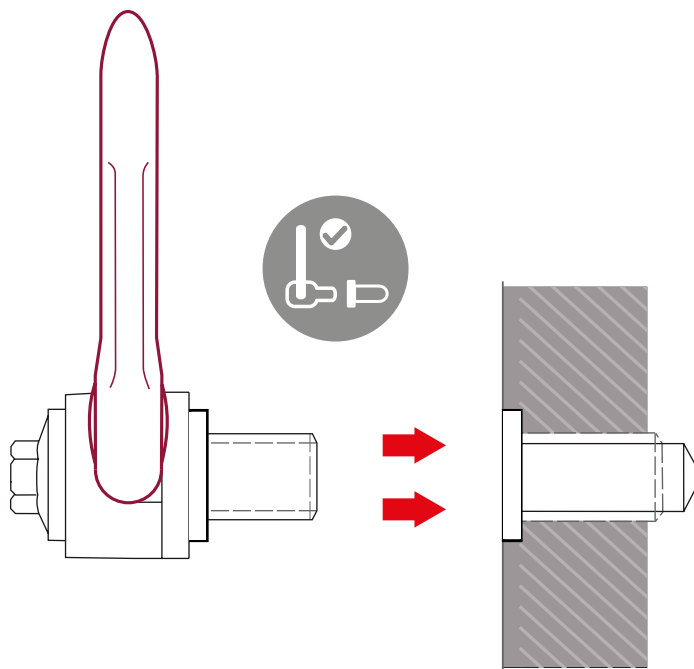


MORE SAFETY

- Reinforcement of the weakest point at 90°
- Higher WLL at 90° angle
- Increases the shearing off diameter
- Available on models SEB / DSR / DSS / TSR / DSP / DSH

SÉCURITÉ ACCRUE

- Renforcement du point faible à 90°
- CMU améliorée avec angle à 90°
- Augmente le diamètre de cisaillement
- Disponible pour modèles SEB / DSR / DSS / TSR / DSP / DSH

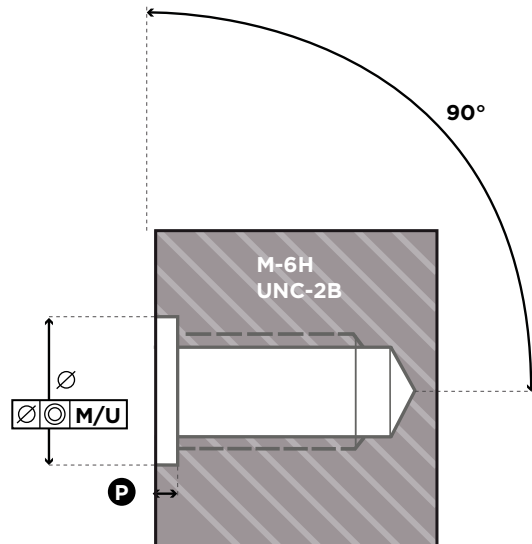


NOCH MEHR SICHEREIT

- Verstärkung des schwächsten Punkt bei 90°-Hebung
- Höhere Tragfähigkeit bei 90°-Hebung
- Vergrößert den Abscherdurchmesser
- Verfügbar für die Modelle SEB / DSR / DSS / TSR / DSP / DSH

AÚN MÁS SEGURIDAD

- Fortalecimiento del punto débil (90°)
- CMU más elevadas
- Aumento del diámetro de cizalladura
- Disponible para los modelos SEB / DSR / DSS / TSR / DSP / DSH



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"	20 $\begin{smallmatrix} +0,25 \\ 0 \end{smallmatrix}$	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

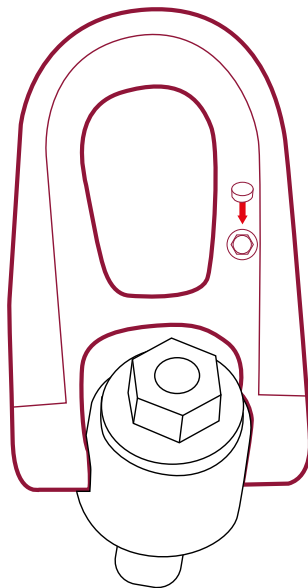


OPTIMUM IDENTIFICATION AND TRACEABILITY

- Easy integration into all CODIPRO lifting rings
- Quick and efficient data reading, tracking and management
- Cost-savings and shorter control time
- Process reliability

IDENTIFICATION ET TRAÇABILITÉ OPTIMALES

- Intégration aisée dans tous les anneaux de levage CODIPRO
- Lecture, suivi et gestion des informations efficaces et rapides
- Réduction des coûts et de la durée des contrôles
- Fiabilité du process



OPTIMALE KENNZEICHNUNG UND RÜCKVERFOLGBARKEIT

- Einfache Integration in alle Wirbelringschrauben von CODIPRO
- Schnelle und effiziente Auslesung, Rückverfolgbarkeit und Verwaltung der Informationen
- Zeit- und Kostenersparnis bei UVV-Prüfungen
- Zuverlässige und fehlerfreie Datenspeicherung

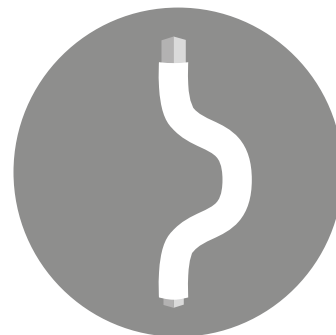
OPTIMIZACIÓN DE LA TRAZABILIDAD Y DE LA IDENTIFICACIÓN

- Fácil de integrar en los cáncamos de izaje CODIPRO
- Lectura, control y gestión de las informaciones rápidos y eficientes
- Reducción de los costes y del tiempo de revisión
- Fiabilidad del proceso

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TORQUE KEY

EMBOUT DE SERRAGE
DREHMOMENTSCHLÜSSEL
LLAVE DE FIJACIÓN

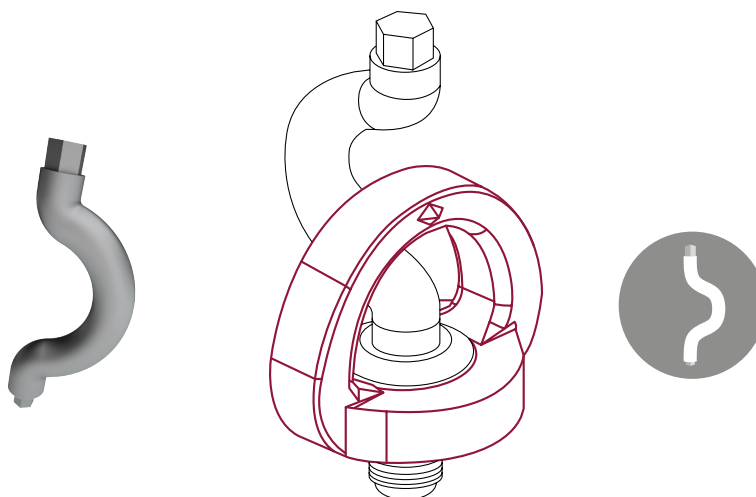


FOR SEB MODELS M8 TO M24

- 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
- Erlaubt das empfohlene Drehmoment anzuwenden
- 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

12.2018

LASHING

ARRIMAGE
ZURRPUNKTE
ESTIBA

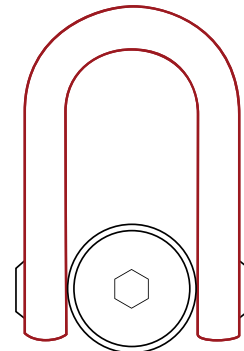
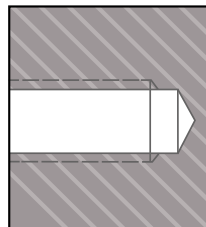
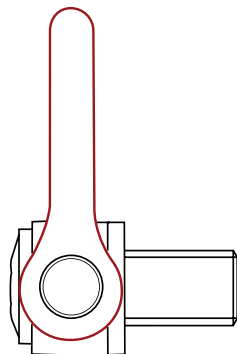


CERTIFIED FOR LASHING

- 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

12.2018

SCP

SURFACE CONTACT PROTECT

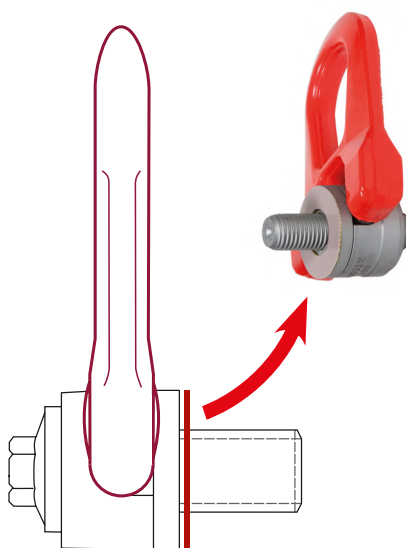
SCP

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 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



SCP

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-Wirbelringschrauben

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

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
- WIRBELRINGSCHRAUBE 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

CUSTOMIZED

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 filetée
- 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 « Other » zur Einsicht der Gewindetabelle

ROSCAS DISPONIBLES

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

SPACER

ENTRETOISE
ABSTANDSHALTER
DISTANCIADOR

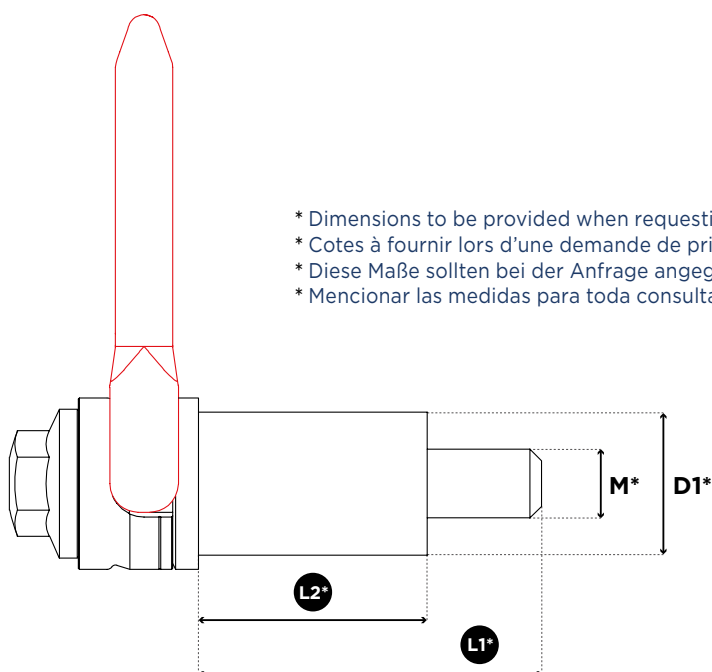


When can we use this certified system composed of a lifting ring with a spacer?

→ 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.



* 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 braucht man dieses zertifizierte System, bestehend aus Abstandshalter und Anschraubwirbel?

→ 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

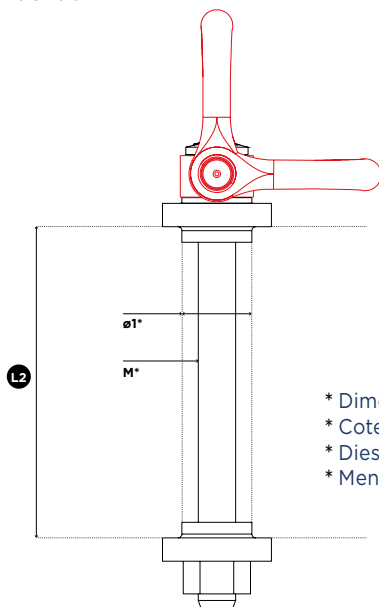
DOUBLE CENTRAGE
DOPPELZENTRIERUNG
DOBLE CENTRAJE



When can we use the ring with double centring?

- In case of lifting through an unthreaded hole the double centring ensures perfect stability of the ring during the lifting operation ;
- In case of a big diameter holes and low weight to be lifted the double centring 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 braucht man eine « doppelte Zentrierung »?

- 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.

12.2018

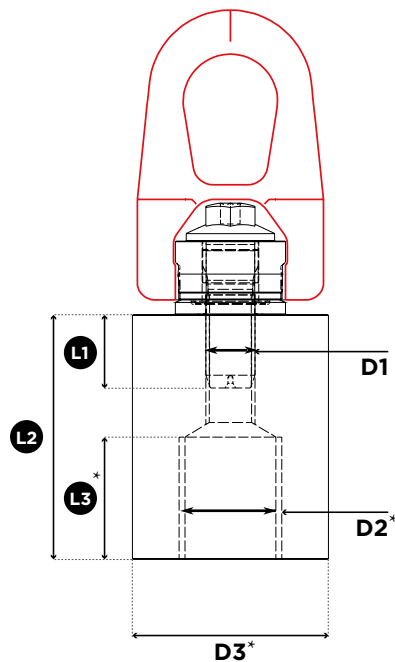
BELL TYPE LIFTING RING

ANNEAU CLOCHE
WIRBELRINGSCHRAUBE MIT BUCHSE
CÁNCAMO GIRATORIO ARTICULADO
CON ADAPTADOR HEMBRA



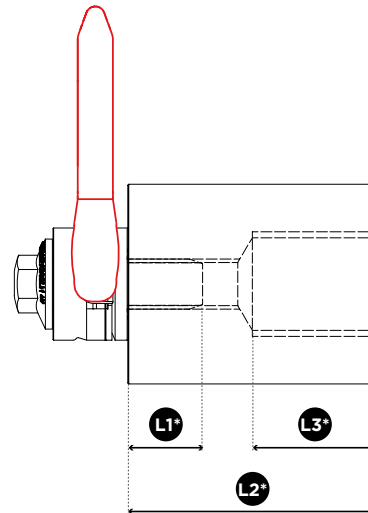
When can we use the bell type lifting ring ?

- 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 fileté avec une faible charge à lever ;
- Disponible pour tous types 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 braucht man eine Wirbelringschraube mit Buchse ?

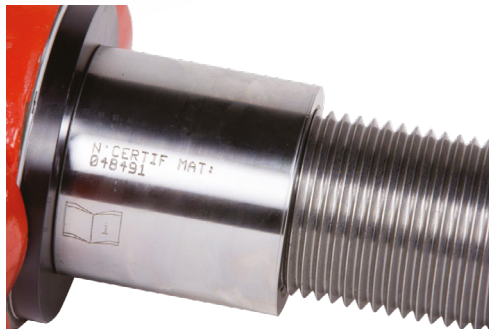
- Gleiche Anwendungen wie für Wirbelringschrauben mit Innengewinde, jedoch speziell entwickelt für große Gewindedurchmesser bei weniger schweren Lasten ;
- Alle Gewindearten erhältlich.

¿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 Wirbelringschrauben 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
CODIPRO propone varios tipos de tratamiento de superficie

→ White zinc plating → Zingage blanc → Weiß-Verzinkung → Zincado blanco	→ Black zinc plating → Zingage noir → Schwarz-Verzinkung → Zincado negro	→ Yellow zinc chromate plating* → Zingage bichromaté jaune* → Gelb-Verzinkung* → Zincado bicromatado amarillo*
→ Nickel plating → Nickelage → Vernickelung → Niquelado	→ Black oxide plating → Oxydation noire → Schwarz-Oxid Beschichtung → Oxido negro	→ Phosphate coating → Phosphatation → Phosphatierung → Fosfatación
→ Hard chrome plating* → Chromatage dur* → Hartverchromung* → Cromado duro*	→ Special color → Peinture spécifique → Sonderlackierung → Pintura específica	...

* 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 COMPLIANCE
- USE RECOMMENDATIONS
- REVISION PROCEDURE
- FIXATION TYPES

INFORMATIONEN

- KONFORMITÄTSERKLÄRUNG
- 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



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CERTIFICATE OF COMPLIANCE

CERTIFICAT DE CONFORMITÉ KONFORMITÄTSERKLÄRUNG CERTIFICADO DE CONFORMIDAD

A CERTIFICATE OF COMPLIANCE ACCOMPANIES :

- 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 ACCOMPAGNE :

- 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 80t: SLM

JEDER ANSCHRAUBWIRBEL WIRD MIT ZERTIFIKAT GELIEFERT :

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

UN CERTIFICADO DE CONFORMIDAD ACOMPAÑA :

- 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

CE CERTIFICATE :			
Fabricant/ manufacturer/ Hersteller/ fabricante		Client / Customer / Kunde / Cliente	
 CODIPRO LIPA CODIPROLUX ZA "SALZBAACH" L-9559 WILTZ		Commande / Order / Bestellung / Compras	
Description de la machine Description of the machine Beschreibung der Maschine Descripción del equipo		Accessoire de levage CODIPRO Lifting Equipment CODIPRO Hebezeuge CODIPRO Accesorio de elevación CODIPRO	
Type d'anneau et dimension Ring type and dimension Ringschraubentyp Tipo de cáncamo y dimension		DSR_M12	
Désignation Designation Beschreibung Designación			
CMU WLL Höchstbelastung CMU		1000 Lbs = 0,4536 t	
Coefficient de sécurité Safety Factor Sicherheitsfaktor Factor de seguridad	WLL x	Force d'épreuve Proof force Stützkraft Test a carga de prueba	CMU / WLL x 2,5
Contrôle anti-fissures Anti-cracking Test Rißprüfung Control anti-crack	100 %	Type d'acier Steelgrade Stahlorte Tipo de acero	
Conforme aux Directives / In compliance with the Directives / Entspricht die Maschinen Richtlinie / Conforme a la directiva de máquinas Testé selon Normes / Tested according to Standards / Geprüft nach der Norm / Compróbad según la norma		2006 / 42 / CE. EN 1677-1 EN 10204 Certificat 3.1.	
Manille / Schackle / Schäkel / Anilla Axe / Bolt / Schraube / Eje Accessoires / Accessories / Zubehör / Accesorios			

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

« Les anneaux doivent être utilisés conformément à toutes les recommandations décrites dans la notice d'instruction et notre documentation technique »
« The swivel rings must be used in accordance with our recommendations explained in the use recommendations and in technical literature »
« Die Ringschrauben müssen nach den Empfehlungen, wie in der Gebrauchsanweisung und in unserer technischen Dokumentation beschrieben, verwendet werden »
« Los cáncamos deben ser utilizados conforme a todas las recomendaciones descritas en nuestro catálogo técnico »

Tous les contrôles ayant donné des résultats satisfaisants, nous considérons ces pièces « bonnes pour utilisation »
Since all tests have produced satisfactory results, we have considered these parts to be "good for utilization"
Alle Prüftest waren zufriedenstellend. Die Teile sind als „Gut für den Gebrauch“ eingestuft.
Como todos los pruebas han dado resultados positivos, consideramos esta pieza « apta para utilización »

Christophe LOSANGE Manager
Responsible sales, Vertriebsleitende Person
Authorized person in charge

Wiltz, Date : 24/05/17

Version 2016

ISO 9001 ISO 12001 MADE IN LUXEMBOURG

USE RECOMMENDATIONS

NOTICES D'INSTRUCTIONS GEBRAUCHSANWEISUNG MANUAL DE INSTRUCCIONES

USE RECOMMENDATIONS ACCOMPANY :

- Swivel lifting rings
- Fall protection anchorage points: PE.SEB / SS.PE.SEB
- Weld-on swivel lifting rings : WE.DSR / WE.DSS
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UNE NOTICE D'INSTRUCTIONS ACCOMPAGNE :

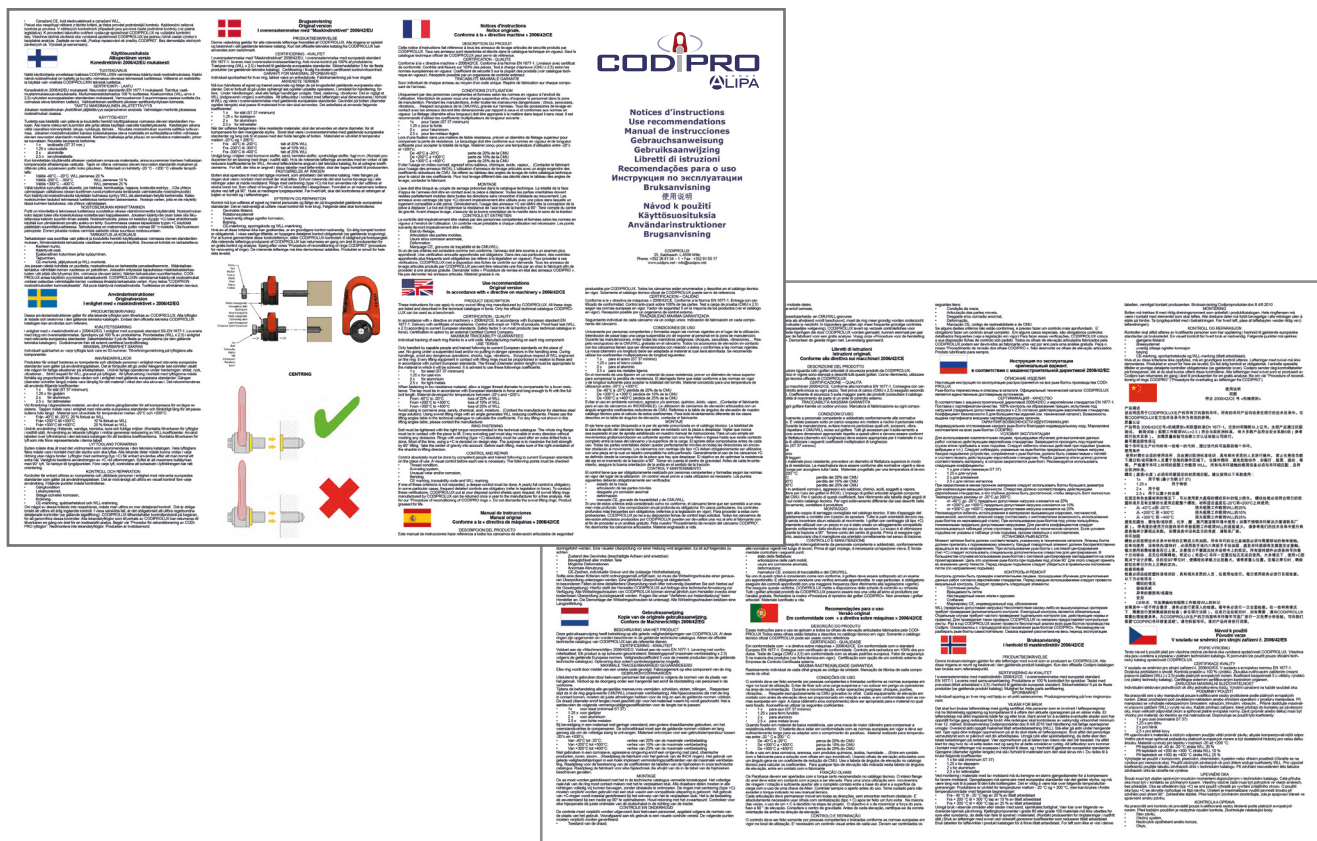
- Les anneaux de levage
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- El sistema de elevación para moldes hasta 80 toneladas : SLM



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 will send it back to you with or without certificate of compliance (according to your decision).
The ring does NOT meet safety standards but can be repaired	CODIPRO will give you an estimation of the repair costs in order for a certificate of compliance to be issued. Once the quote has been accepted the ring will be repaired. If not, the ring will be sent back or destroyed.
The ring does NOT meet safety standards being irreparable or too old	CODIPRO will send it back to you or will destroy it in its premises.

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

POSSIBILITÉ	RÉACTION DE CODIPRO
L'anneau est conforme	CODIPRO vous le renvoie avec ou sans certificat de conformité (selon votre choix).
L'anneau n'est pas conforme mais réparable	CODIPRO établit un devis de réparation ou de mise en conformité. Si vous acceptez le devis l'anneau est réparé sinon il est renvoyé ou détruit.
L'anneau n'est pas réparable ou trop ancien	CODIPRO vous le renvoie ou le détruit dans ses locaux.



CODIPRO FÜHRT DIE PRÜFUNG IHRER RINGSCHRAUBEN KOSTENLOS DURCH

MÖGLICHKEIT	REAKTION VON CODIPRO
Die Ringschraube ist konform	CODIPRO schickt Ihnen diese mit oder ohne Zertifikat zurück (nach Wunsch).
Die Ringschraube ist nicht konform, aber reparierbar	CODIPRO erstellt einen Kostenvoranschlag für die Reparatur oder die Anpassung an die Standards. Wenn Sie den Kostenvoranschlag akzeptieren, wird die Ringschraube repariert, anderenfalls wird sie zurück geschickt oder zerstört.
Die Ringschraube ist nicht reparierbar oder zu alt	CODIPRO schickt Ihnen diese zurück oder zerstört sie.

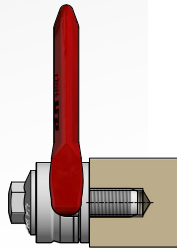
CODIPRO REvisa LOS CÁNCAMOS DE ELEVACIÓN SIN GASTOS ADICIONALES

CASO	ACCIÓN DE CODIPRO
El cáncamo sigue conforme	CODIPRO devuelve el cáncamo con o sin certificado de conformidad (a elegir).
El cáncamo ya no está conforme pero reparable	CODIPRO realiza un presupuesto para reparación o puesta en conformidad. Si usted lo acepta, reparamos el cáncamo si no, lo devolvemos o lo destruimos.
El cáncamo no es conforme, demasiado viejo o irreparable	CODIPRO lo devuelve o lo destruye en sus locales.

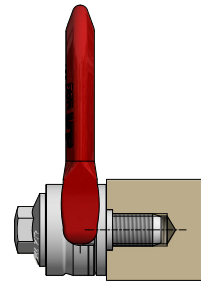
More information on request
Plus d'informations sur demande
Weitere Informationen auf Anfrage
Más información bajo solicitud

FIXATION TYPES

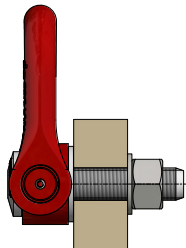
TYPES DE FIXATION BEFESTIGUNGSBEISPIELE TIPOS DE FIJACIÓN



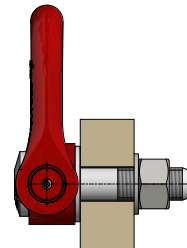
- Threaded swivel lifting ring
- Anneau mâle à visser
- Wirbelringschraube
- Cáncamo roscado macho



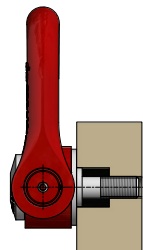
- Threaded swivel lifting ring with centring
- Anneau mâle à visser avec centrage
- Wirbelringschraube mit Zentrierung
- Cáncamo roscado con centraje



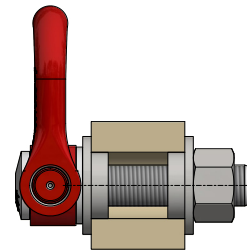
- Unthreaded hole with nut and washer
- Perçage lisse avec écrou et rondelle
- Glatte Bohrung mit Mutter und Scheibe
- Hueco liso con tuerca y arandela



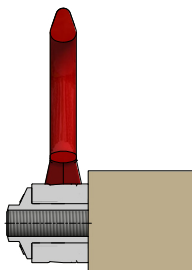
- Partially threaded hole with nut and washer
- Perçage partiellement fileté avec écrou et rondelle
- Bohrung mit Teilgewinde sowie Mutter und Scheibe
- Hueco en parte roscado con tuerca y arandela



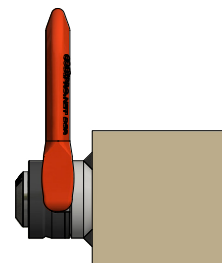
- Partially threaded hole
- Trou lisse partiellement taraudé
- Bohrung mit Teilgewinde
- Hueco liso, parcialmente roscado



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



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



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

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

- DSR / FE.DSR
- DSS / FE.DSS
- MEGA.DSS / GIGA.DSS
- SEB / FE.SEB
- SS.DSR / SS.FE.DSR

- SS.DSS / SS.FE.DSS
- SS.SEB
- DSP
- DSH
- TSR

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LOAD ANGLE
CHART

DSR / FE.DSR



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

4:1

METRIC THREADS

Torque
(Nm)



Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSR M 5 UP	3	0,30	0,60	0,10	0,20	0,14	0,10	0,10	0,21	0,10	0,10
DSR M 6 UP	4	0,40	0,80	0,20	0,40	0,28	0,20	0,20	0,42	0,20	0,20
DSR M 8 UP / FE.DSR M8 UP	6	1,00	2,00	0,50	1,00	0,70	0,50	0,50	1,05	0,50	0,50
DSR M 10 UP / FE.DSR M10 UP	10	1,50	3,00	0,90	1,80	1,26	0,90	0,90	1,89	0,90	0,90
DSR M 12 UP / FE.DSR M12 UP	15	1,50	3,00	1,30	2,60	1,82	1,30	1,30	2,73	1,30	1,30
DSR M 14 UP / FE.DSR M14 UP	30	2,60	5,20	1,80	3,60	2,52	1,80	1,80	3,78	1,80	1,80
DSR M 16 UP / FE.DSR M16 UP	50	2,80	5,60	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
DSR M 18 UP / FE.DSR M18 UP	70	2,50	5,00	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
DSR M 20 2t5 UP / FE.DSR M20 UP	100	2,80	5,60	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50
DSR M 20 3t2 UP	100	3,20	6,40	3,20	6,40	4,48	3,20	3,20	6,72	3,20	3,20
DSR M 22 UP / FE.DSR M 22 UP	120	6,00	12,00	4,50	9,00	6,30	4,50	4,50	9,45	4,50	4,50
DSR M 24 UP	160	6,50	13,00	5,50	11,00	7,70	5,50	5,50	11,55	5,50	5,50
DSR M 27 UP	200	6,50	13,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00
DSR M 30 6t3 UP	250	6,50	13,00	6,30	12,60	8,82	6,30	6,30	13,23	6,30	6,30
DSR M 30 8t UP	250	9,00	18,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00
DSR M 36 UP	320	10,00	20,00	8,50	17,00	11,90	8,50	8,50	17,85	8,50	8,50
DSR M 42 UP	400	10,00	20,00	9,00	18,00	12,60	9,00	9,00	18,90	9,00	9,00

max. load in t

4:1

UNC THREADS

Torque
(ft-lb)



Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSR U 025 UP / FE.DSR U 025 UP	3	900	1,800	450	900	630	450	450	945	450	450
DSR U 516 UP / FE.DSR U 516 UP	5	2,200	4,400	1,200	2,400	1,680	1,200	1,200	2,520	1,200	1,200
DSR U 038 UP / FE.DSR U 038 UP	8	3,200	6,400	1,600	3,200	2,240	1,600	1,600	3,360	1,600	1,600
DSR U 050 UP / FE.DSR U 050 UP	12	3,400	6,800	2,800	5,600	3,920	2,800	2,800	5,880	2,800	2,800
DSR U 058 UP / FE.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	4,900	4,900
DSR U 075 UP / FE.DSR U 075 UP	80	6,200	12,400	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250
DSR U 078 UP / FE.DSR U 078 UP	90	13,500	27,000	9,800	19,600	13,720	9,800	9,800	20,580	9,800	9,800
DSR U 100 UP	125	13,500	27,000	12,500	25,000	17,500	12,500	12,500	26,250	12,500	12,500
DSR U 118 UP	160	13,500	27,000	13,000	26,000	18,200	13,000	13,000	27,300	13,000	13,000
DSR U 125 UP	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	13,500	13,500

max. load in lbs

DSR / FE.DSR



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

METRIC THREADS

Torque
(Nm)



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

max. load in t

5:1

UNC THREADS

Torque
(ft-lb)



Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSR U 025 UP / FE.DSR U 025 UP	3	650	1,300	330	660	462	330	330	693	330	330
DSR U 516 UP / FE.DSR U 516 UP	5	1,800	3,600	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
DSR U 038 UP / FE.DSR U 038 UP	8	2,500	5,000	1,300	2,600	1,820	1,300	1,300	2,730	1,300	1,300
DSR U 050 UP / FE.DSR U 050 UP	12	3,000	6,000	2,400	4,800	3,360	2,400	2,400	5,040	2,400	2,400
DSR U 058 UP / FE.DSR U 058 UP	40	5,900	11,800	3,900	7,800	5,460	3,900	3,900	8,190	3,900	3,900
DSR U 075 UP / FE.DSR U 075 UP	80	5,900	11,800	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250
DSR U 078 UP / FE.DSR U 078 UP	90	13,500	27,000	7,900	15,800	11,060	7,900	7,900	16,590	7,900	7,900
DSR U 100 UP	125	13,500	27,000	11,200	22,400	15,680	11,200	11,200	23,520	11,200	11,200
DSR U 118 UP	160	13,500	27,000	11,500	23,000	16,100	11,500	11,500	24,150	11,500	11,500
DSR U 125 UP	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	13,500	13,500

max. load in lbs



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

4:1

METRIC THREADS	Torque (Nm)																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														<
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LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

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

max. load in t

5:1

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

max. load in lbs

MEGA.DSS



LOAD ANGLE CHART

β 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 β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
MEGA.DSS M 64 UP	600	33,00	66,00	33,00	66,00	46,20	33,00	33,00	69,30	33,00	33,00
MEGA.DSS M 72 UP	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	35,00	35,00
MEGA.DSS M 72x4 UP	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	35,00	35,00
MEGA.DSS M 80 UP	800	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	40,00	40,00
MEGA.DSS M 90 UP	900	45,00	90,00	45,00	90,00	63,00	45,00	45,00	94,50	45,00	45,00
MEGA.DSS M 100 UP	1000	60,00	120,00	60,00	120,00	84,00	60,00	60,00	126,00	60,00	60,00

4:1

UNC THREADS

max. load in lbs

	Torque (ft-lb)										
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
MEGA.DSS U 275 UP	520	75,000	150,000	75,000	150,000	105,000	75,000	75,000	157,500	75,000	75,000
MEGA.DSS U 300 UP	520	80,000	160,000	80,000	160,000	112,000	80,000	80,000	168,000	80,000	80,000
MEGA.DSS U 325 UP	590	90,000	180,000	90,000	180,000	126,000	90,000	90,000	189,000	90,000	90,000
MEGA.DSS U 350 UP	665	95,000	190,000	95,000	190,000	133,000	95,000	95,000	199,500	95,000	95,000
MEGA.DSS U 375 UP	740	100,000	200,000	100,000	200,000	140,000	100,000	100,000	210,000	100,000	100,000
MEGA.DSS U 400 UP	740	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	110,000	110,000

MEGA.DSS / GIGA.DSS



LOAD ANGLE CHART

β max : 60°
L : Load

5:1

METRIC THREADS

max. load in t

METRIC THREADS	Torque (Nm)												
Number of rings		1	2	1	2	2			3 → 4				
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric		
MEGA.DSS M 64 UP	600	26,00	52,00	26,00	52,00	36,40	26,00	26,00	54,60	26,00	26,00		
MEGA.DSS M 72 UP	700	28,00	56,00	28,00	56,00	39,20	28,00	28,00	58,80	28,00	28,00		
MEGA.DSS M 72x4 UP	700	28,00	56,00	28,00	56,00	39,20	28,00	28,00	58,80	28,00	28,00		
MEGA.DSS M 80 UP	800	32,00	64,00	32,00	64,00	44,80	32,00	32,00	67,20	32,00	32,00		
MEGA.DSS M 90 UP	900	36,00	72,00	36,00	72,00	50,40	36,00	36,00	75,60	36,00	36,00		
MEGA.DSS M 100 UP	1000	48,00	96,00	48,00	96,00	67,20	48,00	48,00	100,80	48,00	48,00		
GIGA.DSS M 150 UP	2000	125,00	250,00	125,00	250,00	175,00	125,00	125,00	262,50	125,00	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	125,00	125,00		

5:1

UNC THREADS

max. load in lbs

UNC THREADS		Torque (ft-lb)										
Number of rings		1	2	1	2	2			3 → 4			
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	
MEGA.DSS U 275 UP	520	60,000	120,000	60,000	120,000	84,000	60,000	60,000	126,000	60,000	60,000	
MEGA.DSS U 300 UP	520	64,000	128,000	64,000	128,000	89,600	64,000	64,000	134,400	64,000	64,000	
MEGA.DSS U 325 UP	590	72,000	144,000	72,000	144,000	100,800	72,000	72,000	151,200	72,000	72,000	
MEGA.DSS U 350 UP	665	76,000	152,000	76,000	152,000	106,400	76,000	76,000	159,600	76,000	76,000	
MEGA.DSS U 375 UP	740	80,000	160,000	80,000	160,000	112,000	80,000	80,000	168,000	80,000	80,000	
MEGA.DSS U 400 UP	740	88,000	176,000	88,000	176,000	123,200	88,000	88,000	184,800	88,000	88,000	

SEB / FE.SE.B



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

4:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	0,50	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	0,70	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	0,90	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	1,80	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	2,70	2,70
SEB M 24 3t8 UP	160		8,00	16,00	3,80	7,60	5,32	3,80	3,80	7,98	3,80	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	4,20	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	6,30	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	11,00	11,00
SEB M 42 UP	400		15,00	30,00	15,00	30,00	21,00	15,00	15,00	31,50	15,00	15,00
SEB M 48 UP	600		18,00	36,00	16,00	32,00	22,40	16,00	16,00	33,60	16,00	16,00

max. load in t

4:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	1,500	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	1,950	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	4,000	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	5,900	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	9,300	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	13,800	13,800
SEB U 150 UP	240		25,000	50,000	25,000	50,000	35,000	25,000	25,000	52,500	25,000	25,000

max. load in lbs

SEB / FE.SE.B



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	0,40	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	0,50	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	0,80	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	1,40	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	2,00	2,00
SEB M 24 3t8 UP	160		6,30	12,60	3,20	6,40	4,48	3,20	3,20	6,72	3,20	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	3,40	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	5,50	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	9,00	9,00
SEB M 42 UP	400		12,00	24,00	12,00	24,00	16,80	12,00	12,00	25,20	12,00	12,00
SEB M 48 UP	600		15,00	30,00	15,00	30,00	21,00	15,00	15,00	31,50	15,00	15,00

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	1,200	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	1,800	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	3,200	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	4,750	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	7,500	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	12,200	12,200
SEB U 150 UP	240		25,000	50,000	20,000	40,000	28,000	20,000	20,000	42,000	20,000	20,000

max. load in lbs

SS.DSR / SS.FE.DSR



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

4:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.DSR M 6	4	0,25	0,50	0,15	0,30	0,21	0,15	0,15	0,31	0,15	0,15	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	0,30	0,30	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	0,50	0,50	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	0,80	0,80	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	1,00	1,00	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	1,50	1,50	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	1,50	1,50	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	1,60	1,60	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	2,20	2,20	2,20
SS.DSR M 24	160	3,50	7,00	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70	2,70
SS.DSR M 27	200	3,60	7,20	2,90	5,80	4,06	2,90	2,90	6,09	2,90	2,90	2,90
SS.DSR M 30	250	3,70	7,40	3,50	7,00	4,90	3,50	3,50	7,35	3,50	3,50	3,50

max. load in t

4:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.DSR U 025	3	850	1,700	500	1,000	700	500	500	1,050	500	500	500
SS.DSR U 516 / SS.FE.DSR U 516	5	1,100	2,200	650	1,300	910	650	650	1,365	650	650	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	1,000	1,000	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	1,800	1,800	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	3,000	3,000	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	3,800	3,800	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	5,100	5,100	5,100
SS.DSR U 100	125	8,500	17,000	6,000	12,000	8,400	6,000	6,000	12,600	6,000	6,000	6,000

max. load in lbs

SS.DSR / SS.FE.DSR



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.DSR M 6	4		0,20	0,40	0,10	0,20	0,14	0,10	0,10	0,21	0,10	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	0,30	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	0,50	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	0,80	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	1,00	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	1,40	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	1,40	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	1,40	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	2,20	2,20
SS.DSR M 24	160		2,80	5,60	2,70	5,40	3,78	2,70	2,70	5,67	2,70	2,70
SS.DSR M 27	200		2,90	5,80	2,80	5,60	3,92	2,80	2,80	5,88	2,80	2,80
SS.DSR M 30	250		3,00	6,00	3,00	6,00	4,20	3,00	3,00	6,30	3,00	3,00

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.DSR U 025	3		650	1,300	400	800	560	400	400	840	400	400
SS.DSR U 516 / SS.FE.DSR U 516	5		900	1,800	600	1,200	840	600	600	1,260	600	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	1,000	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	1,800	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	2,500	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	3,600	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	5,000	5,000
SS.DSR U 100	125		7,000	14,000	6,000	12,000	8,400	6,000	6,000	12,600	6,000	6,000

max. load in lbs

SS.DSS / SS.FE.DSS



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

4:1

max. load in t	METRIC THREADS	Torque (Nm)										
	Number of rings		1	2	1	2	2			3 → 4		
	Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
	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*	2,70*	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*	3,50*	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*	3,50*	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*	5,00*	5,00*
	SS.DSS M 36x3	320	5,00*	10,00*	5,00*	10,00*	7,00*	5,00*	5,00*	10,50*	5,00*	5,00*
	SS.DSS M 39	320	5,00*	10,00*	5,00*	10,00*	7,00*	5,00*	5,00*	10,50*	5,00*	5,00*
	SS.DSS M 42	400	6,00*	12,00*	6,00*	12,00*	8,40*	6,00*	6,00*	12,60*	6,00*	6,00*
	SS.DSS M 42x3	400	6,00*	12,00*	6,00*	12,00*	8,40*	6,00*	6,00*	12,60*	6,00*	6,00*
	SS.DSS M 45	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00
	SS.DSS M 48	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40
	SS.DSS M 48x3	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40
	SS.DSS M 48x4	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40
	SS.DSS M 52	600	6,40	12,80	6,40	12,80	8,96	6,40	6,40	13,44	6,40	6,40
	SS.DSS M 56	600	8,00	16,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00
	SS.DSS M 56x4	600	8,00	16,00	8,00	16,00	11,20	8,00	8,00	16,80	8,00	8,00

* In certification process with higher WLL / En cours d'homologation avec CMU plus élevée / In Entwicklungsphase mit höheren Tragfähigkeitswerten / En proceso de homologación con una CMU más elevada

4:1

max. load in lbs	UNC THREADS	Torque (ft-lb)										
	Number of rings		1	2	1	2	2			3 → 4		
	Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
	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*	6,000*	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*	7,500*	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*	7,500*	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*	11,000*	11,000*
	SS.DSS U 200	450	14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	14,000	14,000

* In certification process with higher WLL / En cours d'homologation avec CMU plus élevée / In Entwicklungsphase mit höheren Tragfähigkeitswerten / En proceso de homologación con una CMU más elevada

SS.DSS / SS.FE.DSS



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	2,70	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	3,50	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	3,50	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	5,00	5,00	
SS.DSS M 36X3	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00	
SS.DSS M 39	320	5,00	10,00	5,00	10,00	7,00	5,00	5,00	10,50	5,00	5,00	
SS.DSS M 42	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00	
SS.DSS M 42x3	400	6,00	12,00	6,00	12,00	8,40	6,00	6,00	12,60	6,00	6,00	

max. load in t

5:1

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	6,000	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	7,500	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	7,500	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	11,000	11,000	

max. load in lbs



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

max. load in t

METRIC THREADS	Torque (Nm)										
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.SEB M 12	15	0,55	1,10	0,55	1,10	0,77	0,55	0,55	1,15	0,55	0,55
SS.SEB M 16	50	1,20	2,40	1,20	2,40	1,68	1,20	1,20	2,52	1,20	1,20
SS.SEB M 20	100	1,50	3,00	1,50	3,00	2,10	1,50	1,50	3,15	1,50	1,50
SS.SEB M 24	100	2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50

4:1

max. load in t

METRIC THREADS	Torque (Nm)										
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.SEB M 12	15	0,55*	1,10*	0,55*	1,10*	0,77*	0,55*	0,55*	1,15*	0,55*	0,55*
SS.SEB M 16	50	1,20*	2,40*	1,20*	2,40*	1,68*	1,20*	1,20*	2,52*	1,20*	1,20*
SS.SEB M 20	100	1,50*	3,00*	1,50*	3,00*	2,10*	1,50*	1,50*	3,15*	1,50*	1,50*
SS.SEB M 24	100	2,50*	5,00*	2,50*	5,00*	3,50*	2,50*	2,50*	5,25*	2,50*	2,50*

* In certification process with higher WLL / En cours d'homologation avec CMU plus élevée / In Entwicklungsphase mit höheren Tragfähigkeitswerten / En proceso de homologación con una CMU más elevada



LOAD ANGLE CHART

$\beta_{\max} : 60^\circ$
L : Load

5:1

max. load in t

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSP M 8	6		0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40
DSP M 10	10		0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	0,70	0,70
DSP M 12	15		1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,05	1,05
DSP M 14	30		1,40	2,80	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
DSP M 16	50		2,00	4,00	2,00	4,00	2,80	2,00	2,00	4,20	2,00	2,00
DSP M 18	70		2,30	4,60	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
DSP M 20	100		2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50

5:1

max. load in lbs

UNC THREADS		Torque, (ft-lb)										
Number of rings			1	2	1	2	2			3, →, 4		
Lifting angle β			0°	0°	90°	90°	0°, →, 45°	46°, →, 60°	Asymmetric	0°, →, 45°	46°, →, 60°	Asymmetric
DSP,U,516	7		1,000	2,000	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
DSP,U,038	8		1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,300	1,300
DSP,U,050	12		2,400	4,800	2,400	4,800	3,360	2,400	2,400	5,040	2,400	2,400
DSP,U,058	40		3,900	7,800	3,900	7,800	5,460	3,900	3,900	8,190	3,900	3,900
DSP,U,075	80		5,250	10,500	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250



LOAD ANGLE CHART

β max : 60°
L : Load

5:1

max. load in t

METRIC THREADS		Torque (Nm)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSH M 8	6		0,40	0,80	0,40	0,80	0,56	0,40	0,40	0,84	0,40	0,40
DSH M 10	10		0,70	1,40	0,70	1,40	0,98	0,70	0,70	1,47	0,70	0,70
DSH M 12	15		1,05	2,10	1,05	2,10	1,47	1,05	1,05	2,21	1,05	1,05
DSH M 14	30		1,40	2,80	1,40	2,80	1,96	1,40	1,40	2,94	1,40	1,40
DSH M 16	50		2,00	4,00	2,00	4,00	2,80	2,00	2,00	4,20	2,00	2,00
DSH M 18	70		2,30	4,60	2,30	4,60	3,22	2,30	2,30	4,83	2,30	2,30
DSH M 20	100		2,50	5,00	2,50	5,00	3,50	2,50	2,50	5,25	2,50	2,50

5:1

max. load in lbs

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2			3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSH U 516	7		1,000	2,000	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
DSH U 038	8		1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,300	1,300
DSH U 050	12		2,400	4,800	2,400	4,800	3,360	2,400	2,400	5,040	2,400	2,400
DSH U 058	40		3,900	7,800	3,900	7,800	5,460	3,900	3,900	8,190	3,900	3,900
DSH U 075	80		5,250	10,500	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250



LOAD ANGLE CHART

β max : 60°
L : Load

5:1

max. load in t

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

4:1

5:1

max. load in lbs

UNC THREADS		Torque (ft-lb)										
Number of rings			1	2	1	2	2		Asymmetric	3 → 4		
Lifting angle β			0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
TSR U 516	7		1,000	2,000	1,000	2,000	1,400	1,000	1,000	2,100	1,000	1,000
TSR U 038	8		1,300	2,600	1,300	2,600	1,820	1,300	1,300	2,730	1,300	1,300
TSR U 050	12		2,400	4,800	2,400	4,800	3,360	2,400	2,400	5,040	2,400	2,400
TSR U 058	40		3,900	7,800	3,900	7,800	5,460	3,900	3,900	8,190	3,900	3,900
TSR U 075	80		5,250	10,500	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250
TSR U 078	90		6,600	13,200	6,600	13,200	9,240	6,600	6,600	13,860	6,600	6,600
TSR U 100	125		10,000	20,000	10,000	20,000	14,000	10,000	10,000	21,000	10,000	10,000
TSR U 125	200		14,000	28,000	14,000	28,000	19,600	14,000	14,000	29,400	14,000	14,000
TSR U 150	240		20,000	40,000	20,000	40,000	28,000	20,000	20,000	42,000	20,000	20,000
TSR U 200	450		50,000	100,000	50,000	100,000	70,000	50,000	50,000	105,000	50,000	50,000

4:1

OTHER

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

ANDERE

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

AUTRE

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

OTRO

- TABLA RECAPITULATIVA
- TABLA DE ROSCA
- TABLA DE LOS ÁNGULOS
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			Central lifting		Fall protection	
	DSR	FE.DSR	WE.DSR	SS.DSR	SS.FE.DSR	DSS	MEGA.DSS	GIGA.DSS	FE.DSS	WE.DSS	SS.DSS	SS.FE.DSS	SEB	FE.SEB	SS.SEB	DSP	DSH	TSR	CSS	SLM	PE.SEB	SS.PE.SEB
																						
 	M 5 - M 42	M 8 - M 22	welding	M 6 - M 30	M 8 - M 22	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 12 - M 24	M 8 - M 20	M 8 - M 20	M 8 - M 56	special	special	M 12 - M 16 - M 20	M 12 - M 16 - M 20 - M 24
	0,07t - 9t	0,4t - 4,5t	2t / 5t	0,1t - 3,5t	0,3t - 2,2t	4,5t - 32,1t	26t - 60t	125 t	4,5t - 21t	10t	2,7t - 8t	2,7t - 5t	0,4t - 16t	0,4t - 11t	0,55t - 2,5t	0,3t - 2,5t	0,3t - 2,5t	0,3t - 22t	20t / 32t / 55t	80t	1-2 pers.	1-2 pers.
 	1/4" - 1" 1/4	1/4" - 7/8"	welding	1/4" - 1"	5/16" - 7/8"	1" - 2" 1/2	2" 3/4 - 4"	N/A	1" - 2"	welding	1" - 2"	1" - 1" 1/2	3/8" - 1" 1/2	3/8" - 1" 1/4	N/A	5/16" - 3/4"	5/16" - 3/4"	5/16" - 2"	special	special	N/A	N/A
	330 - 13,500 lbs	330 - 9,800 lbs	4,400 / 11,000 lbs	400 - 6,000 lbs	600 - 5,100 Lbs	10,000 - 55,000 lbs	60,000 - 110,000 lbs	N/A	10,000 - 50,000 lbs	22,000 lbs	6,000 - 14,000 lbs	6,000 - 11,000 lbs	1,200 - 25,000 lbs	1,200 - 13,800 lbs	N/A	650 - 5,500 lbs	650 - 5,500 lbs	650 - 50,000 lbs	on request	on request	N/A	N/A
5:1 4:1	5:1 4:1	5:1 4:1	5:1	5:1 4:1	5:1 4:1	5:1 4:1	5:1 4:1	5:1	5:1 4:1	5:1	5:1 4:1	5:1 4:1	5:1 4:1	5:1 4:1	5:1 4:1	5:1	5:1	5:1 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	10,92	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	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	1,5	3"	3,00	76,20	4			3,5	5	8	Rd42	✓	3" G	87,88	11
M 45	45	4,5	4	3	2	1,5	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	1,5	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	1,5	4"			4			3	4,5	8	Rd50	✓			
M 55	55		4	3	2	1,5										Rd52	✓			
M 56	56	5,5	4	3	2	1,5										Rd55	✓			
M 58	58		4	3	2	1,5										Rd58	✓			
M 60	60	5,5	4	3	2	1,5										Rd60	✓			
M 62	62		4	3	2	1,5										Rd62	✓			
M 64	64	6	4	3	2	1,5														
M 65	65		4	3	2	1,5														
M 68	68	6	4	3	2	1,5														
M 70	70	6	4	3	2	1,5														
M 72	72	6	4	3	2	1,5														
M 75	75	6	4	3	2	1,5														
M 76	76	6	4	3	2	1,5														
M 80	80	6	4	3	2	1,5														
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

$\beta_{\max} : 60^\circ$
L : Load

4:1

max. load in t

DSR



DSS



MEGA-DSS



SEB



Lifting Type											
Number of rings		1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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	33,00	66,00	33,00	66,00	46,20	33,00	33,00	69,30	33,00	33,00
M 72	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	35,00	35,00
M 72x4	700	35,00	70,00	35,00	70,00	49,00	35,00	35,00	73,50	35,00	35,00
M 80	800	40,00	80,00	40,00	80,00	56,00	40,00	40,00	84,00	40,00	40,00
M 90	900	45,00	90,00	45,00	90,00	63,00	45,00	45,00	94,50	45,00	45,00
M 100	1000	60,00	120,00	60,00	120,00	84,00	60,00	60,00	126,00	60,00	60,00
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

$\beta_{\max} : 60^\circ$
L : Load

4:1

max. load in lbs

	Lifting Type	Number of rings	Lifting angle β	Size	Torque (ft-lb)										
						1	2	1	2	2	2	Asymmetric	3 → 4	3 → 4	Asymmetric
						0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
DSR		1/4"	3	900	1,800	450	900	630	450	450	945	450	450	1,200	1,200
		5/16"	5	2,200	4,400	1,200	2,400	1,680	1,200	1,200	2,520	1,200	1,200	1,600	1,600
		3/8"	8	3,200	6,400	1,600	3,200	2,240	1,600	1,600	3,360	1,600	1,600	2,800	2,800
		1/2"	12	3,400	6,800	2,800	5,600	3,920	2,800	2,800	5,880	2,800	2,800	4,900	4,900
		5/8"	40	5,900	11,800	4,900	9,800	6,860	4,900	4,900	10,290	4,900	4,900	5,250	5,250
		3/4"	80	6,200	12,400	5,250	10,500	7,350	5,250	5,250	11,025	5,250	5,250	9,800	9,800
		7/8"	90	13,500	27,000	9,800	19,600	13,720	9,800	9,800	20,580	9,800	9,800	12,500	12,500
		1"	125	13,500	27,000	12,500	25,000	17,500	12,500	12,500	26,250	12,500	12,500	13,000	13,000
		1" 1/8	160	13,500	27,000	13,000	26,000	18,200	13,000	13,000	27,300	13,000	13,000	13,500	13,500
DSS		1" 1/4	200	13,500	27,000	13,500	27,000	18,900	13,500	13,500	28,350	13,500	13,500	13,000	13,000
		1"	125	19,000	38,000	13,000	26,000	18,200	13,000	13,000	27,300	13,000	13,000	105,000	50,000
		1" 1/4	200	30,000	60,000	19,000	38,000	26,600	19,000	19,000	39,900	19,000	19,000	55,000	55,000
		1" 3/8	240	32,000	64,000	22,000	44,000	30,800	22,000	22,000	46,200	22,000	22,000	100,000	100,000
		1" 1/2	240	33,000	66,000	27,000	54,000	37,800	27,000	27,000	56,700	27,000	27,000	115,500	115,500
		1" 3/4	300	33,000	66,000	33,000	66,000	46,200	33,000	33,000	69,300	33,000	33,000	157,500	157,500
MEGA.DSS		2"	450	50,000	100,000	50,000	100,000	70,000	50,000	50,000	105,000	50,000	50,000	168,000	168,000
		2" 1/2	450	55,000	110,000	55,000	110,000	77,000	55,000	55,000	115,500	55,000	55,000	189,000	189,000
		2" 3/4	520	75,000	150,000	75,000	150,000	105,000	75,000	75,000	157,500	75,000	75,000	199,500	199,500
		3"	520	80,000	160,000	80,000	160,000	112,000	80,000	80,000	168,000	80,000	80,000	210,000	210,000
		3" 1/4	590	90,000	180,000	90,000	180,000	126,000	90,000	90,000	189,000	90,000	90,000	231,000	231,000
		3" 1/2	665	95,000	190,000	95,000	190,000	133,000	95,000	95,000	199,500	95,000	95,000	250,000	250,000
SEB		3" 3/4	740	100,000	200,000	100,000	200,000	140,000	100,000	100,000	210,000	100,000	100,000	260,000	260,000
		4"	740	110,000	220,000	110,000	220,000	154,000	110,000	110,000	231,000	110,000	110,000	270,000	270,000
		3/8"	8	3,500	7,000	1,500	3,000	2,100	1,500	1,500	3,150	1,500	1,500	4,000	4,000
		1/2"	12	4,200	8,400	1,950	3,900	2,730	1,950	1,950	4,095	1,950	1,950	5,900	5,900
		5/8"	40	7,000	14,000	4,000	8,000	5,600	4,000	4,000	8,400	4,000	4,000	9,300	9,300
		3/4"	80	15,000	30,000	5,900	11,800	8,260	5,900	5,900	12,390	5,900	5,900	13,800	13,800
		1"	125	15,000	30,000	9,300	18,600	13,020	9,300	9,300	19,530	9,300	9,300	25,000	25,000
		1" 1/4	200	22,000	44,000	13,800	27,600	19,320	13,800	13,800	28,980	13,800	13,800	35,000	35,000
		1" 1/2	240	25,000	50,000	25,000	50,000	35,000	25,000	25,000	52,500	25,000	25,000		

GRADUP LOAD ANGLE CHART

SUMMARY METRIC

$\beta_{\max} : 60^\circ$
L : Load

5:1

max. load in t

		max. load in t											
5:1	Lifting Type		1	2	1	2	2			3 → 4			
	Number of rings	Lifting angle β	0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric	
DSR	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	
	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	
MEGA/ GIGA.DSS		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	
	M 64	600	26,00	52,00	26,00	52,00	36,40	26,00	26,00	54,60	26,00	26,00	
	M 72	700	28,00	56,00	28,00	56,00	39,20	28,00	28,00	58,80	28,00	28,00	
	M 72x4	700	28,00	56,00	28,00	56,00	39,20	28,00	28,00	58,80	28,00	28,00	
	M 80	800	32,00	64,00	32,00	64,00	44,80	32,00	32,00	67,20	32,00	32,00	
SEB	M 90	900	36,00	72,00	36,00	72,00	50,40	36,00	36,00	75,60	36,00	36,00	
	M 100	1000	48,00	96,00	48,00	96,00	67,20	48,00	48,00	100,80	48,00	48,00	
	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	

GRADUP LOAD ANGLE CHART

SUMMARY UNC

$\beta_{\max} : 60^\circ$
L : Load

5:1

max. load in lbs

DSR



DSS



MEGA.DSS



SEB



Lifting Type											
Number of rings		1	2	1	2	2		3 → 4		3 → 4	
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
Size	Torque (ft-lb)										
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
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
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	60,000	120,000	60,000	120,000	84,000	60,000	60,000	126,000	60,000	60,000
3"	520	64,000	128,000	64,000	128,000	89,600	64,000	64,000	134,400	64,000	64,000
3" 1/4	590	72,000	144,000	72,000	144,000	100,800	72,000	72,000	151,200	72,000	72,000
3" 1/2	665	76,000	152,000	76,000	152,000	106,400	76,000	76,000	159,600	76,000	76,000
3" 3/4	740	80,000	160,000	80,000	160,000	112,000	80,000	80,000	168,000	80,000	80,000
4"	740	88,000	176,000	88,500	176,000	123,200	88,000	88,000	184,800	88,000	88,000
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

LOAD ANGLE CHART

SUMMARY METRIC

$\beta_{\max} : 60^\circ$
L : Load

4:1

max. load in t

	Lifting Type	Number of rings	Lifting angle β	Size	Torque (Nm)										
						1	2	1	2	2		Asymmetric	3 → 4		
						0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
SS.DSR				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
SS.DSS				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
				M 48	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
SS.SEB				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*

* In certification process with higher WLL / En cours d'homologation avec CMU plus élevée / In Entwicklungsphase mit höheren Tragfähigkeitswerten / En proceso de homologación con una CMU más elevada

LOAD ANGLE CHART

SUMMARY UNC

β max : 60°
L : Load

4:1

max. load in lbs

SS.DSR



SS.DSS



Lifting Type											
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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

* In certification process with higher WLL / En cours d'homologation avec CMU plus élevée / In Entwicklungsphase mit höheren Tragfähigkeitswerten / En proceso de homologación con una CMU más elevada

LOAD ANGLE CHART

SUMMARY METRIC

$\beta_{\max} : 60^\circ$
L : Load

5:1

max. load in t

SS.DSR
SS.DSS
SS.SEB



Lifting Type											
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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 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 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

LOAD ANGLE CHART

SUMMARY UNC

$\beta_{\max} : 60^\circ$
L : Load

5:1

SS.DSR



SS.DSS



max. load in lbs

Lifting Type											
Number of rings		1	2	1	2	2			3 → 4		
Lifting angle β		0°	0°	90°	90°	0° → 45°	46° → 60°	Asymmetric	0° → 45°	46° → 60°	Asymmetric
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
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

 GRADUP-Stahl Wirbelringschraube	 Sonderlösungen auf Wunsch	 GRADUP steel ring	 Other variants available on request
 Drehbar unter Last	 Keine Mindestbestellmenge	 Swiveling under load	 Unit production
 360° drehbar	 Kurze Lieferzeit garantiert	 360° rotation	 Fast delivery guaranteed
 180° schwenkbar	 Kontrolle und Reparatur	 180° articulation	 Control and reconditioning
 Sicherheitsfaktor 5	 Drehmomentschlüssel	 Safety factor of 5:1	 Torque key
 Sicherheitsfaktor 4	 Haltefedern auf Wunsch	 Safety factor of 4:1	 Blocking springs available on request
 Verzinkung	 Management-Tool zur Rückverfolgbarkeit optional erhältlich	 Zinc-coating	 Traceability management tool (specialised for lifting) available on request
 100% rissgeprüfte Wirbelringschrauben	 Charta	 Control anti-crack on 100% of products	 Expert's charter
 Lastwechseltest	 Technische Schulung auf Wunsch	 Fatigue test	 Sales training available on request
 Edelstahl	 Verfügbare App auf Android	 Stainless Steel	 App available on Android
 PSA-Anschlagpunkt	 Verfügbare App auf Apple	 Ring for fall protection	 App available on Apple
 Zwei Verschraubungsmöglichkeiten	 Händlerportal/Extranet	 Two ways of tightening	 Distributor portal/Extranet
 Zulässiger Temperaturbereich von -20°C bis +200°C	 Weltweite Präsenz	 Material developed for temperature between -20°C and +200°C	 Worldwide presence
 Innengewinde	 Einzelverpackung	 Female version	 Individual packaging
 Außengewinde	 RFID auf Wunsch verfügbar	 Male version	 RFID available on request
 Höchstbelastung bis zu 125 Tonnen	 3D Zeichnungen zum Download verfügbar	 WLL up to 125 tons	 3D download available
 Metrisches Gewinde	 Alle Wirbelringschrauben sind mit Gebrauchsanweisung geliefert	 Metrical thread	 Each ring is accompanied with use recommendations
 Zollgewinde	 Lieferung mit Konformitätszertifikat	 UNC thread	 Delivery with certificate of compliance
 Schmiedeteile	 Zertifiziert nach ISO 9001	 Forging production	 Certified ISO 9001
 Einsatz als Zurrpunkt möglich	 Zertifiziert nach ISO 14001	 Possible use for lashing	 Certified ISO 14001
 Kontrolle	 Made in Luxembourg	 Visual control	 Made in Luxembourg
 Langzeitfettung	 Getestet nach der Norm EN 1677-1	 Permanent lubrication	 Tested according to standard EN 1677-1
 Zentrierung auf Wunsch	 Entspricht der Norm EN 795:2012	 Centring version available on request	 Comply to standard EN 795:2012
 Individueller Rückverfolgbarkeitscode		 Individual traceability number	www.codipro.net

LEYENDA

1. Información técnica
2. Calidad y certificación
3. Servicio

	Cáncamo de acero GRADUP
	Rotación bajo carga
	Rotación a 360°
	Articulación a 180°
	Coeficiente de seguridad 5:1
	Coeficiente de seguridad 4:1
	Galvanización
	100% de nuestros cáncamos están aprobados anti fisuras
	Prueba de fatiga
	Acero inoxidable
	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
	Versión con centraje disponible bajo solicitud
	Codigo 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
	Herramienta de traçabilidad (propio al izaje) disponible bajo solicitud
	Carta commercial
	Formación tecnico-commercial disponible bajo solicitud
	Aplicación disponible en Android
	Aplicación disponible en Apple
	Portal distribuidor/Extranet
	Presencia a nivel mundial
	Empaque individual
	RFID disponible bajo solicitud
	Fichero 3D disponible para descargar
	Cada cáncamo viene con su manual de instrucciones y certificado de conformidad
	Entrega con certificado de conformidad
	Certificado ISO 9001
	Certificado ISO 14001
	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
	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
	Version avec centraje disponible sur demande
	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
	Outil de gestion de traçabilité (spécialisé pour le levage) disponible sur demande
	Charte commerciale
	Formation technico-commercial disponible sur demande
	Application disponible sur Android
	Application disponible sur Apple
	Portail distributeur/Extranet
	Présence mondiale
	Emballage individuel
	RFID disponible sur demande
	Téléchargement 3D disponible
	Chaque anneau est livré avec notice d'instruction et certificat de conformité
	Livraison avec certificat de conformité
	Certifié ISO 9001
	Certifié ISO 14001
	Fabriqué au Luxembourg
	Testé selon la norme EN 1677-1
	Conforme à la norme EN 795:2012