



«» catalogue

ILS | INTERNATIONAL
LASHING SYSTEMS

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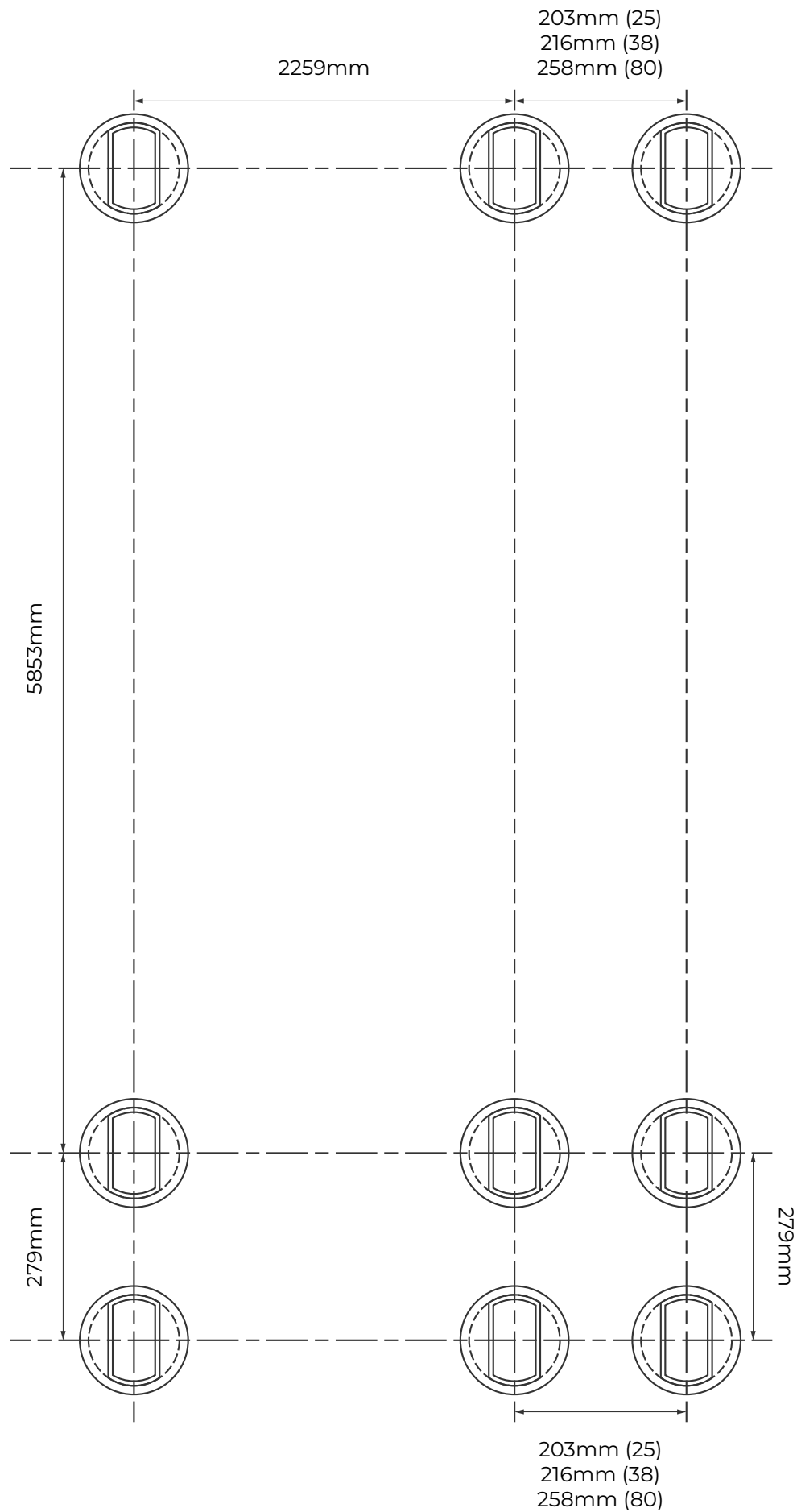
Website www.ils.be

A world player
specialized in
cargo securing
technology.





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Contact us for more info.



mission statement

*everything
you need
to run a
tight ship*

As a professional in the marine and offshore industry, we know you're not just going to hit any port in a storm. Well, you've come to the right place. We've got decades of experience in the design and manufacturing of lashing products. Our warehouse is stocked to the brim with the best products on the market. Literally everything you need to run a tight ship. And at ILS, we take pride in getting it all over to you ahead of time.



history

we've
known the
twistlocks
since 1974

Just like the port of Antwerp, where ILS has its head office, our company boasts an interesting and rich history. Over 40 years ago, British traders set up shop at 't Eilandje (literally: “the Islet”), a characteristic harbor neighborhood in the North of Antwerp. And just as the port of Antwerp has evolved over the centuries into a leading world port and a major cargo hub, ILS has grown from a tiny warehouse selling all kinds of goods, into a world player specialized in cargo securing technology.

Nowadays, we can honestly say we are a world-class supplier of lashing materials, ensuring plain sailing for container, multipurpose and ro-ro-ships hitting the waters. Our motto? Keeping your cargo safe and secure by providing quality products at the best price.

Our experienced team of professionals is there to advise shipowners, shipyards and design companies alike. We will make sure your ship is on course in no time.



your
preferred
partner



01.

Large stock.

Imagine everything you may need to secure cargo onto a ship. All kinds of cargo, for that matter. Hard to imagine? Not for us. We've got it all under one roof. Our warehouse holds a very large stock of all lashing-related products. That is, if they meet our high quality standards. Whether you need twistlocks, chains, levers, D-rings, lashing bars, etc.: we've got you covered.

02.

Fast delivery.

Our commitment to a fast delivery will keep you on course. Over the years, ILS has developed an extensive network of agents and stockists in all major ports and shipbuilding nations around the world. Our network ensures the best service, no matter your location. Whether you require spare parts, a few additions to your equipment, you can count on us for a quick and efficient service.

03.

Best price.

In an industry where safety and security are non-negotiable, we refuse to compromise on quality. Period. Our products are certified by a host of classification societies, such as Lloyd Register, Bureau Veritas, American Bureau of Shipping, Det Norske Veritas, and so on. However, the highest quality doesn't have to come at the highest price. At ILS, we aim to provide the best products at the best price. How's that for smooth sailing?



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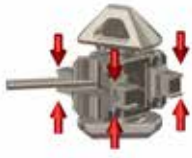


technical introduction

what you need to know about container lashings

definitions

Typical examples of force types

TENSION FORCE		
SHEAR FORCE		
COMPRESSION FORCE		

Definition of loads

MSL	Maximum Securing Load	Maximum load allowed on a lashing item when used in practice
WLL	Working Load Limit	Maximum load allowed on a lifting item when used in practice
SWL	Safe Working Load	Maximum load allowed on a lifting item when used in practice
PL	Proof Load	Load applied on an item in test conditions. No plastic deformation may remain after this load has been applied.
TL	Test Load	= Proof Load
(M)BL	(Minimum) Breaking Load	Minimum load an item has to sustain before breaking
SF	Safety Factor	BL/MSL or BL/WLL. Typical value for most lashing items is 2.



containers

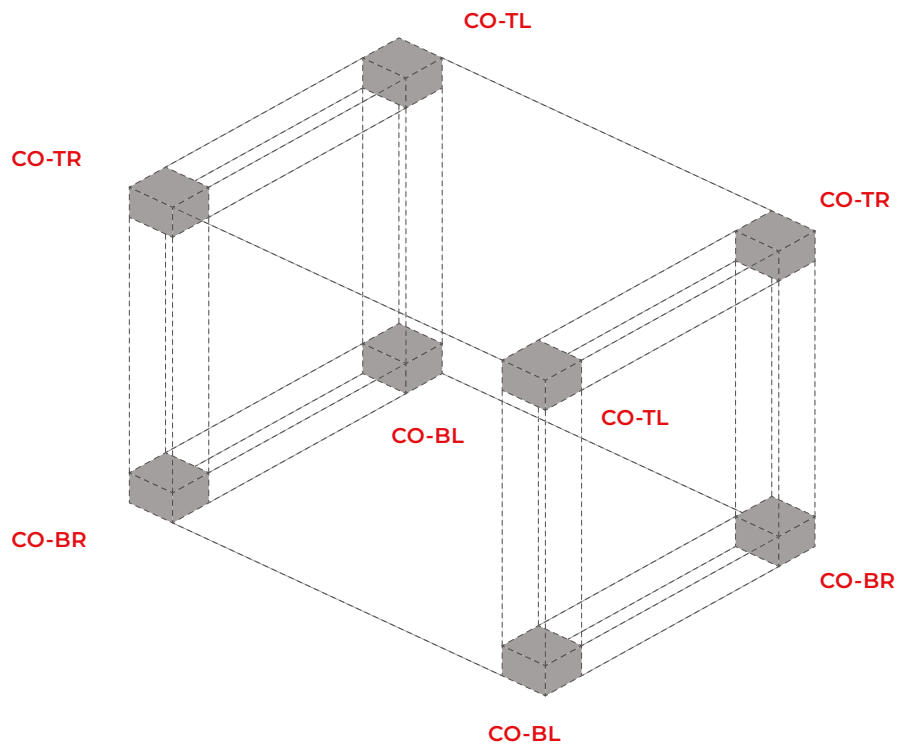
Description

Shipping containers are standardised according to ISO standards such as ISO 668, 1496, ... From a structural point of view, a container consists of a strong frame at the front side and a strong frame with a door at the aft side. Each of these frames is composed of 2 vertical corner posts, 2 horizontal girders at the bottom and on top, and 4 corner castings. These elements are designed to take all the external loads working on the container.

The rest of the container (roof, longitudinal walls, and bottom) is not taken into account for securing calculations, because these elements are weak in comparison to the end frames.

Only for special, by the classification society defined, cases may the strength of these longitudinal elements be taken into account for the securing calculations.

Containers can be secured to a foundation or to each other by connecting elements fitting into the ISO-holes located the underside of the bottom corner castings and in the upper side of the top corner castings. Containers can be additionally secured or stiffened by lashing elements fitting into the standardised front and side openings of the top and bottom corner castings.



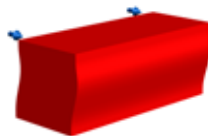
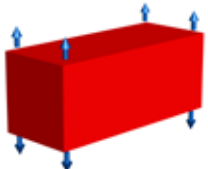
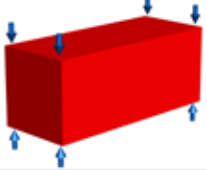
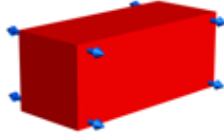
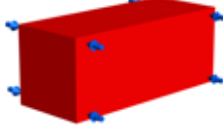


Strength

Containers are designed to sustain combinations of loads in various directions. The allowable forces on a container are however not standardised and defer from one classification organization to the other. An overview of these forces for standard containers is given in the table below.

The allowable forces acting between two containers (for instance in buttresses) are to be taken as the appropriate sum of top and bottom forces.

Allowable Forces On Containers (in kN)

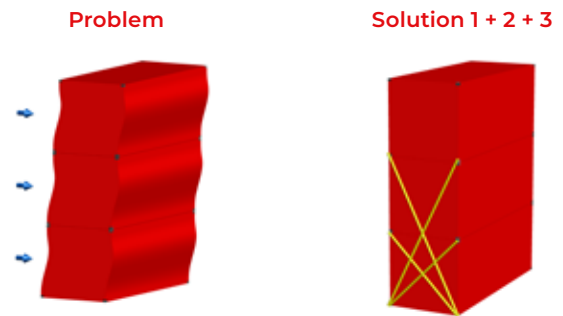
Standartization of Classification Society								
			ISO	LRS	BV	DBV-GL	ABS	RINA
	Door and front wall		150	150	150	150	150	150
	Side walls		75	150	100	150	125	100
	Side walls of open containers			75	75	75	75	75
	Top	20'	118	250	250	250	250	250
		40'	150					
	Bottom	20'	110	250	250	250	250	250
		40'	140					
	Corner post		942	848	848	848	848	848
	Bottom corner	20'	1048	954	ns	ns	954	ns
		40'	1077					
	Top	20'	150	340	200	200	250	200
		40'				250		
	Bottom	20'	150	500	300	200	350	300
		40'				250		
	Top	20'	100	340	200	250	250	200
		40'						
	Bottom	20'	150	500	300	400	350	300
		40'						

About loading and stresses

When containers are stacked and secured on board, some of the forces given on the previous page may become too high due to the movement of the ship and external loads such as wind. An overview on the possible overloading and how to prevent them is given below.

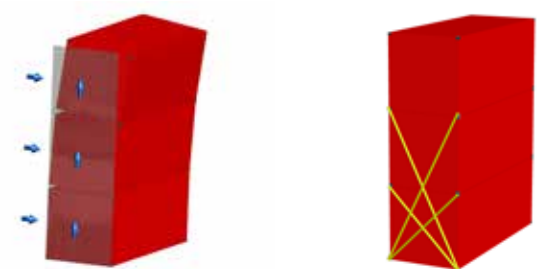
1. Racking load

Transversal (rolling, wind) and longitudinal (pitching) forces parallel to deck tend to deform the container end and side frames. Excess racking forces can be reduced by stiffening the container frames with diagonal lashing rods.



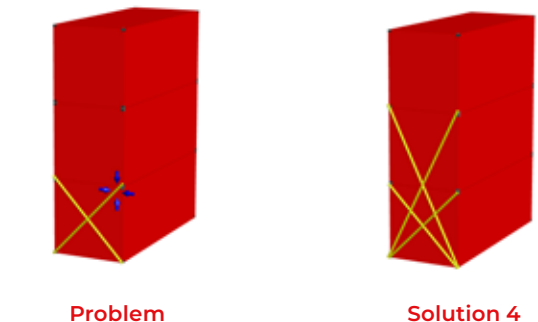
2. Lifting load

Transversal (rolling, wind) and longitudinal (pitching) forces parallel to deck, together with vertical forces tend to tip-over or lift the container or container stack, creating uplift force at some of the bottom corners. Excess lifting forces can be reduced by diagonal or vertical lashing rods in addition to twistlocks or stackers.



3. Lashing load

The reaction forces of the lashing rods are acting on the container castings. Excess lashing forces can be reduced by adding more lashing rods or changing the weight distribution.



4. Compression load

Transversal (rolling, wind) and longitudinal (pitching) forces parallel to deck, together with vertical forces tend to press down the container or container stack, creating compression force in the vertical corner posts. Excess compression forces can only be reduced by reducing the container weights or lowering the c.o.g. Adding extra internal lashing rods only increases the compression load.





Sizes and distances

Dimensions of various container types can be found in the table on the next page. Standardised longitudinal centre-to-centre distance between the holes of the end sockets of two adjacent 20' containers is 279mm in order to fit into one 40' module. (The same is valid for two 10' containers in a 20' module)

Transversal centre-to-centre distance between the side sockets of two adjacent containers is not fully standardised. Because – for practical reasons – a clearance of minimum 20 to 35mm is required between containers, transversal centre-to-centre distance between the holes of two 8' wide containers is standardised at 203mm. However, more and more pallet wide EURO-containers of 2500mm width are transported: transversal centre-to-centre distance between two 2500mm wide containers is standardised at 258mm. Other transversal centre-to-centre distances encountered are: 216mm, 265mm or 365mm (for two adjacent 2600mm wide containers).

In ships with cell guides, the cell guides are in most cases designed for 8' wide containers; so no 2500mm wide containers can be carried in the cell guide system. The layout of a cell guide system can be based on 2500mm wide containers: in the case of 8' wide containers being carried in such a system, compensating pieces have to be provided in order to limit the clearance of these 8' wide containers in the 2500mm cell guide system.

Cell guides are to be constructed with maximum 25mm clearance transversally and 38mm longitudinally (therefore the distance between the guides = container width + 25mm, container length + 38mm).

Tolerances

Width: +0, -5mm for all containers
 Height: +0, -5mm for all containers
 Length: +0, -6mm for 10' - 24,5' containers
 +0, -10mm for 30' - 53' containers

Sizes and distances for various container types

CONTAINER SIZE/TYPE	CONTAINER SIZES (mm)			CENTRE-TO-CENTRE (mm)		MAX. WEIGHT (t)	REMARKS
	LENGTH	WIDTH	HEIGHT	LENGTH	WIDTH ¹		
10' x 8' x 8' 10' x 8' x 8'6"	2991	2438	2438 2591	2787	2259	10,16	ISO 668
20' x 8' x 8' 20' x 8' x 8'6" 20' x 8' x 9' 20' x 8' x 9'6"	6058	2438	2438 2591 2743 2896	5853 ²	2259	24,0	ISO 668
20' x 2500 x 8'6" 20' x 2500 x 9'6"	6058	2500	2591 2896	5853	2259	24,0	'EURO'
24' x 8' x 8' 24' x 8' x 8'6"	7315	2438	2438 2591	7108		24,95	'MATSON'
24,5' x 8'6"5/32 x 8'6" 24,5' x 8'6"5/32 x 9'6"	7430	2595	2591 2896	5838/7225 ³	2259		ISO
30' x 8' x 8' 30' x 8' x 8'6"	9125	2438	2438 2591	8918	2259	25,4	ISO 668
35' x 2430 x 2590	10659	2438	2603	11985	2134	27,4	'SEA LAND'
40' x 8' x 8' 40' x 8' x 8'6" 40' x 8' x 9' 40' x 8' x 9'6"	12192	2438	2438 2591 2743 2896	11985	2259	30,48	ISO 668
40' x 2500 x 8'6" 40' x 2500 x 9' 40' x 2500 x 9'6"	12192	2500	2591 2743 2896	12900	2259	30,48	'EURO'
43' x 8' x 8'6"	13107	2438	2591	11985/	2259	32,5	'Reefer'
45' x 8' x 9' 45' x 8' x 9'6"	13716	2438	2743 2896	13509	2259	30,48	US standard
48' x 8'6" x 9'6,5"	14630	2600	2900	11985/14423	2259	30,48	US standard
49' x 8'6"5/32 x 8'6" 49' x 8'6"5/32 x 9'6"	14953	2595	2591 2896	11985/14728	2259	30,48	ISO
53' x 8'6" x 9'6,5"	16154	2600	2900	11985/16147	2259	30,48	US standard

¹ Transverse offset (distance from centre point to centre point of ISO holes) of all containers is 2259mm standard, except for 'SEALAND' containers.

² Two 20' containers behind each other fit the offsets of one 40' container with a spacing of 76mm between the two containers (or 279mm c/c spacing).

³ Two 24,5' containers behind each other fit the offsets of one 49' container with a spacing of 51mm between the two containers (or 279mm c/c spacing).



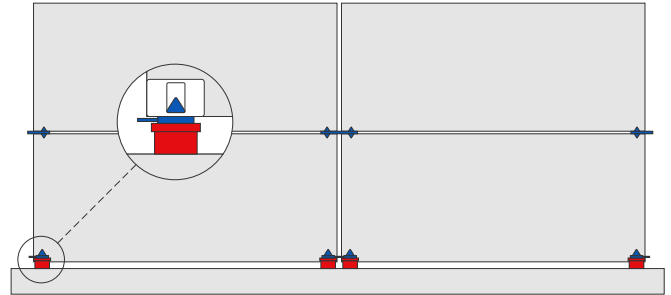
container stowage systems

Hatch covers equipped for containers can be designed to stow containers in point load mode or line load mode.

Point load mode

Definition

The container is resting on its 4 bottom corner castings on the container fittings. The other parts of the container don't make contact with the hatch covers.



Installation of fixed fittings on hatch covers

The foundations can be installed:

- Flush with the surrounding structure, e.g. a flush ISO foundation DF-71 (page 27)
- Raised above the surrounding structure, e.g. a raised ISO foundation DF-41 (page 27)

Loose lashing gear

Standard twistlocks or bottom twistlocks are to be used.



Principle

All forces of the container stack are transferred to the foundations through the 4 corner castings of the bottom container.

Restrictions

As the container is designed for point load mode, the standard limitations of forces acting on the containers are valid together with the allowable stack weight of the hatch cover.

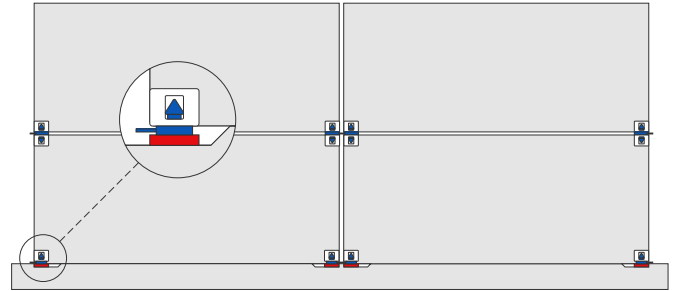
Remarks

This is the most common design of hatch covers for container carrying vessels. In general the hatch covers have a higher stack load but they are also heavier than their line load counterparts.

Line load mode

Definition

The container is resting on its 2 longitudinal bottom girders. The 4 corner castings are not in contact with the structure below.

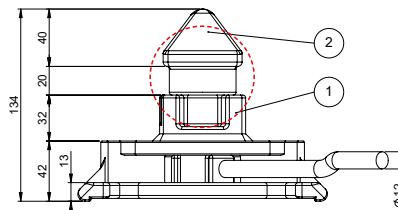


Installation of fixed fittings on hatch covers

Sliding foundations are installed in recesses of the hatch covers. The depth of these recesses is 80mm* (although on older vessels this can be 72mm) to prevent corner castings being supported by the hatch cover structure below.

Loose lashing gear

Special bottom twistlocks for line load are to be used. These have a longer cone to overcome the additional height of the recess.



Principle

As the container is resting on its bottom girders and the corner casting are "hanging" above the structure, the compressive force of the stack is transferred through these girders into the hatch covers. The shear and tension forces are transferred through the corner castings and the bottom twistlocks, which are placed in the recess.

Restrictions

As the container is designed for point load mode, the standard limitations of forces acting on the containers are valid together with the allowable stack weight of the hatch cover.



Remarks

For a line load configuration the tolerances of the hatch cover, the type of twistlock and the condition of the container are important to attain a correct stowage and securing. A correct securing is done when:

- The corner casting of the container is not resting on the twistlock body
- The head of the twistlock is completely inserted in the ISO-hole of the corner casting
- The corner casting is not resting on the head of the twistlock
- The handle of the twistlock can easily be shifted into a locked position

When correct securing as described above is not possible, the following cases should be checked.

- Figure 1: the recess is not deep enough. Line load twistlocks are designed for recesses of 72-80mm
- Figure 2: a standard twistlock is used instead of a line load twistlock
- Figure 3: the recess is not deep enough and a standard twistlock is used
- Figure 4: deformation or deflection of the hatch cover increases the actual depth of the recess. The line load twistlock will not lock as it appears to be too low.

Protrusion of corner castings, failure modes

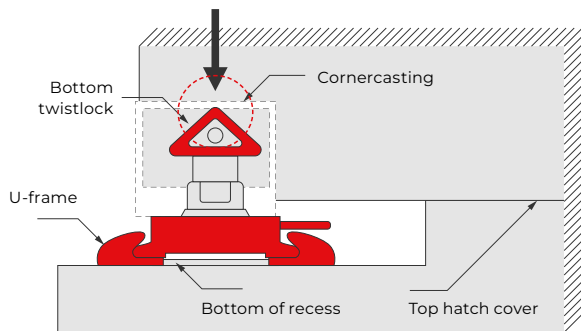


Figure 1 Top of cone is hitting the inner body of the corner casting, top of hatch cover is to low for bottom twistlock with lengthened cone shaft.

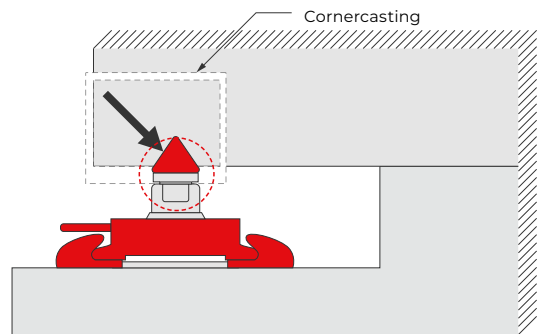


Figure 2 Cone of twistlock is not fully inserted into corner casting. Top of hatch cover is to high for standard bottom twistlock.

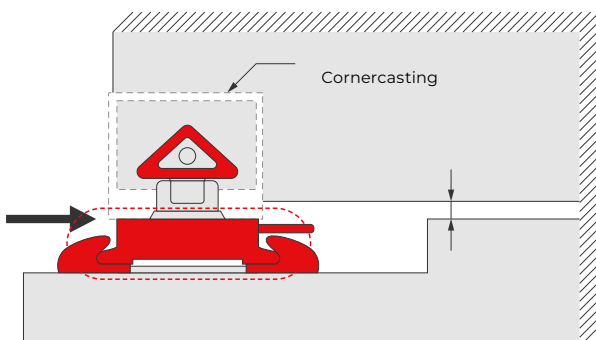


Figure 3 Bottom of corner casting is resting on body of bottom twistlock, top of hatch cover is to low.

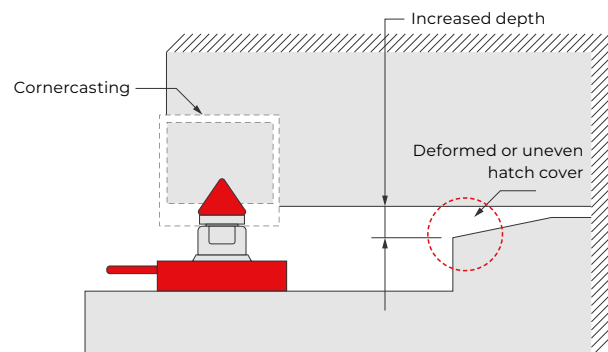
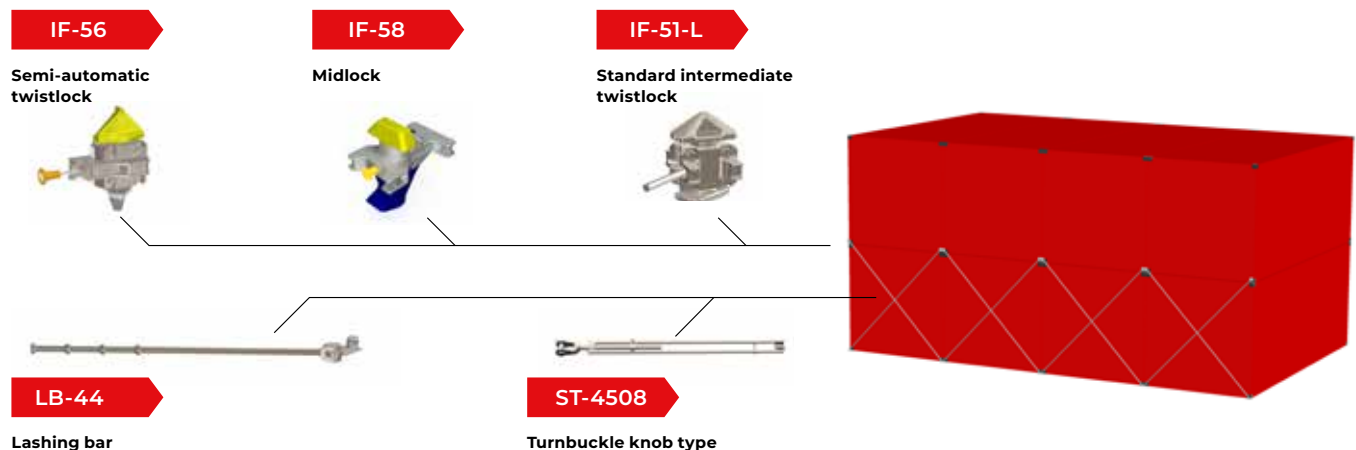


Figure 4 Top of hatch cover is deformed or uneven, twistlock is unable to lock.

securing arrangements

Securing of independent stacks with twistlocks and lashing rods



Description

This is the most common securing arrangement used nowadays. Containers are stowed in a stack and only connected with the containers above and below them. The containers are connected by means of twistlocks and midlocks which are inserted in the corner castings of the containers. All forces are transmitted through the twistlocks into the cornercastings and corner posts of the containers to the bottom structure.

As there's no connection with the containers of adjacent stacks or to side structures the lower containers are always

subject to the highest forces. In case the allowable racking or uplift forces are exceeded, lashing rods with turnbuckles can be installed at both container ends. Installing lashing rods will increase the compression force in the corner post which can be limiting for high and heavy stacks of containers. In this cases external lashings can be a solution. The possible causes of failure and means of prevention can be found on page 11.

When using lashing rods the advised distance in between the containers is at least 860mm in accordance with the IMO MSC.1/Circ.1352.

Characteristics

Advantages

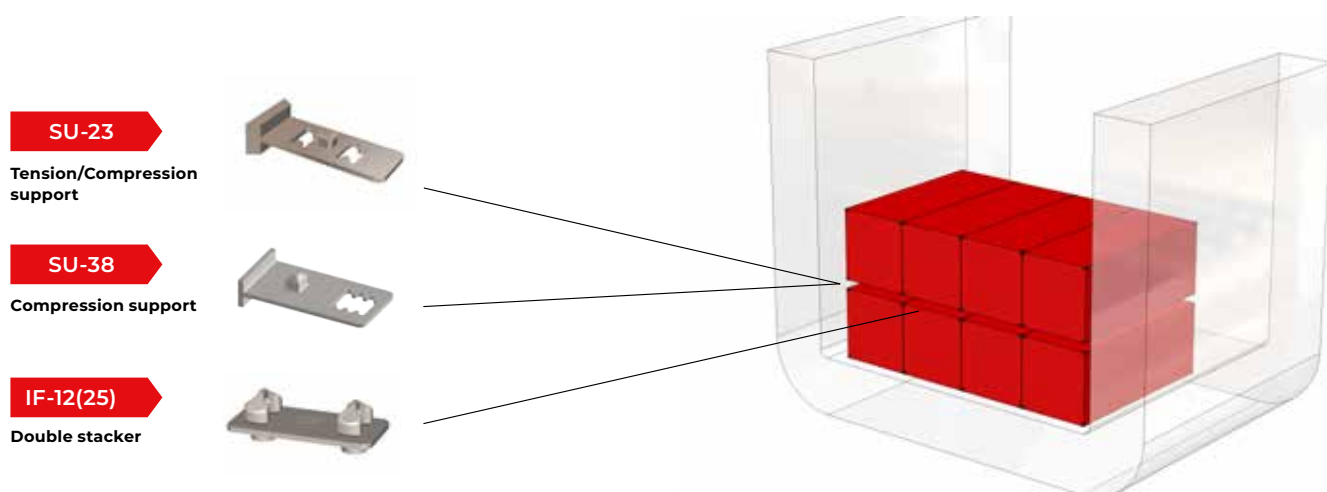
- Can be in compliance with requirements of OSHA and specialized container terminals
- Flexible stowage possible
- Combinations of containers with different heights is possible
- One container can easily be loaded/unloaded without necessarily transferring containers in adjacent stacks.
- Allows for fast loading and unloading operations 16

Disadvantages

- Stack weight is limited according to the strength of the bottom containers



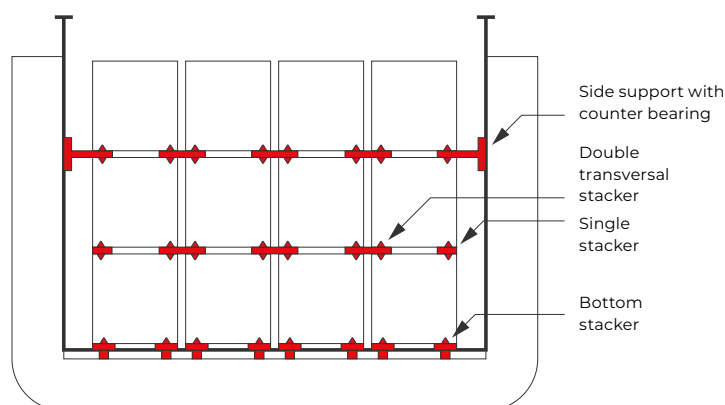
Securing of containers stowed in block with side supports and stackers



Description

This securing configuration can be used in the hold of ships with bulkheads reinforced for this purpose. All containers are transversally connected by double stackers, forming one solid block of containers.

The forces acting on this block are transferred to the ships bulkheads by means of side supports and to the bottom using bottom stackers. Side supports can be of the compression type or the tension-compression type. The first can only transfer compression into the bulkhead the latter needs to be inserted into the bulkhead-fittings and can transfer tension and compression forces. The upper containers can be connected by bridge fittings and supported by top supports.



The type, position and number of supports required needs to be determined by detailed calculation taking into account the weight of all containers.

Characteristics

Advantages

- High stack loads can be achieved

Disadvantages

- Inflexible (un)loading operations as it has to be done tier by tier and not stack by stack
- Slow and labor-intensive loading and unloading operations
- Mixture of containers with different heights only possible with additional height adapters
- Not in compliance with OSHA or requirements of specialized container terminals

cargo securing manuals

SOLAS Ch VI Carriage of Cargoes, Regulation 5 Stowage and Securing states that:

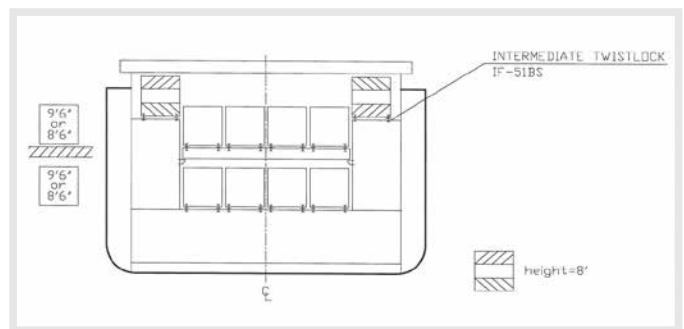
"All cargoes, other than solid and liquid bulk cargoes, cargo units and cargo transport units, shall be loaded, stowed and secured throughout the voyage in accordance with the Cargo Securing Manual".

These manuals need to be approved by the flag state or by a classification society on behalf of the flag state in accordance with the IMO Revised Guidelines on the Preparation of the Cargo Securing Manual and the Code of Safe Practice for Cargo Stowage and Securing.

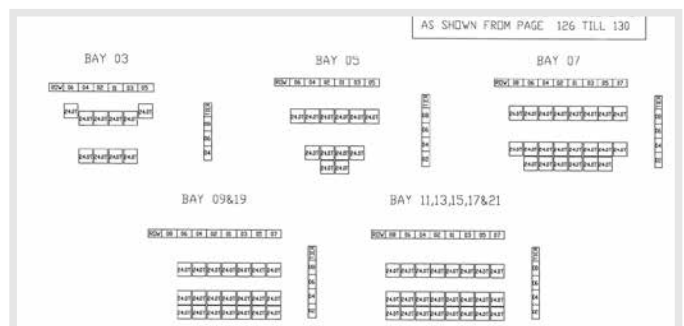
Due to our longtime experience we can provide Cargo Securing Manuals in accordance with all required regulations. The Cargo Securing Manual consists, inter alia, out of a list of all loose and fixed securing fittings, instructions on how to operate and maintain these fittings, general information on the stowage of cargoes, ship specific accelerations and example calculations, ...



For ships which are intended to carry containers, a Container Lashing Manual or Container Securing Manual is to be included in the Cargo Securing Manual. The Container Lashing Manual shows the allowable weight distribution of each container stack for 1 or more GM-values. It also gives guidance on the type and location of the container securing materials.



We always intend to deliver manuals which contain all information regarding types, maintenance and operation instructions of the securing items and in this way support the cargo securing operations of our customers in the best way. Each document is prepared in accordance with the regulations and specific requirements of the customer.



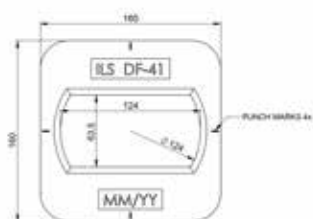
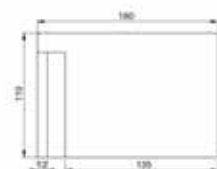
fixed lashing equipment container



ISO sockets

Reference: **DF-41**

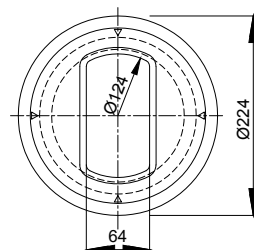
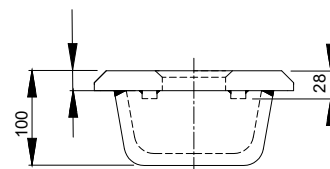
Description: Raised ISO decksockets



H(mm)	References
110	DF-41
140	DF-41-140
...	...

Reference: **DF-71-V**

Description: Flush ISO decksockets

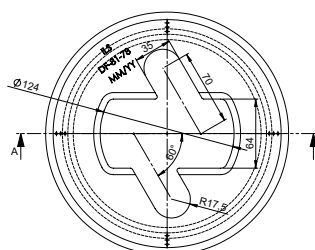
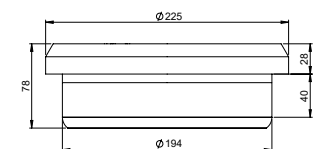


BL Tension	500kN
BL Shear	420kN

Reference: **DF-81**

Description: Combined flush decksockets

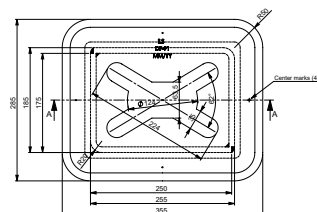
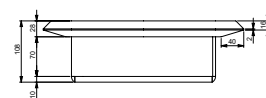
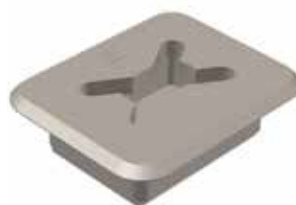
Remark: MBL Shear 300kN



BL Tension	500kN
BL Shear	420kN

Reference: **DF-91**

Description: Combined flush decksockets



BL Tension	500kN
BL Shear	420kN

Material:

Steel

Finish:

Shot blasted + Weldable primer

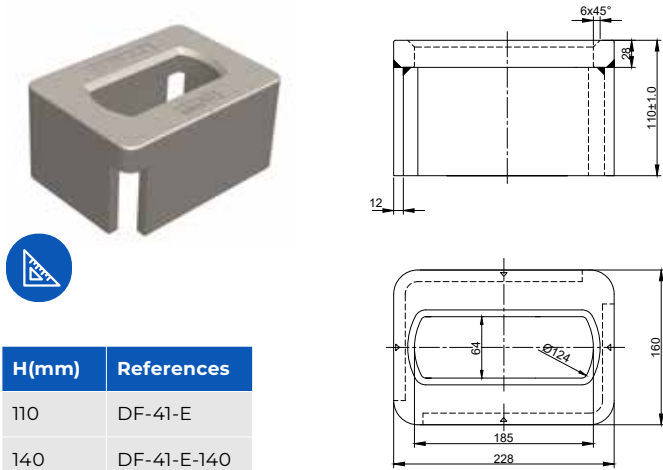
Remarks:

Fixed container foundation can be welded on the hatch cover.



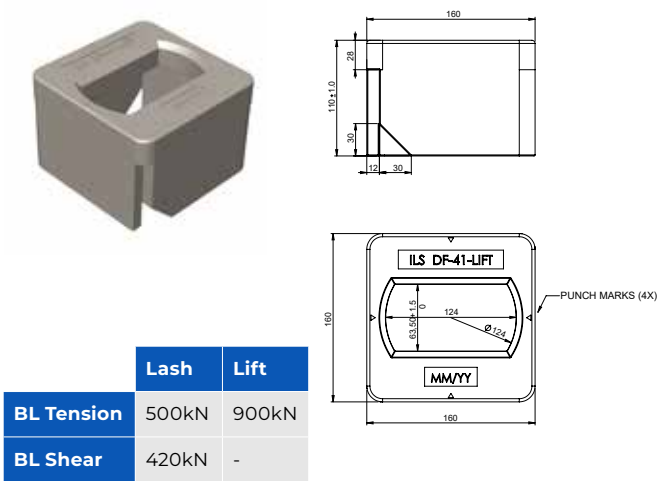
ISO sockets

Reference: **DF-41-E**
Description: Elongated raised ISO decksocket



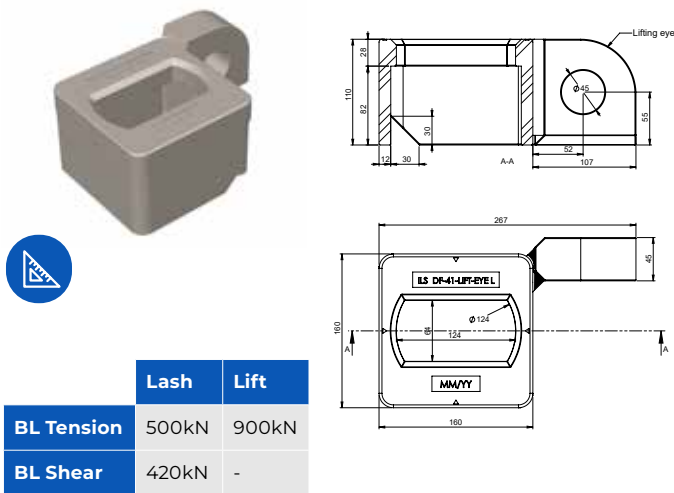
H(mm)	References
110	DF-41-E
140	DF-41-E-140

Reference: **DF-41-LIFT**
Description: Lifting ISO decksocket
Remark: MBL Tension 800kN



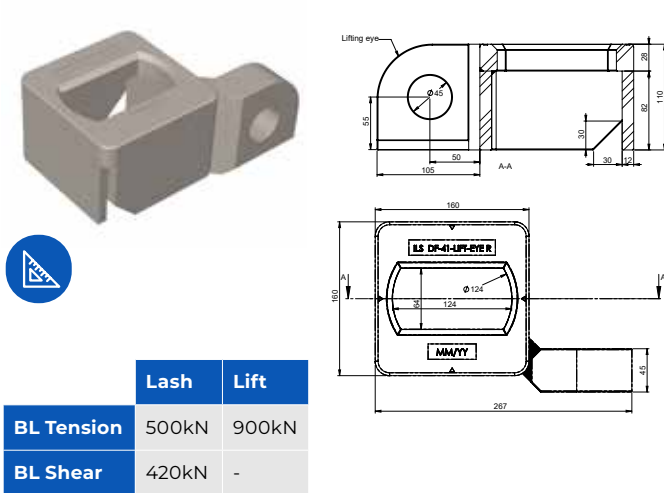
	Lash	Lift
BL Tension	500kN	900kN
BL Shear	420kN	-

Reference: **DF-41-LIFT-EYE-L**
Description: Lifting ISO decksocket
Remark: MBL Tension 800kN



	Lash	Lift
BL Tension	500kN	900kN
BL Shear	420kN	-

Reference: **DF-41-LIFT-EYE-R**
Description: Lifting ISO decksocket
Remark: MBL Tension 800kN



	Lash	Lift
BL Tension	500kN	900kN
BL Shear	420kN	-

Material: Steel
Finish: Shot blasted + Weldable primer
Remarks: Fixed container foundation can be welded on the hatch cover.

Remark: Available in double Longitudinale (DF-42)



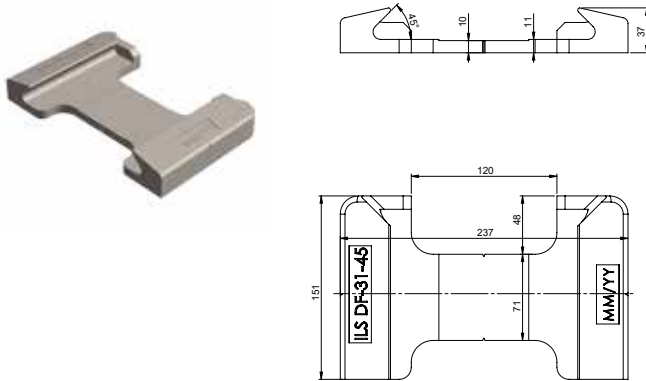
Remark: Available in double Transversal (DF-43)



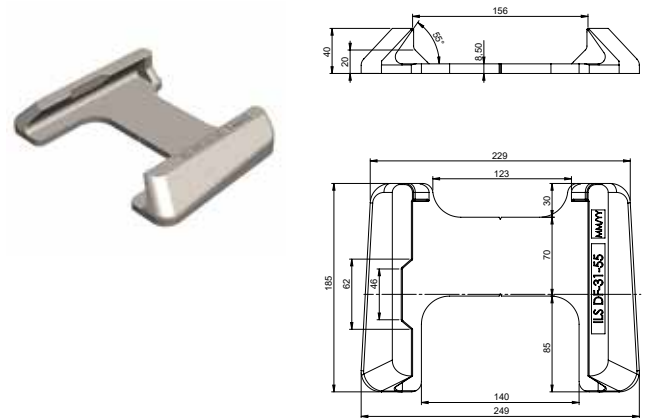
The dimensions of the products marked with this icon are fully customisable.
Contact us for more info.

Dovetail foundations

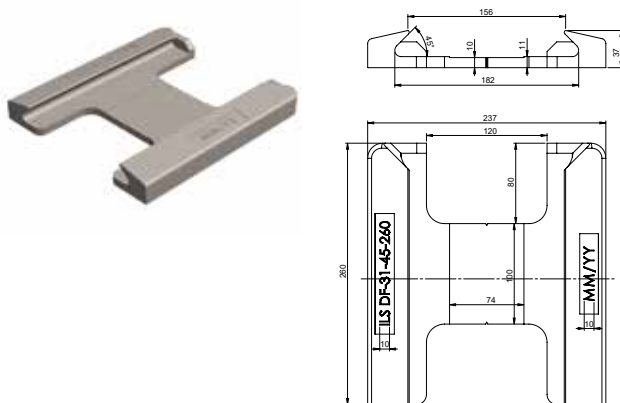
Reference: **DF-31-45**
Description: **U-frame decksocket 45°**
Remark: To be used with BF-11-45



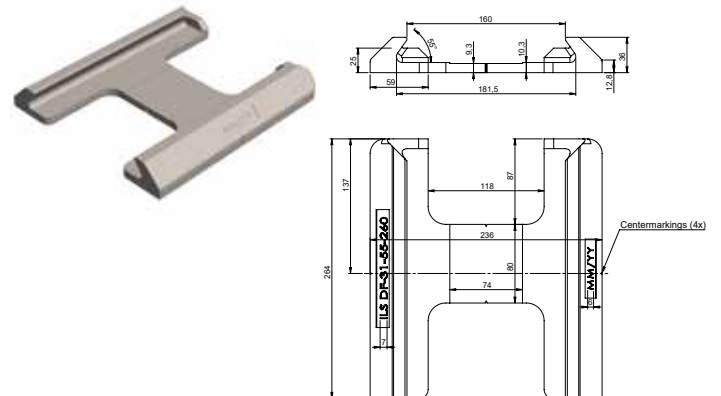
Reference: **DF-31-55**
Description: **U-frame decksocket 55°**
Remark: To be used with BF-11-55



Reference: **DF-31-45-260**
Description: **U-frame decksocket 45° elongated**
Remark: To be used with BF-11-45

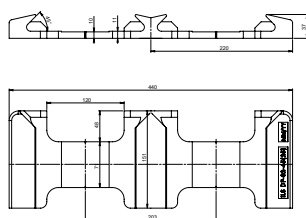


Reference: **DF-31-55-260**
Description: **U-frame decksocket 55° elongated**
Remark: To be used with BF-11-45



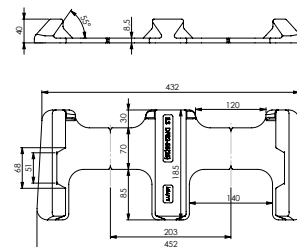
Material: Steel
Breaking Load Tension [kN]: 500
Breaking Load Shear [kN]: 420
Finish: Shot blasted + Weldable primer
Remarks: Fixed container foundation can be welded on the hatch cover.

Reference: **DF-32-45**
 Description: Double U-frame decksocket 45°



References	CC(mm)
DF-32-45(25)	203
DF-32-45(80)	255

Reference: **DF-32-55**
 Description: Double U-frame decksocket 55°

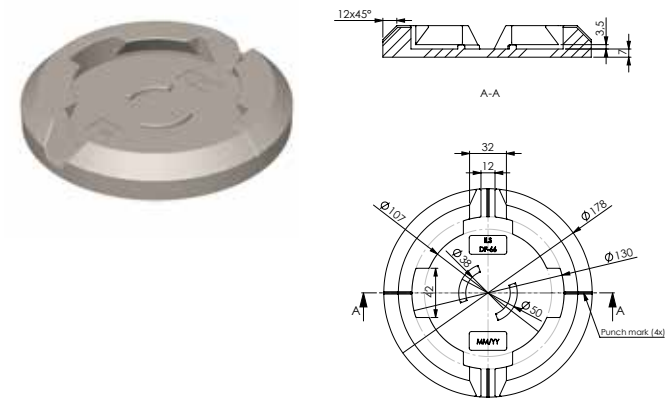


References	CC(mm)
DF-32-55(25)	203
DF-32-55(38)	216
DF-32-55(80)	258



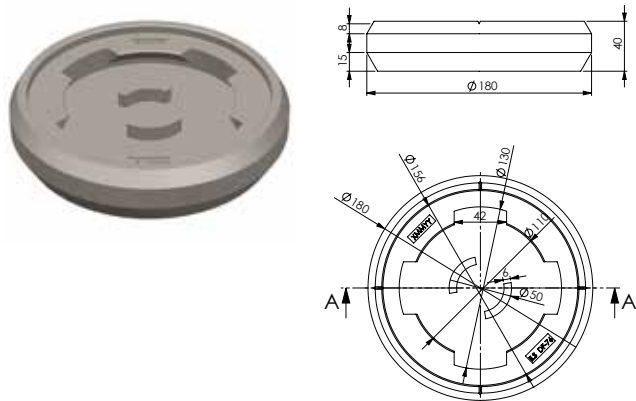
Breech base foundations

Reference: **DF-66**
Description: Raised breech base decksocket



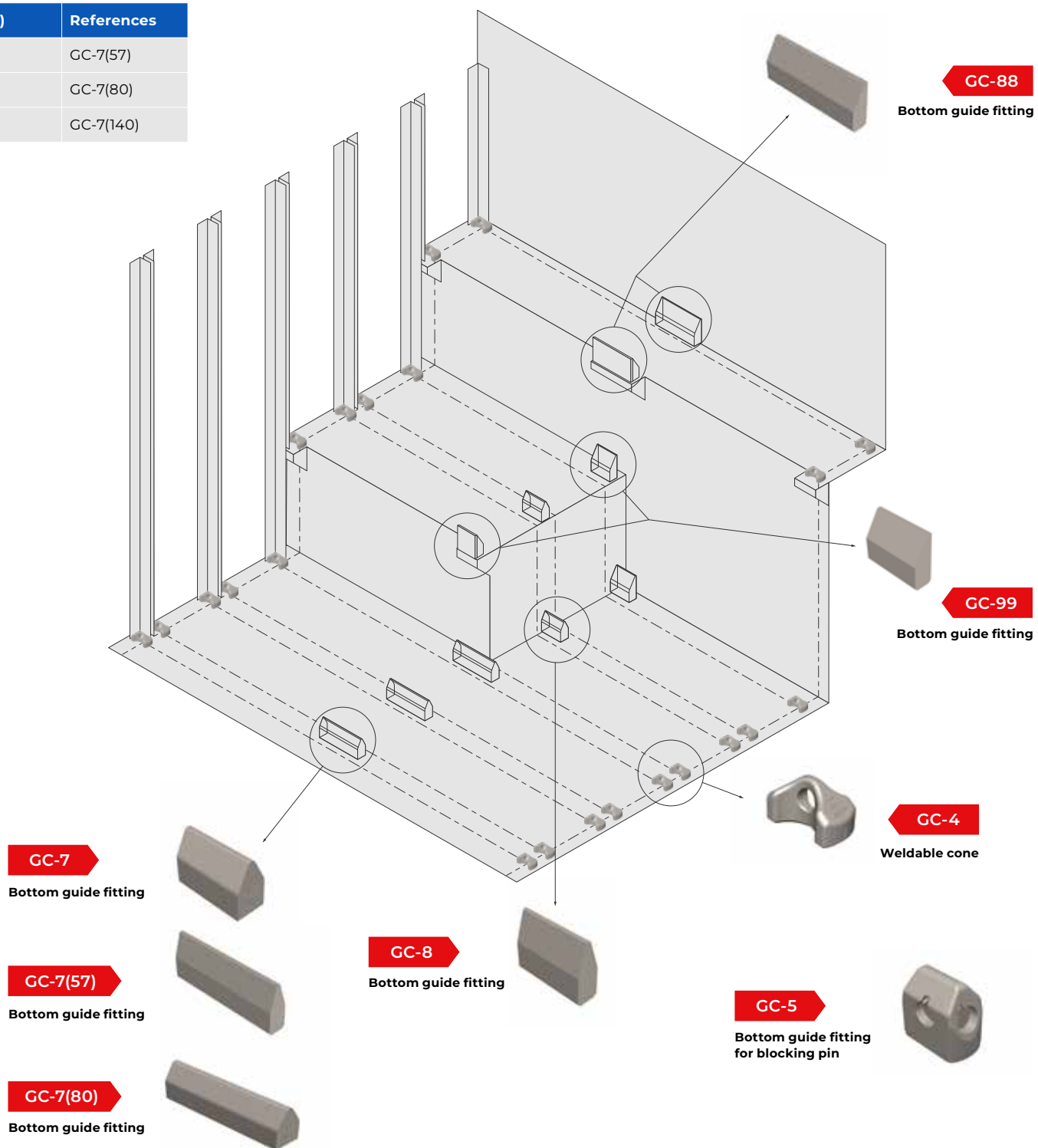
Material: Steel
Breaking Load Tension [kN]: 500
Breaking Load Shear [kN]: 420
Finish: Shot blasted + Weldable primer

Reference: **DF-76**
Description: Flush breech base decksocket



Guide fittings in combination with cell guides

L(M)	References
380	GC-7(57)
280	GC-7(80)
140	GC-7(140)

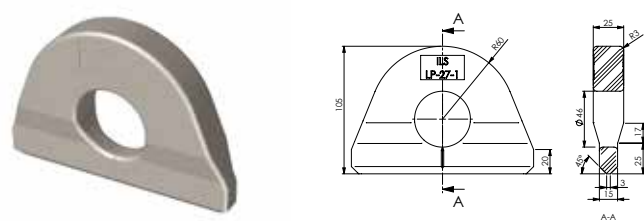


Material: Steel
 Finish: Shot blasted + Weldable primer

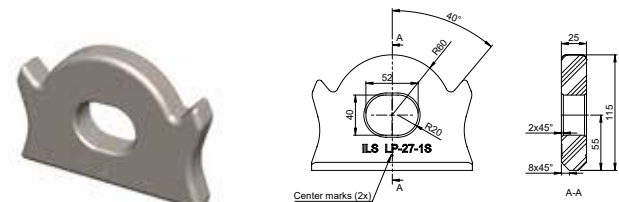


Lashing plates

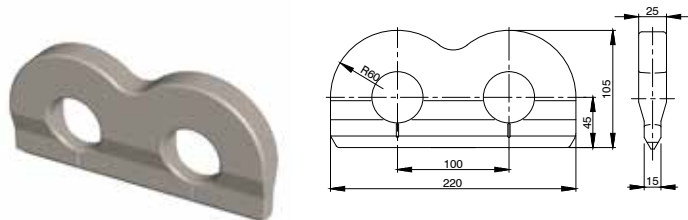
Reference: LP-27-1
Description: Lashing plate



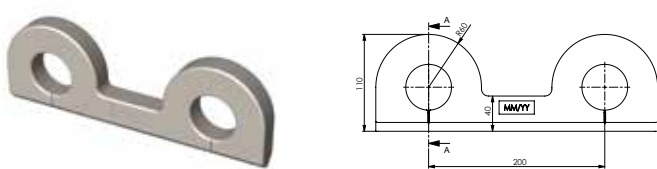
Reference: LP-27-1S
Description: Lashing plate with stopper



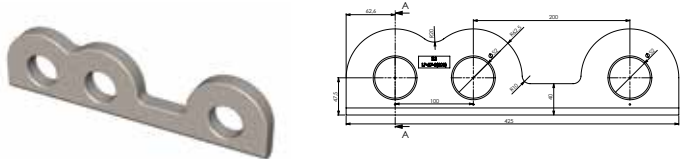
Reference: LP-27-2(100)
Description: Lashing plate



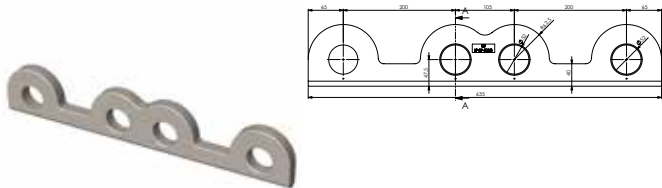
Reference: LP-27-2(200)
Description: Lashing plate



Reference: LP-27-3(200)
Description: Lashing plate



Reference: LP-27-4(200)
Description: Lashing plate



Material: Steel
Breaking Load Tension [kN]: 500
Finish: Shot blasted + Weldable primer



fixed lashing equipment

general cargo

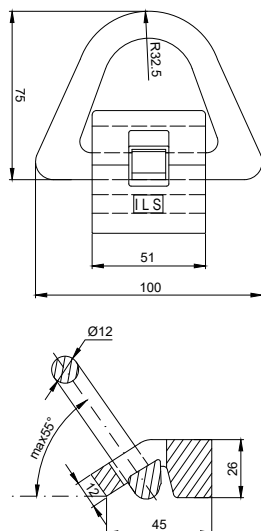


D-rings

Reference: LP-06
Description: D-ring + strap
D-ring: Galvanized steel
Strap: Primer painted



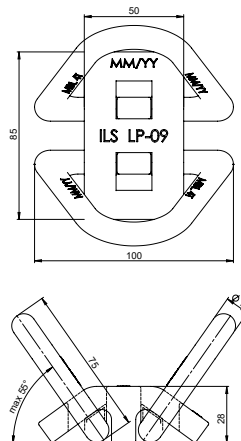
MBL	40kN
SWL	20kN



Reference: LP-09
Description: Double d-ring + strap
D-ring: Galvanized steel
Strap: Primer painted



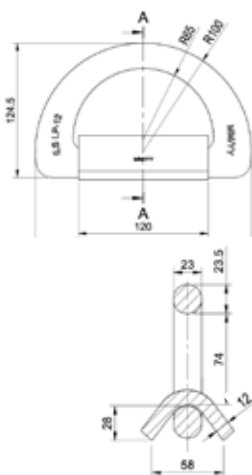
MBL	2x 40kN
SWL	2x 20kN



Reference: LP-12
Description: D-ring + strap
Material: Steel
Finish: Oil finish



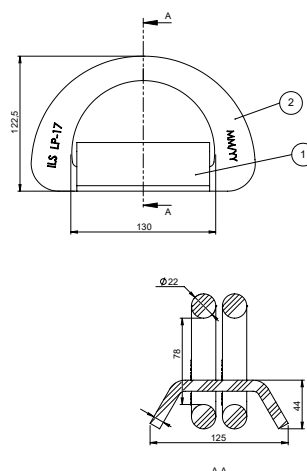
MBL	360kN
SWL	180kN



Reference: LP-17
Description: Double D-ring + strap
Material: Steel
Finish: Oil finish



MBL	2 x 360kN
SWL	2 x 180kN

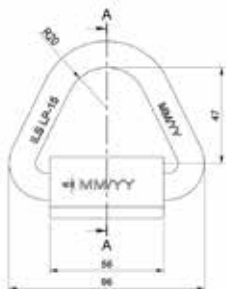


D-rings

Reference: **LP-15**
Description: **D-ring + strap**
Material: Steel
Finish: Oil finish



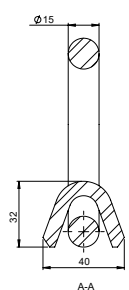
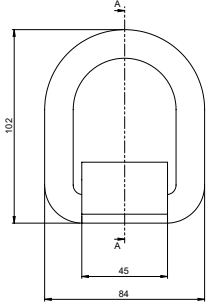
MBL	150kN
SWL	75kN



Reference: **LP-13**
Description: **D-ring + strap**
Material: Steel
Finish: Oil finish

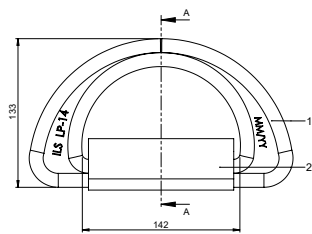


MBL	200kN
SWL	100kN

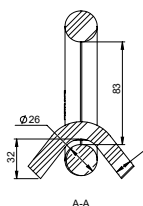


D-rings

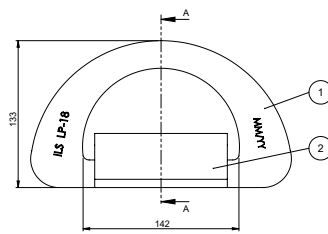
Reference: LP-14
Description: D-ring + strap
Material: Steel
Finish: Oil finish



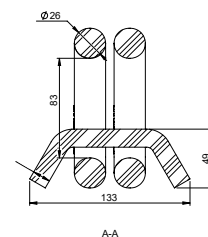
MBL	500kN
SWL	250kN



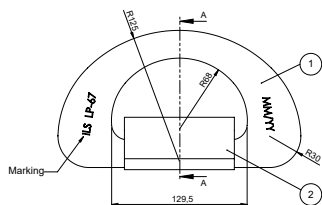
Reference: LP-18
Description: Double D-ring + strap
Material: Steel
Finish: Oil finish



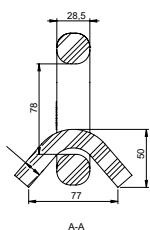
MBL	2 x 500kN
SWL	2 x 250kN



Reference: LP-67
Description: D-ring + strap
Material: Steel
Finish: Galvanized



MBL	670kN
SWL	335kN



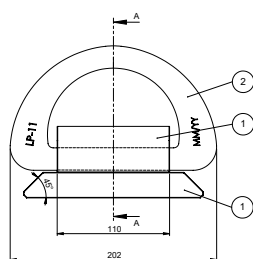
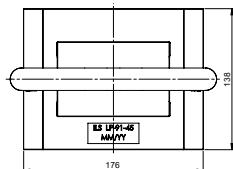
D-rings

Reference: LP-91-45

Description: U-frame D-ring 45°

Material: Steel

Finish: Painted



MBL 360kN

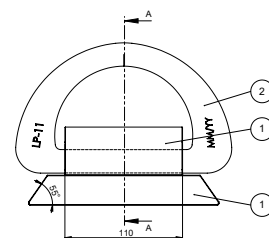
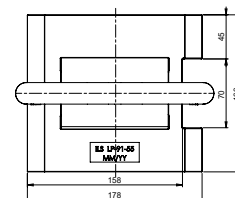
SWL 180kN

Reference: LP-91-55

Description: U-frame D-ring 55°

Material: Steel

Finish: Painted



MBL 360kN

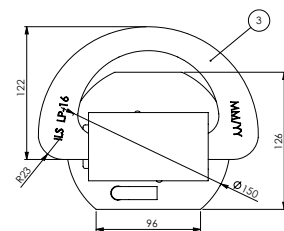
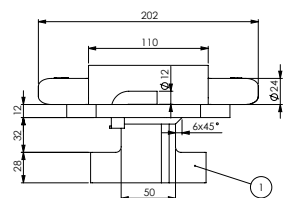
SWL 180kN

Reference: LP-16

Description: Turnfoot D-ring

Material: Steel

Finish: Painted



MBL 400kN

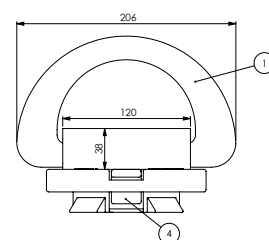
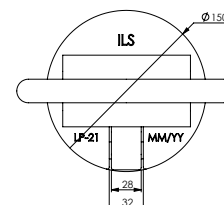
SWL 200kN

Reference: LP-21

Description: Breech base D-ring

Material: Steel

Finish: Galvanized



MBL 400kN

SWL 200kN

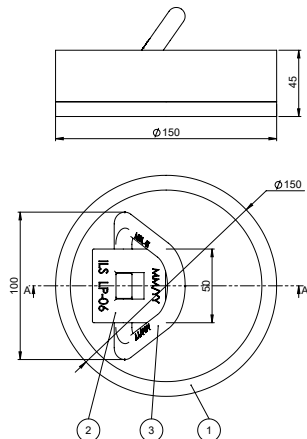
Flush D-rings

Reference: LP-06-F

Description: Flush D-ring + strap

Material: Steel

Finish: Galvanized



MBL 40kN

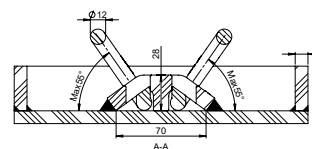
SWL 20kN

Reference: LP-09-F

Description: Flush double D-ring + strap

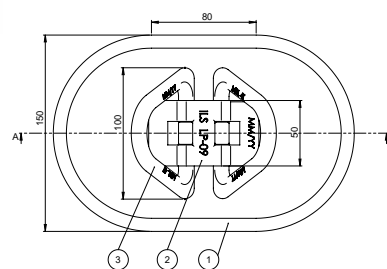
Material: Steel

Finish: Galvanized



MBL 2 x 40kN

SWL 2 x 20kN

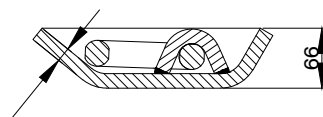


Reference: LP-84(36T)

Description: Flush D-ring

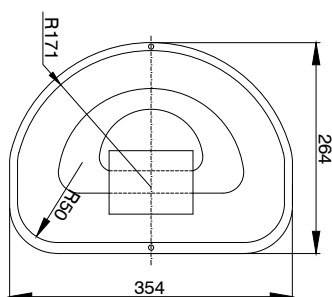
Material: Steel

Finish: Galvanized



MBL 360kN

SWL 180kN

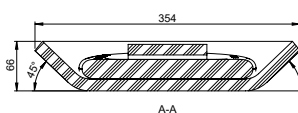


Reference: LP-84(50T)

Description: Flush D-ring

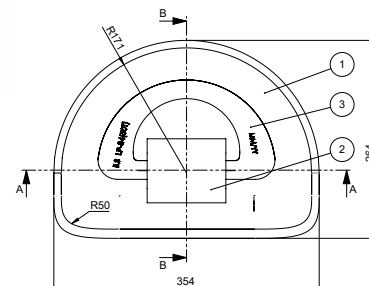
Material: Steel

Finish: Galvanized



MBL 500kN

SWL 250kN

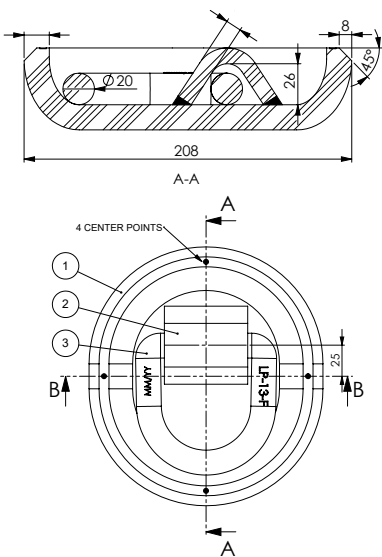


Flush D-rings

Reference: **LP-13-F**
Description: Flush D-ring + strap



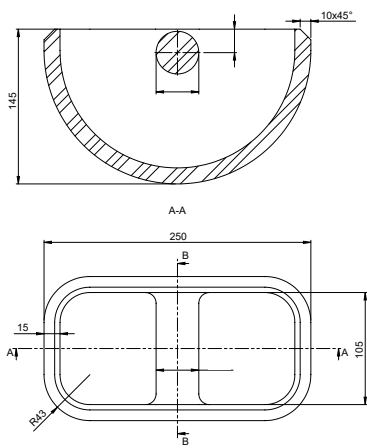
MBL	200kN
SWL	100kN



Reference: **LP-31**
Description: Lashing pot



MBL	360kN
SWL	180kN



Material: Steel
Finish: Shot blasted + Weldable primer



fixed lashing equipment

RoRo



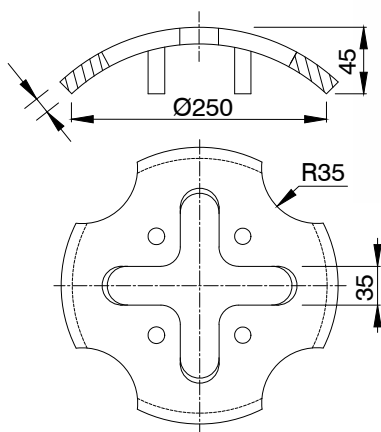
Cloverleaf sockets

Reference: **LP-61**

Description: Raised cloverleaf socket

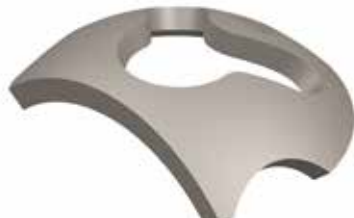


MBL	2 x 200kN
SWL	2 x 100kN

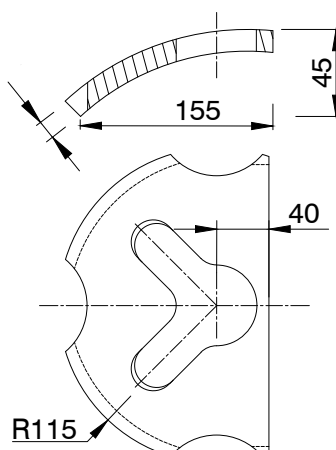


Reference: **LP-62**

Description: Raised cloverleaf socket



MBL	2 x 200kN
SWL	2 x 100kN

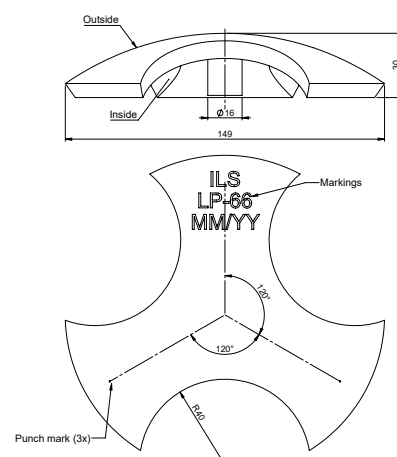


Reference: **LP-66**

Description: Raised carlashing socket



MBL	40kN
SWL	20kN



Material:

Steel

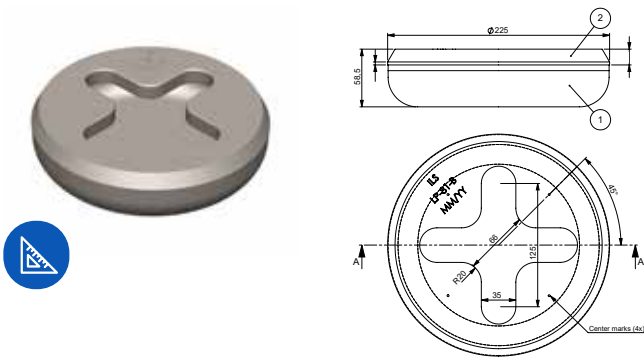
Finish:

Shot blasted + Weldable primer



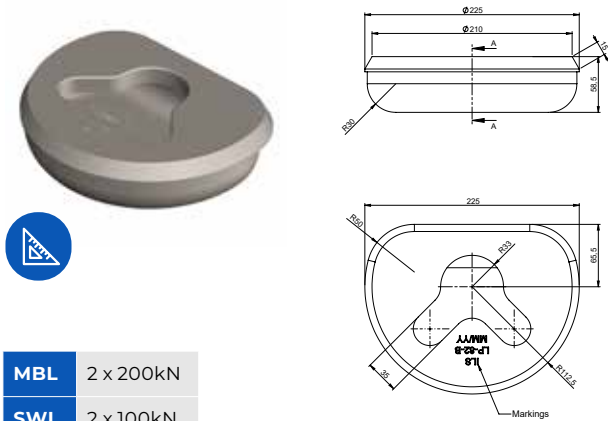
Cloverleaf sockets

Reference: **LP-81-B**
Description: Flush cloverleaf socket



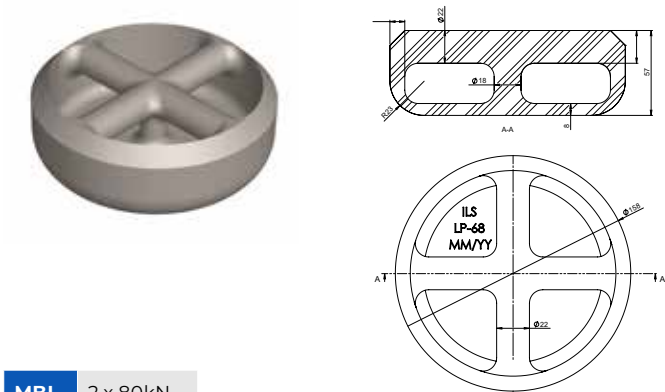
MBL	2 x 200kN
SWL	2 x 100kN

Reference: **LP-82-B**
Description: Flush cloverleaf socket



MBL	2 x 200kN
SWL	2 x 100kN

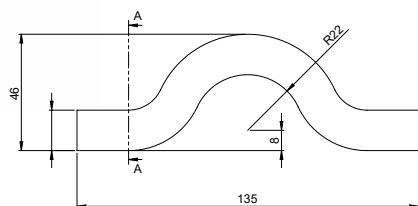
Reference: **LP-68**
Description: Cross bar lashing pot



MBL	2 x 80kN
SWL	2 x 40kN

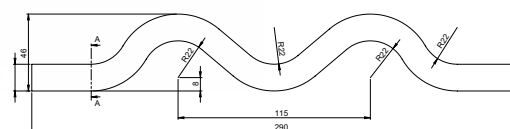
Material: Steel
Finish: Shot blasted + Weldable primer

Reference: **LP-7-1**
 Description: Crinkle bar



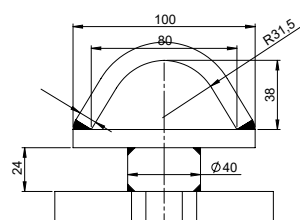
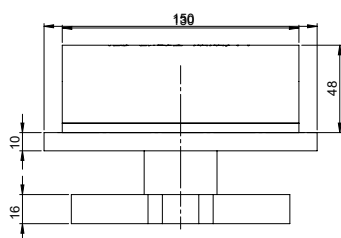
BLT	60kN
MBL	60kN
SWL	30kN

Reference: **LP-7-2**
 Description: Double crinkle bar



BLT	60kN
MBL	120kN
SWL	60kN

Reference: **LP-92**
 Description: Elephant foot strap for 9mm chain



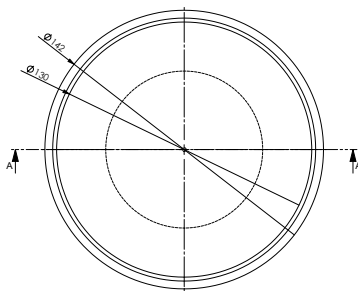
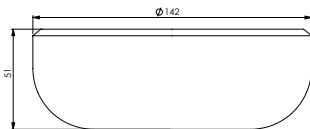
MBL	360kN
SWL	180kN

Material: Steel
 Finish: Shot blasted + Weldable primer

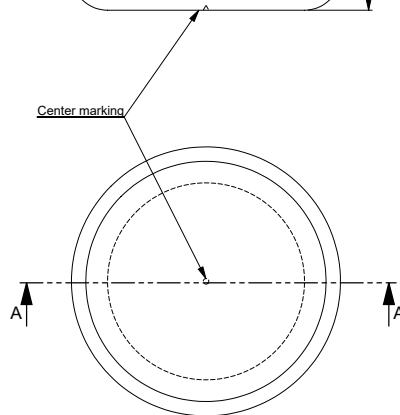
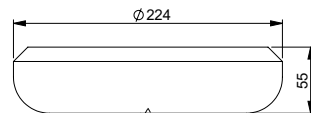


Steel cups for RoRo

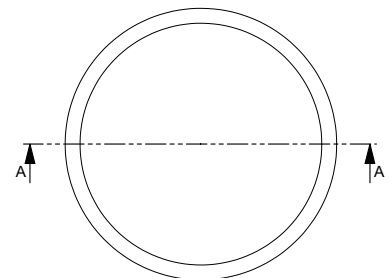
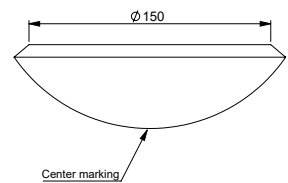
Reference: **LPC-1**
Description: Steel cup



Reference: **LPC-2**
Description: Steel cup



Reference: **LPC-3**
Description: Steel cup



Material: Steel
Finish: Shot blasted + Weldable primer

For making decks water- and airtight when transporting electrical vehicles!
Makes sure you are able to put fire out



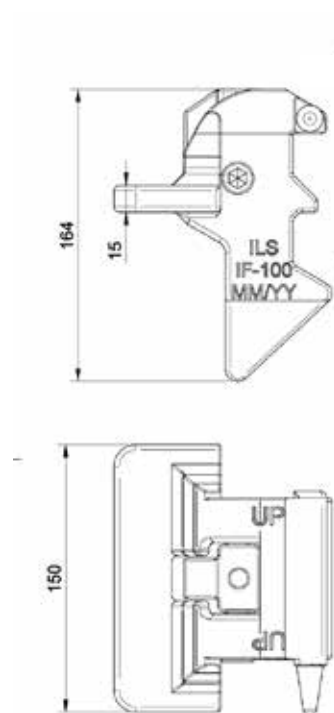
loose lashing equipment container



Twistlocks

Reference: **IF-100**

Description: Automatic twistlock



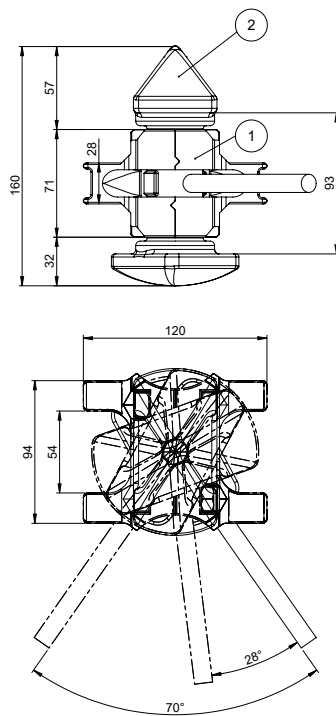
Material:	Steel
Breaking Load Tension [kN]:	500
Breaking Load Shear [kN]:	420
Finish:	Hot dip galvanized



Twistlocks

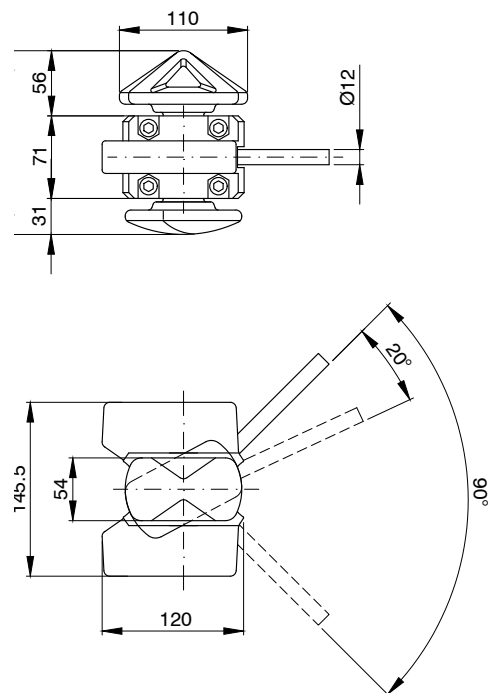
Reference: **IF-51-L or R**

Description: Standard intermediate twistlock



Reference: **IF-51-BST-L or R**

Description: Big surface twistlock left/right blocking

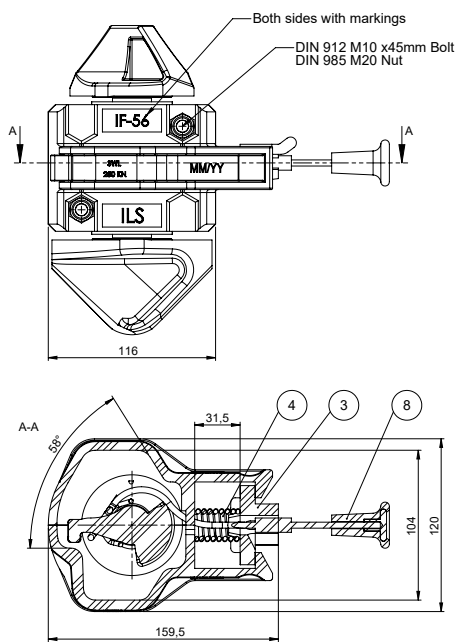
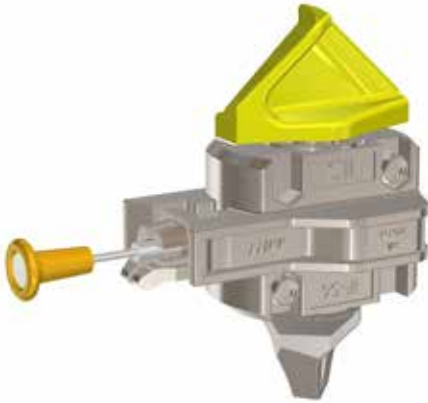


Material:	Steel
Breaking Load Tension [kN]:	500
Breaking Load Shear [kN]:	420
Finish:	Hot dip galvanized

Twistlocks

Reference: IF-56

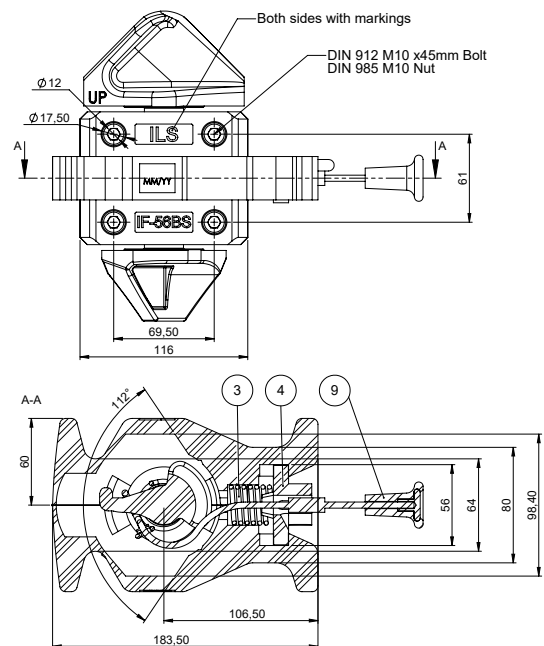
Description: Semi-automatic twistlock



Material:	Steel
Breaking Load Tension [kN]:	500
Breaking Load Shear [kN]:	420
Finish:	Hot dip galvanized

Reference: IF-56-BS

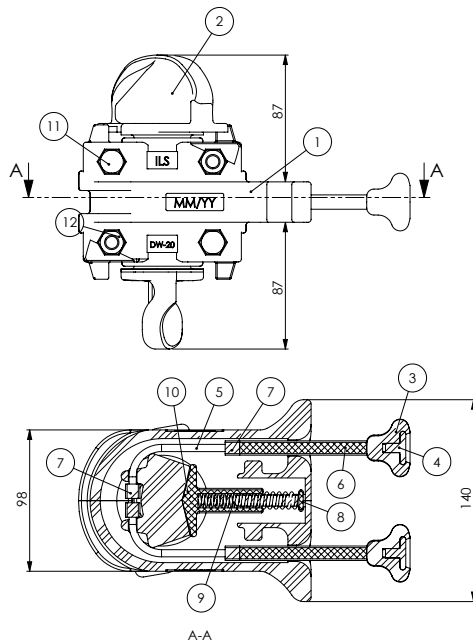
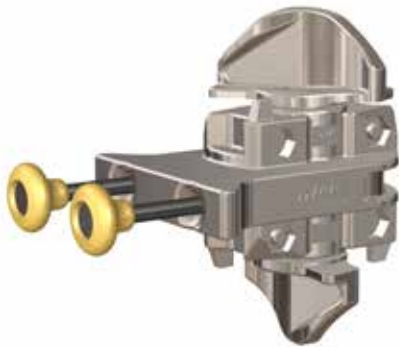
Description: Semi-automatic big surface twistlock



Twistlocks

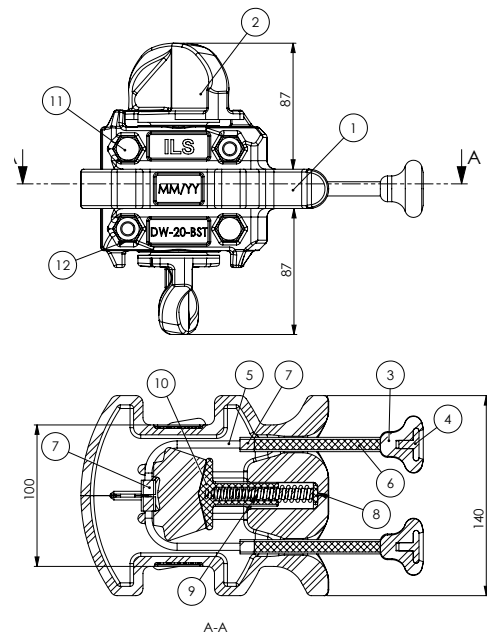
Reference: **DW-20**

Description: Double wire semi-automatic twistlock



Reference: **DW-20-BST**

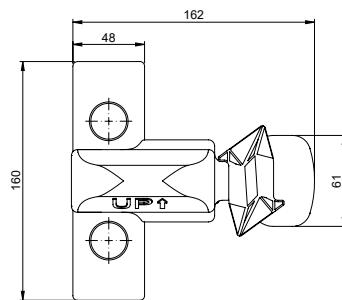
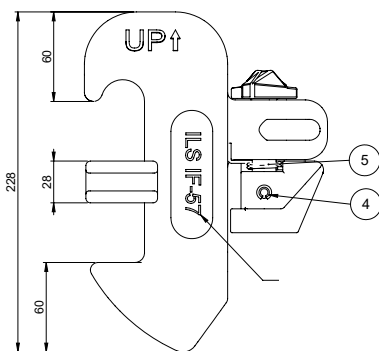
Description: Double wire semi-automatic big surface twistlock



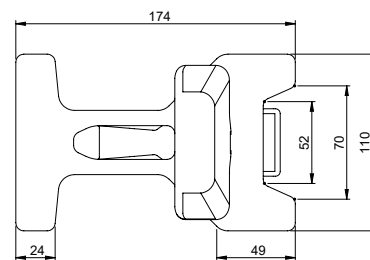
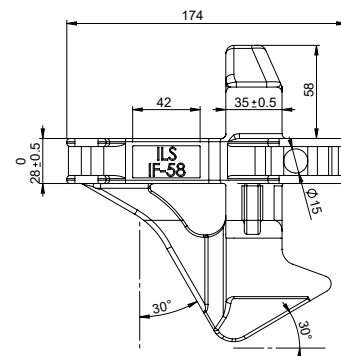
Material:	Steel
Breaking Load Tension [kN]:	500
Breaking Load Shear [kN]:	420
Finish:	Hot dip galvanized

Twistlocks

Reference: **IF-57**
Description: Midlock



Reference: **IF-58**
Description: Midlock



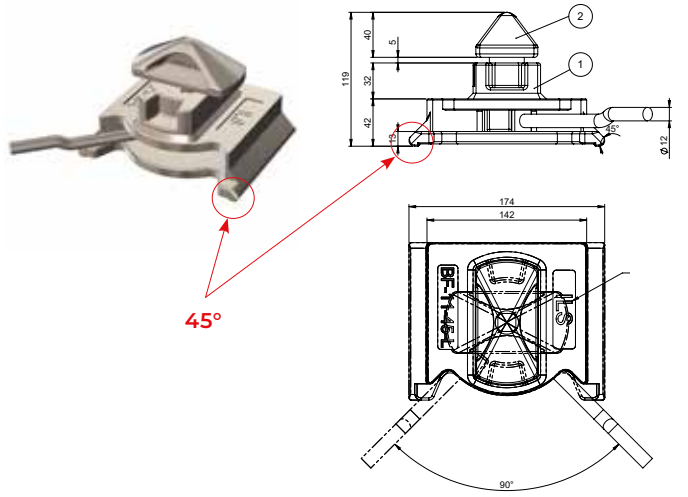
Material: Steel
Breaking Load Tension [kN]: 500
Breaking Load Shear [kN]: 420
Finish: Hot dip galvanized



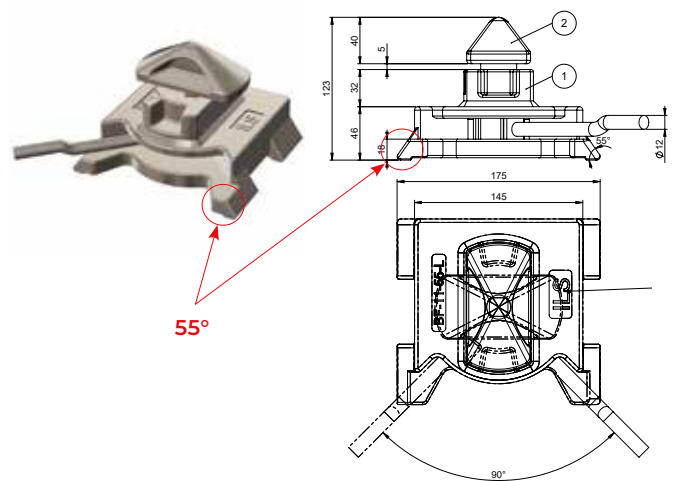
Twistlocks

Reference: **BF-11-45-L or R**

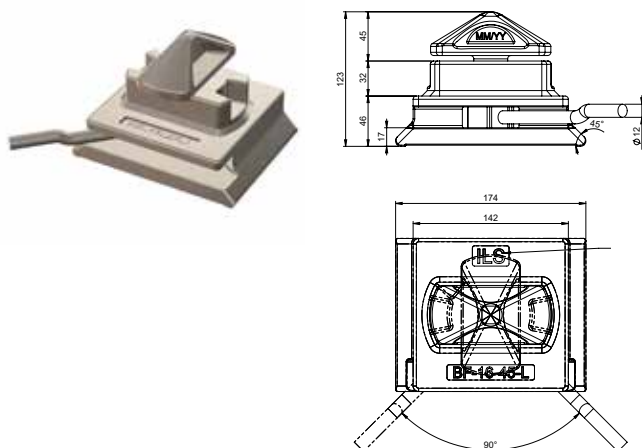
Description: Longitudinal U-frame twistlock 45° left/right blocking

Reference: **BF-11-55-L or R**

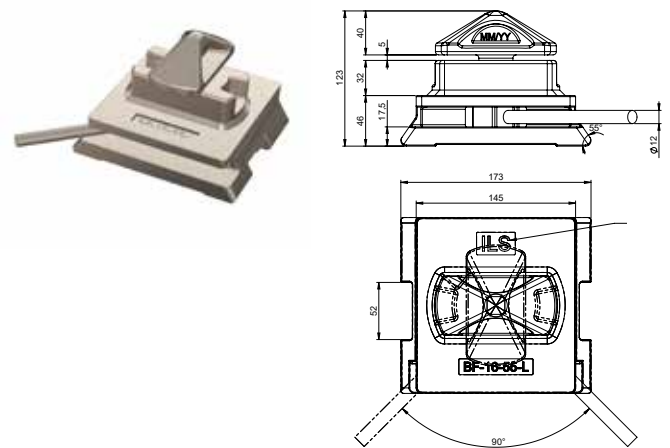
Description: Longitudinal U-frame twistlock 55° left/right blocking

Reference: **BF-16-45-L or R**

Description: Transversal U-frame twistlock 45° left/right blocking

Reference: **BF-16-55-L or R**

Description: Transversal U-frame twistlock 55° left/right blocking

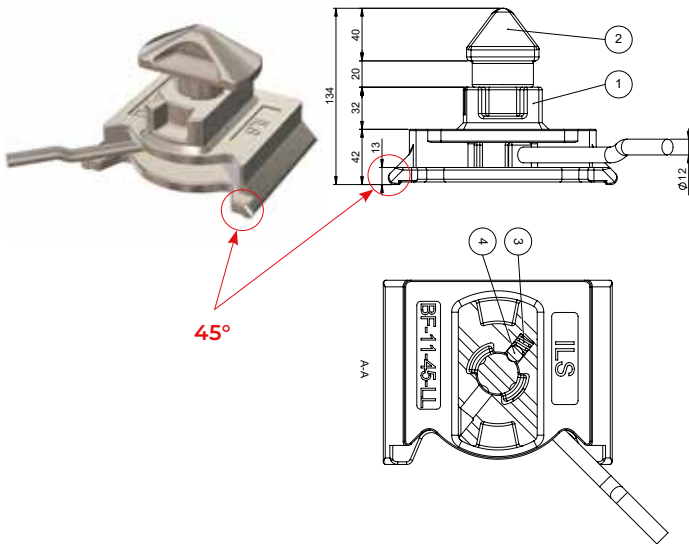


Material:	Steel
Breaking Load Tension [kN]:	500
Breaking Load Shear [kN]:	420
Finish:	Hot dip galvanized

Twistlocks

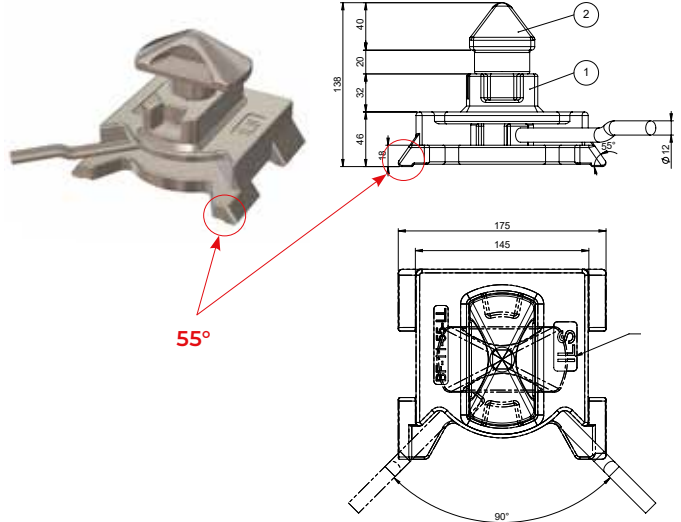
Reference: **BF-11-45-LL**

Description: Longitudinal U-frame twistlock
line load 45° left blocking



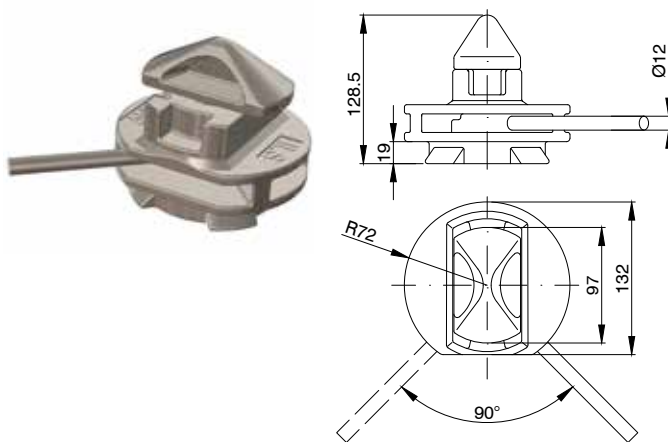
Reference: **BF-11-55-LL**

Description: Longitudinal U-frame twistlock
line load 55° left blocking



Reference: **BF-66-L or R**

Description: Breech base twistlock left/right blocking

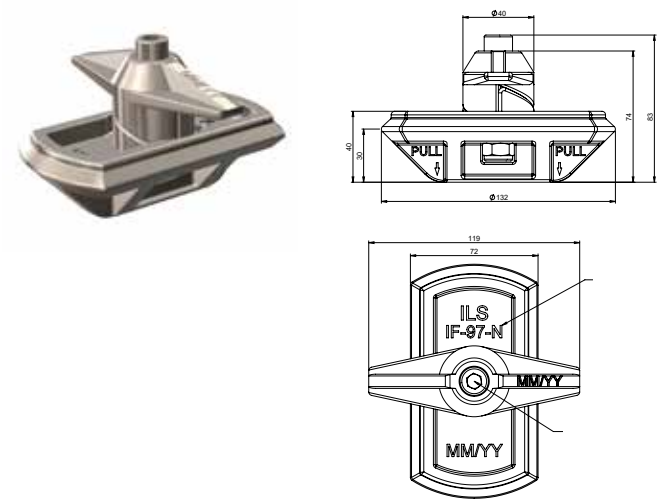


Material: Steel
Breaking Load Tension [kN]: 500
Breaking Load Shear [kN]: 420
Finish: Hot dip galvanized

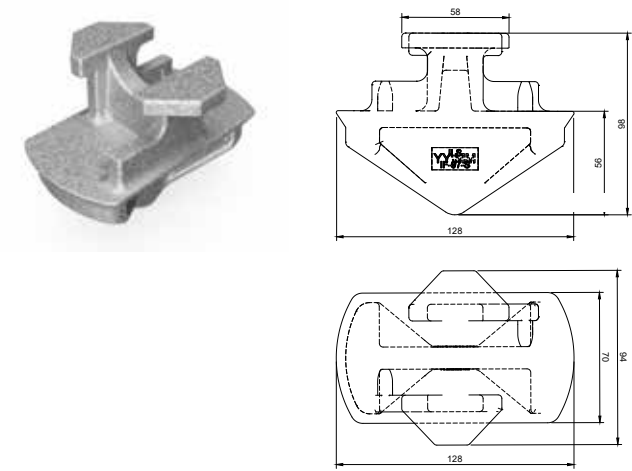


Stackers

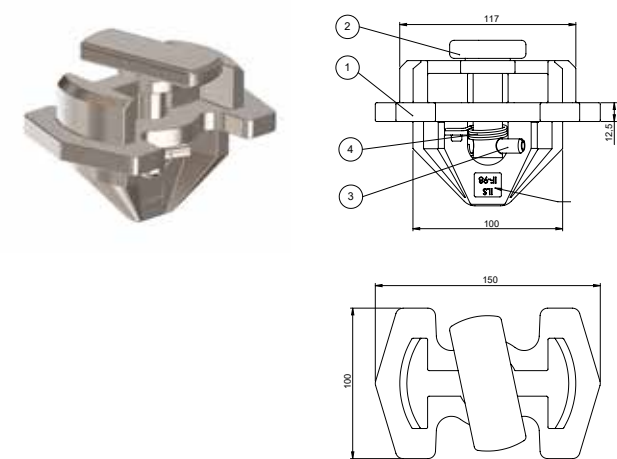
Reference: IF-97-N
Description: Self hanging stacker



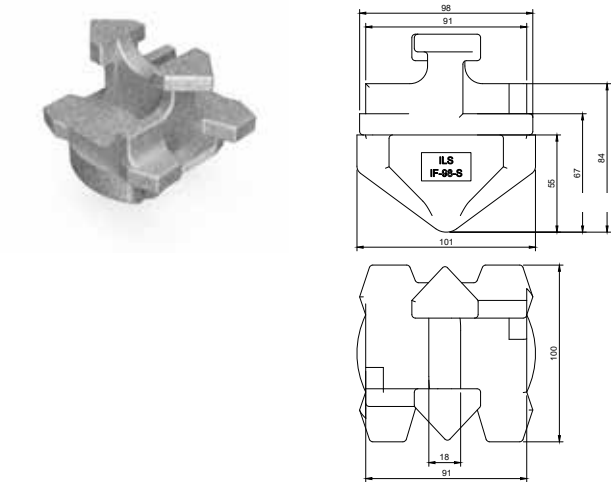
Reference: IF-97-S
Description: Self hanging stacker



Reference: IF-98
Description: Self hanging stacker



Reference: IF-98-S
Description: Self hanging stacker

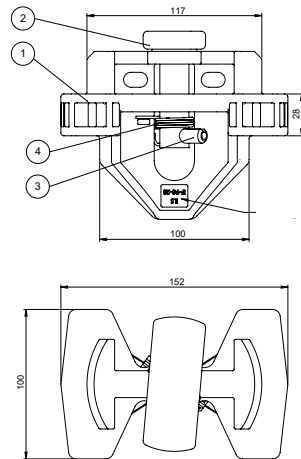


Material: Steel
Breaking Load Shear [kN]: 420
Finish: Hot dip galvanized

Stackers

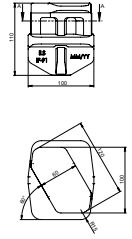
Reference: **IF-98(28)**

Description: Self hanging stacker



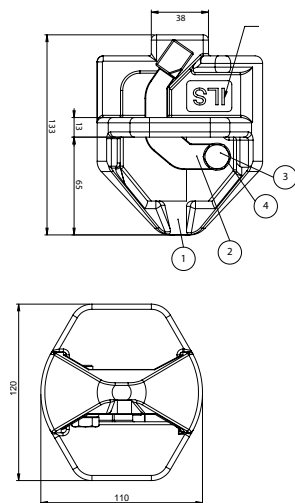
Reference: **IF-91**

Description: Depot stacker



Reference: **IF-99**

Description: Self hanging stacker



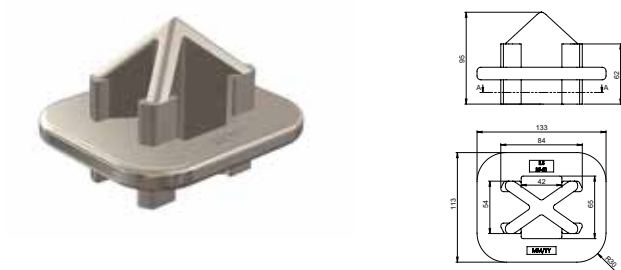
Material:
Breaking Load Shear [kN]:
Finish:

Steel
420
Hot dip galvanized



Stackers

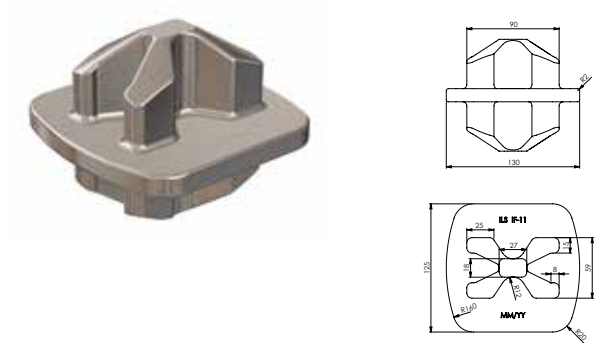
Reference: **BF-51**
Description: Bottom stacking cone



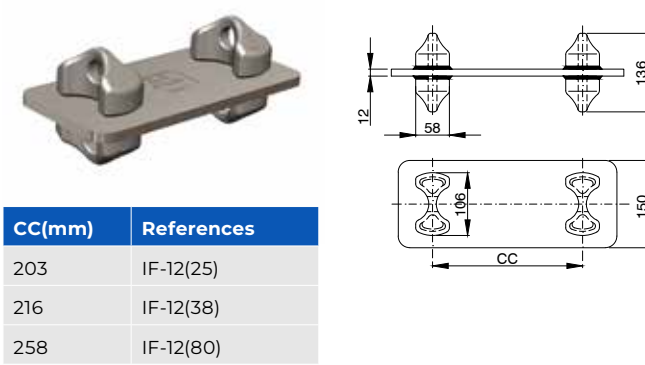
Reference: **IF-10**
Description: Intermediate stacking cone



Reference: **IF-11**
Description: Intermediate stacking cone

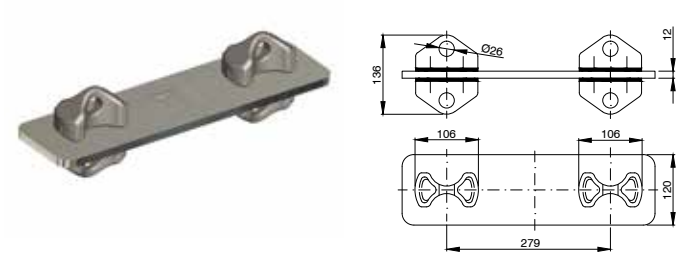


Reference: **IF-12**
Description: Intermediate stacking cone



CC(mm)	References
203	IF-12(25)
216	IF-12(38)
258	IF-12(80)

Reference: **IF-13(76)**
Description: Intermediate stacking cone

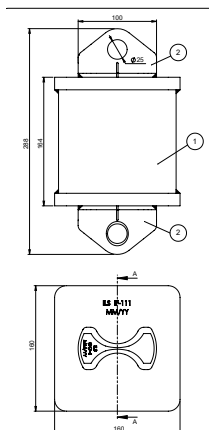


Material: Steel
Breaking Load Shear [kN]: 420
Finish: Hot dip galvanized

Compensating stacking cones

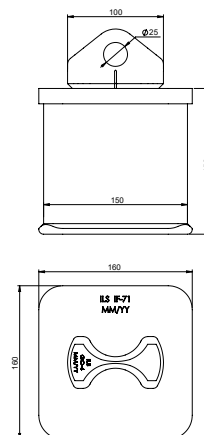
Reference: **IF-111**

Description: 6" compensating stacking cone



Reference: **IF-71**

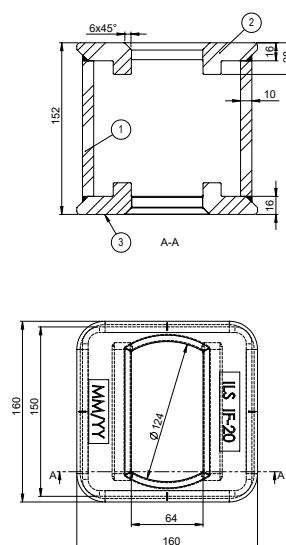
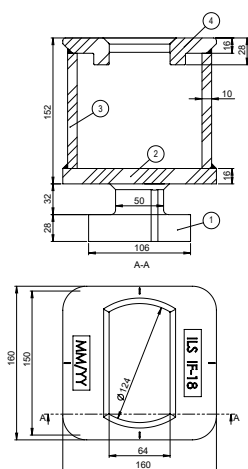
Description: 6" compensating stacking cone



Reference: **IF-18**

Description: 6" compensating stacking cone

Remark: Available in 6inch/12inch

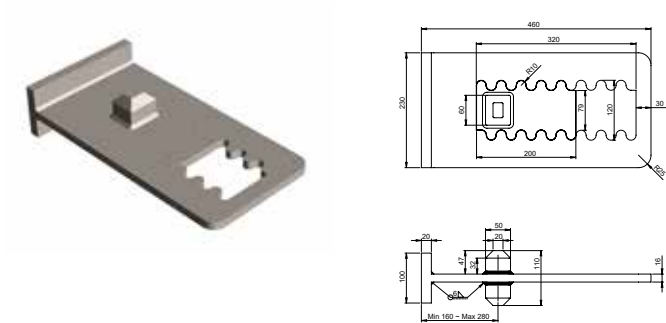


Material: Steel
 Breaking Load Tension [kN]: 500
 Breaking Load Shear [kN]: 420
 Finish: Shot blasted + Weldable primer

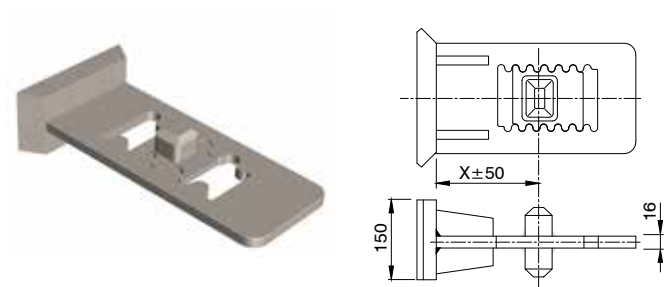


Supports

Reference: **SU-38**
Description: Compression support



Reference: **SU-23**
Description: Tension/Compression support

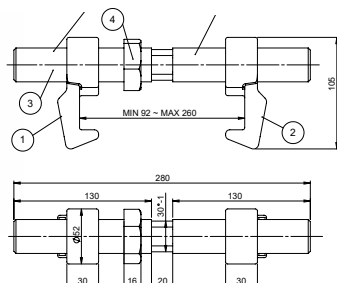


Material: Steel
Breaking Load Tension [kN]: 850
Finish: Shot blasted + Hot dip galvanized

Bridgefittings

Reference: **SB-1S**

Description: Screwbridgefitting

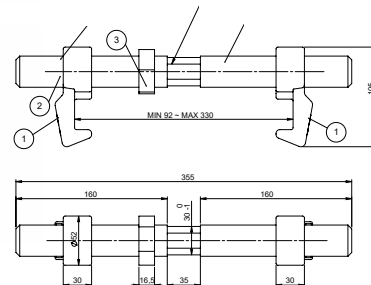


MBL 100kN

SWL 50kN

Reference: **SB-1(330)**

Description: Screwbridgefitting

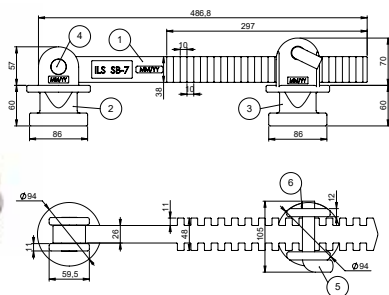


MBL 100kN

SWL 50kN

Reference: **SB-7**

Description: Screwbridgefitting

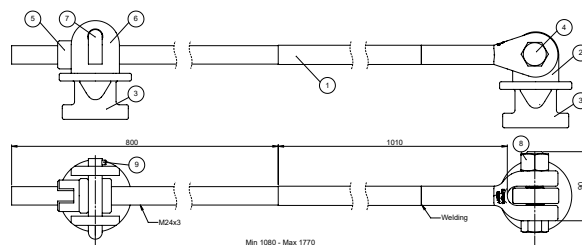


MBL 250kN

SWL 125kN

Reference: **SB-8**

Description: Screwbridgefitting



MBL 200kN

SWL 100kN

Material:

Steel

Finish:

Shot blasted + Hot dip galvanized

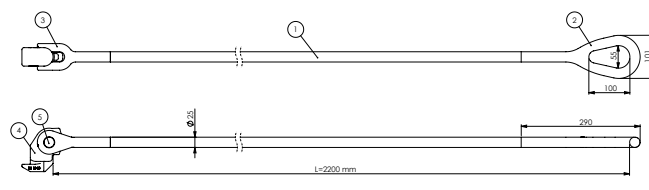




Lashing bars

Reference: **LB-3S**

Description: Lashing bar eye/swivelhead

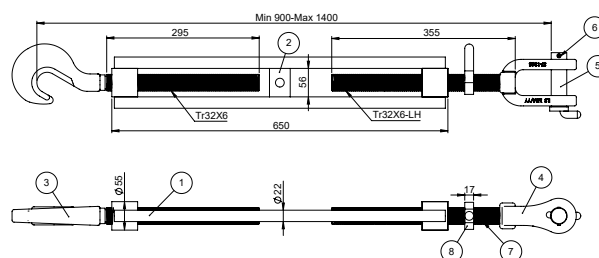


MBL	500kN
SWL	250kN

L(mm)	References
2200	LB-3S(2200)
2400	LB-3S(2400)
4500	LB-3S(4500)
4700	LB-3S(4700)

Reference: **ST-1365**

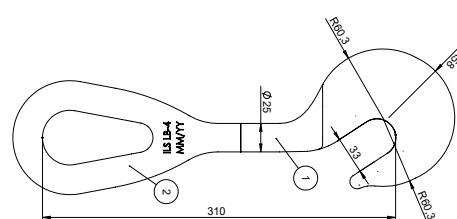
Description: Turnbuckle hook/jaw open body



MBL	500kN
SWL	250kN

Reference: **LB-4(310)**

Description: Extension for LB-3S



MBL	500kN
SWL	250kN

Material:

Steel

Finish:

Shot blasted + Hot dip galvanized



Lashing bars

Reference: **ST-4508**
Description: Turnbuckle knob type



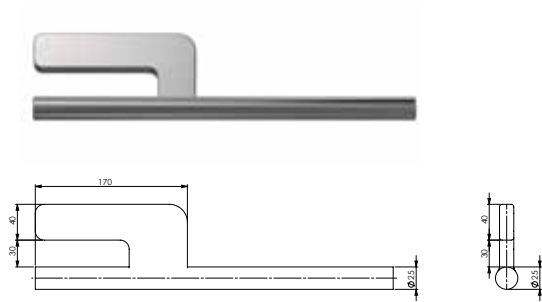
MBL	500kN
SWL	250kN

Reference: **ST-4509**
Description: Turnbuckle knob type



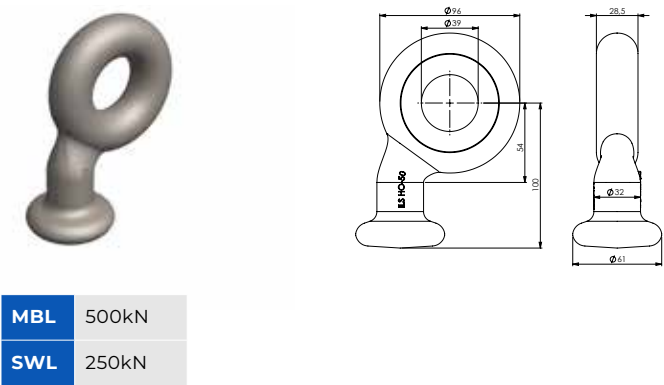
MBL	500kN
SWL	250kN

Reference: **OT-12**
Description: Spanner for turnbuckle



Material: Steel
Finish: Shot blasted + Hot dip galvanized

Reference: **HO-50**
Description: Eye elephant foot for turnbuckle
Finish: Hot dip galvanized

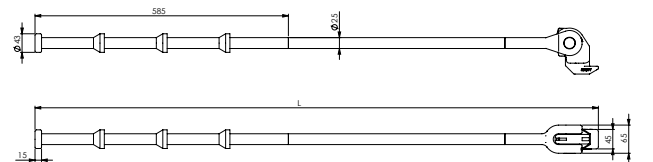


MBL	500kN
SWL	250kN

Lashing bars

Reference: **LB-44**
Description: Lashing bar with knobs

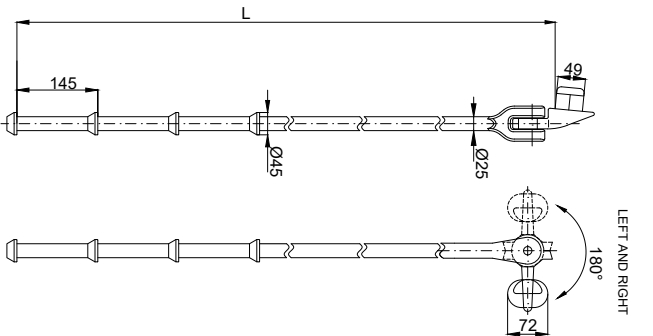




L(mm)	1350	1850	2250	2400	2450	2500	4750	4950	5045
References	LB-44(1350)	LB-44(1850)	LB-44(2250)	LB-44(2400)	LB-44(2450)	LB-44(2500)	LB-44(4750)	LB-44(4950)	LB-44(5045)

Reference: **LB-44-V**
Description: Vertical lashing bar

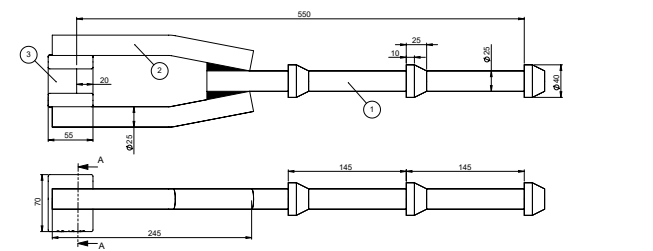




L(mm)	References
1660	LB-44-V(1660)
4480	LB-44-V(4480)

Reference: **LB-47(550)**
Description: Extension for LB-44



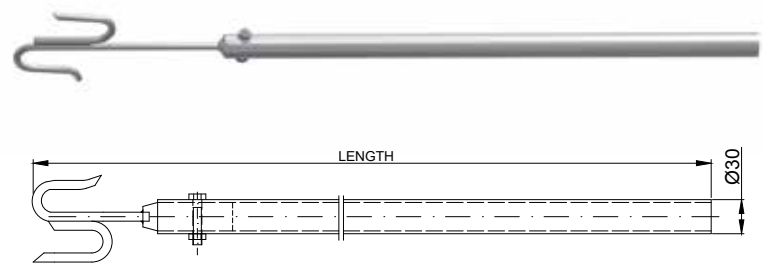


Material: Steel
Breaking Load Tension [kN]: 500
Breaking Load Shear [kN]: 250
Finish: Shot blasted + Hot dip galvanized

Operation poles

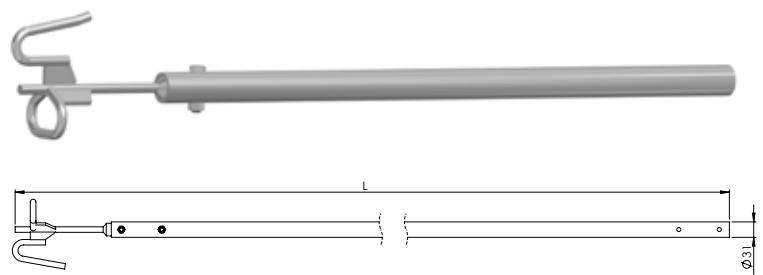
Reference: OT-3
Description: Operation pole for standard twistlock

L(M)	Reference
2,00	OT-3(2M)
4,00	OT-3(4M)
6,00	OT-3(6M)

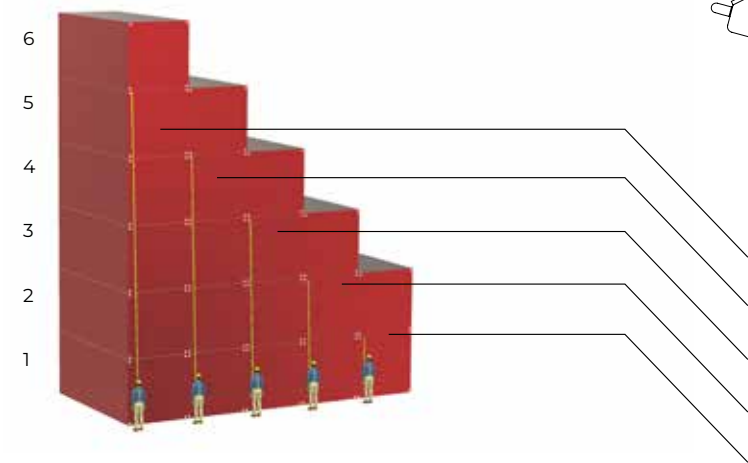
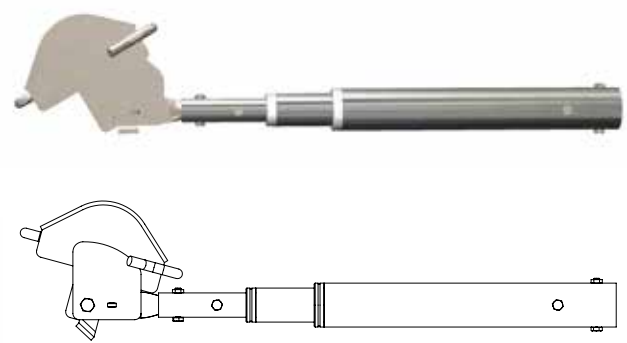


Reference: OT-31
Description: Operation pole for semi-automatic twistlock
Material: Aluminium

L(M)	Reference
1,70	OT-31(1,7M)
4,60	OT-31(4,6M)
7,50	OT-31(7,5M)
10,30	OT-31(10,3M)
13,40	OT-31(13,4M)



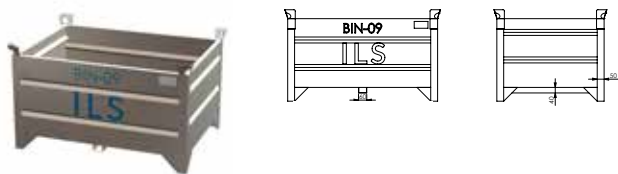
Reference: OT-32
Description: Operation pole for semi-automatic twistlock
Material: Aluminium
Remark: Expandable 3,9 to 10,5 meter



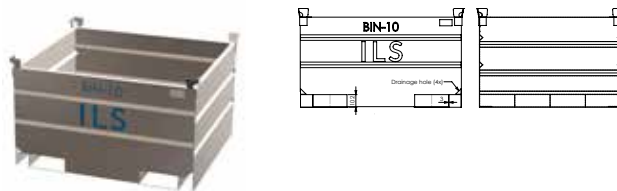
Reference	Stack height
OT-31(13,4M)	5/6
OT-31(10,3M)	4/5
OT-31(7,5M)	3/4
OT-31(4,6M)	2/3
OT-31(1,7M)	1/2

Storage bins

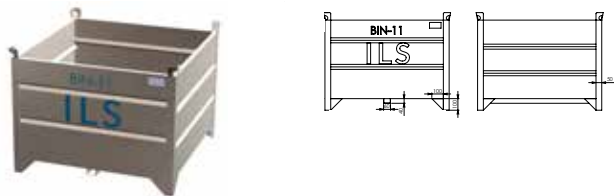
Reference: BIN-09
Description: Storage bin
Dimensions: 1090x780x600 mm



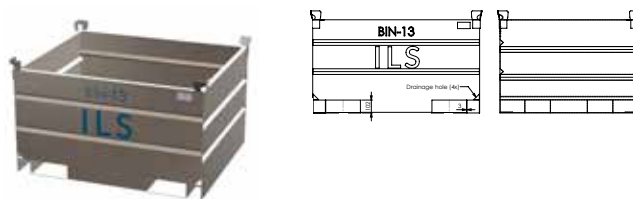
Reference: BIN-10
Description: Storage bin
Dimensions: 1300x1140x730 mm



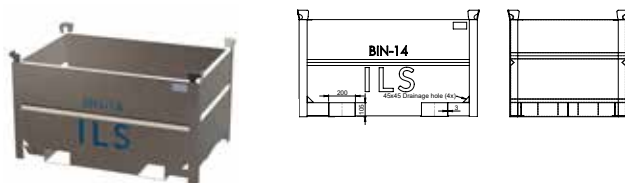
Reference: BIN-11
Description: Storage bin
Dimensions: 1075x1075x780 mm



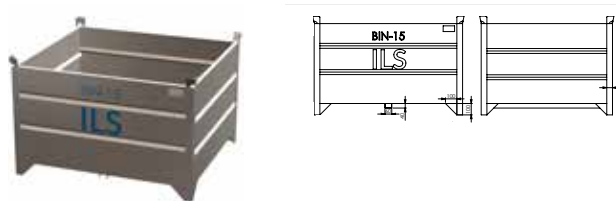
Reference: BIN-13
Description: Storage bin
Dimensions: 1320x1090x740 mm



Reference: BIN-14
Description: Storage bin
Dimensions: 1320x860x900 mm



Reference: BIN-15
Description: Storage bin
Dimensions: 1300x1150x800 mm



Material: Steel
Finish: Hot dip galvanized

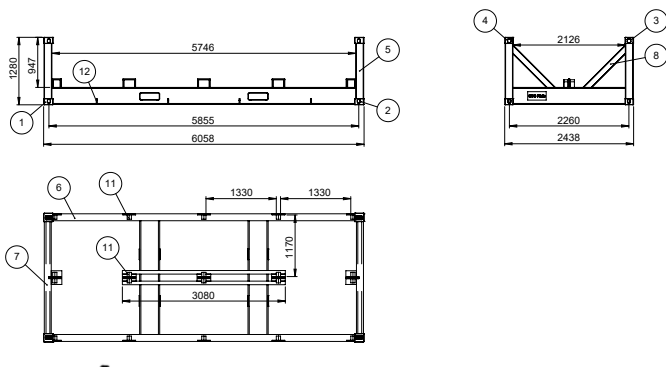




Flat racks

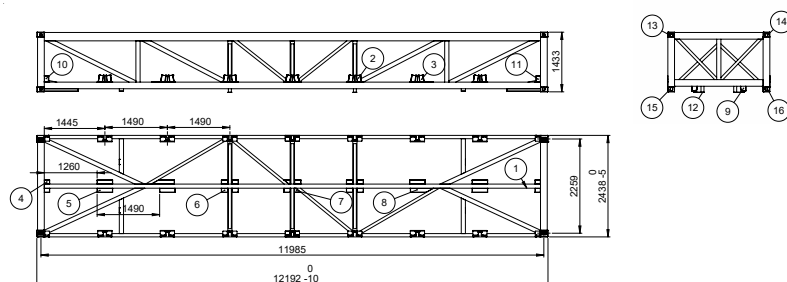
Reference: **OT-208**

Description: 20' flat rack to store BIN-10



Reference: **OT-408**

Description: 40' flat rack to store BIN-10



Material: Steel profiles

Finish: Painted

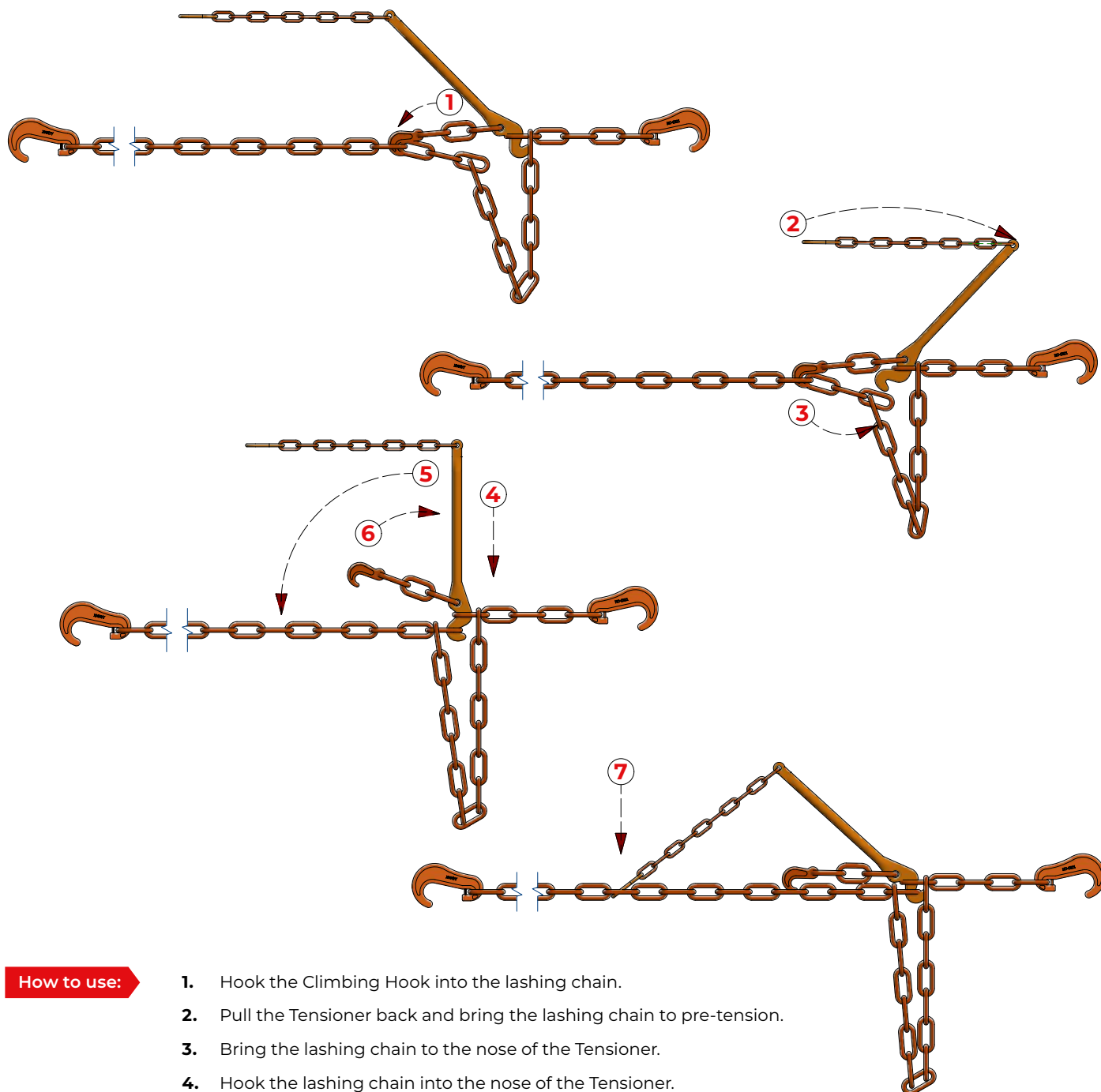




general cargo and roro



How to use levers



How to use:

1. Hook the Climbing Hook into the lashing chain.
2. Pull the Tensioner back and bring the lashing chain to pre-tension.
3. Bring the lashing chain to the nose of the Tensioner.
4. Hook the lashing chain into the nose of the Tensioner.
5. Pull the Tensioner forward.
6. Loosen the climbing hook
7. Secure the Tensioner with tail chain & tail hook.
8. Repeat steps 1-6 until the lashing chain is brought to the desired tension.

Chains

Reference: **CL-9**
 Description: Chain 9mm

MBL	100kN
SWL	50kN

Reference: **CL-11**
 Description: Chain 11mm

MBL	150kN
SWL	75kN

Reference: **CL-13**
 Description: Chain 13mm

MBL	200kN
SWL	100kN

Configurations	LA.1 Hook-Hook	LA.2 Hook-Elephant	LA.4 Hook	LA.7 Hook-Hook/Elephant

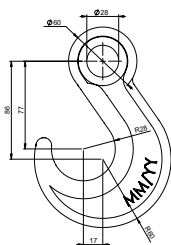
Material: Steel
 Finish: Painted
 Remarks: Custom colors and lengths possible

Hooks

Reference: **HO-1220**

Description: Eye hook

Remarks: To be used with 9, 11 or 13mm chain

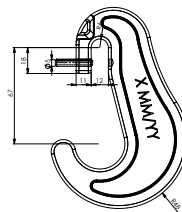


MBL	200kN
SWL	100kN

Reference: **HO-1310**

Description: C-hook 9 mm

Remarks: To be used with 9mm chain

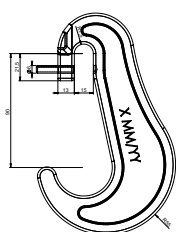


MBL	100kN
SWL	50kN

Reference: **HO-1315**

Description: C-hook 11 mm

Remarks: To be used with 11mm chain

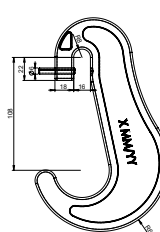


MBL	150kN
SWL	75kN

Reference: **HO-1321**

Description: C-hook 13 mm

Remarks: To be used with 13mm chain



MBL	200kN
SWL	100kN

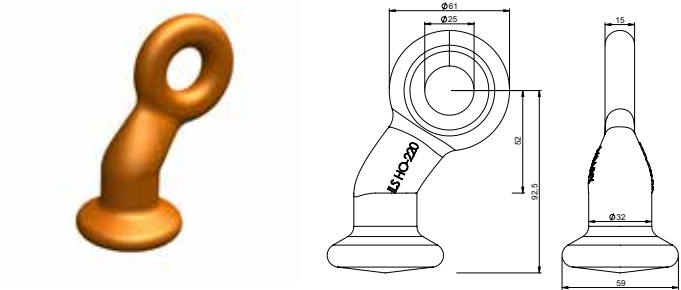
Material:

Steel

Finish:	Powder coated and dipped
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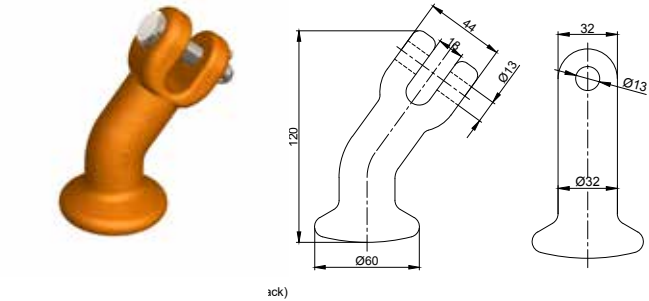
Elephant feet

Reference: **HO-220**
Description: **Eye elephant foot**
Finish: Powder coated and dipped
Remarks: To be used with 9, 11 or 13mm chain



MBL	200kN
SWL	100kN

Reference: **HO-1421**
Description: **Clevis elephant foot**
Finish: Powder coated and dipped
Remarks: To be used with 9, 11 or 13mm chain

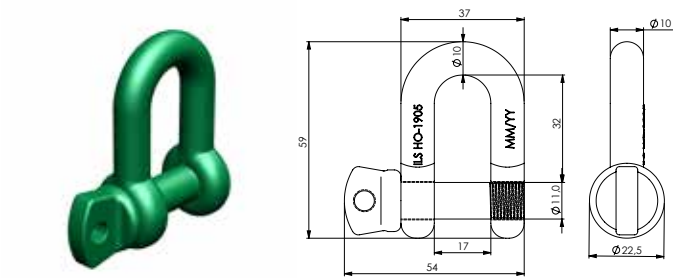


MBL	200kN
SWL	100kN

Material: Steel
Finish: Painted

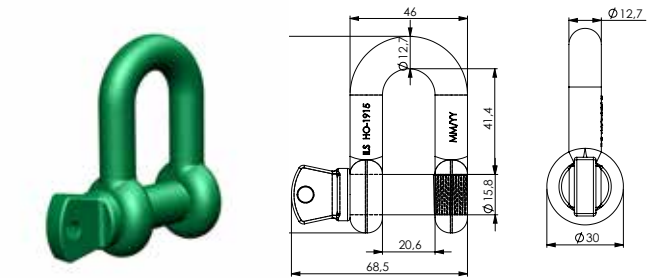
Shackles

Reference: **HO-1905**
Description: **D-shackle with screw pin**
Remarks: To be used with 9mm chain



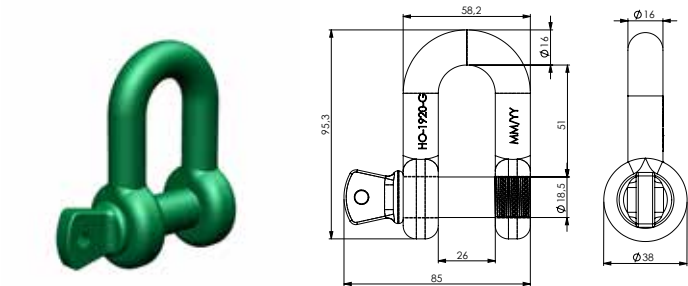
MBL	50kN
SWL	25kN

Reference: **HO-1915**
Description: **D-shackle with screw pin**
Remarks: To be used with 11mm chain



MBL	150kN
SWL	75kN

Reference: **HO-1920**
Description: **D-shackle with screw pin**
Remarks: To be used with 13mm chain



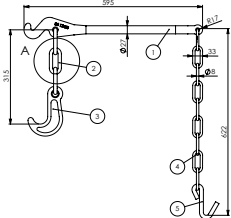
MBL	200kN
SWL	100kN

Material: Steel
Finish: Painted

Levers

Reference: **LT-615**

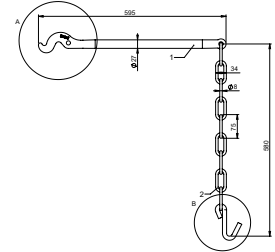
Description: Lever for 11mm chain



MBL	100kN
SWL	50kN

Reference: **LT-815**

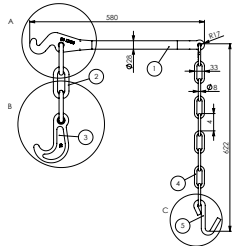
Description: Lever for 11mm chain



MBL	200kN
SWL	50kN

Reference: **LT-620**

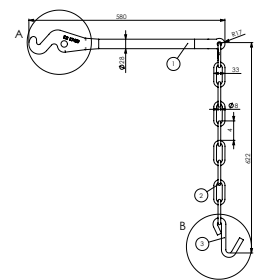
Description: Lever for 13mm chain



MBL	200kN
SWL	100kN

Reference: **LT-820**

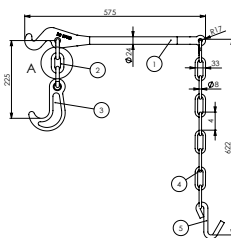
Description: Lever for 13mm chain



MBL	200kN
SWL	100kN

Reference: **LT-610**

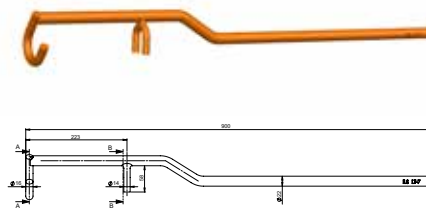
Description: Lever for 9mm chain



MBL	100kN
SWL	50kN

Reference: **LT-7**

Description: Extension handle to tighten tension lever



Material:

Steel

Finish:

Primer painted



The Jimmy

A smarter way to lash chains

Chain lashing is tough, physical work.

Traditionally, dock workers have had to exert significant force to tension heavy chains - often resulting in bruises and injuries.

After more than 50 years of difficult and often inefficient methods, Jimmy's invention brings a much-needed breakthrough. It helps dock workers worldwide lash chains more safely, easily, and effectively.

Key benefits

Lower injury risk through ergonomic design

Faster, more consistent lashing

Greater cargo stability and safety

Jimmy's innovation is a powerful reminder that the best ideas often come from those doing the job every day. His hands-on experience has led to a smarter, safer solution.

Let's keep pushing for workplace-driven innovation.
The future of the port industry depends on it.

Who's next?

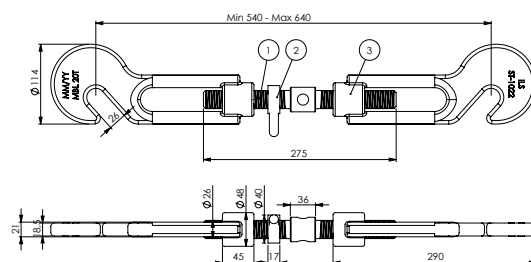
Chainturnbuckles

Reference: **ST-1022**

Description: Chainturnbuckle



MBL	200kN
SWL	100kN

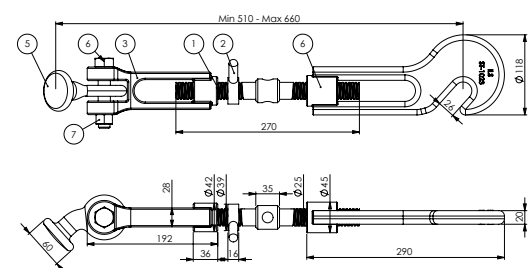


Reference: **ST-1023**

Description: Chainturnbuckle



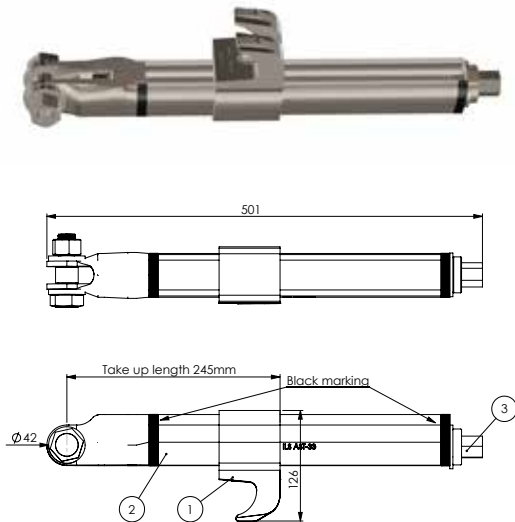
MBL	200kN
SWL	100kN



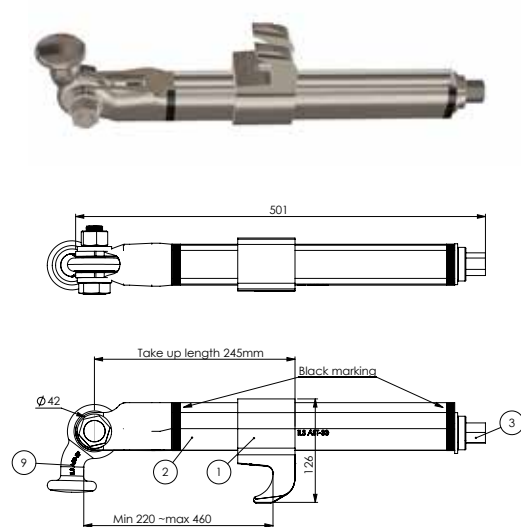


Speedlashes

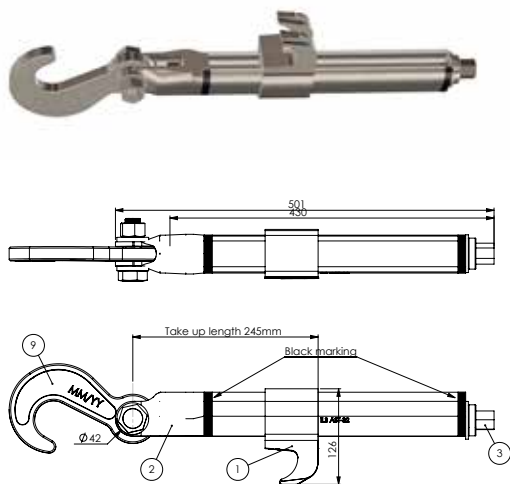
Reference: **AST-30**
Description: Speedlash



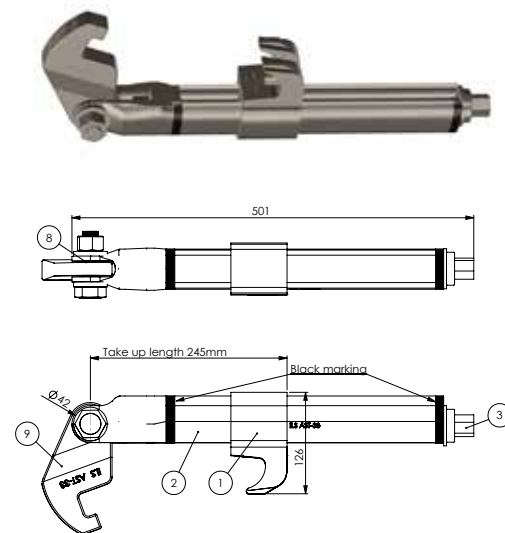
Reference: **AST-31**
Description: Speedlash with elephant foot



Reference: **AST-32**
Description: Speedlash with hook



Reference: **AST-33**
Description: Speedlash with hook HO-38
Remarks: To be used with ISO hole



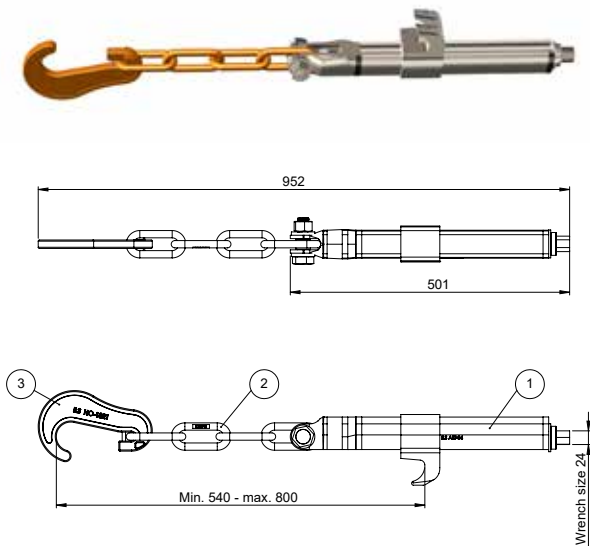
Material: Steel
Breaking Load Tension [kN]: 200
Breaking Load Shear [kN]: 100
Finish: Hot dip galvanized
Remarks: To tighten 13mm chain



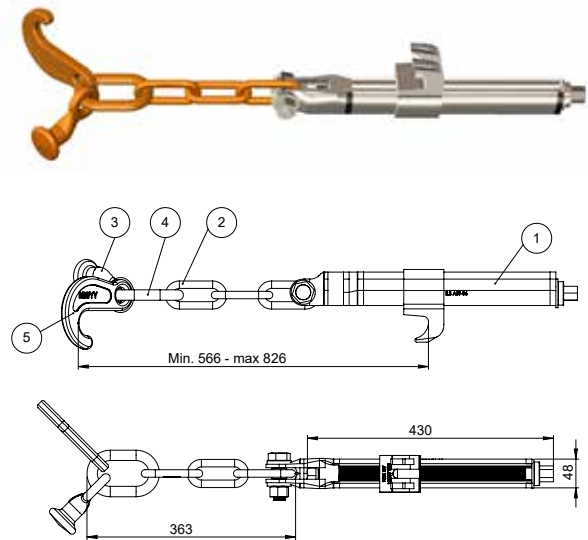
Speedlashes

Reference: **AST-34**

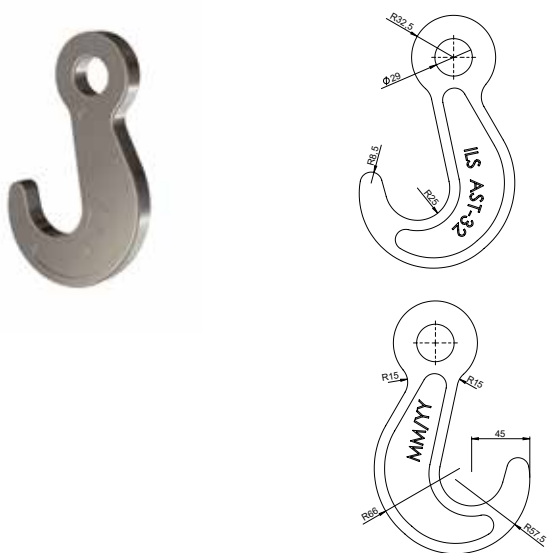
Description: Speedlash with 4 links and hook

Reference: **AST-36**

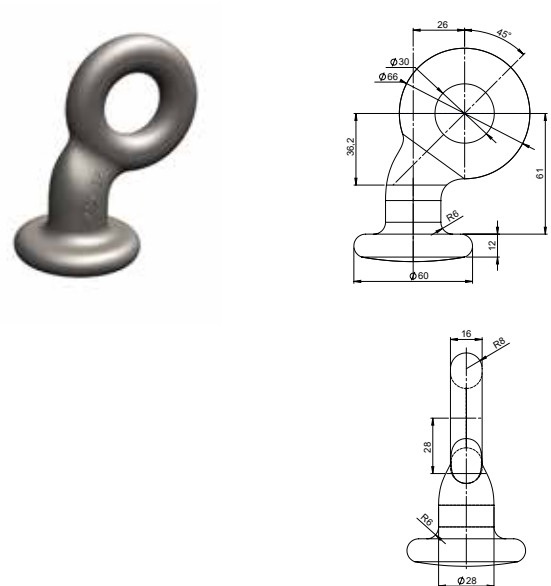
Description: Speedlash with 3 links, masterlink and hook/elephant

Reference: **AST-HK**

Description: Eye hook for AST-32

Reference: **AST-EF**

Description: Elephant foot for AST-31



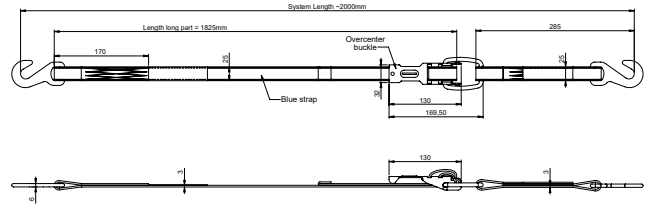
Material:	Steel
Breaking Load Tension [kN]:	200
Breaking Load Shear [kN]:	100

Carlashings

Reference: **CARL-15**
Description: Carlashing



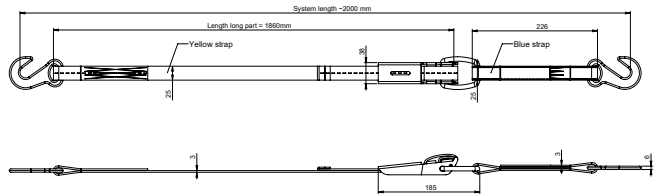
MBL	15kN
SWL	7,5kN



Reference: **CARL-20**
Description: Carlashing



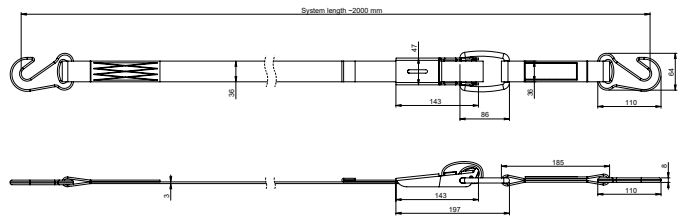
MBL	20kN
SWL	10kN



Reference: **CARL-30**
Description: Carlashing



MBL	30kN
SWL	15kN



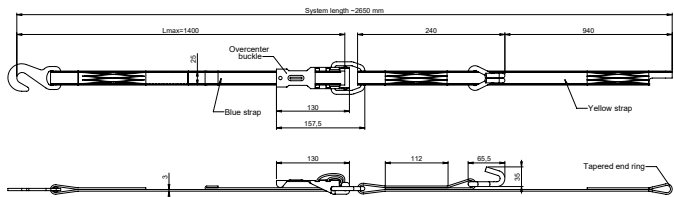
Material:	100% polyester + plastified steel fittings
Remarks:	Custom executions upon request

Carlashings

Reference: **CARL-15L**
Description: Carlashing + loop



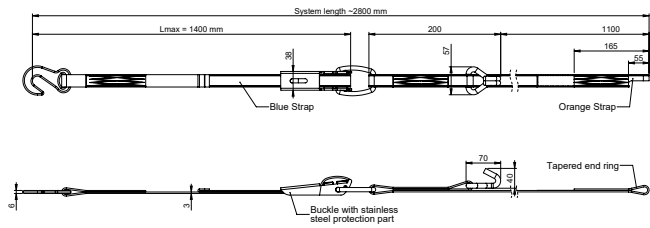
MBL	15kN
SWL	7,5kN



Reference: **CARL-20L**
Description: Carlashing + loop



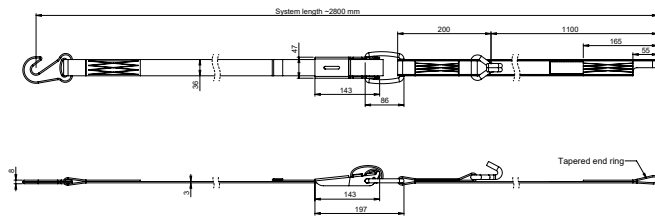
MBL	20kN
SWL	10kN



Reference: **CARL-30L**
Description: Carlashing + loop



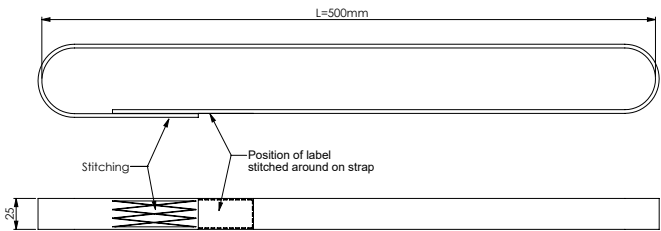
MBL	30kN
SWL	15kN



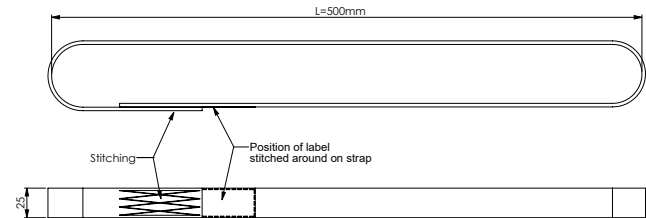
Material: 100% polyester + plastified steel fittings
Remarks: Custom executions upon request

Carloops

Reference: **CRL-20**
Description: Carloop



Reference: **CRL-30**
Description: Carloop



Material: 100% polyester



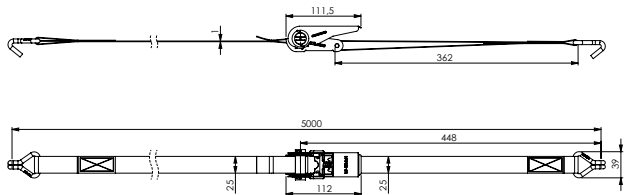
Weblashings

Reference: **WL-8-5**
Description: Weblashing



MBL	8kN
SWL	4kN

L(M)	Reference
5,00	WL-8-5

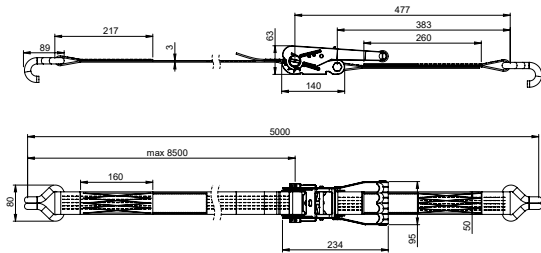


Reference: **WL-40-5-HK-HK**
Description: Weblashing



LC	2000daN
MBL	50kN
SWL	25kN

L(M)	Reference
5,00	WL-40-5-HK-HK
9,00	WL-40-9-HK-HK

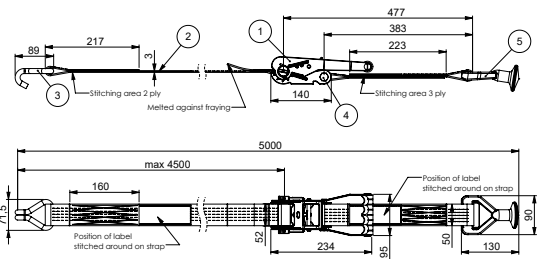


Reference: **WL-40-5-HK-EF**
Description: Weblashing



LC	2000daN
MBL	50kN
SWL	25kN

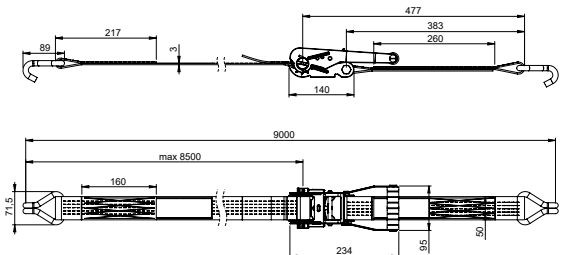
L(M)	Reference
5,00	WL-40-5-HK-EF
9,00	WL-40-9-HK-EF



Reference: **WL-50-10-ERGO**
Description: Weblashing
Remark: With more ergonomic handle



LC	2500daN
MBL	50kN
SWL	25kN

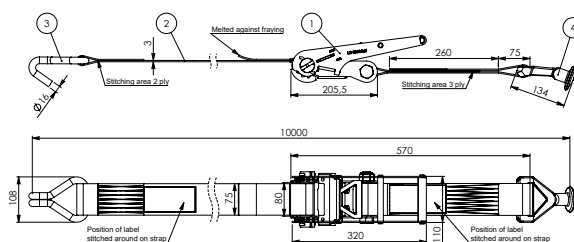


Material: 100% polyester + plastified steel hooks

Weblashings

Reference: **WL-100-10-HK-EF**

Description: Weblashing

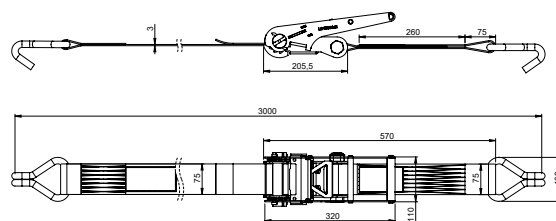


LC	5000daN
MBL	100kN
SWL	50kN

L(M)	Reference
10,00	WL-100-10-HK-EF
15,00	WL-100-15-HK-EF

Reference: **WL-100**

Description: Weblashing

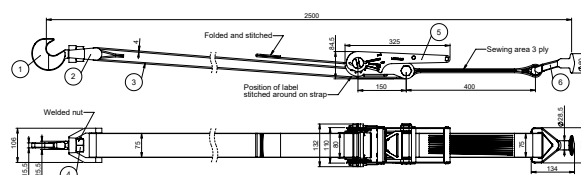


LC	5000daN
MBL	100kN
SWL	50kN

L(M)	Reference
10,00	WL-100-10
15,00	WL-100-15
25,00	WL-100-25

Reference: **WL-200-2,5M-HK-EF**

Description: Weblashing



LC	10000daN
MBL	200kN
SWL	100kN

Material: 100% polyester + plastified steel hooks
Remarks: To secure cars in holds

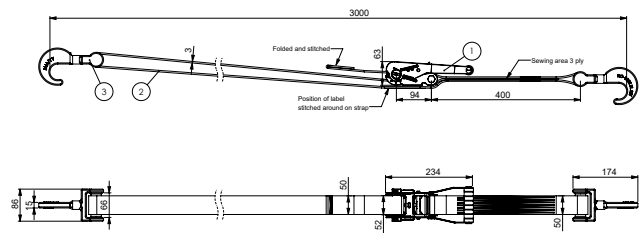


Weblashings

Reference: **WL-120-3-HK-HK**
Description: Weblashing



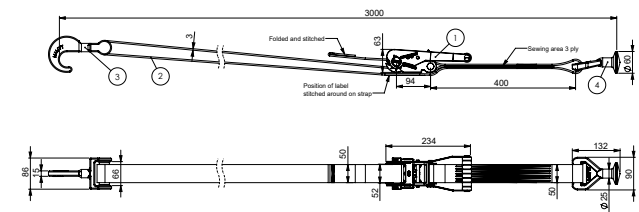
LC	6000daN
MBL	120kN
SWL	60kN



Reference: **WL-120-3-HK-EF**
Description: Weblashing



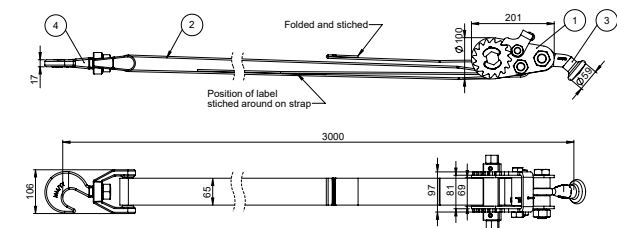
LC	6000daN
MBL	120kN
SWL	60kN



Reference: **WL-W-200-3-HK-EF**
Description: Weblashing



LC	10000daN
MBL	200kN
SWL	100kN



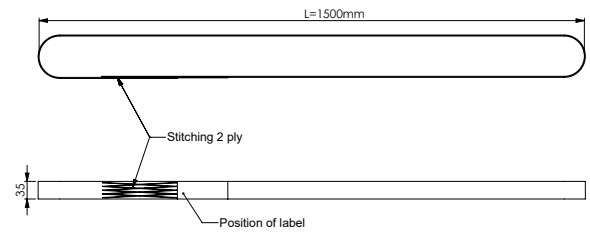
Material: 100% polyester + plastified steel hooks
Remarks: To secure cars in holds

Truckloops

Reference: **TL-50**
Description: Truckloop



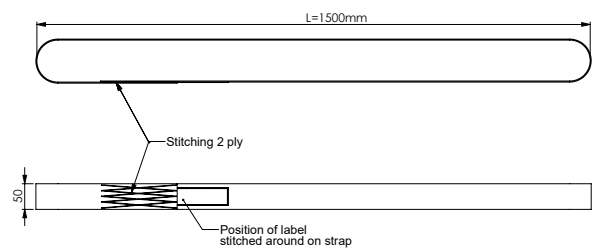
MBL	50kN
SWL	25kN



Reference: **TL-105**
Description: Truckloop



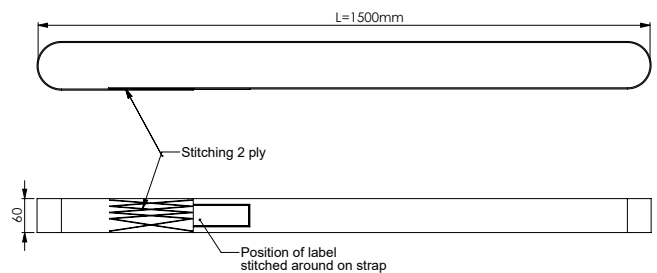
MBL	100kN
SWL	50kN



Reference: **TL-150**
Description: Truckloop



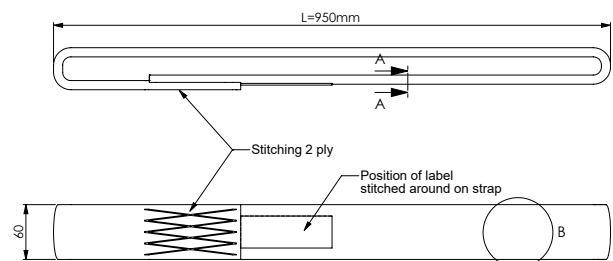
MBL	150kN
SWL	75kN



Reference: **TL-200**
Description: Truckloop



MBL	200kN
SWL	100kN

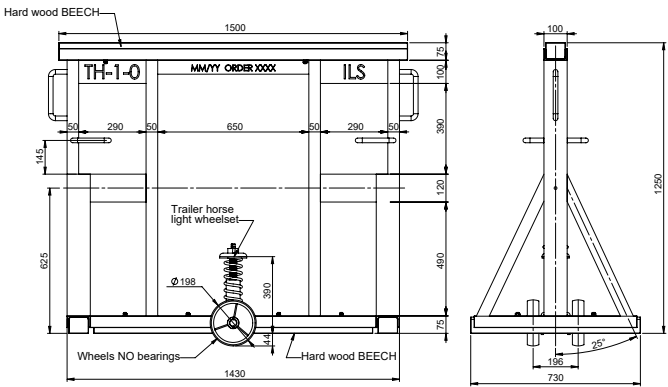


Material: 100% polyester



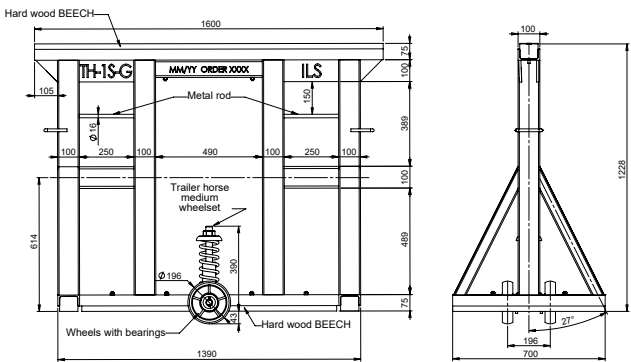
Trailerhorses

Reference: TH-1-O
Description: Trailerhorse
Material: Steel profiles
Finish: Painted



MBL	1000kN
SWL	500kN

Reference: TH-1S-G
Description: Trailerhorse



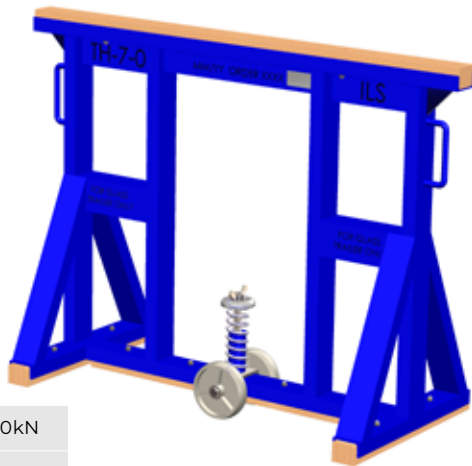
MBL	1000kN
SWL	500kN

Material: Steel profiles and hard wood
Finish: Galvanized
Remarks: To support trailers

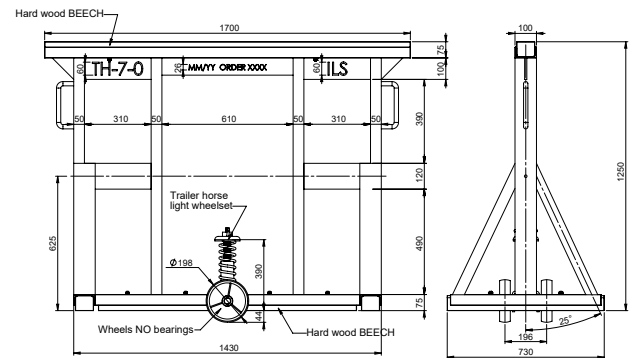
Trailerhorses

Reference: TH-7-0

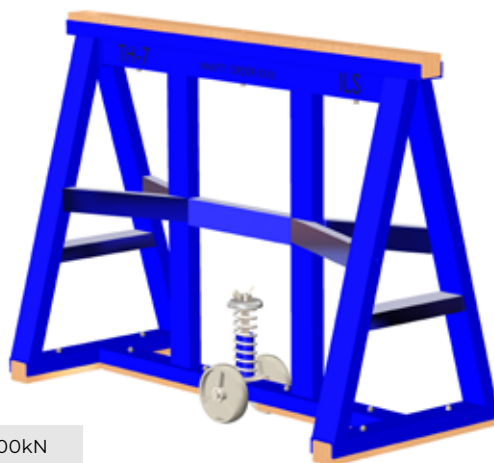
Description: Trailerhorse



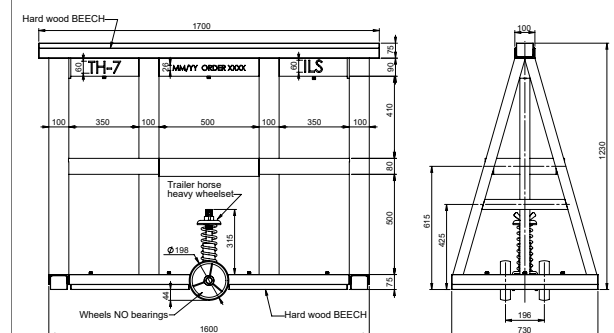
MBL	1000kN
SWL	500kN

Reference: **TH-7**

Description: Heavy duty trailerhorse



MBL	1100kN
SWL	550kN



Material:	Steel profiles and hard wood
Finish:	Painted
Remarks:	To support trailers

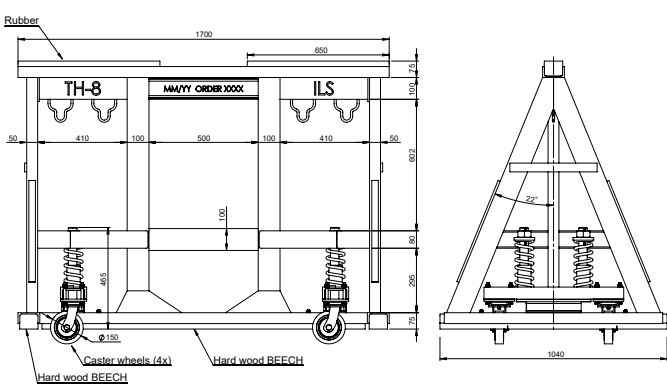
Trailerhorses

Reference: TH-8
Description: Heavy duty trailerhorse with 4 wheels

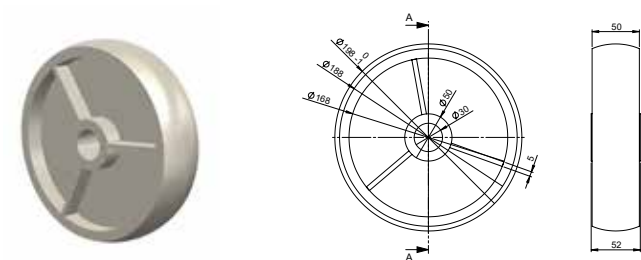


MBL	1500kN
SWL	750kN

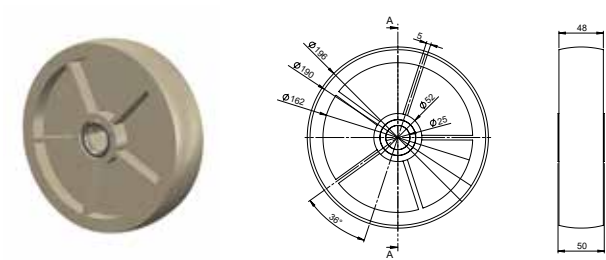
Material: Steel
Finish: Painted
Remarks: To support trailers



Reference: TH-WH
Description: Wheel for trailerhorse
Material: Plastic



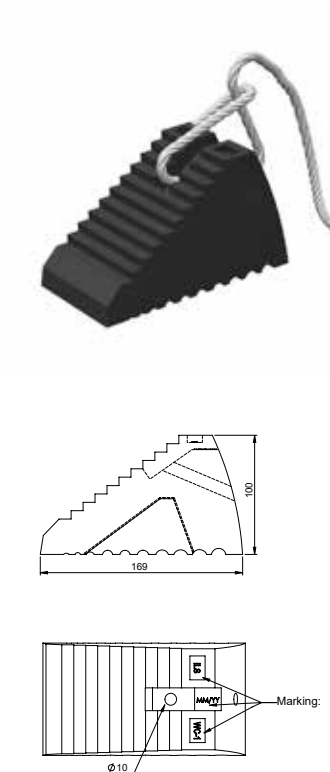
Reference: TH-WH-B
Description: Wheel with bearing for TH-1S-G



Chocks

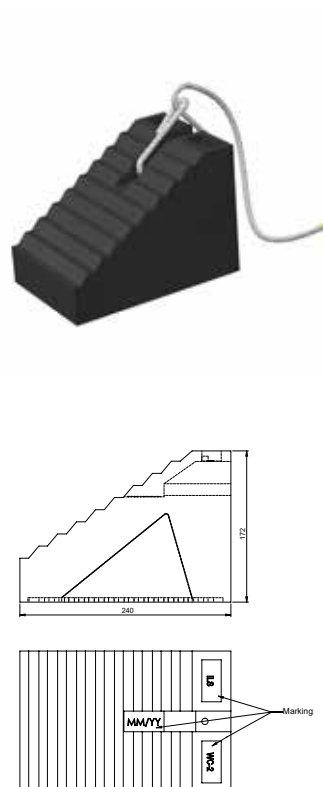
Reference: **WC-1**

Description: Rubber car chock



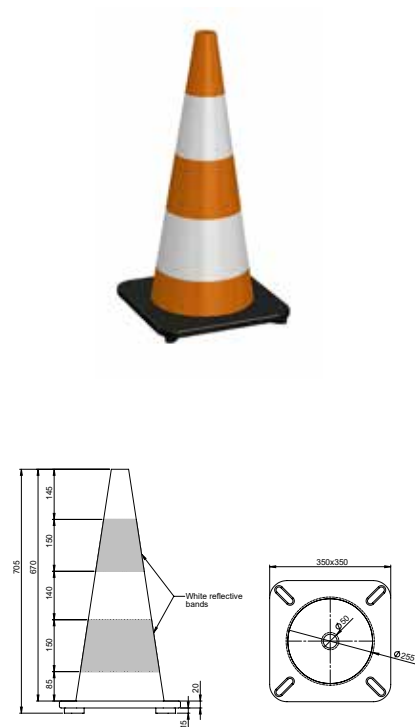
Reference: **WC-2**

Description: Rubber trailer chock



Reference: **TC-2**

Description: Traffic cone 75 cm
Material: PVC



Material: Rubber
Remarks: To secure the wheels of cars and trucks

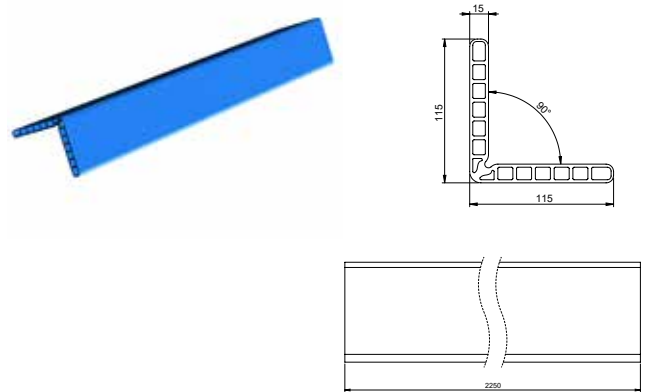


Corner protectors

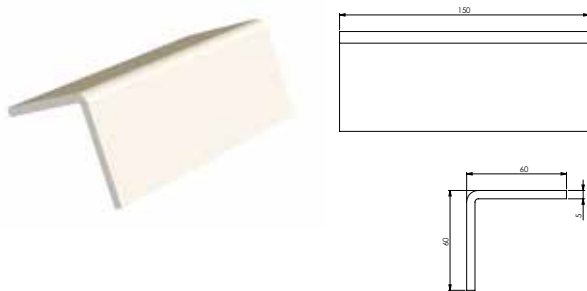
Reference: CE-2
Description: Plastic corner protector
 T=15mm // L=1,2
Material: Polypropylene



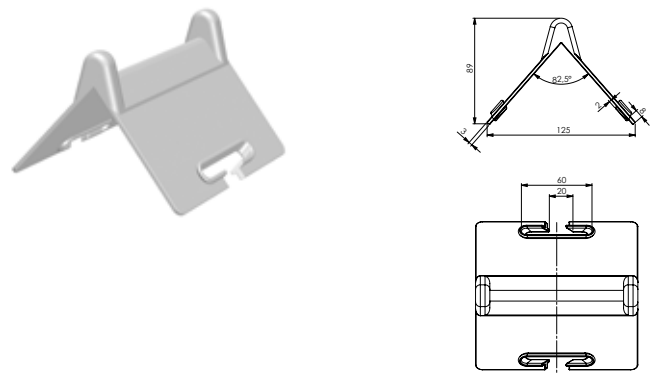
Reference: CE-3
Description: Plastic corner protector
 T=15mm // L=2,25m
Material: Polypropylene



Reference: CE-6
Description: Cardboard corner protector
Material: Cardboard



Reference: CE-75
Description: Plastic corner protector
 for webbing 50-75mm
Material: polypropylene
Remarks: To be used with 50 and 75mm web lashings



Remarks: To protect the edges of cargo



Notes

ILS International Lashing Systems

Vosseschijnstraat 30 - Haven 140

2030 Antwerp

Belgium



ILS | **INTERNATIONAL
LASHING SYSTEMS**