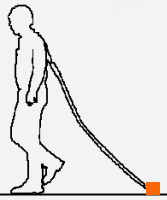
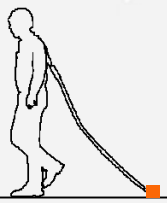
Xenon
Horizontal Lifeline System

INFORMATION GUIDE

Xenon



Chapter Overview



1. USEFUL ADDRESSES

You want to place an order ?

In Germany :

Christian Dalloz Holding
Seligenweg 10
D-95028 Hof
Germany

Tel.: +49 9281 83 02 0
Fax: +49 9281 36 26
E-mail: soll@bacou-dalloz.com

In France :

Bacou Dalloz
Dalloz fall protection
35, rue de la Bidauderie
18100 Vierzon
France
Tel.: +33 2 48 52 40 40
Fax: +33 2 48 71 04 97
E-mail: info@dallozsafety.com

In the USA :

Bacou-Dalloz
Fall Protection
1355, 15th Street
US-Franklin PA 16323
USA
Tel.: 1 866 289 7655
Fax: 1 866 289 7650
E-mail: soll@bacou-dalloz.com

In Australia :

Moxham Industrial
3 Walker Street
Braeside Victoria 3195
Australia

Tel.: +1300 139 166
Fax: +1300 362 491
E-mail:

You need help in technical questions ?

In Germany :

Christian Dalloz Holding
Seligenweg 10
D-95028 Hof
Germany

Tel.: +49 9281 83 02 0
Fax: +49 9281 36 26
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Fax: +33 2 48 71 04 97
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In the USA :

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Fall Protection
1355, 15th Street
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USA
Tel.: 1 866 289 7655
Fax: 1 866 289 7650
E-mail: soll@bacou-dalloz.com

In Australia :

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Braeside Victoria 3195
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Fax: +1300 362 491
E-mail:

You need the Xenon – Software code ?

In Germany :

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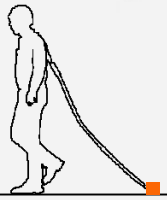
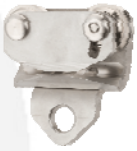
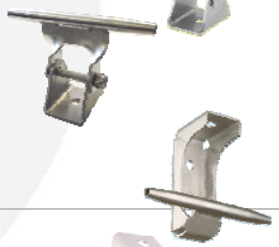
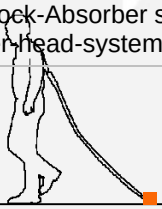


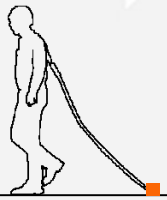
2. PRICELIST

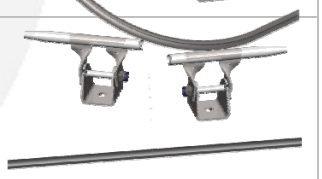
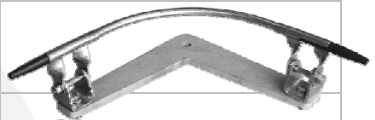
2.1. PRICELIST FOR PARTS AND COMPONENTS

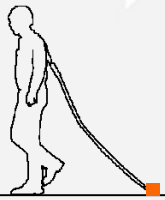
Ref-No.		Designation	Listprice	Picture
22604	1005709	Standard Shuttle		
24431	1015432	Xenon Overhead Wheeled Trolley		
24506		Xenon Overhead Wheeled Trolley with stainless steel wheels		
25289		XENON Overhead trolly with stainless steel rollers.		
23496	1010609	Universal interm. hangar stainless steel 316 - 8 mm		
25141		Universal interm. With stainless steel cable guide - 8 mm		
24497	1015431	Xenon-Intermediate bracket for use in overhead-systems - for cable-diameter 8 mm only		
25023	1017780	Xenon-Intermediate bracket for use in overhead-systems, flexible, For cable-diameter 8 mm only		
24354	1014930	Shock-Absorber – 8 mm		
24355	1014932	Shock-Absorber swageless – 8 mm		
24358	1014944	Shock-Absorber with Eyebolt – 8 mm		
24522	1015430	XE-Shock-Absorber swageless for over-head-systems - for 8mm cable		



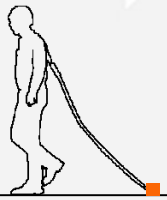
Ref-No.		Designation	Listprice	Picture
25098		XENON long line tensioner with eyebolt for cable 8mm		
25113		XENON long line tensioner with eyebolt for cable 8mm		
22609	1006701	Cable end swage - 8 mm		
23500	1010550	Cable end part with tensioner - 8 mm		
23936	1013720	Swageless cable end - 8 mm		

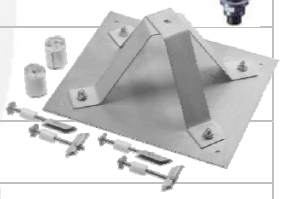


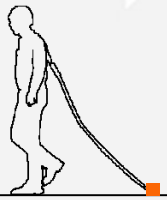
Ref-No.		Designation	Listprice	Picture
23938	1013722	Swageless cable end part with tensioner - 8 mm		
23820	1006772	Xenon HLL identification plate, aluminium English, French, German, Dutch		
24122		Portuguese, Italian, Greek, Spanish		
24215		Finnish, Swedish, Islandic, Danish		
22611	1006704	8 mm cable swage for cable extension		
22631	1006178	End anchor parts		
23519	1010608	Anchorage ring, male - M16 x 27, resistance > 50 KN		
23520	1010891	Anchorage ring, female - M16, resistance > 50 KN		
23769	1012951	Anchorage ring, male - M12 x 20, for MultiPost without thermal insulation		
23811	1012984	Anchorage ring, male - M12 x 35, for MultiPost with thermal insulation		
22636	1006062	90° angle kit - 8 mm		
22607	1006294	Bending kit - 8 mm		
23510	1010612	Intermediate hangar for bendings till 45° - 8 mm		
23806	1012621	Bending kit 90° with single fixation point - 8 mm		
25241		Xenon-Overhead-Curve 90°, with one fixing point for 8mm cable - Internal		



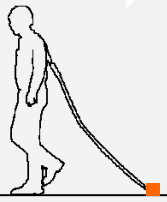
Ref-No.		Designation	Listprice	Picture
25242		Xenon-Overhead-Curve 90°, with one fixing point for 8mm cable - External		
22613	90002534	Ø 8 mm - 7x7 Stainless steel cable - the meter		
23117	1007911	200 m coil - 7x7 Stainless steel cable, Ø 8 mm		
22614	1006770	500 m coil - 7x7 Stainless steel cable, Ø 8 mm		



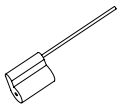
Ref-No.		Designation	Listprice	Picture
24856		Ø 8 mm - 1x19 Stainless steel cable - the meter		
24745	1017310	Interfix 300-400 mm, incl. rivets & seal tape, can be used as a single anchorage point (please order Ref-No. 24863) or end-anchor (please order Ref-No. 24861)		
24747	1017312	as 24745 but with 6 pieces		
24746	1017313	Interfix 400-500 mm, incl. rivets & seal tape, can be used as a single anchorage point (please order Ref-No. 24863) or end-anchor (please order Ref-No. 24861)		
24748	1017314	as 24746 but with 6 pieces		
24861	1017315	Rivet Kit for use as end anchor & Junction plate		
24749	1017317	Interfix 200-400 mm, can be used as a single anchorage point (please order Ref-No. 24863) or end-anchor (please order Ref-No. 24862) including clamps		
24751	1017318	as 24749 but with 6 pieces		
24750	1017330	Interfix 300-600 mm, can be used as a single anchorage point (please order Ref-No. 24863) or end-anchor (please order Ref-No. 24862) including clamps		
24752	1017331	as 24750 but with 6 pieces		
24862	1017333	Junction plate for use as a end anchor		
24863	1017334	Eye for use as a single anchorage point incl. ID-Plate		
23518	1010607	Metal roof post for membranes - Type A, incl. 4 toggle bolts & seal tape		
23511	1010600	Standard post - 60 x 60 x 428 mm		
23901	1012985	Standard post - 60 x 60 x 428 mm, stainless steel 316		
23512	1010601	Post with support - 60 x 60 x 510 mm		
23905	1012986	Post with support - 60 x 60 x 510 mm, stainless steel 316		
23522	1009744	Seal for Standard post		
23767	1012987	MultiPost 250 Type 1 for reinforced concrete, M16		
23791	1012988	MultiPost 350 Type 1 for reinforced concrete, M16		
23797	1012989	MultiPost 450 Type 1 for reinforced concrete, M16		
23798	1012990	MultiPost 250 Type 1 for reinforced concrete, M12		
23799	1012991	MultiPost 350 Type 1 for reinforced concrete, M12		
23800	1012992	MultiPost 450 Type 1 for reinforced concrete, M12		

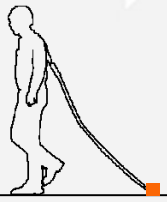


Ref-No.		Designation	Listprice	
23775	1012993	MultiPost 250 Type 2 for steel girders		
23776	1012994	MultiPost 350 Type 2 for steel girders		
23777	1012995	MultiPost 450 Type 2 for steel girders		
23783	1012996	MultiPost 250 Type 3 for wooden beams		
23784	1012997	MultiPost 350 Type 3 for wooden beams		
23785	1012998	MultiPost 450 Type 3 for wooden beams		
23813		MultiPost Insulation Set		



2.2. PRICELIST FOR SPARE PARTS

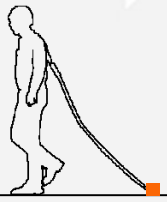
Ref-No.		Designation	Unit	Weight	Listprice	Picture
23894	1012945	Cable support for universal intermediate	1	118 g		
23893	1012946	Clevis for universal intermediate	1	184 g		
23940	1012970	Clevis for corner hanger	1	207 g		
23949	1012971	Plastic cable guide for 8 mm cable	1	12 g		
23941	1012973	Corner tube support for 8 mm cable	1	42 g		
23168	1007470	8 mm swaging indicator	25 Pcs	275 g		
23943	1012980	90° corner tube	1	152 g		
23944	1012981	Straight tube to be bend	1	152 g		
23945	1012982	Spring for intermediate hanger	1	19 g		
23917	90011508	Pin for universal hanger	1	52 g		
13365	1012983	Locknut - M10	1	11 g		
23176	1007487	Safety lead fitting	10 Pcs	190 g		



2.3. PRICELIST FOR SPECIAL PARTS

Ref-No.		Designation	Lisprice	Picture
22619	1006444	Bending tool - for angle tube		
22624	1006442	Plastic cable holder replacement clamp		
23079	1007491	Swaging control Tool		

Please note that due to the current raw material price situation wewill charge a raw material price surcharge. Please contact us in case you require further information.



3. GENERAL SALES CONDITIONS

3.1. STUDY

A prior study is essential before any installation. This study will either be carried out from the supply of precise and contractual drawings or by a survey of the location with due measurement.
The Xenon approved installer will determine the layout and required use from the supplied technical information (nature of the supports, distance between anchorages, number of people working on the line, etc).

A price proposal will be estimated. This proposal may be accompanied by a schematic diagram and a calculation note. It is up to the parties to ensure that the drawings and documents supplied are in conformity with those of the site. This survey will be carried out in compliance with the standards and regulations in force. Installation drawings can be supplied on request.

3.2. INSTALLATION

The Xenon approved installers are only qualified to install Xenon lifelines. An assembly schedule will be set up as a function for requirements resulting from the operation of the site. This assembly will be carried out in relation to the current Health and Safety regulations together with any other requirements specific to the assembly site.

After reception, all the Xenon lifelines shall be identified by a nameplate indicating their serial number and stipulating the conditions of use.

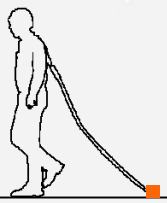
3.3. RECEPTION AND TESTING

After installation, the installation team will carry out the correct operation test in the presence of the customer. It will consist of checking that the Xenon carriage passes over the entire length of the lifeline without difficulty.

The Xenon lifelines can be tested by any Approved Organization or by Bacou-Dalloz. Please note that some of the tests may be destructive and require the replacement of the parts that are subjected to force. The type and conditions of the tests will be defined during the study and be quoted specifically to include: testing, repair of the lifeline and replacement of the deteriorated component.

3.4. LIMITS OF USE

The study and installation of the Xenon lifeline can only be carried out by Xenon or Bacou-Dalloz approved installers.



The Xenon lifeline may not be used in any case as a suspension system or for attaching handling equipment. Its use is strictly reserved to the protection of the operator connected to the system against falls from a height.

Due to the strength of the Xenon lifeline is related directly to the quality of the receiving structure, conformity can only be established if the material(s) of this structure is/are free of any manufacturing defects or decrease in performance resulting from its implementation or use (ageing, overload, chemical attack or erosion by weather, etc).

The use of the lifeline is limited to the simultaneous circulation of four operators at the most, unless indicated otherwise specifically for the installation site.

Conformity of the Xenon lifeline with current regulations is only assured if its use involves the utilisation of the corresponding equipment (harness, lanyard, etc) bearing EC markings and used in conformity with the recommendations of the manufacturer.

3.5. PARTICULAR TECHNICAL CLAUSES

SPECIAL ANCHORAGES
Depending on the type of site and the use of the lifeline, it may be indispensable to study and construct specific anchorages to permit optimum installation. Specific anchorages will be installed by the installer as a function of the supplied technical elements, of the layout methods and the use of the lifetime. A technical description will be drawn up, indicating the type of anchorage to be used and the attaching process.

ASSEMBLY CONDITIONS
These particular clauses are defined for climatic reasons, for production requirements, for particular dangers, nonexistent points of access, special handling and drifting conditions and intervention on the site, outside of working hours and on days off.

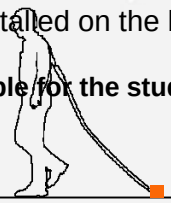
3.6. GUARANTEE

The Xenon lifeline is guaranteed usually for 1 year against any manufacturing defects. The guarantee applies to the replacement of any parts considered to be defective and includes the manpower required for their replacement. The period of guarantee starts on the day the installer sells to the end user. The installer shall provide documentation of the sales and deliver the anchorage device.

GUARANTEE LIMITS:
a) Our guarantee does not cover parts damaged due to a fall, static or dynamic tests or incorrect use of the lifeline.

b) Our guarantee does not apply to:
- the receiving structure, the parts and the assembly whenever the line is not installed by an approved installer,
- the assembly when installed on the basis of drawings or information that are not accurate.

The installer is responsible for the study and installation of the system and not Bacou-Dalloz.



3.7. Installer-Registration-Card

Serial Number / Seriennummer:

Date of issue / Ausstellungsdatum: ...../...../.....

This Guide is personal and is only attributed to:
Dieses Handbuch ist personenbezogen und wird ausschließlich ausgehändigt an:

Installer / Monteur:

Name / Name: .....
Surname / Vorname: .....

Company / Gesellschaft:

Name / Name: .....
Address / Adresse: .....
Post code / Postleitzahl: .....
Town / Stadt: ..... **Country** / Land: .....
Tel / Tel.: ..... Fax: .....

1st Amendment Number / 1. Änderungs-Nummer: .....
Date of the 1st Amendment / Datum der 1. Änderung: ...../...../.....

2st Amendment Number / 2. Änderungs-Nummer: .....
Date of the 2ndt Amendment / Datum der 2. Änderung: ...../...../.....

3rd Amendment Number / 3. Änderungs-Nummer: .....
Date of the 3rd Amendment / Datum der 3. Änderung: ...../...../.....

4th Amendment Number / 4. Änderungs-Nummer: .....
Date of the 4th Amendment / Datum der 4. Änderung: ...../...../.....

!! Warning !! : This manual is correct at its date of issue. The user must ensure that all subsequent authorised amendments are incorporated (a manual, which is not up to date with the latest amendments, is invalid and must not be used).

!! Warnung !! : Dieses Handbuch war am Ausgabedatum richtig. Der Benutzer muss sichergehen, dass alle inzwischen erfolgten Änderungen darin enthalten sind (ein nicht akutalisiertes und nicht bestätigtes Handbuch darf nicht verwendet werden).

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Kopie zum Verbleib beim Installateur

Installer-Registration-Card

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Date of issue / Ausstellungsdatum: ...../...../.....

This Guide is personal and is only attributed to:
Dieses Handbuch ist personenbezogen und wird ausschließlich ausgehändigt an:

Installer / Monteur:

Name / Name: .....
Surname / Vorname: .....

Company / Gesellschaft:

Name / Name: .....
Address / Adresse: .....
Post code / Postleitzahl: .....
Town / Stadt: ..... **Country** / Land: .....
Tel / Tel.: ..... Fax: .....

1st Amendment Number / 1. Änderungs-Nummer: .....
Date of the 1st Amendment / Datum der 1. Änderung: ...../...../.....

2st Amendment Number / 2. Änderungs-Nummer: .....
Date of the 2ndt Amendment / Datum der 2. Änderung: ...../...../.....

3rd Amendment Number / 3. Änderungs-Nummer: .....
Date of the 3rd Amendment / Datum der 3. Änderung: ...../...../.....

4th Amendment Number / 4. Änderungs-Nummer: .....
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To be return to the following address:
Zurückzuschicken an folgende Adresse:

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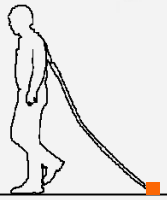
Seligenweg 10
D-95028 Hof
+49 9281 8302 0 (phone)
+49 9281 3626 (fax)
www.fall-protection.com



3.8. Xenon Calculationsoftware Registration-Card

The Xenon software is protected by a locking code for each copy.
During the set up, a code will appear mentioning 6 numbers, for which an unlocking code is associated.
To get the unlocking code (see "Useful addresses")
Die Xenon Software ist geschützt durch einen Zugangscode für jede Kopie.
Während der Installation wird ein 6-stelliger Code erscheinen, für dessen Freischaltung der Zugangscode erforderlich ist.
Zum Erhalt des Zugangscodes sehen Sie bitte unter "Nützliche Adressen" nach.

Version Number / Version Nummer: ☐

Date of issue / Ausstellungsdatum: ...../...../.....

1st updated version N° / Nr. der 1. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

2ndt updated version N° / Nr. der 2. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

3rdt updated version N° / Nr. der 3. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

4th updated version N° / Nr. der 4. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

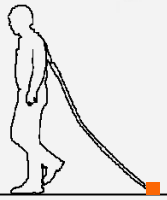
Card fill in by / Schein ausgefüllt von:
Name / Name: .....
Surname / Vorname: .....

Company / Gesellschaft:

Name / Name: .....
Address / Adresse: .....
Post code / Postleitzahl: .....
Town / Stadt: ..... **Country** / Land: .....
Tel / Tel.: ..... **Fax**: .....

On / den: ...../...../.....

Copy to kept by the installer
Kopie zum Verbleib beim Installateur



Xenon
Horizontal Lifeline System

Xenon Calculationsoftware Registration-Card

The Xenon software is protected by a locking code for each copy.
During the set up, a code will appear mentioning 6 numbers, for which an unlocking code is associated.
To get the unlocking code (see "Useful addresses")
Die Xenon Software ist geschützt durch einen Zugangscode für jede Kopie.
Während der Installation wird ein 6-stelliger Code erscheinen, für dessen Freischaltung der Zugangscode erforderlich ist.
Zum Erhalt des Zugangscodes sehen Sie bitte unter "Nützliche Adressen" nach.

Version Number / Version Nummer: ☐

Date of issue / Ausstellungsdatum: ...../...../.....

1st updated version N° / Nr. der 1. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

2ndt updated version N° / Nr. der 2. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

3rdt updated version N° / Nr. der 3. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

4th updated version N° / Nr. der 4. Aktualisierung: .....
Date of issue / Ausstellungsdatum: ...../...../.....

Card fill in by / Schein ausgefüllt von:
Name / Name: .....
Surname / Vorname: .....

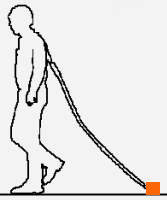
Company / Gesellschaft:

Name / Name: .....
Address / Adresse: .....
Post code / Postleitzahl: .....
Town / Stadt: ..... **Country** / Land: .....
Tel / Tel.: ..... **Fax**: .....

On / den: ...../...../.....

To be return to the following address:
Zurückzuschicken an folgende Adresse:

Christian Dalloz Holding Deutschland GmbH & Co.KG
Seligenweg 10
D-95028 Hof
+49 9281 8302 0 (phone)
+49 9281 3626 (fax)
www.fall-protection.com



4. DISCOUNT CONDITIONS

4.1. Tariff

Tariff is the pricelist for sales, which is valid in Europe.

4.2. Parts

Sales of standard components, to the installer:

- standard discount for installer:
- extra discount or big orders:

4.3. Study

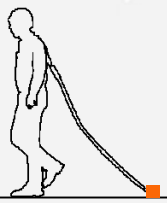
… € per day (Net price for Installer)

4.4. Special parts

Net price according to offer.

4.5. Payment conditions

According to the usual Bacou-Dalloz Fall Protection conditions.



5. HORIZONTAL LIFELINE SYSTEM

SÖLL, the world leader of access protection systems, presents its latest protection system against falls from height: Xenon, a new generation of horizontal lifelines.

The Xenon system has many advantages; however, simplicity, ergonomics and safety were the key words in designing the system.

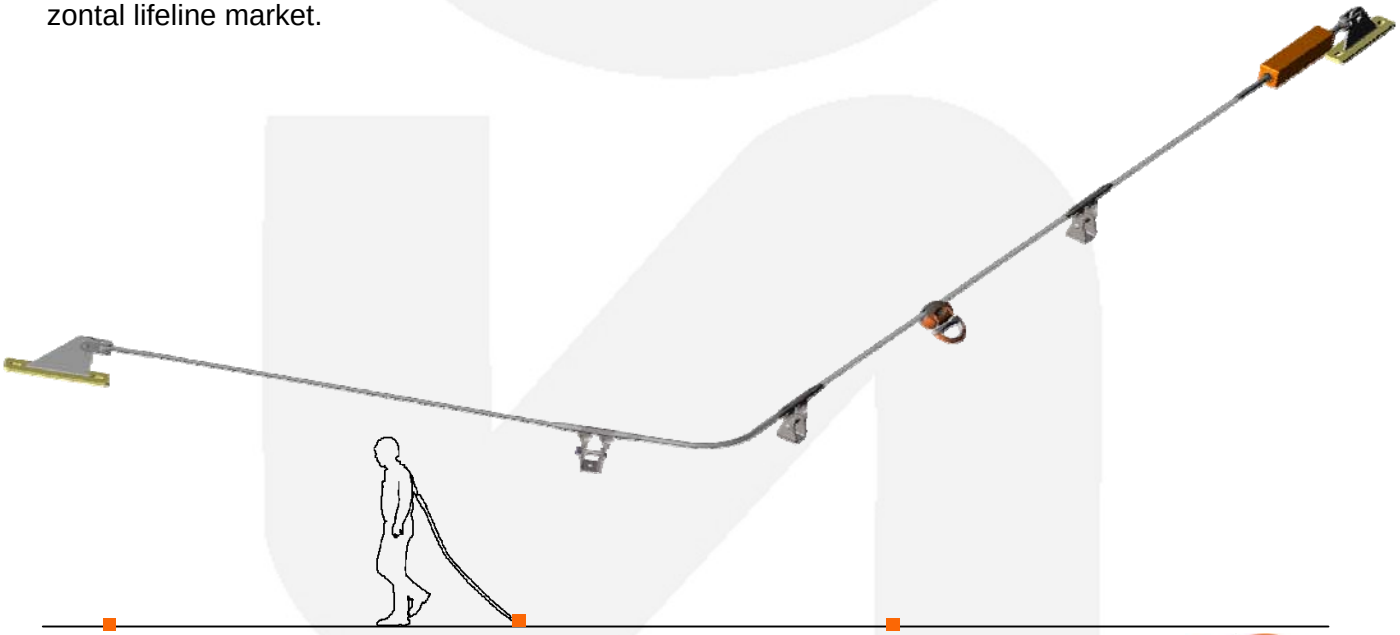
The versatile Xenon lifeline can be installed on all types of configurations: straight or curved lines, with multiple bends, on the floor, or on a ridgeline or frontal post. Xenon can adapt to your needs.

In addition, Xenon allows users to work at 180° of the lifeline without having to disconnect, or allows them to simultaneously work on both sides of a ridgeline, which improves the productivity of your teams.

Less installation time results in a significant reduction of installation costs. As the intermediate hangers can be placed at regular 15 m intervals for 8 mm-systems and 20 m for 10 mm-systems instead of 8 or 10 m, the installation costs are reduced by 15-20%. Based on the type of cable and the distance betweens hangers, the lifeline is optimised according to site configuration.

Changing the intermediate hangers without cutting or disconnecting the cable results in perfectly safe shorter maintenance operations of the lifeline and is, therefore, less expensive. An instantaneous check of forces applied to the lifeline provides workers' safety and precludes the use of a line that might be out of service.

These are only a few of the Xenon lifeline advantages which ensures its leadership on the horizontal lifeline market.

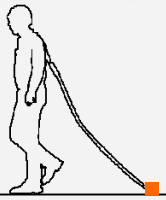


Main features and benefits:

- Up to 15 m of centre distance between 2 intermediates for 8 mm cable
- Up to 20 m of centre distance between 2 intermediates for 10 mm cable
- Compatible with 8 mm and 10 mm diameter cable
- Extended range of Multi-function absorbers
- Replacement of components without disassembling the lifeline
- Accommodates up to 4 users (8 mm cable)
- Accommodates up to 7 users (10 mm cable)
- All system components are stainless steel
- Compatible with all types of installation
- Ergonomic safety shuttle
- Limited number of components
- Conformity with primary international standards
- Compatible with most of the PPE on the market
- Manufacturing in accordance with ISO quality control
- Identification of components by their serial number
- Reduced maintenance costs
- Working on both sides of the lifeline made possible by the 180° passage of the hangers
- Tension indicator
- Lifeline inclination up to 15°
- System protected by several international patents

Calkulation assistance software

The installers are equipped with calculation software which provides verification of compatibility of the lifeline installation with the framework.



5.1. The Shuttle

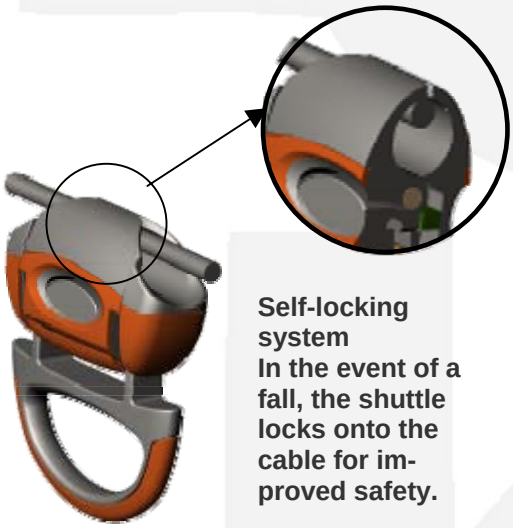
Ref.: 1005709

The shuttle, a central component of the **Xenon** system, provides the anchoring of the cable to the lifeline. It allows the user's movement along the length of the lifeline without ever having to disconnect. Its design provides an easy passage over intermediate hangers.
As it opens and closes, it can be attached anywhere on the lifeline without any specific in/out part. It can be released with one hand, thus, allowing the operator to always have a free hand.

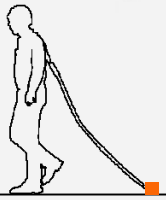
Engineered with attention to quality and detail, the shuttle integrates several safety systems.
It is equipped with a double lock system to prevent it from accidentally releasing.
It automatically locks onto the cable preventing any faulty operation. Finally, the shuttle provides absolute safety being locked onto the cable when an additional load is applied or in the event of a fall.

As the **Xenon** shuttle is made of reinforced stainless steel, it can be used in any environment, even the most corrosive ones. Its sturdy design provides good strength and allows heavy duty use.

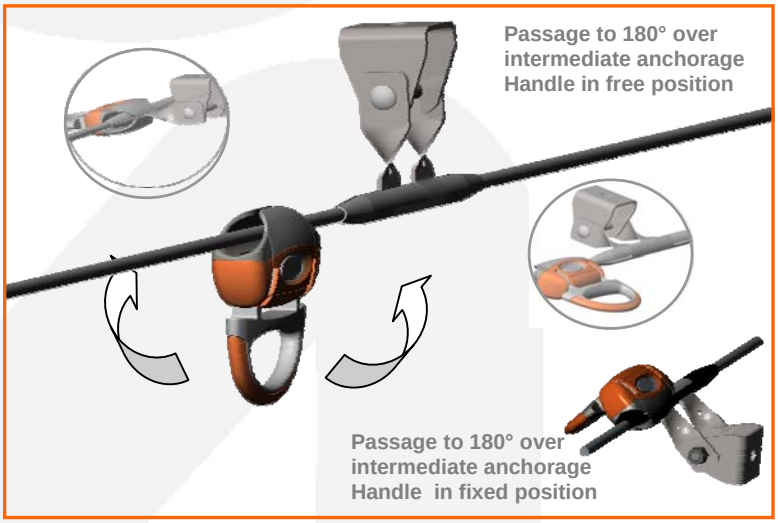
Easy to handle, due to its ergonomic design and its non-slip handle grip, the shuttle is equipped with a connection ring which can be attached to any type of connector. It is not required to disconnect the fall-prevention lanyard to connect the shuttle to the lifeline.



Self-locking system
In the event of a fall, the shuttle locks onto the cable for improved safety.



The free patented connection ring allows the user to work on both sides of the lifeline without having to unfasten or turn the shuttle. This is very useful for lifelines which are installed on roofs, ridgelines, or under the ceiling.



5.1.1. The Shuttle - Data sheet

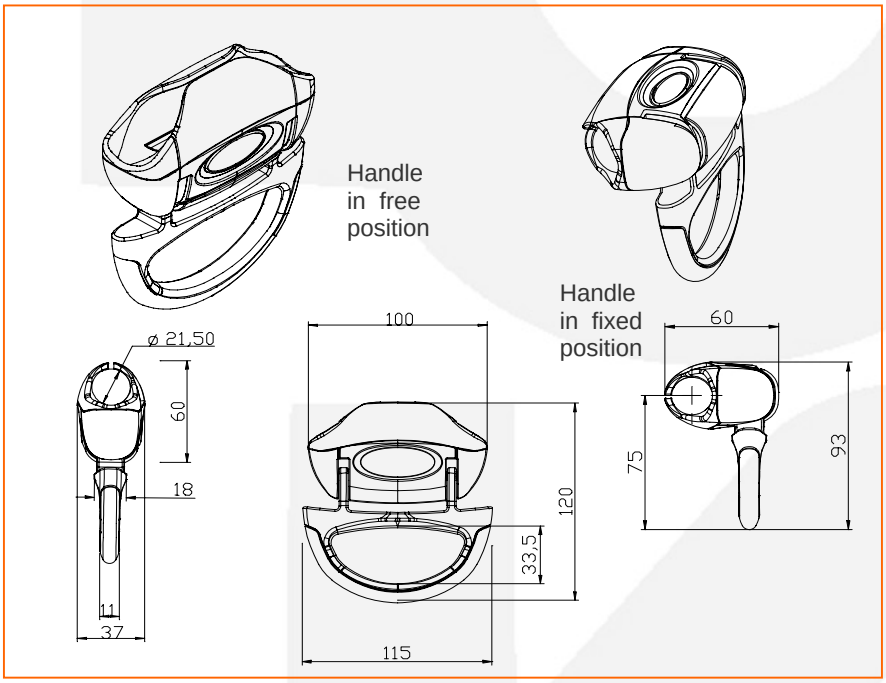
The Shuttle
Ref.: 1005709

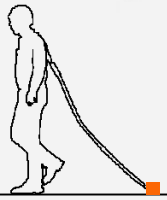
Safety
The double lock system prevents it from being accidentally released.
Once mounted on the cable, the shuttle locks automatically.
In the event of a fall, a self-locking system enhances user's safety.
The use of reinforced stainless steel provides exceptional durability and allows its use in a highly corrosive environment.
Its non-slip moulding provides better grip and better shock-absorbance.

Flexibility
Its compatibility with 8 mm and 10 mm cables allows the use of the same shuttle on all lifelines.
Its operation at 180° around the cable provides great flexibility of the user while working.
Its two position handle (free and fixed) will optimise the pass through the intermediate hanger in every working situation.
Its large connection ring allows the anchoring of almost all connectors on the market.

Simplicity
Connection to/disconnection from the lifeline without unfastening the shuttle fall-prevention lanyard for enhanced safety.
Free connection/disconnection anywhere on the lifeline provides improved flexibility for the user and obviates installation of specific parts.

Specifications:





Application
The shuttle provides the connection of a PPE connecting component (fall-prevention shuttle lanyard) to the lifeline and the passage over intermediate hangers during the movement along the length of the lifeline.

Use
Used on Xenon horizontal lifeline
Compatible with 8 & 10 mm cable
Suitable for any application and use

Material
Fixed side: stainless steel Z15CN1703 + silicone over moulding
Mobile side: stainless steel Z15CN1703 + silicone over moulding
Anchorage ring: stainless steel Z15CN1703 + silicone over moulding
Locking button: stainless steel 304L

Technical Characteristics
Breaking resistance: > 25 KN
Operating temperature: -50°C to +90°C
Maximum capacity: 136 kg
Standard: EN-795, C-class – CSA
Dimensions: 120 x 115 x 37 mm
Net weight: 0.797 kg

Quality Control
Manufacturing ISO 9000 Version 2000
Individual control
Serial number identification

Industrial Protection
International Patent:
(EU/US/Canada/Japan/Australia/…)

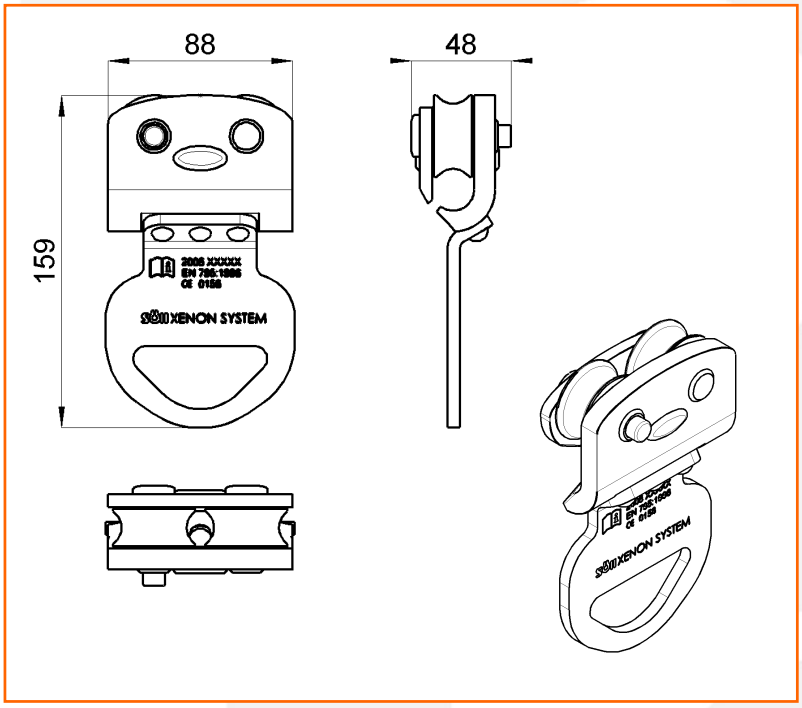
5.1.2. Overhead Shuttle - Data sheet

Use
For use with overhead systems, especially where heavy retractable fall arresters are connected to the system.
Extremely durable and ensure smooth passage through Xenon overhead intermediate brackets (Part 24497 / 1015431).

Simplicity:
Can be attached/ removed at any point without special components and without disconnecting the fall arrester or PPE. This allows safer and more versatile operation.

Overhead Shuttle
Part.-No.: 24431 / 1015432

Dimensions:



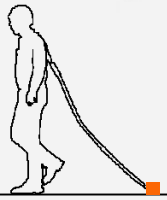
Use
For connection of fall arresters or other PPE (lanyards) and ensures smooth passage through overhead intermediate brackets.
To be used on installations above head height only.

Application
Suitable for 8 mm cable

Material
Body made of stainless steel
Wheels made of durable plastic

Technical Data
Wear / tensile strength: > 12 kN
Operating temperature: -50°C to +90°C
Max. capacity: 136 kg
Norm: EN-795, C-class
Dimension: 160 x 90 x 48 mm
Net weight: 1,1 kg

Quality control
Manufacture ISO 9000 Version 2000
Individual control
Identification by batch number



5.1.3. The Pulley - Data sheet

The Pulley
Ref.: 1012999

Applicaton
This large Stainless Steel pulley can be used as a load bearing anchorage on short systems, for example to support Fall Arrest Blocks and Self Retractable Life lines.
It cannot be used in situations where it is necessary to pass a intermediate support.
The high grade of Stainless Steel used in the fabrication of this product prevents corrosion and thus loss of strength in the toughest environments.

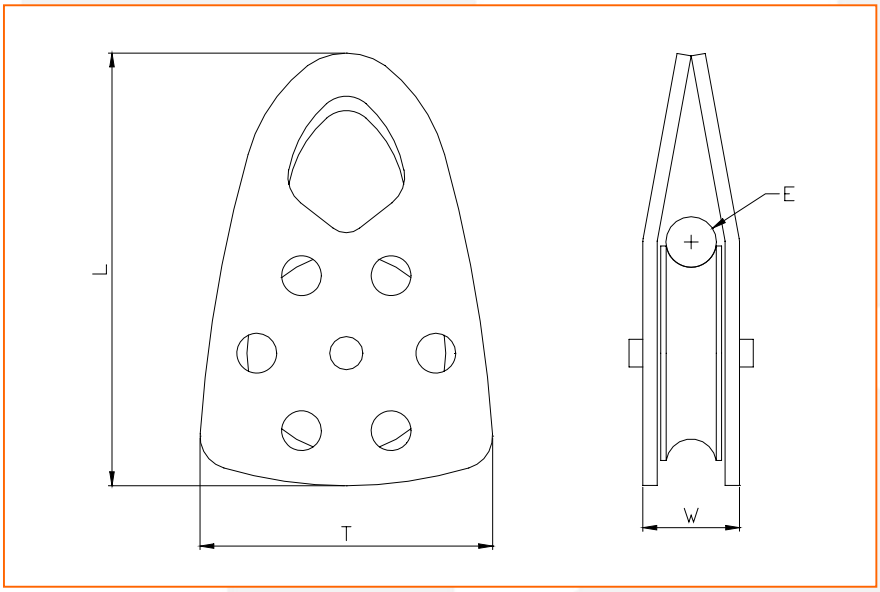
Flexibility
This unit can be used on 8, 10 and up to 16 mm cables between two anchorage points (one span).

The large connection opening enables the use most of the fall protection connectors on the market.

Being made of Stainless Steel, the unit can be left on the line permanently (provided a karabiner or similar is engaged in the connection opening).

Simplicity
Connection to/disconnection from the lifeline by taking off the connector of the block from the pulley and turning the side cheeks.

Specifications:



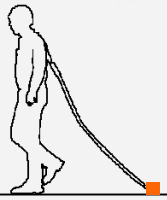
Use
Used on Xenon horizontal lifeline
Compatible with 8 & 10 mm cable
On one span.

Material
Side Cheeks 2.5mm Stainless Steel 316
Wheels Stainless Steel 316
Sintered Bronze Bearings

Technical Characteristics
Minimum Breaking Load: 50 kN
Approved Standards: Certified to BS EN 12278
Weight: 780 g
Finish: Polished
Dimensions in mm:

L	W	T	E
156	30	106	16

Quality Control
100% inspected. Batch destruction tested.



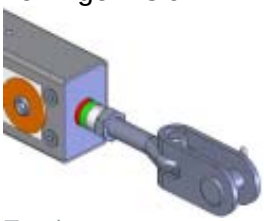
5.2. The Multifunction - Absorber

NEW

Limiting the end forces of the lifeline in order to protect its structure, it is only one of the roles of the multi-function absorber. The multi-function absorber is more than a classic energy absorber; it integrates 4 essential functions: turnbuckle, tension indicator, tensiometer and, of course, energy dissipator.

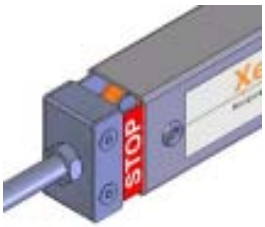
This new type of absorber removes the bunching of components at the beginning of the line and facilitates access to the lifeline. It allows a quicker and easier installation of the lifeline while reducing the costs of the components.

Und so entfällt durch diesen neuen Absorbertyp die Aneinanderreihung von Bauteilen am Anfang eines herkömmlichen Kabelsystems, wodurch der Zugang zur Anschlageinrichtung leichter wird. Die Anschlageinrichtung kann schneller und einfacher montiert werden und die Kosten der Einzelteile verringern sich.



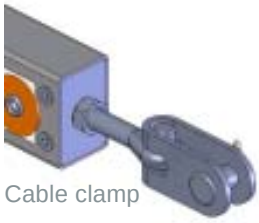
With the new ***Structure Guard*** technology the absorber terminates loads high efficiently which could arise with a fall. It significantly reduces the loads transmitted to the subconstruction and by this protects the anchoring points, the limiting unit and the user.

Tensiometer



At extreme load of the cable the fall indicator is activated and indicates that the limiting unit has to be checked before the next use. By this it advises against the use of a limiting unit which is not ready for use.

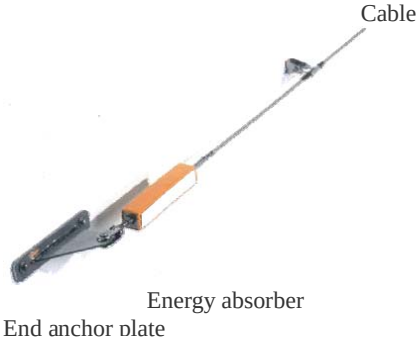
Load indicator



Its design allows the replacement of the absorbing element without cutting or re-crimping the cable which makes its maintenance easy and cost-effective.

Cable clamp

Note:
For lengthy lifelines which require an absorber with a significant movement, two absorbers can be connected



Xenon Multifunction Absorbers

Söll now offers a full range of energy absorbers for its Xenon lifeline. These different absorbers have been developed to enable you to meet in optimum manner every installation demand. They come with an adjustment and pre-tension control feature as well as an over tension (or fall) indicator.

Standard energy absorber with end piece for swaging

(1014930, 1014931)

Multifunction energy absorber especially developed for industrial applications. Completely made of stainless steel, without plastic components. Suitable especially for the use in difficult environments (high temperature, firebrands).

Energy absorber with end piece for screwing

(1014932 – 1014933)

Multifunction energy absorber with integrated end piece for screwing. Mounting without pressing tool.

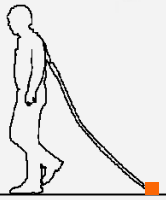
Energy absorber with eye bolt

(1014944)

By the connection with an eye bolt this multifunction energy absorber can be used as additional or replaceable energy absorber.

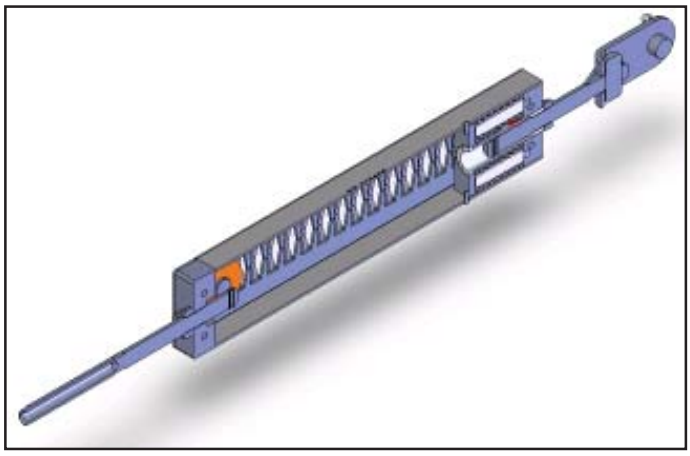
NB:

To guarantee good energy dissipation at all points of the Xenon lifeline, it is advisable to install an energy absorber at each end of the system if it comprises several turns.



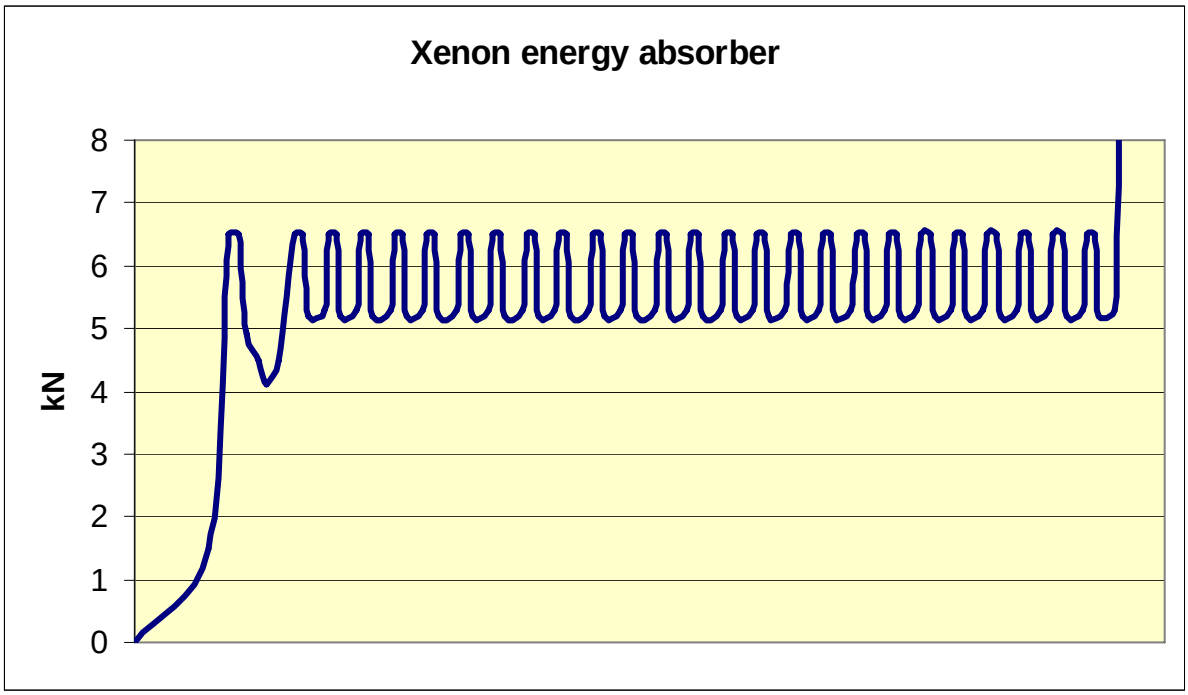
Technology of the Xenon - multifunction energy absorber

The multifunction energy absorber from Xenon is equipped with the new ***Structure Guard*** technology offering highest degree of safety.



By the separation of absorber and preliminray tension unit the multifunction energy absorber from Xenon absorbes small cable forces repeatedly. The energy absorber automatically goes back to the default positions without damaging the ***Structure Guard*** absorbing unit.

In case of a fall in the limiting direction the ***Structure Guard*** activates an absorbing unit and terminates the loads at the ends of the limiting unit for protecting user and construction.



5.2.1. Energy absorber - Data sheet

Flexibility:

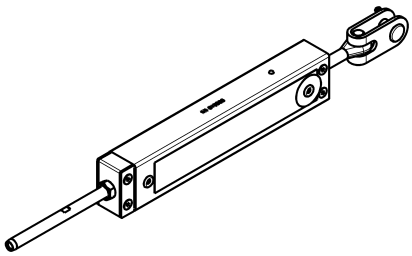
Usable for all kinds of assembly: floor, wall, ceiling.
Compact unit with 5 functions.
Completely made of stainless steel without plastic components Suitable especially for use in difficult or industrial environment.
Short starting section of the cable system because no stringing of components nessecary at the ends.
Reduces the maintenance costs.

Energy absorber
Item number 1014930, 1014931 1014932, 1014933

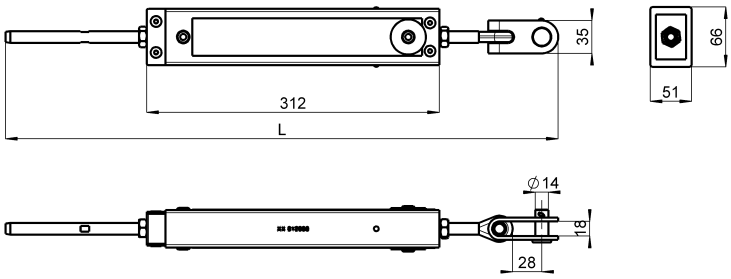
Safety:

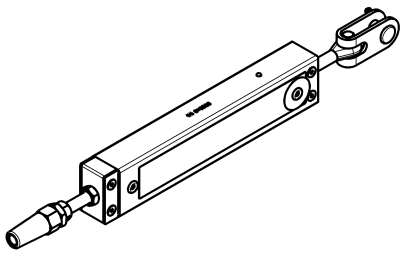
Termination of the loads for user and subconstruction by the ***Structure Guard*** technology.

Dimensions:

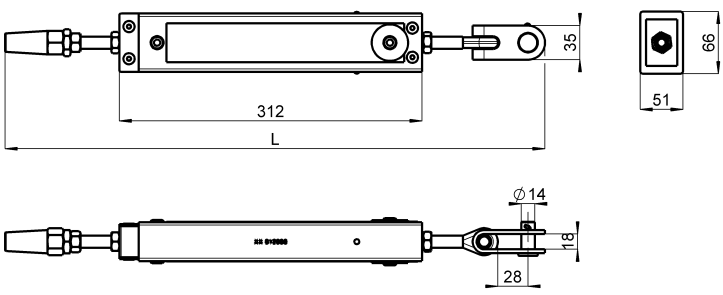


Standard energy absorber with end piece for pressing
Item number 1014930, 1014931





Energy absorber with end piece for screwing
Item number. 1014932, 1014933



Application
Adjustment and control part for Xenon. Controls the cable tension and terminates the loads at the ends of the limiting unit.

Material
Body: stainless steel 316
Turnbuckle: stainless steel 316
Protective cap: PVC

Use
Cable connection with press bush
For 8 mm cable: item number 1014930
For 10 mm cable: item number 1014931

Swageless cable end
For 8 mm cable: item number 1014932
For 10 mm cable: item number 1014933

Technology
Tear strength: > 45 kN
Temperature range: -50°C to +100°C

Measure:
1014930: L min = 530 mm, L max = 630 mm
1014931: L min = 540 mm, L max = 665 mm
1014932: L min = 510 mm, L max = 610 mm
1014933: L min = 520 mm, L max = 620 mm

Weight:
1014930: 2,41 kg
1014931: 2,56 kg
1014932: 2,53 kg
1014933: 2,56 kg

Max load: dependent on the dimensioning with the help of calculation software

Lift of the absorbing part: 224 mm

Quality check
Production ISO 9000 version 2000
Individual check
Identification by charge number

5.2.2 Energy absorber with eye bolt - Data sheet

Flexibility:

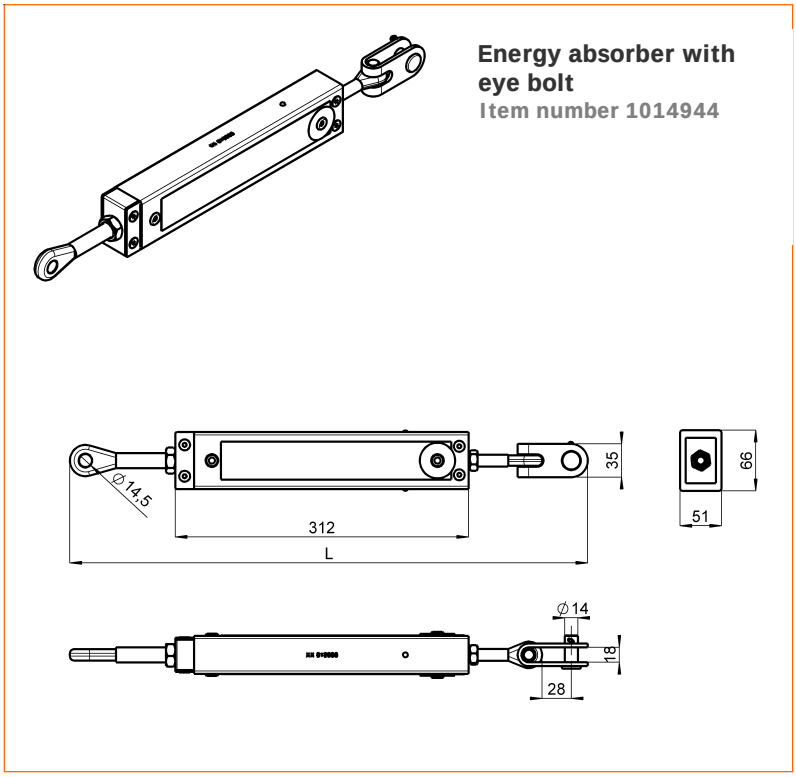
Usable for all kinds of assembly: floor, wall, ceiling.
Compact unit with 4 functions.
Body made of stainless steel with/without PVC protective cap. Suitable as additional energy absorber for external/difficult or industrial environment.
Short starting section of the cable system because no stringing of components necessary at the ends.
Reduces the maintenance costs.

Energy absorber with eye bolt
Item number 1014944

Safety:

Termination of the loads for user and subconstruction by the ***Structure Guard*** technology.

Dimensions:



Application
Adjustment and control part for Xenon.
Controls the cable tension and terminates the loads at the ends of the limiting unit.

Material
Body: stainless steel 316
Turnbuckle: stainless steel 316

Use
In addition to the already existent energy absorber, for increasing the absorbing power.
As replacable energy absorber in connection with a cable end piece for screwing (e.g. order number 23936, 23937).

For 8 mm and 10 mm cable

Technology
Tear strength: > 45 kN
Temperature range: -50°C bis +100°C

Measure:
L min = 475 mm, L max = 595 mm

Weight:
2,48 kg

Max load: dependent on the dimensioning with the help of calculation software.

Lift of the absorbing part: 224 mm

Quality check
Production ISO 9000 version 2000
Individual check
Identification by charge number

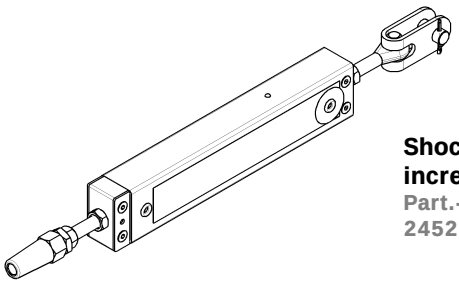
5.2.3. Overhead Shock Absorber - Data sheet

Use:
For use with overhead systems and heavy fall arresters. Allows higher cable pre-tension than other Xenon Shock Absorbers, reducing cable sag and improving operational performance. Can be fixed to walls or soffits. Made of stainless steel with no plastic parts. Very suitable for harsh environments.
Simple to install & use with 4-in-1 design; shock-absorber; visual fall-indicator; tensioner and visual tension-indicator.

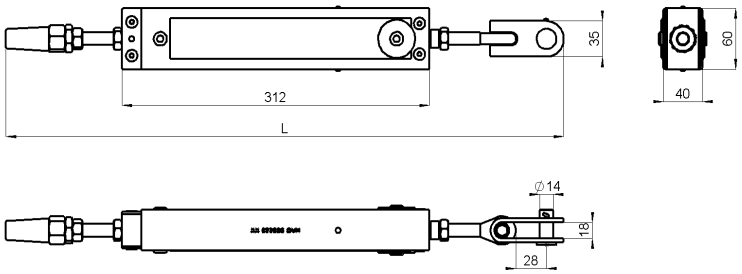
Shock Absorber
Part.-No.: 24522 / 1015430

Safety:
In the event of a fall arrest, loads applied to the user and to the sub-structure are effectively reduced by ***Structure-Guard*** Technology

Dimensions:



Shock absorber with increased pre-tension
Part.-No.
24522 /1015430



Use
Adjusting and checking part for Xenon. Controls the cable tension and limits the forces at the ends of the anchorage device.

Material
Stainless steel 316

Application
Reduces forces in case of a fall arrest. Increased pre-tension especially for overhead installations to reduce cable sag when using heavy retractable fall arresters. Required in addition to shock absorbers in fall arresters or lanyards.

Technical Data
Tensile strength: > 45 kN
Working Temperature: -50°C to +80°C

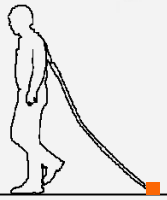
Dimensions:
L min = 475 mm, L max = 595 mm

Weight:
2,35 kg

Max. applied forces are dependent on system layout and are determined by the calculation software.

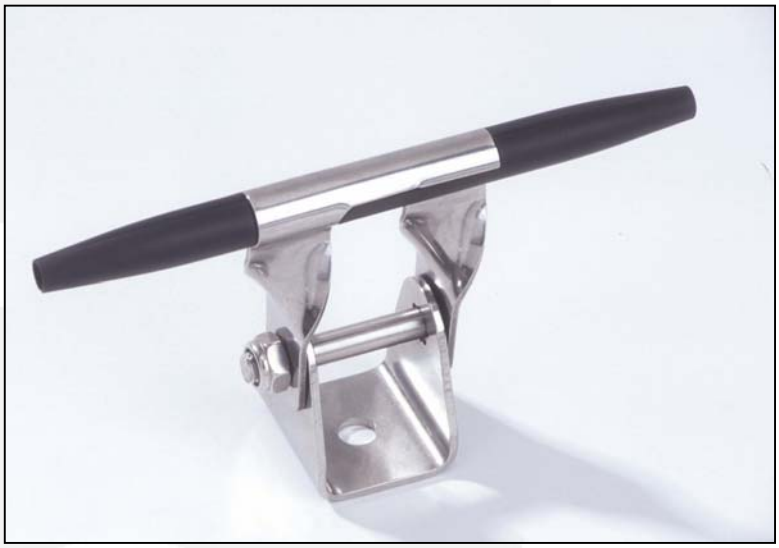
Deployment of the shock absorbing part: 224 mm

Quality control
Manufacture ISO 9000 Version 2000
Individual control
Identification by batch number



5.3. The Fixed Intermediate Hanger

Ref.: 1005962 for 8 mm cable

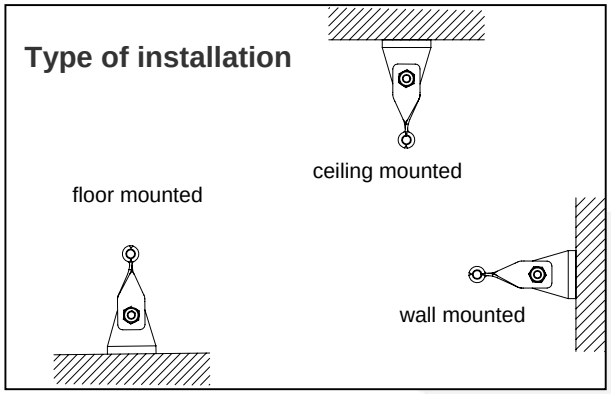


The intermediate hanger, which is installed every 12 metres, acts both as a cable hanger and a connector between the lifeline and the framework. It provides easy passage of the shuttle through hangers without the user disconnecting it.

Easy to install, it requires a single anchorage point on the structure (12 mm bolt).

The indexation of the clevis allows an orientation of the cable bracket for the optimisation of the shuttle passage for each installation.

The design of the patented opening cable support allows the replacement of the intermediate hanger after a fall without cutting the cable.

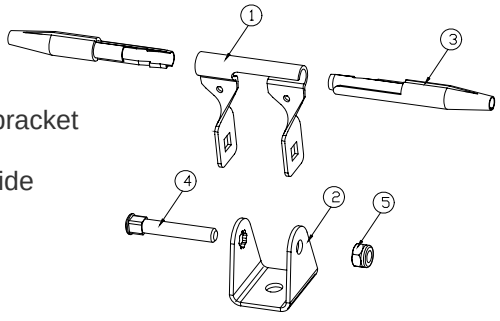


The fixed hanger is installed when the users work close to the line (in dependence of the length of the lanyard).
It is suitable for any type of installation (floor, wall, ceiling).

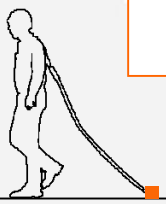
A free hanger (ref 1006075) and a spring load hanger (ref 1005963) are also available for installations requiring significant lateral movement on both sides of the lifeline or for ridgeline installations.

Note:
It is important to check the compatibility of the framework with the installation of a lifeline and the forces which might be generated by a fall.

Exploded view of fixed intermediate hanger



1) Opening cable bracket
2) Indexed clevis
3) Plastic cable guide
4) Fixed pin
5) Nilfix bolt



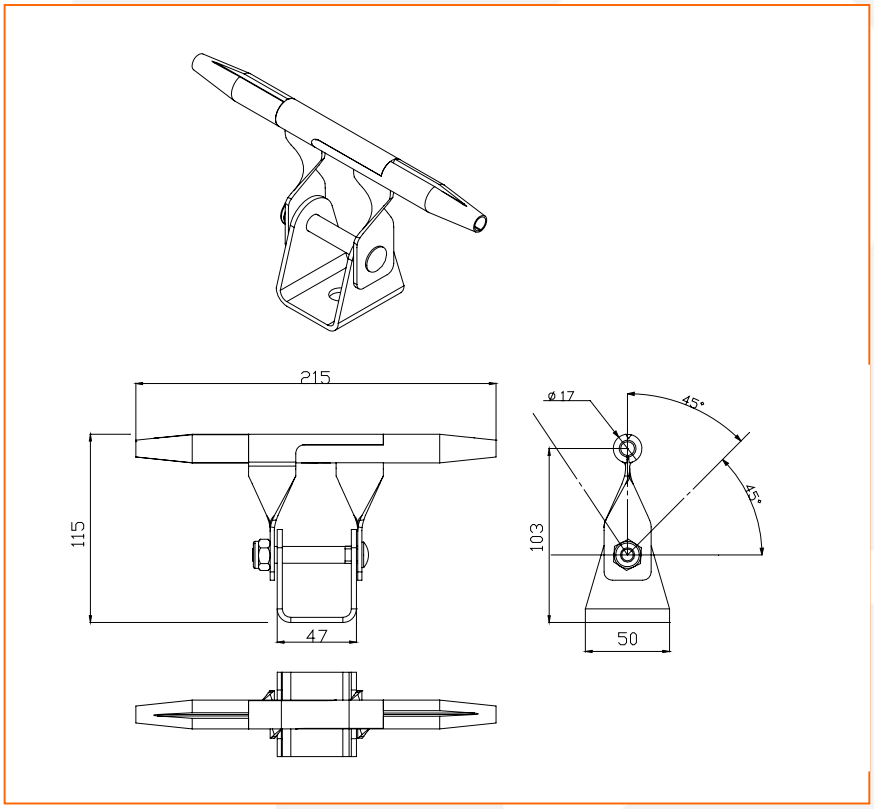
5.3.1. The Fixed Intermediate Hanger – Data sheet

The fixed Intermediate hanger
Ref.: 1005962 for 8mm cable

Safety
No welded parts for improved safety
Device made of stainless steel which provides a longer life of the lifeline and its use in an industrial environment
Zytel cable guide which provides better shuttle passage

Flexibility
Standard components compatible with any type of installation both for 8 mm or 10 mm cable.
Cable bracket indexation from 0° to 180° provides optimisation of lifeline position according to environment and use.
A unique fastening system which reduces installation costs.
15 m centre distance (8 mm cable) and 20 m centre distance (10 mm cable) which provides more possibilities of installation.
Easy removal and replacement of intermediate hangers which withstand significant load.

Specifications:



Application
The fixed intermediate hanger can be installed on any type of configuration (floor – wall - ceiling). It is designed for proximity horizontal lifelines.

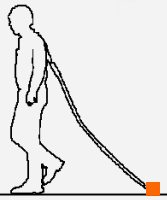
Material
Opening cable bracket: stainless steel 304L
Indexed clevis: stainless steel 304L
Plastic cable guide: Zytel
Fixed pin & Nilfix bolt: Stainless steel 304L

Usage
Compatible with 8 mm and 10 mm cable
Maximum centre distance: 15 m (8 mm cable), 20 m (10 mm cable)
Orientation: 0 to 180° - index every 45°

Technical Characteristics
Breaking resistance: > 25 KN
Operating temperature: -50°C to +90°C
Limit of use: according to the calculations with the software
Dimensions: 215 x 115 x 50 mm
Weight: 305 g

Quality Control
Manufacturing ISO 9002
Individual control
Serial number identification

Patents
International Patent:
(EU/US/Canada/Japan/Australia/…)



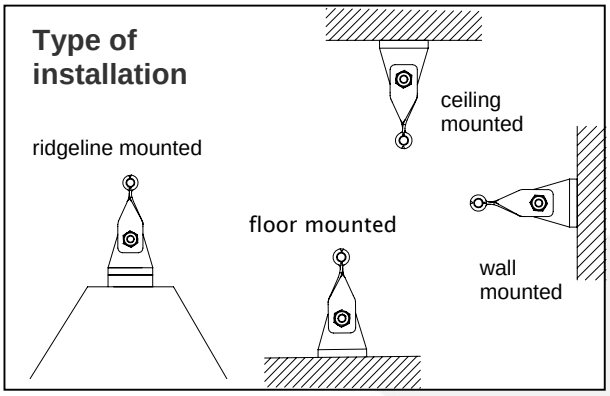
5.4. The Free Intermediate Hanger

Ref.: 1006075 for 8 mm cable

The intermediate hanger acts both as a cable hanger and a connector between the lifeline and the framework. It provides easy passage of the shuttle through hangers without the user disconnecting it.
Easy to install, it requires a single anchorage point on the structure (12 mm bolt). The free cable bracket provides better shuttle passage when the user is at a distance from the lifeline.

It also allows a ridgeline installation that provides access from both sides of the lifeline with no disconnection.

The design of the patented **opening** cable support allows the replacement of the intermediate hanger after a fall without cutting the cable.

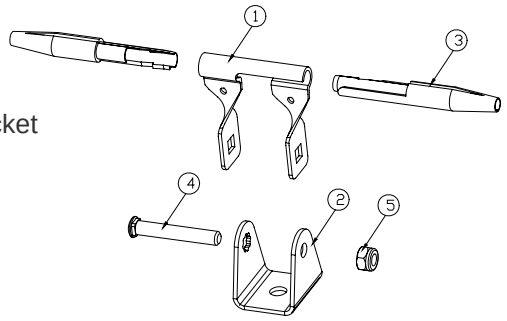


The free hanger is installed when the users work in an angle of +/- 90° around the cable.
It is suitable for any type of installation (floor, wall, ceiling).

A fixed hanger (ref 1005962) and a spring load hanger (ref 1005963) are also available for proximity installations or installations requiring simultaneous work on both sides of the lifeline.

Note:
It is important to verify the compatibility of the framework with the installation of a lifeline and the forces which might be generated in the event of a fall.

Exploded view of the free intermediate hanger



1) Opening cable bracket
2) Clevis
3) Plastic cable guide
4) Pin
5) Nilfix bolt

5.4.1. The Free Intermediate Hanger - Data sheet

Safety

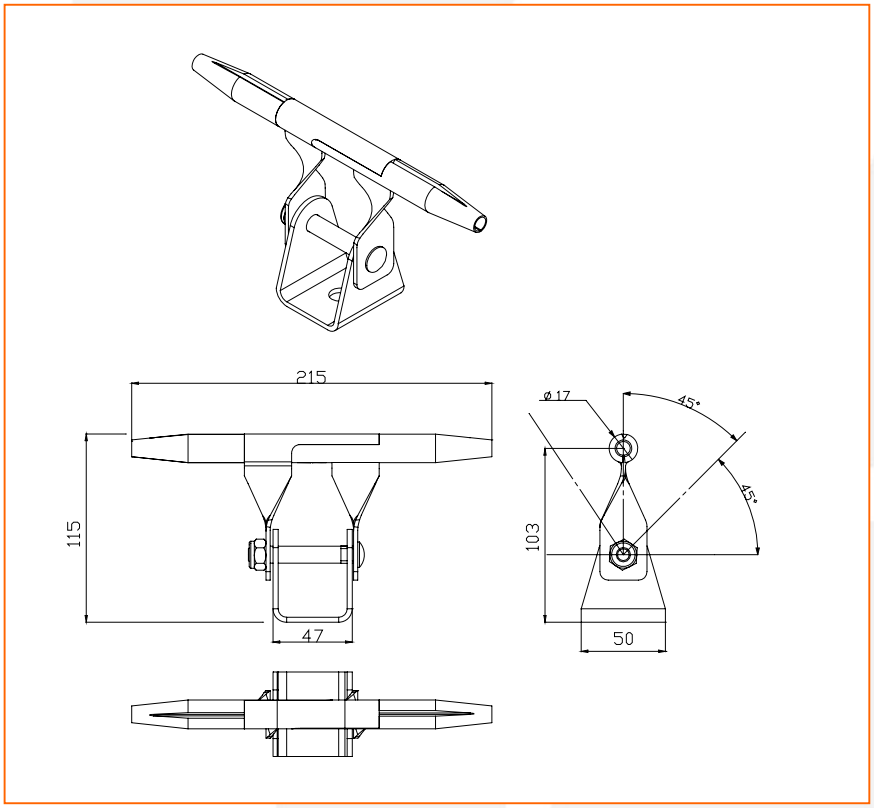
In the event of a fall, the deformation of intermediate hangers absorbs some of the forces and protects the structure and users.
No welded parts for improved safety.
Device made of stainless steel which provides a longer life of the lifeline and its use in an industrial environment.
Zytel cable guide which provides better shuttle passage.

Flexibility

Easy removal and replacement of intermediate hangers which withstand significant load.
Standard components compatible with any type of installation both for 8 mm or 10 mm cable.
Free rotation of the cable bracket from 0° to 180° provides optimisation of lifeline position according to user's position.
Allows shuttle passage at 180° on both sides of the life line.
Its unique fastening system reduces installation costs.
15 m centre distance (8 mm cable) and 20 m centre distance (10 mm cable) which provides more possibilities of installation.

The free intermediate hanger
Ref.: 1006075 for 8 mm cable

Specifications:



Application
The free intermediate hanger is installed on any type of configuration (floor – wall - ceiling). It is mainly intended for horizontal lifelines requiring a wide range of movement.

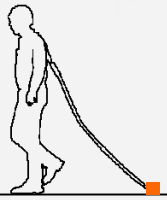
Material
Opening cable bracket: stainless steel 304L
Indexed clevis: stainless steel 304L
Plastic cable guide: Zytel
Fixed pin & Nilfix bolt: Stainless steel 304L

Use
Compatible with 8 mm and 10 mm cable
Maximum centre distance: 15 m (8 mm cable), 20 m (10 mm cable)
Orientation: free 0 to 180°

Technical Characteristics
Breaking resistance: > 25 KN
Operating temperature: -50°C to +90°C
Limit of use: according to the calculations with the software
Dimensions: 215 x 115 x 50 mm
Weight: 305 g

Quality Control
Manufacturing ISO 9000 version 2000
Individual control
Serial number identification

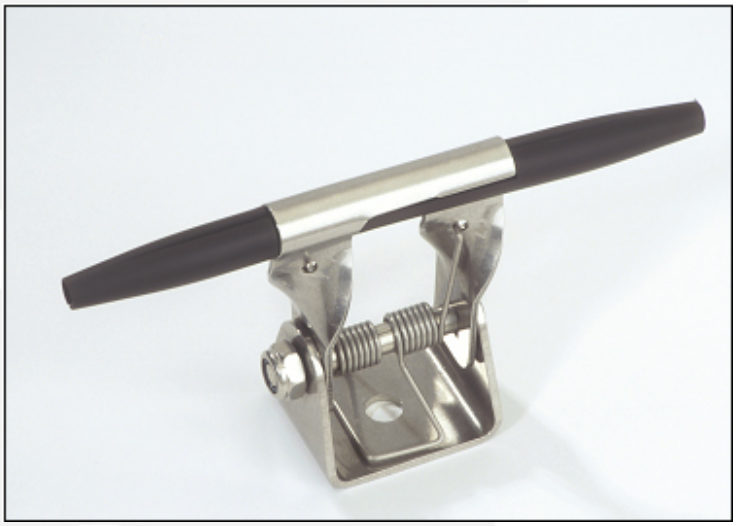
Patents
International Patent (EU/US/Canada/Japan/Australia/…)



5.5. The Spring Load Intermediate Hanger

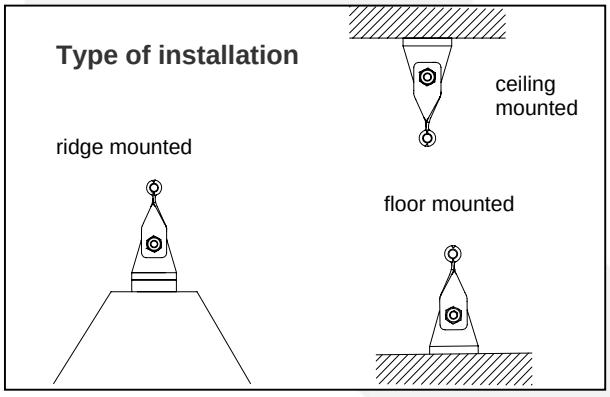
Ref.: 1005963 for 8mm cable

The intermediate hanger acts both as a cable hanger and a connector between the lifeline and the framework. It provides easy passage of the shuttle through hangers without the user disconnecting it.
Easy to install, it requires a single anchorage point on the structure (12 mm bolt).
The spring cable bracket provides better shuttle passage when the user is at a distance from the lifeline.



It also allows a ridgeline installation that provides access from both sides of the lifeline with no disconnecting.

The design of the patented **opening** cable support allows the replacement of the intermediate hanger after a fall without cutting the cable.

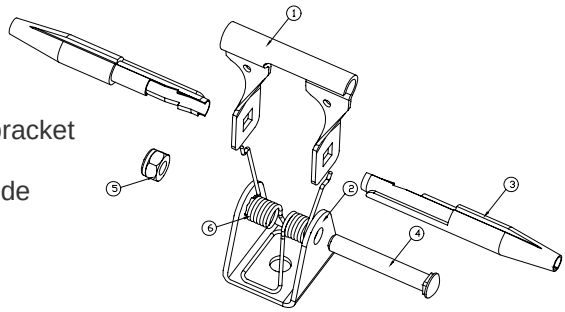


The spring load hanger is installed when the users work on both sides of the lifeline. It is mainly suitable for ridgeline or ceiling installations requiring important lateral movement.

A fixed hanger (ref 1005962) and a free hanger (ref 1006075) are also available for proximity installations or installations which do not require simultaneous work on both sides of the lifeline.

Note:
It is important to verify the compatibility of the framework with the installation of a lifeline and the forces which might be generated in the event of a fall.

Exploded view of the spring load intermediate hanger



1) Opening cable bracket
2) Indexed clevis
3) Plastic cable guide
4) Fixed pin
5) Nilfix bolt
6) Return spring

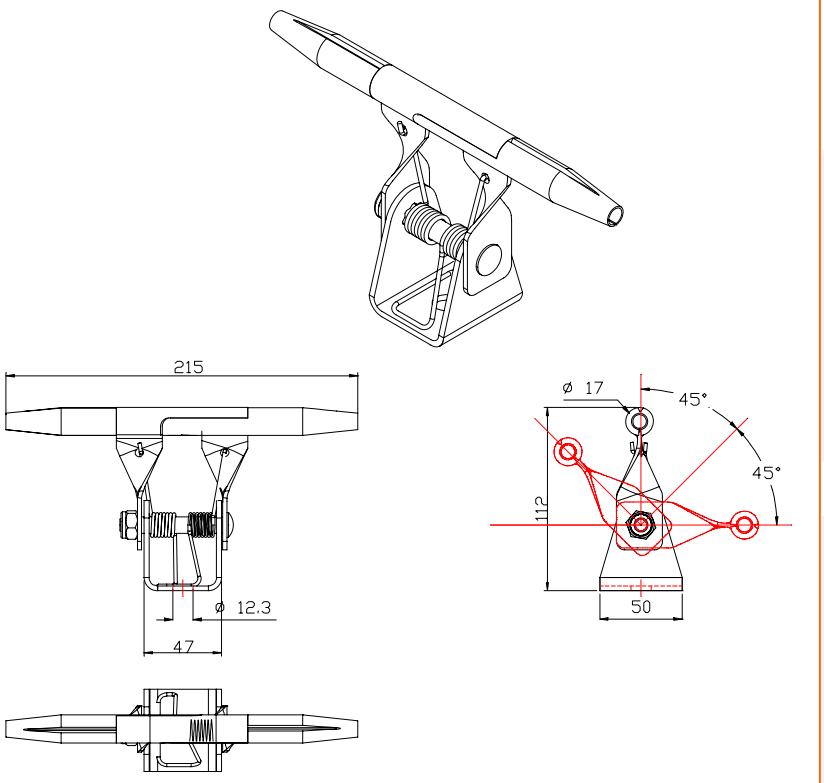
5.5.1. The Springload Intermediate Hanger - Data sheet

The spring load intermediate hanger
Ref.-Nr.: 1005963 for 8 mm cable

Safety
No welded parts for improved safety.
Device made of stainless steel which provides a longer life of the lifeline and its use in an industrial environment.
Zytel cable guide which provides better shuttle passage.

Flexibility
Easy removal and replacement of intermediate hangers which withstand significant load.
Standard components compatible with any type of installation both for 8 mm or 10 mm cable.
Free rotation of the cable bracket from 0° to 180° provides optimisation of lifeline position according to user's position.
Return spring repositions the cable in central position to facilitate simultaneous work on both sides of the lifeline.
Allows shuttle passage at 180° on both sides of the lifeline.
Its unique fastening system reduces the installation costs.
15 m centre distance (8 mm cable) and 20 m centre distance (10 mm cable) which provides more possibilities of installation.

Specifications:



Application
The spring intermediate hanger is installed on ridgeline or ceiling configurations. It is mainly intended for horizontal lifelines requiring a wide range of movement and where the users can simultaneously work on both sides of the lifeline.

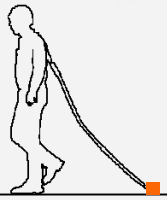
Material
Opening cable bracket: stainless steel 304L
Indexed clevis: stainless steel 304L
Plastic cable guide: Zytel
Fixed pin & Nilfix bolt: Stainless steel 304L

Use
Compatible with 8 mm and 10 mm cable
Maximum centre distance: 15 m (8 mm cable), 20 m (10 mm cable)
Orientation: free 0 to 180° - automatic return to central position

Technical Characteristics
Breaking Resistance: > 25 KN
Operating temperature: -50°C to +90°C
Limit of use: according to the calculations with the software
Dimensions: 215 x 115 x 50 mm
Weight: 325 g

Quality Control
Manufacturing ISO 9000 version 2000
Individual control
Serial number identification

Patents
International patent
(EU/US/Canada/Japan/Australia/…)



5.6. New Multipurpose Intermediate Passing Point

Replaces current intermediate passing point references for modified general-purpose current intermediate passing points. This new passing point allows fixed or mobile positions.

The universal intermediate hanger
Ref.: 1010609, 1010890

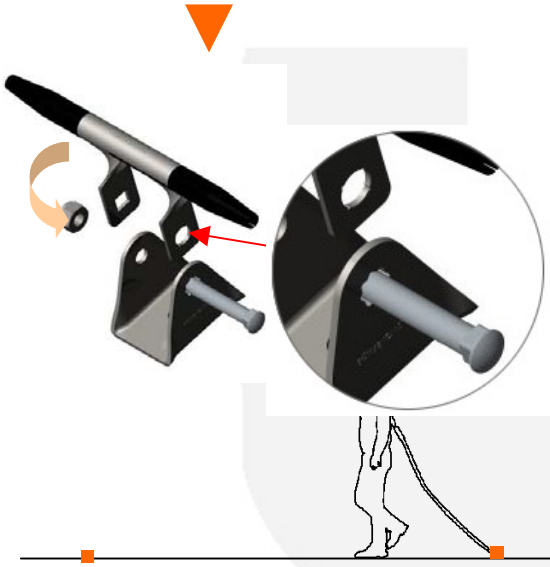
Main advantages of general purpose intermediate passing point:

- Allows mixed use (fixed or mobile passing point)
- Possibility of adding a spring for use on ridge
- Better resistance to modified clevis
- Simplification and reduction in number of references
- Price unchanged

General purpoose intermediate passing point assembly:
1010609 Intermediate general-purpose passing point – 8 mm
1010890 Intermediate general-purpose passing point – 10 mm

The cable support now features a round hole on one side and a square hole on the other. The assembly of the intermediate passing point shaft in one hole or the other governs how it is used (fixed or mobile passing point).

Mobile Position
The square head of the intermediate passing point shaft leaves the cable support free (round passage side) the passing point is in the mobile position, the cable support swivels freely (use this set up for the spring loaded passing point too).



Fixed position
The square head of the intermediate passing point shaft locks in the cable support (square hole side) with the passing point in the fixed poosition so that the clevis star allows the cable support to be positioned every 45°.

5.6.1. The Universal Intermediate Hanger - Data sheet

The universal intermediate hanger
Ref.: 1010609, 1010890

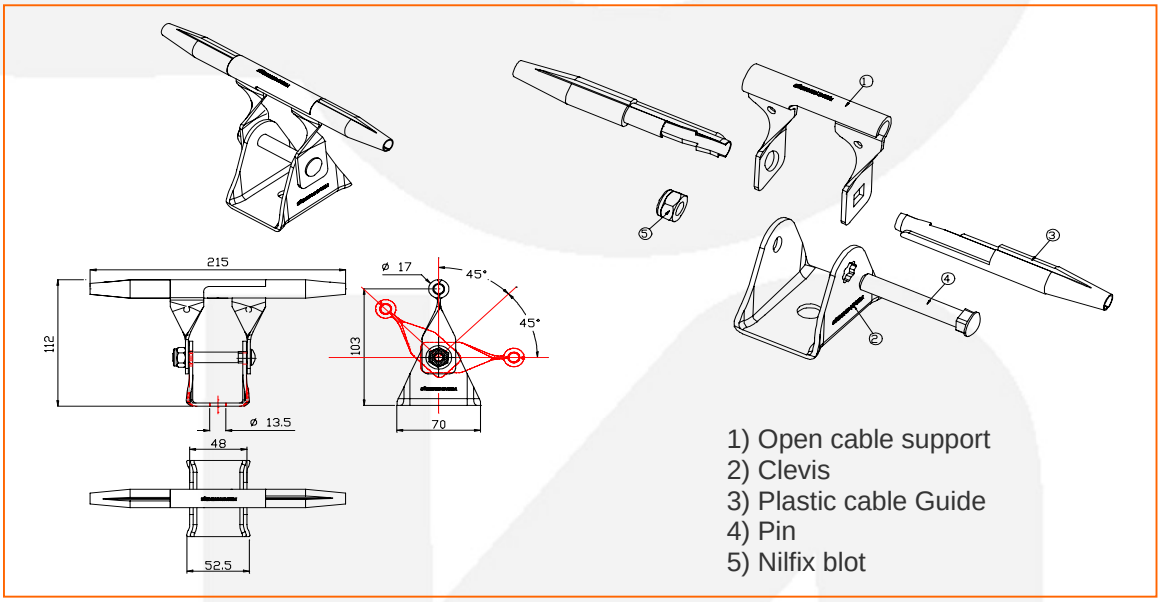
Application
The universal intermediate hanger can be installed on any type of configuration (floor – wall - ceiling). Usable as fixed or mobile intermediate hanger thanks to the asymmetric cable support. Made from 316 SS grade for cable system installed in highly corrosive environment.

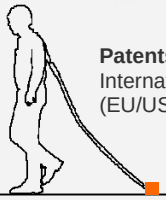
Materials
Opening cable bracket: stainless steel 316
Indexed clevis: stainless steel 316
Plastic cable guide: Zytel
Fixed pin & Nilfix bolt: Stainless steel 316

Use
Installation in fixed or mobile position
Installatioon roof top with spring ref. 1007482
Compatible with 8 mm (1010609) and 10 mm (1010890)
Minimum span: 1,5 m (for 8 und 10 mm cable)
Maximum span: 15 m (for 8 mm cable, 20 m (for 10 mm cable)
Orientation: 0 to 180° - index every 45° or mobile

Technical Characteristics
Breaking strength: > 25 kN
Operating temperature: -50°C to +90°C
Operating limit: according to the calculations of the software
Size: 215 x 112 x 70 mm
Weight: 310g underway

Specifications:





Patents
International Patent
(EU/US/Canada/Japan/Australia/…)

Quality Control
Manufacturing ISO 9002
Individual control
Serial number identification

5.6.2. The Universal Intermediate hanger with stainless steel cable guide - Data sheet

Application
The universal intermediate hanger can be installed on any type of configuration (floor – wall - ceiling). Usable as fixed intermediate hanger. Made from 316 SS grade for cable system installed in highly corrosive environment.

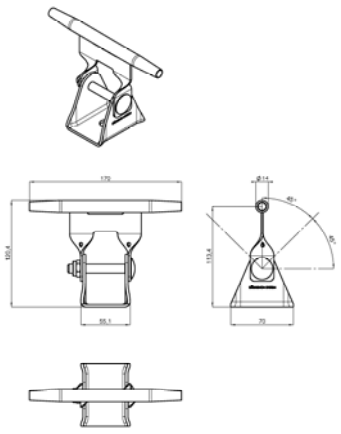
The universal intermediate hanger with stainless steel cable guide
Ref.: 25141

Materials
Indexed clevis: stainless steel 316
Cable guide and bracket: stainless steel 316
Fixed pin & Nilfix bolt: Stainless steel 316

Use
Installation in fixed position
Compatible with 8 mm (22613/90002534) cable (28856/1010609)
Minimum span: 1,5 m (for 8 mm cable)
Maximum span: 15 m (for 8 mm cable,)

Technical Characteristics
Breaking strength: > 25 kN
Operating temperature: -50°C to +90°C
Operating limit: according to the calculations of the software
Size: 170 x 112 x 70 mm
Weight: 440g underway

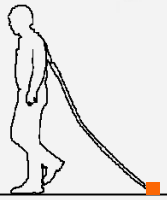
Specifications:



1) Open cable support
2) Clevis
3) Steel cable Guide
4) Pin
5) Nilfix blot

Patents
International Patent
(EU/US/Canada/Japan/Australia/…)

Quality Control
Manufacturing ISO 9002
Individual control
Serial number identification



5.7. Overhead Intermediate Bracket

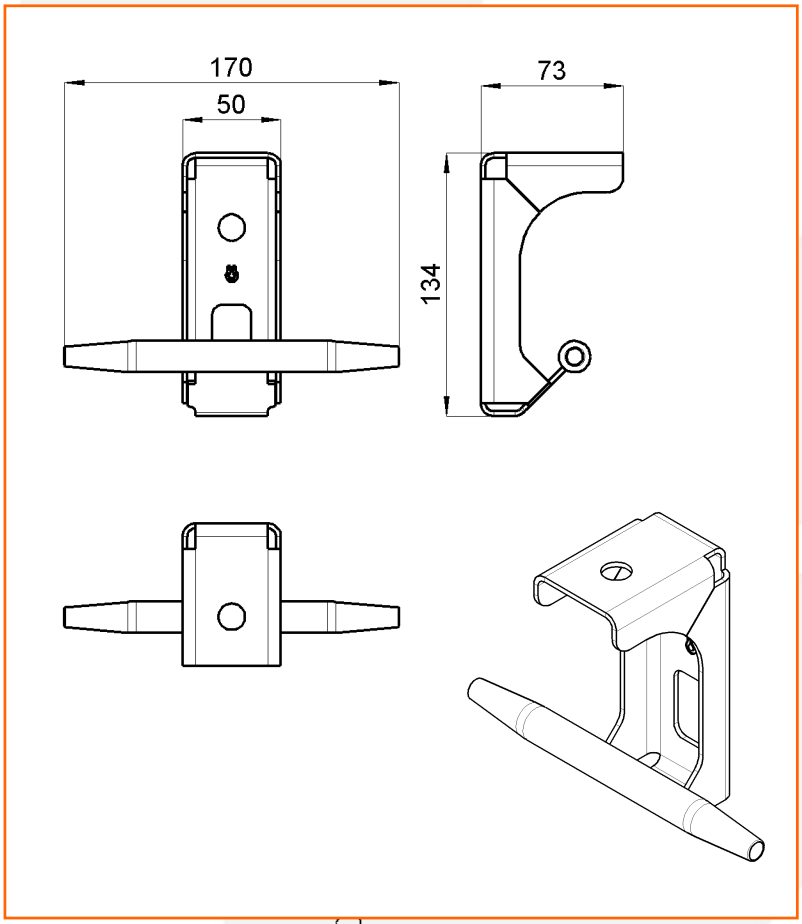
Use

Used in conjunction with wheeled Overhead Shuttle (Part 24431 / 1015432). Co-ordinated geometries of components ensure smooth and safe passage of shuttle through bracket. Can be fixed to walls or soffits and is locked in correct support position.
Made from stainless steel, suitable for harsh environments.

The Overhead Intermediate

Part.-No.: 24497 / 1015431 for 8 mm cable

Dimensions:



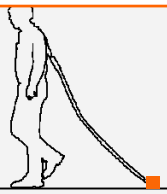
Use
The rigid intermediate can be fixed to walls or soffits. Suitable for overhead Xenon systems where worker remains close to line of system.

Material
Stainless steel 316

Application
Suitable for 8 mm cable
Max. fixing spans: 15 m

Technical Data
Tensile strength: > 12 kN
Operating temperature: -50°C to +90°C
Max. load is dependent on system layout and is determined by the calculation software:
Dimension: 170 x 134 x 73 mm
Weight: 500 g

Quality control:
Manufacture ISO 9002
Individual control
Identification by batch number



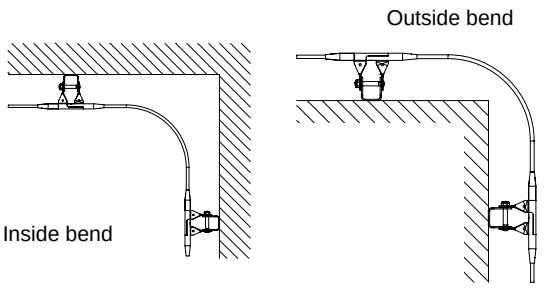
5.8. The 90° angle kit

Ref.: 1006062, 1006399

The installation of a lifeline must follow the path that will be taken by users while performing their work. Therefore, the lifeline must often follow a curved path with multiple bends. To this purpose, Söll has developed angle kits which can adapt to any turn (inside or outside, from 0° to 180°).

2 types of angle kits are available: a 90° angle kit and a bending kit. The latter can be customized to adapt to specific angles by means of a bending tool.

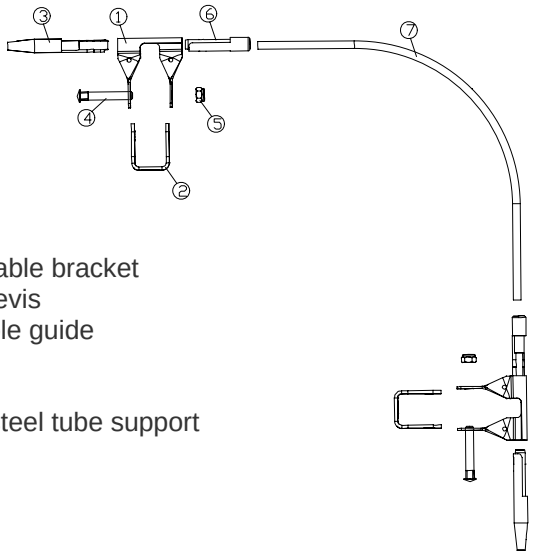
Type of installation



The bends are very easy to make and require only two anchorage points. An open tube guides the cable from one hanger to another to provide the passage of the shuttle. In the event of a fall on the bend, the deformation of some components will reduce the impact load. Replacing a component is very easy because it does not require disconnecting or cutting of the lifeline cable.

Note:
It is important to verify the compatibility of the installation site with the procedures of lifeline installation and the load that might be generated in the event of a fall.

Exploded view of the bend



1) Opening cable bracket
2) Indexed clevis
3) Plastic cable guide
4) Pin
5) Nilfix bolt
6) Stainless steel tube support
7) Bend tube

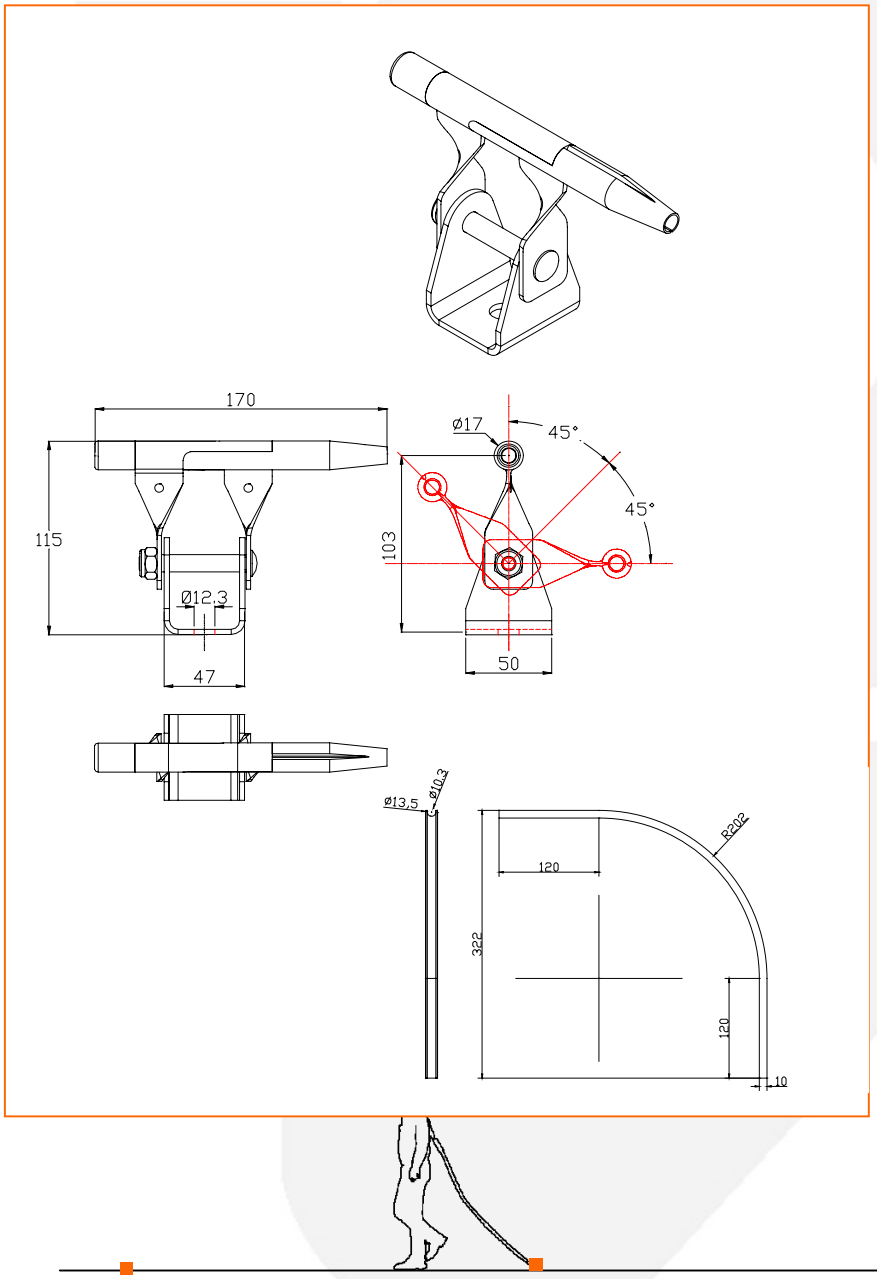
5.8.1. The Angle kit 90° - Data sheet

Safety
In the event of a fall, the deformation of the bend reduces the resulting impact load against the structure and users.

Flexibility
Compatible with 8 mm and 10 mm cable
Same kit for inside and outside bends
Replacement of bend parts without disconnecting the cable in the event of a fall
Suitable for any type of installation
A bending kit is available for specific turns.

The 90° angle kit
Ref.-Nr.: 1006062, 1006399

Specifications:



Application
Adapts the path of the lifeline to its environment and provides shuttle passage over the bends.
A bending kit is also available for angles lower or higher than 90°

Material
Opening cable bracket: stainless steel 316
Clevis: stainless steel 316
Plastic cable guide: Zytel
Pin & Nilfix bolt: stainless steel 316

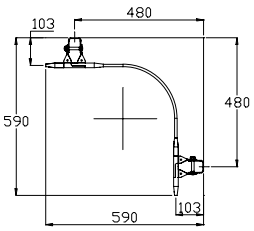
Use
Compatible with 8 mm and 10 mm cable
Bend radius: 202 mm

Technical Characteristics
Breaking strength: > 25 KN
Operating temperature: -50°C to +90°C
Dimensions: 480 x 480 mm
Weight: 722 g

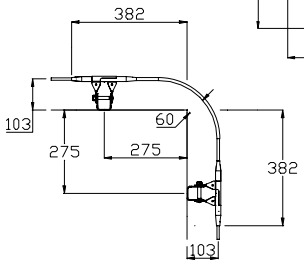
Quality Control
Manufacturing ISO 9002
Individual control
Serial number identification

Type of installation

outside curve



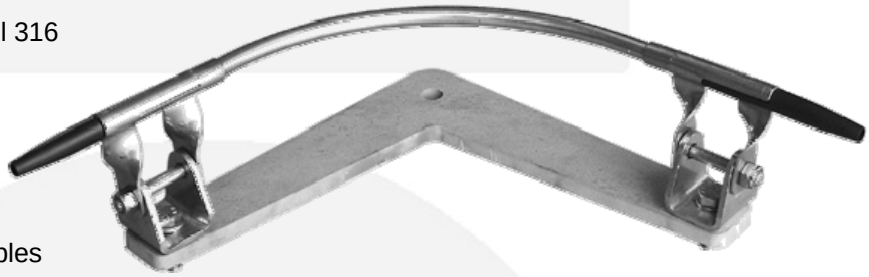
inside curve



5.8.2. The Bending Kit 90° with single fixation point - Data sheet

Application
This pre-assembled corner kit has been specially developed to be used in conjunction with posts (standard or pyramid post) where a single anchorage point is required. Easy to install (one M16 bolt only) the pre-formed 90° corner provides a very good rigidity to the system.

Material
Cable support & Clevis: stainless steel 316
Plastic cable guide: Zytel
Fixings: stainless steel 316
Plate: stainless steel 316

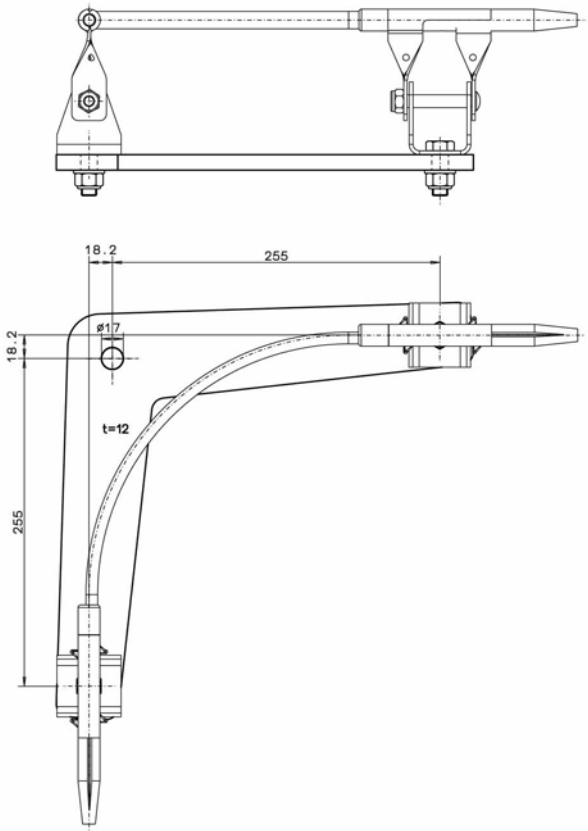


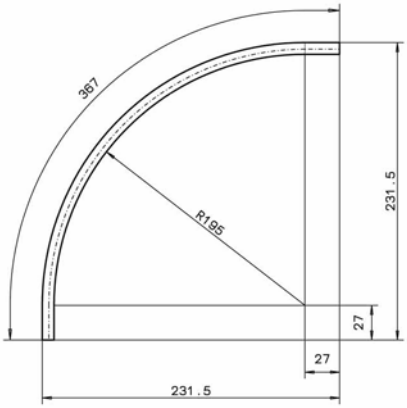
Use
Standard and pyramid posts
Compatible with 8 mm and 10 mm cables
Outside turn radius: 195 mm

Technique
Breaking strength: > 50 KN
Operating temperature: -50°C to +90°C
Section according to receiving structure
Weight: 4160 g

The bending kit 90° with single fixation
Ref.: 1012621, 1012622

Specifications:





Quality Control
Manufacturing ISO 9001: 2000
Individual control
Marking with “ö”

5.8.3. The Flexible Intermediate Hanger - Data sheet

Application
The flexible intermediate hanger enables to form corners up to 45° with a single anchorage point. It can be installed in any configuration (ground, sealing, wall…).

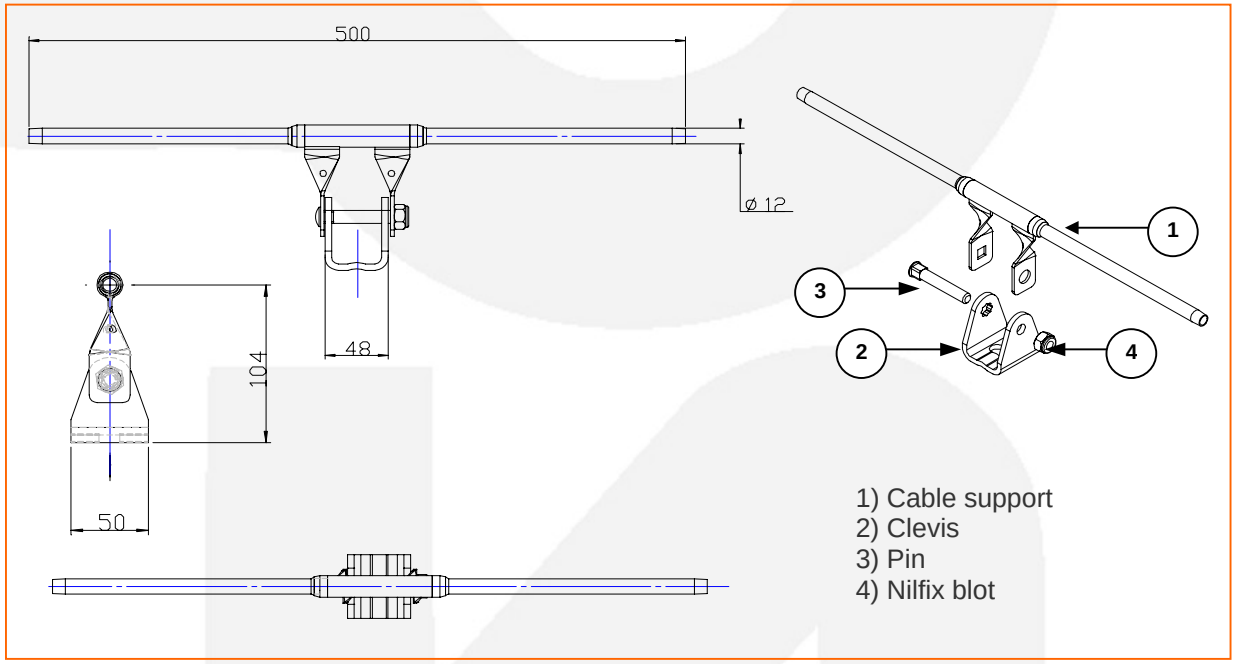
Material
Cable support & tube: stainless steel 316
Indexed clevis: stainless steel 316
Tube to bend: stainless steel 316
Fixed pin & Nilfix bolt: Stainless steel 316

Use
Xenon life line system
Corner piece to be bend up to 45°
Installation in fixed only
Compatible with 8 mm (1010612)
Minimum span: 2 m - Maximum span: 12 m
Orientation: 0 to 180° - index every 45°

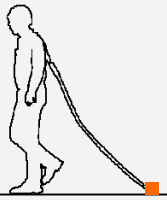
Intermediate hanger for curves till 45°
Ref.: 1010612 for 8 mm cable

Technical Characteristics
Breaking strength: > 25 KN
Operating temperature: -50°C to +90°C
Operating limit: according to the calculations of the software
Weight: 400 g

Specifications:



1) Cable support
2) Clevis
3) Pin
4) Nilfix blot



Quality Control
Manufacturing ISO 9002
Individual control
Serial number identification

5.9. The End Parts

The anchor plate and the cable end swage are the end components of the lifeline. They are an essential link of the lifeline and they must be installed with attention to quality and detail, because, together with the cable, they withstand most of the forces generated in the event of a fall, and, thus ensure the reliability of the lifeline.

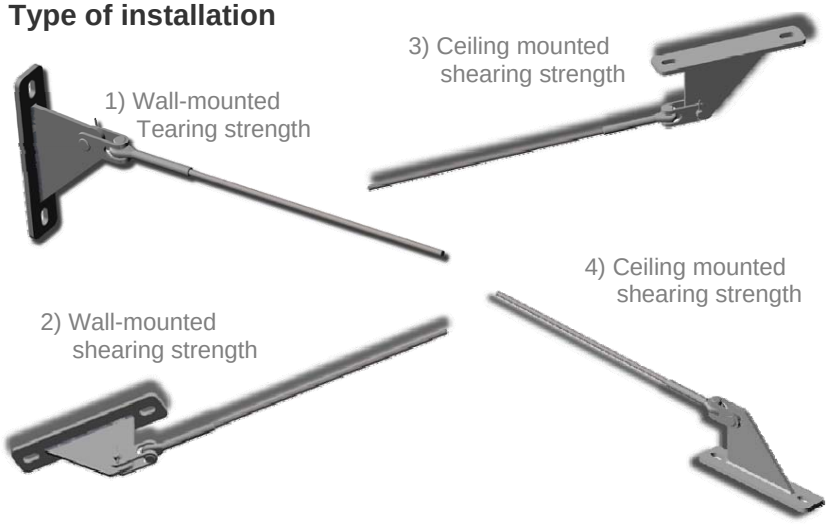
End anchor plate
The anchor plates, end parts of the lifeline, provide connection of the absorber or cable end swage to the lifeline.

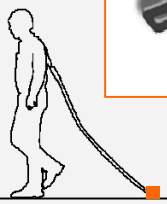
A stress analysis must be conducted to ensure the compatibility of the installation with the framework. The forces applied to the end anchoring must be especially analysed.

Cable end swage
The cable end swage, as well as the multifunction absorber are mounted on the anchor plate through a movable split pin clevis which facilitates assembly while providing improved reliability. Hydraulic crimping is recommended.

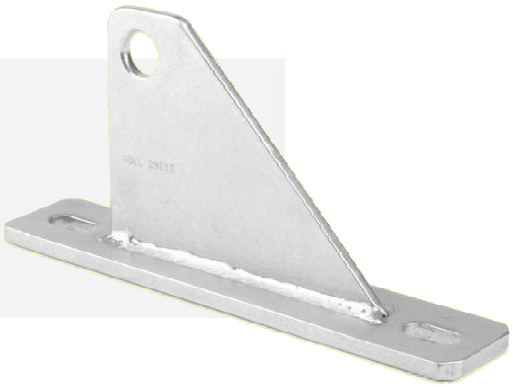
Note:
It is important to verify the compatibility of the installation site with the procedures of lifeline installation and the load that might be generated in the event of a fall.

Type of installation





5.9.1. The End Anchor Plate - Data sheet



Anchor plate:
Compatible with any type of installation: floor – wall-ceiling
Tearing and shearing strength.
Simple and quick installation: only 2 anchorage points required
Stainless steel parts which provide longer life and allows its use in an industrial or corrosive environment

Application
Lifeline end part provides the anchoring of the cable end to the structure. Must withstand the forces generated in the event of a fall.

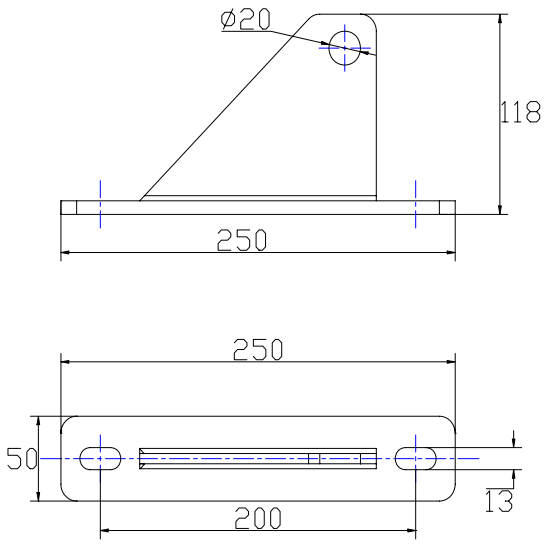
Material
Body: Stainless steel 316

End anchor plate
Ref.: 1006178

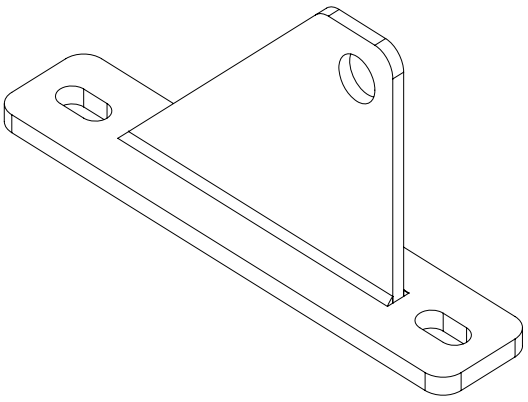
Use
Compatible with 8 mm or 10 mm stainless steel cable.
Installation by 2 threaded rods of 12 mm

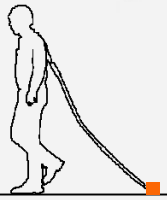
Technical Characteristics
Breaking strength: > 50 KN
Maximum shearing force: 50 KN (with fixation M12, stainless steel)
Maximum tearing force: 50 KN (with fixation M12, stainless steel)
Dimensions: 250 x 50 x 110 mm
Weight 1281 g

Specifications:



End anchor plate
Ref.: 1006178





Quality Control
Manufacturing ISO 9000 Version 2000
Individual control
Marking with “ö“-sign

5.9.2. The Cable End swage - Data sheet

Application

Connecting part between the cable and the anchor plate.
Available for 8 mm and 10 mm cable
Cable crimping for improved safety and integrity of life-line.
Stainless steel part provides longer life and allows its use in an industrial or corrosive environment.
Compatible with the other components of the lifeline (absorber, anchor plate).

Cable endswage
Ref.: 1006701, 1006703

Material

Clevis is stainless steel 316L
Pin & split pin are stainless steel 316L

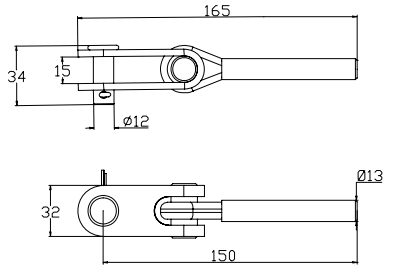
Use

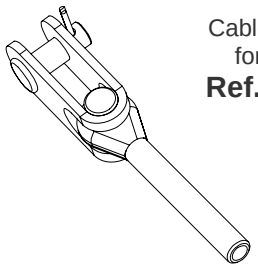
Stainless steel or galvanized 8 mm cable: ref. 1006701
Stainless steel or galvanized 10 mm cable: 1006703

Technical characteristics

Breaking strength: > 40 KN for 8 mm
> 50 KN for 10 mm
Operating temperature: -40°C to +90°C
Dimensions: 8 mm clevis: 165 x 32 x 34 mm
10 mm clevis: 218 x 43 x 40 mm
Weight: 8 mm clevis 283g – 10 mm clevis 575g
Crimping length (mind): 3 x 14,5 mm – 8 mm cable
4 x 22 mm – 10 mm cable
Crimping pressure: 700 Bar

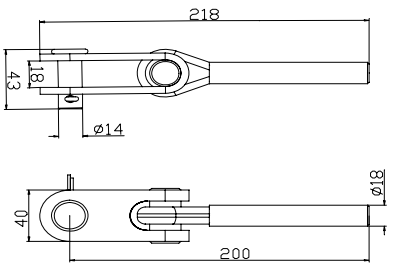
Specifications:

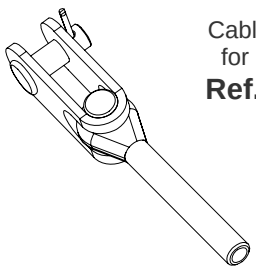




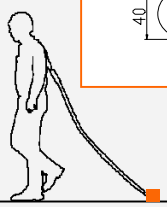
Cable end swage
for 8 mm cable
Ref.: 1006701

Quality Control
Manufacturing ISO 9000 Version 2000
Individual control
Serial number identification





Cable end swage
for 10 mm cable
Ref.: 1006703



5.9.3. The Cable End Part with Tensioner - Data sheet

Application
Interconnection piece between cable and anchorage plate with cable length adjustment feature.

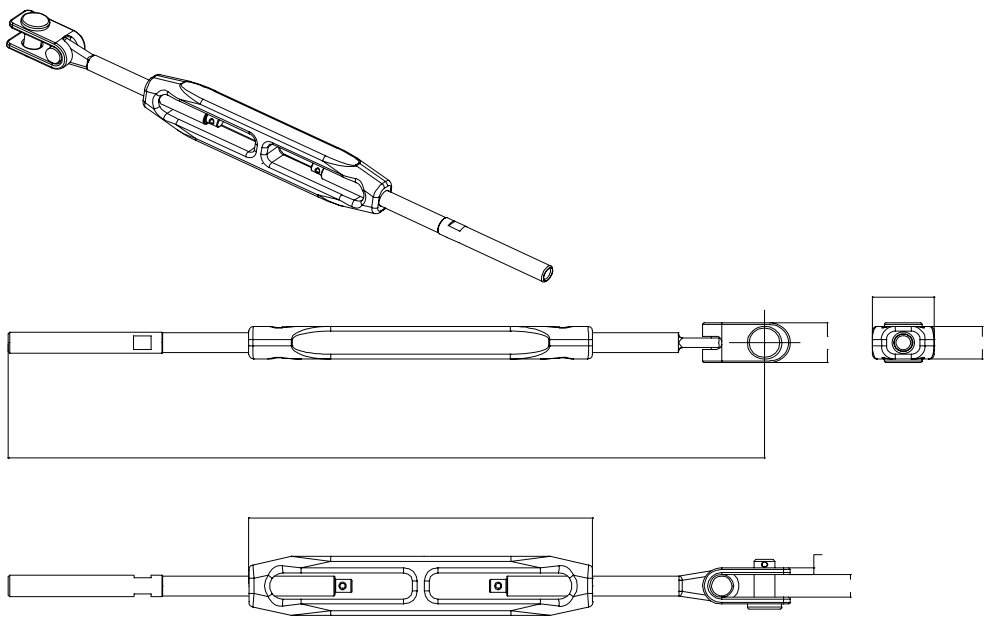
Material
Turnbuckle: Forged Cupro
Swaged end: stainless steel 316L

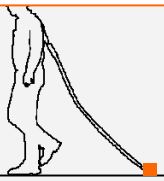
Use
Xenon life line system
crimping must be done following Xenon swaging specifications
1010650 to be used with 8 mm only
1010651 to be used with 10 mm only
Maximum span: 12 m for 8 mm and 10 mm cable

Cable end part with tensioner
Ref.: 1010650, 1010651

Technichal characteristics
Breaking strength: > 40 KN for 8 mm
> 50 KN for 10 mm
Operating temperature: -50°C to +90°C
Operating limit: according to the calculations of the software
Weight: 1010650: 765 g - 1010651: 1360 g
Crimping length (mind): 3 x 14,5 mm – 8 mm cable
4 x 22 mm – 10 mm cable
Swaging pressure: 700 bars

Specifications:





Quality Control
Manufacturing ISO 9000 Version 2000
Individual control
Serial number identification

5.9.4. The Anchorage Rings - Data sheet

Application
Single attachment End anchorage Ring for xenon lifeline. Ideal to be used in conjunction with the Xenon standard and Pyramid posts.

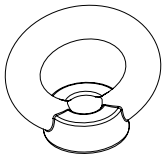
Material
male ref. 1010608: Stainless steel 316
female ref. 1010691: Stainless steel 316

Use
Xenon life line system
End anchorage, all structures
Maximum span: 12 m for 8 mm and 10 mm cable
To be used with M16 SS bolts or nuts

Anchorage rings
Ref.: 1010608, 1010891

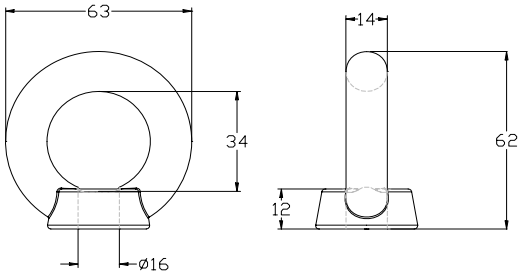
Technique
Breaking strength: > 50 KN
Operating temperature: -50°C to +90°C
Operating limit: according to the calculations of the software
Weight: 1010691 260 g /1010608 280 g

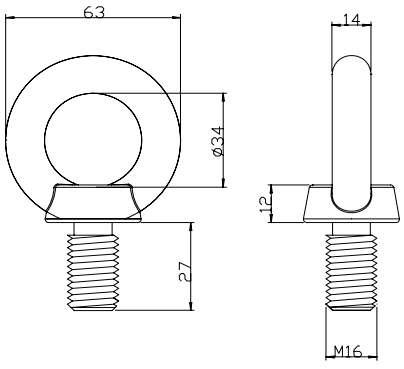
Specifications:



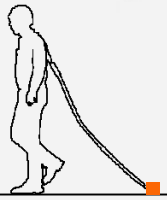
Female anchorage ring
Ref. 1010891

Male anchorage ring
Ref. 1010608





Quality Control
Manufacturing ISO 9000 Version 2000
Individual control
Serial number identification



5.9.5. The Anchorage Rings for the MultiPosts - Data sheet

Application
When using MultiPost as end fixing point for Xenon, than this anchorage ring must be used.

Material
Stainless steel 316

Use
Tested together with the MultiPost according to EN 795 Class C.
Ring 1012951: to be used with MP ***without*** thermal insulation
Ring 1012984: to be used with MP ***with*** thermal insulation
Maximum tolerable load: 15 KN
Thread M12

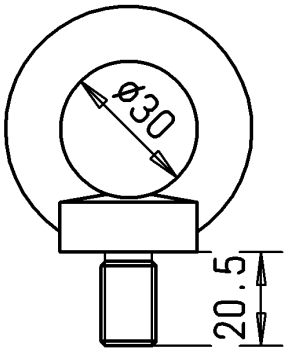
Technique
Breaking strength: > 22,5 KN
Weight: 23769: 175 g - 23811: 185 g
Supplied with the required washers.

Anchorage rings
Part.-No.: 1012951, 1012984

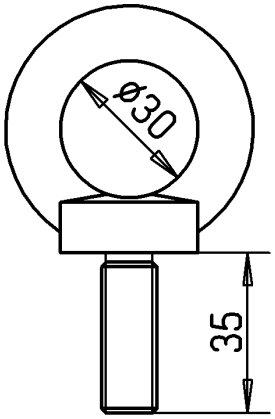
Specifications:

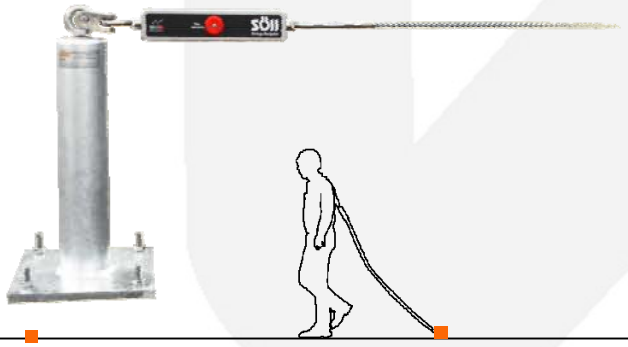
Anchorage Rings for MultiPost

Part.-No. 1012951



Part.-No. 1012984





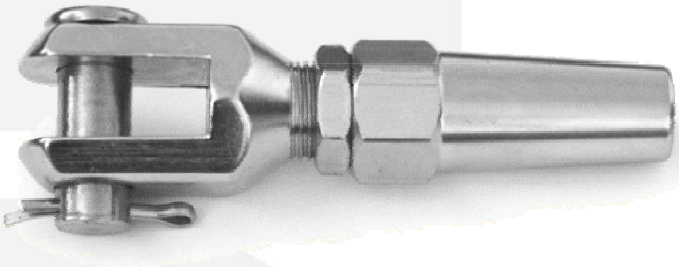
Quality Control
Individual control
Manufacturing according ISO 9001: 2000

5.9.6. The swageless terminals - Data sheet

Application
Connecting part between the cable and the end anchor. Available for 8 mm and 10 mm cable to be srewed onto the cable – installation without swaging.

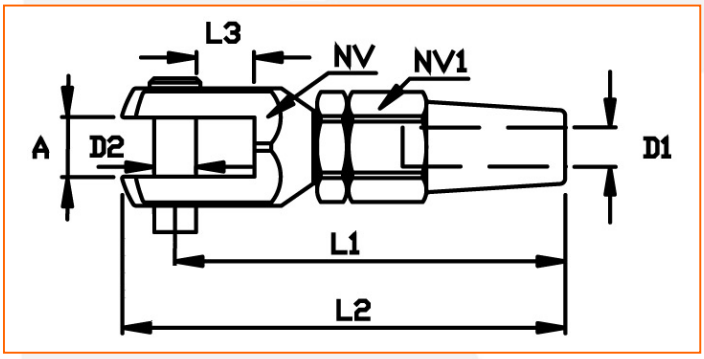
Material
Stainless steel 316, polished

Use / Technical characteristics
Xenon Horizontal Lifeline.
Weight: 23936: 359 g, 23937: 591 g
Supplied with installation guide.



Swageless Terminals
Part.-No.: 23936, 23937

Dimensions:



Ø Cable 1x19, 7x19, 7x7	Swageless fork terminal	Breaking strength
8 mm	23936	36,0 KN
10 mm	23937	54,0 KN

Part	Dimensions in mm							
	A	L1	L2	L3	D1	D2	NV	NV1
23936	14	103	118	14	8	12	30	24
23937	16	117	135	16	10	14	36	27

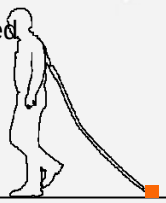
Quality Control
Manufacturing ISO 9000

5.9.7. The swageless terminals with integrated tensioner - Data sheet

Application
Connecting part between the cable and the end anchor with integrated tensioner for 8 mm and 10 mm cable. To be srewed onto the cable – installation without swaging.

Swageless Terminals with integrated tensioner
Part.-No.: 23938, 23939

Material
Stainless steel 316, polished

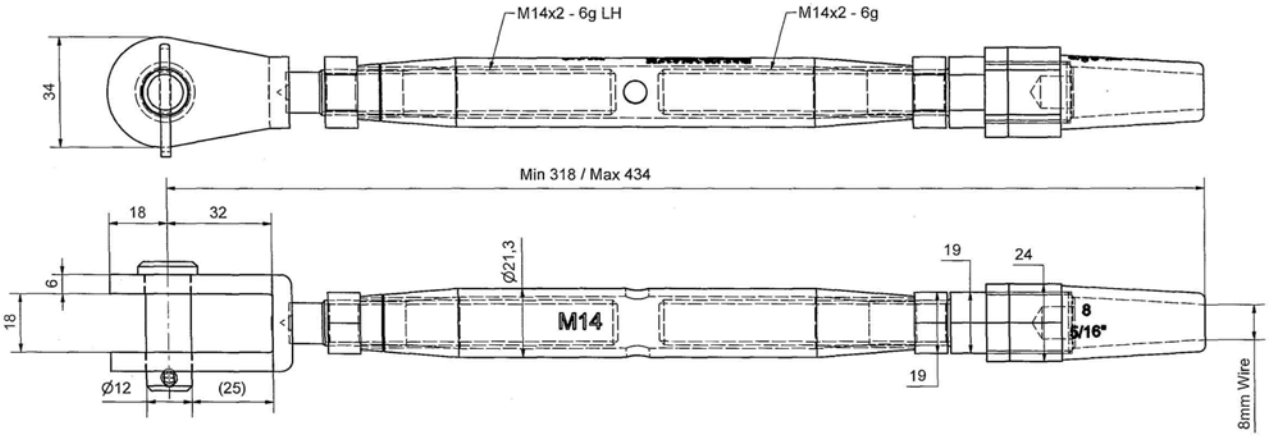


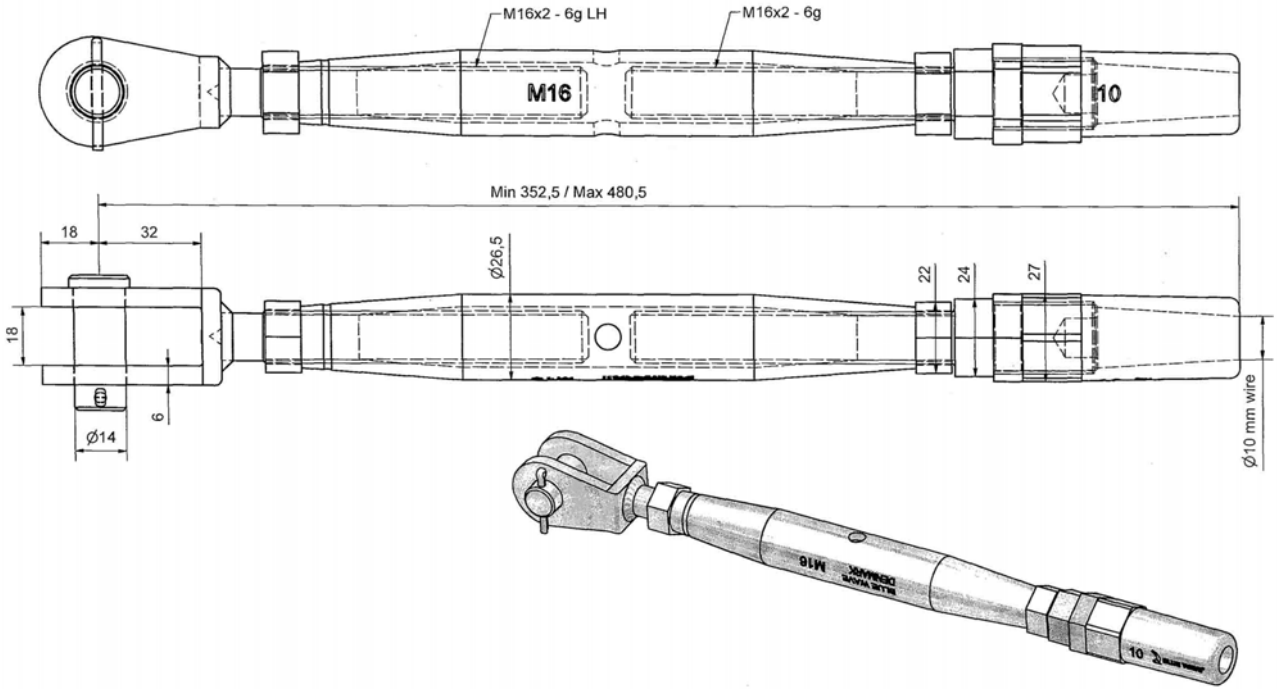
Use / Technical characteristics

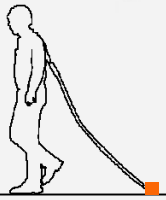
Xenon Horizontal Lifeline.
Weight: 23938: 794 g, 23939: 1116 g
Supplied with installation guide.

Dimensions:

Ø Cable 1x19, 7x19, 7x7	Swageless tensioner	Breaking strength
8 mm	23938	36,0 KN
10 mm	23939	54,0 KN







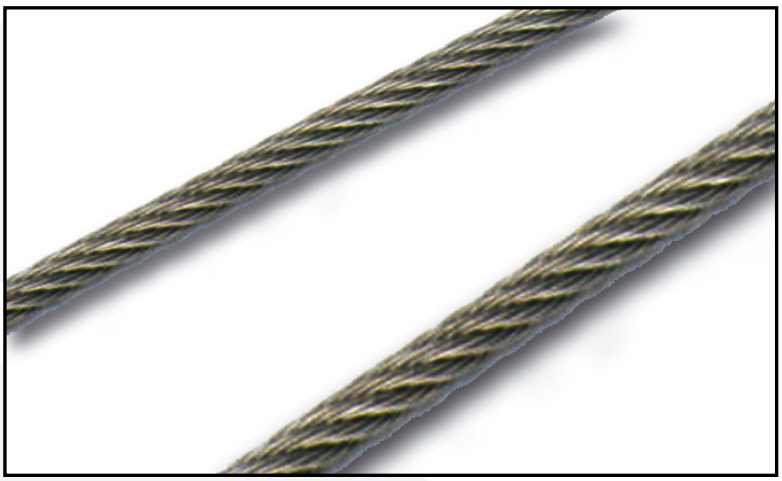
Quality Control
Manufacturing ISO 9000

5.10. The Cable & Accessories

Both the selection of the cable and the components of the lifeline system are based on technical requirements. The same applies to cable. That is why Söll offers various types of cable to optimise the lifeline system based on its configuration and use.

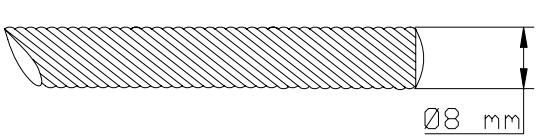
7x7 or 7x19, 8 or 10 mm stainless steel cable which allows the variation of parameters, such as: centre distance, wire sag, height of fall and cable traction.

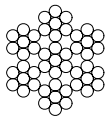
Standard cables are available up to 500m long.

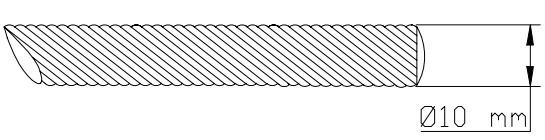


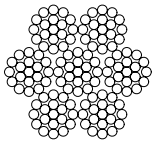
5.10.1. The Cable - Data sheet

Specifications:









Application
Cable that can be used for horizontal and vertical lifeline systems.

Use
Xenon Lifeline

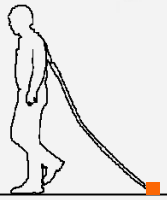
Technical specifications
9002534 – 7x7 stainless steel cable
Material: stainless steel 316 (1.4401)
Construction: 8 mm - 7x7
Breaking strength: > 36 kN
Weight: 0,25 kg/m

9002539 - 7x19 stainless steel cable
Material: stainless steel 316 (1.4401)
Construction: 10 mm (-0.32mm)
7x19
Breaking strength: > 52 kN
Weight: 0,38 kg/m

Cable extension swage

To install longer lifelines or to connect some cable ends a tube for swaging can be used.

Ref. 1006704 – 8 mm cable
Ref. 1006860 – 10 mm cable



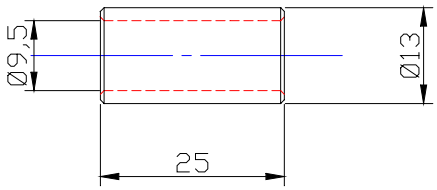
5.10.2. The Swaging Indicator - Data sheet

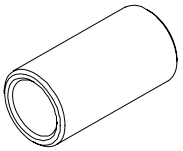
To show possible slippage of the cable in its swaging, the Xenon system offers an indicator ring swaged to the end of the cable. It is recommended to use this indicator ring on every crimping. Should the swaging slip, when high tension is applied to the life-line (or should a fall occur for instance), the swaging indicator moves with the cable leaving a gap between the indicator ring and the swaged end. This gap indicates that the swaging is no longer guaranteed and should be replaced.

Swaging indicator
Ref.-Nr. 1007470 – 8 mm
Ref.-Nr. 1007471 – 10 mm

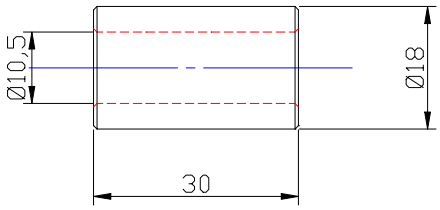
Specifications:

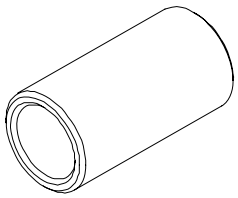
Swaging indicator for 8 mm cable
Ref.-Nr. 1007470





Swaging indicator for 10 mm cable
Ref.-Nr. 1007471





Application
safety part displaying the integrity of swaging on end parts of lifeline.

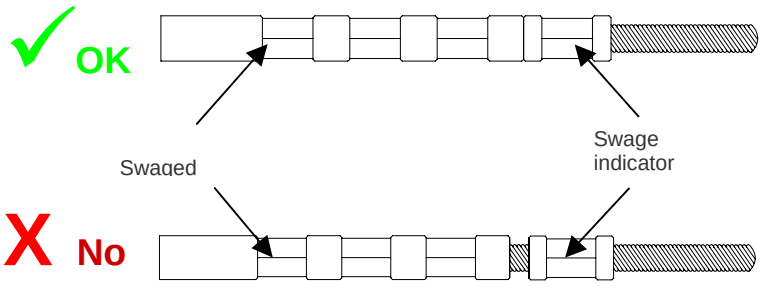
Use
Xenon lifeline - 8 mm and 10 mm

Technique
Material: stainless steel 316L
Operating temperature: -40°C to +90°C
Breaking strength: n/a
Weight: approx. 5 g

Swaging
Minimum swaging length: 10 mm
Swaging pressure 700 Bar

Swaging check

It is essential to check the swaging after a fall or if the absorber fall indicator has been tripped.
If a swaging ring has moved, the lifeline must not be used until it has been re-swaged and at the end in question, if the absorber fall indicator has been tripped.

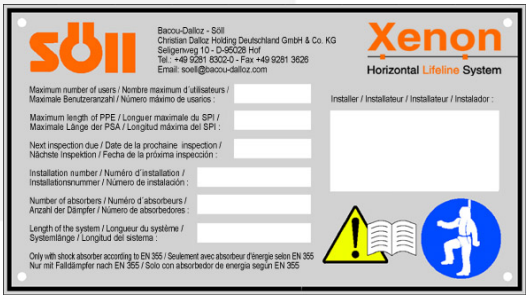


Space between piece to be swaged and indicator ring denoting abnormal slippage of cable.

5.11. The Identification Plate

Ref.: 1006772

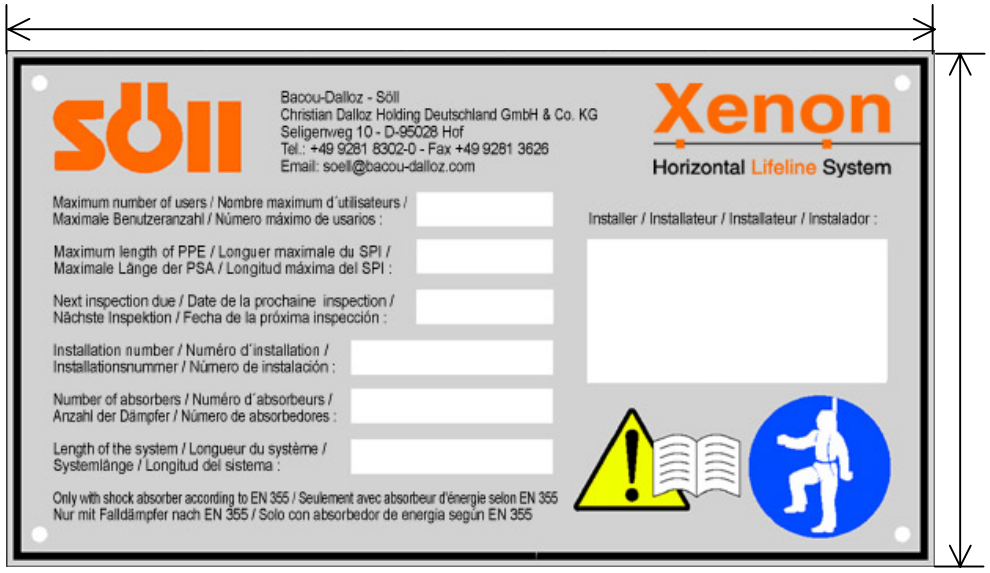
The identification plate is the lifeline identity card mentions the main information identifying the Xenon horizontal lifeline.
It will always be fixed on the horizontal lifeline, at its connecting points.
The identification plate also clearly warns the user that he is about to enter a dangerous area where he needs to equip himself with some fall protection Personal Protective Equipment.



Identification plate
Ref.: 1006772

5.11.1. Identification plate - Data sheet

Information:
Manufacturer, Brand
Name and Address of Installer
Maximum number of users
Maximum length of PPE
Installation number
Number of absorbers
Length of the system
Installation date



Application
The identification plate identifies the Xenon horizontal lifeline & the main information to a safe use of the installation. 4 languages. EN 795.

Use
To be fixed at the entrances of the lifeline, information to be read by the lifeline users.

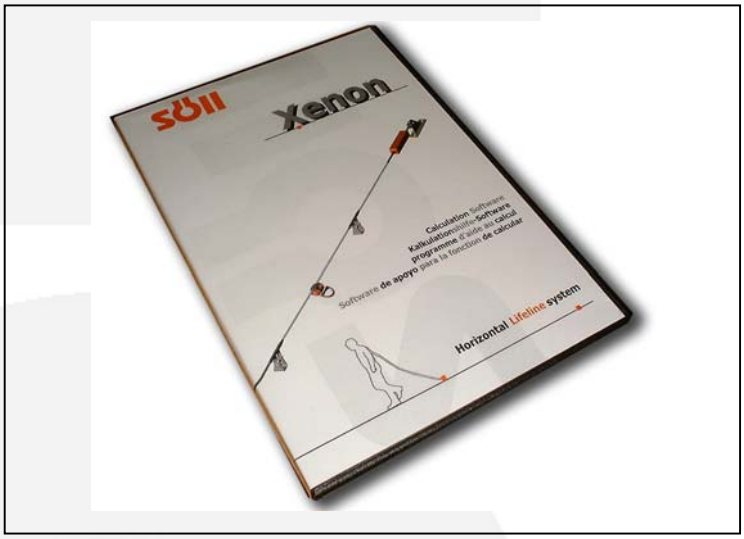
Technique
Size: 200 x 110 x 1 mm
Net weight: 0,116 kg
4 holes pre-drilled

Matierial
Aluminium

5.12. The Calculation Assistance Software

Ref.: 1006707

The installation of a lifeline should be based on a detailed strength report. Verification of compatibility between the framework, the lifeline components that will be installed and their use should be performed first.
Thorough verification is a long and delicate operation because of the numerous parameters that are considered, as well as the complicated calculations.



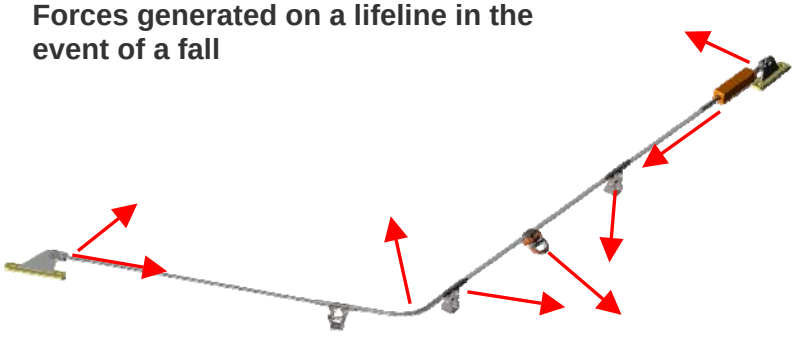
In order to provide an accurate report, Söll developed a calculation assistance software program. Very efficient, due to its many functions, the program has a simple and clear interface which makes it very user-friendly.

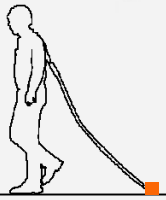
The calculation assistance software will handle all your calculations for strength, end loads, as well as hanger and bend loads. In addition, the software will check the compatibility between clearance and lifeline position, an essential point in the event of a fall. In case a problem occurs, clear and simple messages will specify the incorrect parameters.

Moreover, the software will instantaneously provide the costs of the lifeline installation based on data that were collected through its integrated quotation module. This will allow you to provide your customers with a budget package that matches their lifeline projects in record time.

As a **calculation tool and project database**, the software will allow you to share your data with your colleagues through its network functions.

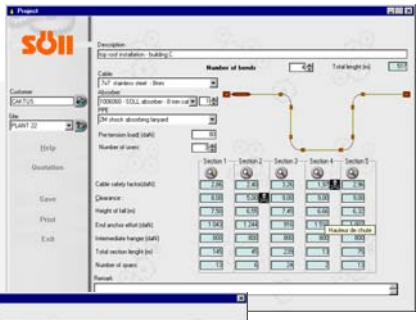
Forces generated on a lifeline in the event of a fall

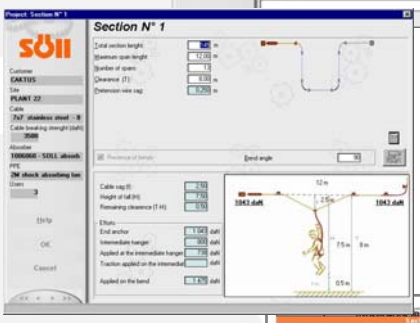


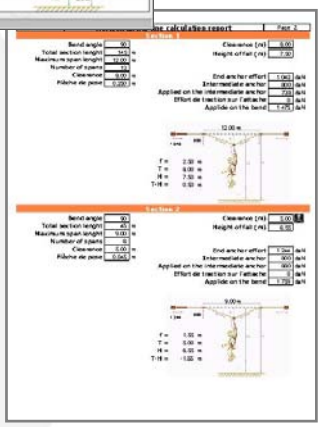


Main characteristics:

- Project database
- Management of complex life line which includes up to 5 bends
- Editing of calculation ratios
- Editing of price offers
- Customer database
- Management of additional product files
- Quotation module which provides the fast editing of price offers
- Integration of installation time based on the nature of project
- Management of foreign currency
- On-line update
- Verification by effort calculation in the event of a fall
- Verification of clearance
- Simple and user-friendly graphic interface
- Multilingual (English, French, German, Spanish)
- Management of metric and imperial systems
- On-line help





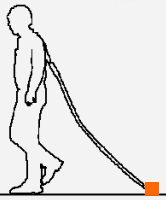


Calculation assistance software

Ref.-Nr.: 1006707

Minimal required configuration:

- PC 486 or Pentium® or higher
- Microsoft® Windows 95, 98 or 2000
- 64MB RAM
- CD-ROM drive



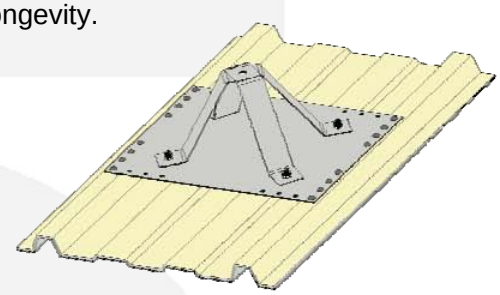
5.13. The Posts and Supports

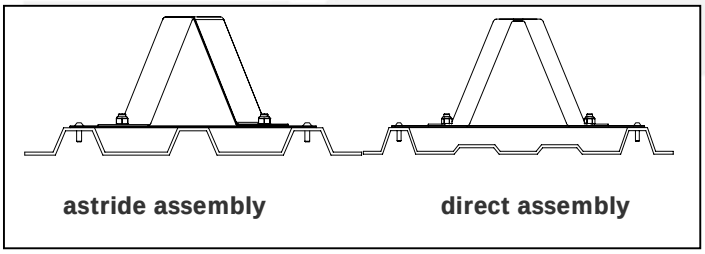
Metal roof posts:

For easier and faster installation of your Xenon lifeline on industrial roofs, Söll has a full range of pyramid posts to serve you.
Using pyramid posts as anchorage points leaves the building structure untouched and eradicates problems of weatherproofing and thermal bridging. The pyramid posts suit most composite roofs (steel pan, standing joint or membrane). They can be installed anywhere on the roof because they are not secured to the framework. They are made of stainless steel for greater longevity.

Installation on steel pan:

Fast assembly without reattachment to the structure by rivets directly into the steel pan. Suits most basic pan roofs (see table).
Attachment is by 16 x 7 mm dia. aluminium rivets with a seal. Application of a strip of mastic between the base and the steel pan for perfect waterproofing.

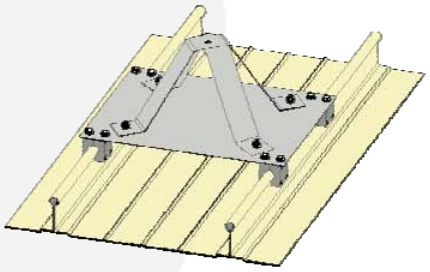


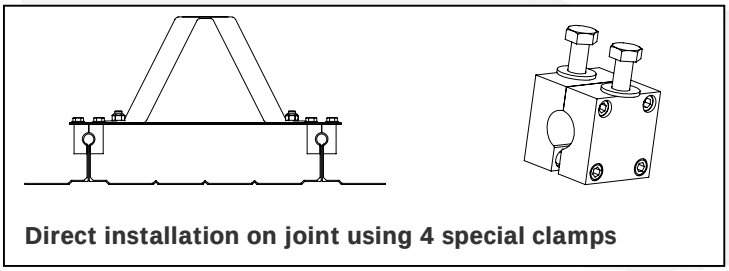


	Face (mm)		Compatible steel pan profiles							
Post ref.	A	B	100	125	167	200	250	333	400	500
1010602	430	363	A		B	A		B	A	
1010603	525	405		A			A			A

Installation on standing joint pan:

Easy assembly by direct clamping onto standing joint. There is no need to drill into the roof. Avoids waterproofing problems. Suitable for many types of standing joints (see table). Attachment by 4 special aluminium clamps.

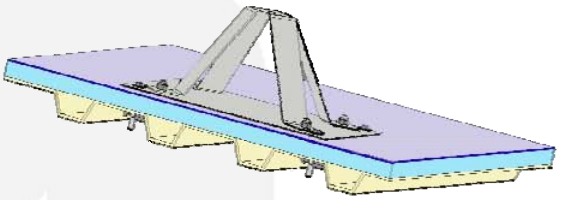


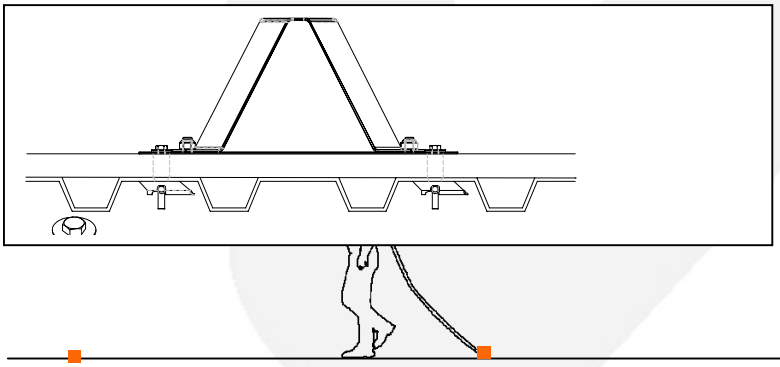


	Face (mm)		Compatible steel pan profiles		
Post ref.	A	B			
1010605	470	390	295-305	340-355	390-405
1010606	570	390	490 - 505		

Installation on membrane roof:

Specially designed for installation on simple membrane steel pan roofs. Requires only the 4 special attaching screws. Compatible with most steel pan roofs. Consult us for more details.

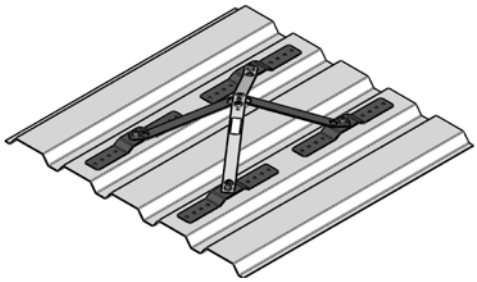




5.13.1. Interfix for Metal Roofs - Data sheet

Application

The pyramid post has been specially designed to be used on metal pitched roofs. Easy and quick to install the pyramid posts are directly riveted to the metal panels.



Material

Base plate & pyramid post: Stainless steel 304L
Finishing: pickled
Fixing: 16 Aluminium rivets - Dia 7.7 mm
Comes with two type of tapes for waterproofing

Use

Metal roof posts

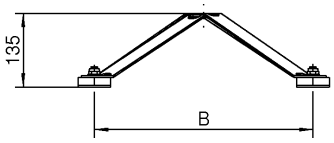
Intermediate, corner and end anchorage,
or as a single anchorage point tested and certified according EN 795 for two user
Maximum admissible load: 15 KN
Installation on metal pitched roof minimum 0.5 mm
Can be used as an anchorage following EN795 class C after verifying that the load generated by the system are within the limits of the above mentioned maximum admissible load.
Limitation of Use as an End-Anchor: Additional Rivet Kit, spans should not exceed 8 m, max 3 user.
Compatibility of Interfix for curves should be checked before.

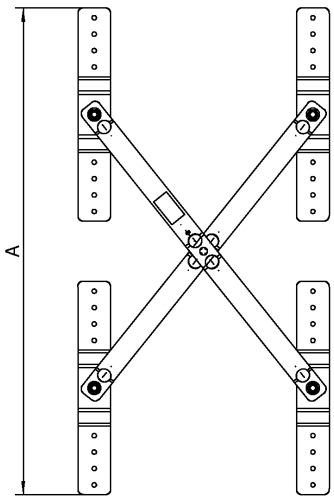
Technical

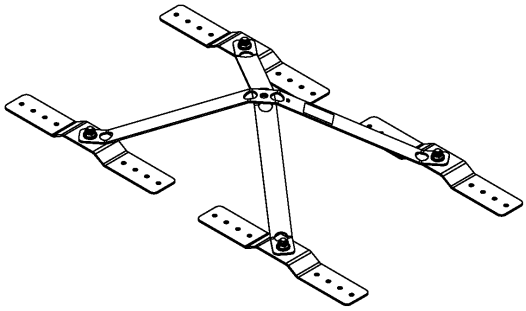
Breaking strengh: >30 KN
Temperature of use: -50°C to +90°C
Dimension: see below
Weight: 3.4 kg / 3.9 kg
Norme: EN-795, classe A1 & A2
Identification by serial number

Important note: It is essential to check the compatibility of the system with the roof. It is requested to verify that the pull-of value per square meter, the size and the construction of the roof can support the forces generated in case of a fall.
In many cases, roofs are not able to take high loads, then Xenon can only be installed as restrained system.

Specifications:



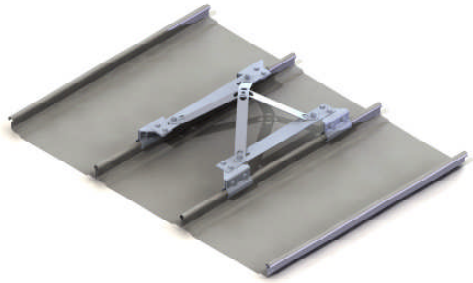




	A	B
Interfix 260-310	817 - 782mm	260 - 310mm
Interfix 311-500	950 - 790mm	311 - 500mm

5.13.2. Interfix for standing seam Roofs - Data sheet

Application
This pyramid post has been specially designed to be used on standing seams roofs. Easy and quick to install the pyramid posts are directly clamped onto the seam without any damage to the roof.



Material
Base plate & pyramid post: Stainless steel 304L
Finishing: pickled
Fixing: 4 Stainless Steel

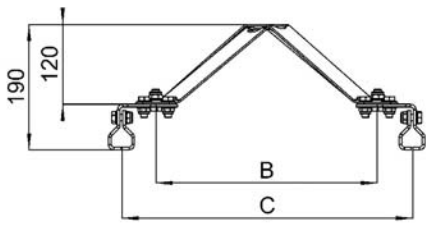
Metal roof post for standing seam

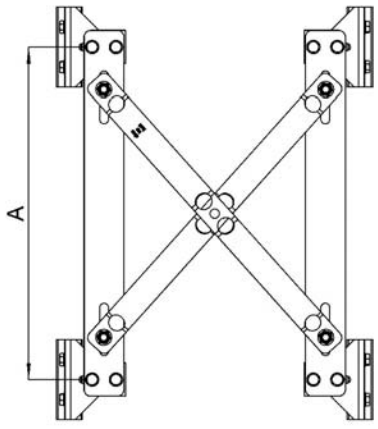
Use
Intermediate, corner and end anchorage,
or as a single anchorage point tested and certified according EN 795 for two user
Maximum admissible load: 15 KN
Can be used as an anchorage following EN795 class C after verifying that the load generated by the system are within the limits of the above mentioned maximum admissible load.
Limitation of Use as an End-Anchor: Additional Rivet Kit, spans should not exceed 8 m, max 3 user.
Compatibility of Interfix for curves should be checked before.

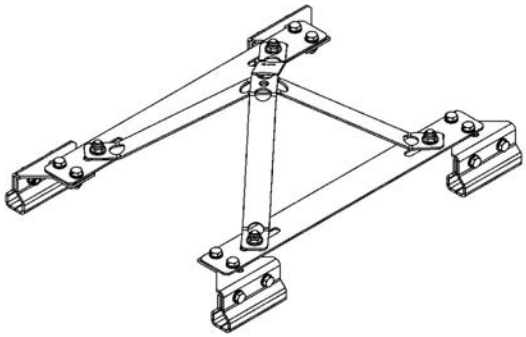
Technical
Breaking strengh: >30 KN
Temperature of use: -50°C to +90°C
Dimension: see below
Weight : 2.8 kg / 3.3 kg
Norme: EN-795, classe A1 & A2
Identification by serial number

Important note: It is essential to check the compatibility of the system with the roof. It is requested to verify that the pull-of value per square meter, the size and the construction of the roof can support the forces generated in case of a fall.
In many cases, roofs are not able to take high loads, then Xenon can only be installed as restrained system.

Specifications:

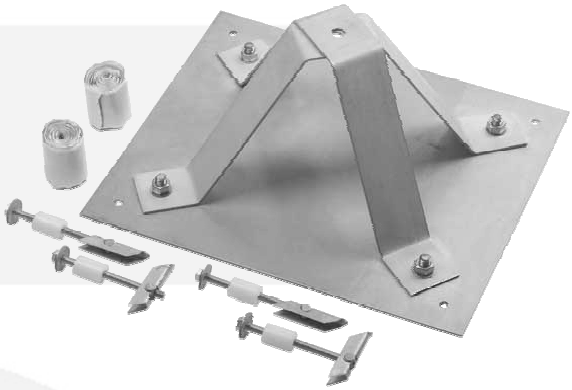






	A	B	C
Interfix 200-400	500 mm	300-400 mm	200-400 mm
Interfix 300-600	600 mm	400-500 mm	300-600 mm

5.13.3. The Metal Roof Posts for Membranes - Data sheet



Metal roof post for membranes
Ref.: 1010607

Application
The pyramid post for membrane roof has been specially designed to be used as anchorage points for the Xenon life line system. Easy and quick to install the pyramid posts are directly fixed onto to the metal panels using only4 toggle blots, The large base provides a excellent stability and resistance to the post.

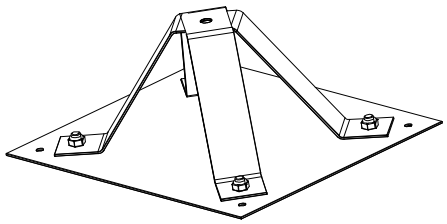
Materials
Base plate & pyramid post: Stainless steel 304L
Finishing: pickled
(electro polished and paint coated available upon request)
Fixing: 4 stainless steel toggle bolts – Dia. 8 mm
Coming with 4 plastic spacer Dia. 20 mm

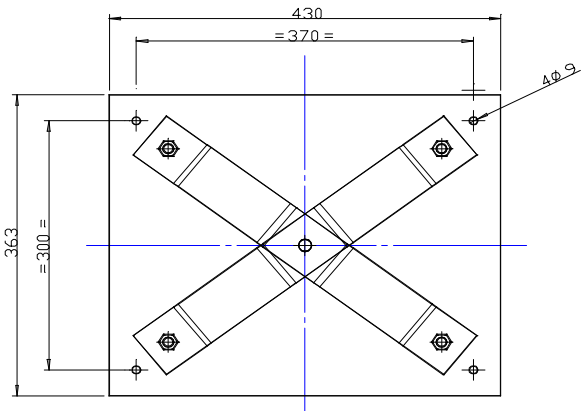
Use
Intermediate, corner and end anchorage
Maximum admissible load: 15 KN
Installation on metal roof minimum 0.7 mm
Can be used as an anchorage following EN795 class C after verifying that the load generated by the system are within the limits of the above mentioned maximum admissible load.

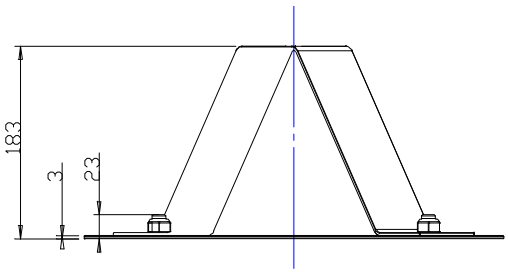
Technical
Breaking strengt: >30 KN
Temperature of use: -50°C to +90°C
Dimmension: 430 x 363 x 183 mm
Weight: from approx. 6.5 kg
Norm: EN-795, class A1 & A2
Identification by serial number

Important note: It is essential to check the compatibility of the system with the roof. It is requested to verify that the pull-of value per square meter, the size and the construction of the roof can support the forces generated in case of a fall.
In many cases, roofs are not able to take high loads, then Xenon can only be installed as restrained system.

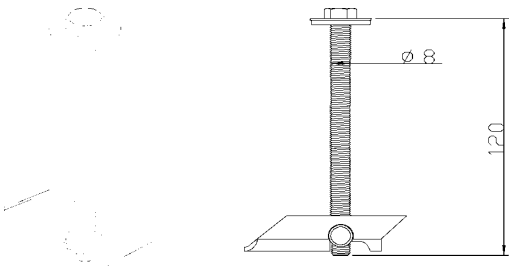
Specifications:







Fixing: 4 x M8 toggle bolts (drilling diameter: 9mm), Plastic spacer dia. 20mm (Drilling diameter 21mm) the spacer size will be adjusted to the thickness of the isolation material.



5.13.4. The Standard Posts - Data sheet

Application
Can be used to raise an Horizontal life line system, 600 mm above the ground level to provide to more comfortable use. The standard posts can be used in all type of installation.

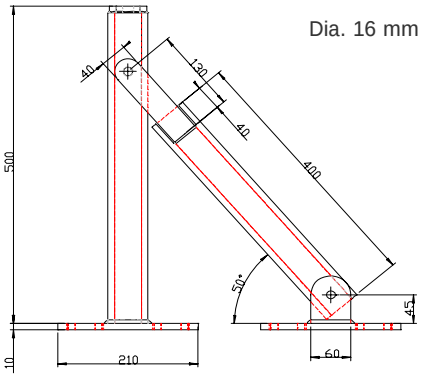
Materials
Tube: Stainless steel 304L
Base: Stainless steel 304L
bolt & nylstop nut: stainless steel
Finishing: pickled

Use
Xenon life line, intermediate anchorage, end anchorage or corner post upon model. After resistance check through calculation in the limits of use mentioned below.
Maximum admissible load: Intermediate post: 12 KN
End & corner post: 25 KN
Fixing: bolt & crimping on any type of structure
Weathering Flange (optional) ref. 1009744

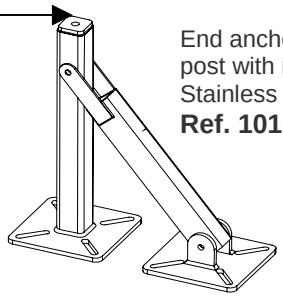
Standard posts
Ref.: 1010600, 1010601
Ref.: 1012985, 1012986

Technical
Breaking strength: Intermediate post: > 25 KN
End & corner post: > 50 KN
Temperature of use: -50°C to +90°C
Dimensions: see drawings
Weight: ref.1010600: 7.40 kg, 1010601: 7.85 kg
Limit of use: 4 users max. per section depending on the receiving structure.

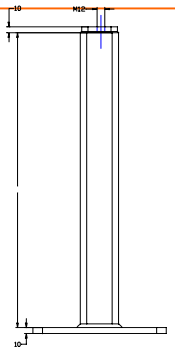
Specifications:



Dia. 16 mm



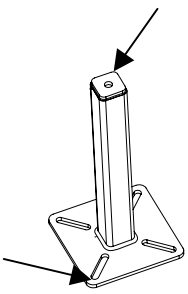
End anchorage and corner post with reinforcement leg
Stainless steel 304L tube 60x60x5
Ref. 1010601

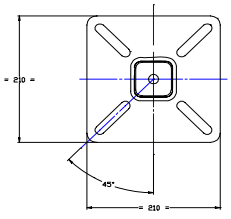


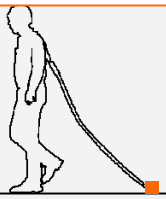
Dia. 12 mm

Intermediate post
Stainless steel 304L tube
60x60x5
Ref. 1010600

Dia. 14 mm







Quality Control
Manufacturing ISO 9000 Version 2000,
Individual control,
Serial number identification

5.13.5. MultiPost Type 1 - Data sheet

MultiPost Type 1

Application
To be used as post for horizontal anchorage devices of class C and D (such as Xenon, MultiRail or similar) for fixing on reinforced concrete. Available in lengths L = 250, 350 or 450 mm and for bolts M12 and M16.

Material
Hot dip galvanised steel

Use
Tested to DIN EN 795 (Class C and D)
Position: intermediate, corner or end
Permitted load: 15 KN
Installation on reinforced concrete by means of pins approved by building regulatory authorities for use in reinforced concrete (not included in delivery). Minimum ceiling thickness "d" and distances from edge "a" according to pin approval.

Technical data:

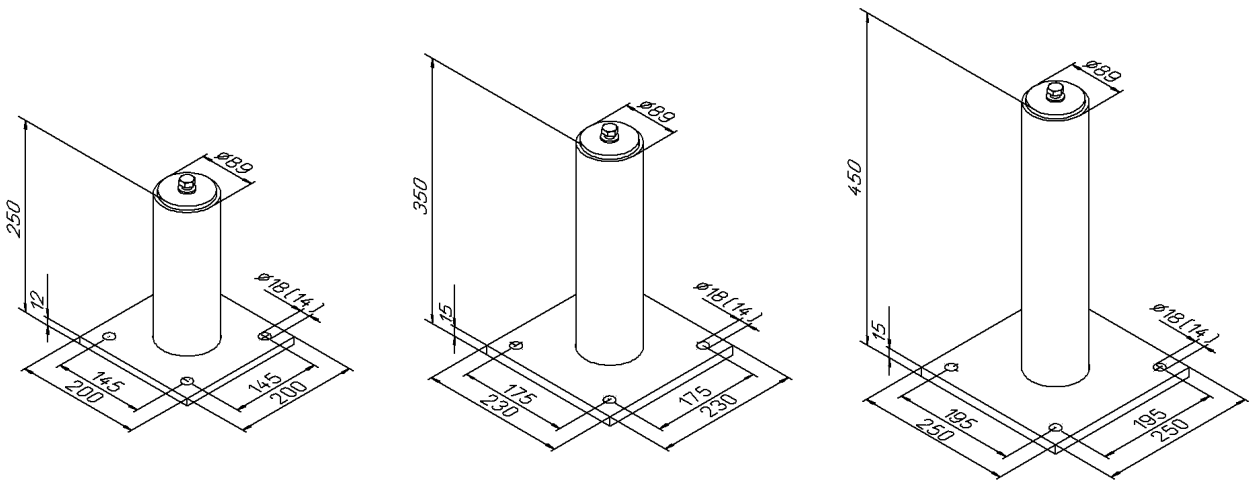
Pin	Length	Part.-No.	Type	Weight
M16	250	1012987	MP-250Typ1M16	6,3 kg
	350	1012988	MP-350Typ1M16	9,2 kg
	450	1012989	MP-450Typ1M16	11,5 kg
M12	250	1012990	MP-250Typ1M12	6,3 kg
	350	1012991	MP-350Typ1M12	9,2 kg
	450	1012992	MP-450Typ1M12	11,5 kg

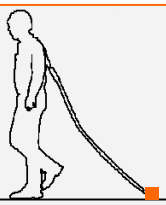
Supplied with users-, installation- and maintenance guide.

When used as end anchor, anchorage ring 1012951 or 1012984 must be used (see chapter 5.8.5.).

Specifications:

1012987 (1012990) 1012988 (1012991) 1012989 (1012992)





Quality Control
Individual control
Marking with "ö"-sign, Serial number identification
Manufacturing according ISO 9001: 2000 quality system

5.13.6. MultiPost Type 2 - Data sheet

MultiPost Type 2

Application
To be used as post for horizontal anchorage devices of class C and D (such as Xenon, MultiRail or similar) for fixing on steel girders.
Available in lengths L = 250, 350 or 450 mm.

Material
Hot dip galvanised steel

Use
Tested to DIN EN 795 (Class C and D)
Position: intermediate, corner or end
Permitted load: 15 KN
For girder width b: 80 - 175 mm,
Max. clamping height h: 930 mm.
Complete with fixing accessories.
Please state clamping height “h” when ordering.

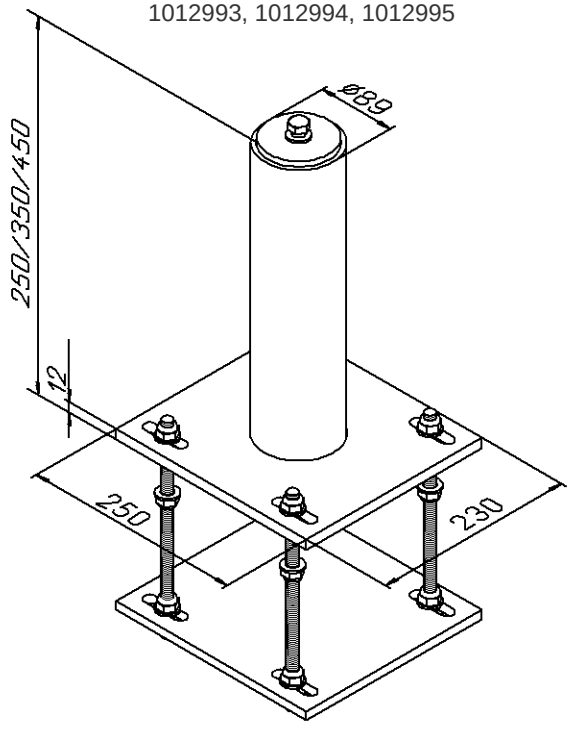
Technical Data

Length	Part.-No.	Type	Weight
250	1012993	MP-250Typ2	14,5 kg
350	1012994	MP-350Typ2	15,5 kg
450	1012995	MP-450Typ2	16,5 kg

Supplied with users-, installation- and maintenance guide.

Specifications:

1012993, 1012994, 1012995



When used as end anchor, anchorage ring 1012951 or 1012984 must be used (see chapter 5.8.5.).

Quality Control
Individual control
Marking with “ö“-sign
Serial number identification
Manufacturing according ISO 9001: 2000

5.13.7. MultiPost Type 3 - Data sheet

MultiPost Type 3

Application
To be used as post for horizontal anchorage devices of class C and D (such as Xenon, MultiRail or similar) for fixing on wooden beams.
Available in lenghts L = 250, 350 or 450 mm.

Material
Hot dip galvanised steel

Use
Tested to DIN EN 795 (Class C and D)
Position: intermediate, corner or end
Permitted load: 15 KN
For beam width b: 80 - 150 mm,
Max. thickness of roof boards d: 32 mm.
Complete with fixing accessories.
Please state beam width “b” when ordering.

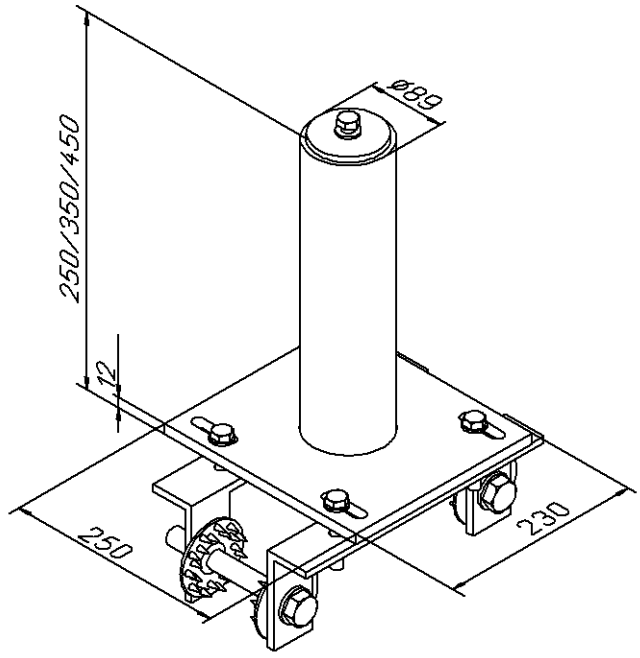
Technical Data

Length	Part.-No.	Type	Weight
250	1012996	MP-250Typ3	12,0 kg
350	1012997	MP-350Typ3	13,0 kg
450	1012998	MP-450Typ3	14,1 kg

Supplied with users-, installation- and maintenance guide.

Specifications:

1012996, 1012997, 1012998



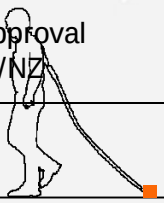
When used as end anchor, anchorage ring 1012951 or 1012984 must be used (see chapter 5.8.5.).

Quality Control
Individual control
Marking with “ö“-sign
Serial number identification
Manufacturing according to ISO 9001: 2000

6. FEATURES - BENEFITS

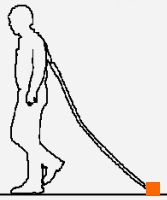
6.1. Xenon - System

Features	Benefits
Stainless steel component	Long life time Can be installed in harsh environment Low maintenance cost
8mm ***and*** 10mm compatible	Best Larger application possibilities then competition
Strait line and **curves**	Large application field No need to disconnect at angle for greater safety
4 simultaneous **users** at 8 mm cable **7** simultaneous **users** at 10 mm cable	Increase productivity
Versatile installation possibilities Floor, wall, over head, roof tops etc....	Large application field Reduce HLL cost Gives installation flexibility
Pass intermediate at **distance**	No need to go back to end life line to pass intermediate Ease of use Increase productivity Better user acceptance
Authorise the work **both sides** of the life line	No disconnection needed when changing the side. Increase productivity Better user acceptance
Reduced number of parts	Simplify installation Reduce inventory cost for installer
Easy to install	Reduce installation cost Avoid mistakes during installation
Parts **replaceable** after a fall	Low maintenance cost
Swaged termination part	Increased safety Avoid miss use No maintenance
Maxi **span 15 m** for 8 mm cable Maxi **span 20 m** for 10 mm cable	Reduce the number of intermediate anchorages Reduce HLL cost Gives installation flexibility
International standard approval EN – OSHA – CSA – AUS/NZ	Same life line cane be installed all over the world Simplifying owner ship



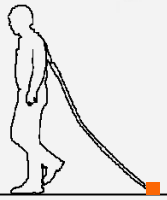
6.2. Xenon - Shuttle

Features	Benefits
Compatible with 8 and 10 mm cable	Give greater flexibility : use the same shuttle in all configuration Increased safety : no risk of having the wrong shuttle
Can be removed from the cable with one hand	Increased safety User friendly Better acceptance
Can be removed any where in the line	More flexibility in the use Does not require an expensive entry/exit part User acceptable
Automatic closing mechanism	Limits the risk of a miss use Increased safety
Operates 180°	Increased safety & better user acceptance No need to disconnect and return the shuttle to work on the other side of the line.
Auto locking function in case of a fall	Improved safety, no risk of a device that slips out of the cable.
Large attachment ring that accepts all kinds of hook	Easy carriage Provides more flexibility No risk due to the use of a wrong karabiner Limits the risk of a miss use
Bright Colour and hand size	Good visibility on site Easy to carry
Compatible with other HLL on the market	Same shuttle for different HLL existing on a site Easier and safer for the user
Stainless steel parts	Long life time Can be used in harsh environment



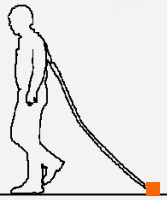
6.3. Xenon – Multifunction - Absorber

Features	Benefits
Four in One unit	Easy to install Avoids installation errors Low maintenance cost Increases safety for maintenance team
Compact design	Easy to carry Easy to install
Absorber	Prevents structure and user from high impact forces Increases safety
Cable tensioner	Increases safety by maintaining adequate tension on the life line
Fall indicator	Prevents misuse Indicates clearly if a fall occurred Increases safety
Pre-set tension indicator	Easy to adjust Indicates clearly Pre-set tension Increases safety
Absorption unit replacement	No need to cut the cable Low maintenance cost



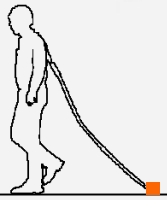
6.4. Xenon – Intermediate hanger

Features	Benefits
3 types of intermediates	Large application field Gives installation flexibility, versatile installation possibilities (Floor, wall, over head, roof tops etc....) Better performance
Removable if damaged after a fall	Low maintenance cost Increases productivity Increases safety for maintenance team
Single anchorage point	Reduces installation cost
Compatible with 8 & 10 mm cable	Reduces inventory cost for installer
Spring loaded intermediate	Allows sloop roof installation Increases productivity
Free slinging intermediate	Allows wide angle of usage Increases productivity
Fixed intermediate	Absorbs energy in case of a fall Adjustable installation to the use Increases productivity
Stainless steel component	Long life time Can be installed in harsh environment Low maintenance cost



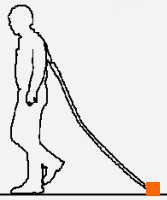
6.5. Xenon – Angle kit

Features	Benefits
Indexed positioning	Large application field Gives installation flexibility, versatile installation possibilities (Floor, wall, over head, roof tops etc....) Better performance
Removable if damaged after a fall	Low maintenance cost Increases productivity Increases safety for maintenance team Absorbs energy in case of a fall
Double Anchorage point	Low installation cost Increases safety Increases angle strength
Stainless steel component	Long life time Can be installed in harsh environment Low maintenance cost
Standard 90° kit	Ready to install for standard angle Absorbs energy in case of a fall
Bending kit	Adaptable to any special turn More flexibility in installation



6.6. Xenon – Calculation software

Features	Benefits
Multi-lingual	Simplifies the use Increases productivity
Quick calculation form	Increases productivity Reduces engineering costs Reduces administrative work
Multi-user	Allows to share information and data Increases productivity
Detailed calculation report	Increases customer satisfaction Quicker response to customer Reduces administrative work
Quotation module	Reduces administrative work No additional impute needed Quicker response to customer
Calculation for life including corner	Increases safety Takes in consideration even complex systems Avoids errors
Complete loads and forces calculation	Increases safety Reduces engineering costs Optimises interfaces Avoids errors
User password protection	Avoids misuse by non-authorised personnel Increases safety
Full customer data base management	Reduces administrative work Increases productivity



7. COMPETITION COMPARISON

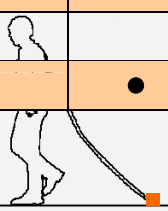
7.1. Xenon - System

Features	Xenon	Latchway	Sayfglida	Ariana	Games system	Antec	Uniline	Vertic
Strait line	●	●	●	●	●	●	●	●
Curves	●	●	●	●	●	●		●
Horizontal and vertical use								●
Max simultaneous user	**4 - 7**	**2**	**2**	**2**		**4**	**1**	**2**
Versatile installation	F–W–O-R	F–W–O-R	F–W–O-R	F–W–O-R	F–W–O-R	F–W–O-R	F–W–R	F–W-R
Pass intermediate at distance	●	●	●	●	●	⦸		⦸
Useable both side of the life line	●	●			●			
Reduced number of parts	●		●	●		●	●	●
Easy to install	●	●		●	●	●	●	
Parts replaceable after a fall	●				⦸			
Swaged termination part	●	●	●	●		⦸	●	●
Maxi span	**15-20 m**	**10 m**						
Standard	EN – OSHA CSA– AS/NZ	EN	EN	EN	EN	EN	EN	EN
Cable	8 and 10 mm	8 mm	12 mm	8 mm		10 mm	16 mm	8 mm
Stainless steel component	●	●	●	●	●	●	⦸	●
Cross section		●						
Fall indicator	●							
Pre-set tension indicator	●	●	●	●		●	●	●
Parts identification	●	●	●	●		⦸	⦸	**NA**
Kit ready to install								

F = Floor, **W** = Wall, **O** = Over head, **R** = Roof top, ● = meets, ⦸ = partially meets

7.2. Xenon – Shuttle

Features	Xenon	Latchway	Sayfglida	Ariana	Games system	Antec	Uniline	Vertic
Can be removed from the cable with one hand	●							
Can be removed anywhere in the line	●			●		●	●	
Automatic closing mechanism	●			●		●	●	●
Operates 180°	●	●			●			
Auto locking function in case of a fall	●							
Large attachment ring for all kinds of hook	●							
Bright colour and hand size	●	●						
Compatible with other HLL on then market	●							
Needs special Karabiner			●	●		●	●	●
Stainless steel parts	●	●	●	●	●	●	●	●

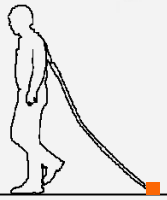


7.3. Xenon - Multifunction - Absorber

Features	Xenon	Latchway	Sayfglida	Ariana	Games system	Antec	Uniline	Vertic
Four in One unit	●							
Compact design	●	●						
Absorber	●	●	●	●	●	●	●	●
Cable tensioner	●							
Fall indicator	●	⊘						
Pre-set tension indicator	●							
Replacement of the absorber	●							

7.4. Xenon – Intermediate hangers

Features	Xenon	Latchway	Sayfglida	Ariana	Games system	Antec	Uniline	Vertic
Removable if damaged after a fall	●				●			
Single anchorage point	●	●	●	●	●	●	●	●
Compatible with 8 & 10 mm cable	●							
Spring loaded intermediate for roof top	●							
Free slinging intermediate	●		●		●			
Fixed intermediate	●		●	●		●	●	●
Stainless steel component	●	●	●	●	●	●	●	●

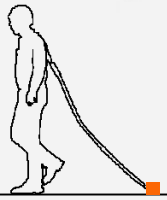


7.5. Xenon – Angle kit

Features	Xenon	Latchway	Sayfglida	Ariana	Games system	Antec	Uniline	Vertic
Indexed positioning	●			●			●	⊘
Removable if damaged after a fall	●							
Number of Anchorage point needed	2	2	2	2	2	4	2	2
Stainless steel component	●	●	●	●	●	●	●	●
Standard 90° kit	●	●	●	●	●	●		●
Bending kit	●	●		●		⊘		

7.6. Xenon – Calculation software

Features	Xenon	Latchway	Sayfglida	Ariana	Games system	Antec	Uniline	Vertic
Multi-lingual	●							
Quick calculation form	●			●				
Multi-user	●							
Detailed calculation report	●	●		⊘				
Quotation module	●							
Calculation for life including corner	●							
Complete loads and forces calculation	●	●		⊘				
User password protection	●	●						
Full customer data base management	●	●						
Calculation table				●		●		●
Compatible Metric & imperial	●							



8. FAQ

8.1. Xenon - System

8.1.1. Where can I use and install the Xenon system ?

Xenon can be installed anywhere where a protection against fall from height needs to be installed in order to follow a pathway along on which a man needs to work.

8.1.2. What is the maximum length of the system ?

There is no limit, any length can be covered by the Xenon system. For length over 500 m a junction piece will be used to link the different cables.

8.1.3. How many people can work at the same time on the system ?

Up to five workers can be attached simultaneous to the lifeline.

8.1.4. What is the maximum distance between two anchorage points ?

The maximum distance between two intermediate anchorage points is 15 m for 8 mm cables and 20 m for 10 mm cables, but it is always necessary to verify that is compatible with the structure and the configuration of the site.

8.1.5. How do I know if the structure can support a Xenon system ?

All Xenon installers have been equipped and trained to use a special dedicated software that calculates the force generated in case of a fall and verify the compatibility with the structure that should support the life line.

8.1.6. Can I work both side of the system without disconnecting my self ?

Yes, Xenon shuttle has been designed in such a way that it can pass the intermediate anchorage point at 180°. This authorises you to work on the left or right side of the lifeline without any special action.

8.1.7. Can Xenon system be installed around a corner ?

Yes, Xenon can follow nearly every route, inside or outside corner from 90° to 175°.

8.1.8. Can I use the Xenon for vertical fall protection ?

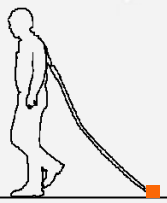
No, the Xenon is a Horizontal fall protection system, nevertheless an angle of 15° is authorised for inclined installation.

8.1.9. Who can install a Xenon system ?

Only certified installers can install Xenon system, these installers are the only people who have the knowledge and the competence to install Xenon horizontal lifeline system as they have been trained to do so.

8.1.10. Can I install the Xenon system in corrosive atmospheres ?

All the Xenon components are made from stainless steel in order to guarantee good protection against most corrosions. If the system could be in contact with corrosive chemical call your Xenon installer for advice.



8.2. Xenon - Shuttle

8.2.1. Is the shuttle a safe anchorage point ?
Yes, the Xenon shuttle has been designed to be the safest anchorage point used with HLL. It features several safety systems that avoid miss use (double unlocking mechanism, self locking system).

8.2.2. How can I be sure that I did not hang the shuttle in a wrong way ?
You cannot attach the shuttle to the system wrongly as it is fully reversible it will pass the intermediate hanger in any position.

8.2.3. What kind of connection do I need to attach myself to the Shuttle ?
You can use any type of connector, the shuttle anchorage handle is made so that any type of connector can be attached.

8.2.4. Can I use the same shuttle on a 8 or a 10mm life line ?
Yes it is fully compatible, so if you have different system installed with different type of cable you only need one shuttle.

8.3. Xenon - Multifunction - Absorber

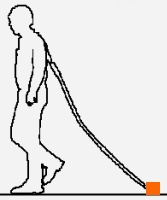
8.3.1. What does the shock absorber unit ?
The primary function of a shock absorber is to limit the force applied to the end anchors in case of a fall and so preserve the structure.

8.3.2. What means 4 in 1 unit ?
The new revolutionary Xenon shock absorber unit integrates 4 different functions: shock absorber, cable tensionner, pre-set tension indicator and fall indicator. The 4 in 1 unit simplify installation and maintenance.

8.3.3. How do I see when the tension on the line is not correct ?
The tension indicator on the side of the shock absorber should always show the green colour, if the red colour is shown or the green is not visible the tension on the system is not correct, an inspection of the life line is then required.

8.3.4. How do I see if a fall has occurred who has generated some high forces?
After fall or high force impact the fall indicator is activated and a red label with “STOP” is made visible. The labelling indicates that the system has to be checked before the next use.

8.3.5. If a fall has occurred in the life line do I have to replace the shock absorber unit ?
When the fall indicator was activated and the red label “STOP” is made visible, the energy absorber has to be replaced.



8.4. Xenon – Intermediate hanger

8.4.1. What does the intermediate hanger ?

The intermediate hanger is here to attach the Xenon cable to the building or structure at a regular distance and so limits the cable deflection after a fall. The intermediate anchorage has also been designed in such a way that it authorizes an easy sliding of the shuttle over it.

8.4.2. When do I need a “Free intermediate” ?

The free swinging intermediate hanger is designed to be installed on life lines were the user will operate both side of the cable or from a certain distance. The intermediate will always place it self in the best position so that the shuttle will pass the intermediate smoothly.

8.4.3. When do I need a “Fix intermediate” ?

The fixed intermediate hanger is designed to be installed on life lines were the user will operate on one side of the cable. The intermediate will be installed in such way that the shuttle will pass the intermediate smoothly. In case of a fall he will deform and absorb part of the force generated and so preserve user and structure.

8.4.4. When do I need a “Spring loaded intermediate” ?

You need spring loaded intermediate when you install a Xenon system on top of a roof, the spring loaded intermediate will constantly maintain the cable and the intermediate in a central position and authorise worker who are working both side on the life line to pass the intermediate easily.

8.4.5. Can I replace the corner tube if it is damaged after a fall ?

Yes the patented shape of the intermediate anchorage was designed in such a way that if an intermediate anchor is damaged or deformed for any reason it can be replaced without dismantling the system or cutting the cable.

8.5. Xenon – Angle kit

8.5.1. What kind of angle can I install ?

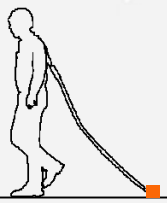
Any kind of angle installation going from 90° to 175° can be made, the angle can be installed on the floor level ,on a wall, over head or on roof top and can be inside or outside angle.

8.5.2. How should I do if I need to install a 145° angle ?

A special bending kit is also available which includes a corner tube that can be formed to any angle with a bending tool.

8.5.3. Can I replace the corner tube if it is damaged after a fall ?

Yes, the patented shape of the intermediate anchorage as well as the corner tubes were designed in such a way that if a corner is damaged or deformed for any reason it can be replaced without dismantling the system or cutting the cable.



8.6. Xenon – Calculation software

8.6.1. What is the calculation software for ?

Each installation is different in length, installation structure, fall clearance, number of user etc… It is essential that all the installation parameters are considered, in order to validate the feasibility of the system. The Xenon software is here to take all this information and provide the installer with all the information needed to validate an installation.

8.6.2. What do I need to use the Xenon calculation software ?

A PC with a CD reader running on windows 95 and 98 or 2000 can run the calculation software.

8.6.3. When I have validate the installation I often need to give some quotation, can the software help me ?

The calculation software also provides you with useful functions, allowing you to convert all system calculation in a full quotation that take into account installation parts and accessories if needed.

8.6.4. Who can use the calculation software ?

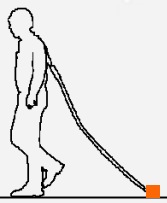
Every engineers or designer who has been trained to install Xenon HLL.

8.6.5. Can I provide some calculation report to my customer ?

Yes, the calculation software will print detailed reports showing all the elements that have been considered in the system and all the forces and resistances.

8.6.6. I am working with the imperial measurement system, can I use the Software?

Yes, the Xenon calculation software is the only software that can work in both metric and imperial measurement systems.



9. CRITERIA FOR XENON-INSTALLERS

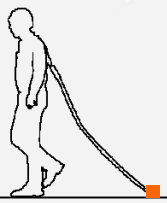
Each potential installer of the Xenon Lifeline must fulfill all criteria described below::

Criteria of Choice	Eligible	Minimum
The company exists since more than 5 years	5 years	3 years
Size	+ 10 people	5 people
Financial structure	Financial support is provided by a Group	Positive balance sheet and account (last 2 years)
Area of activity	Regional	Nationally
Good market position on this sector	Indusrty and building	Industry or building
Marketing / assembling Additional products	Safety products (i.e., PPE)	Contact to the building industry or maintenance
Engineers / planning	Integrated design office	Technician able to read plans and issue an offer
Assembling Team	Several assembling teams	1 assembling Team (2 persons)
Sales team	Team of technicians-sales people, operating in a pro-active structure	Capacity to promote our business activity based on the established customers
Tools	Has adequate tools to assemble Xenon	Ready to purchase tooling equipment
Motivation und interest on the market for anchorage devices	Supplementing the main activity	Diversifying regarding the customer base
Knowledge about anchorage devices	Installs or installed anchorage devices for the account of third persons	Has basic technical knowledge given by the present activity

If one of those basic criteria is not fulfilled, than the installer has to comply with at least one of the criteria listed below. If two basic criteria are not fulfilled, the installer that does not accomplish the criteria given by Bacou-Dalloz.

He is customer of the Bacou-Dalloz Group.
He already installs SÖLL-Systems
He has special knowledge on fall arresters.
He covers an inadequately supplied geographic area
He has a strong position in an uncovered activity area with a strong potential

Further criteria:
Quality assurance system



Notes

Date	Notes