

Operator's Manual

FALL ARREST SLIDER 400



Manufactured for:

Material handling applications

Rescue fall protection

Confined space entry

Work positioning

Retrieval

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1.INTRODUCTION TO APPLICATIONS

Product description:

Congratulation for purchasing our product, Fall Arrest Slider in version:

- 1)ES 400– Sliding part only – standard version (not climbable)
- 2)ES 400 C – Sliding part only – climbable version
- 3)ES 400/EX – Sliding part only – standard version (not climbable) - ATEX certificated
- 4)ES 400 C /EX – Sliding part only – climbable version – ATEX certificated
- 5)FAS 400 – Complete system including adapter standard version (not climbable)
- 6)FAS 400 C – Complete system including adapter climbable version
- 7) FAS 400/EX– Complete system including adapter standard version (not climbable) – ATEX certificated
- 8)FAS 400 C /EX- Complete system including adapter climbable version -ATEX certificated

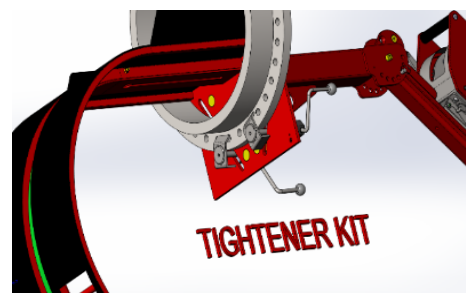
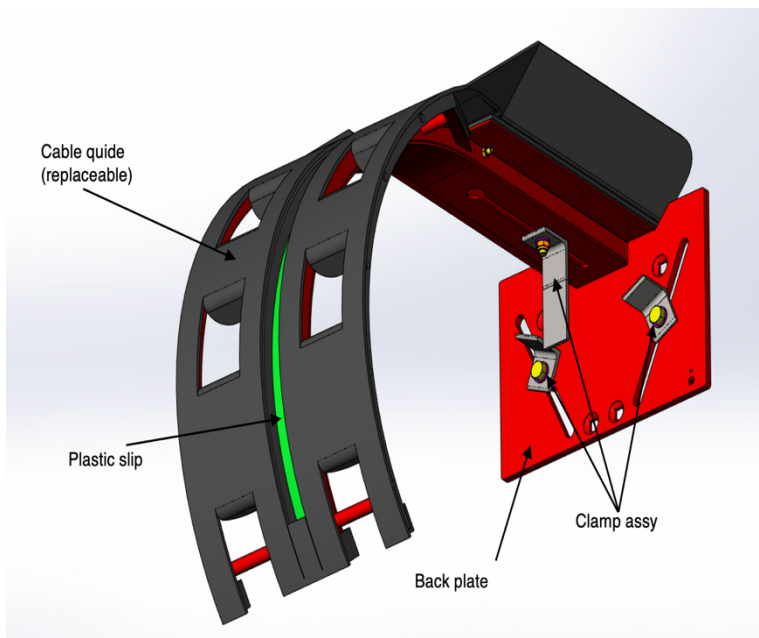
used for horizontal and confined space safe entry work. Sliding part is a part of Fall protection system intended as accessory reducing sharp edge and safe and comfortable entry to the manhole. This system is designed mainly for easy entry and evacuation from horizontal entry, possible to install it on different types of structures but mainly flanges..Using this system with Fall Arresting device(SRL or winch) provides effective protection of workers at work and possibly the evacuation of the horizontal entry. System can also be used together with a fall arrest block, suitable for protection against falling and evacuation (SRL) providing it's completed with specific adapter.

Warning!!!

This product must be installed and used only by a competent person with appropriate qualification and trained by manufacturer or another trained person in accordance with the manufacturer's instructions!!!!

All persons using this system must be familiar with all the details of installation and use!

Anti-fall arresting devices that are installed on the system must have a maximum arresting force (MAF) 613.6 KG (6kN) or less!!!



2. INSTALLATION RESTRICTIONS

There are restrictions and limitations that must be carefully considered in the selection, installation, and operation of this product. Serious injury or death may result from failure to consider these factors.

SITE CHARACTERISTICS, PHYSICAL and ENVIRONMENTAL FACTORS

Work sites have associated with them any of several hazards related to the site itself. These may include but are not limited to poisonous or explosive atmospheric conditions, poisonous or corrosive chemical hazards, hot surfaces, electrical hazards, sharp edges, engulfment hazards, or moving machinery.

3. GENERAL SYSTEM REQUIREMENTS

TRAINING

Prior to working with this device all users must receive training from their employer on all equipment involved, as well as appropriate training in Fall Protection, Confined Space, Rescue, Material Handling, General Safety.

Users must fully read, understand and follow this manual and any other instruction manual(s) related to the system being used, or have the instructions explained to them, before using this equipment
Use the device at temperatures from -20 °C to +40 °C.

ANCHORAGE STRENGTH

Products may only be used with anchor points that comply with EU standards.
MUST BE designed, installed, and used under the supervision of a competent person.

COMPATABILITY OF CONNECTORS

Connectors used to connect components in the system must be compatible with each other to ensure sufficient strength and eliminate the risk of accidental disengagement or rollout during use.
Connectors supplied with products must be designed, manufactured have to be in compliance with EU standards.

FALL PROTECTION

Activities involving working at heights require the use of equipment to protect the worker in the event of a fall. Suitable fall protection must be provided as required by applicable local regulations when using this product.

CONFINED SPACE SAFETY

When this product is used as part of a system involving work in a confined space, IS BEING RECOMMENDED always follow an approved confined space safety plan meeting all local regulations.

4. INSTALLATION and OPERATION

This product is designed for use in conjunction with **VARIOUS** styles of support structures to meet different requirements. Supporting structures have to be in compliance with EU standards and manufacturer's requirements.

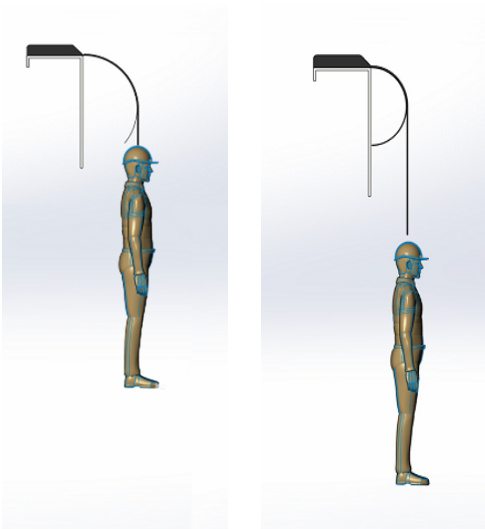
Other applications must be designed, installed, and used under the supervision of a competent person. All installations must be approved by a competent person.

OPERATION

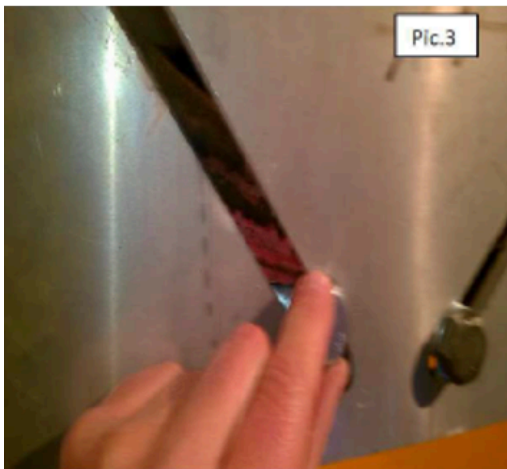
Once the product has been properly installed into the system, the operation of the product is as explained below. No person shall use this product without proper training. Any user must fully read and understand this manual and any other instruction manual(s) related to the system being used, or have the instructions explained to them, before using this equipment.

Warning!!!:

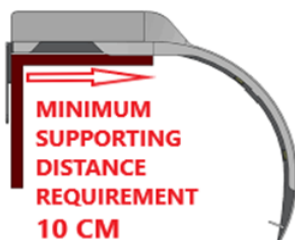
- 1) This device may NOT come into contact with open flame, high temperature and aggressive chemicals!**
- 2) In the event of damage to any part of the device contact the manufacturer or competent person. Competent person MUST be trained by manufacturer.**
- 3) In case of a fall the falling distance might extend 1 m.**



Installation on flange diameter 400 mm.



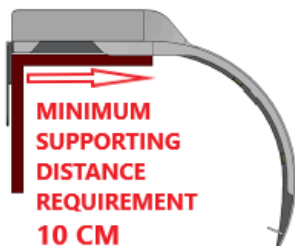
- 1) Remove the cover. Follow all safety instructions related to particular working place !.
- 2) Gently slip the front side of ES 400 into the opening (**pic.1**) and try to position slider horizontally.
- 3) Insert entire surface of ES 400 in the manhole so that the engaging back plate caught behind a flanged edge (**pic.2**). Try to match of flange holes with oval holes on ES 400.
- 4) Connect the ES 400 at least by two screws to the flange and the oval holes on the back plate (**pic. 3**) In case that any flange holes do not match with oval holes on the back plate, use wing extensions to extend in diameter so that they can be fitted into the related flange holes. Wings extensions mounting instruction read below.
- 5) All screws must be properly tightened, but not too much. (**Figure 4**)
- 6) Check for correct assembly.



Wing pads/extensions installation

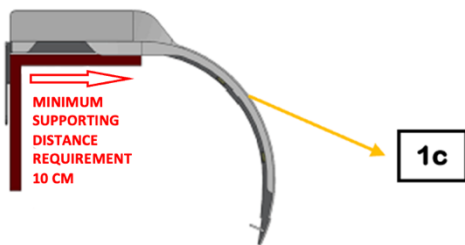
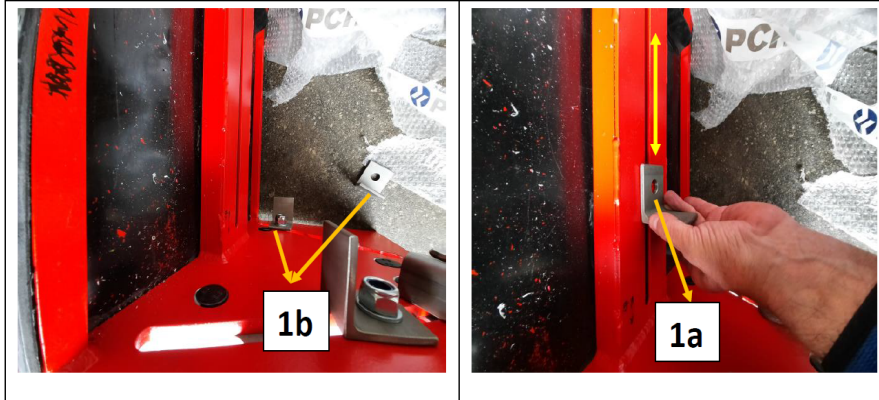
In case that the flange holes do not match with oval holes on the back plate, use wing extensions to extend diameter range, so that they can be fitted into the respective hole.

- 1) Install wing extensions on back plate of ES 400 (bolt M16-2x, nut & washer M16) (**Figure 5**)
- 2) Tighten bolts till wings stay movable, but not too loose. .
- 3) Slide the wings, till you can match any holes (minimum 2) on the flange (**Figures 6 & 7**).
- 4) After fixing wing extensions use 2 bolts M16 to mount ES 400 on the flange. Then all bolts must be properly tightened. (**pic.8**). Bots size depends on flange thicknes.



Installed clamp system assembly

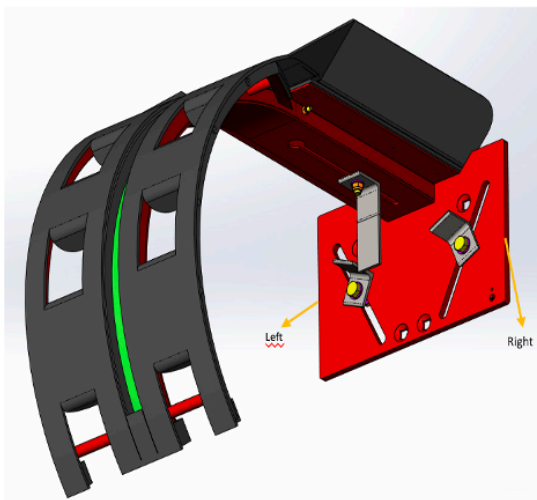
This method of attachment is fully under CE 795/B, however, it is considered only as an alternative, in case of missing holes on the flange. If possible, use other types of attachments!!!



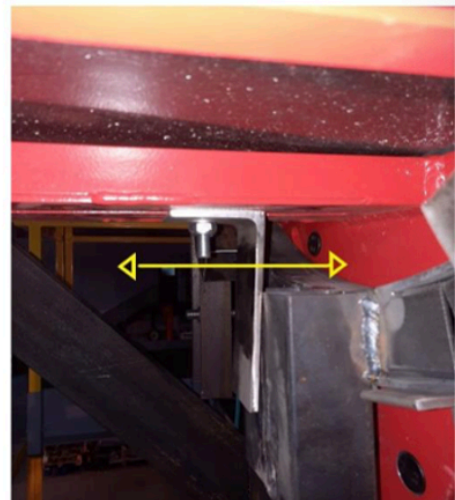
Assembly details:

- 1 Adjust inner clamp accordingly of the entry thickness. Tighten the nut with appropriate wrench but not too much – 1a/1b/1c
- 2 Insert complete slider into the entry. Put it on the bottom of the entry. Slider must completely fit on the bottom.
- 3 Configure lower clamps on the bottom of the flange. Single clamp (R+L) install into oval hole (R+L). – 1a + 1b

RIGHT INSTALLATION DESCRIPTION



1a



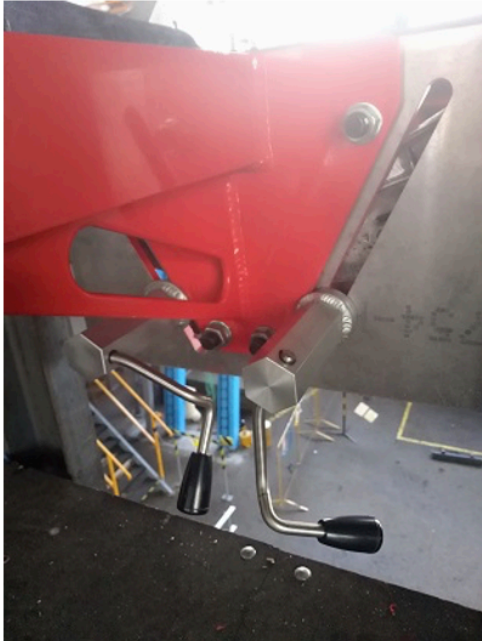
1b

Tightener kit installation

This fastening system is universal. It will only be necessary when wing extensions cannot be installed due to the constructive characteristics of the side entry port.

Assembly details:

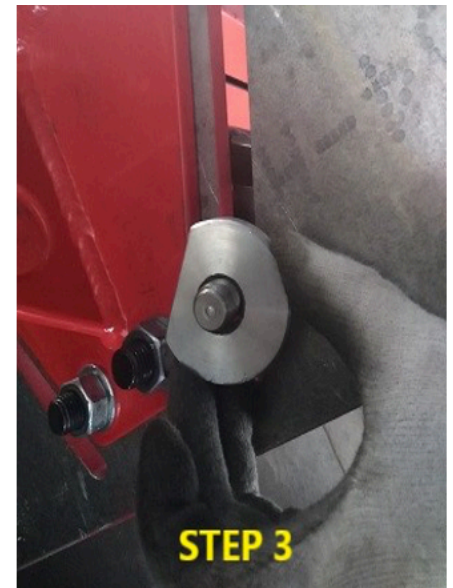
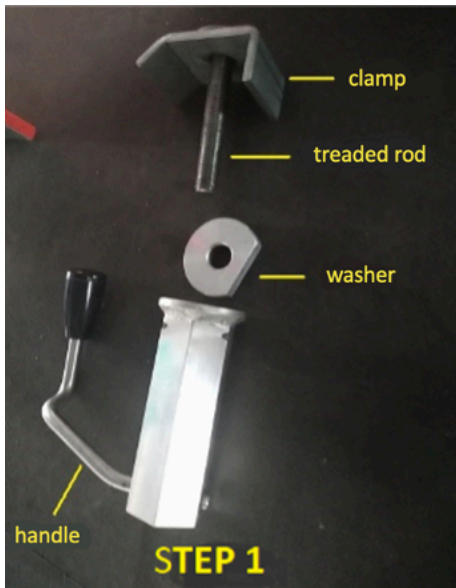
Tightener kit installation

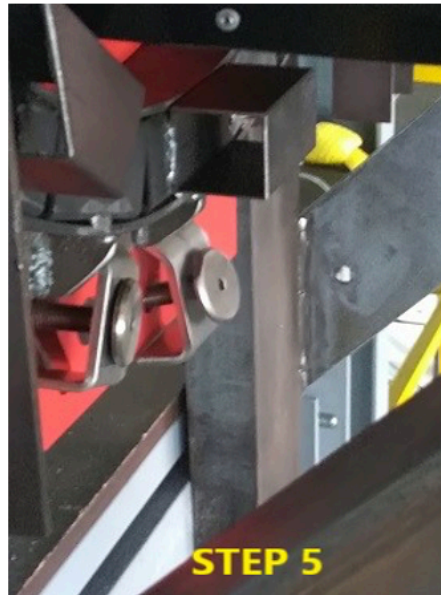


Tightener kit



Complete installation picture





STEPS:

1. Parts descriptions
2. Insert threaded rod + U-shape from inside of the slide back plate. Use oval holes.
3. Insert washer from outside of the back plate (insert washer on a treaded rod from outside ES 400 back plate)
4. Tighten the handle on the treaded rod + washer.
5. Install tightener (R + L) on the flange. Right installation position follow picture. (step 5)
6. Tighten the handle as much as you can. Using the hand power or wrench 36.

Assembly details:

- 1 U-shape clamp (1) + threaded rod (2) installed from inside of the flange.
- 2 Hexagonal handle installed from outside of the flange.
- 3 Tighten both components properly by hands (handle or wrench), but not too much.

!!!! WARNING !!!!

- 1) This product is part of the entry / exit of people in confined spaces. The user must read, understand and follow all instructions mentioned in this manual. User **MUST** follow all safety regulation related to confined space entry. User **MUST** visually check each part or the whole system before it starts using the device. Create a suitable training, maintenance and inspection program for your team and equipment. Failure to follow these instructions may lead to serious injury or death.
- 2) Before using visually inspect all equipment and accessories. Correct any problems before starting work.
- 3) Evacuation Slider without the adapter **CAN'T** be used as fall-arrest device according to EN 795 type B 2012
- 4) Maximum load while hanging ladder should be chosen accordingly of to the chart below. Maximum load is always 170 kg. Anyway.
- 5) The ladder must be in compliance with the relevant standards and regulations.

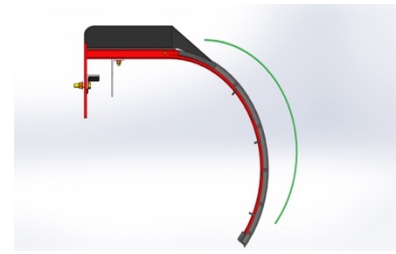
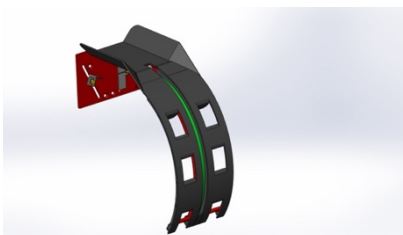
Evacuation Slider 400 cable guide (green) replacement

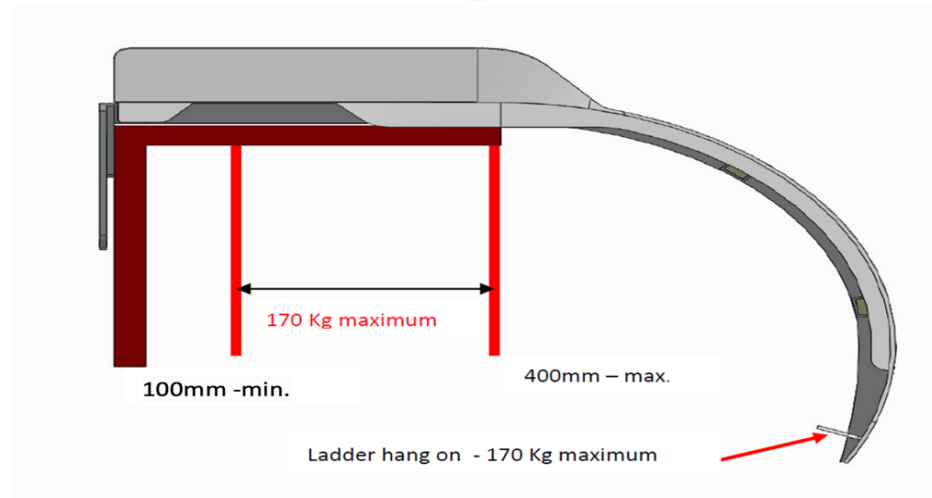
Cable guide of ES 400 is made of extra hard plastic material. Even when this can withstand long term, after some time it gets thick or damaged by cable sliding on this strap. Therefore this strap is fully replaceable and can be purchased as extra spare part. To replace strap, follow this instruction:

- 1) Unscrew 2x M6 bolts holding guide strap (green coloured)
- 2) Remove used strap
- 3) Replace used strap by new one
- 4) Fix both bolts back on its position

Warning!!!

- 1) Never use Evacuation Slider 400 without cable-guide strap.
- 2) Never guide cable outside of the cable-guide strap. This way you can damage plastic cover.
- 3) Follow replacement instruction. For any further details, contact competent person or ES manufacturer.
- 4) ES 400 operator **MUST** read and understand all safety regulations and use safety accessory.
- 5) Plastic components can be exposed to temperature from -20°C - $+40^{\circ}\text{C}$
- 6) Don't expose plastic components to opened flame or extremely high temperature or aggressive chemicals.
- 7) If any crashed, sharpened or somehow damaged components would occur, user **MUST** contact trained person.





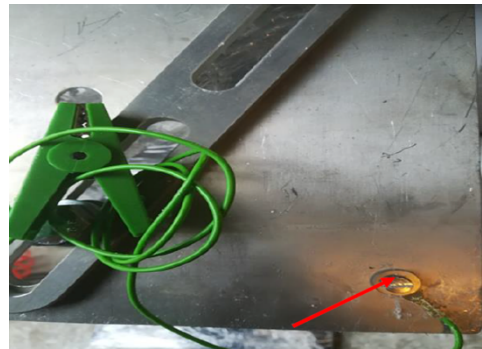
ATEX certificated Evacuation Slider version

ATEX certificated FAS 400 version slide visual difference make black coloured HDPE plastic material in accordance with EN 10204/2005 and NON painted construction. This version contains grounding cable mounted in right bottom corner, Plastic material is fully electrically conductive.

For all plastic components repairs MUST be used the same material!!!



6mm threaded hole - for grounding.

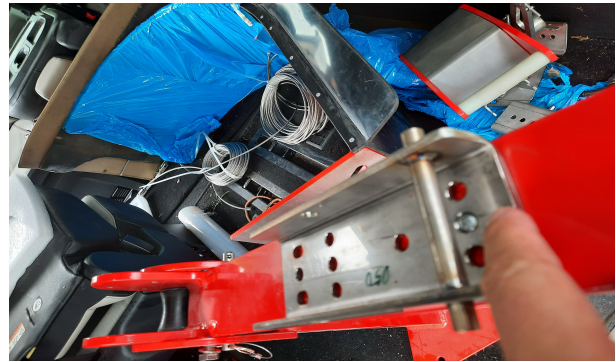
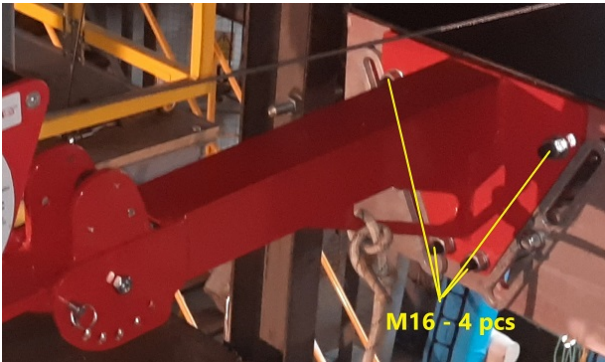


ATEX certificated ES contains grounding cable
Conductor cross-section = 6 mm²

Fall Arrest Adapter (FAA) installation

To provide rescue and lifting and lowering option user has to install rescue adapter. Adapter is fully compatible with standart evacuation slider and can be mounted additionally on slider. User must strictly follow this installation manual. Winch mount adapter is mounted on swivable handle when different positioning allow to use various Fall arrester types.

Adapter installation: Use and tighten M16 bolts-4psc to connect adapter with slider. All bolts **MUST** be tightened properly



universal bracket

Hang on ladder attachment point



The user can use a certified hang-on ladder. To hang on ladder, you must use ONLY hang on anchor on the picture aside. Maximum load capacity scale below.

Warning!!!

- 1) Always use only certificated ladders.**
- 2) User must follow the ladder manufacturer's instructions.**
- 3) Follow maximum load capacity scale below.**

5. CLEANING

Use a solution of warm water and a mild detergent to clean the exterior surfaces of the product and the labels. Basic cleaning should be performed at least annually as part of the annual inspection or more frequently as required when used is under harsh conditions.

6. LABELS

Below are pictures of the stickers that belong to the winch.

Check the legibility of the stickers before each use of the winch, damaged stickers must be replaced. Contact your distributor or manufacturer for replacement labels.



Easy Series Products	
Product No.	Batch No.
Serial No.	Mfg. date



7. INSPECTION

This product must be inspected before each use as explained. Daily inspection instructions are also explained on the labels. Product must be inspected once a year and in the case of the fall. Any problems must be reported immediately to your supervisor, and the equipment labeled to prevent further use until it has been repaired.

DAILY INSPECTION

The product must be inspected before each use. Report any problems or concerns to your supervisor, and do not use the equipment until they have approved doing that. Inspect the product for physical damage. Replacement labels are available from your dealer by ordering the part number shown on each label.

While minor cosmetic damage will not effect the function of the product, a seriously damaged winch **MUST BE** removed from service and returned to an authorized service center for repair prior to further use.

ANNUAL INSPECTION

At least annually, and more frequently if subjected to harsh conditions or excessive use, this product **MUST BE** given a detailed inspection by a competent person as described below, and the results recorded in an Inspection Log. please make photocopies of this sample to record all inspection results.

NOTE: Any time a product is returned to a factory authorized service center for repair, please provide photocopies of all previous Inspection Log sheets for that winch to assist with diagnosis and processing of any warranty claims.

8. MAINTENANCE, STORAGE

This product has been designed to provide many years of trouble free service and requires little in the way of routine maintenance.

STORAGE

Store this product and other related safety equipment out of direct sunlight in a cool (-20°C - +40 °C), dry area away from dust, chemicals, or other harmful material. Always inspect before using equipment that has been stored for any extended period of time.

9. WARNINGS AND INFORMATION

- 1) This device can be used for man-rated operation only. Not for material handling operations!!
- 2) Any modification on device can't be done without written manufacturer approval.
- 3) Device can be used only for retrieval purposes, accordingly of operation manual.
- 4) To complete ES 400 device you must read and understand this operation manual.
- 5) Device must be taken out of service if:
 - a) Appears in any doubt about its condition for safe use
 - b) was used to arrest a falland not used again until written confirmation of qualified individuals that can be used again
- 6) Mounting surface must be capable of supporting a minimum of vertical load 1633 Kg.
- 7) Device is intended for use in a fall arrest system essentially for the security of the position of the anchor device or anchor point and the way the work, were both possible free fall and may fall distance kept to the minimum. If it is inevitable that the anchor device / point located above the user's position, it shall notify the manufacturer.
- 8) It is necessary that the only acceptable body holding the establishment of a retaining harness that it can be used with device.
- 9) Life limit of the device is defined only by annual inspections result.
- 10) Operation manual shall be provided in specific language in each country where device is being sold.
- 11) EU TYPE-EXAMINATION was done and EU CONFORMITY TO TYPE is performed by: SZU s.p., Tovární 5, 466 01 Jablonec n. n., www.szutest.cz
- 12) The product meets the requirements of EN 795 and Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on Personal Protective Equipment.

13) Annual inspections are carried out (module C2) by SZU s.p., Tovární 5, 466 01 Jablonec n. Nisou.,
www.szutest.cz

10. DECLARATION OF CONFORMITY - see page below

11. INSPECTION LOG – see page below

INSPECTION LOG

Product:_____

Model number: _____ **Serial number:** _____ **Date of sale:** _____

Next inspection date:_____ Date of manufacture:_____ Date of first use:_____

[illegible]



CE 1015

DECLARATION OF CONFORMITY

The manufacturer:

SAHC s.r.o.
Dolany 82
533 45 Dolany
The Czech Republic

declares, that the products below designated:

Fall Arrest Slider 400 in version:

- 1) FAS 400 – Complete system including adapter standard version(not climbable)
- 2) FAS 400 C- Complete system including adapter climbable version
- 3) FAS 400 / EX– Complete system including adapter standard version(not climbable) – ATEX certificated
- 4) FAS 400 C/ EX- Complete system including adapter climbable version -ATEX certificated

are in compliance with the Regulation EU n. 2016/425 and are in compliance with the requirements of the harmonized standard Type B EN 795:2012.

Issued by:

Strojírenský zkušební ústav, s.p.
Tovární 89
466 01 Jablonec nad Nisou
The Czech Republic
Certificate number/date:
Notified Body Number:

The PPE is subject to the conformity assessment procedure conformity to type based on internal production control plus supervised product checks at random intervals (Module C2) under surveillance of the notified body Strojírenský zkušební ústav, s. p., Tovární 89, 466 01 Jablonec nad Nisou, Notified Body Number:

Date of issue:

Name: Radovan Pešák

Position: managing director of company SAHC s.r.o.