

Instructions for use and assembly of the RA100 davit arm

RA100

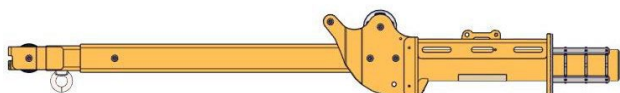
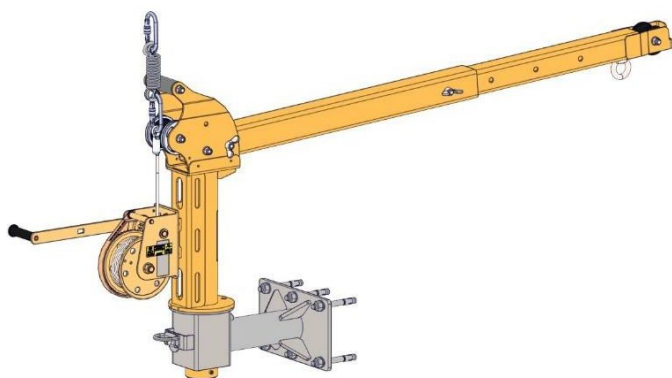
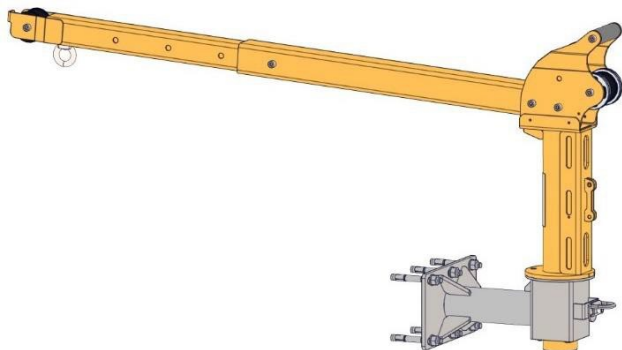
EN795:2012 type B

CEN/TS 16415:2013

EN1496/B:2017 140 kg

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1. General information

The anchor point in the form of the RA100 davit arm is a type B anchor device complying with EN 795 and is used to protect two people working simultaneously. The RA100 davit arm must only be used as personal protective equipment against falls from a height and must not be used for lifting loads. The device is made of steel. The strength of this point is min. 14 kN.

The point can be loaded in the directions shown in Figure 1.

The device is used to protect **two people at the same time** suspended on the device.

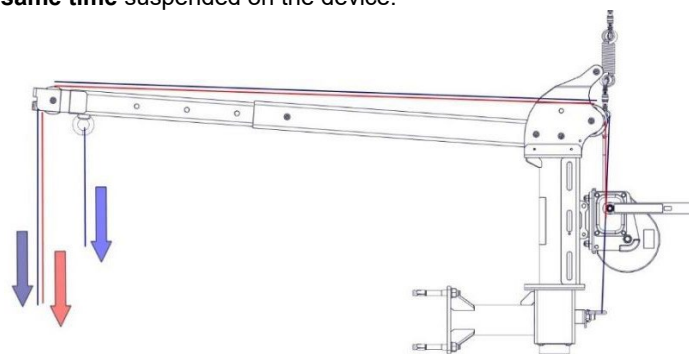


Figure 1. Direction of load

If the device is used as part of a fall arrest system, the user must be equipped with an element that limits the maximum dynamic forces acting on him/her during fall arrest to a maximum of 6 kN, cables with shock absorbers, retractable type fall arresters, etc.

2. Lifetime

The maximum lifetime of properly functioning equipment is unlimited.

The equipment must be immediately taken out of service and disposed of (must be permanently destroyed) if it has been involved in a fall arrest or there is any doubt about its reliability.

NOTE: The maximum service life depends on the intensity of use and operating environment. Use of the equipment in harsh conditions, in frequent contact with water, sharp edges, corrosive substances, at extreme temperatures may require it to be taken out of service even after one use.

3. Construction of the RA100 device

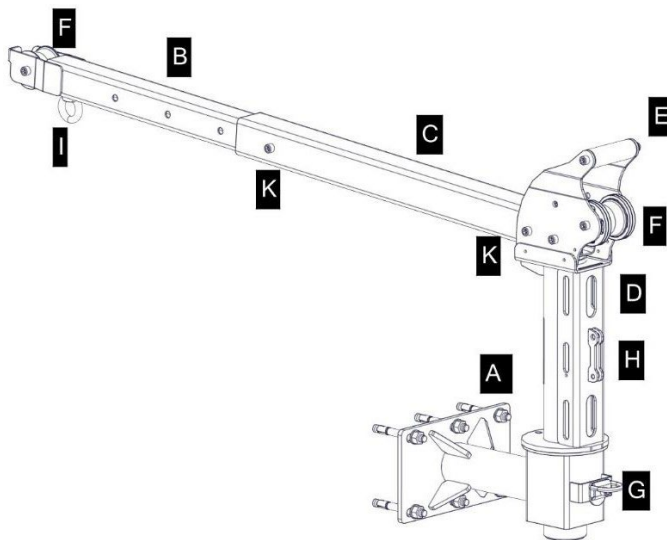


Figure 2. Design of the device

- A – Boom attachment socket
- B – Extension arm
- C – Fixed arm
- D – Vertical body of the device
- E – Carrying handle
- F – Rope guide rollers
- G – Belay point according to EN795:2012 type A
- H – Hook-and-loop handle for escape winch
- I – Hook-and-loop work handle
- K – Locking screws

The RA100 unit cannot function on its own and requires embedding in special sockets permanently installed into the steel or reinforced concrete roof structure.

Figures 3 and 4

2 standard sockets are provided. Special sockets can be manufactured

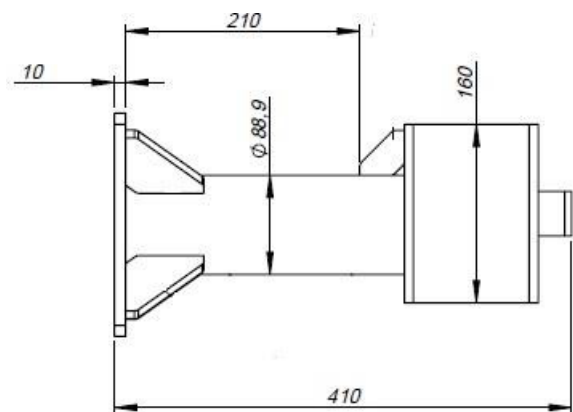
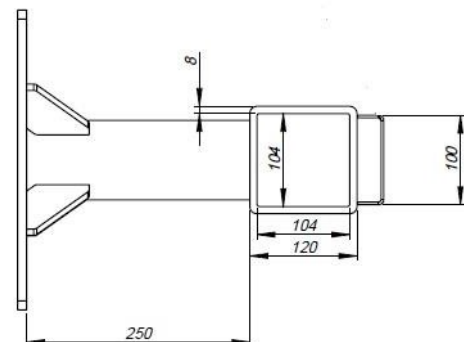
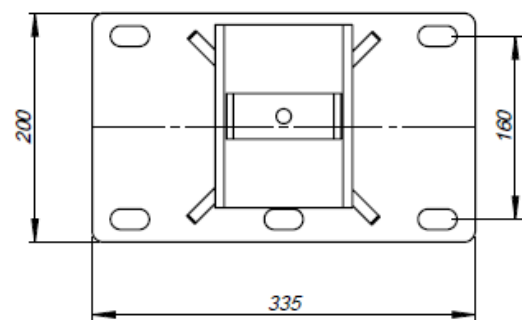
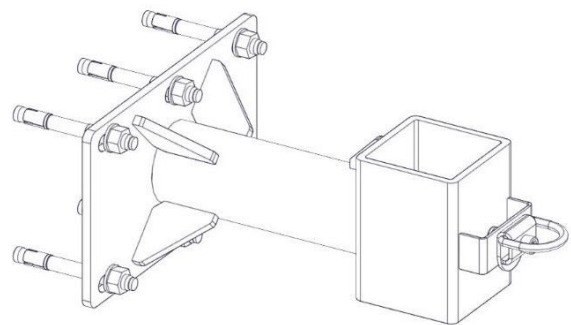


Figure 3. Attic socket RA113

The sockets should be fixed to the reinforced concrete walls with six M16 segmental anchors or with M16 chemical anchors. Use the tightening torque of the anchors in accordance with the anchor manufacturer's guidelines.

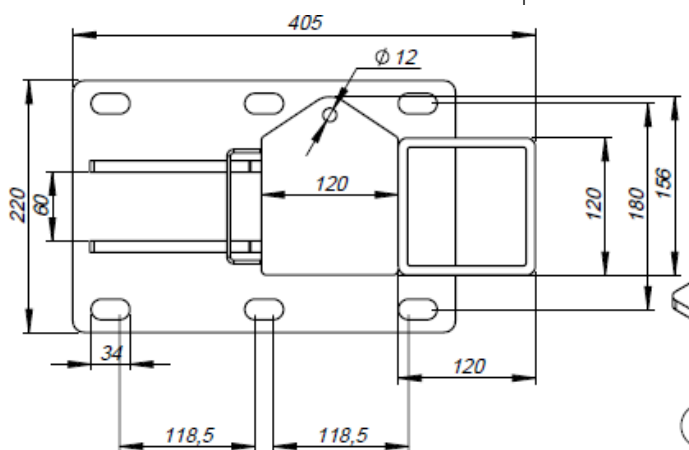
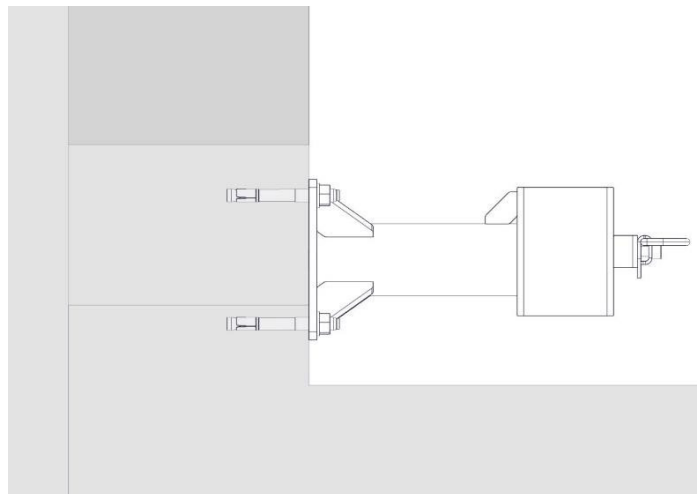
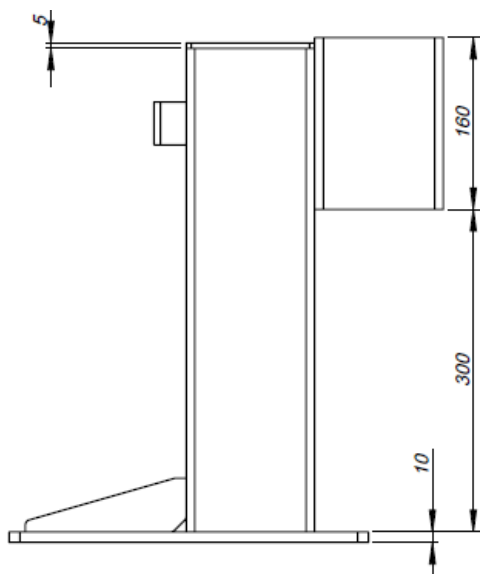
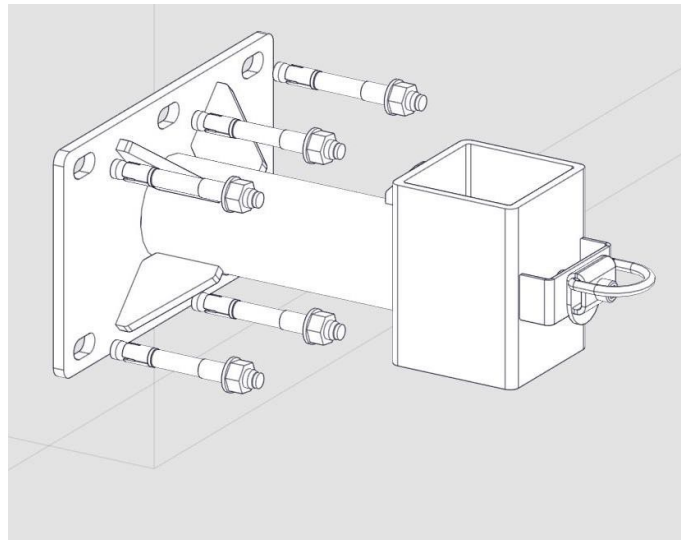
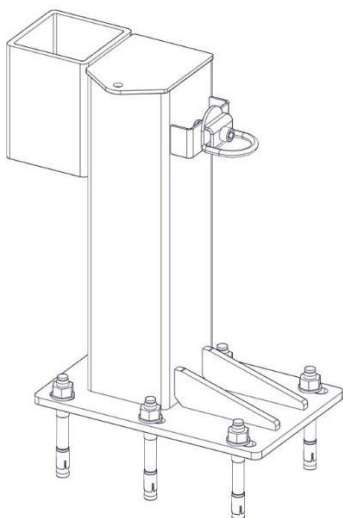


Figure 4. Ceiling socket RA112

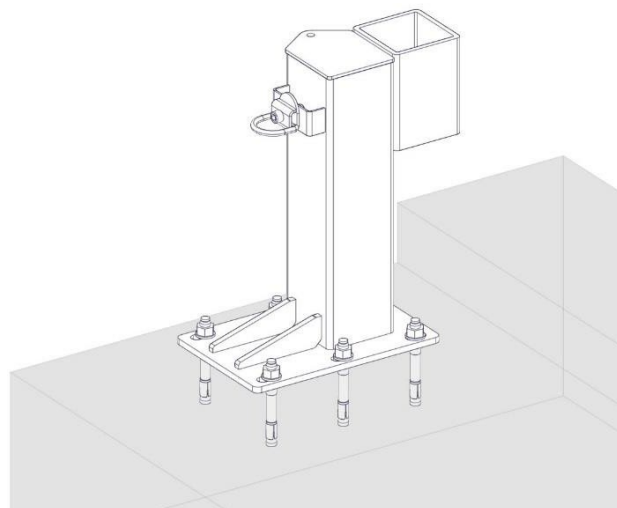


Figure 5. Embedding the socket in a concrete structure

4. Device transport

The RA100 is designed to carry out work or activities beyond the roof area and beyond its perimeter.

The transport unit is packed in a carrying case equipped with handles for easy transport.

The unit in its transported condition including packaging has a weight of 27 kg and a length of 1780 mm.

The unit should be dismantled after work, cleaned with a dry cloth if it has become damp from rain or snow.

Store the device in the supplied carrying case

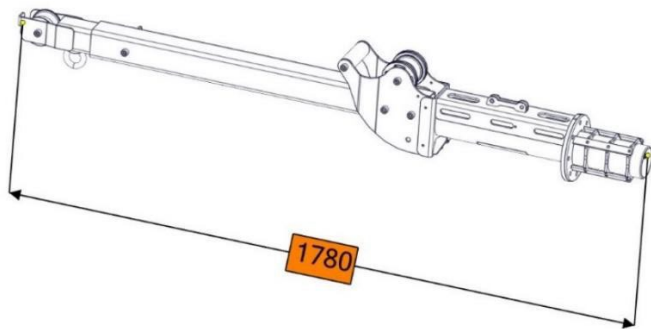


Figure 6. Transport dimensions of the unit

Carry the unit by hand using the handles of the cover or by the handle of the unit [E] Figure 2.

5. Installation of the unit for operation

- Before installation, store the RA100 in a place: clean, free from corrosive fumes and in conditions that prevent mechanical damage. Take into account the environmental conditions at the installation site that may cause corrosion of the anchor point and fasteners.
- Installation of the points should be carried out in accordance with the guidelines of the manufacturer of these elements.
- Before installing the unit, ensure that the structure on which it is to be mounted is capable of supporting the necessary loads >14kN at the unit's place of use
- Follow the main principles for the use of personal protective equipment against falls from a height in accordance with EN795:2012.
- Installation may only be carried out after reading the instructions for use of the appliance and the instructions for the associated equipment.

The arm must be removed from the cover using the handle [E] Figure 2 and placed vertically in the socket installed in the roof structure.

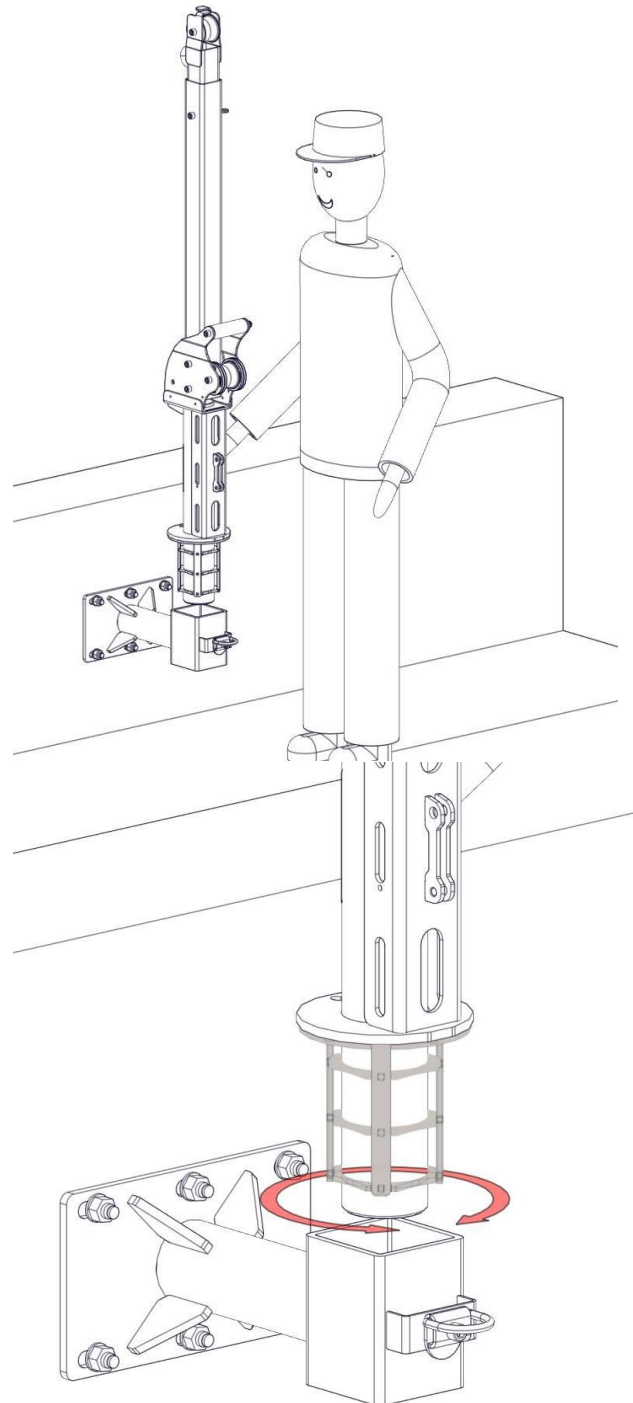


Figure 7. Embedding the arm in the socket

Unscrew the arm overhang locking screw and adjust the overhang so that it extends beyond the edge of the roof at least 250 mm. Each time check that the dimension has been obtained by lowering the entire arm. Repeat the process until the desired overhang dimension is reached behind the building attic. Then lock the extension by inserting the screw into the adjustment hole. Figure 8.

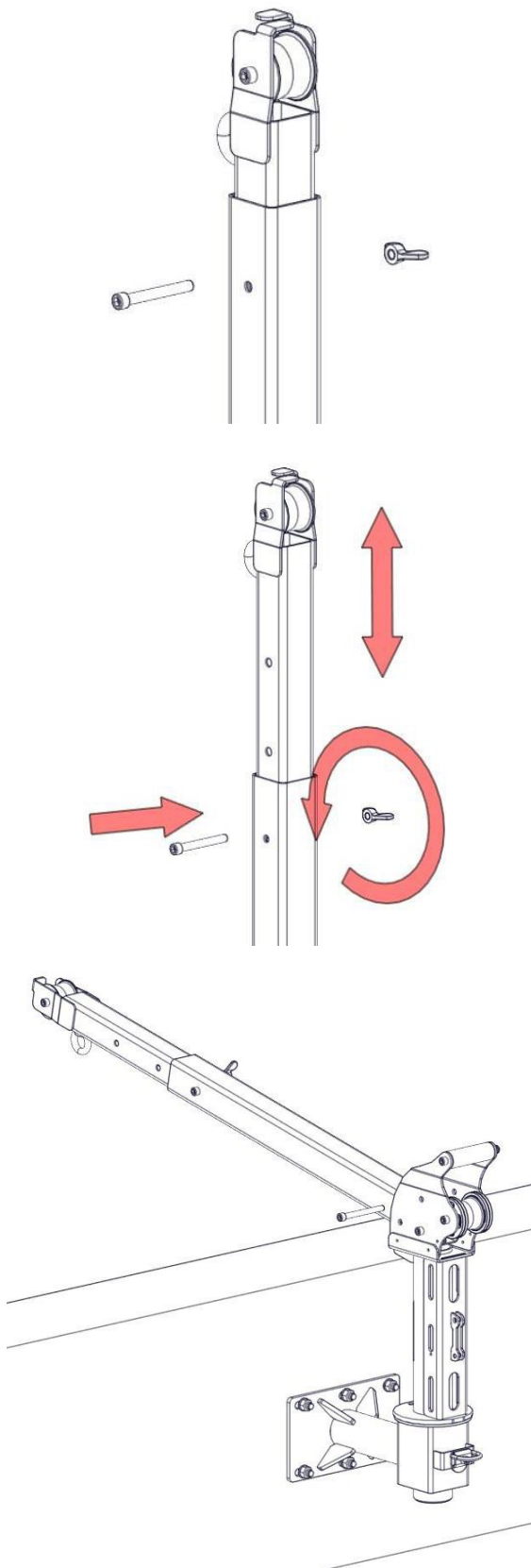


Figure 8. Arm reach setting

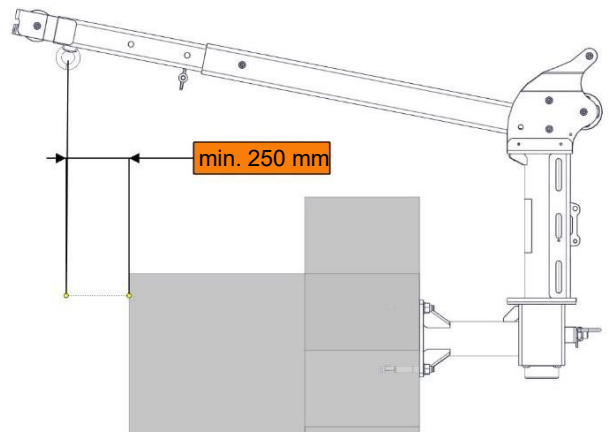


Figure 9. Extension beyond the edge of the building

The arm can be rotated to its full extent to facilitate the installation of equipment into the unit's boom.

This function is designed to minimise the risk of a worker leaning over the edge of the roof Figure 10

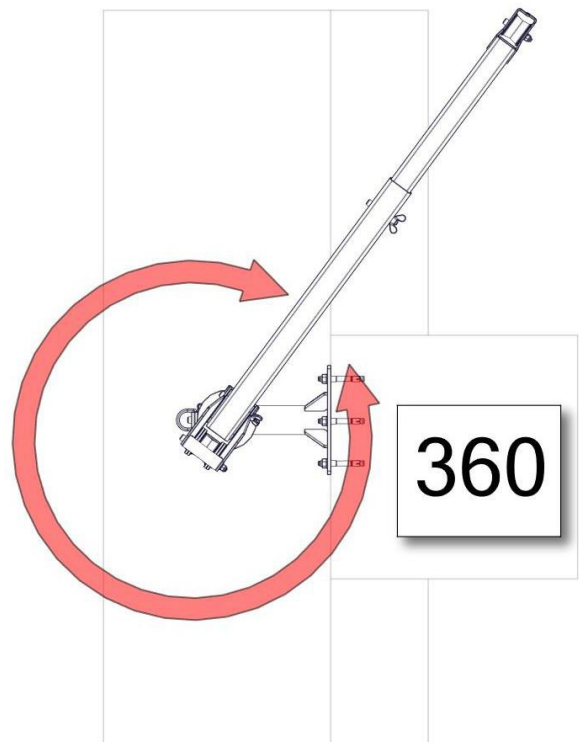


Figure 10. Rotation range of the device

The maximum dimensions of the unit are shown in Figure 11.

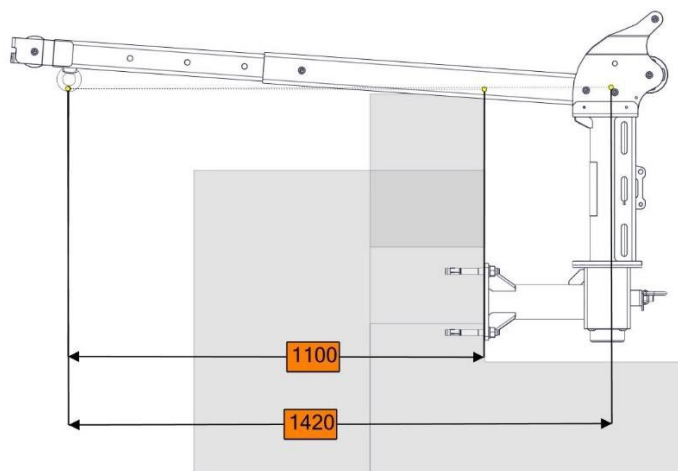


Figure 11. Dimensions of arm and socket assembly

The unit deliberately has an arm tilt from the horizontal position when ready for use. This is to eliminate the risk of the arm leaning against the attic flashings in the event of a full working load.

Work with the device should be carried out by a minimum of 2 people.

It is important to ensure that the person supervising the work and the belayer is also protected by protective equipment.

To this end, an EN795:2012 Type A safety belay point has been installed in each socket of the device.

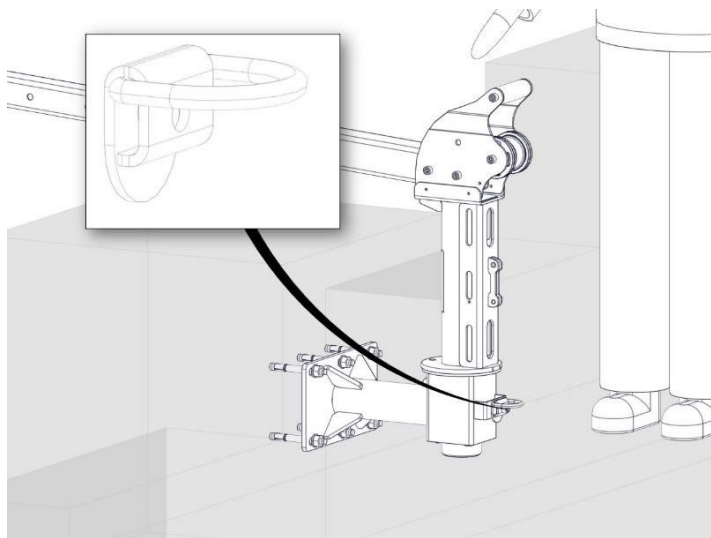


Figure 12. Assurance of the belayer

6. Device marking



Fall protection equipment	
Davit arm EN795:2012-B CEN/TS 16415:2013	RA100 CE 0082
NOTE! 	
<ol style="list-style-type: none"> 1. Maintain the necessary clearance under the user at the point of potential fall in accordance with the instructions for the fall protection equipment being used. 2. Maximum number of simultaneous users 2 people. 3. Use with EN363-compliant fall protection equipment fitted with an Energy absorber. 	
Serial number:	Date of manufacture:
21812918	11-2022
 93-403 LODZ, ul. Starorudzka 9, POLAND TEL:(48 42) 680 20 83, www.protekt.com.pl	

Figure 13. Product labelling RA100

7. Periodic inspection

At least once a year, after every 12 months of use, a periodic inspection of the device should be carried out.

The periodic inspection should be carried out by the manufacturer's authorised service:

PROTEKT Grzegorz Łaskiewicz
Ul. Starorudzka 9
93-403 Łódź

or a competent person with appropriate knowledge and training to carry out a survey of such equipment.

The trained person is an individual who, on the basis of his or her specialist training and declaration, has sufficient knowledge of the safety and rescue measures installed and is sufficiently familiar with the applicable health and safety regulations, guidelines and generally recognised technical principles to be able to assess the safe operation and correct application of the safety devices.

After 5 years of use, it is recommended that periodic inspections are carried out by the equipment manufacturer or a company authorised by the manufacturer to carry out such inspections.

Before each use of the system, check that the date of the next technical inspection has not passed. After this date, the system cannot be used. Before and after each use, a visual check should be performed to ensure that the system is complete and in good working order and that the wire rope is in good tension.

If any defects or incompleteness are found, the point may not be used.

Contact the manufacturer to resolve doubts and do not attempt repairs yourself!

A system that has been involved in a fall arrest must be taken out of service immediately!

Re-entry into service of a system that has been involved in fall arrest is allowed after a thorough inspection by the manufacturer or a service authorised by the manufacturer.

When using the system, special attention must be paid to dangerous phenomena affecting the operation of the PPE or safety of the user, in particular: looping and sliding of ropes on sharp edges, swinging falls, electricity, exposure to extreme temperatures, damage to the equipment, adverse effects of climatic factors, exposure to chemicals, pollution.

Original system components must not be modified, repaired or replaced with others.

8. Main principles for use of the personal protective equipment (PPE) against falls from a height

- The use of the RA100 anchor point must be in accordance with the individual equipment use instructions and standards:
EN 361 – full body harness
EN 352-2; EN 355; EN 360 – protection equipment
EN 362 – connectors
EN 795 – anchor points
- PPE shall only be used by personnel trained in its operation.
- PPE shall not be used by individuals with any health condition that may affect their safety during regular use or in an emergency.
- prepare an emergency response plan that can be implemented when needed.
- Never attempt to modify the fall arrester without prior written consent from the manufacturer.
- Any repair of the fall arrester shall only be carried out by its manufacturer or its authorised representative.
- PPE shall not be used in any way other than its intended use.
- PPE is a type of personal equipment and shall be operated by a single dedicated user only.
- Before using the fall arrester, verify that all components of the gear which forms the fall arrest system interact correctly. periodically inspect the joints and fitting of PPE to avoid accidental release or detachment.
- Do not use PPE kits in which the performance of any component is inhibited by performance of any other component.
- Before each use of PPE, it should be thoroughly inspected to check its condition and correct functioning.
- During the visual inspection, verify all components of PPE with particular attention to all evidence of damage, excessive wear, corrosion, abrasion, cuts, or malfunctions. Inspect these components with extreme care:
 - ✓ in the full body harness and belt for positioning buckles, adjusting devices, attachment points (buckles), webbing, seams, loops;
 - ✓ fall arrest energy absorbers: tether loops, lanyards, stitching, casing, and connectors;
 - ✓ in ropes and textile guides for rope, loops, thimbles, connectors, adjustment elements, knots;
 - ✓ In steel cable life ropes and anchor ropes: cables, cable wires, end clamps, thimbles, connectors, and adjustment parts;
 - ✓ rope-operated retractable type fall arresters: proper performance of the winding and locking gears, the casing, the energy absorber, and the connectors;
 - ✓ guided type fall arresters: casing, proper running on the anchor rope, locking gear performance, sheaves, bolts, rivets, connectors, and the energy absorber;
 - ✓ in the connectors (snap hooks) on the load-bearing body, riveting, main pawl, operation of the locking mechanism.
- At least once a year, every 12 months of operation, PPE requires removal from service for a thorough periodic inspection. The periodic inspection shall be carried out by a competent and trained person. Periodic inspections may also be carried out by the equipment manufacturer or a person or company authorised by the manufacturer. Carefully inspect all parts of the equipment paying particular attention to any damage, excessive wear, corrosion, abrasions, cuts and malfunctions (see previous section). In certain cases, if PPE has a complex design, like retractable type fall arresters, periodic inspections shall only be done out by the manufacturer or its authorised representative.

Following the periodic inspection, the next periodic inspection date shall be identified.

- Regular periodic inspections are critical to the condition of PPE and the safety of its user, which depends on uncompromised performance and durability of PPE.
- During the periodic inspection, check the legibility of all personal protective equipment markings and labels (which apply to the PPE unit in question).
- All information relating to the personal protective equipment (name, serial number, date of purchase and entry into service, user name, repair and maintenance information and decommissioning information) must be included in the equipment usage record. The facility where the equipment in question is used is responsible for the entries in the operation sheet. The record is filled in by the person responsible at the workplace for protective equipment. Do not use the PPE that does not have a completed usage record.
- If PPE is sold outside its country of origin, the PPE supplier shall provide it with the instructions for use and maintenance and the procedures of periodic inspection and repair in the official language of the country in which the PPE will be used.
- PPE must be taken out of service immediately if there is any doubt as to the condition of the equipment or its proper functioning. The equipment can be put back to service after thorough inspection by the equipment manufacturer and its written consent to the re-use of the equipment.
- PPE must be taken out of service and disposed of (permanently destroyed) if it has been involved in fall arrest.
- Full body harnesses are the only acceptable device for holding the body in personal protective equipment against falls from a height.
- The fall protection system can be attached to the full body harness attachment points (buckles, loops) marked with a capital "A".

9. Warranty

The manufacturer grants 12 months of warranty from the date of purchase of the equipment. In the event of a defect in any part, the warranty period for that part shall be extended by the time of repair and effective rectification of the defect disclosed.

The warranty covers:

- Material defects,
- Design defects,
- Defects in the corrosion protection coating.

A condition to keep the guarantee is that the periodic inspection procedures set out in section 4 of the instructions for use are followed.

10. Operation sheet

RA100 ANCHOR POINT OPERATION SHEET (according to EN365)					
Part no.	RA100	Serial number:		
Date of commissioning (installation)	Date of manufacture:		
Installation location				
Username:				
Maintenance and repair log					
Item	Inspection date:	Type of inspection/repair	Comments	Date of next inspection	Name and signature of service person
1					
2					
3					
4					
5					
6					
7					
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