

**OPIS**

**DESCRIPTION**

Fixed vertical fall arrest system type: AC 520 is used for fall protection. It is a guided type fall arrester with a rigid guide, compliant with EN 353-1:2014+A1:2017. The AC520 system meets the requirements of EU Regulation 2016/425.

The system consists of a fixed guide rail (aluminium) and one or two AC 501 fall arrest rope grab (clamping mechanisms), which are connected directly to the front anchorage point of full body harness. The guide can be deviated from the vertical by an angle not exceeding 15°. The AC 501 rope grab does not require any additional shock absorbing components. The device can be used in the sub-zero temperature range (down to -30°C).

**The AC 520 system is designed for use by one person at a time.**  
**The system user should be equipped with an AC 501 rope grab.**  
**Maximum permissible operating load of the system: 140 kg.**  
**Permissible inclination of the system rail: 15°.**

**LABELLING**

1. Device type
2. European standard
3. Guide identification
4. Serial number
5. Production date (month and year)
6. Maximum/minimum operating load
7. Manufacturer's marking
8. CE marking and number of notified body carrying out surveillance in accordance with Article 11 of the Directive
9. Warning: "Read the instructions for use"

**NAMEPLATE**

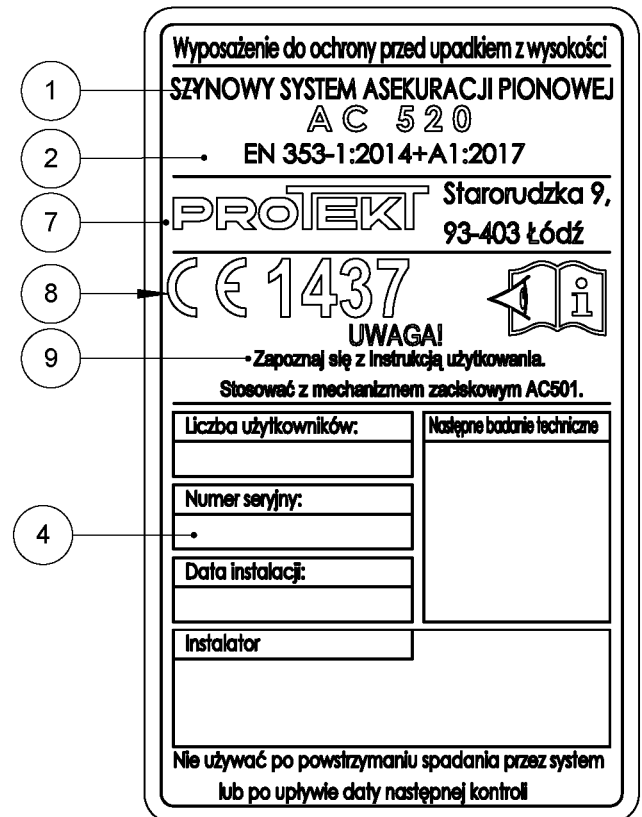
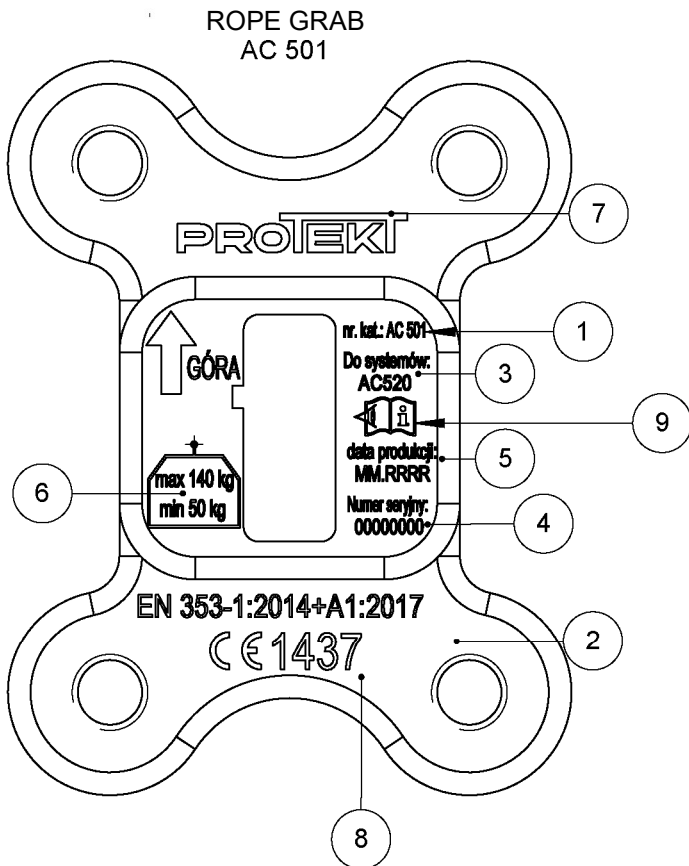


Fig.1 – Marking of the AC 501 rope grab and AC 520 fall arrest system.

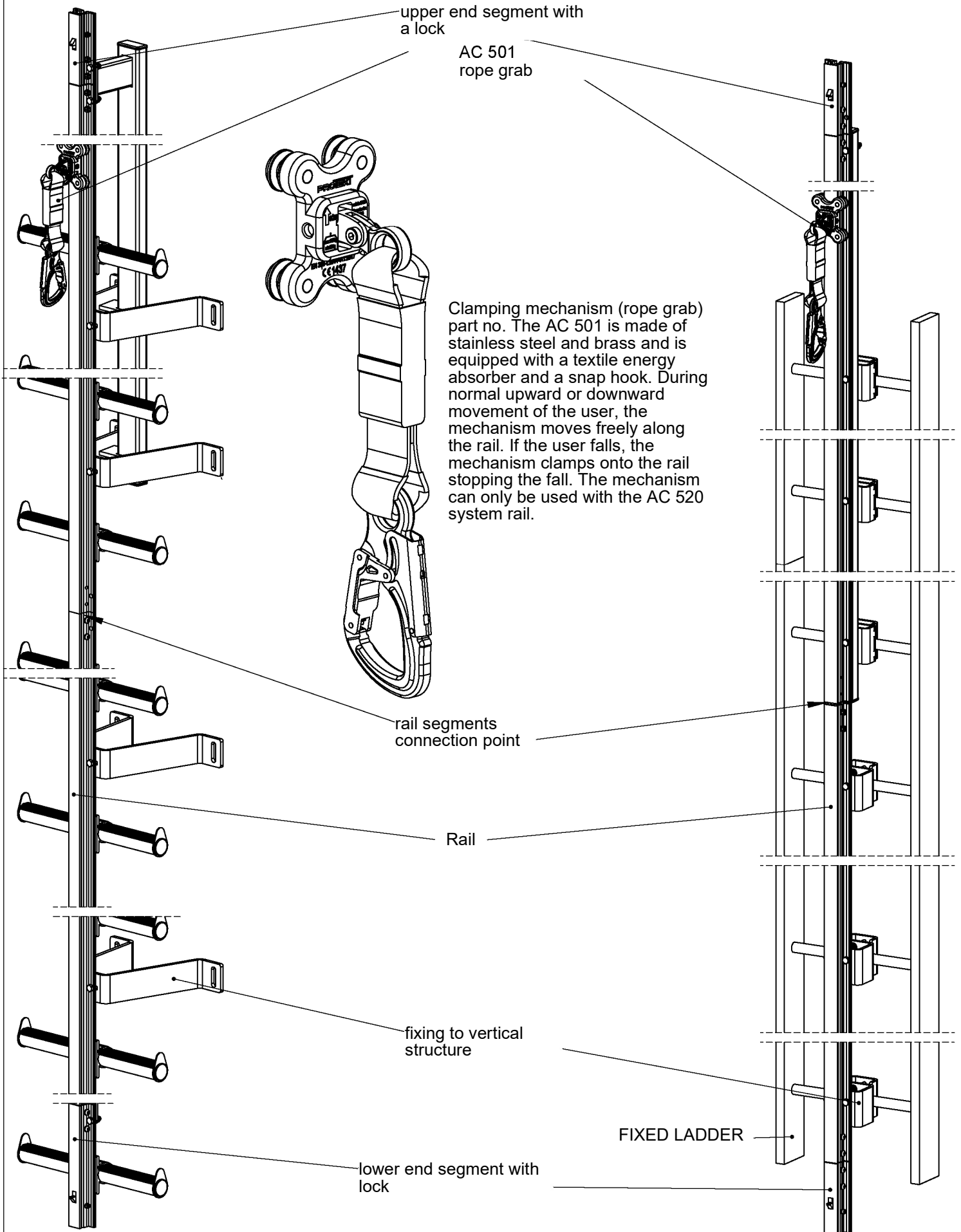
**CERTIFICATION**

CE certificate for the scope covered by Regulation (EU) 2016/425 of the European Parliament and of the Council.  
 The certificate was issued and the production is supervised by: CENTRAL INSTITUTE FOR LABOUR PROTECTION, ul. Czerniakowska 16, 00-701 Warsaw, Poland (notified body No 1437)  
 revision: 5/29-08-2022 pl

## AC 520 SYSTEM CONFIGURATIONS AVAILABLE

Fig. 2 – Configuration of the AC 520 system as a ladder with the system installed to the walls of buildings and other structures.

Fig. 3 – Configuration of the AC 520 system as a rail installed to an existing ladder.



## ASYMMETRIC RAIL

The AC 520 fall arrest system rail is made from an asymmetrical, reinforced aluminium profile. The special design prevents the user from incorrectly installing the AC 501 rope grab during operation.

## ATTACHING THE ROPE GRAB TO THE RAIL

The upper and lower ends of the AC 520 system are terminated with a segment with a locking device, which prevents the AC 501 rope grab from being accidentally removed from the rail when the system is in use.

To install the rope grab onto the rail, pull it through the latch of the interlocking segment (top or bottom) – Fig. 5.

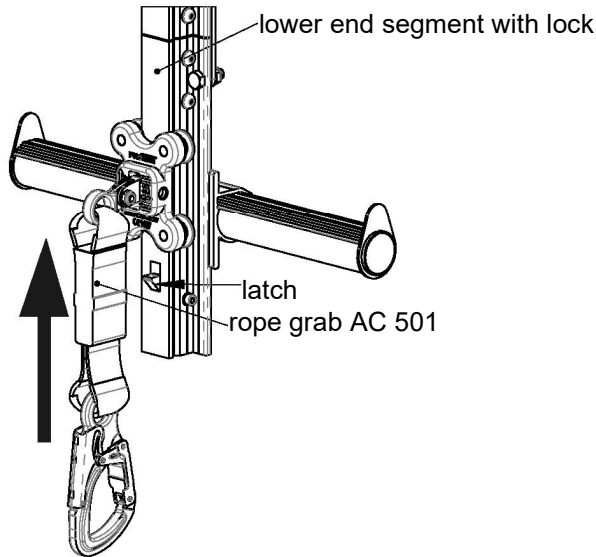


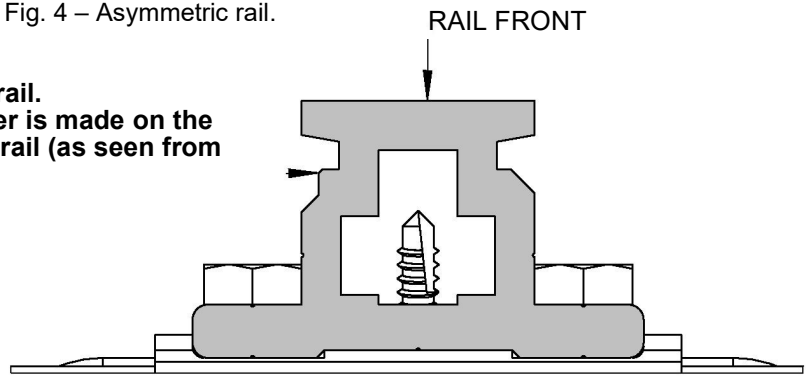
Fig. 5 – Installation of the AC501 rope grab on the AC 520 system rail.

Fig. 4 – Asymmetric rail.

### NOTE!

#### Asymmetrical rail.

A small chamfer is made on the left side of the rail (as seen from its front side).



To remove the rope grab from the rail (at both ends of the system), two steps must be performed simultaneously:

a) unlock and hold the latch (by pulling down the lever on the back of the segment with the latch) b) pull the rope grab through the unlocked latch and remove it from the rail.

The procedure is shown in Figure 6.



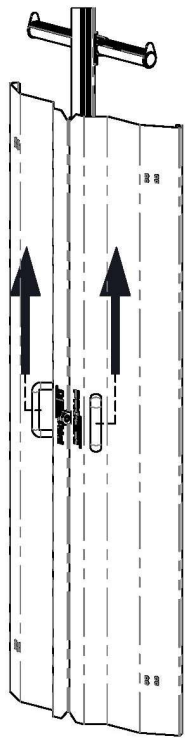
Fig. 6 – Removing the rope grab from the rail.

## CONNECTING THE MECHANISM TO THE FULL BODY HARNESS

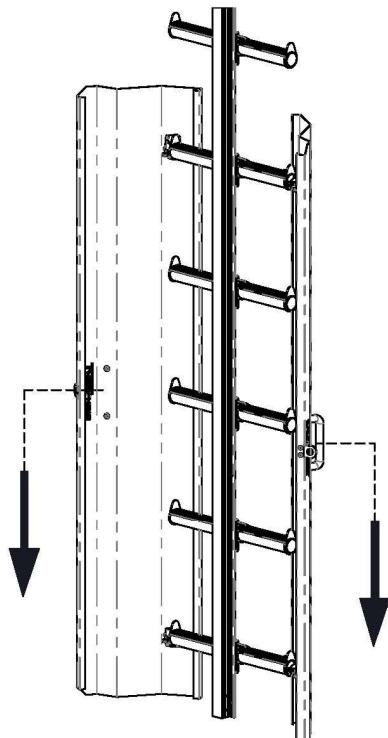
- The AC 501 rope grab (clamping mechanism) should be connected to the front full body harness anchor for fall arrest (complying with EN361) by means of the snap hook provided with the rope grab.
- It is prohibited to combine the clamping mechanism with the positioning belt.
- It is forbidden to attach any additional elements between the snap hook and the full body harness's attachment point.

USE OF LADDER ACCESS LOCK

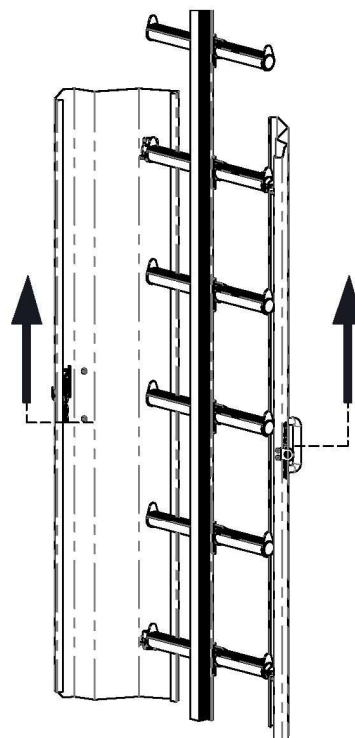
OPENING/LOCKING IN WORKING POSITION/LOCKING/SECURING



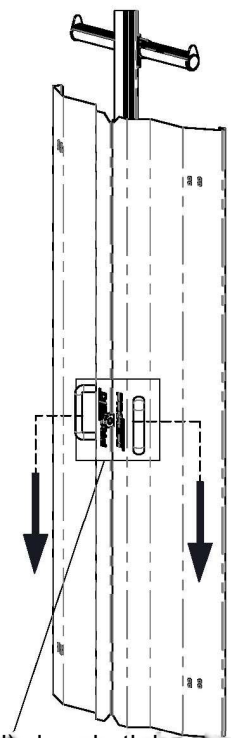
a) to open pull the handles upwards



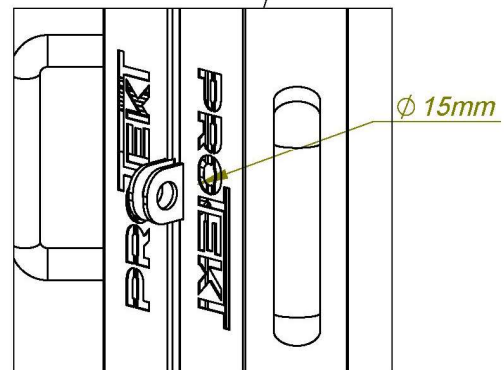
b) open the door leaves and lower them to lock them in the operating position.



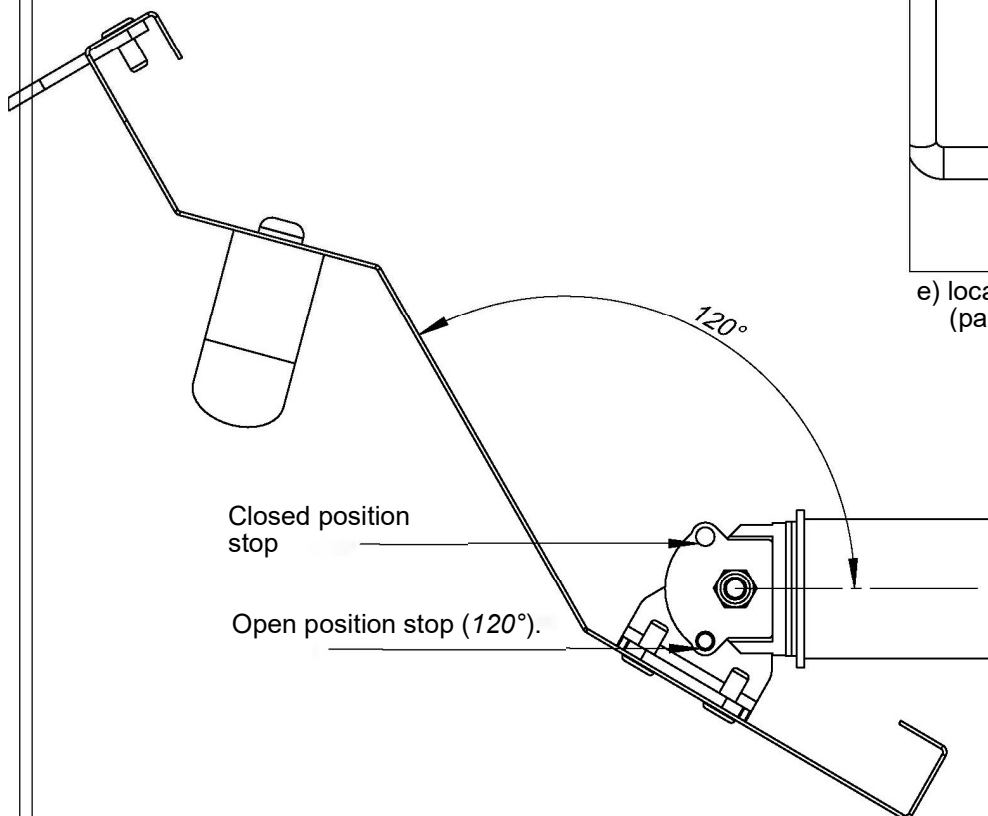
c) to close, pull the handles upwards.



d) close both leaves and lower the door in the closed position.



e) location of the padlock. (padlock not included).



## USE OF AC 520

- Use of the system contrary to the instructions is life-threatening.
- The system must only be used by people trained in working at height and in the use of fall protection equipment.
- The system must not be used by persons whose health condition may affect safety both during normal use and during the conduct of a possible rescue operation.
- A rescue plan should be prepared that can be used if necessary.
- Original system components must not be modified, repaired or replaced. Any changes, repairs or additions to the unit may only be carried out by an authorised manufacturer's service centre.
- Before each use of the system, check that the date of the next technical inspection has not passed.
- Before and after each use, the person using the system should visually check that it is complete and in good working order. The function of the rope grab should also be checked in accordance with the section "Putting the rope grab on the rail". The system may not be used if found faulty or incomplete in any way.
- If in doubt, contact the manufacturer or a service agent authorised by the manufacturer.
- The use of the system in conjunction with personal protective equipment must comply with the instructions for use of that equipment and, in particular, with the standards: EN361, EN362.
- It is forbidden to use such a set of protective equipment in which the functioning of one component is impaired by another component.
- The device must not be used in explosive environments.
- When using the system, special attention must be paid to conditions that adversely affect the operation of the protective equipment or the safety of the user, in particular the adverse effects of electricity, extreme temperatures, weather, chemicals and pollution.
- For the first few metres above ground level, special care must be taken as the user may not be completely protected from hitting the ground when stopping a fall. A minimum of 2 m of clearance under the user's feet should be maintained to avoid collisions with stationary obstacles.
- The snap hook of the clamping mechanism, when connected to the full body harness clip, should be secured against unintentional opening at all times.
- The total weight of the user including equipment should not exceed 140 kg.
- Only rope grabs (clamping mechanisms) marked AC 501 may be connected to the system guide. It is prohibited to use both AC 520 system guides and rope grabs in combination with other products.
- It is prohibited to use the system to stabilise the user's position or to work in suspension. For this purpose, a separate protective or support system for working at height, complying with EN358, must be used.

## GENERAL PRINCIPLES FOR THE APPLICATION OF THE SYSTEM

1. MAINTENANCE RECORD – each AC 520 system rail installed and each AC 501 rope grab should have a Maintenance Record completed by an authorised person and kept for the lifetime of the system and/or rope grab. The maintenance records for the guide and/or rope grab should be fully completed before the system or slider is put in use.
2. PERIODIC MAINTENANCE – all components of the system: rope grab, connectors, rail should be checked for mechanical, chemical or thermal damage and incorrect adjustment. A periodic check should be carried out at least every 12 months by servicemen authorised by the system manufacturer. The results of checks and any repairs should be recorded in the rail and rope grab maintenance records.
3. CEASE TO USE – once a fall has been stopped, the AC 520 system (including the rope grab involved) should be put out of service and checked by the manufacturer's authorised service. The result of the check and information on the release for further use should be recorded in the rail and rope grab maintenance records.
4. PERIOD OF USE – the AC 520 system can be used indefinitely provided regular periodic checks are carried out.
5. STORAGE – the AC 501 rope grab should be stored in dry places, at room temperature, protected from mechanical damage and from corrosive chemicals. Before the first use, the rope grab should be stored in the original manufacturer's packaging.
6. CLEANING – the components of the AC 520 system should be cleaned with water and a cloth. Do not use any solvents or corrosive chemicals. After washing, the components should be dried away from fire or heat sources.
7. REPAIRS – it is prohibited to carry out any repairs or modifications yourself. All repairs and modifications should be carried out by an authorised service centre.
8. TRANSPORT – the components of the AC 520 system should be transported in packaging that protects them from moisture and mechanical, chemical or thermal damage (e.g.: bags of impregnated fabric or plastic, steel or plastic boxes).

# AC 520 SYSTEM GUIDE (RAIL) MAINTENANCE RECORD

The facility where the equipment in question is used is responsible for the entries in the maintenance record. The maintenance record should be completed before the equipment is first put in use. All information relating to the protection 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 maintenance record. The record is filled in by the person responsible at the workplace for protective equipment. Do not use personal protective equipment that does not have a completed maintenance record.

<b>DEVICE NUMBER</b>	
<b>USER NAME</b>	
<b>INSTALLATION DATE</b>	
<b>LOCATION</b>	

## INSPECTION AND REPAIR RECORD

	DATE	TYPE OF INSPECTION OR REPAIR	COMMENTS	DATE OF NEXT INSPECTION	NAME AND SIGNATURE OF THE SERVICE PERSON
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					
11					
12					
13					

**MANUFACTURER:**

PROTEKT, 93-403 ŁÓDŹ, ul. Starorudzka 9, tel: (42) 680 20 83, fax: (42) 680 20 93, www.protekt.com.pl

# AC 520 SYSTEM MAINTENANCE RECORD

## ROPE GRAB AC 501

The facility where the equipment in question is used is responsible for the entries in the maintenance record. The maintenance record should be completed before the equipment is first put in use. All information relating to the protection 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 maintenance record. The record is filled in by the person responsible at the workplace for protective equipment. Do not use personal protective equipment that does not have a completed maintenance record.

<b>DEVICE NUMBER</b>		H=..... m HEIGHT OF THE SYSTEM
<b>USER NAME</b>		
<b>DATE OF MANUFACTURE</b>		
<b>DATE OF PURCHASE</b>		
<b>DATE OF PUTTING INTO USE</b>		

### INSPECTION AND REPAIR RECORD

	DATE	TYPE OF INSPECTION OR REPAIR	COMMENTS	DATE OF NEXT INSPECTION	NAME AND SIGNATURE OF THE SERVICE PERSON
1					
2					
3					
4					
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12					

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