

A



**PROTEKT**

GB

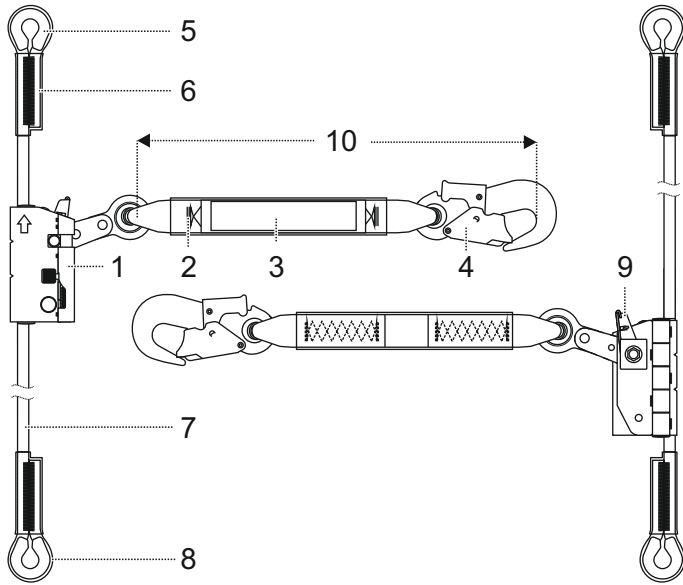
Guided type fall arrester including a flexible line

CE 0082

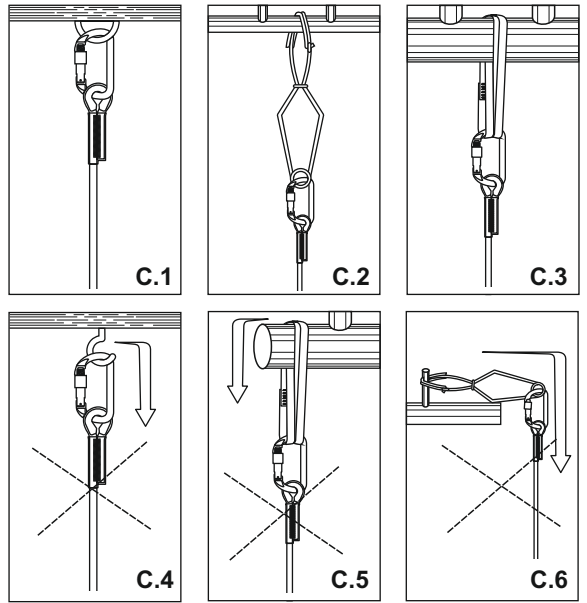
EN353-2:2002

+ VG11 11.075

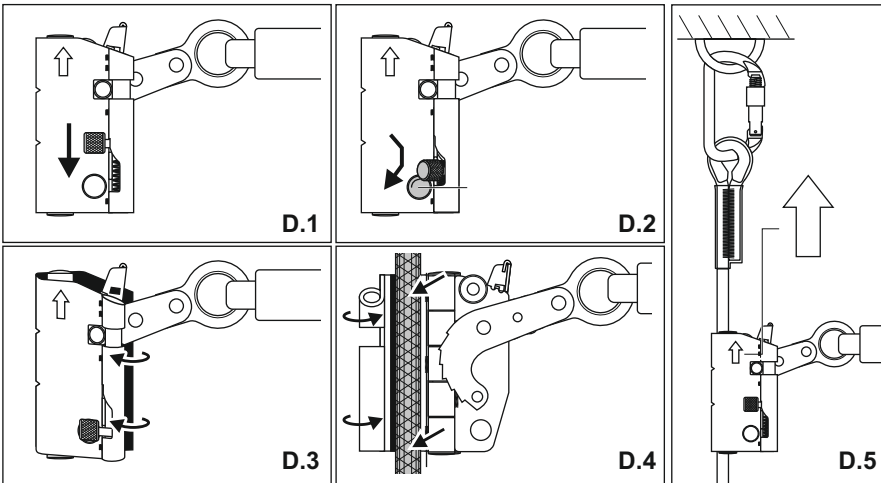
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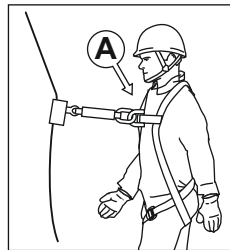
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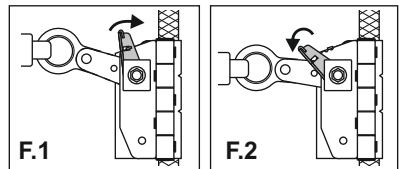
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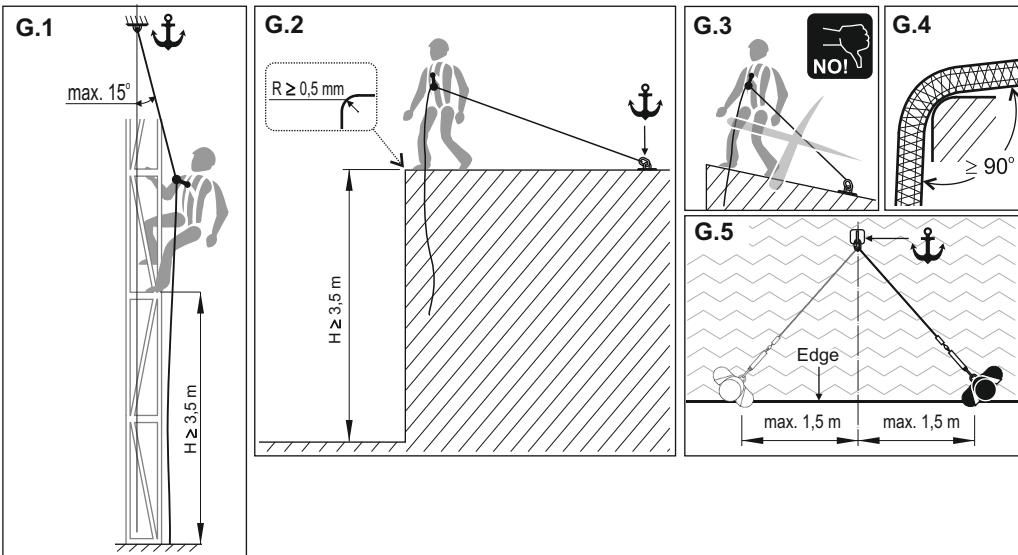
E



F



G



H

- (a) GUIDED-TYPE FALL ARRESTER
- (b) **AC10 ED**
- (c) EN 353-2:2002
- (d) **CE 0082**
- (e)
- (f)
- (g)
- (h) **VG11 11.075**
- (i) max. 100 kg Ø 14 mm Ref. AC 100 ED
- (j) Date of manufacture: MM.YYYY Serial number: XXXXXXXXXXXX
- (k)
- (l)
- (m) **WORKING ROPE**
- (n) **AC100ED xx**
- (o) **DIAMETER: ø14 mm**
- (p) **Length: xx m**
- (r) **PROTEKT**

## GB - NOTICE: Read and fully understand these instructions before using this equipment.

### A. DESCRIPTION

AC010 is a guided type fall arrester device on flexible guide that is a part of personal protective equipment against falls from a height. The device is compliant with EN 353-2. AC010ED can be used only with polyester guides (working ropes) of 14 mm diameter designated with AC100ED reference number. AC010ED can be used to protect a single user of maximum weight 100 kg.

The guided type fall arrester including flexible anchorage line AC010ED has been successfully tested according to VG11 11.075 requirements (which are outside of CE regulations) for horizontal use and a resulting simulated fall over an edge. A steel bar with a radius of  $r = 0.5$  mm with no burrs was used in these tests. On the basis of this test, the equipment is suitable for use over similar edges such as rolled steel profiles, wooden beams or a clad, rounded proof parapet.

### B. NOMENCLATURE

1. Steel rope grab
2. Polyamide energy absorber
3. Identity label of the device
4. Connector of the energy absorber
5. Top end of the working rope equipped with the thimble
6. Identity label of the working rope
7. 14 mm polyester kernmantle working rope
8. Bottom end of the working rope equipped with the thimble
9. Locking lever of the rope grab.
10. 44 cm - maximum admissible length of the energy absorber with a connector

### C. CONNECTING OF THE WORKING ROPE TO STRUCTURAL ANCHORAGE POINT

The guide (working rope) is to be connected to the structural anchorage point by means of the connector or anchoring device compliant with EN362 (C.1 and C.2) or EN795 (C.3) standard. The structural anchorage point should have the minimum static resistance 12 kN. The shape and design of the structural anchor point should not let self-acting disconnection of the guide (C.4, C.5, C.6). It is recommended to use certified and approved anchorage points conforming to EN795.

### D. INSTALLING THE ROPE GRAB ON THE WORKING ROPE

- D.1 Pull down the safety pin of the rope grab
- D.2 Push the safety button
- D.3 Open the walls of the rope grab
- D.4 Install the guide inside the bend of the front wall of the rope grab. Close the walls.
- D.5 After closing the walls the rope grab locks automatically. The arrow located on the front wall of the guide must be directed up to the top end of the working rope, towards the anchor point.

### E. ATTACHING THE ROPE GRAB TO THE FULL BODY HARNESS

The connector of the rope grab must be connected to the attachment point of full body harness, designated with the capital "A" letter. It's recommended to use front attachment point. The full body harness must comply with EN361 standard.

### F. STATIONARY WORK

While working at one work station, the rope grab mechanism should be moved by hand overhead of the user and locked in one place on the working rope. It causes the mechanism to be permanently locked in one place thus its mass will not increase the total weight of the user.

Locking the rope grab:

- F.1 Release the spring of the locking lever
- F.2 Push the locking lever down

### G. MAIN RULES WHILE WORKING WITH THE AC010 ED DEVICE

G.1 The required free space "H" of minimum 3.5 m must be present underneath the user in order to safely arrest the fall. If the guide (working rope) of the length greater than 20 m is used, the free space underneath the user should be increased by 5% of the guide length. If the guide is attached to the anchor point situated in the vertical line directly over the user, the maximum admissible deflection of the working rope from the vertical equals  $15^\circ$  while the user moves horizontally from structural anchor point line.

G.2 The device was tested according to VG11 11.075 and it can be used while the user moves horizontally in places where fall over the edge is possible (e.g. on flat roofs). The minimum edge radius must be equal to 0.5 mm. If the edge is sharp or it imposes high risk of rope damage, e.g. there are burrs, appropriate edge protection should be used.

G.3 The guide (working rope) anchorage point shall not be situated below the feet level of the user.

G.4 The deflection angle of the guide over the edge while arresting the fall must be equal or greater than  $90^\circ$ .

G.5 While working the guide of the guided type fall arrester must be used in such a way that there is no slack rope. The length of the guided type fall arrester may be adjusted (sliding the rope grab mechanism over the guide) if the user is not moving in the direction of the fall edge. In order to eliminate the risk of pendulum type fall, the user is allowed to move horizontally not further than 1.5 m in both directions from the vertical axis of the anchorage point. Otherwise, instead of a permanent anchorage point, one should use the anchoring device compliant with EN795 class C or class D standard. If a horizontal anchor rope EN 795 class C is employed, one should consider its possible deflection that influences the free space "H" below the work position. All the information presented in the instruction manual of the horizontal anchor line should be taken into consideration.

**ATTENTION:** While ascending and descending over the first 2 meters above the ground level the user might not be properly secured against hitting the ground while falling, thus special care must be taken while working in this range of heights.

After a fall over an edge there is a risk of injuries during capture if the falling person knocks against parts of the building or construction. Special rescue procedures related to falls over the edge should be prepared and trained accordingly.

### H. MEANING OF THE MARKING

- a) device type
- b) reference number
- c) number and year of issuing European standards applicable for the device
- d) The CE mark and number of the notified body responsible for performing the production process control
- e) read and understand the instruction before use
- f) approved for vertical use
- g) approved for horizontal/edge fall use in accordance to VG.11 11.075 requirements
- h) the guide (working rope) shall not be stressed over sharp edges
- i) maximum rated load
- j) the diameter and the reference number of the guide (working rope) intended to be used with the AC010ED fall arrester.
- k) month and year of manufacture

- l) serial number of the fall arrester
- m) the name of the guide line
- n) the reference of the guide - „xx" is the code of the length
- o) the diameter of the guide
- p) the length of the guide
- r) manufacturer's marking

### I. PERIODIC INSPECTIONS

The device must be inspected at least once every 12 months from the date of first use.

Periodic inspections must only be carried out by a competent person who has the knowledge and training required for personal protective equipment periodic inspections. Depending upon the type and environment of work, inspections may be needed to be carried out more frequently than once every 12 months. Every periodic inspection must be recorded in the Identity Card of the equipment.

### G. MAXIMUM LIFESPAN OF THE EQUIPMENT

The maximum lifespan of correctly working rope grab is unlimited on condition the energy absorber is replaced after 10 years of use. The maximum lifespan of the energy absorber and the guide (working line) is 10 years

### H. WITHDRAWAL FROM USE

The device (the rope grab with the guide) must be withdrawn from use immediately and destroyed when it has been used to arrest a fall or it fails to pass inspection or there are any doubt as to its reliability.

**ATTENTION:** The device maximum lifetime depends on the intensity of usage and the environment of usage. Using the device in rough environment, marine environment, contact with sharp edges, exposure to extreme temperatures or aggressive substances, etc. can lead to the withdrawal from use even after one use.

### I. THE ESSENTIAL PRINCIPLES FOR USERS OF PERSONAL PROTECTIVE EQUIPMENT AGAINST FALLS FROM A HEIGHT:

- personal protective equipment shall only be used by a person trained and competent in its safe use.
- personal protective equipment must not be used by a person with medical condition that could affect the safety of the equipment user in normal and emergency use.
- a rescue plan shall be in place to deal with any emergencies that could arise during the work.
- being suspended in PPE (e.g. arresting a fall), beware of suspension trauma symptoms.
- to avoid symptoms of suspension trauma, be sure that the proper rescue plan is ready for use. It is recommended to use foot straps.
- it is forbidden to make any alterations or additions to the equipment without the manufacturer's prior written consent.
- any repair shall only be carried out by equipment manufacturer or his certified representative.
- personal protective equipment shall not be used outside its limitations, or for any purpose other than that for which it is intended.
- personal protective equipment should be a personal issue item.
- before use ensure about the compatibility of items of equipment assembled into a fall arrest system. Regularly check connecting and adjusting of the equipment components during use to avoid accidental loosening or disconnecting of the components.
- it is forbidden to use combinations of items of equipment in which the safe function of any one item is affected by or interferes with the safe function of another.
- before each use of personal protective equipment it is obligatory to carry out a pre-use check of the equipment, to ensure that it is in a serviceable condition and operates correctly before it is used.
- during pre-use check it is necessary to inspect all elements of the equipment in respect of any damages, excessive wear, corrosion, abrasion, cutting or incorrect acting, especially take into consideration:
  - in full body harnesses and belts - buckles, adjusting elements, attaching points, webbings, seams, loops;
  - in energy absorbers - attaching loops, webbing, seams, casing, connectors;
  - in textile lanyards or lifelines or guidelines - rope, loops, thimbles, connectors, adjusting element, splices;
  - in steel lanyards or lifelines or guidelines - cable, wires, clips, ferrules, loops, thimbles, connectors, adjusting elements;
  - in retractable fall arresters - cable or webbing, retractor and brake proper acting, casing, energy absorber, connector;
  - in guided type fall arresters - body of the fall arrester, sliding function, locking gear acting, rivets and screws, connector, energy absorber;
  - in metallic components (connectors, hooks, anchors) - main body, rivets, gate, locking gear acting.
- after every 12 months of utilization, personal protective equipment must be withdrawn from use to carry out periodic detailed inspection. The periodic inspection must be carried out by a competent person for periodic inspection. The periodic inspection can be carried out also by the manufacturer or his authorized representative.
- in case of some types of the complex equipment e.g. some types of retractable fall arresters the annual inspection can be carried out only by the manufacturer or his authorized representative.
- regular periodic inspections are the essential for equipment maintenance and the safety of the users which depends upon the continued efficiency and durability of the equipment.
- during periodic inspection it is necessary to check the legibility of the equipment marking. Don't use the equipment with the illegible marking.
- it is essential for the safety of the user that if the product is re-sold outside the original country of destination the reseller shall provide instructions for use, for maintenance, for periodic examination and for repair in language of the country in which the product is to be used.
- personal protective equipment must be withdrawn from use immediately when any doubt arise about its condition for safe use and not used again until confirmed in writing by equipment manufacturer or his representative after carried out the detailed inspection.
- personal protective equipment must be withdrawn from use immediately and destroyed (or another procedures shall be introduced according detailed instruction from equipment manual) when it have been used to arrest a fall.
  - a full body harness (conforming to EN 361) is the only acceptable body holding device that can be used, in a fall arrest system.
  - in full body harness use only attachment points marked with a capital letter "A" to attach a fall arrest system.
  - the anchor device or anchor point for the fall arrest system should always be positioned, and the work carried out in such a way, as to minimise both the potential for falls and potential fall distance. The anchor device/point should be placed above the position of the user. The shape and construction of the anchor device/point shall not allowed to self-acting disconnection of the equipment. Minimal static strength of the anchor device/point is 12 kN. It is recommended to use certified and marked structural anchor point complied with EN795
  - it is obligatory to verify the free space required beneath the user at the workplace before each occasion of use the fall arrest system, so that, in the case of a fall, there will be no collision with the ground or other obstacle in the fall path. The required value of the free space should be taken from instruction manual of used equipment.
  - there are many hazards that may affect the performance of the equipment and corresponding safety precautions that have to be observed during equipment utilization, especially: - trailing or looping of lanyards or lifelines over sharp edges, - any defects like cutting, abrasion, corrosion, - climatic exposure, - pendulum falls, - extremes of temperature, - chemical reagents, - electrical conductivity.
  - personal protective equipment must be transported in the package (e.g.: bag made of moisture-proof textile or foil bag or cases made of steel or plastic) to protect it against damage or moisture.

