- a full body harness is the only acceptable body holding device that can be used in a fall arrest system.
- in full body harness use only attaching points marked with big 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.
- the equipment can be cleaned without causing adverse effect on the materials in the manufacture of the equipment. For textile products use mild detergents for delicate fabrics, wash by hand or in a machine and rinse in water. Plastic parts can be cleaned only with water. When the equipment becomes wet, either from being in use or when due cleaning, it shall be allowed to dry naturally, and shall be kept away from direct heat. In metallic products some mechanic parts (spring, pin, hinge, etc.) can be regularly slightly lubricated to ensure better operation.
  Other maintenance and cleaning procedures should be adhered to detailed instructions stated in the manual of the equipment.
- personal protective equipment should be stored loosely packed, in a well-ventilated place, protected from direct light, ultraviolet degradation, damp environment, sharp edges, extreme temperatures and corrosive or aggressive substances.

IT IS THE RESPONSIBILITY OF THE USER ORGANISATION TO PROVIDE THE IDENTITY CARD AND TO FILL IN THE DETAILS REQUIRED. THE IDENTITY CARD SHOULD BE FILLED IN BEFORE THE FIRST USE BY A COMPETENT PERSON, RESPONSIBLE INTHE USER ORGANIZATION FOR PROTECTIVE EQUIPMENT. ANY INFORMATION ABOUT THE EQUIPMENT LIKE PERIODIC INSPECTIONS, REPAIRS, REASONS OF EQUIPMENT'S WITHDRAWN FROM USE SHALL BE NOTED INTO THE IDENTITY CARD BY A COMPETENT PERSON. THE IDENTITY CARD SHOULD BE STORAGED DURING A WHOLE PERIOD OF EQUIPMENT UTILIZATION DO NOT USE THE EQUIPMENT WITHOUT THE IDENTITY CARD. ALL RECORDS IN THE IDENTITY CARD CAN BE FILLED IN ONLY BY A COMPETENT PERSON.

# IDENTITY CARD

| | |
|---|---|
| MODEL AND TYPE OF EQUIPMENT | |
| REF. NUMBER | |
| SERIAL NUMBER | |
| DATE OF MANUF. | |
| USER NAME | |
| DATE OF PURCHASE | |
| DATE OF PUTTING INTO OPERATION | |

## PERIODIC EXAMINATION AND REPAIR HISTORY

| | DATE | REASON FOR ENTRY PERIODIC EXAMINATION OR REPAIR | DEFECTS NOTED, REPAIRS CARRIED OUT AND OTHER REVELANT INFORMATIONS | NAME AND SIGNATURE OF COMPETENT PERSON | PERIODIC EXAMINATION NEXT DUE DATE |
|---|---|---|---|---|---|
| 1 | | | | | |
| 2 | | | | | |
| 3 | | | | | |
| 4 | | | | | |

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Notified body, at which the European certification was performed and which supervises the production of the equipment:
APAVE SUDEUROPE SAS - BP 193 -
13322 MARSEILLE CEDEX 16 - FRANCE

# Instruction Manual

FORCE SAFETY AT HEIGHT PRODUCTS

EN 354:2010
EN 795:2012 TYPE B CE 0082 **Ref. AZ 410**

# CONNECTING LANYARD

The AZ410 connecting lanyard can be used as:

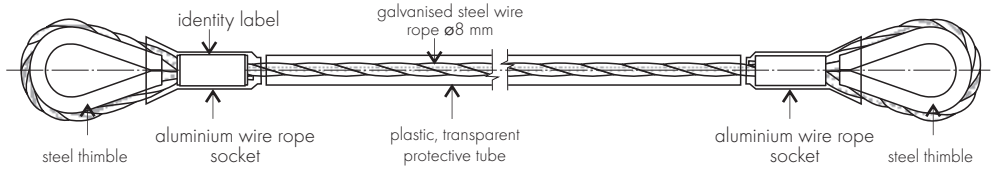
- a component of personal fall arrest equipment which is used as the temporary anchor device (tested to EN795 type B). When the anchor device is used as part of a fall arrest system, the user has to be equipped with a means of limiting the maximum dynamic forces exerted on the user during the arrest of a fall to a maximum of 6 kN.

or

- a component of personal fall arrest equipment as a lanyard (tested to EN354) in conjuction with energy absorber. Fall arrest system consisted of energy absorber (complied with EN 355) connected to connecting lanyard AZ410 (complied with EN 354) attached to the full body harness (complied with EN 361) and connected to the structural anchor point (complied with EN 795) can be used as a basic personal protective equipment against falls from a height. The total length of this sub-system with a lanyard including an energy absorber, terminations and connectors shall not exceed 2 m.

Connecting lanyard AZ 410 is intended to be used by one person use only.

Connecting lanyard AZ410 should only be used for personal fall protection equipment and not for lifting equipment




## MAXIMUM LIFETIME

The AZ410 lanyard's lifetime is indefinite. The lanyard's maximum lifetime depends on the intensity of usage and the environment of usage. Using the lanyard in rough environment, marine environment, contact with sharp edges, exposure to extreme temperatures or agressive substances, etc. can lead to the wthdrawal from use even after one use.

## PERIODICAL INSPECTION

At least once a year (after every 12 months of use), the lanyard shall be subject to periodical inspection. The periodical inspection must be carried out by a suitably qualified, competent person, responsible for the periodical inspections of protective equipment at the given site. The periodical inspection can be carried out also by the manufacturer or his authorized representative. Every periodical inspection must be recorded in the Identity Card of the equipment.

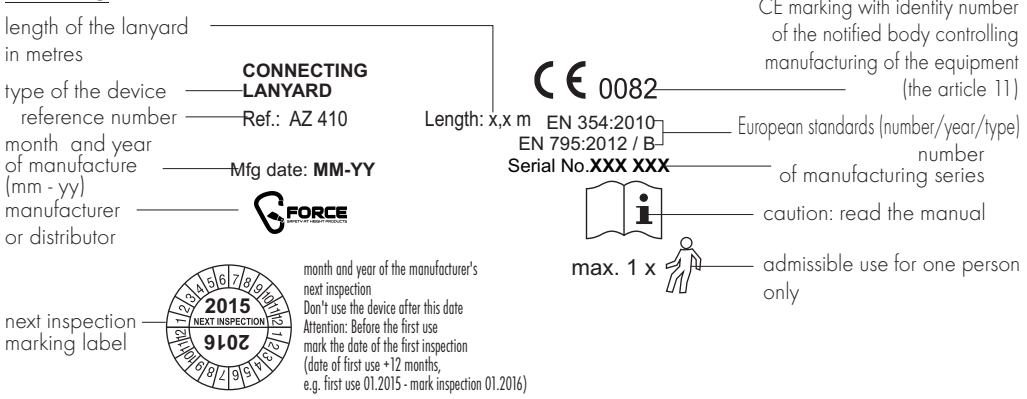
## WITHDRAWAL FROM USE

The AZ410 lanyard shall be withdrawn from use and destroyed to avoid incidental reuse when:

- It has been used to arrest a fall.
- It fails to pass inspection. There are any doubt as to its reliability.

The lanyard shall be withdrawn from use by the person who is responsible for the protective equipment at the given site.

## MARKING

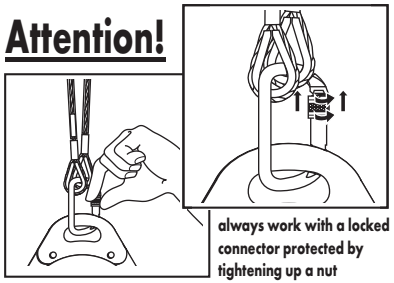


## USING THE CONNECTING LANYARD TO FASTEN FALL ARREST DEVICE TO THE STRUCTURAL POINT (EN 795)

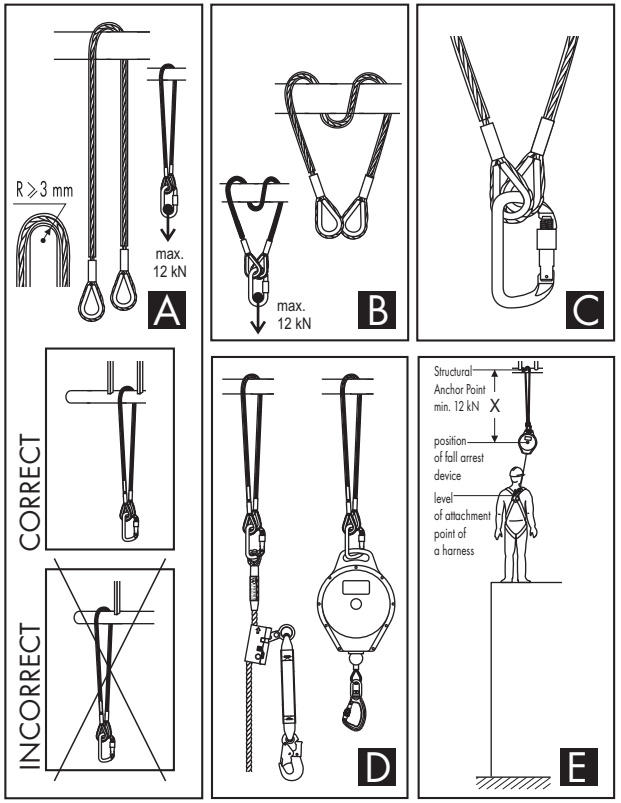
1. Put connecting lanyard around a construction element (structural anchor point). The structural anchor point should be situated above the working place and the shape of the structural anchor point should not let self-acting disconection of the lanyard. The maximum working load transmited from the AZ410 lanyard to the structural anchor point is 12 kN. The structural anchor point static strength must be at least double of working load transmitted in service from the AZ410 lanyard to the structure, but not less than 12 kN.
   ATTENTION: The minimal radius of the construction element must be 3 mm without sharp edges - drawing A.
2. It is allowed to put a connecting lanyard around the construction element few times to shorten the length of a lanyard - drawing B.
3. Connect together endings of a lanyard with certified oval type connector - drawing C.
4. Connect a fall arrest device (e.g. retractable type fall arrester, guided type fall arrester etc.) to the lanyard's snap hook - drawing D.
5. It must be taken into consideration that during using connecting lanyard an additional distance "X" appears between structural anchor point to which the lanyard is connected and fall arrest device - drawing E. This distance may influence functioning of fall arrest device, its position, and fall arrest distance. All calculations concerning safety of working place, fall arrest distance, free distance below working level must take into account this additional distance. The fall arrest device must be situated above the level of attachement point of a harness to which is connected.

Attention: Use only a certyfied (EN 362), oval type connectors which are made of bar of minimal diameter 10 mm

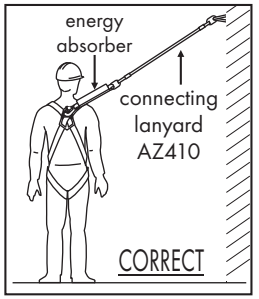
**Attention!**

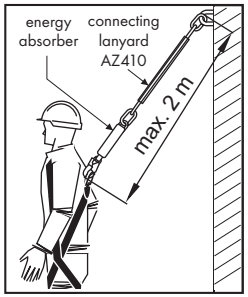


**always work with a locked connector protected by tightening up a nut**




IT IS STRICTLY FORBIDDEN to use tyhe AZ410 lanyard without the energy absorber.as a fall arresting device.
The total length of the sub-system with connecting lanyard AZ 410 including an energy absorber, terminations and connectors shall not exceed 2 m.



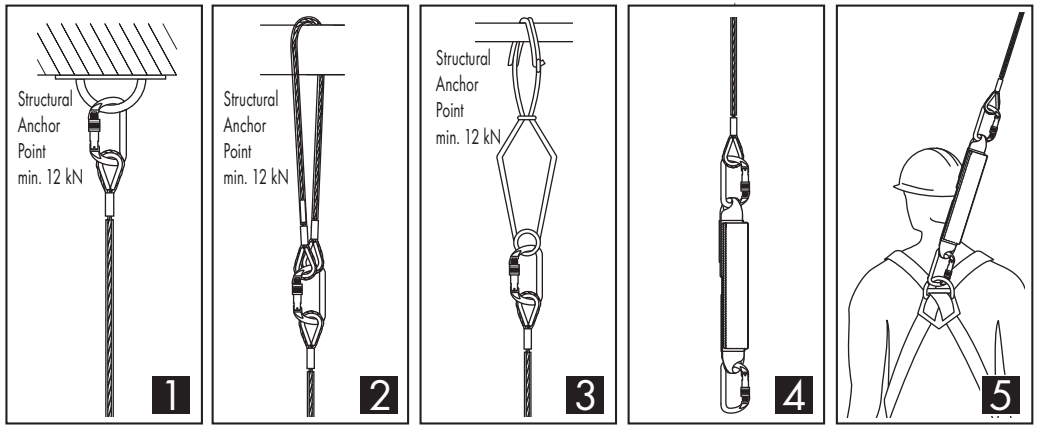




Using the connecting lanyard in connection with fall arrest system must be compatibile with use instructions of the fall arrest systems and obligatory standards:
- EN 361 - for safety harness;
- EN 353-2, EN 355, EN 360 - for fall arrest equipment.
- EN 362 - for the connectors.
- EN 795 - for anchorages.

- In determining the space under the workplace required to arrest the fall, consider the length of the lanyard as an additional element that extends the distance for arresting a fall.
- The total length of the safety lanyard connected to an energy absorber compliant with EN 355 and snap hooks and fasteners shall not exceed 2 m.
- The user should minimise the amount of slack in the lanyard near a fall hazard.
- The user must rule out any risk of the situation (e.g. wrapping the lanyard around neck) that during use ar arresting a fall the lanyard may be used choke hitched.
- The user should avoid interleaving the lanyard between construction elements or the situation when there is a risk of falling over the sharp edge (e.g. roof edge).
- Do not use only the AZ410 lanyard (with no energy absorber) on its own as a device to arrest a fall from height.
- Two separate lanyards each with an energy absorber should not be used side by side (i.e. parallel).
- It is permissible to use the AZ410 lanyard without an energy absorber only as a restraint lanyard (a lanyard that restricts and prevents the worker from the area at risk of a fall).

## USING THE CONNECTING LANYARD AS A COMPONENT OF FALL ARREST SUB-SYSTEM (EN 354)

1. Connect one ending of the lanyard with the snap hook to the structural anchor point of minimal strength 12 kN:
   - directly - drawing 1
   - with a second connecting lanyard - drawing 2 or anchor hook - drawing 3
2. Connect the second ending of the lanyard to the energy absorber with the second snap hook - drawing 4
3. Entire fall absorbing device (lanyard+energy absorber) connect to the front or back attaching buckle of the safety harness - drawing 5




## 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.
- 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. Periodically check connecting and adjusting of the equipment components 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 connectors - main body, rivets, gate, locking gear acting.
- after every12 months of utilization, personal protective equipment must be withdrawn from use to carry out periodical 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.
- 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 when it have been used to arrest a fall.