

- 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 IN THE 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ANY INFORMATION ABOUT THE EQUIPMENT LIKE PERIODIC INSPECTIONS, REPAIRS, REASONS OF EQUIPMENT'S WITHDRAWN FROM USE SHALL BE NOTED INTO THE IDENTITY CARD BY A COMPETENT PERSON.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 STORED 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		LENGTH	
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 RELEVANT INFORMATIONS	NAME AND SIGNATURE OF COMPETENT PERSON	PERIODIC EXAMINATION NEXT DUE DATE
1					
2					
3					
4					

PROTEKT  
93-403 Łódź, ul. Starorudzka 9  
TEL.: (+48 42) 680 20 83  
FAX: (+48 42) 680 20 93  
e-mail: info@protekt.com.pl

The Notified Body involved in equipment's European certification and production control phase is:  
Central Institute for Labour Protection - National Research Institute  
ul. Czerniakowska 16, 00-701 Warsaw

## Instruction Manual



Read and understand the manual before using the equipment

Ref. AT251 EN 795:2012 type B

# PROTEKT® Anchor beam for prestressed concrete slabs

Anchor beam AT251 is a component of the personal protective equipment against falls from a height complied with EN 795:2012 as anchor device type B.

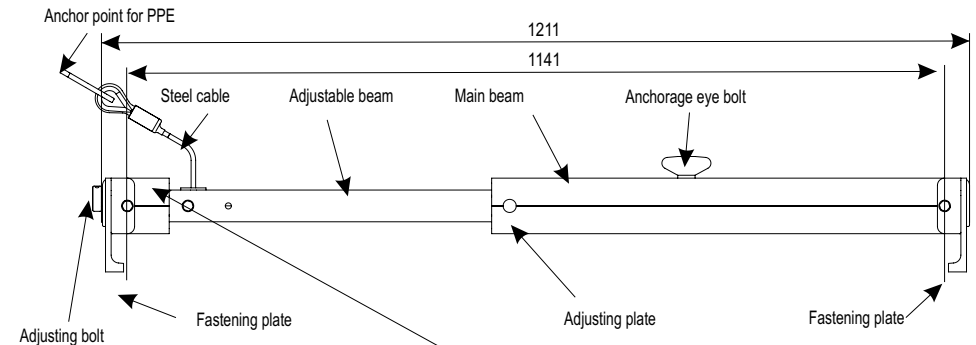
It is used for connecting a fall arrest system (e.g. energy absorber with lanyard, fall arresters, cables of fall arresters) on horizontal prestressed concrete slabs pursuant to Directive of the European Parliament 2001/45/EC.

The device is suitable for protection of max. three persons.

### DESIGN

The device is made of aluminium profiles constituting a telescopic connection allowing the beam length to be adjusted.

The device is adapted to prestressed concrete slabs of 1200 mm in width and any slab's height.



### MARKING OF THE DEVICE

- marking of the manufacturer

AT251 - reference no.

**CE 1437** - CE mark and notified body number inspecting the equipment manufacturing

EN 795:2012/B - number: year of issue of European standard / device type

- note: read the manual before using the equipment

max. 3 x - admissible number of persons protected by AT251

"xx xxx xxx" - serial number

mm/yyyy - date of manufacture

Marking of the yearly manufacturer's inspection



**TIME OF USAGE** - The anchor beam can be used for 5 years from the date of the first use.

Following the first five years of usage the manufacturer's inspection must be carried out.

The inspection can be carried out by:

- the anchor point manufacturer,
- person authorized by the manufacturer;
- company authorized by the manufacturer;

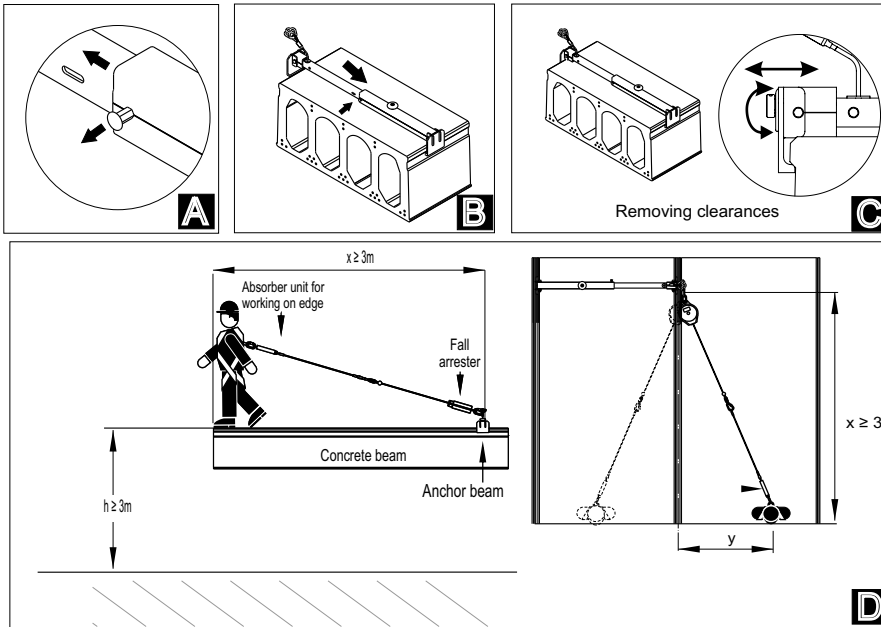
During the manufacturer's inspection time of usage of the device until the next inspection shall be arranged. The beam must be withdrawn from use immediately and destroyed if it has been used to arrest a fall.

## INSTALLING THE DEVICE

The device AT251 can only be installed on horizontal elements made of prestressed concrete slabs of measurements specified in corresponding standards what shall disable the device's disconnection and enable its proper clamping during a fall.

Always make sure that after the connection to a structural anchor point, the anchor device is properly clamped with adjusting plate and there is no clearance. Removing clearances prevents a possible uncontrolled, slow shifting of the beam towards the load direction. Minimal static strength of a structural anchor point must be 12 kN.

Install the device onto concrete slab by unlocking the adjusting plate (Fig. A) and retracting the device's middle beam maximally. Install the beam onto the concrete slab, release shifting lock and slide in the middle beam until it is self-locked (Fig. B). Once the beam is set on the concrete slab check whether it has been set properly in slots (Fig. C) and tighten the adjusting bolt to remove clearance. Connect maximum of three devices suitable to operate horizontally to the device installed in such way pursuant to EN 353-2, EN 358 or EN 360 and according to instruction manuals for the corresponding devices involved (Fig. D).



The device allows for operation in all directions (Fig. E). The beam in combination with fall arresters and anchor lanyard AZ 800 for roof works have been tested for usage in the horizontal plane and fall beyond edge in accordance with Directive PPE 89/686/EEC + CNB/P/11.060.

The device can be used at edges such as: steel rolled profiles, wooden beams, rounded sills.

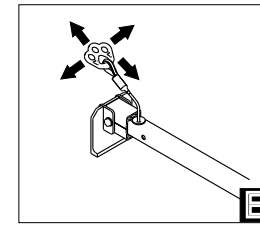
Concrete edges rounded to a radius of not less than 0.5 mm should be additionally protected. Sharp concrete or steel edges should be protected by mounting adequate protections.

The beam's anchor plate should be connected to connector on fall arrester and then the fall arrester should be connected to anchor lanyard AZ800 cable. Energy absorber should be connected to anchor point on full body harness marked with capital letter "A" with a connector complied with EN 362. Fall arrester must be connected (anchored) no closer than 3 m from the shorter edge of the concrete beam (distance "x" - Fig. D). Fall arrester's anchor point may be on the same level as the edge, beyond which a fall may occur, or above. The user can move in horizontal plane over distance "y" no greater than "x" (Fig. D). The required free space between work station - the roof level and the ground (distance "h" - Fig. D.) must be min. 3 m + 1/2 of the distance of horizontal move distance "y", no less than 3 m though. To reduce the falling distance and avoid the pendulum effect the "x" and "y" distances should be as short as possible, considering the min. value of "x" = 3 m.

The user must take into account the risk of injuries when arresting a fall beyond the edge. Special rescue procedures should be introduced and adequate trainings conducted including possibility of a potential fall beyond the edge.

Prior to any usage of the protective equipment against falls from a height, a component of which is a pipe anchor, check whether all devices are properly interconnected and cooperate with no interference, and comply with valid standards:

- EN 361 - For full body harness;
- EN 354, EN 355, EN 353-1, EN 353-2, EN 360, EN 362 - For fall protection systems
- EN 795 - For anchor points (structural anchor points)
- EN 341 - For rescue equipment



Always consider the length of an anchor point in a fall protection system, as this has influence on fall protection distance.

! Pay attention to some elements connected to the beam which may influence the reduction of its strength, e.g. connecting anchor point to wide webbings.

! The device AT251 is designed for protection of three persons.

! Do not use the device AT251 for securing, lifting or lowering of any loads.

! For protection against falls from a height use a fall protection system reducing the braking force impacting the user during fall arresting up to max. 6 kN (e.g. energy absorber with lanyard or fall arrester).

## 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 every 12 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 has been used to arrest a fall.
- 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 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 EN 795.