

## Universal post bonded to reinforced concrete and screwed to steel structure

Reference number HLB700  
 EN 795:2012 Type A  
 CEN/TS/16415:2013

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- A- Master rod
- B- Swivel plate
- C- Resin HVU2 HILTI
- D- Nut with washer M16

### 2. General dimensions of anchor post

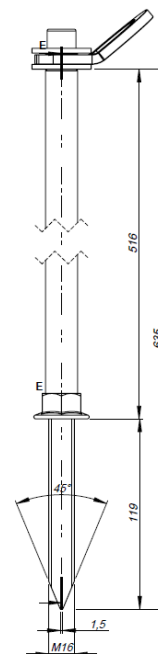


Figure 2. Dimensions of post

### 1. General

Anchor post is an anchor device compliant with EN 795:2012 Type A and CEN/TS/16415:2013

Anchor post is made of stainless steel.

Anchor post is designed for 3 users working at the same time.

Static strength of the post is min. 14kN.

The post is designed to be fixed to both concrete and steel structures.

Anchor post complies with Regulation of the European Parliament and of the Council (EU) 2016/425 of 9 March 2016 on personal protective equipment.

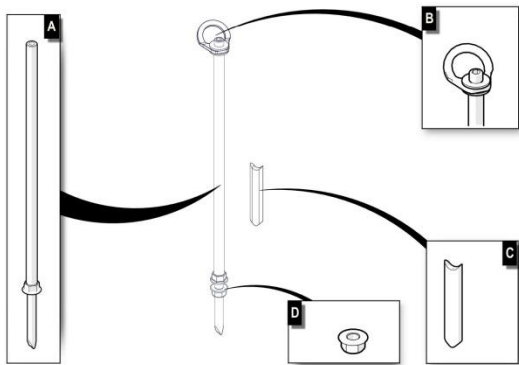


Figure 1. Elements of complete set

### 3. Inspection of technical condition

Anchor point as anchor post should be inspected periodically (at least once a year), and when disturbance of the supporting structure leading to deterioration of its protective characteristics is suspected.

Inspection should be carried out by a person in charge of personal protective equipment in user's organisation. Make sure to check polyester webbing for mechanical, chemical or thermal damages and its condition. Inspection of anchor sling and its release to further service should be recorded in the Identity card.

The device must be withdrawn from use immediately and destroyed if it has been used to arrest a fall or there are any doubts concerning its function.

**NOTE:** Maximum time of usage of the device depends on intensity and environment of use. If the device is used in heavy conditions, being exposed to frequent contact with water, sharp edges, corrosive substances, extreme of temperatures, it may be necessary to withdraw the device after only one use.

#### 4. Release of anchor point to service

Before the device is used for the first time make sure to:

- inspect its technical condition by following procedure given in point 3 of the manual
- complete the Identity card with date of first release to service (record should be made by person in charge of personal protective equipment in user's organisation)

Anchor point should be used with relevant personal protective equipment against falls from height conforming to the following standards Figure 3:

Component of equipment	Standard
Personal protective equipment for work positioning	EN 358
Lanyards	EN 354
Energy absorbers	EN 355
Retractable type fall arresters	EN 360
Guided type fall arresters including a rigid and a flexible anchor line	EN 353-2 and EN 353-1
Descender devices for rescue	EN 341
Connectors	EN 362

Figure 3. Chart of compatible standards

#### 5. Installation of anchor post

- Unpack the anchor point
- Determine position of anchor posts on a roof,
- Drill 18mm holes in reinforced concrete to 125mm depth in accordance with
- Figure 4

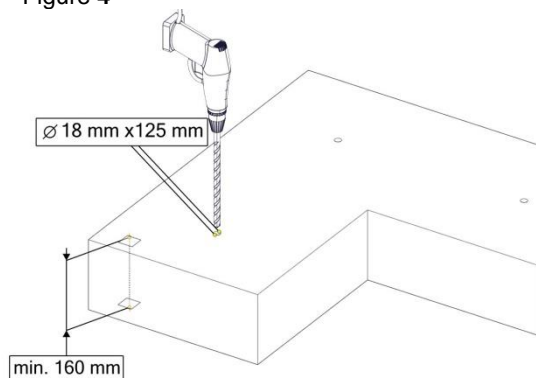


Figure 4. Drilling hole in reinforced concrete

- Anchor post and resin HVU2 when used or stored should not be exposed to the following:
  - Direct contact with flame, sparks or hot objects
  - Contact with solvents, oils and strong acids and bases
- Before installation the device should be stored in a clean place, free from vapours of aggressive substances and in conditions preventing any mechanical damages.
- Please take into account environmental conditions in the place of installation which may cause corrosion of the anchor point and fasteners.
- Never leave resin HVU2 exposed to direct sunlight!!!

- Follow general rules for use of personal fall protection equipment in accordance with EN 795:2012.
- Anchor points should be used in temperature between -30°C and 50°C.
- Anchor point can be installed in temperature between -10°C and 40°C. Depending on temperature in which the device is installed, time after which it can be used is specified in Figure 5.

°C	t <sub>ure</sub> (min)
-10...-6	300=5h
-5...-1	180=3h
0...4	40
5...9	20
10...19	10
20...40	5

Figure 5. Relationship between curing time of resin HVU2 according to substrate temperature (source: HILTI HVU2 Instruction manual)

- Fill 18mm holes with resin HVU2 in accordance with indicated direction so it protrudes from the hole Figure 6

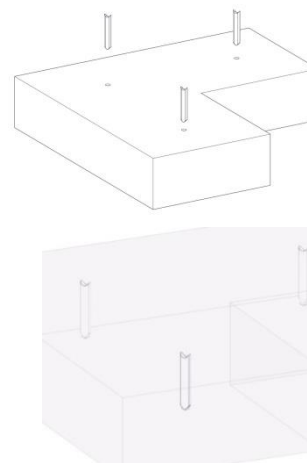
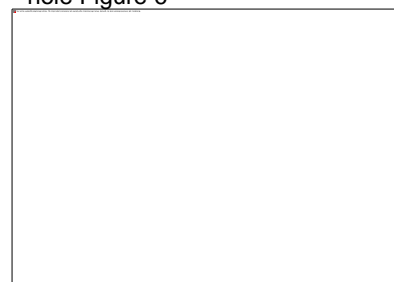
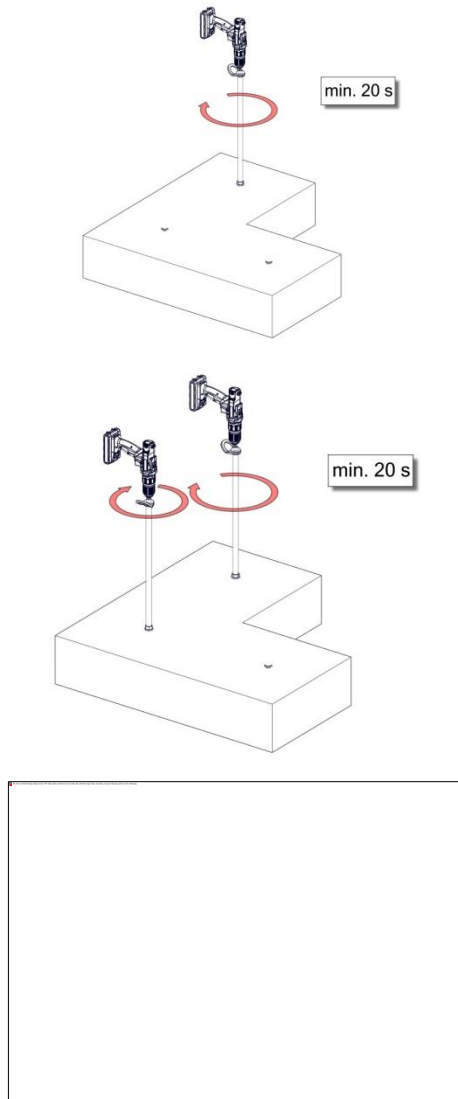


Figure 6. Installation of resin HVU2 in holes in reinforced concrete

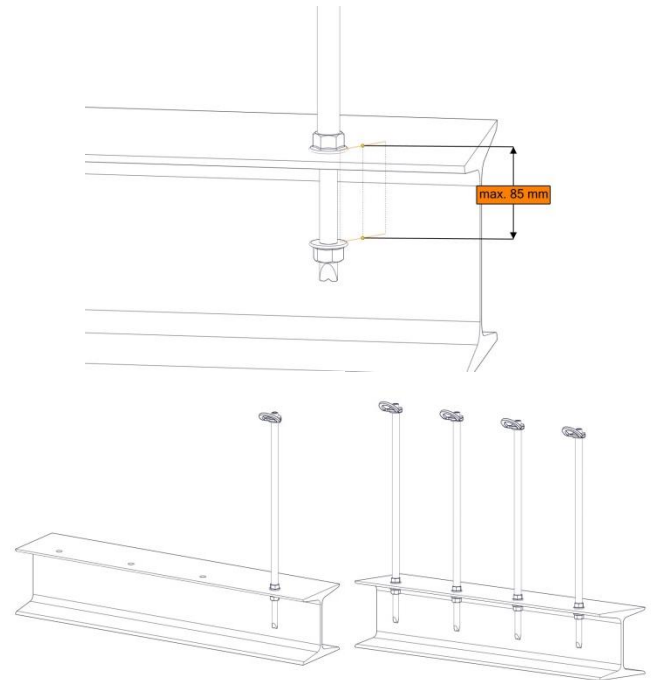
- Screw swivel plate [B] in post rod [A]. In case of installation in reinforced concrete with resin, nut [D] is unnecessary. Figure 1.
- Then with use of screw gun, rotate rod with plate [A+B] clockwise while slightly pressing sharp point of the rod into the bag with resin Figure 7.

- Rotate the rod until it is pushed to the nut and the resin flows out around the nut.
- If the resin flows out this means components of the resin are well mixed.
- Wait for a minimum time as in Figure 5 according to temperature of installation.
- After waiting for an adequate time, tighten bolt of swivel plate with hexagonal wrench.
- At the same time, this can be used to check if correct reaction between resin and concrete took place and the bar would not rotate what would mean that installation would need to be repeated.



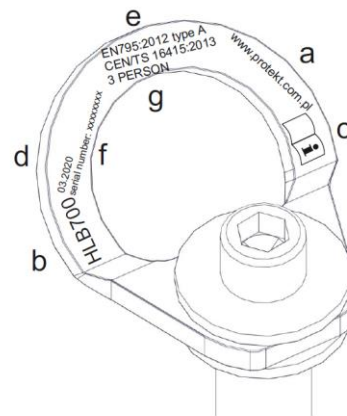
**Figure 7. Installation of post in hole filled with cartridge with resin HVU2**

- If post is fixed to steel structure, resin [C] is unnecessary.
- Drill hole with diameter larger than 16.5mm to push the rod thread through and use nut [D] Figure 8. Maximum thickness of material that can be tightened using rod is 85mm.



**Figure 8. Fixing of anchor point to steel structure**

## 6. Explanation of marking of product



**Figure 9. Marking of product**

- a- Manufacturer data
- b- Name of product
- c- Read the manual before use
- d- Date of manufacture
- e- No. of standard
- f- Serial number of product
- g- Number of simultaneous users of the device.

## 7. Essential principles for use of personal fall protection equipment

- Anchor device must be used in accordance with instruction manuals of personal fall protection equipment and standards:

EN 361 - full body harnesses

EN 352-3; EN 355; EN 360 - fall restraint devices

EN 362 - connectors

EN 795 - anchor points

- personal fall protection equipment should be used only by personnel trained in its use.
- personal fall protection equipment must not be used by people with medical condition that could affect safety of user of the equipment in normal and emergency use.
- prepare a rescue plan to be implemented whenever necessary.
- it is forbidden to make any alterations or additions to the equipment without prior written consent given by the manufacturer.
- any repair shall only be carried out by manufacturer of the equipment or an authorised representative.
- personal fall protection equipment shall not be used for any purpose other than intended.
- personal fall protection equipment provides individual protection and shall be used by one person only.
- before each use make sure that all parts of fall protection system cooperate correctly. Periodically examine connections and fitting of components of the equipment to prevent any accidental loosening or disconnection.
- it is forbidden to use a combination of the equipment where function of any component is affected by, or interferes with the function of any other.
- before each use of personal fall protection equipment, a pre-use check should be carried out to ensure that it is in a serviceable condition and operates correctly.
- in particular, inspect all accessible elements of the equipment for any damages, excessive wear, corrosion, abrasion, cutting or improper function. For individual devices pay particular attention to:
  - ✓ in full body harnesses and work positioning devices: buckles, regulating elements, attachment points (buckles), webbings, seams, belt loops;
  - ✓ in energy absorbers: attachment loops, webbings, seams, housing, connectors;
  - ✓ in lanyards and textile guides: rope, loops, thimbles, connectors, regulating parts, splices;
  - ✓ in lanyards and steel guides: rope, wires, clamps, loops, thimbles, connectors, regulating parts;
  - ✓ in retractable type fall arresters: lanyard or webbing, retractor and locking mechanism for proper operation, housing, energy absorber, connectors;
  - ✓ in guided type fall arresters: body, proper guiding, locking mechanism for proper operation, rollers, bolts and rivets, connectors, energy absorber;
  - ✓ in connectors (snap hooks): load-bearing body, rivets, main pawl, locking mechanism functionality.
- at least once a year, after each 12 months of use, personal fall protection equipment must be withdrawn from use to carry out periodic detailed

inspection. Periodic inspection can be carried out by a person who is responsible for periodic inspections in user's organisation and properly trained in this respect. Periodic inspections can be carried out also by the manufacturer of the equipment or his authorized representative, or an authorized company. Inspect in detail all accessible elements of the equipment paying attention to any damages, excessive wear, corrosion, abrasion, cutting or incorrect function (see the above item.) In some cases, if the fall protection equipment has a complex design (e.g. fall arresters), periodic inspections can be carried out by manufacturer of the equipment, or his authorized representative only. After the periodic inspection, date of the next inspection should be marked.

- regular periodic inspections are essential as regards condition of the equipment and safety of users which is dependent on functionality and durability of the equipment.
- during periodic inspection it is necessary to check legibility of all markings on the equipment (identity label of the device).
- all information on fall protection equipment (name, serial number, date of purchase and date of first use, name of user, information on repairs and inspections and withdrawal from use) must be provided in the Identity card of the device. It is responsibility of user's organisation to provide the Identity card and to fill in the required details. The Identity card should be filled in by a person responsible for protective equipment. It is forbidden to use personal fall protection equipment if the Identity card is not filled in.
- if the equipment is re-sold outside the original country of destination the reseller must provide instructions for use, for maintenance, for periodic inspection and for repair in language of the country where the product is to be used.
- personal fall protection equipment must be withdrawn from use immediately if any doubts arise in regard of its condition, or proper operation. The equipment must not be used until manufacturer of the equipment carries out a detailed inspection and gives his written consent to use the equipment again.
- personal fall protection equipment must be withdrawn from use immediately and destroyed if it has been used to arrest a fall.
- full body harness is the only admissible device to be used to support the user's body in personal fall protection equipment.
- in full body harness, to attach a fall protection system use only attachment points (buckles, loops) marked with capital letter "A".
- Anchor point or device of the fall protection equipment should have a stable structure and position so as to prevent a possibility of the load fall and minimize a free fall distance. Anchor point of the equipment should be located above the user's workplace.
- Shape and construction of the anchor point shall not allow for a self-acting disconnection of the equipment. It is recommended to use certified and marked anchor points of the equipment compliant with EN 795.

- It is obligatory to verify the free space required under the user at workplace before each use of the fall protection system, so that, in case of a fall, there is no collision with the ground or other obstacle in the fall path. The required free space should be determined on basis of data given in the instruction manual of the equipment to be used.
- Personal fall protection equipment must be transported in a 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.
- Personal fall protection equipment should be cleaned without causing adverse effect on the materials used in the manufacture of the equipment. For textile materials (webbings, ropes) use agents suitable for delicate fabrics. Can be washed in hands or in a washing machine. Rinse thoroughly.
- Wash textile products with water only. If the equipment becomes wet, either when cleaning or in use, allow it to dry naturally, and keep it away from any sources of heat. In metallic products lubricate slightly some mechanical parts (springs, hinges, pawls, etc.) regularly to ensure their better operation.
- Personal fall protection equipment should be stored loosely packed in well-ventilated rooms, protected from direct light, UV degradation, dust, sharp edges, extreme temperatures and aggressive chemical substances.

## 8. Guarantee

The manufacturer grants a guarantee for 12 months from the date of purchase of the device. If a defect is found in any part, the guarantee and warranty period for this part is extended by the time of repairs and effective removal of the found defect.

The guarantee covers:

- Defects in material,
- Defects in workmanship,
- Anti-corrosion coating defects

According to the requirements of EN 365 an anchor point shall be subject to periodic inspections carried out at least every 12 months. Periodic inspection shall be carried out by service point authorized by the manufacturer located at the following address:

**PROTEKT GRZEGORZ ŁASZKIEWICZ**

**ul. Starorudzka 9**

**93-403 Łódź**

or person trained in inspections of such equipment.

A trained person is a person who, based on own specialized education and adequate experience, has sufficient knowledge in installed protective and rescue equipment, and is familiarized with applicable OHS regulations, guidelines and generally acknowledged technical rules to such extent that is able to assess safety of use and correct application of protection devices.

Before each use of the system check whether date of the next inspection is not expired. Do not use the device after this date. Before each use of the system visually check the system for its integrity and technical condition and whether steel cable is tensioned.

If any defect or lack of integrity is found, do not use the device.

If any doubts arise as for the use, please contact the manufacturer and never make any repairs on your own!

A system which has been used to arrest a fall must be withdrawn from use immediately!

The system which has been used to arrest a fall may be admitted for use again after a detailed inspection is carried out by the manufacturer or an authorised service point.

When using the system, pay special attention to risks affecting operation of the personal fall protection equipment or the user's safety, and in particular to kinks and rope movement on sharp edges, oscillatory falls, electricity, influence of extreme temperatures, equipment damage, adverse environmental factors, chemical substances and contamination.

Neither modify, repair components of the system nor replace them with non-original spare parts.

**9. Identity Card**

IDENTITY CARD OF ANCHOR SLING (compliant with EN365)					
Reference number of device	<b>HLB700</b>		Serial number:	.....	
Date of first use (installation)	.....		Date of manufacture:	.....	
Place of installation	..... .....				
User name:	..... .....				
Inspection and repair record					
No .	Date of inspection	Type of inspection / repair	Remarks	Date of next inspection	Name and signature of service technician
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					