

User Manual

Fall Protection Post

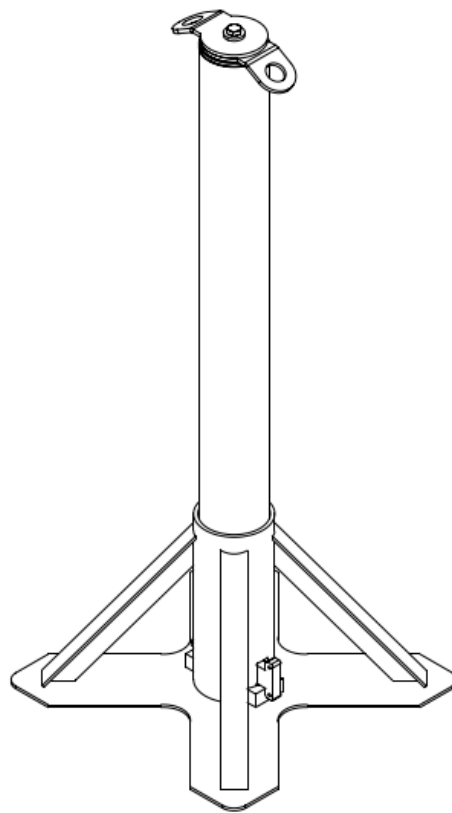


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1 Introduction

IMPORTANT!

This User Manual is intended for installers, operators, maintenance personnel and repairers who install, operate, maintain and repair fall protection posts. Please note that this manual must always be available in the immediate vicinity of the mast.

It is assumed that the said personnel are trained in the use of the safety equipment concerned, and also read this manual carefully before putting the equipment into operation.

Fall protection post is a fall arrest mast used as an anchorage point for personal fall arrest equipment. The post is designed for a maximum of 2 persons and tested for 1,300 kg. The post is fixed to the concrete deck via lifting anchors in the concrete deck.

IMPORTANT!

There must be a maximum distance from the post to the outside edge of the concrete deck of 5m (5000mm). Only one person shall be anchored to each anchorage point (eye) at the top of the pile.

It is important that the concrete deck is securely fixed or has a self-weight so that it is not possible to tip/rotate the deck in a fall.

1.1 Coverage and references

This manual applies only to the fall protection post and not to personal fall protection post equipment being attached.

1.2 CE marking

The fall protection post may only be used for the purpose described in this manual and for the purpose for which it is intended.

The fall arrest device is only intended for the securing of persons, via an embedded concrete anchor, Load class 2,5 or 5,0 tons, together with a lifting eye of type: DEHA KKT-U 6102-2,5 or 6102-5,0.

The fall protection post may not be used for purposes other than those for which it is intended, and its use is also subject to correct assembly, installation, operation, maintenance and repair.

All work with the fall protection post in connection with assembly, installation, operation, maintenance and repair must also be carried out by professionals or alternatively well-instructed operators.

1.3 Declaration of Conformity

EC - Declaration of Conformity

Directive 2006/42/EC

Manufacturer:

CRH Concrete A/S

Address:

Vestergade 25

4130 Viby

Denmark

I hereby declare that:

Fall protection post

Type: 21834.000 Rev.C.

- Complies with the Machinery Directive. Directive 2006/42/EC and Directive 95/16/EC.

The following harmonized standards have been applied:

- DS/EN 12100-1:2011 Safety of machinery - General principles for design - Part 2: Safety of machinery
Risk assessment and risk mitigation
- DS/CEN/TS 16415 Personal fall protection equipment - Anchor devices -
Recommendations for anchor devices to be used by several persons
simultaneously
- DS/EN 795 Personal fall protection equipment - Anchor devices
- DS/EN 365:2004 Personal protective equipment and fall arresters - General
requirements for instructions for use. Maintenance. Periodic
inspection, repair, marking

Approved by:

Location: CRH Concrete A/S

Address: Vestergade 25

4130 Viby

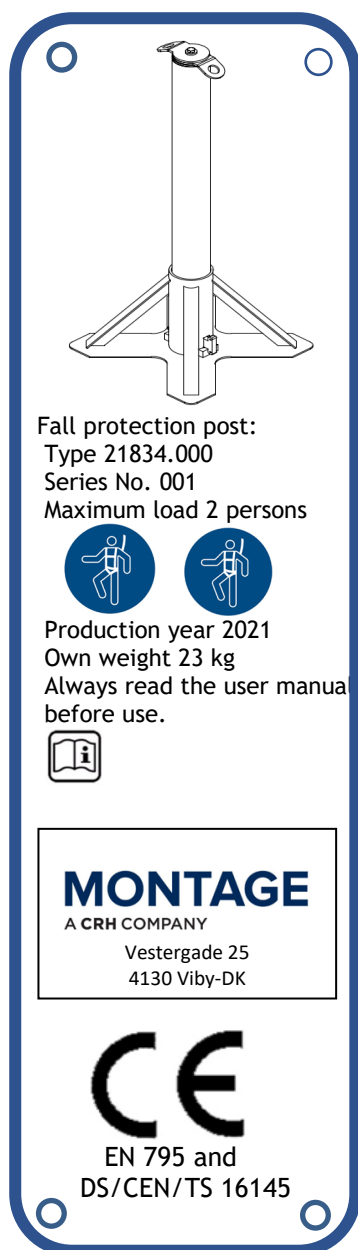
Denmark

Date: 01-02-2021

Signature:  _____

1.4 Data plate

The fall protection post is marked with a data plate on the mast and base.



Data plate: aluminum
50 x 180 mm m.

This User Manual has been prepared for the use of the fall protection post of:

CRH Concrete A/S
Vestergade 25
4130 Viby

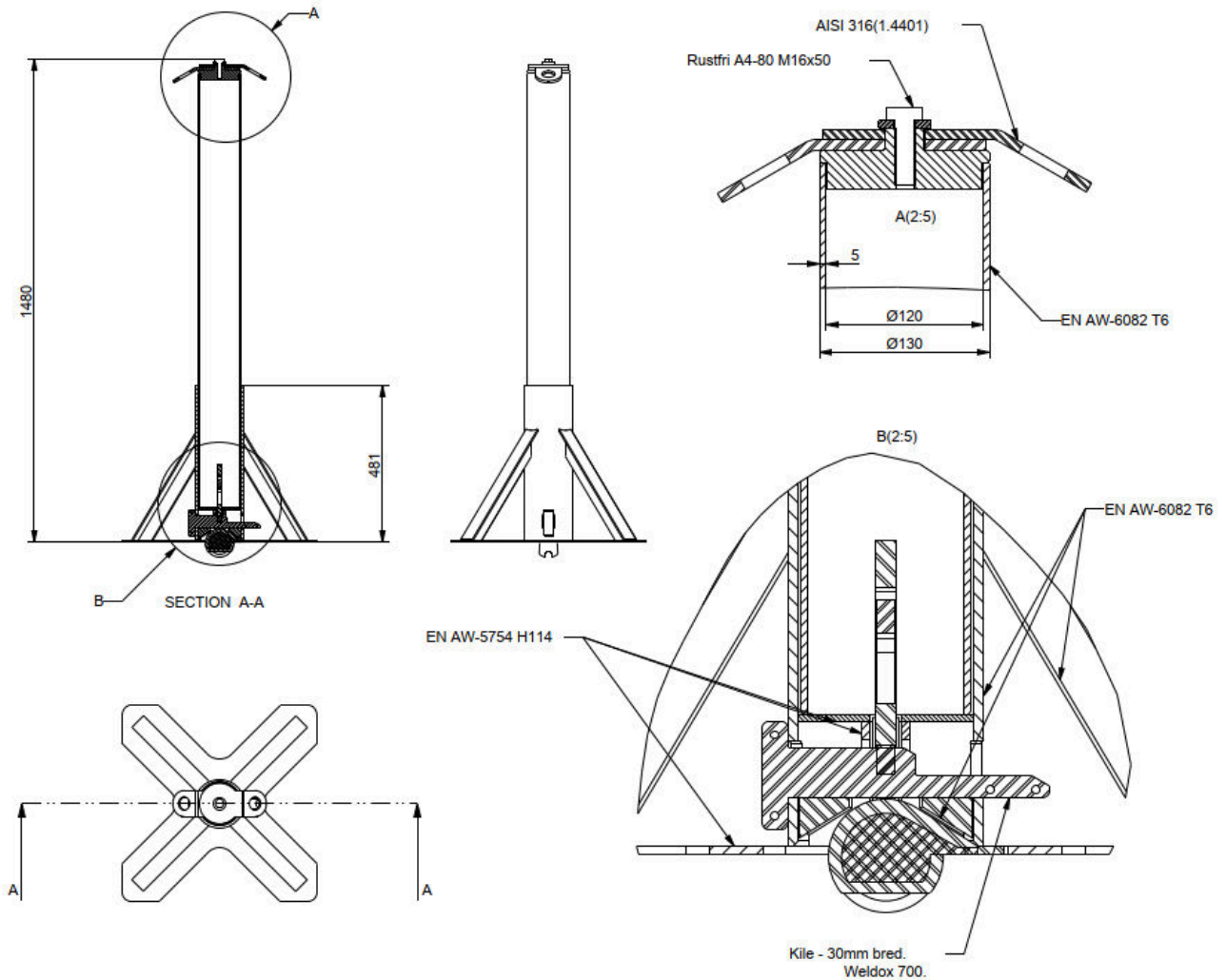
1.5 Technical data

Ambient environment : Outdoor use -20°C to 60°C
Material : Stainless steel and aluminum
Surface treatment : None
Weight, total : Approx. 23 kg.
Max. load : 2 persons

2 Description of fall protection post

The fall protection post is CE marked according to DS/EN 795 and DS/CEN/TS 16415. The data plate is located on the column and base.

Main dimensions:

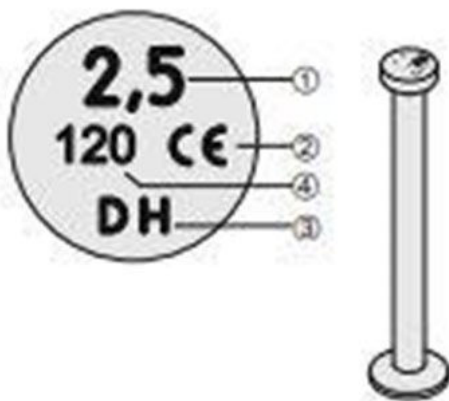


2.1 Structure

The fall protection post must be used with the following parts:

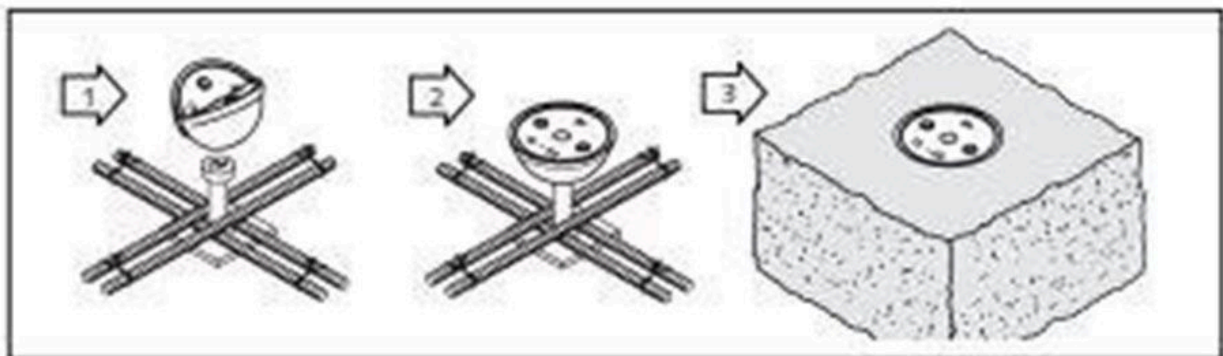
1. Concrete deck with cast-in lifting anchor
2. Lifting eye for fixing between concrete deck anchor and base plate
3. Bottom plate with locking pin for fall protection post
4. Column for fall protection post

Ad 1) Concrete deck with embedded lifting anchor as

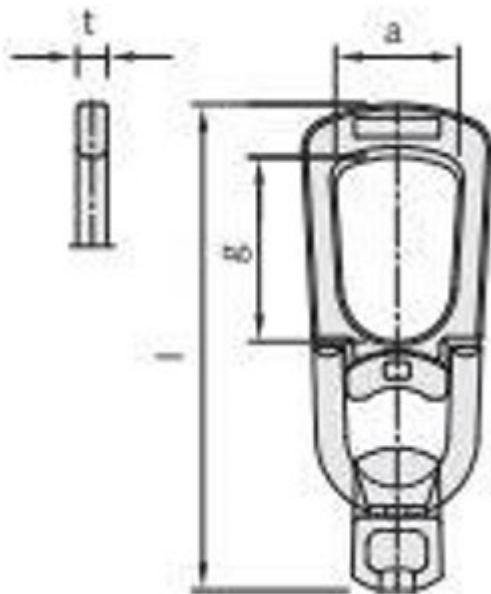





Identification of the anchor:

- ① Load class
- ② CE marking
- ③ Manufacturer sign DEHA
- ④ Anchor length [mm]

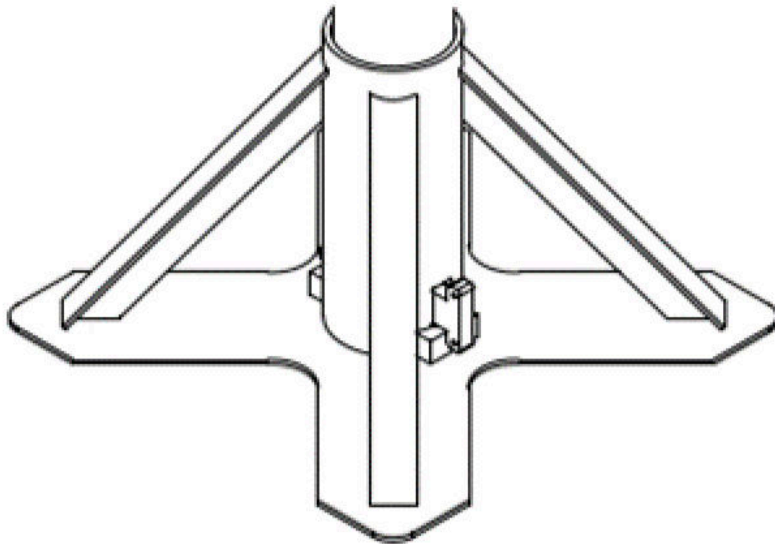


Ad 2) Lifting eye for fixing between concrete deck anchor and base plate

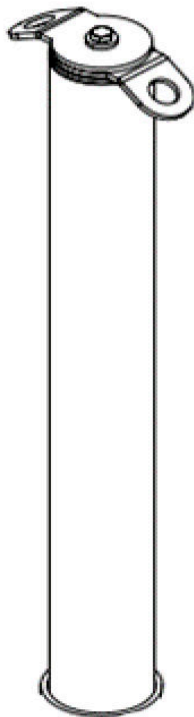


Load capacities of the Universal-head lifting link, subject to varying load directions and dimensions										
For load class	Article name	Order no. 0738.010-	Weight [kg]	 Centric load [kN]	 Diagonal load $\geq 45^\circ$ [kN]	 Shear load [kN]	a [mm]	g [mm]	l [mm]	t [mm]
1,3	6102-1,3	00001	0.9	13.0	13.0	13.0	47	71	188	12
2,5	6102-2,5	00002	1.4	25.0	25.0	25.0	59	86	230	14
5,0	6102-5,0	00003	3.4	50.0	50.0	50.0	70	88	283	16
10,0	6102-10,0	00004	9.1	100.0	100.0	100.0	88	115	401	25
20,0	6102-20,0	00005	21.0	200.0	200.0	200.0	106	135	506	30
32,0	6102-32,0	00006	47.0	320.0	320.0	320.0	172	189	680	40
45,0	6102-45,0	00007	59.0	450.0	450.0	450.0	179	192	676	40

Ad 3) Bottom plate with locking pin for fall protection post



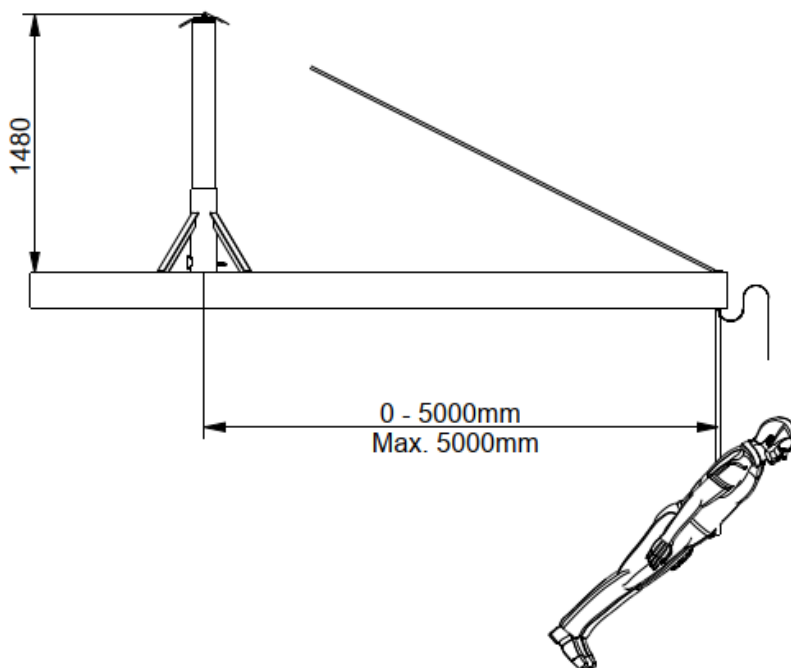
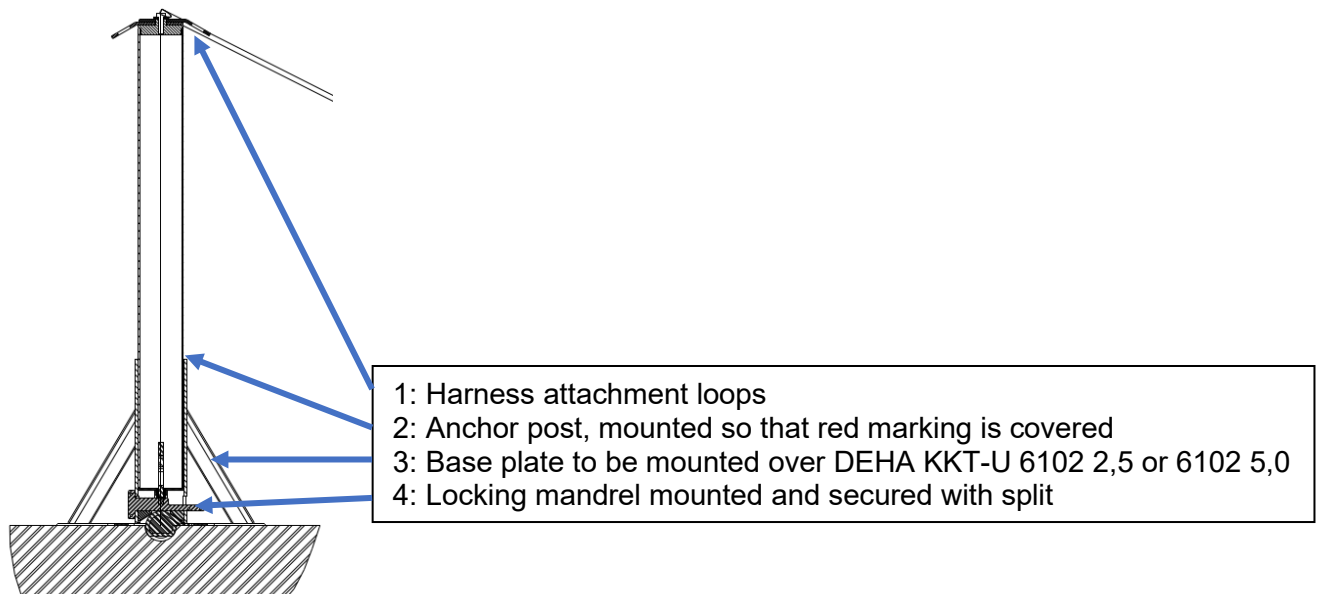
Ad 4) Column for fall protection post



2.2 Operation - Work instruction during setup

Important!

Max usable distance from concrete edge = 5000mm.



2.3 Signage

The employer must ensure that work areas where fall protection equipment must be used are marked with signs.



3 General instruction

Suitable fall protection equipment must be used if work at a height cannot otherwise be planned, organized and carried out safely with collective safeguards against falls, such as guardrails, scaffolding or personnel lifts.

When organizing work with fall-arrest equipment, account must be taken of any physical or mental strain, inconvenience, etc. associated with the use of the equipment. This may be done, for example, by limiting working hours or by providing appropriate breaks in the work. In construction work, there are special rules for the use of fall protection equipment, which are described in AT Guidance 2.4.1 on falls from a height on construction sites and 2.4.2 on falls from a height when working on roofs.

The employer must provide suitable fall protection equipment when, on the basis of a specific assessment, the work situation so requires.

The employer must ensure the maintenance and cleaning of the fall-arrest equipment.

The fall protection equipment must be used immediately at the start of the work, throughout the work and in the work areas where it is required.

Before using the fall protection equipment, the user must have received instruction in the use of the equipment and information on the dangers of not using it. The user must also be trained and, if necessary, regularly instructed in its use.

The user must be instructed in the plan for rescue after a fall, including rescue equipment, as injuries can quickly occur to a hanging person.

3.1 Normal use

The fall prevention safeguard may only be used for the purpose for which it is intended. It must not be used for purposes other than its intended use, and its use is further subject to proper assembly, installation, operation, maintenance and repair.

3.2 Abnormal use

Abnormal use of the fall protection device is not allowed, including examples (not exhaustive) to be aware of.

One must avoid:

- overloading the fall prevention safeguard by more persons than allowed using it
- load the pile with loads other than the accidental load of the person
- use the fall prevention safeguard for other than normal purposes

3.3 Errors / Troubleshooting

All technical faults are recorded in a logbook with description, date and name.

4 Service / repair / maintenance

To ensure optimum durability and reliability, the fall arrest post must undergo continuous inspection and maintenance.

In case of malfunction or abnormal wear, this must be repaired immediately.

4.1 Maintenance of fall protection equipment

Maintenance of fall protection and inspection of fall protection equipment is a necessary safety measure when working at height. The equipment must be checked before use and it is therefore necessary to have a safe routine implemented in the daily workflow.

It is therefore important that employees are aware of fall protection maintenance.

However, it is the employer's duty to provide procedures for storage, maintenance, repair and replacement of equipment. As described in EN 365, fall protection equipment must undergo an annual inspection by an authorized or competent person. In addition, any equipment that has been subjected to maximum loads or is in questionable condition - must be discarded as it is no longer deemed to provide adequate safety.

4.2 Inspection ensures optimal maintenance of fall protection

- Before use, it is visually checked that the fall prevention safeguard is without visible cracks or deformations
- Inspection of the fall prevention safeguard shall be carried out once a year by a competent person
- If the CE marking is missing or illegible, the fall prevention safeguard shall not be used until the product has been identified and relabeled
- If the equipment is found with cracks or deformations, it must be discarded

Service scheme:

Checkpoints:	Yearly by instructed personnel
Visual inspection of all welds	X
Cracks or deformations of steel structure	X
Cracks or deformations of lock pin and spring split	X
Cracks or deformations in the attachment point	X
Data plate intact	X

4.3 Cleaning and storage

Cleaning is a fundamental point of fall protection maintenance, which will prolong the life of the equipment as well as ensure that the equipment is functional.

Clean the equipment regularly with a damp cloth and a mild detergent. Wipe with a towel.

The fall protection post can be stored outdoors, but preferably in a dry place. Store so that it is not mechanically damaged by impact from other objects. A box with a lid is preferable.

Worldwide Patent Pending