Counterweight Roof Anchor with D-ring

Distributed by CAI Safety Systems
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1. Key Points

1. Read and understand these instructions before use of the anchor device.
2. The freestanding constant force post is a deadweight anchor device conforming to BS EN 795 class E.
3. The controlling notified body number is 0194.
4. For use on nominally flat roofs with a max slope of 5°.
5. The anchor device is a modular design to ease transportation and re-sitting of the anchor device.
6. The anchor device must never be used during periods when frost, ice or if snow is present on the roof surface or when freezing conditions are imminent.
7. The anchor device must never be used where there is contamination of the roof surface and/or anchor device by oil grease, etc. or by growth of algae.
8. The anchor device should be positioned avoiding areas where water accumulates.
9. For roof surfaces that are covered with stone chippings, all loose stones should be removed by sweeping with a hard brush before sitting and assembling the anchor device.
10. The anchor device is for the attachment of a single user only.
11. Always connect to the anchor device using an energy absorbing lanyard conforming to national standards in force.
12. Always install the anchor device so no part of the device is less 2.5 m from the edge of the roof or opening. During installation and assembly of the anchor device ensure that the installer is not less that 2 m from any edge or opening.
13. Not for use as an abseiling point.
14. If the anchor device is to be positioned on Sarnafil PVC membrane then before the anchor device is situated there must be a 1.15m sq additional layer of membrane heat welded to the existing membrane, in between this layer of membrane and the original there must be a 1m sq sheet of Sarnafil ‘T’ type fleece. The anchor device can then be built up on the new membrane.
2. Control

**Important:** the user shall ensure that the recommendations for use with other components within a system, as advised on the record card for the system or component, are complied with.

The Latchways freestanding constant force post should be under control of site management. Site supervisors are advised to procure and maintain records cards for each anchor device. These cards should contain information similar to that shown.

**Record card**

<table>
<thead>
<tr>
<th>System details</th>
<th>Manufacturer</th>
<th>Identification numbers</th>
<th>Year of manufacture</th>
<th>Date of purchase</th>
<th>Date first put into service</th>
<th>Maintenance period</th>
<th>Personal protective equipment to be used</th>
<th>Authorized user (s)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>Latchways plc</td>
<td>Hopton Park, Devizes</td>
<td>Wiltshire SN10 2JP, uk</td>
<td>Tel: +44 (0)1380 732700</td>
<td>Fax: +44 (0)1380 732701</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
3. Requirements For Use

1. All users of the anchor device should be trained and competent in its safe use. Ensure all users have read and fully understand these instructions. Personnel using this device should be trained and competent in safe methods for working at height. If any part of these instructions are not understood please contact your supplier.

2. Before undertaking work at height and regular intervals during the period of work, a risk assessment should be carried out.

3. All attached ppe (e.g. harness, lanyard, energy absorbers etc.) shall comply with national standards in force.

4. Full body safety harnesses only should be worn.

5. The recommended attachment point for energy absorbing lanyard to the full body harness is the rear dorsal position.

6. The anchor device must only be used by persons deemed to be competent and their names recorded on the record card. All users should confirm in writing that they have read and fully understood the user instructions and any other pertinent safety information.

7. All users of the system should comply with the instructions and guidance contained in the user instructions and highlighted on the warning label attached to the anchor device.

8. **Important:** where a manupjust rope lanyard or a retractable type fall arrester are used, the manufacturer for any such device must be consulted for its suitability and conformity. Manufacturers of these devices must also be consulted as to their suitability for horizontal use, including over edge falls, as not all types are acceptable.

9. Where the user intends to combine any fall arrest PPE with deadweight anchor devices they should seek guidance from the manufacturer of the fall arrest PPE first.
4. Warning Signs

1. The warning label should be permanently attached to the base plate and must be clearly visible. In addition to the requirements of EN 365 the label will also indicate the following information:
2. The anchor device is for the attachment of a single user only.
3. Always connect to the anchor device using an energy absorbing lanyard conforming to national standards in force.
4. That only personal protective equipment complying with relevant national standards should be used.
5. The Anchor Device

The anchor device is supplied in component part form and requires assembly before the Device can be put into service. The standard assembly comprises of the following parts:

1. 1 x Constant Force post with round base plate
2. 6 x M12 set screws, nuts and washers
3. 2 x cross straps
4. 4 x rubber coated base segments
5. 8 or more standard galvanized segments (refer to table below)
6. 4 x M20 bolts and washers
7. 1 x warning label
6. Connecting To and From to Anchor Device

D-rings are available from Latchways that fasten to the Constant Force Post using 1 x M12 bolt. Connect the energy absorbing lanyard directly to the D-ring. Do not extend the lanyard by interlinking karabiners.

When attaching to the freestanding constant force post and a karabiner type connector is to be attached to the D-ring, use D-ring 85030-00 or 85032-00

When attaching to the freestanding constant force post and a snap hook type connector is to be attached to the D-ring, use D-ring 85032-00 this will avoid the connector from becoming unintentionally detached which is referred to as ‘roll-out’
7. Ground Clearance

To determine the position of the anchor device use the following parameters:

\[ D_{\text{EDGE}} = \sqrt{(L_{\text{MAX}}^2 - F_{\text{FALL}}^2)} \]

To determine typical ground clearance required use the following parameters

\[ D_{\text{GROUND}} = D_{\text{FALL}} + E_{\text{LAN}} + E_{\text{BODY}} + C_{\text{GROUND}} \]

Where:

- \( L_{\text{MAX}} \) = maximum length of lanyard
- \( F_{\text{FALL}} \) = 1.5 m free fall distance
- \( D_{\text{EDGE}} \) = distance to edge of building (must not be less than 2.5 m)
- \( D_{\text{FALL}} = D_{\text{ANCHOR}} = 1 \) m for maximum permissible displacement of anchor device
- \( D_{\text{GROUND}} \) = maximum ground clearance.
- \( D_{\text{LAN}} \) = 1.75 m maximum deployment of lanyard energy absorber
- \( E_{\text{BODY}} \) = 2 m minimum extension of body and harness
- \( C_{\text{GROUND}} \) = 1 m allowance for clearance below feet of user

Notes
The above ground clearance allows for the maximum allowable displacement/deployment of the anchor device (1 m) and the lanyard energy absorber (1.75 m). Where deployment/deployment of the lanyard energy absorber is considered less than 1.75 m contact the manufacturer for further advice.

It is recommended that the free fall distance be always kept to a minimum. The above parameters allow for a free fall distance of 1.5 m. For falls greater than 1.5 m but less than 2.5 m. The following parameter must be used to determine ground clearance.

\[ D_{\text{FALL}} = D_{\text{ANCHOR}} + L_{\text{MAX}} - D_{\text{EDGE}} + 0.5 \text{ m} \]

The maximum permissible free fall distance for a user weighing 100 kg is 2.5 m.
8. Inspection, Maintenance And Storage

Inspection before use checks - always inspect the following:

1. No part of the anchor device is less than 2.5 m from any edge including ROOF LIGHTS, hatches etc.
2. The anchor device is installed so that the rubber coated segments are always in contact with the roof.
3. The anchor device is assembled using the correct number of segments.
4. The roof surface is an appropriate type as described on the warning label and in these instructions.
5. The warning label is present and securely attached to the post base plate.
6. All bolts securing the D-ring, constant force post, cross straps and segments are tight.
7. There is no damage to the complete anchor device.
8. There is no damage to the roof area immediately around the anchor device.
9. There is no contamination from oil, grease etc or by growth of algae.
10. Any loose chippings have been removed.
11. The record card has been completed.
12. Signs of corrosion, wear, deformation or other defects to the segments, constant force post (including the base plate), D-ring.

Annual inspection – the anchor device should be inspected every 12 months by an authorised installer or agent.

1. All of the above checks shall be carried out.
2. Check for deployment of the constant force post. This will be indicated by deployment of the constant force post by leaning away from the vertical position. For more SEVERE loading the constant force post will be in a horizontal position showing the internal energy absorbing mechanism.
3. Check for signs of modification. The anchor device must not be MODIFIED in any way without written CONSENT from the manufacturer.
4. Record this inspection on the record card as described in section 2.

If the anchor device is damaged, do not attempt repair. Contact your authorised installer or agent for further advice. If there is any doubt about the safe condition of the anchor device, it shall be withdrawn from service. This shall be recorded on the record card. Contact your authorised installer or agent for further advice.

Maintenance

1. Dealing with any defects found during inspection before use and annual inspection.
2. Dismantling and cleaning may be required particularly if algae has formed on the base segments. Clean the segments using clean water of domestic quality (up to 40°C). If required it may be washed in a domestic grade detergent. All parts should be thoroughly rinsed and dried before re-assembly.
Storage

1. The anchor device should be stored away from direct heat, high humidity, sharp edges, corrosives or other foreseeable causes of damage. The equipment should not be subjected to unnecessary stress, pressure or rough handling. Wet equipment should be dried naturally away from direct heat.
2. During storage, all equipment should be kept away from contaminants such as acids, alkalis, oils and grease.

!! CAUTION !! This is a fall protection system. The system must be used in strict conformance with the manufacturer’s instructions. Failure to do so may result in serious injury or death. Do not use or operate this system unless you are properly trained.

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