

Data Sheet

The Protan Constant Force Post has been specifically developed by Protan and Latchways Plc as part of the Latchways ManSafe® system. These posts form an integral part of Protan systems where protection for individuals working at height is required. Solutions are available for steel, concrete and timber substrates.

Protan Constant Force Post

The post is suitable for use as an end, corner or intermediate anchor as either part of a class 'C' system, a class 'A2' anchor in a class 'C' system or as a singlepoint anchorage.

The Protan Constant force Post has been tested and complies with European Standard EN795. All Latchways systems are CE marked and hold an EC Declaration of Conformity.

The Protan Constant force Post incorporates a unique prefabricated factory fitted Protan membrane sleeve, available as standard in either light or dark grey membrane. Other colours are available on request.

Walkway System

Protan membrane has a textured anti-slip finish that provides a suitable surface for general roof maintenance. As part of a complete roof access system, the use of Protan GT Walkway and PROGRIP Walkway is recommended to run alongside the ManSafe system.

The post sleeve and walkway (e.g. both in dark grey) provide a visual indication of access and trip hazards in contrast to the general roof colour (e.g. light grey).

Alternatively where minimal access is required and aesthetics are paramount (e.g. pitched roofs with no (plant) the posts can generally be placed in unobtrusive positions with sleeves to match the Protan roof membrane.

Substrate Types

Please refer to Latchways Specification Manual and datasheet 65604-98-4 for specific design and application details.

Insulation

The Protan Constant Force Post is suitable for all insulation materials approved by Protan between thicknesses of 50mm and 220mm. It is also suitable for tapered insulation schemes within these tolerances.

Protan Roofing System

The Protan Constant Force Post is suitable for use with Protan SE (Standard Overlap and Secret-Fix) Systems and Protan GX Adhered Systems subject to deck and insulation types as previously indicated. For other applications to concrete and timber please refer our Technical Services.



Design Considerations

It is recommended that the post be installed at a distance of 2m or more from any edge and wherever possible the system should be designed to provide fall restraint. However, the following edge distances are permissible:

Eaves – No less than 1m from the eaves. Ensure the post is installed back from the line of the first purlin and decking sheet fasteners.

Verge – No less than 1m from the verge. Ensure that the post is installed on the second decking sheet next to the verge.

Ridge – Ensure the post is installed below the line of the upper most purlin, decking fasteners and ridge cap fasteners.

For access purposes it is recommended that a stainless steel wire rope strop be installed from an adjacent intermediate or end post to provide an attachment point for safe access to and from the system. However it is permissible to install a post within easy reach of the access equipment, typically 0.5 to 0.75m from the edge of the roof. This post shall be used as a single point anchorage only providing safe access to and from the cable system. It shall not be used as an end or intermediate post for the fall arrest system.

Systems using Protan Constant Force Posts are designed for a maximum of three users.

The posts must be installed at intervals of between 6 and 10 metre to ensure correct performance.

The minimum recommended roof area per post is 4m x 3m. For a roof area less than 4m x 3m it is recommended that the post be installed as single point anchors at appropriate positions ensuring the minimum edge distance is maintained.

Data Sheet

System Installation

The posts can be installed during the general application of the Protan roof assembly or on completion. Equally, the posts can easily be retrofitted on existing Protan roofs to meet current safety legislation.

Detailed fixing notes are provided to all Protan Partner Contractor. Only designated, trained personnel can install Protan Constant Force Posts (details held on a register).

The operation is simple, fast and totally compatible with the Protan roof system. The Protan weathering sleeve is designed to shed water away and not to allow it to collect around the base plate.

System Certification

Following installation of the Protan Constant Force Posts and ManSafe componentry, the system must be tested and certified prior to use by a Registered Latchways Installer.

Specification Clause (To NBS* format)

N25 PERMANENT ACCESS AND SAFETY EQUIPMENT

210 GUIDED TYPE FALL ARREST SYSTEM:

Latchways plc offer a complete service in the provision of fall protection equipment for a wide range of applications and manufacture a range of systems. Click on the name below to jump to the product and specification details.

Designed specifically for use on Protan warm metal deck roof systems, the Protan Constant Force post by Latchways is part of a ManSafe fall arrest system where a 8mm 7x7 316 grade stainless steel cable system is mounted at ankle height.

Anchorage device: Protan Constant Force™ post by Latchways for mechanical attachment through the insulation to the crowns of the steel deck, using Latchways toggle bolts. The post is unique through having a prefabricated and factory fitted Protan membrane sleeve, which is welded to the roof once the post is installed. It is fixed using four top fix toggle bolts which fix through to the metal deck allowing flexible system positioning. The post contains an integral energy absorber which deforms at a constant force in the event of a fall to prevent damage to the roof panel. Posts must be installed between 6 and 10 metres apart to guarantee a maximum load of 10kN onto the roof. The use of both internal and external corner units provides greater system flexibility.

Overall system length: This should comprise the roof perimeter system and single runs to allow access to gutters. Indicate if the system is to provide access for roof light cleaning, roof inspection and gutter cleaning etc.

Intermediate support spacing: Between 6 and 10m - as designed by the Latchways approved installer to meet the requirements of the Latchways ManSafe design software. Consult Latchways technical literature for details. Latchways can also provide a specification service (spec@latchways.com) and it is recommended that they are consulted early in the design process.

It is recommended that the following clauses should also be included in the NBS specification for this system. N25/430, 460, 510, 520, 530, 550, 560, 570, 610, 640, 820 and 830.

Manufacturer: Latchways plc, Hopton Park, Devizes Wiltshire SN10 2JP Tel: +44 (0)1380 732700 Fax: +44 (0)1380 732701 E-mail: info@latchways.com Web: www.latchways.com
System reference: 210 Guided Type Fall Arrest System; Latchways ManSafe® for Protan Roofing Single Ply SE & GX Membrane Roofing

Anchorage device: Protan Constant Force™ Post by Latchways

Finish: Polyester powder coated with a factory fitted Protan weathering sleeve in light or dark grey.

Colour: Light Grey / Dark Grey

Attachment: Mechanical attachment through the insulation to the crowns of the steel deck, using four Latchways top fix toggle bolts which fix through to the metal deck. The prefabricated and factory fitted Protan membrane sleeve, welded to the roof finish once the post is installed.

Overall system length: Specify length of system in metres comprising roof perimeter system and single runs to allow access to gutters. Specify if the system is to provide access for roof light cleaning, roof inspection and gutter cleaning etc. Consult with Latchways for recommendations and details.

Intermediate support spacing: Between 6 and 10m and as designed by the Latchways approved installer to meet the requirements of the Latchways ManSafe design software.

Accessories/ Other requirements:

System access: To be from ... Consult with Latchways for recommendations and complete accordingly.

Completion: On completion of the installation, system to be inspected and fully tested and a test certificate covering a period of 12 months to be issued. Notice showing date and period of validity of the test certificate to be attached to the system at each access point.

... no. of complete sets of Personal Protective Equipment PPE to be supplied with the system. Set to comprise - ... no. of attachment devices x Removable Transfastener – Part number 85085. All to be supplied in a suitable PPE storage holdall

Installation: To BS 7883 by the system manufacturer or a contractor approved by the system manufacturer.

Structural anchors: Type recommended by the system manufacturer to suit the structure/ fabric into which they will be fixed.