

L35 Fixed utilitarian access systems

170 GUARDING SYSTEM

July 2019

Guard Angel Guardrail Systems

The following information is designed to be used in the specification of the Guard Angel Guardrail Systems within an architectural design.

Full technical and installation details are available at www.bettersafeinternational.com.

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General description

Product: Guard Angel Barrier System

Manufacturer: Bettersafe International BV

Netherlands: Azewijnseweg 12 SF: 4214 KC Vuren

UK: Riverside, Mountbatten Way, Congleton, CW12 1DY

Guard Angel Barrier Systems are suitable for installation and use on new and existing buildings with working platforms, roofs or technical terraces having slopes between 0° and 30° and no public access. A foldable option is available.

Comprising foldable or raked uprights, with hand and knee rails, all connected via grub screws and clamps to allow fast assembly and accurate level adjustment. No requirement for drilling, the system is mounted directly on the platform/roof.

All Guard Angel Barrier Systems are designed and tested to the requirements of EN 13374 class A and class B, and EN 14122-3.

Components are designed for compatibility with most roofing systems;

- Standing Seam Roofing Systems
- Composite Roofing Systems
- Composite Panels
- Built Up Roofing Systems
- Secret Fix Roofing Systems
- Polymeric Single Ply Membrane Roofing Systems
- Bituminous Membrane Roofing Systems
- Concrete and Masonry Roofing Systems
- Wall Mounted to Steel Structure
- Wall Mounted to Concrete and Masonry

System Overview

Guard Angel is a modular, pre-galvanised steel guardrail safety system, tested in accordance with BS EN 13374 and BS EN 14122-3.

It is designed for use on roofing areas and raised platforms for access to areas of buildings and structures that are deemed unsafe to do so otherwise.

The Guard Angel System is not designed for use as an attachment point for fall protection PPE.

Installation types:

Freestanding

- For flat roofing of all types.
- Recycled uPVC weights ensure no reaction to membranes.

Top Fix Rivet Fix

- For trapezoidal roofing systems
- Utilises the Roof Angel base plate and 12 8mm rivets

Top Fix Clamp Fix

- For standing seam roofing systems
- Utilises the Roof Angel base plate and 4 seam clamps

Top Fix Chemical Fix

- For concrete and masonry roofing or parapet installation

Freestanding Folding

- For flat roofing of all types where visibility is an issue
- Recycled uPVC weights ensure no reaction to membranes.

Top Fix Rivet Fix Folding

- For trapezoidal roofing systems where visibility is an issue
- Utilises the Roof Angel base plate and 12 8mm rivets

Top Fix Clamp Fix Folding

- For standing seam roofing systems where visibility is an issue
- Utilises the Roof Angel base plate and 4 seam clamps

Top Fix Chemical Fix Folding

- For concrete and masonry roofing or parapet installation where visibility is an issue

Top Fix Rivet Fix Inclined Class B

- For trapezoidal roofing systems up to 30deg pitch
- Utilises the Roof Angel base plate and 12 8mm rivets

Top Fix Clamp Fix Class B

- For standing seam roofing systems up to 30deg pitch
- Utilises the Roof Angel base plate and 4 seam clamps

Detailed Product guidance

Guard Angel is a system manufactured from a range of components. The selection of components is determined by reviewing the layout and installation requirements dictated by the building design and roofing type.

GA-001 Standard Free-Standing Leg

- Leg for flat roofing, 1 every 2.5m
- Material: 48mm & 54mm Pre-Galvanised Steel Tube & recycled PVC

GA-002 Weight

- Weight for flat roofing, 1 every 5.0m, with 2 at each end
- Material: Recycled PVC

GA-003 Rail (2.5mtr long tubes)

- Material: 48mm Pre-Galvanised Steel Tube

GA-004 90 Degree Corner

- Material: 54mm Pre-Galvanised Steel Tube

GA-005 D-End

- Termination for each run
- Material: Pre-Galvanised Steel

GA-006 Double Weight Connector

- Connection for weights at the end of a flat roof system
- Material: Pre-Galvanised Steel

GA-007 Variable Corner Bracket

- For corners from 90 to 180 degrees
- Material: Galvanised Steel

GA-008 Self Closing Gate

- Material: Galvanised Steel

GA-009 Wall / Floor Fix end (M12)

- For mounting to a concrete deck
- Material: Galvanised Steel

GA-011 Lower Leg

- For insertion into floor mounts or top fix bases
- Material: Pre-Galvanised Steel

GA-012 Top Fix Base and Socket 333/400

- For mounting to trapezoidal or standing seam roofing
- Material: Aluminium & Galvanised Steel

GA-013 Top Fix Base and Socket 500/509

- For mounting to trapezoidal or standing seam roofing
- Material: Aluminium & Galvanised Steel

GA-014 Upper Leg

- Material: 48mm & 54mm Pre-Galvanised Steel Tube

Detailed Product guidance (cont...)

GA-015 Rail Joiner

- Material: 54mm Pre-Galvanised Steel Tube

GA-016 Powder coating per metre

- Coating of all parts to specific RAL where required in the design

GA-017 Lower Leg Collapsible Free Standing

- Folding Leg for flat roofing, 1 every 2.5m
- Material: 48mm Galvanised Steel

GA-018 Lower Leg Collapsible Top Fix

- Folding Leg for top fix roofing, 1 every 2.5m
- Material: 48mm Galvanised Steel

RA-4005 Rivets 8mm (12 no.)

- Material: Aluminium

RA-4006 Bulb Type Standing Seam Clamp (4 no.)

- Material: Aluminium

RA-4007 Rolled Seam Standing Seam Clamp (4 no.)

- Material: Aluminium