FSR - Roof Guardrail with Rubber Counterweights

Fold down option available

Lockinex®
great service, great quality

INTRODUCTION

Lockinex FSR-Freestand Roof Guardrail system utilises Lockinex Key Clamps,Tubing & rubber counterweights. This system does not require physical fixing through the roof surface.
The system can be installed on flat roofs or roofs where an incline of up to 10 degrees is present.

APPLICATION

Lockinex FSR-Freestand Roof Guardrail provides a safe working environment for personnel who may frequent roof areas. A safe working area is constructed, enabling maintenance of equipment such as air conditioning units, telecoms, water tanks, communication services or general maintenance to the roof itself.
(This system incorporates an adjustable/retractable vertical leg to assist in the repair and/or levelling of the system)

The system can be installed to the complete roof perimeter or installed to provide direct access to a particular area on a roof.

Once installed, the system will provide many years of virtually maintenance free service life.

DESIGN

There are a number of styles available.

Classic
This system has straight vertical posts.

Curve
This system has curved upright posts.

Fold down
The system is supplied with posts that can be folded down, used where building aesthetics are of importance.

Benefits include horizontal rails are 2.5mtr long with simple end to end connections which are supplied ready fixed to the post.

Turns and angle changes are simplified using various standard brackets.
System weight is just 11 kg per mtr run.

COMPOSITION, MANUFACTURE.

Designed & tested to comply with BS EN 13374 Class A. May also comply with BS EN 14122:3 with the use of a toe-board and if a parapet wall is present.

Lockinex Key Clamps
Manufactured to BS EN 1563:2011
BS EN 1562:2012
Galvanised to BS EN 1461:2009

Tubing.
Manufactured to BS EN 10346
Stainless Steel & Aluminium system also available.

Rubber Counterweights

Rubber under-sole on front foot & loose rubber mats.
Elastomer type - CR - SBR

Identification, Traceability
The system is clearly marked with the "Lockinex" brand name. This will provide ease of contact should the system require further components for adaptation & alterations etc.

Above
Palletised & ready for shipment

Above
Standard FSR Freestand.
Stainless Steel Grade 316
Used in a marine environment.

Above
Standard FSR Freestand.
Galvanised Steel

Above
Fixed system
Galvanised Steel, with bespoke posts affixed to the perimeter of the roof.

Below
Galvanised Steel, with curved posts,
2 rail and 3 rail combinations

FSR-401
No counterweight

FSR-405
Extended back leg for single, double or triple counterweight attachment

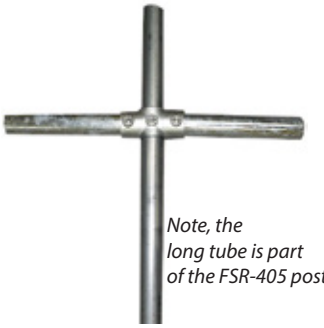
FSR-501
No counterweight. Complete with bracket to accept toeboard/kickplate

FSR-505
Extended back leg for single, double or triple counterweight attachment. Complete with bracket to accept toeboard/kickplate.

FSR-507
Kickplate with
4 x bolts and washers.

FSR-409
2.5 mtr length of tube to construct guardrails

FSR-420
Triple counterweight connection A22-8 Clamp & 2 Tubes 300mm long



Note, the long tube is part of the FSR-405 post.

FSR-407
20 kg Rubber counterweight

FSR-415
Double counterweight connection A2-8 Clamp & 50mm Tube

FSR-413
D end rail termination

FSR-411
90 Degree Swept Bend

Layout Details
FSR-Roof Guardrail

Diagram 1

6 mtr run or less.(Requires Triple counterweights to increase stability).
Lockinex Counter weighted system-Requires Triple weights OR Fixed rails on each end & Single Counter weight centrally.

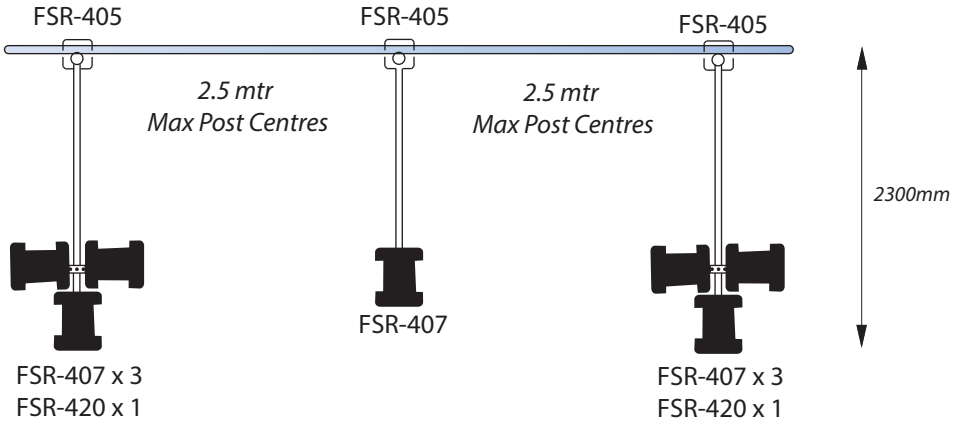


Diagram 2

More than a 6 mtr. run.
Lockinex Counter weighted system-Requires Double weights OR Fixed rails on each end & single weight.

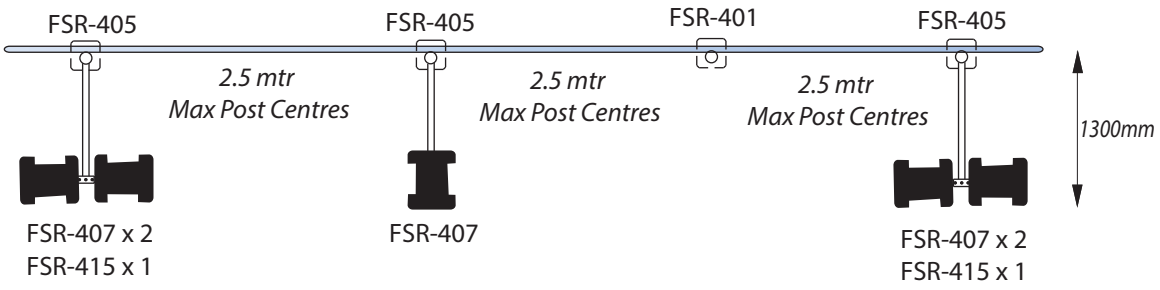


Diagram 3

Longer runs.
Lockinex Counter weighted system-Requires Double weights Or Fixed rails on each end & single weights on each alternate post.

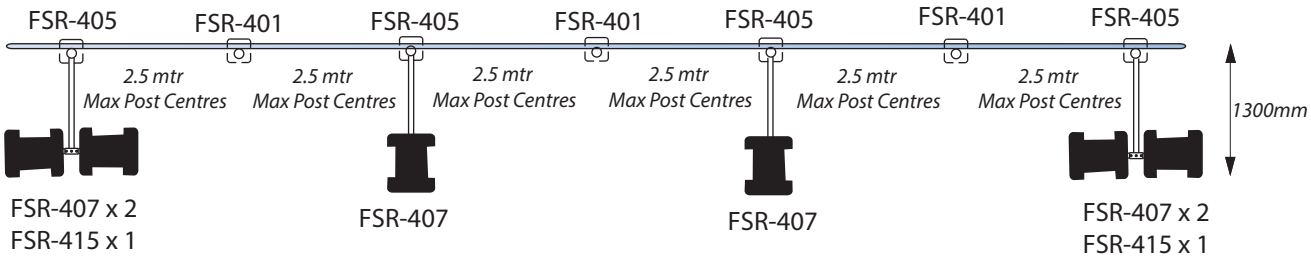


Diagram 4
FSR Roof Guardrail

Corners & End fixings.

Corners - It is recommended that a maximum projection of tube beyond a post should be no more than 500mm. The rail can then continue on 2.5 mtr to the next post.

End fixing - If rails can be fixed at their ends to part of the existing structure, the nearest post should be no more than 2.5mtr from that fixing point.

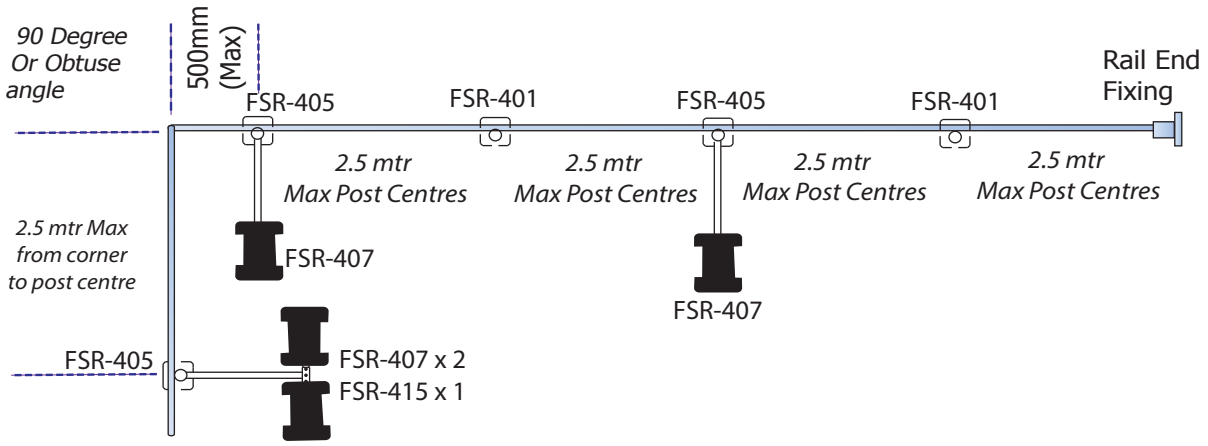
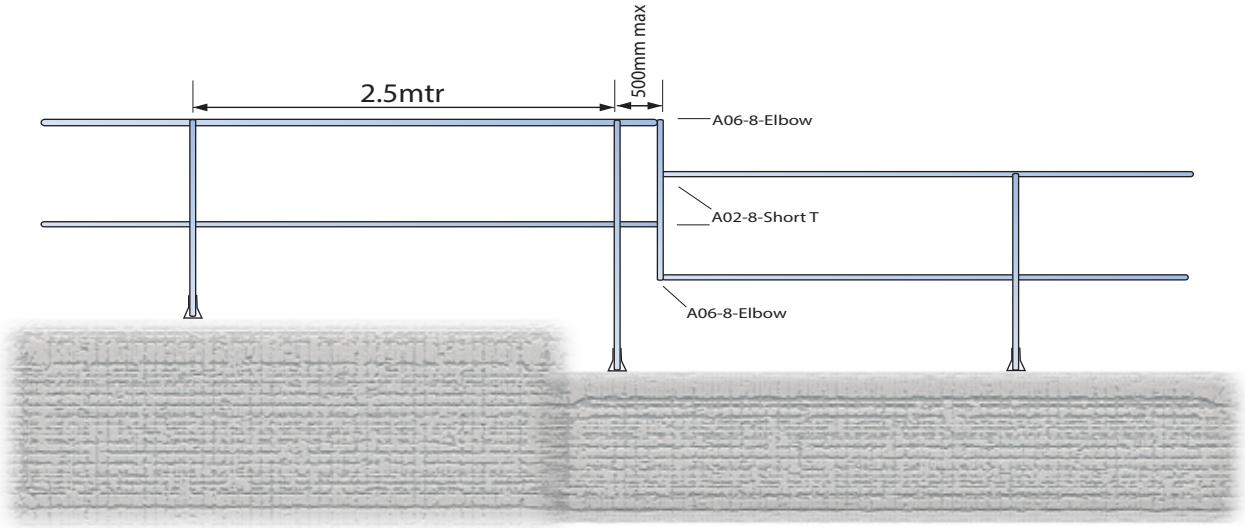


Diagram 5

Step up/down.

Where the levels of the roof change, the diagram below shows how to utilise some of the Lockinex key clamp range to make the transition across the two levels. The vertical connection has to be obtained from a standard piece of guardrail tube. Measure and cut accordingly.



Clamps from the Lockinex key clamp range.
A selection of clamps are shown below, which can be utilised to work with our counter weighted system.
(For the full range of clamps visit the www.lockinex.com web site).

A02-8
Short T.
Used for step ups in rails.
(See diagram 5).

A06-8
90 degree elbow joint.
Used for forming 'D' ends to terminate a run of handrail & turning rails at corners.

A05-8
Multi angle swivel joint.
Alters directions of rails 85-180 degree.

A08-8
Straight rail connector.
Connects rails end to end.

A10-8
Rail end Termination.
Ends of rails can be fixed to a structure.

A12-8
Structural top fixing base plate.

A14-8
Structural side mounted base plate.
Fixings holes vertical.

A15-8
Structural side mounted base plate.

A16-8
Structural side mounted base plate.
Fixing holes horizontal.

Maintenance/Design/Manufacture

Maintenance

Manufactured from either mild steel manufactured to BS EN 10346, Stainless Steel Grade 316 (Mill Finish) or Aluminium.

Once installed this product requires very little maintenance.

The systems integrity relies on the counterweights, installed as the layout details.
Any alterations or removal of counterweights will greatly affect the system.
Referring the to layout diagrams within this document,will provide the guidance to make changes without compromising the Guardrail's performance & compliance.

Structural fixings should not require any further attention.
Depending on the local environment it may be prudent to have these checked at an agreed interval to ensure there has been no tampering or removal.

Contact the company for further assistance if required.

Design

When standard kit components are fully assembled, the guardrail will comply to current UK regulations & exceeds many European regulations (EU Regulations are generally to a lower specification than those in the UK).

Should the contractor/third party installer adapt/alter the system in any way , consideration should be given to the proposed alterations.

Manufacture

Warranted & Certified by Lockinex UK Ltd

Components Certified Galvanised to BS EN1461:2009 (Standard system)
Stainless Steel Grade 316 (Optional)

Satisfies CEN BE EN ISO 14122-3:2001 (When installed with toe-board system)
Complies with EN 13374 Class A & may also comply with BS EN 14122:3 with the use of a toe-board and if a parapet wall is present.
UK Health & Safety Working at Height (Amended 2007)
Designed to comply with Wind Loadings BS 6399:Part 2: 1995

Lockinex UK Ltd reserves the right to alter, re-design, remove options or remove products from sale at any time without notice.