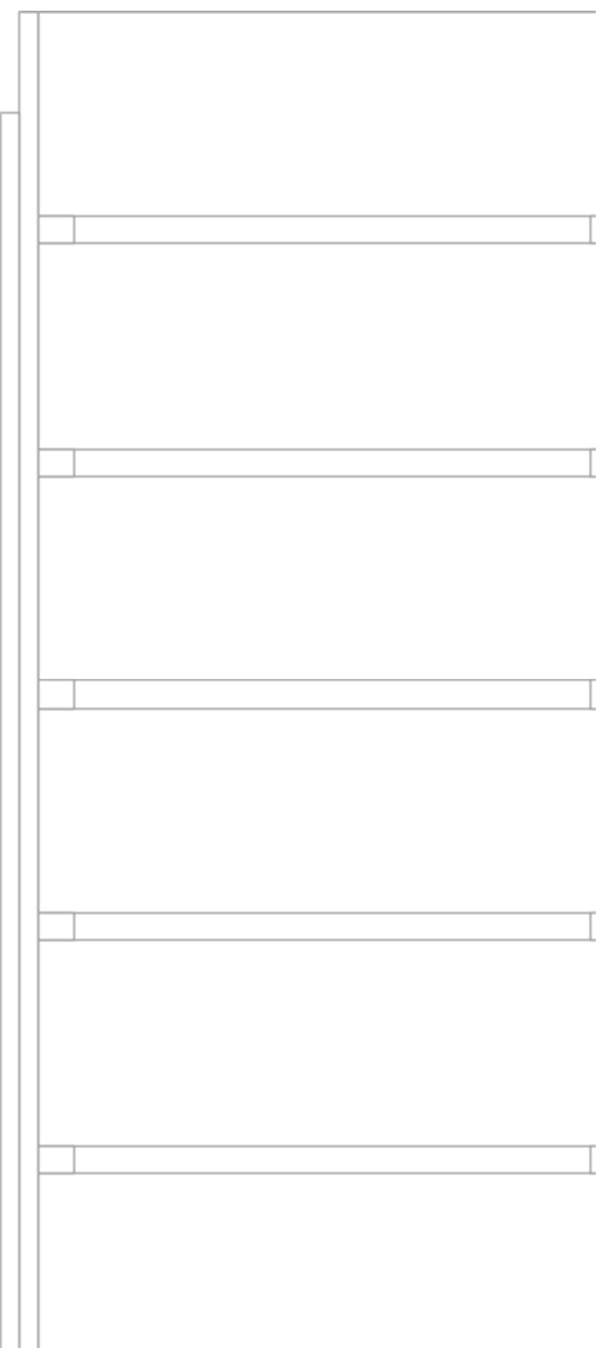


Installation & Technical Manual

July 2019
Revision 2.0



Installation and Technical Manual

WARNING!

- This manual is invalid if any unauthorised alteration has occurred.
- Unauthorised use of this manual may lead to prosecution
- This manual was, to the best of our knowledge, correct at its date of issue.
- It is the user's responsibility to ensure that all subsequent authorised amendments are incorporated and that the manual is to the current issue status.
- A manual that is not to the latest issue status is invalid and must not be used.

Introduction

General Information

Walk Angel is a uPVC Walkway system 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 Walk Angel Walkway System is not designed for use as an attachment point for fall protection PPE.

The equipment used should be stored in a safe manner and moved to the point of installation in line with the Manual Handling Regulations in the region of use.

Installation should only be carried out by a trained and competent installer with the permission of Fall Angel or their appointed representatives. Appropriate safety measures must be taken to ensure the complete safety of all installation personnel.

All tools used must be in good working order and calibrated and tested where applicable.

Component Information

- All Walkway Sections are delivered complete with I-Beams to suit installation, in 1.5m or 3m lengths.
- All boards are delivered with all fixing components to suit the required installation.
- All steps are delivered to suit the required installation angle, which must be specified prior to order.
- All levelled sections of walkway are delivered constructed with necessary levelling beams. Angle must be specified prior to order.

Testing and Conformity

Walk Angel complies with the current standards and requirements:

- CE to BS EN516:2006 516-1-C Tested independently by SATRA.

Ordering System Components & Tools

General Information

System components

When components are required, please contact Bettersafe International quoting relevant part number from the list. Guidance is provided in the component explanatory notes.

Orders should be sent to orders@bettersafeinternational.com

Amendments

1. Bettersafe International reserve the right to continually update their range of products and manufacturing processes, in the interests of reliability, durability and performance
2. In this respect, this installation and servicing manual will need occasional updating. Bettersafe International shall issue all registered holders the relevant amendments.
3. If in any doubt regarding the current Issue Status of a manual, please contact Bettersafe International.

Installation

General Information

Foreword

The nature of the following text is instructional on the installation attachment of the Walk Angel System. Selection of structural anchorages is a function of the mounting structure material, potential system forces, and the environment. As such the selection must be made by the competent Engineer in charge of the system installation. A competent engineer is defined as: -

'A person who has a recognised Structural or Civil Engineering qualifications, and who has had adequate previous installation experience.'

Such an Engineer must have attended Bettersafe International training and be familiar with the Walk Angel System.

This manual does not automatically infer design approval to or for particular system configurations. This must be obtained from architectural or site authority as appropriate, before commencement of work.

Pre-requisite Installation requirements

Installation cannot take place until the following have been fully considered and completed.

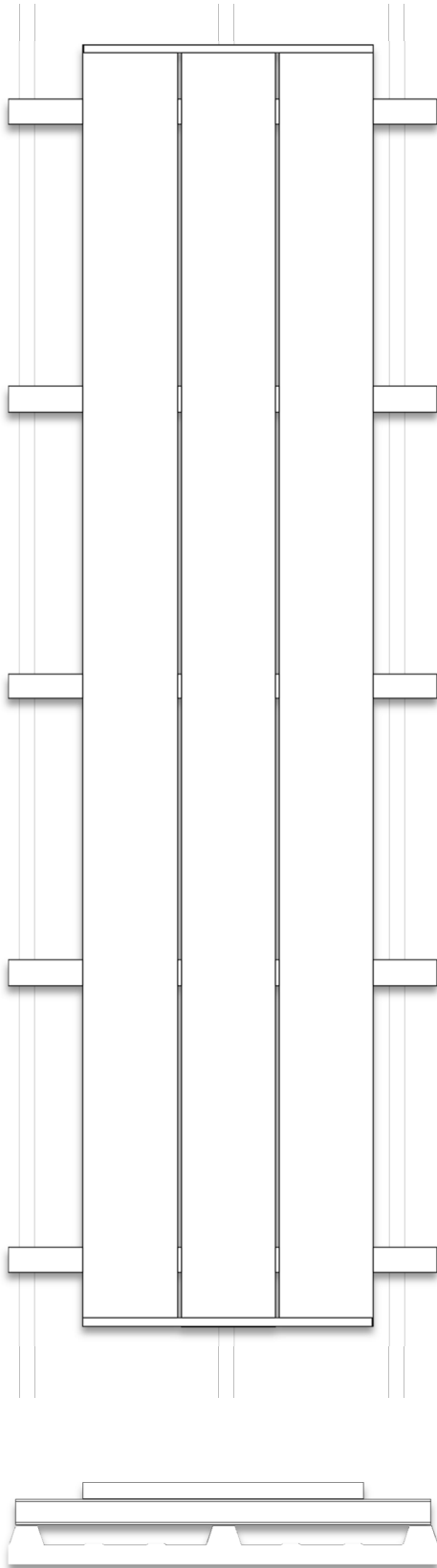
Site Plan

A site plan must be drawn up to indicate the Walk Angel System configuration, to include: -

- Span lengths
- Extremities
- Entry / exit access points
- Roof surface angle
- Direction of Installation
- Obstacles.

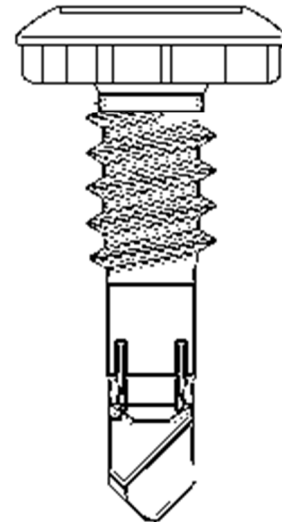
Typical System Layout & Positioning Criteria

In line with Crowns – Trapezoidal.



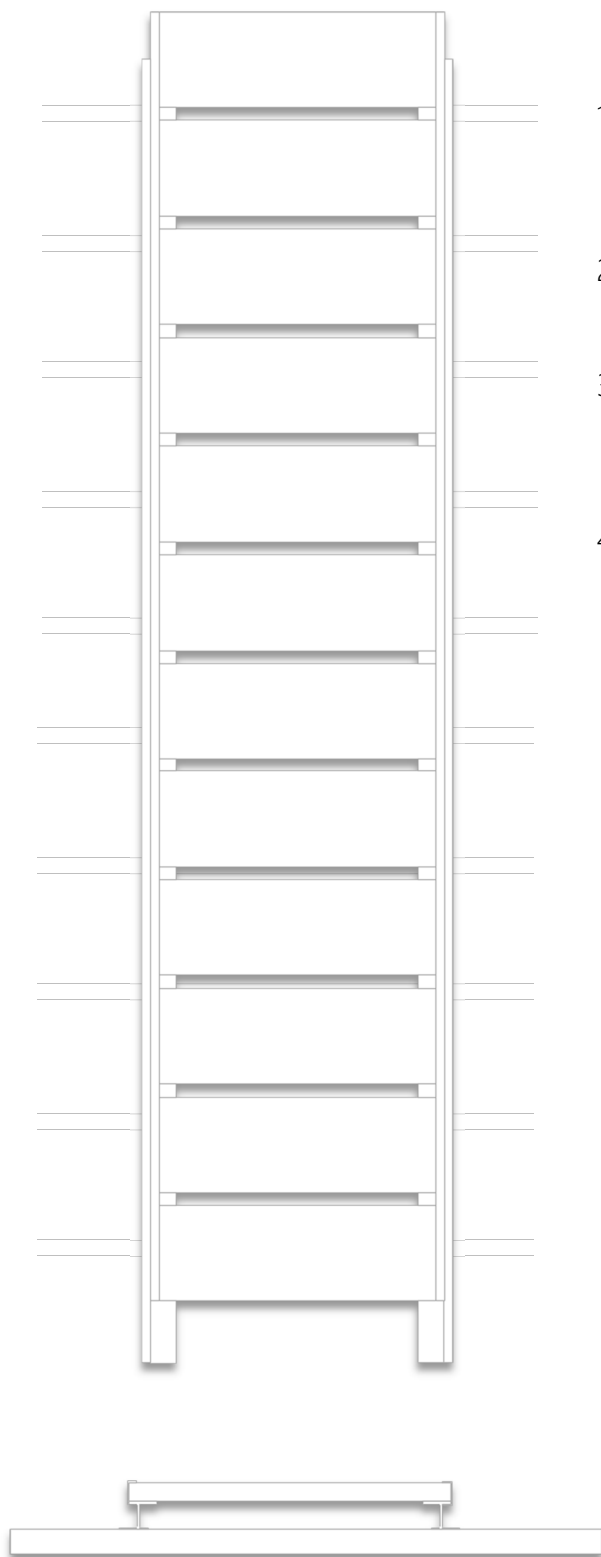
1. Short support extruded Walk Angel I-beams should be placed across the length of the walkway section and perpendicular to the profile direction
2. uPVC Walk Angel Boards are mounted in the "long" orientation between the beams, in line with the profile.
3. The beams shall then be fixed to the crowns of the profile using M6 stainless steel self-sealing tek screws, with each beam fixed with 1 tek screw on each end.
4. A foam pad (supplied with the system) should be placed between the sheet and the I Beam to seal the fixing.

SFS IRIUS Tek Screw



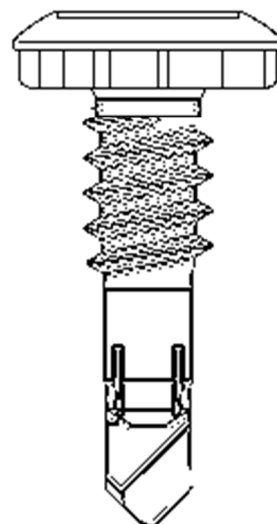
Typical System Layout & Positioning Criteria

90 to Crowns – Trapezoidal



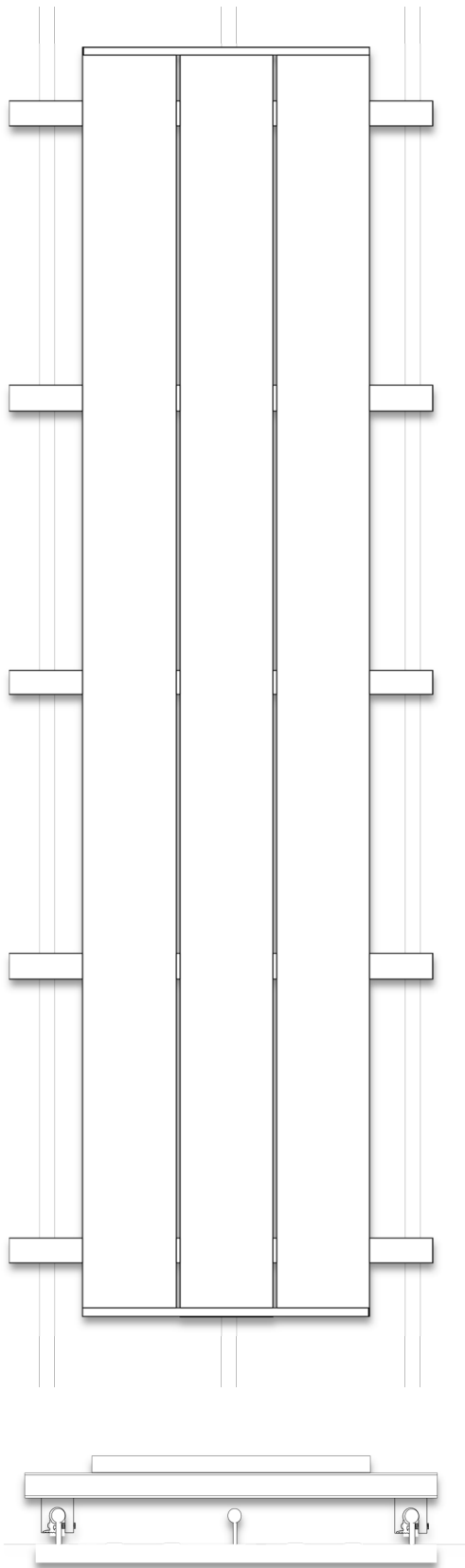
1. Long support extruded Walk Angel I-beams should be placed running the length of the walkway section and perpendicular to the profile direction
2. uPVC Walk Angel Boards are mounted in the "short" orientation between the beams, in line with the profile.
3. The beams shall then be fixed to the crowns of the profile using M6 stainless steel self-sealing tek screws, 5 per side evenly along the length.
4. A foam pad (supplied with the system) should be placed between the sheet and the I Beam to seal the fixing.

SFS IRIUS Tek Screw



Typical System Layout & Positioning Criteria

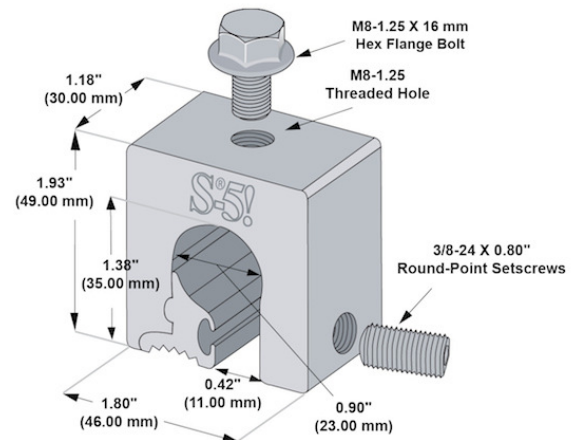
In line with Crowns – Standing Seam.



1. Short support extruded Walk Angel I-beams should be placed across the length of the walkway section and perpendicular to the profile direction
2. uPVC Walk Angel Boards should be mounted in the "long" orientation between the beams, in line with the profile.
3. The beams shall then be fixed to support 'L' brackets using the fixings provided.
4. Each bracket shall then be fixed to the roofing seams using Walk Angel Standing Seam Clamps.
5. The fixings should be between 600 and 1200mm centres.

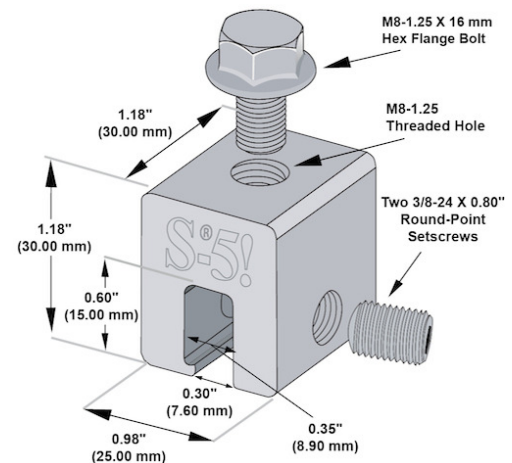
S-5! Z Mini Clamp

For attachment to Bulb Type Seams



S-5! E Mini Clamp

For attachment to Rolled Type Seams



Typical System Layout & Positioning Criteria

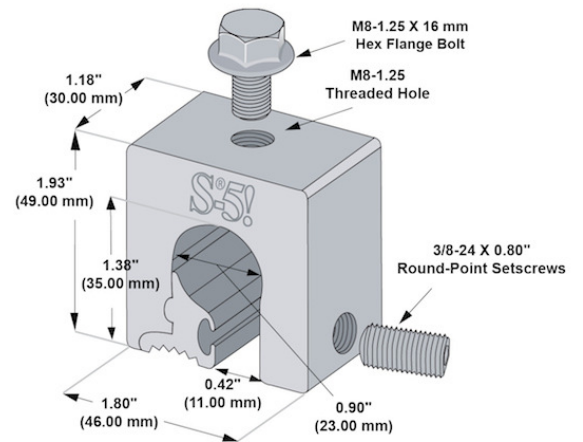
90 to Crowns – Standing Seam



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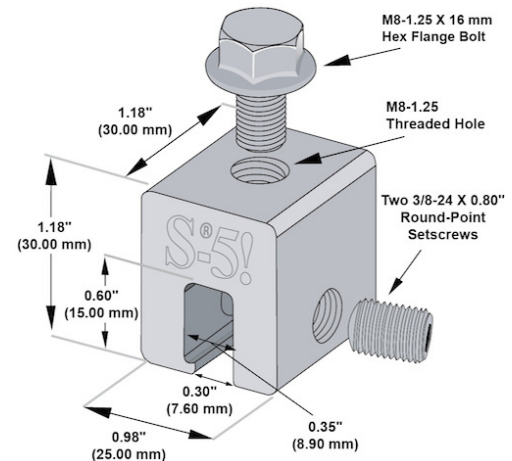
S-5! Z Mini Clamp

For attachment to Bulb Type Seams



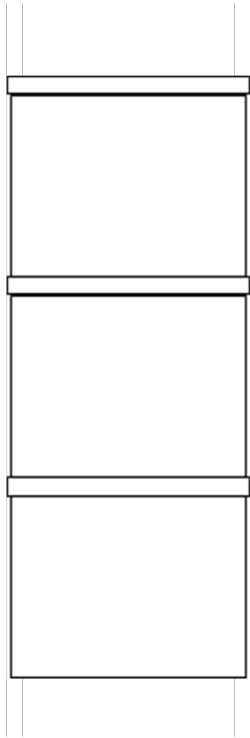
S-5! E Mini Clamp

For attachment to Rolled Type Seams

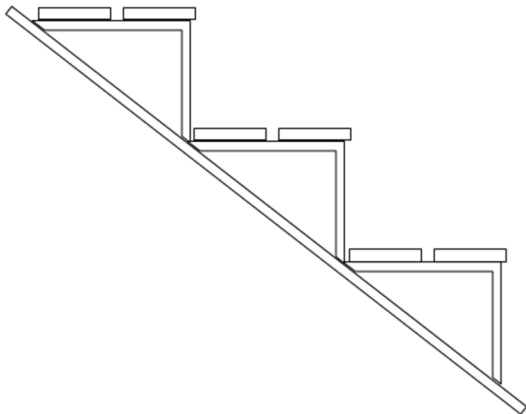


Typical System Layout & Positioning Criteria

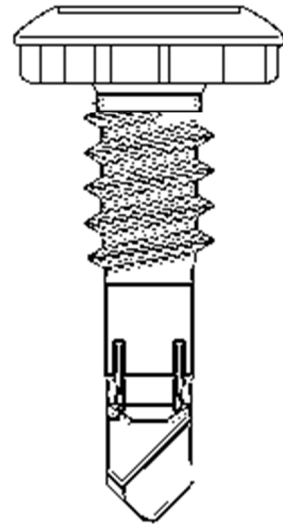
Steps – Trapezoidal.



1. Walk Angel Step Frames should be placed across the crowns of the roof profile.
2. The frames shall be fixed to one another using IRIUS Tek screws as provided.
3. Each bracket shall then be fixed to the roofing crowns using IRIUS Tek screws as provided.
4. The fixings should be at the top and bottom of each step



SFS IRIUS Tek Screw



NOTE

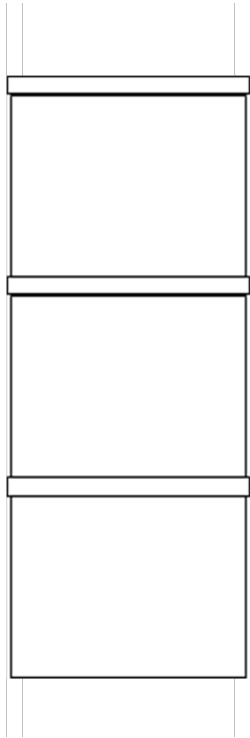
Steps are manufactured as a bespoke solution to suit the angle of the roof to be installed to.

The roof pitch is required prior to order.

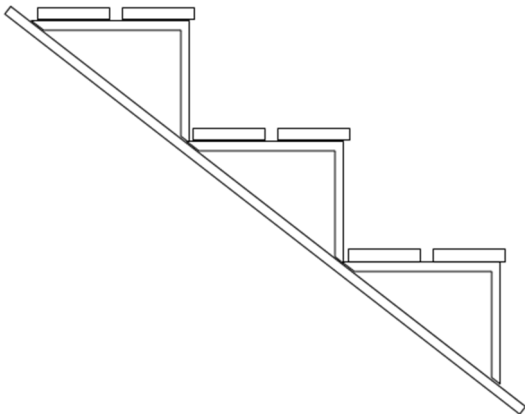
For barrelled roofing systems a section drawing is required to allow for all steps to be individually designed.

Typical System Layout & Positioning Criteria

Steps – Trapezoidal.



1. Walk Angel Step Frames should be placed across the crowns of the roof profile.
2. The frames shall then be fixed to support 'L' brackets using the fixings provided.
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NOTE

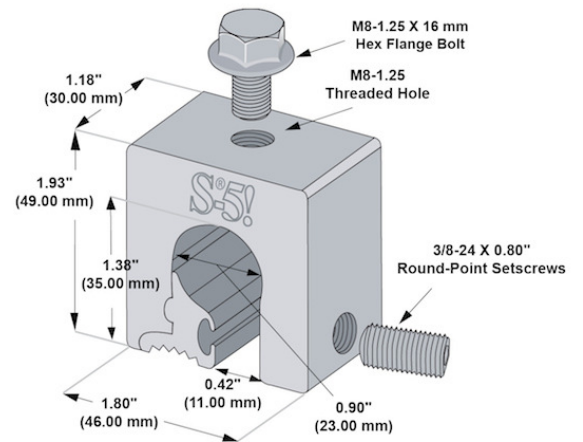
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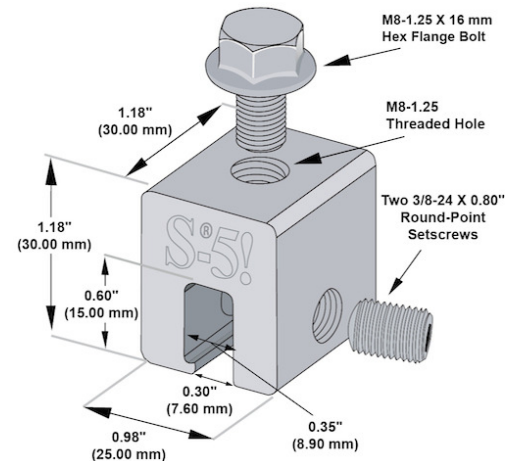
S-5! Z Mini Clamp

For attachment to Bulb Type Seams



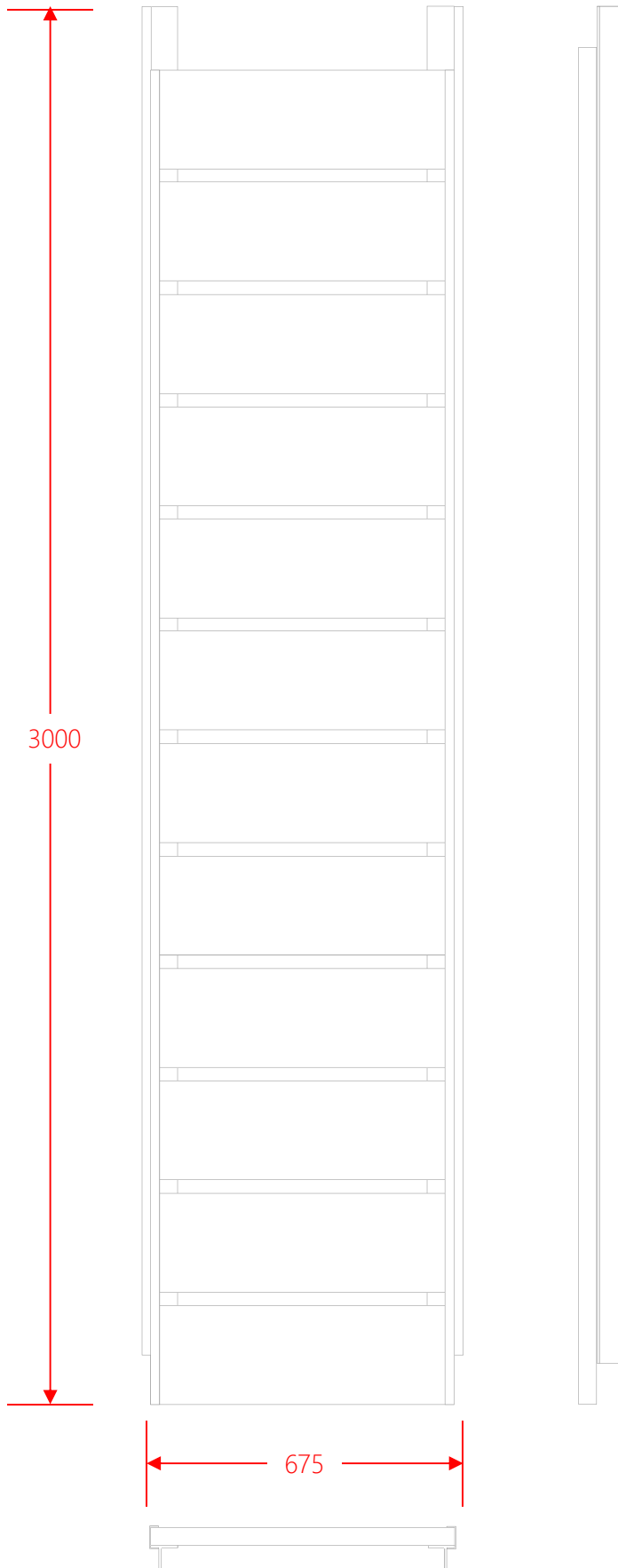
S-5! E Mini Clamp

For attachment to Rolled Type Seams



Technical Details

90 to Crowns



Materials

Panels

I-Beam	uPVC – Grey
Boards	uPVC – White
Edging	uPVC – Red

Fixings

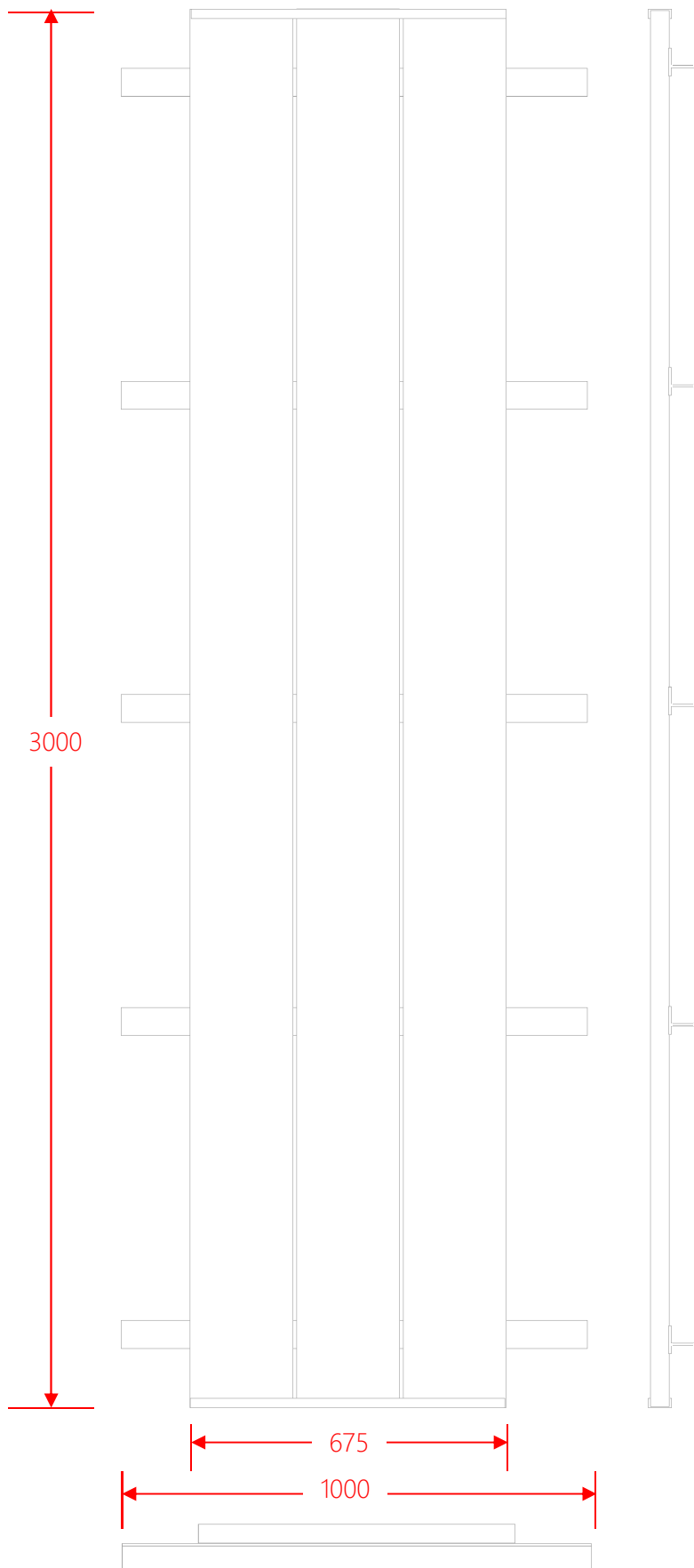
IRIUS Screw	Stainless Steel
S-5! Z Mini	Aluminium
S-5! E Mini	Aluminium
Brackets	Stainless Steel

Weight

3m Panel	32.2kg
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Technical Details

In Line with Crowns



Materials

Panels

I-Beam	uPVC – Grey
Boards	uPVC – White
Edging	uPVC – Red

Fixings

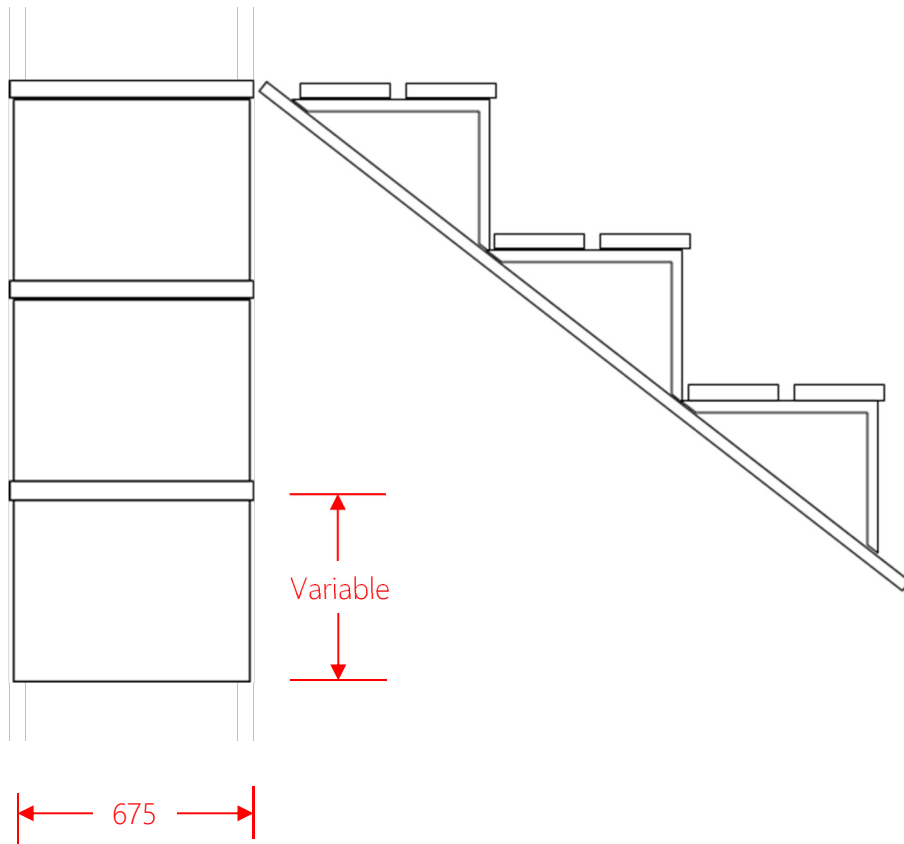
IRIUS Screw	Stainless Steel
S-5! Z Mini	Aluminium
S-5! E Mini	Aluminium
Brackets	Stainless Steel

Weight

3m Panel	33.7kg
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Technical Details

Steps



Materials

Panels

Frame	Stainless Steel
Boards	uPVC – White
Edging	uPVC – Red

Fixings

IRIUS Screw	Stainless Steel
S-5! Z Mini	Aluminium
S-5! E Mini	Aluminium
Brackets	Stainless Steel

Weight

Per Step	Variable
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NOTE

Steps are manufactured as a bespoke solution to suit the angle of the roof to be installed to.

The roof pitch is required prior to order.

For barrelled roofing systems a section drawing is required to allow for all steps to be individually designed.

System Maintenance

All Systems

- Periodic inspections by a competent person are recommended by the manufacturer. In UK/Europe these are required under Regulation 5 of the Workplace (Health, Safety & Welfare) Regulations, the Work at Height Regulations.
- The frequency will depend upon the environment, location and usage but should be at least every 12 months.
- Clients should ensure a maintenance schedule of periodic cleaning is in place. Suitable liquid cleaner and water should be applied with a stiff brush to remove debris..
- If installed in a gutter, the walkway can be easily removed to allow routine maintenance.
- Walk and visually inspect the complete installed system in relation to the general client's needs.
- Establish if any modifications and/or additional products are required to reflect any refurbishment requirements or additional plant & equipment which have been installed and require access.
- Check installation configuration is complete as per the original installation drawing/plan.
- Ensure the system has not been modified or tampered with by unauthorised persons.
- Check all UPVC components are in place and not damaged in any way. If components are damaged then photograph and include in report for remedial works.
- Check all fastenings to ensure they are in place and sufficiently torqued.
- Where applicable, check fixings to walls/structures



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