

## Conclusion

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The Roof Angel system was tested in accordance with EN795:2012 and CEN/TS 16415:2013, with the substrate ultimate load test used to verify suitability for design with a 2:1 safety factor for all locations.

The substrate used in this test is a Standing Seam System built up from a standard deck to manufacturer's specifications, allowing for worst case installation validation.

Testing was carried out in normal weather with ambient temperatures around 12 - 18 degrees and minimal moisture.

### Results:

- |                                    |         |                                  |
|------------------------------------|---------|----------------------------------|
| ○ EN 795:2012                      | 1 User  | Pass                             |
| ○ CEN/TS 16415:2013                | 2 Users | Pass                             |
| ○ CEN/TS 16415:2013                | 3 Users | Pass                             |
| ○ System Destruction Failure Point |         | Sheet Failure at Rear most Clamp |
| ○ System Destruction Failure Value |         | 24.40kN                          |
| ○ Design loads for systems         |         | 12.20kN.                         |

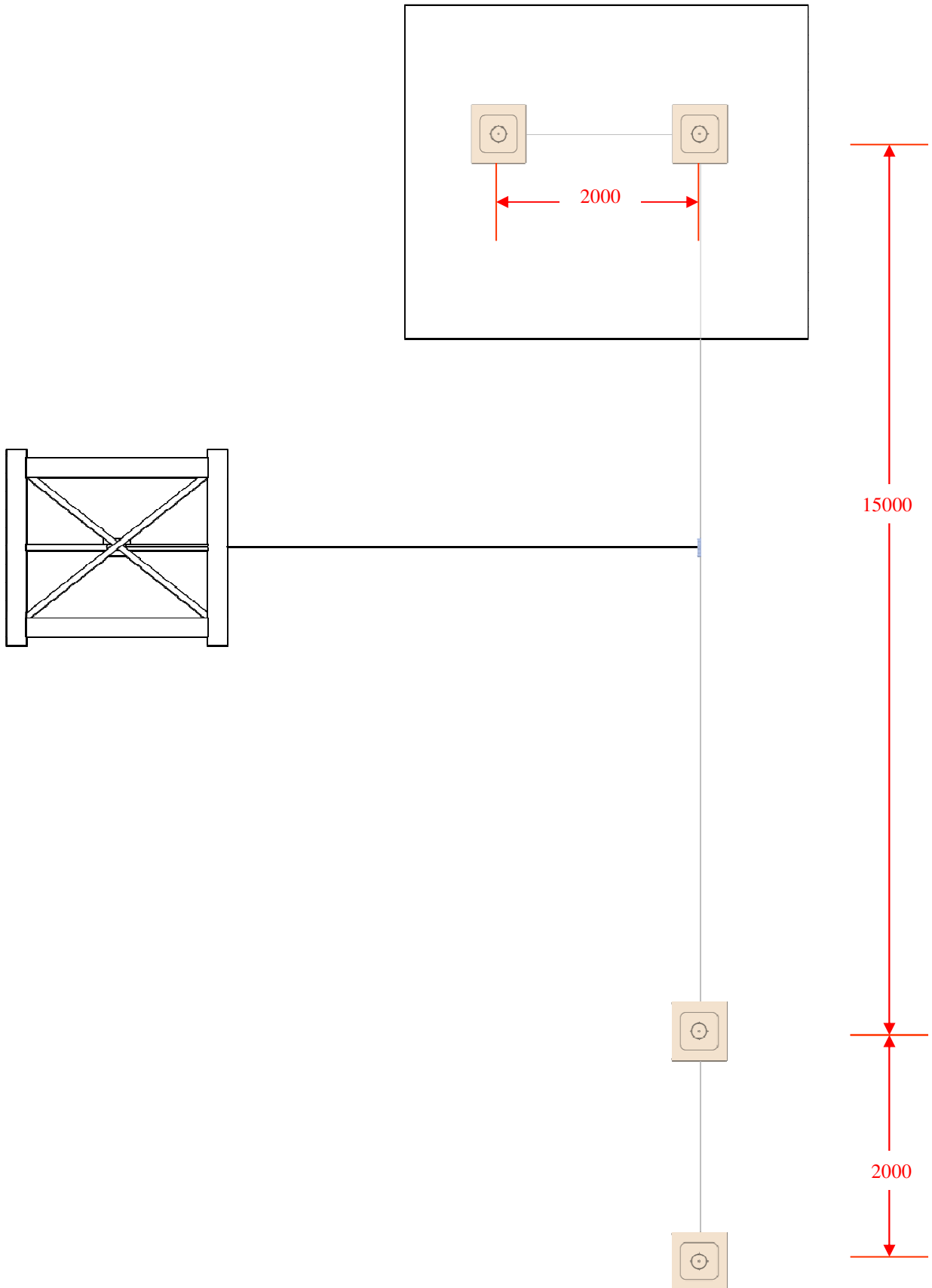
Verified by



Steve Jervis

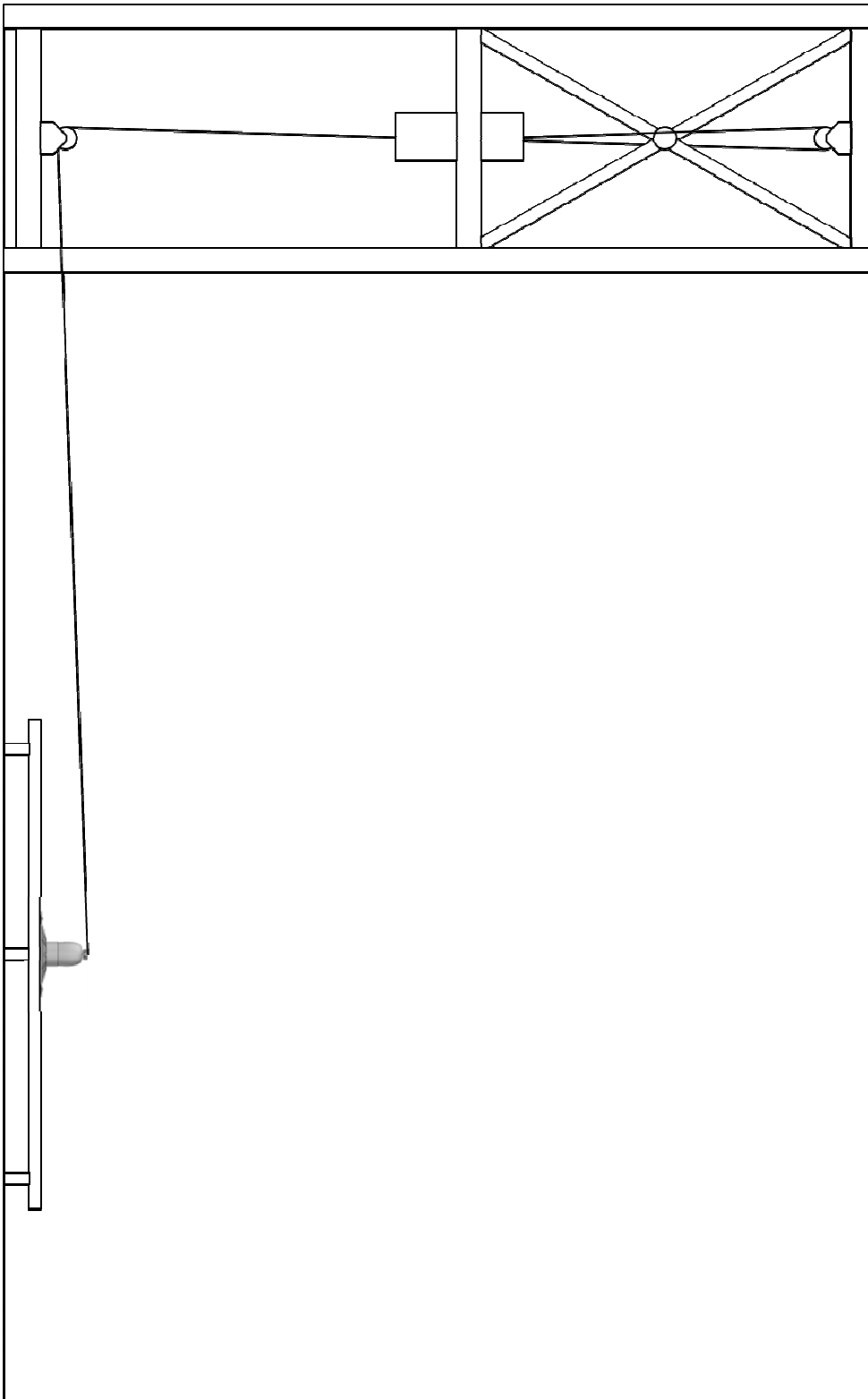
# Test Layout

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## Test Layout

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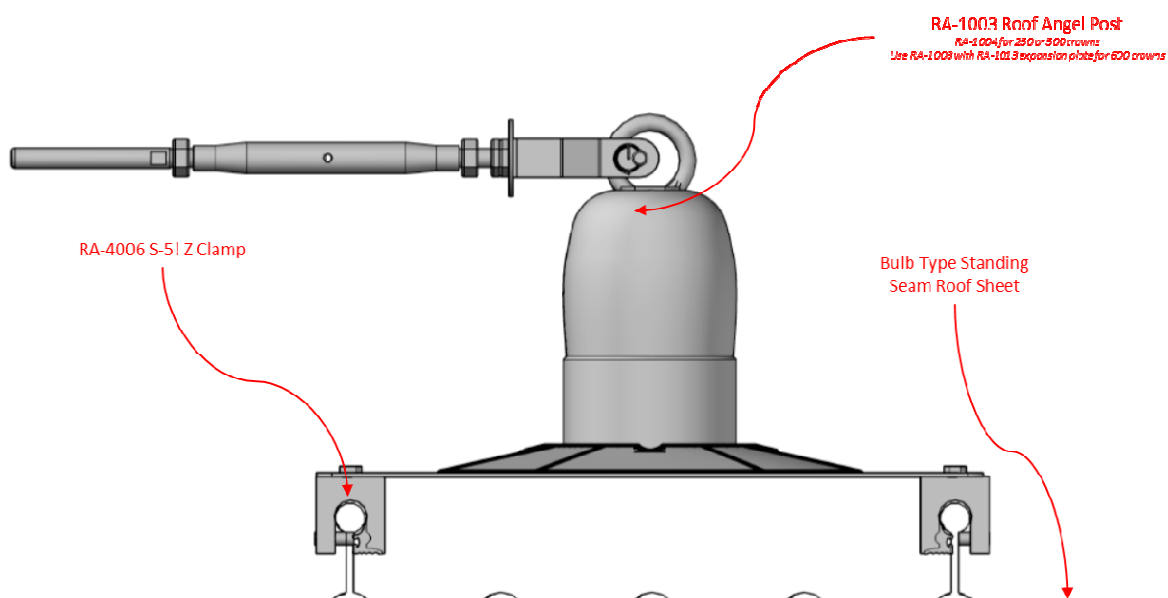


## Sample Details

Roof Sample Material Construction	400 Seam Width Standing Seam Roofing System.
Roof Sample Dimensions	2000x2000
Substructure Construction	Purlins on Steel to Manufacturers recommendations
Roof Angel Fixing Method	8mm Bulb Type Rivets

## Fixing Detail

### Clamp Fix to Bulb Type Standing Seam Sheet



# Test Report

March 16<sup>th</sup> 2016 (updated 25-10-2019)

Test Report Number	BSI-SS-0316-02
Product Reference	Roof Angel
Part Numbers	RA-1003-EC (RA-1016 Module) RA-1003-IN (RA-1017 Module)
Standards Used	EN795:2012 Type A & Type C CEN/TS 16415:2013 for 3 users
Test Description	Test for fixing to Standing Seam Roofing System with absorbing posts
Test Method	EN795:2012 Type A & Type C CEN/TS 16415:2013 for 3 users
Date of Issue	March 16 <sup>th</sup> 2016

Report Author	S Jervis
Testing Carried out by	A Harris, D Harrison
Witnessed By	W Ottley, S Jervis
Approved by	S Jervis

## Report Notes

1. Tests are carried out to an interpretation of test methods and requirements specified in the standard or method specified.
2. Test samples have been stored in warehouse conditions and tested in an uncontrolled environment unless detailed otherwise.
3. Testing carried out in an outdoor environment.
4. Peak forces and arrest distances are stated based on the test method applicable to each result
5. The drop heights have been calibrated to meet the requirements of CEN/TS 16415:2013 and the requirements of EN 795: 2012
6. This report is the property of Better safe International BV and should not be passed to, or used by, any other party without written consent.