

# 013



**Aviator**<sup>®</sup>

## PROFILED METAL SHEET ROOF SYSTEM

PRODUCT DATA SHEET  
REPORT NO: 013

REVISION NO: 002

PRODUCT CODE: PMS250



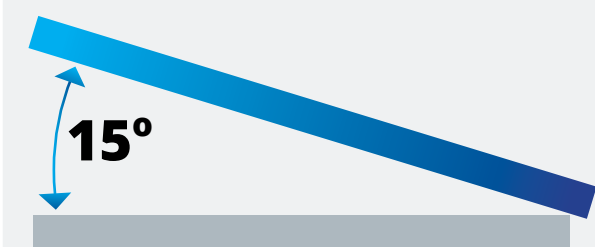
## AVIATOR PROFILED METAL SHEET ROOF SYSTEM



### PRODUCT DESCRIPTION:

A safety line bracket system for installation on composite metal roof systems up to a 15 degree pitch. The brackets are installed onto the completed roof system with Sayfa bulb type rivets that are designed for fall arrest standards and have an integrated neoprene seal. The brackets are installed with a sealing strip between the bracket and roof deck to ensure a leak proof installation. No additional sealing is required on completion of an installation. Both brackets and cable can be installed in a single visit. Brackets are manufactured in electro polished stainless steel to ensure long service life. Brackets are supplied in a standard length of 426mm with the mounting holes slotted to accommodate most leading makes of metal composite panels. Larger bespoke sizes can be manufactured on request.

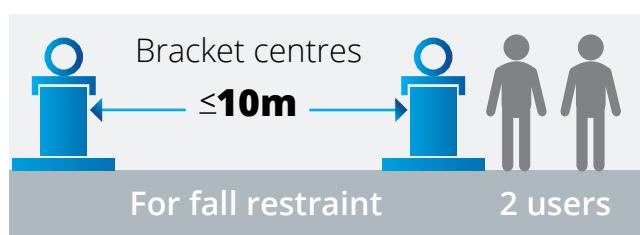
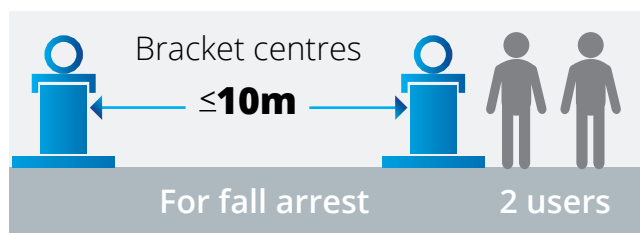
Up to a 15 degree pitch



The safety line system is designed to operate as a fall restraint system or a fall arrest system depending on the layout design. All systems are fitted with an in-line shock absorber on the end brackets. The shock absorbing capabilities when used together with a shock absorbing lanyard, will ensure that no more than 4kN force is exerted on the users at any point in the system. We recommend a limit of 2 users on a fall arrest system.



The fall restraint systems can be designed for up to 2 users at any one time and provide unrestricted access along the full length of the system. Corners and intermediate brackets allow the line shuttle to move smoothly along the full length of the cable between end brackets.



## MATERIAL SPECIFICATION: Brackets and component parts

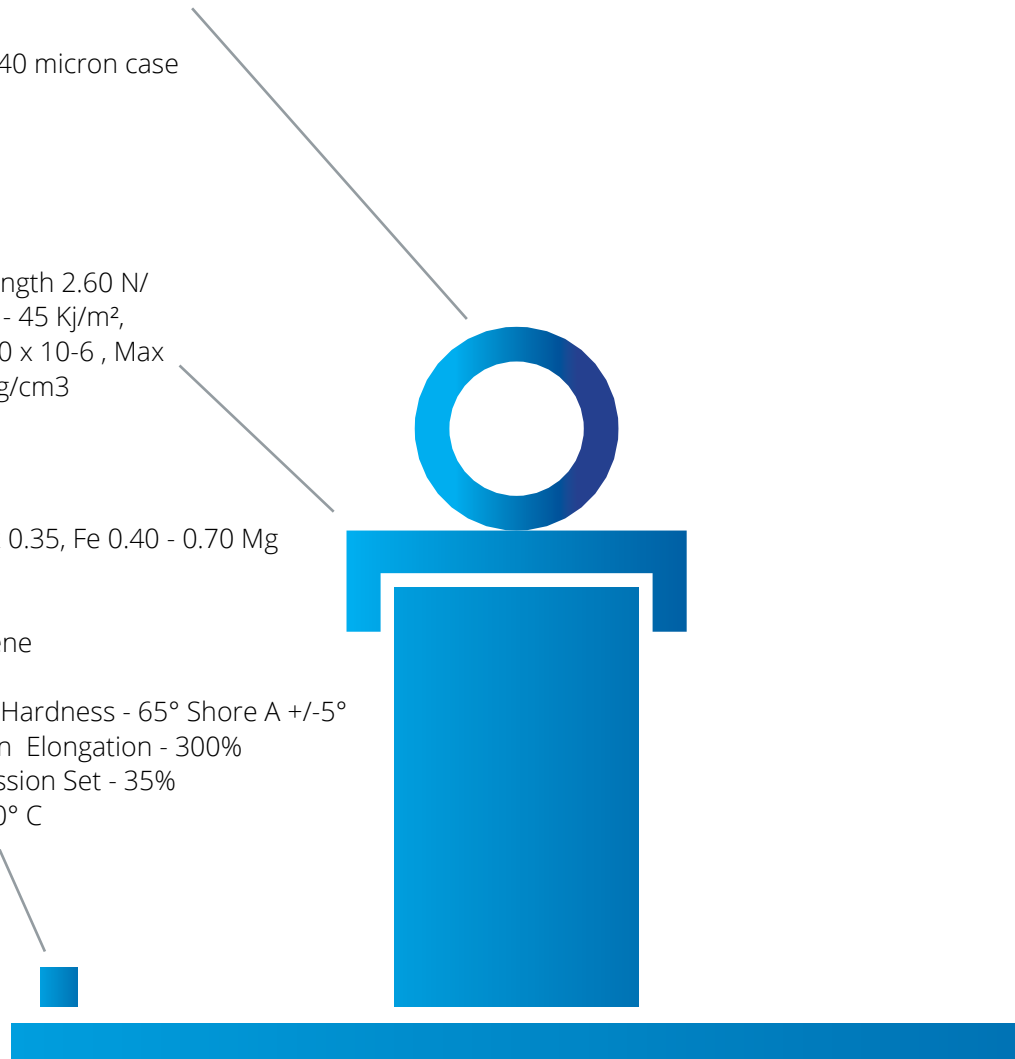
Stainless Steel - Grade 304 (UNS S30400)  
 Fe, <0.08% C, 17.5-20% Cr, 8-11% Ni, <2% Mn,  
 <1% Si, <0.045% P, <0.03%  
 Stainless Steel  
 Surface electropolished typically 20-40 micron case  
 removal of stainless steel.

### Rain cap

Polyvinyl Chloride-PVC. Tensile Strength 2.60 N/  
 mm<sup>2</sup>, Notched Impact Strength 2.0 - 45 Kj/m<sup>2</sup>,  
 Thermal Coefficient of expansion  $80 \times 10^{-6}$ , Max  
 Cont Use Temp 60 C, Density 1.38 g/cm<sup>3</sup>

### Bulb type rivet

Aluminium body 0.50 - 0.75 Si, Max 0.35, Fe 0.40 - 0.70 Mg  
 Tensile strength 151MPa  
 Yield strength 89MPa  
 Neoprene seal Elastomer - Neoprene  
 Colour - Black  
 Quality - Commercial Grade - C20 Hardness - 65° Shore A +/-5°  
 S.G. - 1.4G/Cm<sup>3</sup> Tensile Mpa - 5 Min Elongation - 300%  
 Tear Strength - 20 Kg/Cm Compression Set - 35%  
 Operating Temperature -20° / +110° C



## AVIATOR PROFILED METAL SHEET ROOF SYSTEM



### OPERATING AND DESIGN STANDARDS:

Eurocodes are designated by EN

British standards are designated by BS



- BS EN 795:2012 Class C – flexible safety lines
- BS EN 795:2012 Class A – single anchors, anti-pendulum anchors
- BS 7883: 2005 – Design, selection, installation, use and maintenance for anchors conforming to EN 795
- BSMA 29: 1982 – specification for steel wire rope
- ACR (M) 002:2009
- ACR (CP) 007:2008
- ISO 9001:2008
- ISO 14001:2004
- BS OHSAS 18001:2007
- Work at height regulations 2005 (Ref.7)
- Work at height (amendment) Regulations 2007 (Ref.8) WAHR
- Provision and use of work equipment regulations 1998 PUWER 98 (Ref. 5)
- PD CEN/TS 16415:2013 Multiple users

The company operates to the following standards



- Management of health and safety at work regulations 1999 MHSWR (Ref.2)
- The work at height safety association WAHSA guidance on inspecting eyebolts used for personal fall protection purposes

### Typical connection loads (bracket height up to 150mm)

#### Ultimate factored load on bracket base



#### Bracket moment



Note: For guidelines only to be checked by Chief Engineer.

## INSPECTION/MAINTENANCE/TRAINING

### INSPECTION ROUTINE:

All systems to be inspected at least every 12 months from date of installation.

In harsh environments all systems to be inspected at least every 3 months.

Inspections must be carried out by approved Aviator engineers.

Inspections must be approved to SIMS (Safety Inspection and Maintenance Service) standards.

All inspections to be carried out to EN795:2012 and BS 7883:2005 and WAHSA (inspection of eyebolts) requirements for safety line and anchor points.

All inspections to be carried out to EN364 requirements for personal protective equipment.

Contact Sayfa Systems to arrange inspections.

### MAINTENANCE SCHEDULE:

All maintenance to be carried out by approved Aviator engineers. Maintenance to be in accordance with Sayfa Systems UK (manufacturer) guidelines and recommendations.

In harsh environments all systems to be inspected at least every 3 months.



Maintenance to be in accordance with SIMS standards. (details available on request)

Maintenance to be carried out at time of yearly inspection.

Contact Sayfa Systems to arrange system maintenance.



### TRAINING REQUIREMENTS:

All personnel who use the Aviator system should have attended a Sayfa Systems Ltd, Aviator users course.

Courses are available from Sayfa Systems UK Ltd.

Courses cover the use of all Aviator and Payload products, the legal and practical side of the Working at Height legislation - 2005 and how to use and carry out safety checks on harnesses and all necessary PPE equipment.

## CERTIFICATE

OF  
OPERATIVE INSTRUCTIONAL TECHNIQUES AND  
WORKING AT HEIGHT SAFETY

In recognition of successful completion of training for the installation and assembly, use, handling and safety checks of:-

Aviator Safety Line Systems	<input checked="" type="checkbox"/>
Aviator Mobile Anchors	<input type="checkbox"/>
Payload Access Ladder Systems	<input type="checkbox"/>
Payload Handrail Systems	<input type="checkbox"/>
Aviator PPE	<input checked="" type="checkbox"/>

To: \_\_\_\_\_

Location of Training: \_\_\_\_\_

Certificate Number: \_\_\_\_\_

Name of trainee: \_\_\_\_\_ Signed by trainee: \_\_\_\_\_

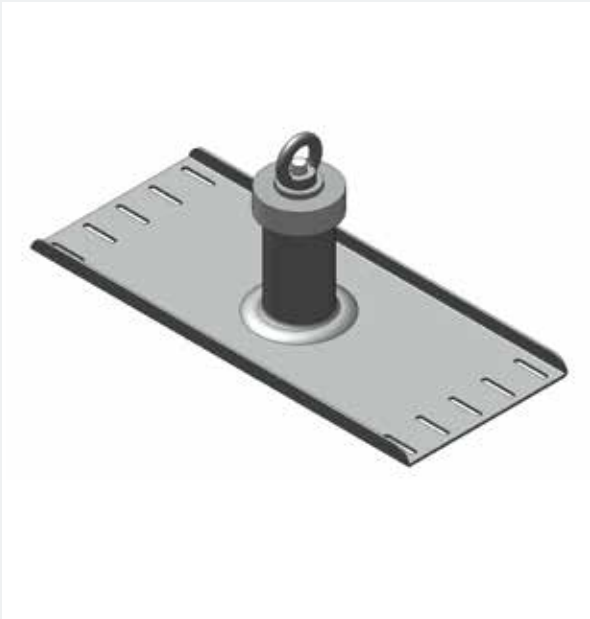
Instructor's name: Adrian Stutterheim..... Signed: *Adrian Stutterheim*.....

Date of Training: 00 January 1900 .....

### COMPONENT PART DETAILS:

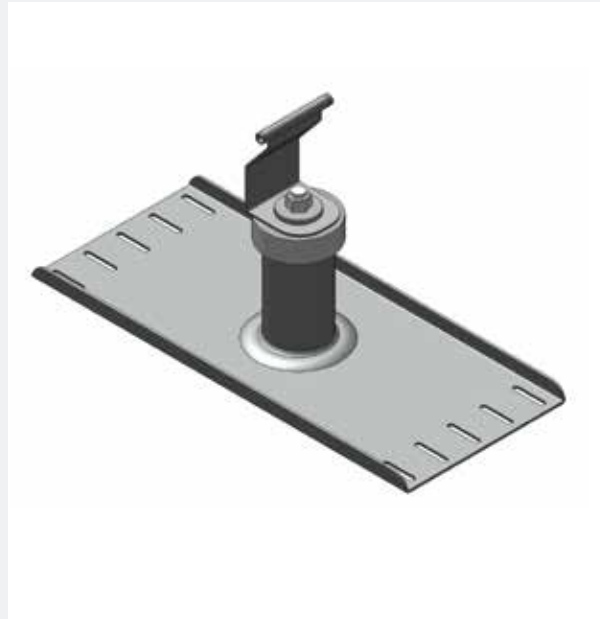
#### End bracket COMP251

BIM No: SpecEquip\_RfSftySymCompEndBkt\_SayfaSystems\_Comp251\_M3\_G2



#### Intermediate bracket COMP252

BIM No: SpecEquip\_RfSftySymCompIntBkt\_SayfaSystems\_Comp252\_M3\_G2



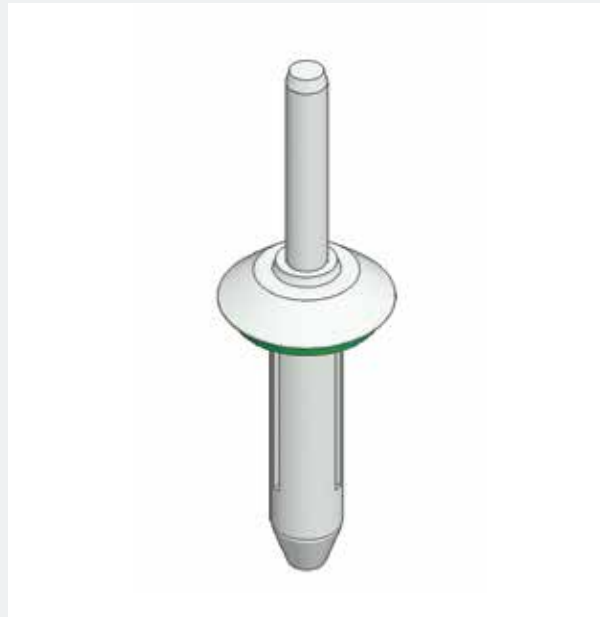
#### Corner bracket COMP254

BIM No: SpecEquip\_RfSftySymCompCornrBkt\_SayfaSystems\_Comp254\_M3\_G2



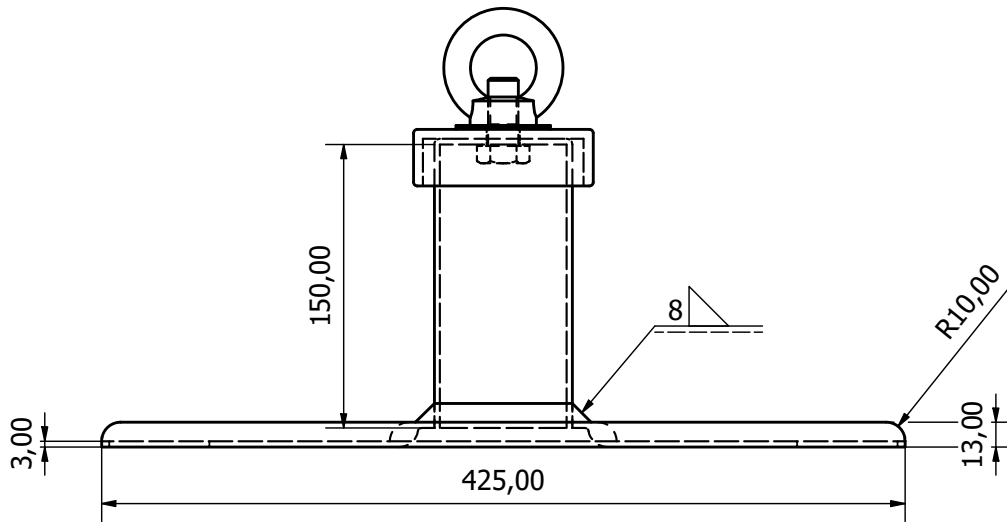
#### Bulbtype rivet BTR300

BIM No: SpecEquip\_RfSftySymCompRvt\_SayfaSystems\_Btr300\_M3\_G2

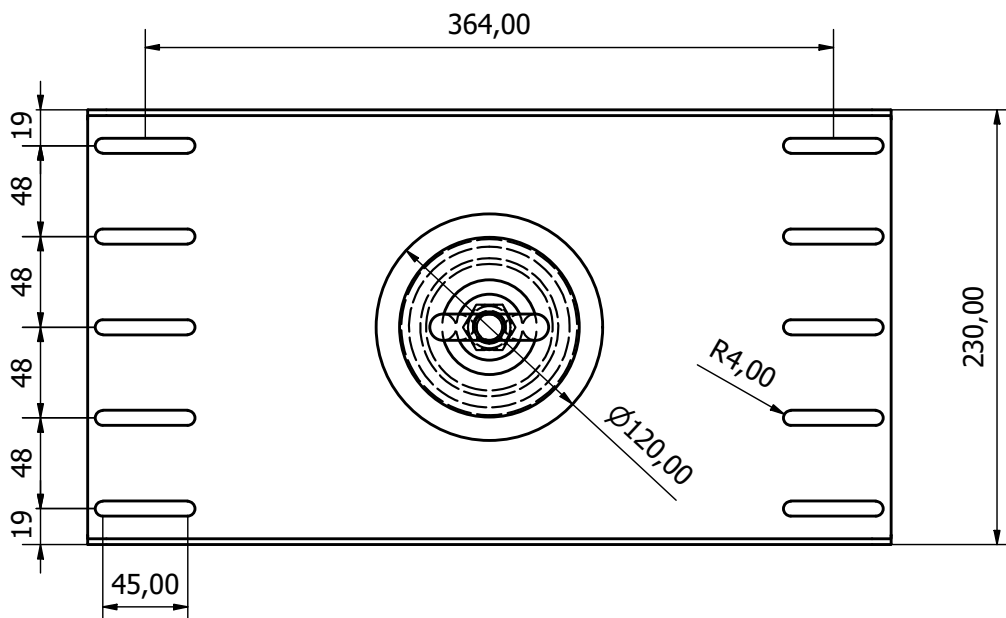


## End Post for Profiled Metal - PMS251-430

SIDE VIEW ( 1 : 3 )

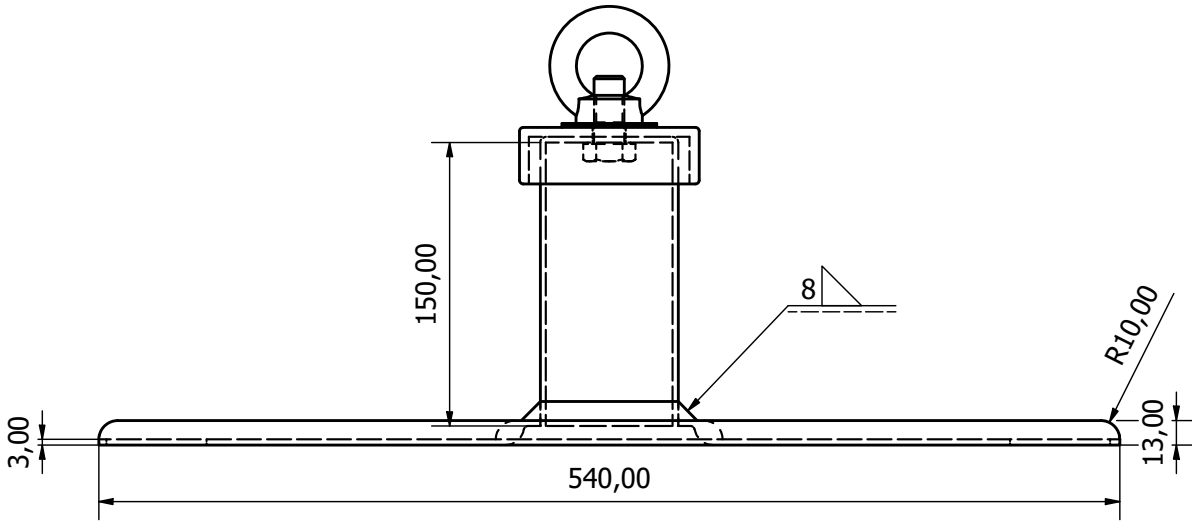


TOP VIEW ( 1 : 3 )

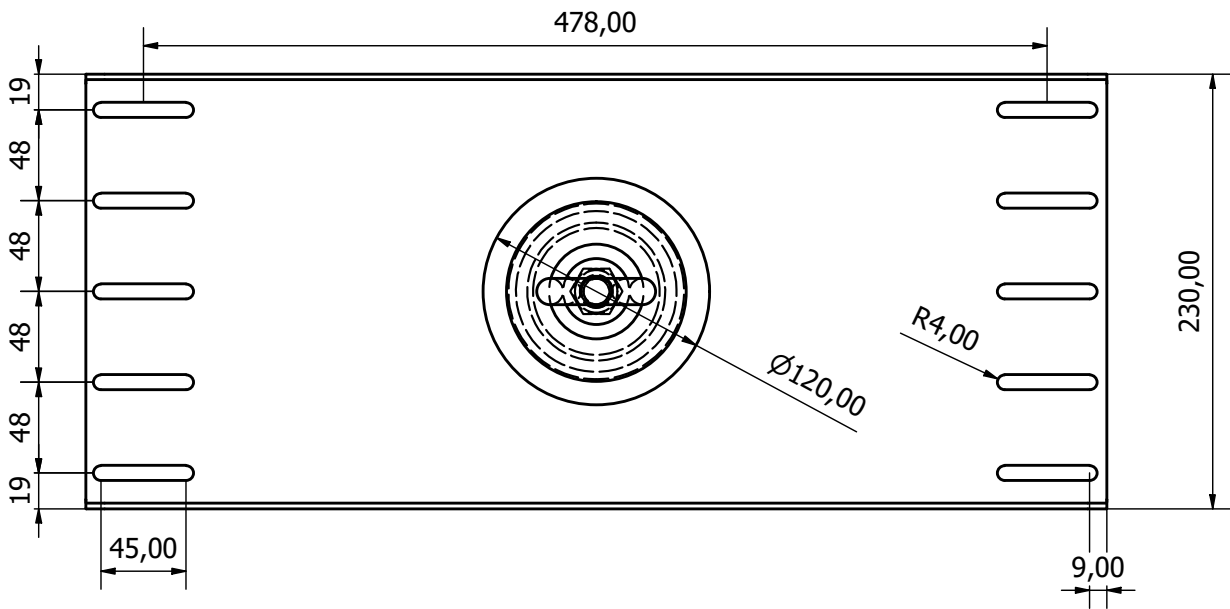


End Post for Profiled Metal - PMS251

SIDE VIEW ( 1 : 3 )

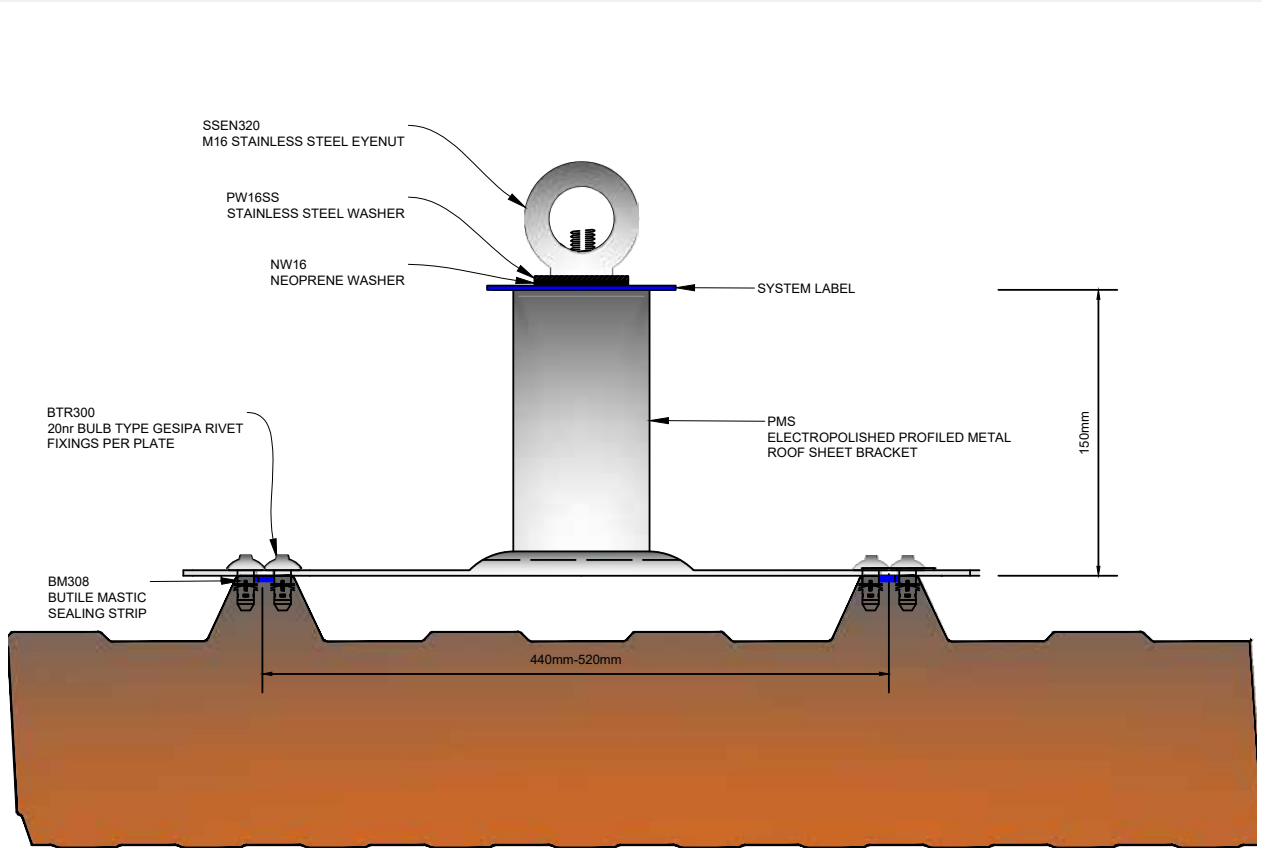


TOP VIEW ( 1 : 3 )





## Aviator™ Profiled Metal Sheet Roof System Fixed To Peaks



THIS FIXING DETAIL IS CORRECT FOR PEAK CENTRES 440mm-520mm



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