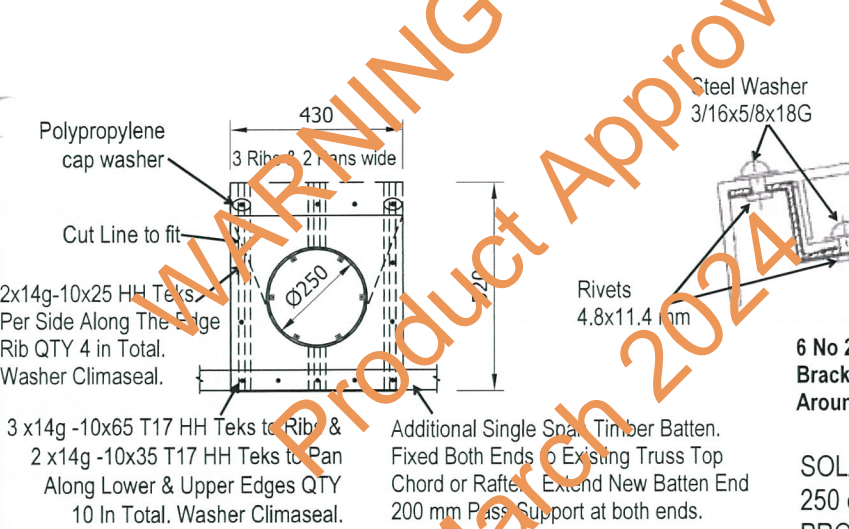


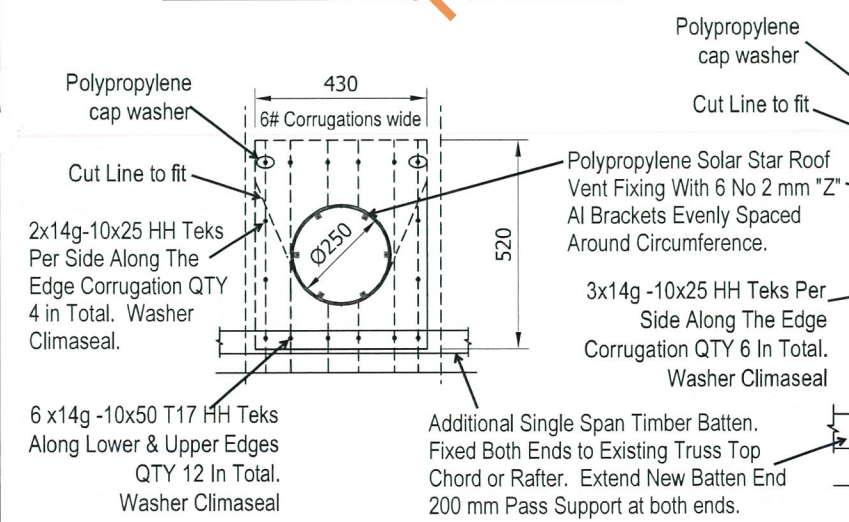
IN ACCORDANCE WITH NCC VOLUME 2 (SECTION P3.10.1), THIS PRODUCT SATISFIES PERFORMANCE REQUIREMENT P2.1.1 FOR CONSTRUCTION IN A HIGH WIND AREA

Terrain Category	Internal Pressure Coefficient (Cpi)	Maximum Building Height of Building Solatube can be installed for Building Shape Ratio below (m)					
		Low ($\frac{h}{d} \leq 0.5$)			High ($\frac{h}{d} \geq 1$)		
		Cpe = 0.9			Cpe = 1.3		
		KL = 2.0	KL = 1.5	KL = 1.0	KL = 2.0	KL = 1.5	KL = 1.0
1	0.3	20	20	20	4.5	17.5	20
	0.7	9.5	20	20	n/a	7.2	20
1.5	0.3	20	20	20	8.5	20	20
	0.7	16.5	20	20	4.2	12.5	20
2	0.3	20	20	20	12	20	20
	0.7	20	20	20	8.2	20	20
2.5	0.3	20	20	20	20	20	20
	0.7	20	20	20	15	20	20
3	0.3	20	20	20	20	20	20
	0.7	20	20	20	20	20	20

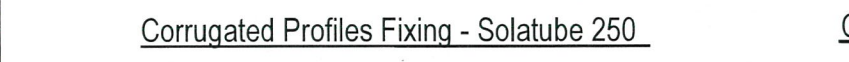
h/d ratio is the product of the average height of the structure divided by the span of the structure
Notes: - All Solatube Flashed Roof Tray Inserts / Collars are made from 3 mm Polypropylene
- The Collars shall be thickened to 8 mm at the Screw Locations.



Trimdek Profile Fixing - Solatube 25



Corrugated Profiles Fixing - Solatube 250

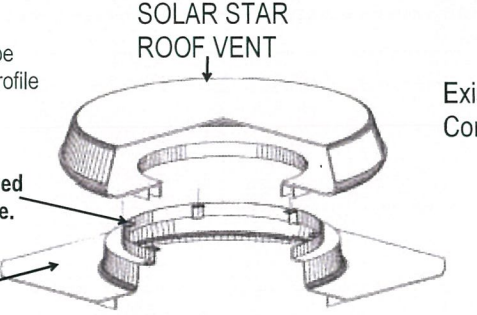


Corrugated Profile Fixing - Solatube 400.

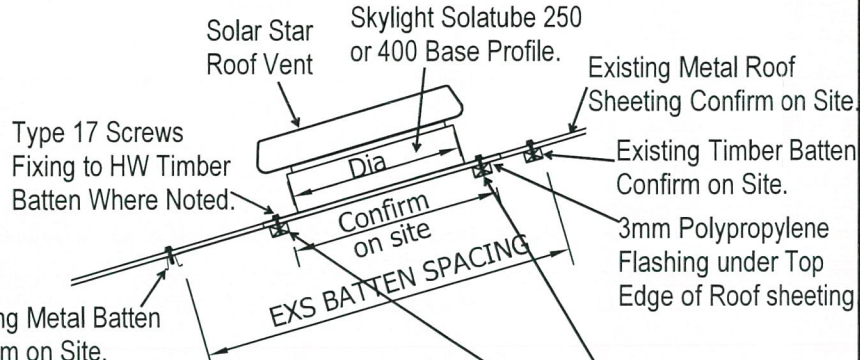
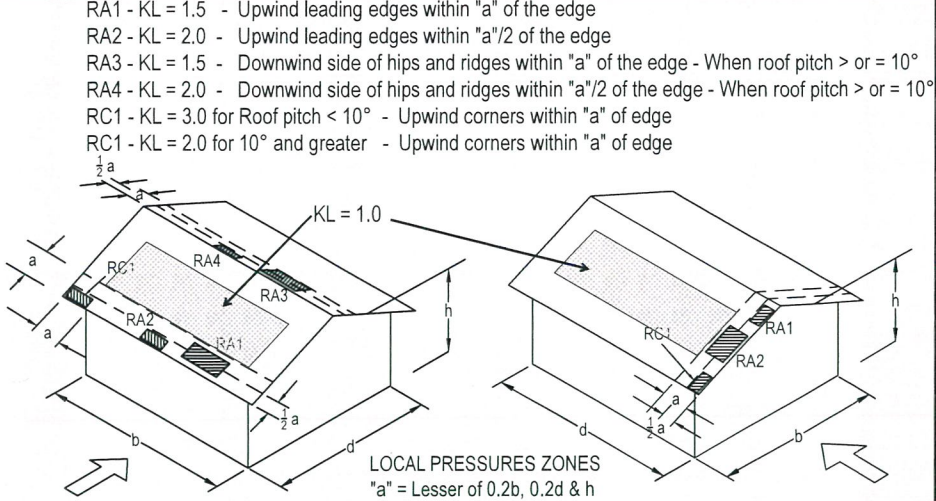
Solar Star Tested Rating (kPa)		S.R.			
Building Shape		Low ($\frac{h}{d} \leq 0.5$)		High ($\frac{h}{d} \geq 1$)	
External Pressure Coefficient	Cpe	0.9	1.3	0.9	1.3
Internal Pressure Coefficient	Cpi	0.3	0.7	0.3	0.7
(Cpe.KL + Cpi)		2.0	2.1	2.3	2.3
Local Pressure factor (KL)		1.5	1.6	1.6	2.0
Ultimate Limit strength pressure of Solar Star (kPa)		4.24	3.56	3.07	2.70
		5.39	4.34	3.96	3.36
		7.42	5.56	5.56	4.45

Screws to comply to AS3566.1-2002
Self-Drilling Screws for the building and Construction Industries - General Requirements and Mechanical Properties.
NOTE - ALL FIXINGS SHALL BE CLASS 4 FINISH

Fixing of Solar Star Vent to Solatube Base Profile
1. Remove Fan Blade
2. Using a 5 mm drill and holes in brackets as a guide. Drill holes through plastic components.
3. Fit rivets and place steel washer over end of rivet before securing.
4. Re-Fit fan blade after brackets are secured.

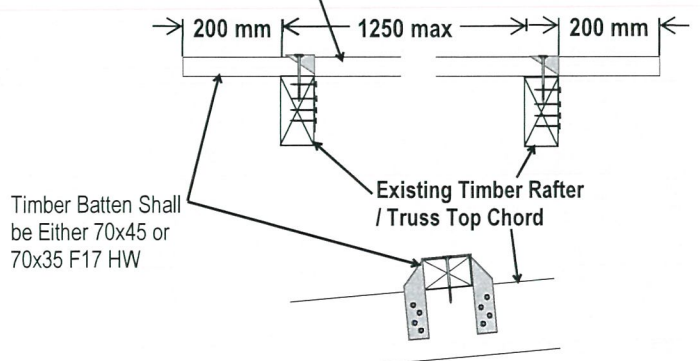


Typical Isometric View of Solar Star Mounted to Skylight Solatube 250 or 400 Base Profile



Typical Section of Solar Star Fixing for Either Corrugate or Trimdek Sheeting Profiles

Additional Timber Batten at Solatube Fixing. Fixed with 32x0.8 G300 Metal Strap with 4-2.8diax30 mm Galv Clout as Per AS1684.3 - 2006 Table 9.25 (f) & 1x14g-10 T17 BB Screw with Minimum 35 mm Embedment into Predrilled Timber Rafter/ Truss Top Chord as Per AS1684.3 - 2006 Table 9.25 (d). Battens Shall extend 200 mm pass support at both ends.
Alternatively;
Additional Timber Batten Fixed with 32x1.0 G300 Metal Strap with 4x10g-16x25 Tek Each Leg & 1x14g-20x60 Wingteks Screw into Minimum 1.2 mm BMT Steel Rafter / Truss Top Chord.



Typical Additional Roof Batten to Existing Truss / Rafter Fixing

Product Name
Solar Star Roof Vent
Corrugated & Trimdek Profiles

Product Description
Roof Ventilation

Manufacturer's Name
Solatube Australia Pty Ltd
Unit 2 - 5 Wenban PI Wetherill Park NSW 2164

- DESIGN CRITERIA**
- Wind speeds, pressures etc, have been determined in accordance with AS/NZS1170.2-2011, SAA Loading Code, Part 2:Wind Loads,
 - Internal Pressure Coefficient (Outwards Load)
 - Building with a roof cavity, Cpi = +0.3
 - Building without a roof cavity, Cpi = +0.7
 - External Pressure Coefficient (Outwards Load)
 - Building with h/d < 0.5, Cpe = 0.9
 - Building with h/d >= 1.0, Cpe = 1.3
 - Local Factor - KL = 1.0, 1.5 & 2.0
 - Test Rating = p*(Cpe*KL + Cpi) = **8.9 KPa**
 - Roof Sheeting - Minimum BMT for fixing - 0.42mm G550 AM125 Zincalume

- Limitations**
- Calculations limit the wind rating to internal pressure and external pressure coefficients based on the building shape and roof cavity. Refer Table for h/d values. Interpolation is permitted between h/d ratios.
 - h = average height of building
 - d = minimum of building length and building width
 - Installation not applicable for front edge corners of low pitch roofs < 10° where a KL = 3.0 factor is required.
 - Suitable for Solatube products only that fit the 250mm and 400mm domes.
 - Where fixed to timber battens, screw length increased where necessary to achieve 30 mm penetration into timber batten
 - Weather proofing installed as per Solatube Instruction Manual
 - Maximum Truss / Rafter spacing shall be 1250 mm

Accepted for Inclusion

DTCM ref: **M/578/01**

Chairman's Signature:

Chairman's Name: **Paul Noulan**

Date of Approval: **29-03-2019** Expiry Date: **29-03-24**

Test Report -
The above specification is based on

- Cyclic Loading of Skylights and Vent. Report No TS404 From JCU (07/04/1993)
- SOLATUBE Installation Manual
- Static Loading of Solar Star Solar Powered Exhaust Fan mounted to Solatube 400 Corrugated Skylight Base Unit, Project Building Certifiers Pty Ltd Ref #BAS04/340 dated 29/09/2004.

Checking Engineers Certification
Name: Wisnu Lim
NT Rego Number: 145651ES
Date: 07 March 2019
Signature:

**Certifying Engineers Certification
Name: John L Towler
NT Rego Number: 24642ES
Date: 07 March 2019
Signature:
**registered as a structural engineer in Northern Territory