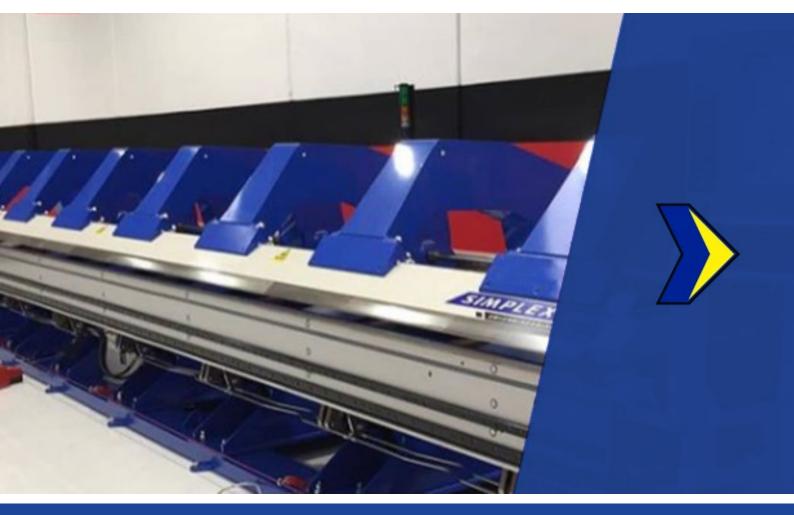


MODULE D - BRACKETS, FIXINGS, FLASHINGS & ACCESSORIES MANUAL



Australian Made For An Australian Lifestyle

ENGINEER CERTIFICATION

Brackets, Fixings Flashings & Accessories, that are installed in accordance with these documents, pages 1 to 41 inclusive, issued by Delta Panels Pty Ltd are certified to be structurally adequate and in accordance to relevant Australian Standards but not limited to AS 1179.0, AS 1170.1 AS 4055, AS 4100, AS 4600, AS 1562.1 AS 4040.3, AS/NZS 60589.1 and will comply and meet performance requirements in accordance with NCC 2022.

J S George Meija BE. B Com CPEng MIE Aust Registered Professional Engineer Qld 742 Registered Builder Qld 2862 1/5 Golden Crest Place Bellbowrie Qld 4070

Signed:

George J S Meija

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Document No. 180509

Version Date: 08.05.2023





PREFACE

The Delta Panels ™ Engineering Manual is divided into five (5) separate modules. Each module covers a different product type and the engineering calculations specifically associated with those products.

MODULE A - AWNINGS, PATIOS & CARPORTS

The module covers roofs which are either attached to an existing building primarily a dwelling or to a seperate standalone structure. The engineering calculations encompass both single skin and insulated roofing and is divided into both DeltaSingle™ and DeltaSpan™ span tables.

MODULE B - PRE-ENGINEERED KITS

The Engineering for this series of structures is presented in kit forms covering single and double awnings, patios & carports with various options regarding footing types. This module covers engineering for DeltaSpan™ roofing in both cyclonic and noncyclonic regions. Any other configuration that is not covered by the engineering in this module would require site specific engineering calculations.

MODULE C - GABLES

The Gable Engineering module encompasses two (2) different styles of Gables, namely KingPost and KingPost-Eco. The engineering tables are presented with various options on roof pitch and the associated post, beam and fixing requirements.

MODULE D - BRACKETS, FIXINGS, FLASHINGS & ACCESSORIES

This module lists all of the associated brackets and fixings that have been tested and approved for use. These brackets and fixings are an integral part of the Delta Panels™ Engineering Manual.

MODULE E - RESIDENTIAL ROOFING

The Module E - Residential Roofing module covers the spans and permissible overhangs that Delta Panels insulated roofing products are certified for in both single & multi-span applications. These calculated spans are shown for both non-cyclonic and cyclonic zones.



ENGINEERING NOTES

GENERAL NOTES

The information contained in this Engineering manual relates specifically to products supplied by Delta Panels Pty Ltd™. Any products not approved by Delta Panels Pty Ltd™ will void Engineering Approvals and Warranties expressed or implied.

All assembly, connection and installation procedures must comply with the Delta Panels™ standards as set out in the Engineering & Construction Manual

STEEL COMPONENTS

All steel structural components are in accordance with these Australian Standards:

DeltaSingle™ Steel Skin AS 1397-2011 Delta Insulated Panel Top Skin AS 1397-2011 Delta Insulated Panel Bottom Skin AS 1397-2011 Delta Beams™ AS 1397-2011 Posts (Square Hollow Sections) AS 1163-2016

FIXINGS

All fixing components are in accordance with these Australian Standards:

Bolts shall be grade 4.6 or better AS 1110.1-2015 Fixing Screws shall be class 3 AS 3566-2002

ELECTRICAL COMPONENTS

When the DeltaLum™ LED lights are installed in conjunction with the DeltaLum™ Skylight System, please ensure all installation procedures comply with Australian Wiring Rules AS/NZS 3000-2018.

PROTECT YOURSELF! Before installing, please read the DeltaLum™ LED Light & Safety Installation Instructions carefully.

GLOSSARY

| DeltaSpan™ | A registed name covering the range of Delta Panels™ insulated roofing products, DeltaTrim™, DeltaOrb™, DeltaCorroCorro™, DeltaTrimTrim™ & DeltaTrimCorro™ |
|---------------------|---|
| DeltaSingle™ | A registered name for Delta Panels™ single skin roofing sheet |
| DeltaTrim™ | A registered name for Delta Panels™ insulated roof product with a trapezoid formed top skin |
| DeltaOrb™ | A registered name for Delta Panels™ insulated roof product with a corrugated formed top skin |
| DeltaCorroCorro™ | A registered name for Delta Panels™ insulated roof product with a corrugated formed top and bottom skin |
| DeltaTrimTrim™ | A registered name for Delta Panels™ insulated roof product with a trapezoid formed top and bottom skin |
| DeltaTrimCorro™ | A registered name for Delta Panels™ insulated roof product with a corrugated formed top and a trapezoid formed bottom skin |
| Insulated Roofing | Covers all the products listed in DeltaSpan™ |
| Single Skin Roofing | Referrers to DeltaSingle ™ |
| EPS-FR | Expanded Polystyrene with a fire retardant additive, used as an insulating core in insulated roofing |
| PIR | Polyisocyanurate core which has high fire ratings used in insulated roofing |
| TPC | Thermal Phenolic Composite core which has high fire ratings used in insulated roofing |
| MW | Mineral Wool is a noncombustible core with very high fire ratings used in insulated roofing |
| Single Span | The distance between two fixing supports |
| Multi Span | A continuous length that spans over three (3) or more fixing supports |
| Roof Span | Being the total span of the roof area with any overhang included |
| DeltaCool™ | A registered trade name covering the range of Delta Panels™ insulated walling products. |
| | |



GLOSSARY

| DeltaSecretFix™ | A registered trade name covering Delta Panels™ discrete fixing system used for wall panels |
|-----------------------------|--|
| DeltaLum™ | A registered trade name covering Delta Panels™ patented skylight and LED lighting system |
| DeltaPanel Light™ | A registered trade name covering Delta Panels™ LED light system that is fixed to the underneath of the ceiling panel |
| DeltaLowProfile™ Light | A registered trade name covering Delta Panels™ low profile recessed LED light |
| MushRoom Head Bolt | A fixing system used on panels when attaching to the building's framework |
| Overhang | The length that the roof sheeting overhangs the last fixing support, forming a cantilevered portion |
| Cp,n | Net pressure coefficient acting normal to the surface for canopies, freestanding roofs, walls, and the like (as defined in AS/NZS 1170.2:2021) |
| Roof Slope | The angle of the roof from its peak to its lowest point |
| Cyclonic Region | Refer to Australian Standards AS/NZS 1170.2:2021 and AS 4055:2021 |
| NonTrafficable | Not designed for direct foot traffic and requires a temporary walkway for maintenance access. |
| NonCyclonic Region | Refer to Australian Standards AS/NZS 1170.2:2021 and AS 4055:2021 |
| Beam Load Widths | Is the (uplift) load on the beam. For simple awnings it is 50% of the roof sheeting span plus the overhang |
| Uplift Loads on the Beam | Is determined by a combination of the following factors, Beam Load Width, Awning Style and the Wind Category |
| Post Load Widths | The width of roof which is considered to act in loading the post. For simple awnings this is 50% of the roof sheeting plus any adjacent overhang that loads the beams connecting to the post |
| Uplift Loads on the Post | Is a force that consists of a combination of uplift force on the beam and the load width of the post |
| Hold Down Capacity | The maximum uplift capacity that the foundation can resist |



ENGINEERING TABLE OF CONTENTS

INDEX - MODULE D

MODULE D - BRACKETS, FIXINGS, FLASHINGS & ACCESSORIES

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| 1.3 | 2.1 | Roof Panel Assembly | |
| 1.3 | 2.2 | Ceiling Panel Assembly | |
| 1.3 | 3 | Solar Panel Brackets | |
| 1.4 | 4 | Ceiling Fan Bracket | |
| 1.5 | 5 | DeltaPanel Light | |
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| 2. | 1 | Skylight Installation | |
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| 3 - Flashin | ngs | | Page 24-36 |
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| 4.3 | 3 S | Secret Fix Bracket | |
| 4. | 4 S | Standard Fixings | |

Expanded Polystyrene (EPS-FR) Panels

| Dead Load - Kgs/m² | | | | | | | |
|--------------------|-------|-------|-------|-----------------|-------|-------|-------|
| Span | | | | Panel Thickness | 5 | | |
| (mm) | 50mm | 75mm | 100mm | 125mm | 150mm | 175mm | 200mm |
| 3000 | 15.00 | 17.50 | 20.00 | 22.50 | 25.00 | 27.50 | 30.00 |
| 6000 | | 12.50 | 15.00 | 20.00 | 22.50 | 25.00 | 27.50 |
| 8000 | | | 10.00 | 12.50 | 18.50 | 20.00 | 25.00 |
| 10000 | | | | | 15.00 | 17.50 | 15.00 |
| 12000 | | | | | | | 10.00 |

- 1. Published figures are a maximum, for an evenly distributed load
- 2. No load allowed on the overhangs
- 3. For any loads and spans not shown in this table specific engineering will be required

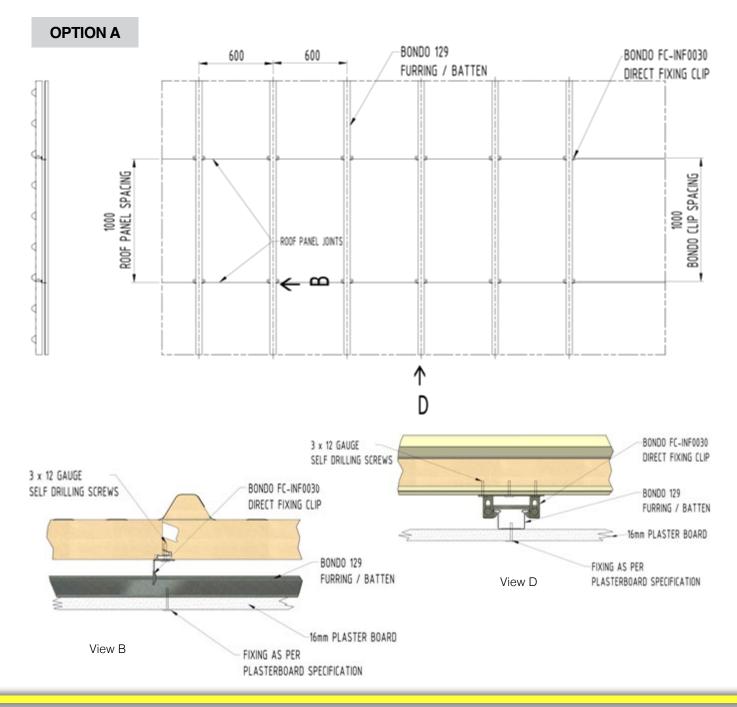
1.1 / Plasterboard

Plasterboard Attachment

The plasterboard attachment bracket is designed to carry a dead-load of 15kgs/m2, so prior to the attachment of plasterboard to the underneath side of an insulated panel roof, it's essential that engineering calculations are carried out to ensure that the roof as installed is designed for the additional load that will be imposed by the additional equipment.

To mount plasterboard fixing brackets to insulated panels it is necessary to identify which way that the battens will run. As the battens can either run parallel to the panel join or across ways.

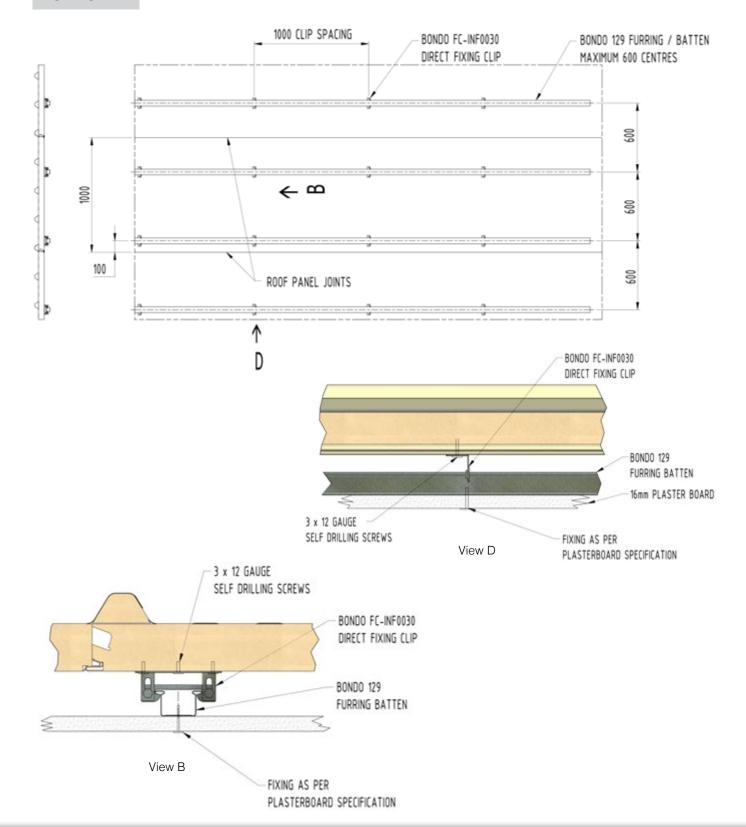
Insulated Roof Plasterboard Attachment



Plasterboard

Insulated Roof Plasterboard Attachment

OPTION B





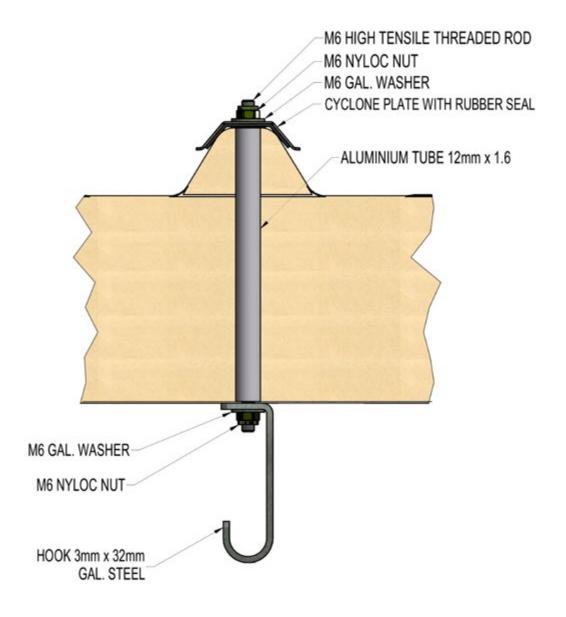
Roof Panel Assembly

All Purpose Service Support Bracket

To fix an all purpose support bracket to insulated panels it is necessary to ensure that the weight is spread over the whole of the top skin of the panel. Therefore a through-fastening arrangement is required. The all purpose service bracket is designed to cater for a dead-load weight of 30 kgs.

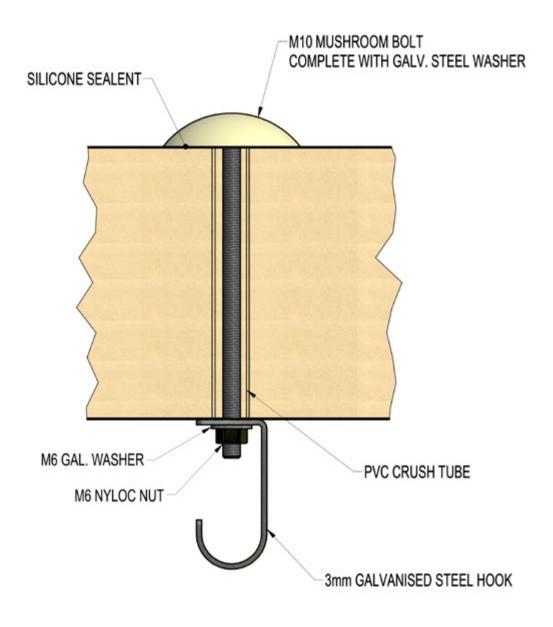
Ridge fixing as close as possible to the panel join is highly recommended.

SUPPORT BRACKET - ROOF PANEL



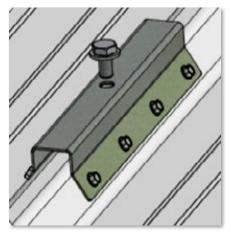
1.2.2 / Ceiling Panel Assembly

SUPPORT BRACKET - CEILING PANEL

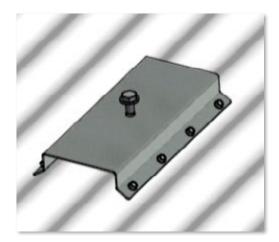


Solar Panel Brackets

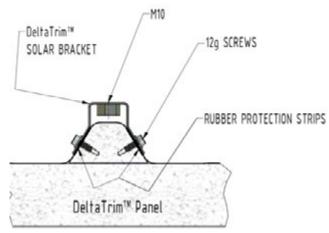
BRACKET SPECIFICATIONS



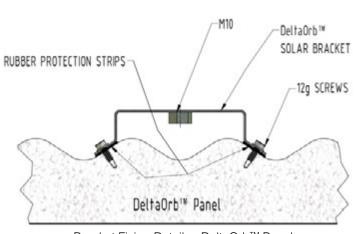
Bracket Details - DeltaTrim™



Bracket Details - DeltaOrb™ & DeltaCorro/Corro™

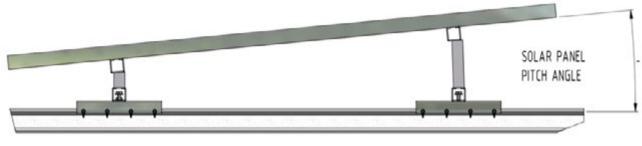


Bracket Fixing Details - DeltaTrim™ Panel



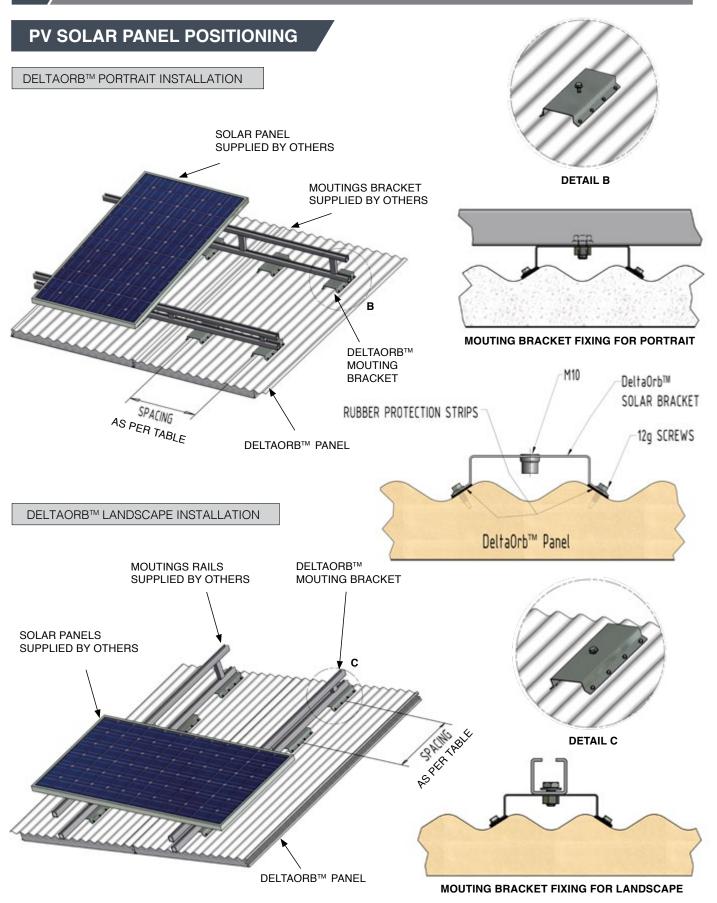
Bracket Fixing Details - Delta Orb^{TM} Panel

PV SOLAR PANEL INSTALLATION PITCH ANGLE



Mounting Angle ≥40°

Solar Panel Brackets



Ceiling Fan Brackets

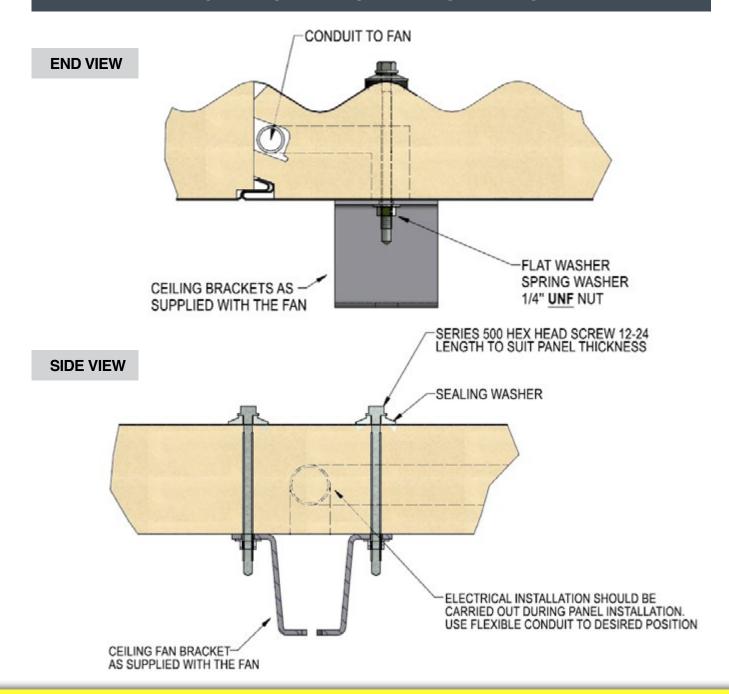
Ceiling Fans

To mount ceiling fans to insulated panels it is necessary to use a range of specifically designed brackets which ensure that the weight of the fan is spread over the whole of the top skin of the panel. Ridge fixing is highly recommended.

The brackets are designed to cater for a dead-load weight of 30 kgs, they're to be attached to the mounting brackets that come as part of the ceiling fan kit.

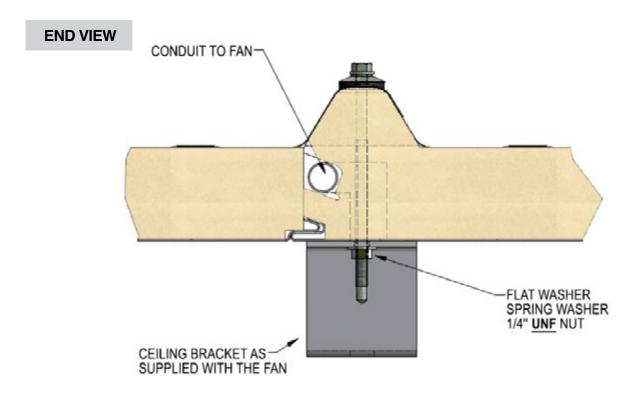
All electrical work must be carried out by a Licensed Electrician.

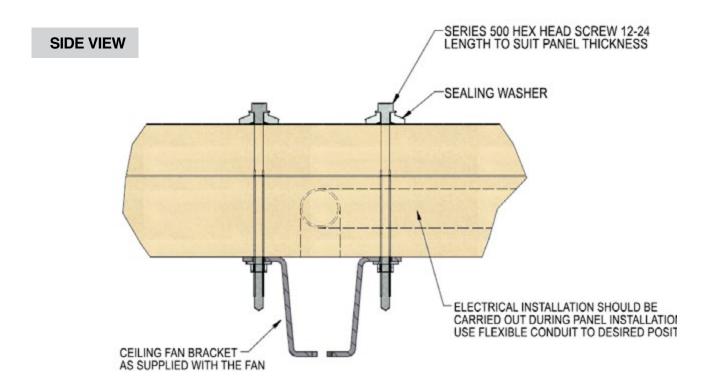
BRACKET INSTALLATION DETAILS - DELTAORB™



Ceiling Fan Brackets

BRACKET INSTALLATION DETAILS - DELTATRIM™







1 / DEAD LOAD TABLE

1.5 / DeltaPanel Light

PRODUCT DETAILS

The DeltaPanel lights are available in 3 sizes to allow for maximum design flexibility. The 10mm light panel are inserted into a 50mm frame which allows the LED driver to be conveniently housed behind the light panel.

PRODUCT FEATURES

- Available in 3 different sizes
- Powder Coated Aluminum frame
- Pre-drilled holes for an easy installation
- Polycarbonate Lens provides even illumination
- Low Voltage Power source

- Wall mounted and remote controller
- Triac Dimmer
- No attached conduits or Hanging Wires to the panel under-skin.
- NonFlicker

PRODUCT SPECIFICATIONS

Manufactured with a sealed polycarbonate lens and mounted in a powder coated mounting frame, the Delta Panels lights are designed for easy installation given a clean functional lighting solution. Ideal for a range of Commercial, Industrial and Domestic applications.

| | DELTALPANEL LIGHT™ | SPECIFICATIONS | DELTALPANEL LIGHT™ SPECIFICATIONS | | | | | | | |
|--------------------------------------|-------------------------|-------------------------|-----------------------------------|--|--|--|--|--|--|--|
| | PL595X595TD | PL295X1195TD | PL595X1195TD | | | | | | | |
| Exterior Width | 595mm | 295mm | 595mm | | | | | | | |
| Exterior Length | 595mm | 1195mm | 1195mm | | | | | | | |
| Height - Frame | 50mm | 50mm | 50mm | | | | | | | |
| Light Panel Thickness | 10mm | 10mm | 10mm | | | | | | | |
| Wattage | 54W | 54W | 72W - Dual Driver | | | | | | | |
| Input Voltage | AC220-240V - Dimmable | AC220-240V - Dimmable | AC220-240V - Dimmable | | | | | | | |
| Light Output (Lumens) | 80-100 lm/w | 80-100 lm/w | 80-100 lm/w | | | | | | | |
| Colour Accuracy (CRI) | 80 CR(Ra) | 80 CR(Ra) | 80 CR(Ra) | | | | | | | |
| Correlation Colour Temperature (CCT) | 5000k | 5000k | 5000k | | | | | | | |
| Protection Class | IP44 | IP44 | IP44 | | | | | | | |
| Warranty | 3 year limited warranty | 3 year limited warranty | 3 year limited warranty | | | | | | | |

DeltaPanel Light

FRAME COMPONENTS

UNASSEMBLED PARTS



CONNECTION POINTS





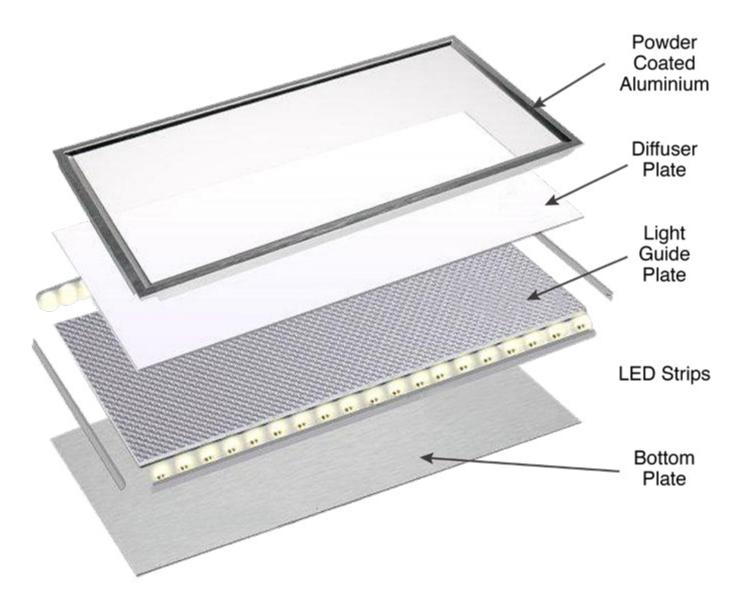
ASSEMBLED FRAME WITH LIGHT PANEL





DeltaPanel Light

PANEL LIGHT COMPONENTS





- Please ensure all installation procedures comply with Australian Wiring Rules AS/NZ3000
- **PROTECT YOURSELF!** Before installing, please read the DeltaPanel Light™ & Safety Installation Instructions carefully.

LIGHTING

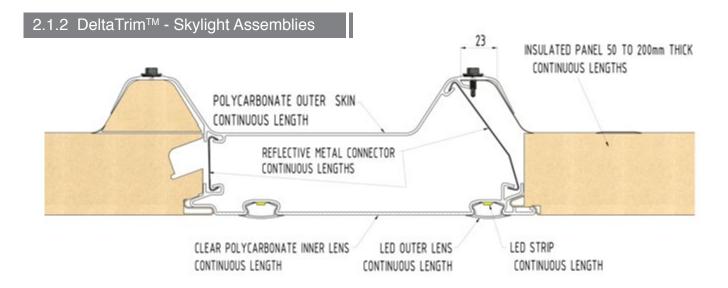
Skylight Installation

Product Details

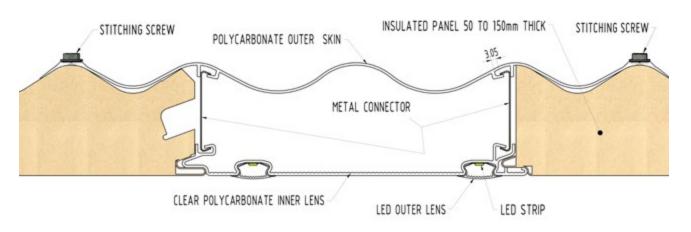
PRODUCT DETAILS

The DeltaLum™ LED light system in conjunction with the DeltaSkylight™ are covered by the Australian Innovation Patent Application No. 20181010435. The uniquely innovated design allows for natural daylight to illuminate the patio area, while at night time the system operates as a fully functioning lighting system.

| SKYLIGHT DIAMETER | 200mm | COLOUR ACCURACY (CRI) | 80 CR(Ra) |
|-----------------------|-----------------------|--------------------------------------|-------------------------|
| SKYLIGHT HEIGHT | 50mm-200mm | CORRELATION COLOUR TEMPERATURE (CCT) | 2800-7000 k |
| INPUT VOLTAGE | AC220-240V – Dimmable | PROTECTION CLASS | IP44 |
| LIGHT OUTPUT (LUMENS) | 80-100 lm/w | WARRANTY | 3 year limited warranty |



2.1.3 DeltaOrb™ - Skylight Assemblies



LIGHTING

Skylight Installation

2.1.4 Design Notes

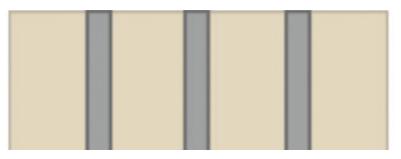
- DeltaSkylights™ when installed requires at least one panel installed on either side
- DeltaSkylights[™] must be at least one full panel width from each end of the structure
- The range of DeltaSkylights™ are designed to be used in open outdoor patio, awning and carport installations. They are not designed for domestic or commercial roofing applications
- DeltaSkylights™ are deemed as non-trafficable and stepping on or near the skylight assemblies should be avoided
- The spanning capacity of the range of Delta Panels™ is reduced by 15% when DeltaSkylights™ are installed within the structure

2.1.5 Panel Layout Configuration

Delta Panels[™] panels on either side



Delta Panels[™] panels on either side



2.1.6 Safety



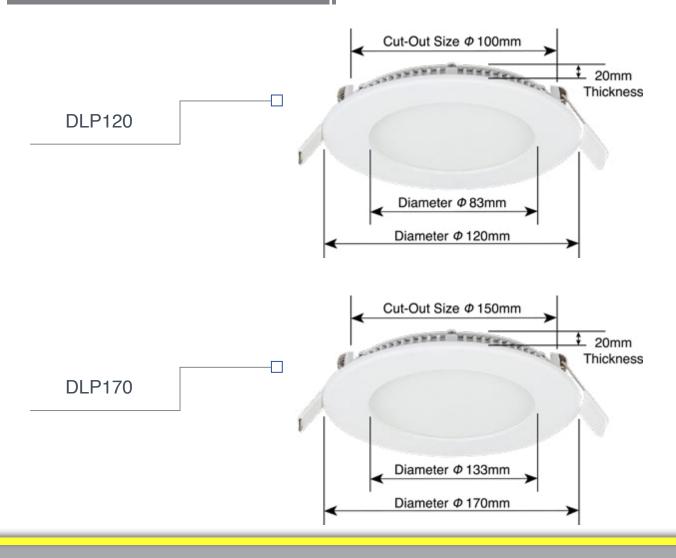
- When the DeltaLum™ LED lights are installed in conjunction with the DeltaLum™ Skylight System, please ensure all installation procedures comply with Australian Wiring Rules AS/NZS 3000-2018.
- PROTECT YOURSELF! Before installing, please read the DeltaLum™ LED Light & Safety Installation Instructions carefully.

Recess Lighting

Product Specifications

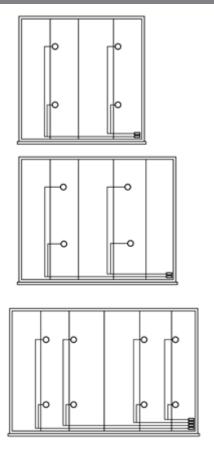
| DELTALOWPROFILE™ VOLTAGE DRIVER SPECIFICATIONS | | | | | |
|--|------------------------|--------------------------|--|--|--|
| | DLDR12 - Trimac Dimmer | | | | |
| INPUT VOLTAGE | 200-240 VAC, 47-63Hz | | | | |
| OUTPUT VOLTAGE | DLP120 | 18-25 VDC, 300mA +/-10mA | | | |
| OUTPUT VOLTAGE | DLP170 | 30-45 VDC, 300mA +/-10mA | | | |
| Finish | Aluminium | Weatherproof Case | | | |
| Dimmable Range | Down to 10% | | | | |
| WARRANTY | 3 year limi | ted warranty | | | |

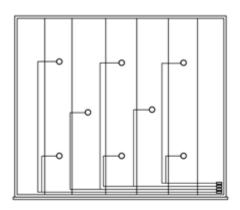
2.2.2 Product Dimensions

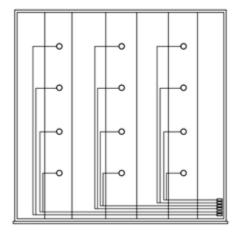


2.2 / Recess Lighting

2.2.3 Wiring Layouts

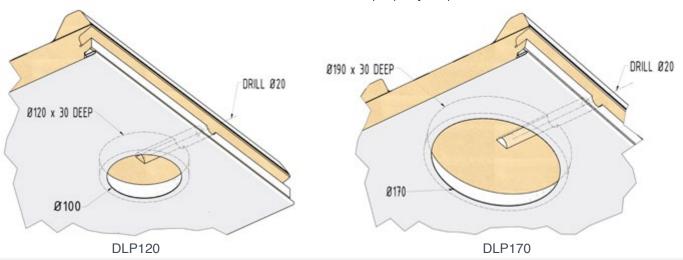






2.2.4 Ceiling Cut Out Details

- Refer to the template size on the product information provided.
- Prior to cutting the hole, double check that the size for the product you are going to install.
- Remove all insulation in the hole area to a depth of 30mm
- Remove all insulation from where the light will sit to ensure there is a 10mm air flow gap from the edge
 of the light fitting.
- Ensure that this discarded insulation is collected and properly disposed of.

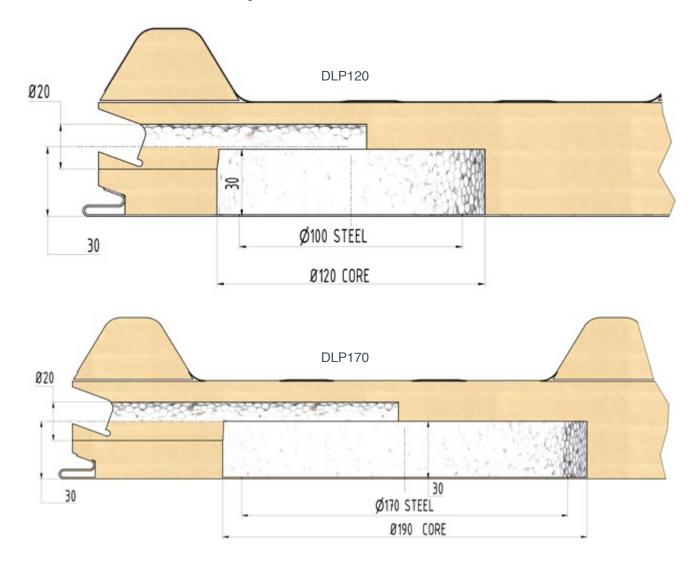


LIGHTING

Recess Lighting

Cable Slots Details 2.2.5

- A 20mm hole is required to be drilled through the EPS core from the edge of the panel to the recessed light hole.
- The insulated cable is fed through this hole.



2.2.6 Safety Warnings

Do not use any other driver except the one provided as part of the LED Lighting kit.



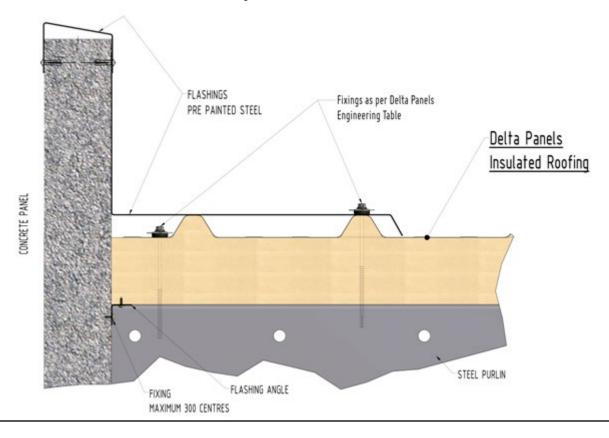
- Do not connect multiple LED light modules to a single driver.
- Do not open the LED Light Module or the LED Driver Module. There are no serviceable parts inside.
- Do not change parts or perform any modifications on any parts of the LED light fixture kit.
- Do not operate the LED driver if the LED light is not connected.

FAILURE TO FOLLOW ANY OF THESE INSTRUCTIONS COULD VOID THE PRODUCT WARRANTY

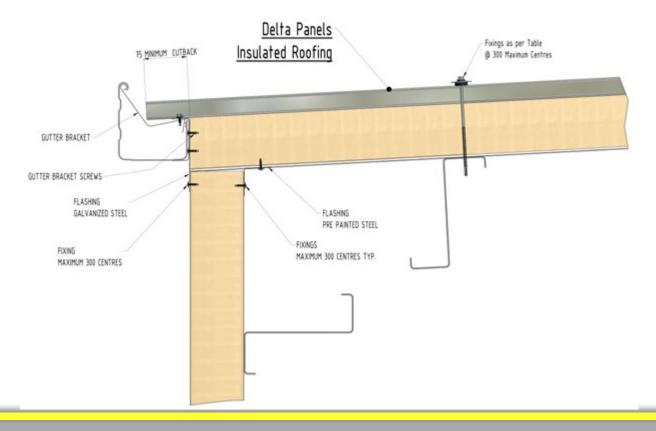


3.1 / Covering waterproofing

Roof Panel to Concrete Parapet Wall

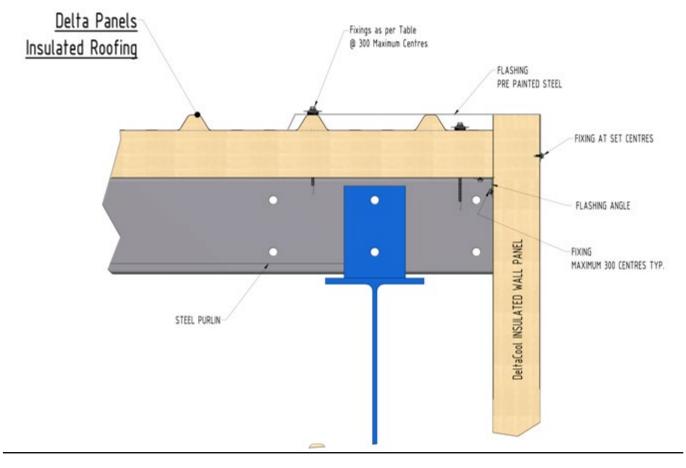


Roof Panel to Panel Wall - Gutter Detail

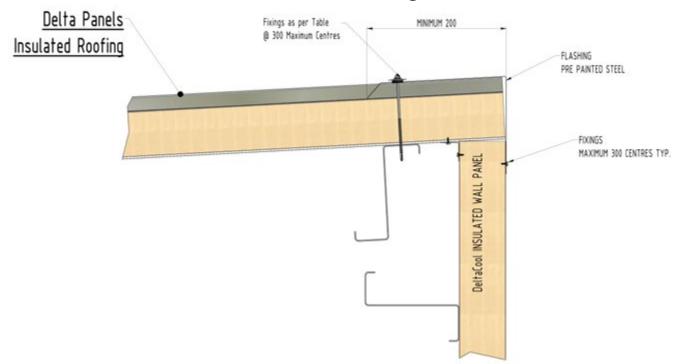


3.1 / Covering waterproofing

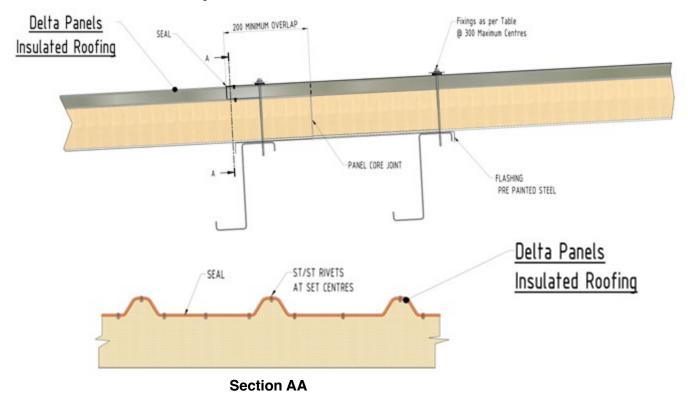
Roof Panel to Panel Wall - Corner Flashing Detail A



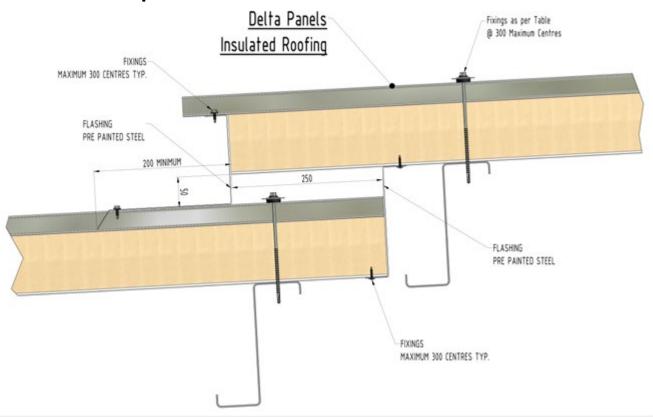
Roof Panel to Panel Wall - Corner Flashing Detail B



Roof Panel - End Lap Joint

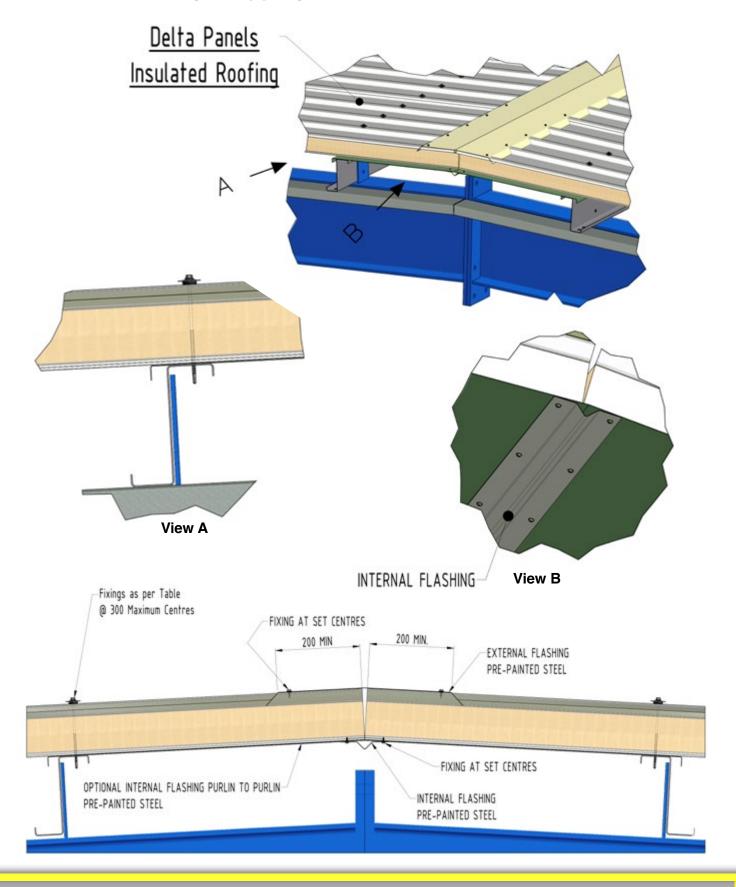


Roof Panel - Step Joint

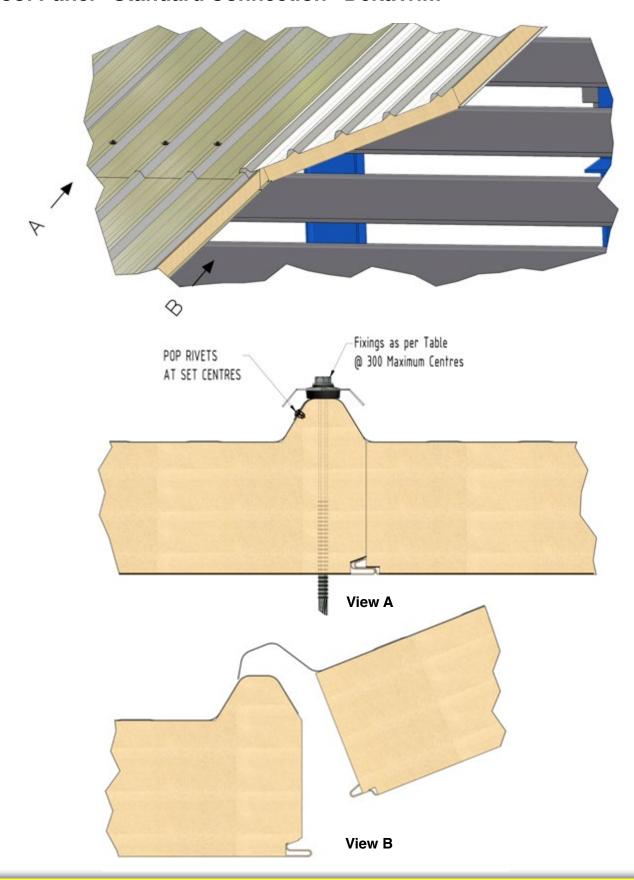


3.1 / Covering waterproofing

Roof Panel - Ridge Capping Details

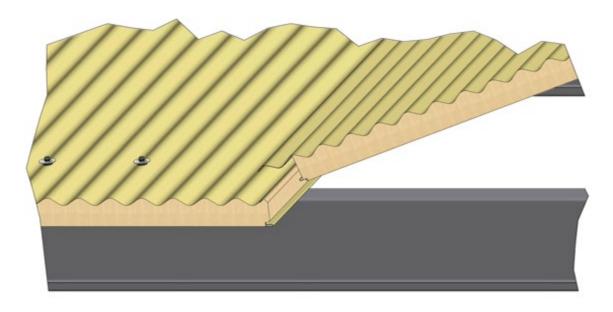


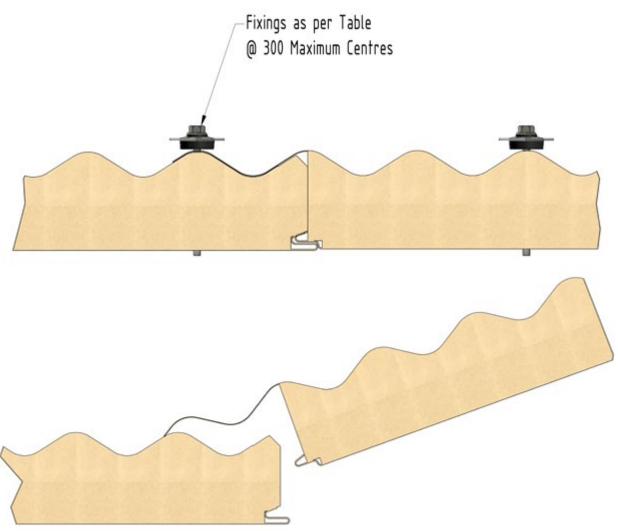
Roof Panel - Standard Connection - DeltaTrim



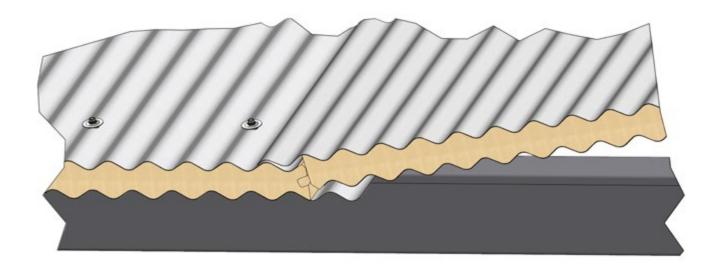


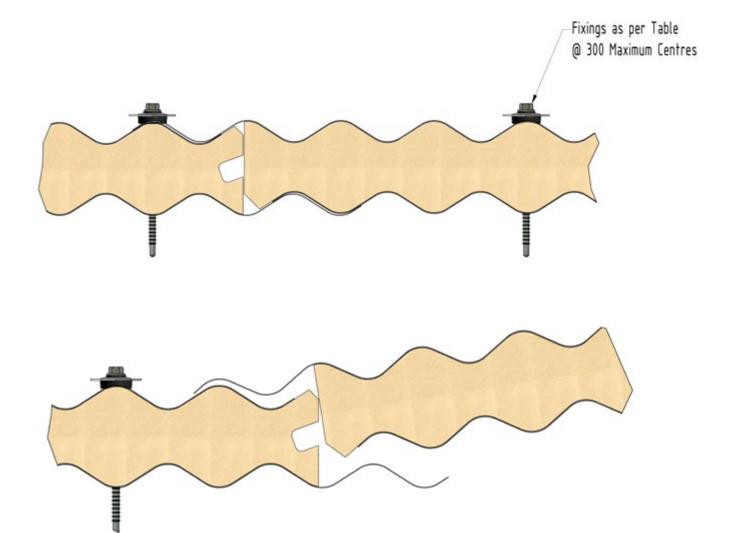
Roof Panel - Standard Connection - DeltaOrb



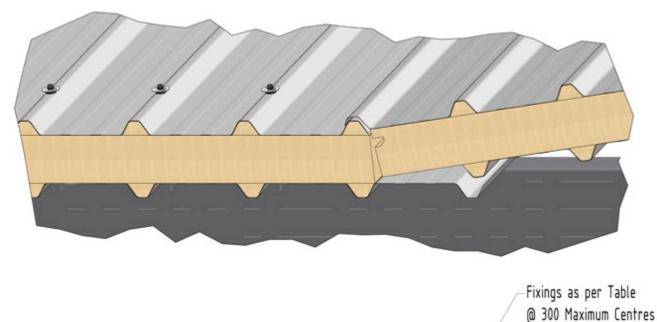


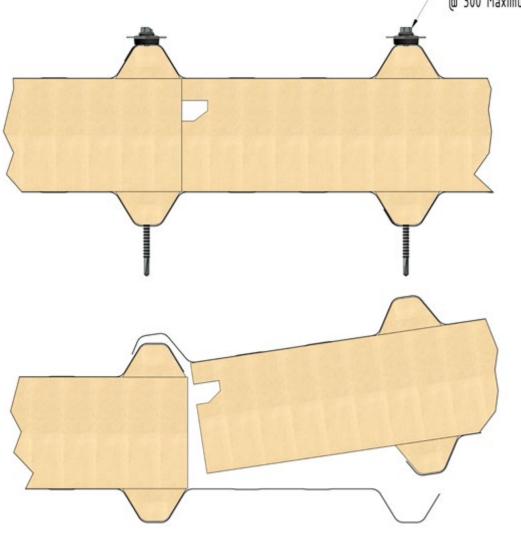
Roof Panel - Standard Connection - DeltaCorroCorro





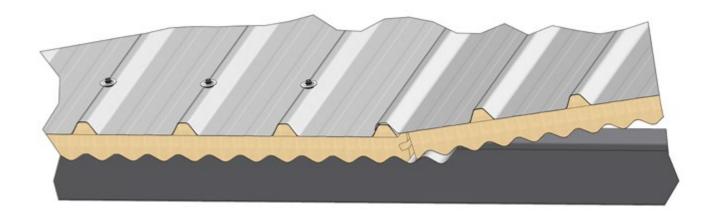
Roof Panel - Standard Connection - DeltaTrimTrim

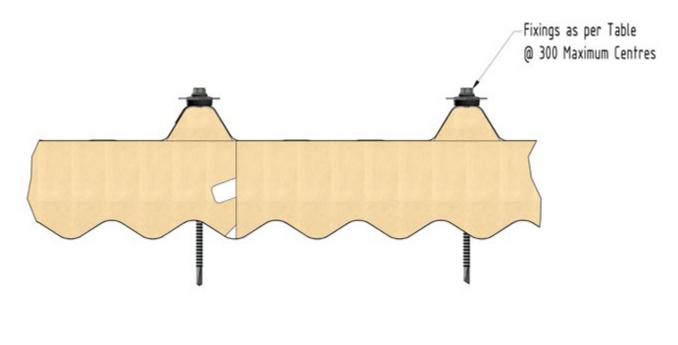


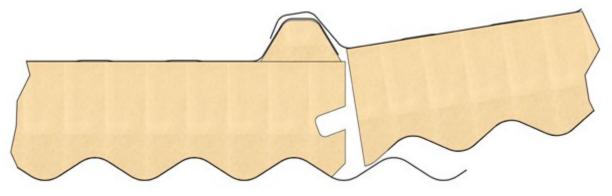




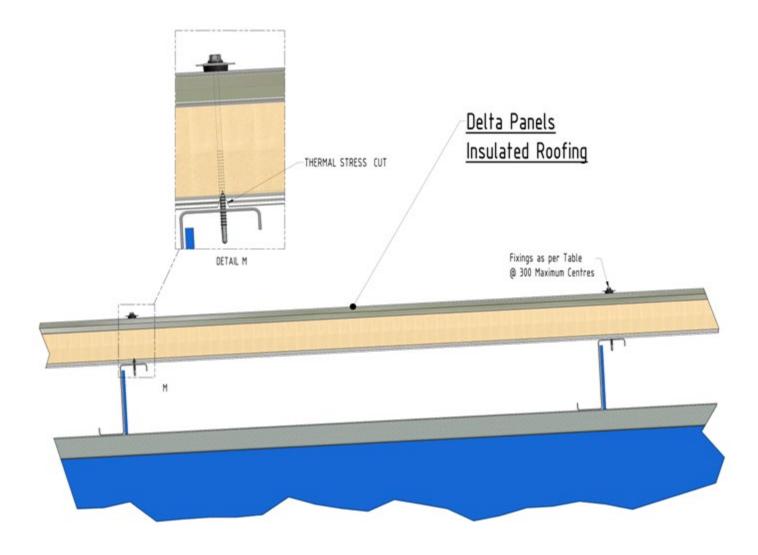
Roof Panel - Standard Connection - DeltaTrimCorro





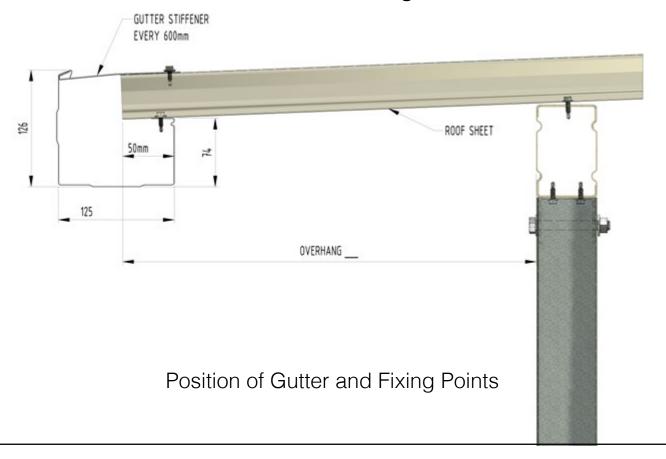


Roof Panel - Thermal Stress Cut & Fixing



3.1 / Covering waterproofing

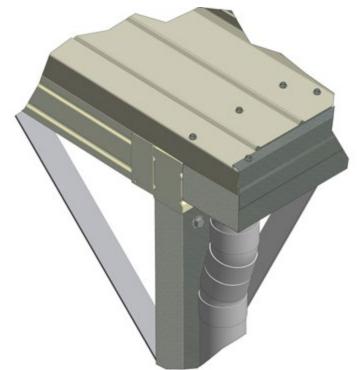
Gutter to Roof Connection - For Overhang Roof



Gutter to Roof Connection - Gutter Attachment



Gutter to Roof Connection - Finished Assembly



Finished Gutter Assembly - Downpipe End

Gutter to Roof Connection - Finished Assembly

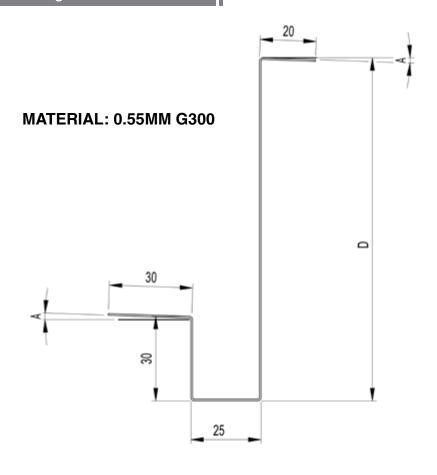


Finished Gutter Assembly - Non-Downpipe End

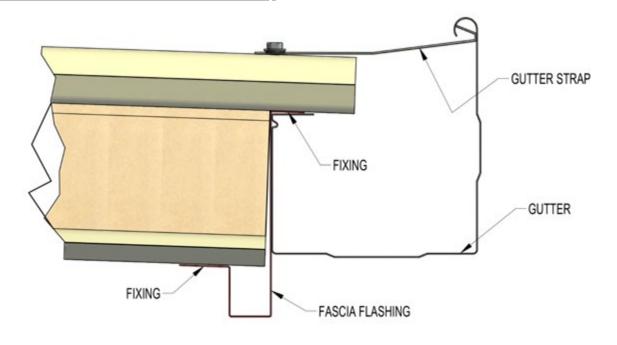
FLASHINGS

Connection Details - Gutters

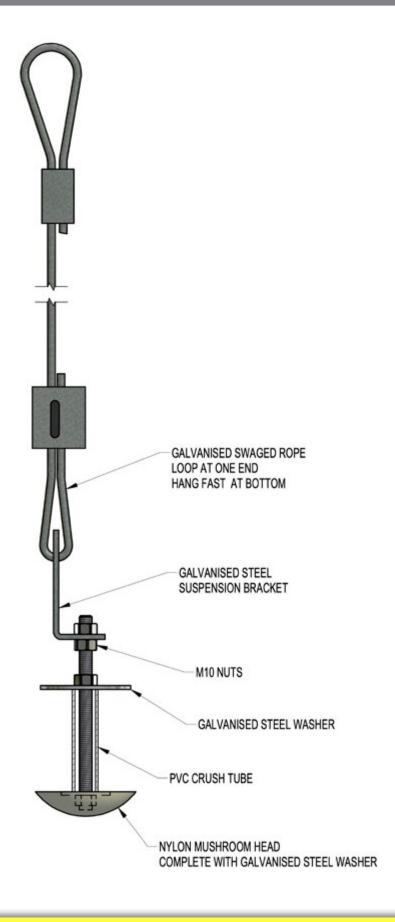
3.2.1 Fascia Flashing



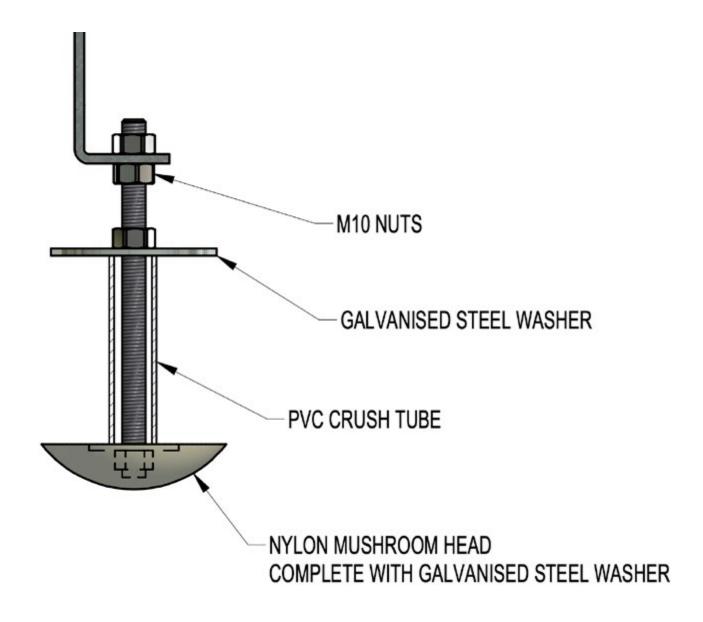
3.2.2 Gutter Connection



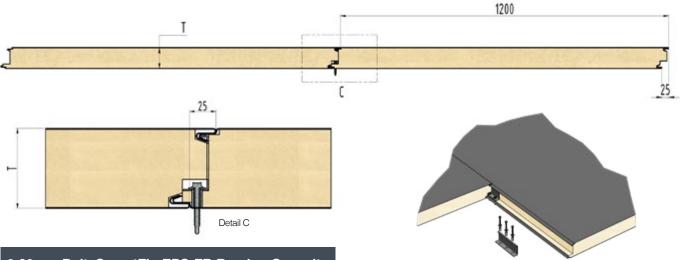
Ceiling Suspension Kits



Mushroom Head Bolt



Secret Fix Bracket



| 0.60mm DeltaSecretFix-EPS-FR Bracing Capacity | | | | | | |
|---|-----|------|------|--|--|--|
| Panel Height (m) | 2.4 | 1.2* | 4.8* | | | |
| Kn/m | 5.0 | 10.0 | 2.5 | | | |
| Bracing Units (BU) | 100 | 200 | 50 | | | |

* Figures for 1.2m & 4.8m high panels are extrapolated. It is acceptable to extrapolate Bracing Capacity heights between 1.2m & 4.8m. For heights outside of this dimension range, Diaphragm Analysis is required to establish Bracing Capacity.

Shear Load Transference - Shear load is transferred by rivets into the floor / ground surface or the perpendicular walls, ceiling & roof at a rate of 1.21 kN per 4.0 mm diameter

Fixing rivets at 200mm centres complies with the 20-minute flame barrier requirements and delivers 14.5 kN of shear capacity transfer per panel (6 on each side) horizontally, and 12.1 kN per metre in vertical joints. Limited by the ability of the panel to transfer the shear.

| 0.6mm DeltaSecretFix-EPS-FR Wind Pressure (kPa) | | | | | | | | |
|---|----------------------|------|-------|-------|-------|-------|-------|-------|
| Span | Panel Thickness (mm) | | | | | | | |
| (mm) | 50mm | 75mm | 100mm | 125mm | 150mm | 175mm | 200mm | 250mm |
| 2000 | 1.84 | 2.92 | 6.11 | 6.11 | 7.35 | 8.01 | 9.21 | 11.55 |
| 2400 | 1.42 | 2.54 | 5.14 | 5.14 | 6.28 | 6.92 | 7.92 | 9.67 |
| 3000 | 0.97 | 1.86 | 3.73 | 3.73 | 4.93 | 5.35 | 6.00 | 7.65 |
| 3600 | 0.70 | 1.39 | 2.68 | 2.68 | 3.84 | 4.28 | 4.77 | 6.05 |
| 4200 | 0.51 | 1.06 | 1.96 | 1.96 | 2.87 | 3.33 | 3.79 | 4.81 |
| 4800 | 0.38 | 0.81 | 1.49 | 1.49 | 2.19 | 2.57 | 2.94 | 3.67 |
| 5400 | 0.29 | 0.64 | 1.17 | 1.17 | 1.72 | 2.02 | 2.31 | 2.88 |
| 6000 | 0.22 | 0.50 | 0.94 | 0.94 | 1.38 | 1.62 | 1.86 | 2.32 |
| 6600 | 0.17 | 0.39 | 0.77 | 0.77 | 1.14 | 1.34 | 1.54 | 1.91 |
| 7200 | 0.12 | 0.30 | 0.64 | 0.64 | 0.95 | 1.13 | 1.29 | 1.60 |
| 7800 | 0.09 | 0.24 | 0.54 | 0.54 | 0.80 | 0.95 | 1.10 | 1.36 |
| 8400 | 0.07 | 0.19 | 0.43 | 0.43 | 0.69 | 0.82 | 0.94 | 1.17 |
| 9000 | 0.06 | 0.15 | 0.35 | 0.35 | 0.60 | 0.71 | 0.82 | 1.01 |
| 9600 | 0.05 | 0.14 | 0.27 | 0.37 | 0.48 | 0.54 | 0.66 | 0.82 |
| 10200 | 0.05 | 0.13 | 0.18 | 0.29 | 0.39 | 0.40 | 0.53 | 0.68 |

The above table lists ultimate wind load pressures for strength design and the pressure corresponding to a Span/150 single span deflection for 0.6mm G300 steel skins bonded to a EPS-FR polyisocyanurate core and in accordance with Serviceability Limit State criteria as per AS1170.0 - Table C1. The designer shall determine if Span/150 deflection ratio is appropriate for intended use. Loads for a more stringent deflection ratio can be determined by linearly proportioning the loads provided. Differential thermal effects are not incorporated in the loads provided.

Standard Fixings

Screw Types

Main Fasteners

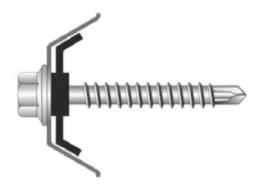
Metal Tek - Fixing | Fixing into Steel Beams up to 12.5mm



T17 - Fixing | Fixing into Timber Beams



Cyclone Plate and Washer



Secondary Fasteners

Tek M13 x 25mm - Fixing **Stitching Screw**



Standard Fixings

Screw Selection Tables

| DeltaTrim™ | | | | | | | |
|------------------------------------|-------------|------------|---------------------------------------|-------------|------------|--|--|
| Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | | |
| 50mm | 125mm | 135mm | 150mm | 230mm | 230mm | | |
| 75mm | 150mm | 150mm | 175mm | 265mm | 260mm | | |
| 100mm | 175mm | 175mm | 200mm | 265mm | 300mm | | |
| 125mm | 200mm | 200mm | | | | | |

| DeltaOrb™ | | | | | | | |
|---|----------|-----------|----------|----------|-----------|--|--|
| Minimum Class 3 - must be HEX Head Timber Beam Steel Beam Minimum Class 3 - must be HEX Head Steel Bear | | | | | | | |
| 50mm | 125mm | 115mm | 125mm | 200mm | 175mm | | |
| 00111111 | 12011111 | 1 1011111 | 12011111 | 20011111 | 17 311111 | | |
| 75mm | 150mm | 135mm | 150mm | 230mm | 200mm | | |

| DeltaCorroCorro™ | | | | | | | | |
|------------------------------------|-------------|------------|---------------------------------------|-------------|------------|--|--|--|
| Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | | | |
| 75mm | 125mm | 115mm | 175mm | 230mm | 200mm | | | |
| 100mm | 150mm | 135mm | 200mm | 265mm | 230mm | | | |
| 125mm | 175mm | 150mm | 225mm | 265mm | 260mm | | | |
| 150mm | 200mm | 175mm | 250mm | 300mm | 300mm | | | |

| DeltaTrimTrim™ | | | | | | | | |
|---------------------------------------|-------------|------------|---------------------------------------|-------------|------------|--|--|--|
| Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | | | |
| 75mm | 200mm | 200mm | 150mm | 265mm | 260mm | | | |
| 100mm | 230mm | 230mm | 175mm | 300mm | 300mm | | | |
| 125mm | 230mm | 230mm | | | | | | |

| DeltaTrimCorro™ | | | | | | | | |
|---------------------------------------|-------------|------------|---------------------------------------|-------------|------------|--|--|--|
| Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | Minimum Class 3 - must be HEX Head | Timber Beam | Steel Beam | | | |
| 75mm | 150mm | 150mm | 150mm | 265mm | 260mm | | | |
| 100mm | 200mm | 200mm | 175mm | 300mm | 300mm | | | |
| | | | | | | | | |



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