



METALCRAFT
THERMOSPAN EPS
INSTALLATION
GUIDE

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METALCRAFT THERMOSPAN INSTALLATION GUIDE

metalcraftgroup.co.nz

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THERMOSPAN PACKING & DELIVERY

PACKING FOR SHIPMENT

ThermoSpan EPS sheets are packed to a maximum pack height of 1.2m with the number of panels per pack dependant on panel thickness, length and overall pack weight. ThermoSpan EPS panels are manufactured with a protective film applied to the ceiling skin. ThermoSpan EPS panels can be marked externally on the insulated core with the panel number and/or length, on request.

DELIVERY TO SITE

Panel packs should be secured using cargo straps spaced approximately every 2m with 600mm plastic cargo angles under the straps (refer to Figure 1a). Long 600mm angles must be placed on top and bottom of panel pack to protect from straps. Do not overtighten straps, no depression in panel should be seen, back off on strap tension, panel skin should be flat (refer to Figure 1b). Unloading remains the client's responsibility. For lifting panels greater than 8m in length, use of a spreader bar is recommended (refer to Figures 1c & d). Refer to Figures 1e & 1f for recommended steps to unload panels of less than and greater than 8m in length. Panels should always be kept dry and if placed on site, stored off the ground, slightly inclined, allowing adequate drainage and ventilation of the panel pack.

Allow for laydown area on site.

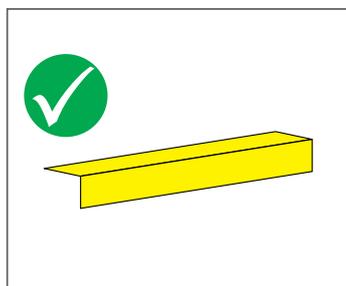


Figure 1a

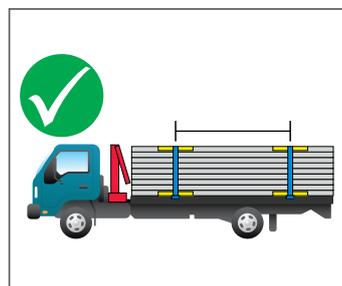


Figure 1b

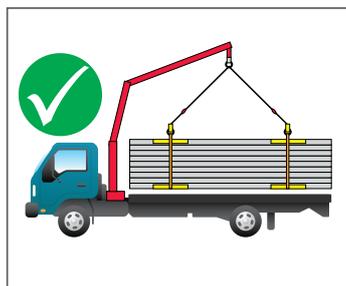


Figure 1c

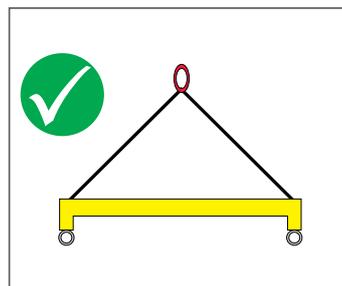


Figure 1d

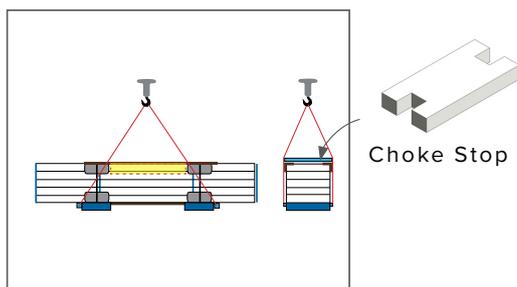


Figure 1e

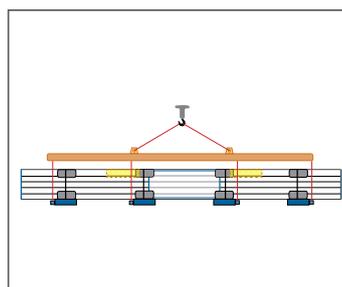


Figure 1f

INSTALLATION REQUIRED TOOLS & EQUIPMENT

PERSONAL PROTECTIVE EQUIPMENT

- Long sleeves & pants
- Cut resistance level 5 gloves
- Eye protection
- Hearing Protection
- Enclosed footwear

CLEAN UP

- Broom for cleaning swarf from roof
- Blower/Vacuum
- Swarf off

GENERAL TOOLS

- Saw Horse Stools (Padded)
- Rivet gun
- Multi-purpose step ladders
- RH & LH Hand Tin snips
- Spirit Level
- Chalk Line
- Roof Screw Gun with Hex Head Adapters 5/32" R 14g Tek Adaptor
- ThermoSpan EPS Turn-Up/Down Tool (See Metalcraft Insulated Panels®)
- Plastic Paint Scraper
- Measuring Tape
- Towels or blankets to cover patio beams
- Shears to remove overlap (first sheet only)
- Drill
- Square

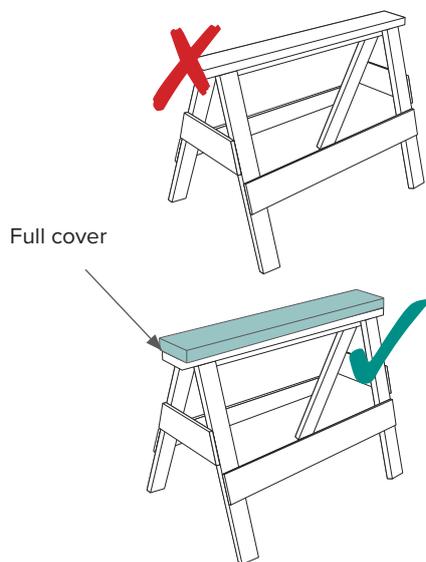
COMPONENTS

- Structure
- ThermoSpan EPS Roofing Panel
- Barge / Fascia / Ridge / Valley / Apron Gutter Flashings
- 5mm diameter rivet sealed
- 14g class 4 metal/timber roof screws with Profile / EPDM Washers
- Profile vermin protection and EPS-FR rib infill strip
- Butyl Tape
- Roofers neutral cure silicone

THERMOSPAN PREPERATION

THERMOSPAN EPS INSTALLATION INSTRUCTIONS

This example shows a typical installation. For other examples, visit www.metalcraftgroup.co.nz ThermoSpan EPS is shown in the illustrations below.



Handy Tips

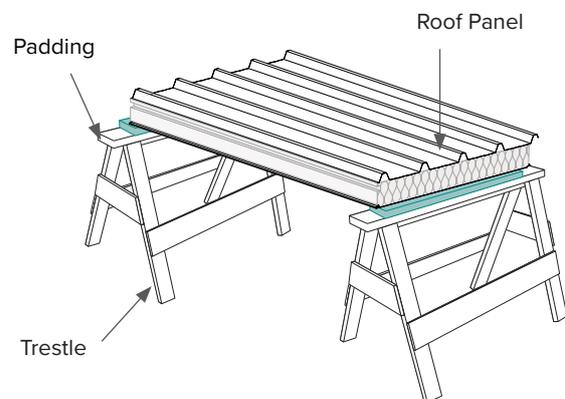
Prepare your carpenter's trestles (or similar work platform) by taping soft material or foam to the top of the trestles.

NOTE: Stresscuts / thermal cuts check required before install

STEP 1: PANEL PREPARATION

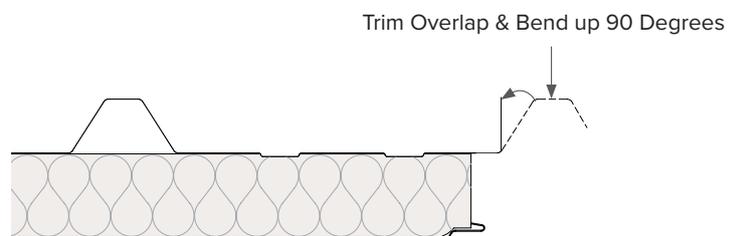
Place ThermoSpan EPS on the trestles (avoid dragging the panel to eliminate damage).

TIP: Predrill as much as possible so swarf remains on the ground not on the roof



STEP 2: TRIM OVERLAP AND BEND 90°

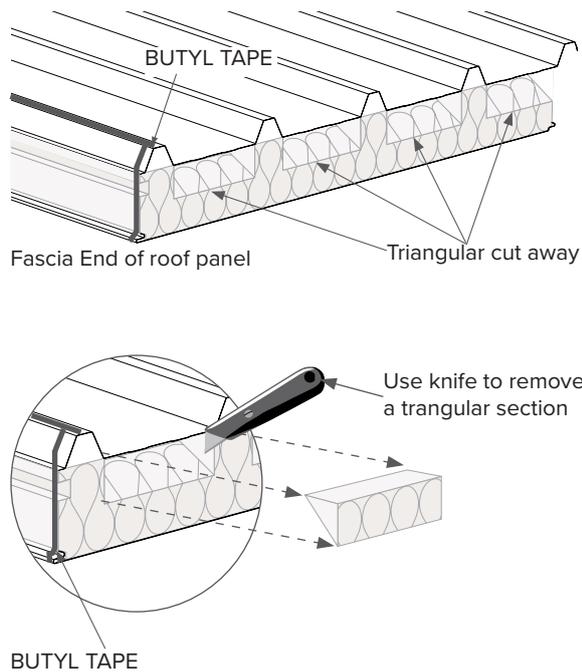
FIRST PANEL ONLY. The first overlay rib on the first panel acts as waterproofing under the side barge/apron and should be trimmed using sheers and bend up 90 degrees as shown below.



THERMOSPAN PREPARATION

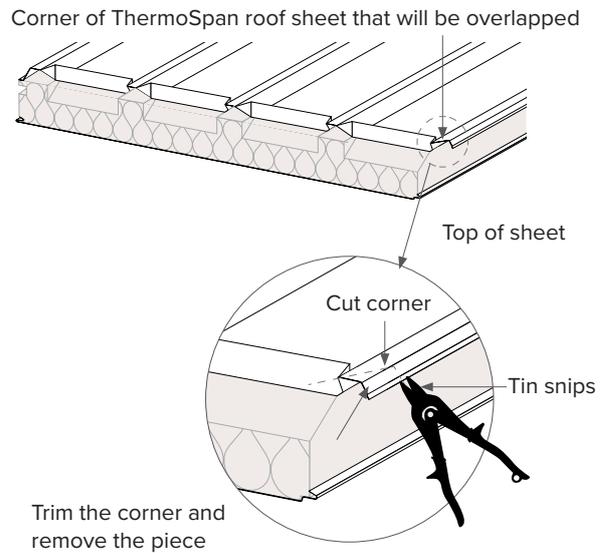
STEP 3: REMOVE FOAM & HOUSE FASCIA END

Cutaway foam below pans at the fascia (house) end to allow the pan turn up.



STEP 5: TRIM HOUSE FASCIA END OVERLAP

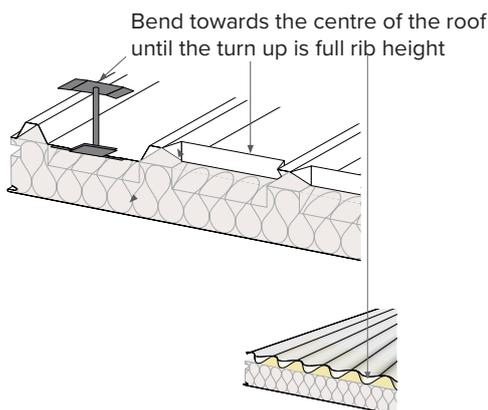
Trim the overlay rib to prevent fouling with the turned up pan of the adjacent panel.



BUTYL TAPE

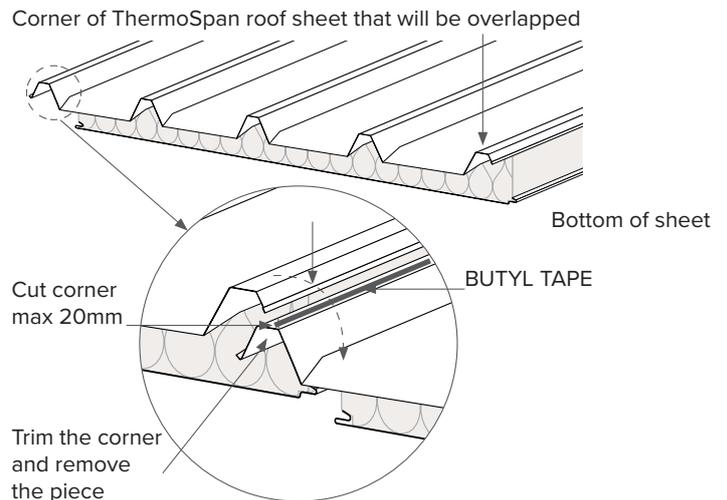
STEP 4: TURN UP PANS FASCIA END

ThermoSpan EPS roofs should always have the roof pans at the top or house end turned up to full rib height. It is important to ensure the pan is turned up to the full rib height for the complete width of the pan so no 'low' points exist. The Turn-up/Turn-down tool is available from your Metalcraft distributor.



STEP 6: TRIM GUTTER UNDERLAY (FOR THERMOSPAN ONLY)

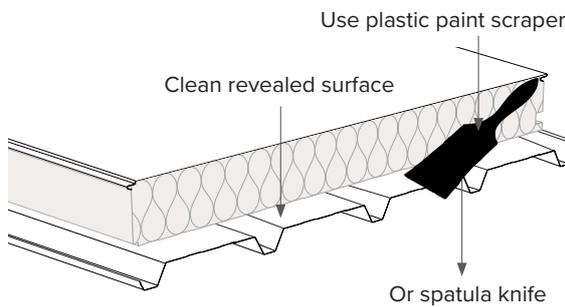
Trim the underlay rib of every ThermoSpan EPS panel at the gutter end to prevent water drawback via capillary action.



THERMOSPAN PREPARATION

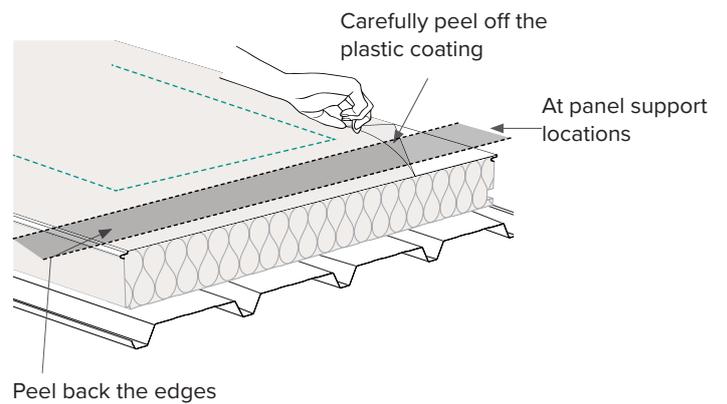
STEP 7: REMOVE GUTTER CUTBACKS FOAM

Turn the panel over roof side down on the trestles. Remove core material from the gutter cutback end of the panel with a plastic paint scraper to ensure that the fascia flashing can be installed correctly.



STEP 9: PEEL BACK PLASTIC

Peel back protective coating on all edges of the panel ensuring you are past the beam at the front of the patio.

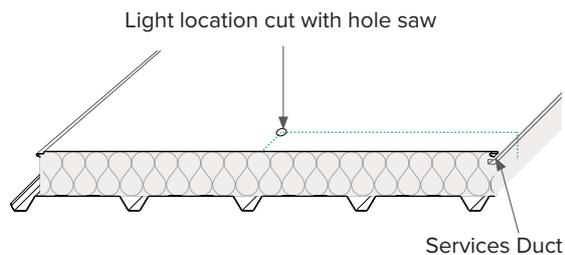


STEP 8: ELECTRICAL PREPARATION

Mark the location of each downlight/fan, cut appropriate size hole in the ThermoSpan EPS. Feed electrical conduit through Services Duct to fan or light location. The ceiling core-strip protective film should be left on while any marking, drilling and cutting is carried out. Install the lighting/fan as per instructions. LED Downlights & fan bracket kits are available from your ThermoSpan EPS installer or contact Metalcraft for more information.

Services duct is made on request.

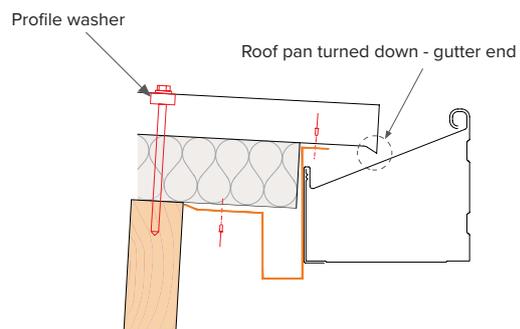
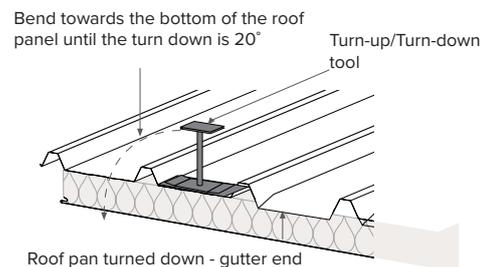
Compatible electrical cable non migratory



Feed electrical conduit through Services Duct to fan or light location.

STEP 10: TURN UP AND TURN DOWN

Turn the panel back over and use the special Turn-down tool to turn each pan of the panel approx 20° into the gutter. Turn downs should be done while safely on the ground before installing into place. Turn up/down tools are available from Metalcraft Insulated Panels.



THERMOSPAN PREPARATION

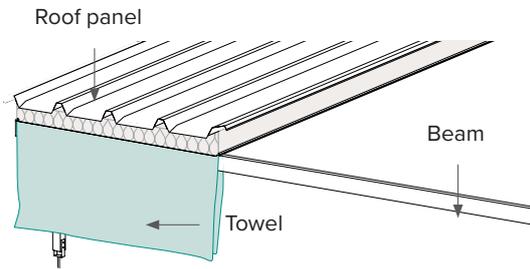
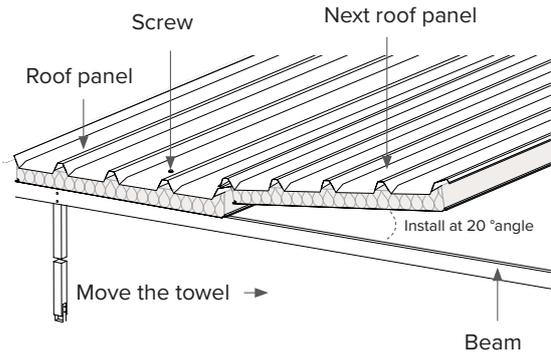
STEP 11: INSTALLING PANEL

Place a towel or blanket over the beams that the first panel will be in contact with. Place the cutback end (gutter or low end) on to the covered beam and then push the panel back into the rear receiver channel.

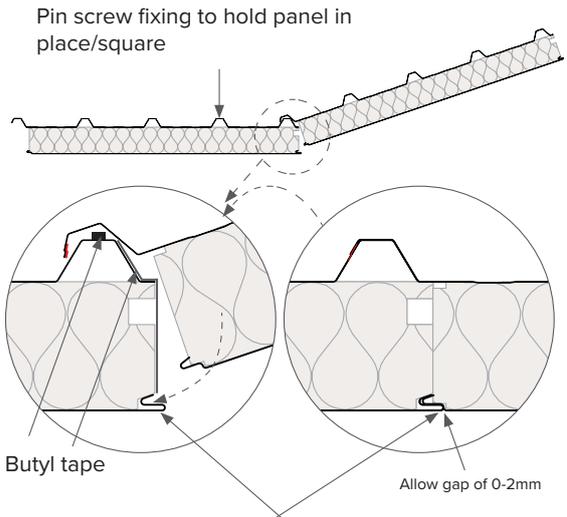
- Square off this first panel. Pin with a screw fixing in the top middle rib and with a rivet underneath receiver channel to hold it square and in place.
- Check butyl tape is on under rib

To install the second panel, place the overlay flap of the roof skin over the previously fitted panel and with the panel at approx 20° pull it down and engage the male interlock into the female interlock.

Check bottom skin is fully engaged before moving on the next panel



Check install against building is square

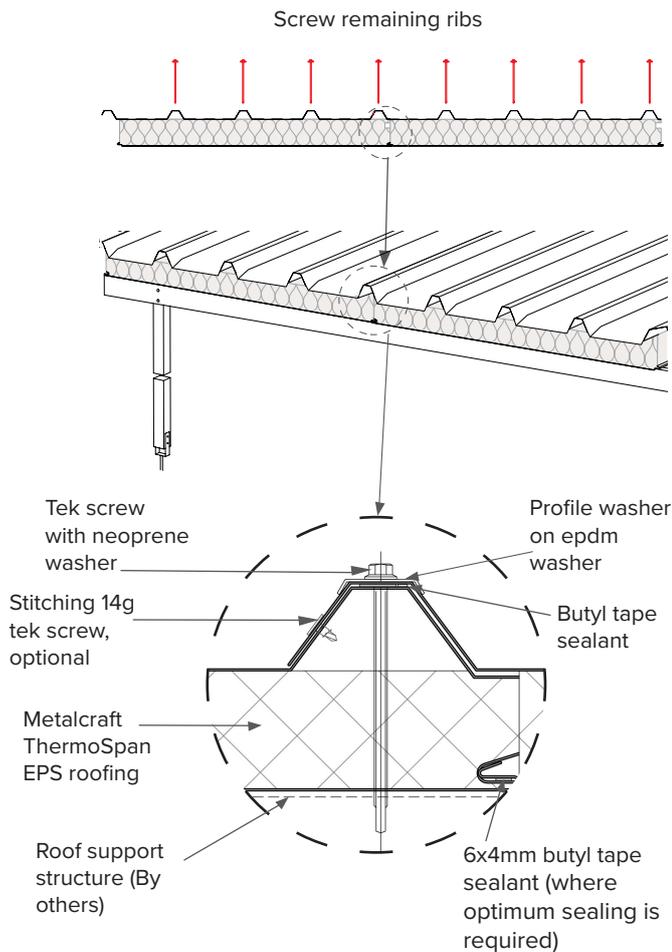


Pull it down and engage the male interlock into the female interlock of the ceiling side of the first pane.

THERMOSPAN PREPERATION

STEP 12: SCREW DOWN REMAINING RIBS

Screw down the remaining ribs per fixing recommendations

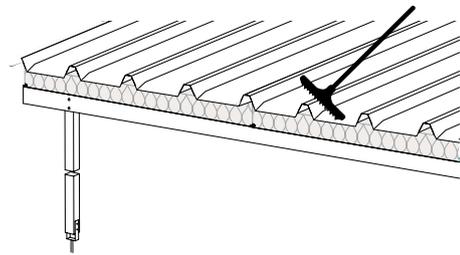


Timber fix - Type 17 14g screw MIN.40mm embedment into timber substrate.

Steel fix - 14g Steeltite screw minimum three full threads into steel structure.

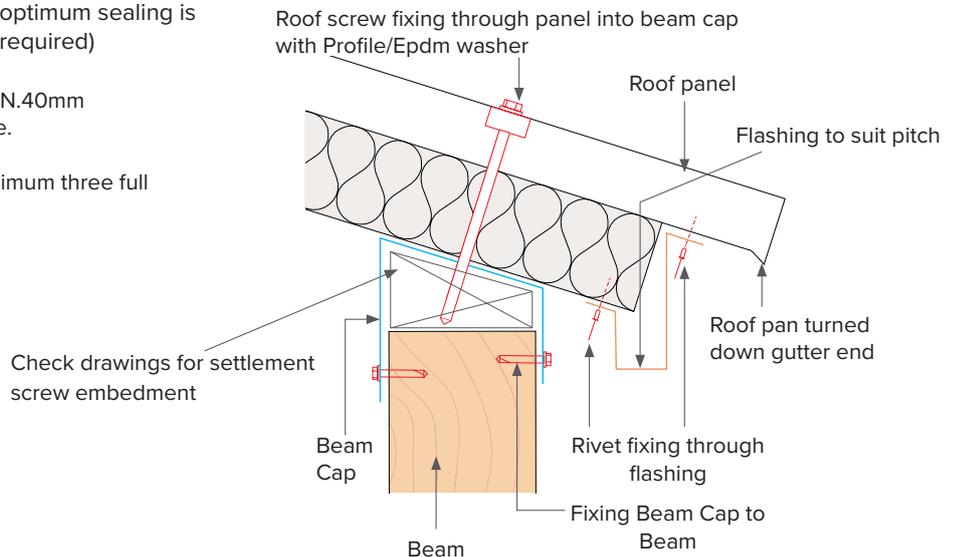
STEP 13: CLEAN DOWN ROOF

Once roof fixings are installed use a soft broom to sweep swarf and debris off the roof surface before installing flashings. Once flashings and gutter are installed clean the flashings and roof using the same method. Ensure gutters are clear from swarf and debris to prevent corrosion. A wet microfiber cloth can be used on COLOURSTEEL® to clean down any marks. Daily clean / wash roof use "swarff" if required.



STEP 14: STEEPER PITCHES

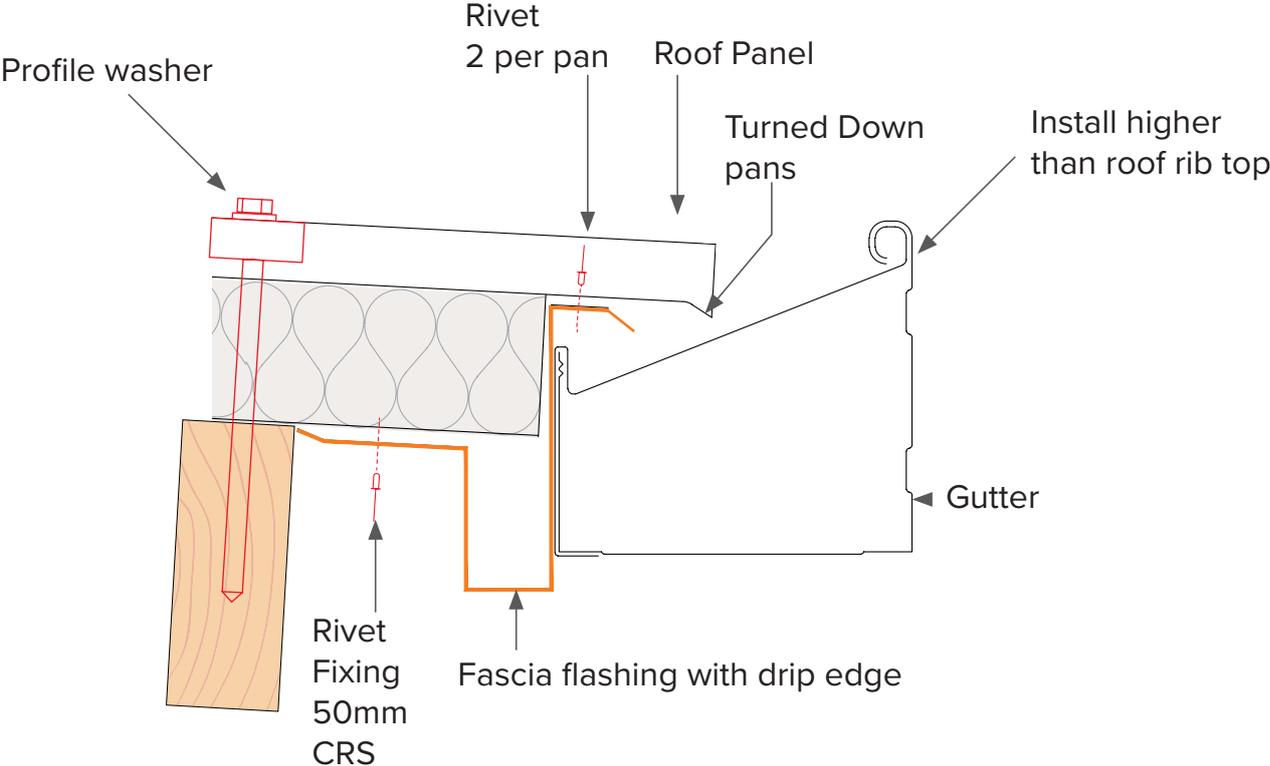
For steeper pitches (> 7°)



THERMOSPAN PREPARATION

STEP 15: GUTTERS AND DOWNPIPES

Gutter and downpipe sizes should be selected in accordance with good plumbing practice to adequately service the requirements of the additional roof area, plus handle additional water for any gutters and downpipes that were removed from the existing house roof.



WIRING & ELECTRICAL SERVICES INSTRUCTIONS

Services duct made on request.

WARNING: Always consult your licensed electrician for advice on details for cable installation. Ensure all services are clear of the top wall plate centre cavity where roof fixing screws will penetrate.

ThermoSpan EPS panels have a services duct (at least 20mm x 20mm) on the female (under lap) joining edge which accommodates a standard size conduit for electrical cables for ceiling lights and fans.

STEP 1: MARK ENTRY

Mark the entry location of the feed wires on the ThermoSpan EPS underside.

STEP 2: MARK EXIT

Mark the exit location of the feed wires for fittings on the ThermoSpan EPS underside.

STEP 3: DRILL UNDERSIDE

Drill through the underside metal skin at the marked locations and remove the excess polystyrene.

STEP 4: FORM HOLE

Drill and form a hole through the services duct to the exit and entry hole on the underside.

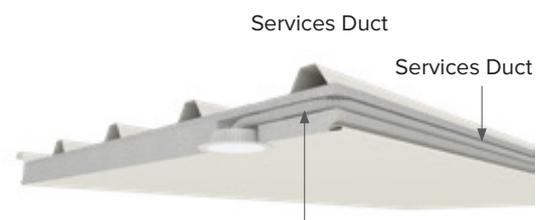
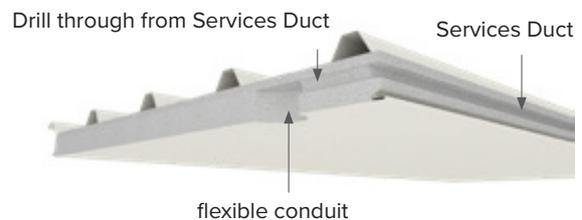
STEP 5: FEED CONDUIT

Lift the ThermoSpan EPS panel into position. Feed the conduit or non migratory cable up from the wall panel into the entry hole on the ThermoSpan EPS panel, along the services duct and out the exit hole.

STEP 6: SCREW OFF

Complete the final screw off, fixing through the ThermoSpan EPS panel ribs/crests into the top wall plates or support beams.

Handy Tips: Other options of electrical services are running above dropped ceilings or bulkheads or under slab.



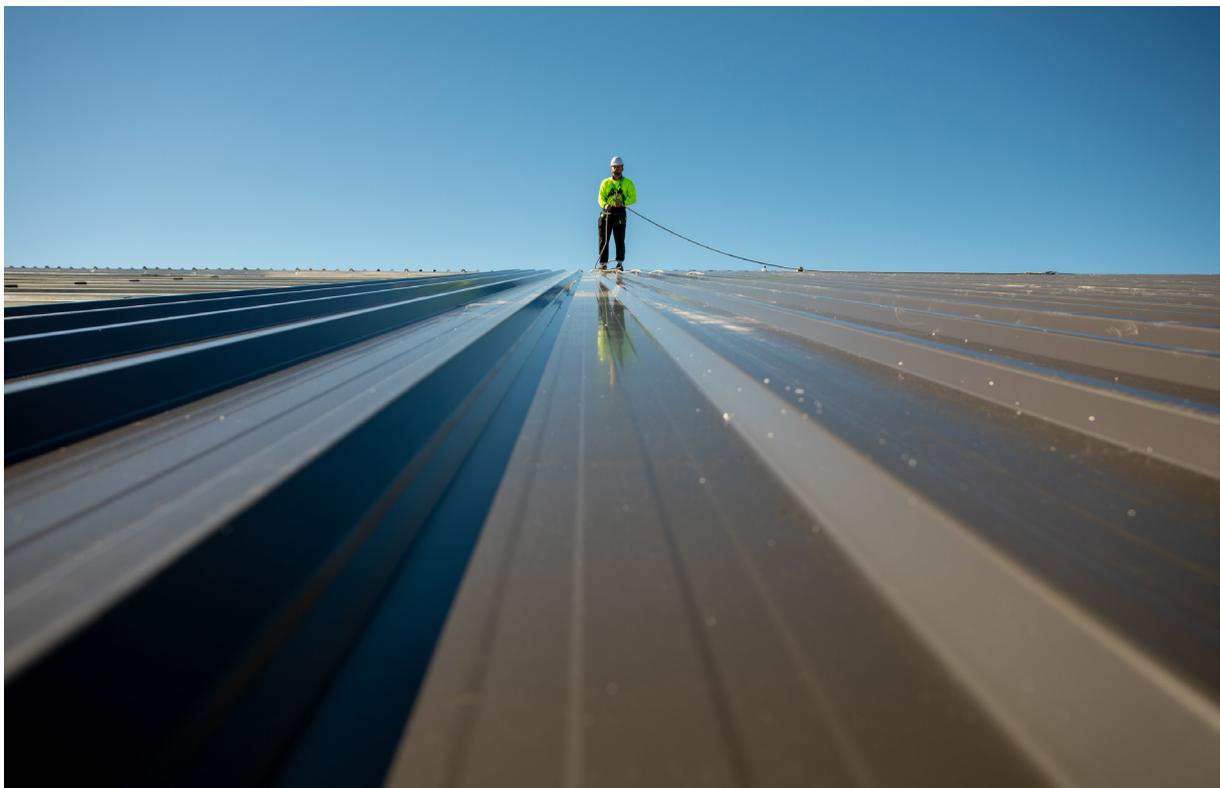
Feed electrical conduit through Services Duct.
Installation material left above Duct / Downlight

CLEAN UP AND MAINTENANCE

Ensure all metal filings (swarf) are swept off and disposed of into bins as you install each sheet. These filings can leave unsightly stains on the surface of the sheet and also on floor tiles/pavers, etc, in the near vicinity.

Intermittent cleaning of all surfaces not washed by regular rainfall will prolong the life of the products and keep them looking their best. A mild detergent solution is recommended ensuring the surfaces are always wiped off with clean water afterwards. Hosing of the ceiling is to be avoided as it will cause water to sit inside panel joins and flashings leading to possible corrosion.

- Future maintenance is recommended Roof check once a year.
- Wash if prone to lichen growth.
- 6 Monthly washing of unwashed areas like soffits and gutters.
- www.colorsteel.co.nz To check latest maintenance requirement



QA CHECKLIST FOR PANEL & ROOF INSTALLATION

Clean swarf free YES NO

Remedies Required

Installed as per metalcraft details YES NO

Remedies Required

Fixings correctly tightned YES NO

Any damage to the panel noted here

Profile washers YES NO

Fitted as per detail. List here

Butyl tape fitted YES NO

Flashings as per order details YES NO

PAINT YES NO

LIST ANY SCRATCHES OR ISSUES:

Note: Metalcraft do not warranty the Installation, only the Panels. A Warranty Document will be produced for the Panel Only

Please Email to warranty@metpanels.co.nz

Any Questions Please Call Peter Zeeman on 027 276 4354

YOUR LBP-N HERE

YOUR CONTACT DETAILS

For Instructions of Installation of Insulated Panels please visit our website www.metalcraftpanels.co.nz Code Mark Installation Guide

BRANCH

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