

LYSAGHT SUPABRIDGE®



INSTALLATION GUIDE

1.0 SCOPE

This document provides an overview of the key steps for installation of the LYSAGHT SUPABRIDGE® bridging and insulation system for LYSAGHT SUPAPURLIN® structures. A comprehensive design and installation manual is available at www.lysaght.com



1.1 INTRODUCTION & GENERAL NOTES

The LYSAGHT SUPABRIDGE® roofing system provides an innovative and safe alternate solution to roof raisers for compliance to Section J requirements of the National Construction Code (NCC). Section J is applicable to class 2 – 9 buildings.

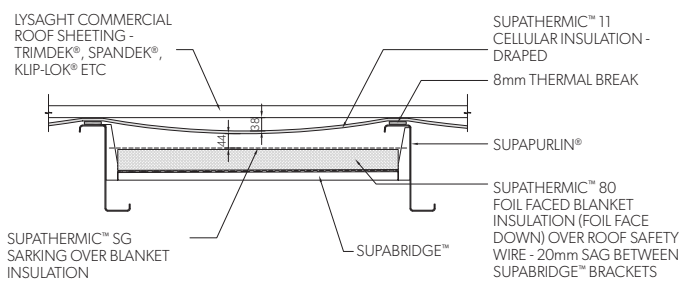
The heart of the system is the unique and simple integrated LYSAGHT SUPABRIDGE® bridging system that replaces traditional purlin bridging to allow for installation of safety wire and uncompressed insulation within the roof purlin space. This system integrates seamlessly with LYSAGHT SUPAPURLINS®, SUPAZEDS® and/or SUPACEES®.

2.0 SUPABRIDGE™ INSTALLATION - OPEN BUILDING WITHOUT CEILING

2.1 BRIDGING MEMBERS

The installation method for SUPABRIDGE™ members utilises industry standard bolted connections with minimal specialist parts.

FIGURE 2.1-1:

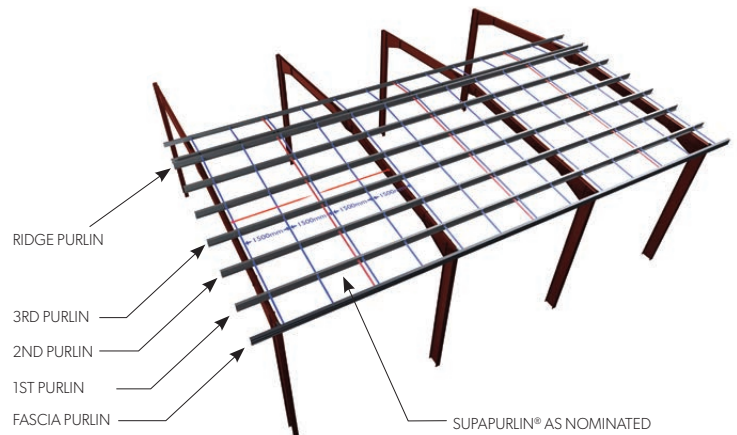


The system layers for Open Buildings without ceilings, in order of installation are

- SUPAPURLIN®
- SUPABRIDGE™ 170 brackets
- SUPABRIDGE™ safety wire
- SUPATHERMIC™ 80 blanket insulation
- SUPATHERMIC™ TB thermal break tape
- SUPATHERMIC™ 11 thermocellular bubble insulation
- LYSAGHT® roof sheeting

The following diagrams and text describe how the installation is completed. Installation of bridging members for roofs (purlins) can be commenced from the eaves or from the ridge (eaves start or ridge start). The following description is for an eaves start.

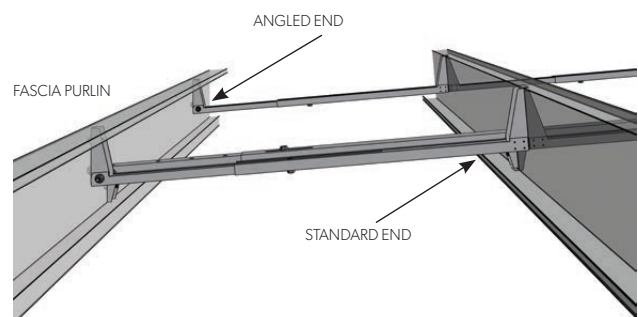
FIGURE 2.1-2:



Step 1: Install the SUPABRIDGE™ fascia bridging member by temporarily inserting a M12 purlin bolt through the bracket and first purlin, adjust the opposite bracket to the fascia purlin angle and bolt the opposite end to the fascia purlin. Check purlin alignment and adjust the telescopic SUPABRIDGE™ member as needed. Tighten bolts including the adjusting bolt between the bracket and channel to Snug Fit*. Install 1 x 14 - 10 x 25 Shed Tek screw to each face beside the adjusting bolt to 'lock in' the angle.

*Snug Fit as described in AS4100-1998 Section 15.2.52

FIGURE 2.1-3: SUPABRIDGE™ FASCIA PURLIN INSTALLATION



SUPABRIDGE™ ADJUSTED FASCIA PURLIN CONNECTION

Step 2: Moving to the next up-roof purlin bay, install the standard SUPABRIDGE™ bridging member by resting the locator end over the holes of the next purlin, then remove the nut at the 1st purlin and install the standard SUPABRIDGE™ member over the bolt, reinstall the nut. Add an additional M12 bolt to the bottom hole location (SC/SZ 300 only) and move to the 3rd purlin and install the next standard SUPABRIDGE™ member by resting the locator end over the holes of the 3rd purlin. Bolt the standard SUPABRIDGE™ member at the 2nd purlin. Check purlin alignment and adjust the telescopic SUPABRIDGE™ member as needed. NB for SUPABRIDGE™ 170 brackets two bolts are required for each bracket to connect to the SC/SZ 300 SUPAPURLIN® only.

FIGURE 2.1-4:

**SUPABRIDGE™ SB170 Purlin Connection
SC/SZ 300 SUPAPURLIN®**

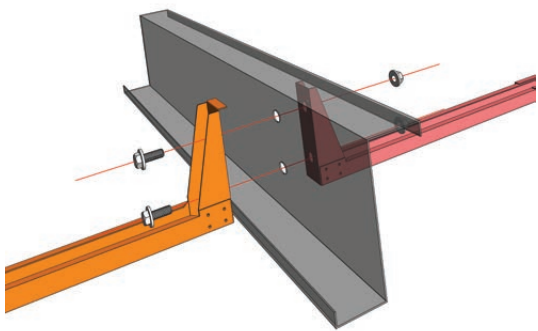
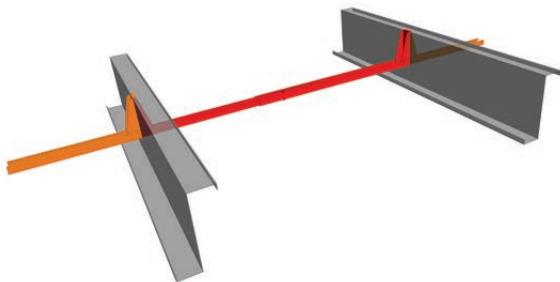


FIGURE 2.1-5:



Step 3: Repeat step 2 up the roof line until reaching the ridge purlin. Install the SUPABRIDGE™ ridge purlin member, installing the down roof bolt only. Then install the next down roof SUPABRIDGE™ member on the other side of the roof and install the M12 to both the SUPABRIDGE™ ridge purlin member and standard SUPABRIDGE™ member. Tighten bolts including the adjusting bolt between the bracket and channel to Snug Fit*. Install 1 x 14 - 10 x 25 Shed Tek screw to each face beside the adjusting bolt to 'lock in' the angle the bolts.

*Snug Fit as described in AS4100-1998 Section 15.2.52

FIGURE 2.1-6:

SUPABRIDGE™ RIDGE MEMBER INSTALLATION



Step 4: Continue down the roof as per steps 1 to 3.

Step 5: Repeat steps 1 to 4 for the full roof area.

2.2 ROOF SAFETY WIRE

Step 6: Install roof safety wire: Locate wire and wire trolley on roof purlins. Connect wire to first/outmost SUPABRIDGE™ member as per AS/NZS 4389 - 2015 and roll out along purlin run and connect to the last SUPABRIDGE™ member as per the first member. Repeat and continue for entire roof.

NB: The SUPABRIDGE™ system allows for a nominal 20mm sag in the safety wire between the SUPABRIDGE™ members.

FIGURE 2.2-1:

Connect roof safety wire to SUPABRIDGE™ first/outmost channel piece as per AS/NZS 4389-2015

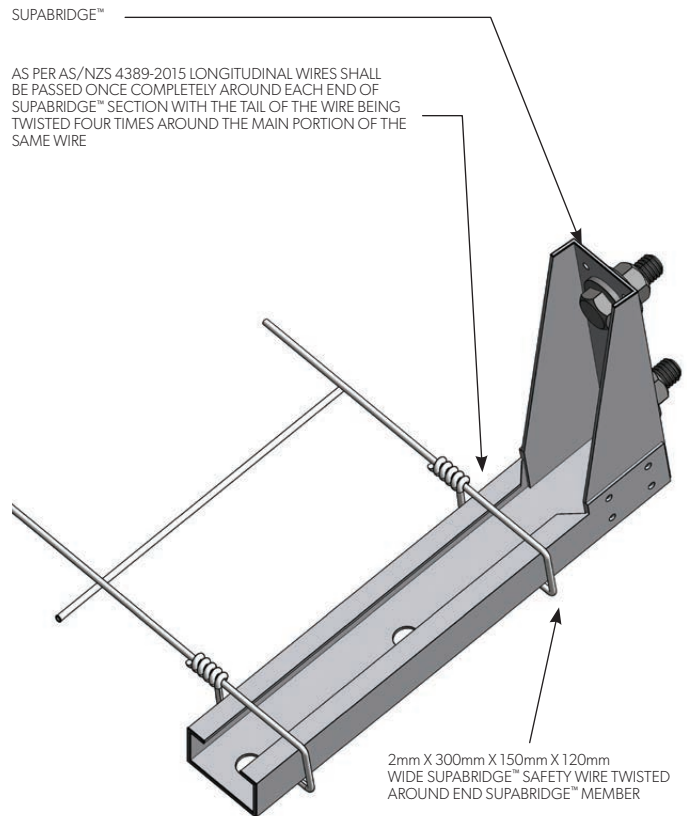


FIGURE 2.2-2:

Roof wire trolley



NB: 1300mm purlin centres will allow for unimpeded wire installation. For smaller purlin centres cut roofing wire to size on the ground before placing on the roof.

Safety wire to be connected to each SUPABRIDGE™ member as per Figure 2.2-3 with 2mm gal wire.

FIGURE 2.2-3:
Roof Safety wire connection at SUPABRIDGE™ supports
WIRE INSTALL - CENTRAL SUPABRIDGE™

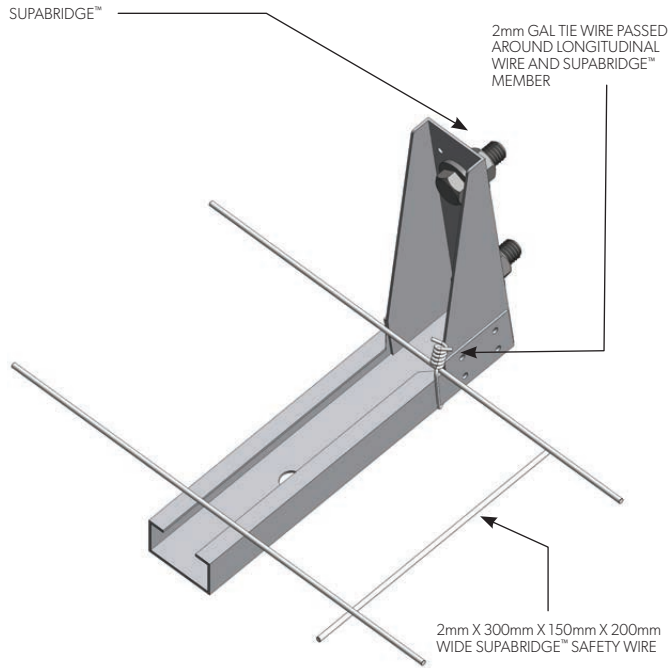
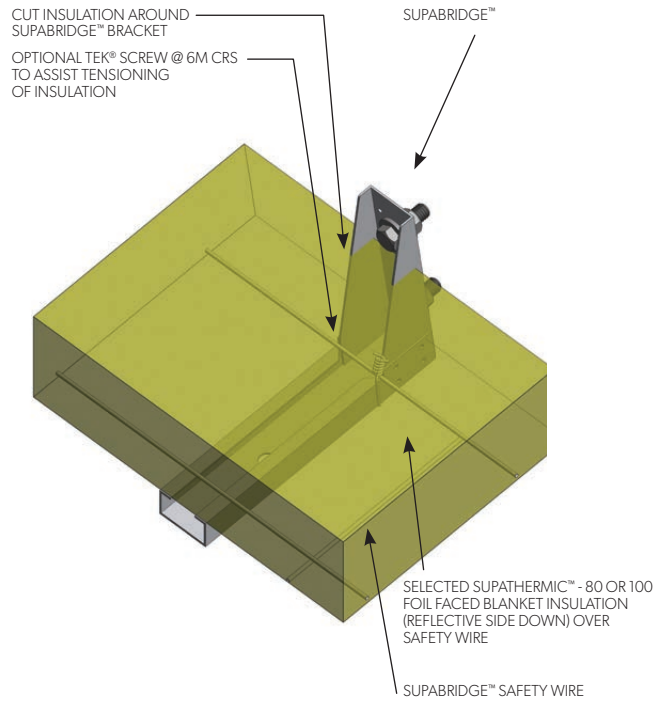


FIGURE 2.3-2:
Insulation install



2.3 INSULATION

Step 7: Roll out SUPATHERMIC™ 80 blanket insulation between purlins, over roof safety wire taking care to lay reflective silver side down and blanket face upward.

Install SUPATHERMIC™ - TB-4410 thermal break tape along the purlin top face prior to rolling out selected SUPATHERMIC™ - 11 across SUPAPURLIN® from ridge to fascia ensuring the nominated drape between purlins. Overlap and tape joints as per AS4200.2.

FIGURE 2.3-1:
Roll out SUPATHERMIC™ 80 blanket insulation between purlins

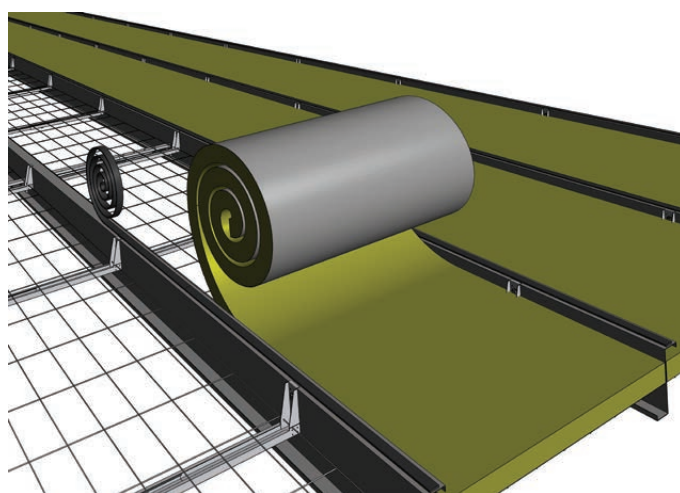
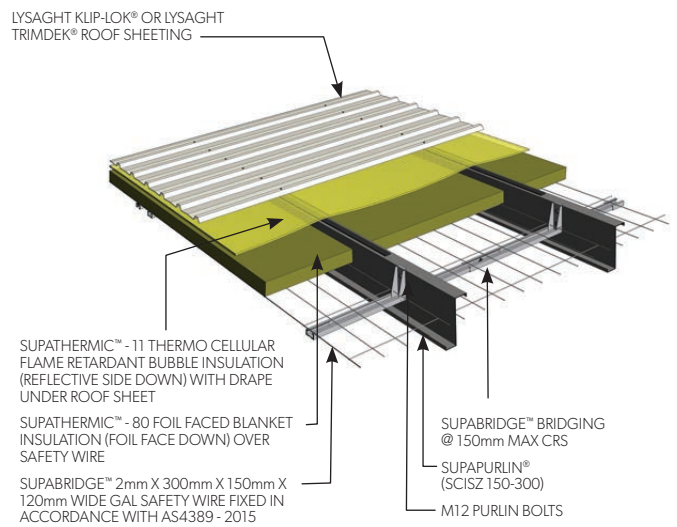


FIGURE 2.3-3:
SUPABRIDGE™ component layout



Step 8: Install specified Lysaght roof sheeting as per published recommendations.

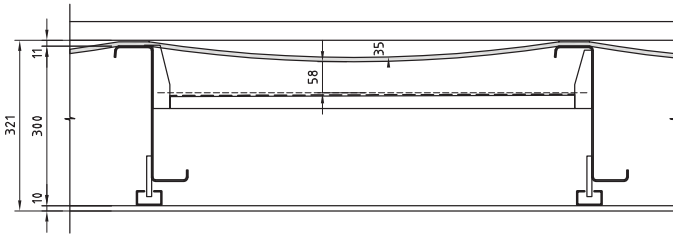


3.0 SUPABRIDGE™ INSTALLATION CLOSED BUILDING WITH CEILING

3.1 BRIDGING MEMBERS

The installation method for SUPABRIDGE™ - 110 members utilises industry standard bolted connections with minimal specialist parts.

FIGURE 3.1-1:

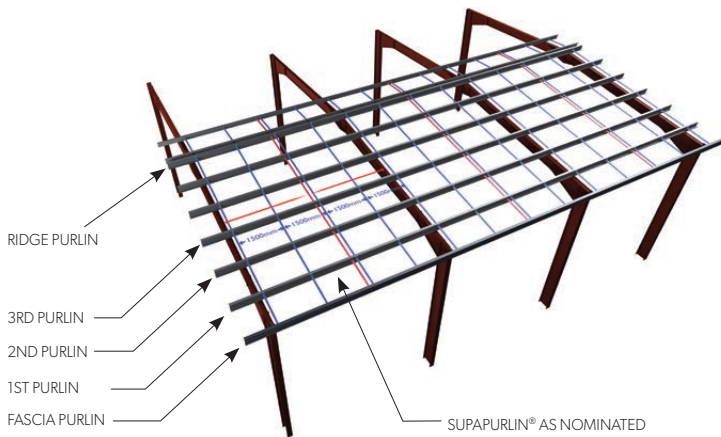


The system layers for CLOSED buildings with ceilings, in order of installation are

- SUPAPURLIN®
- SUPABRIDGE™ - 110 bracket
- SUPABRIDGE™ safety wire
- SUPATHERMIC™ - MR Sarking
- SUPATHERMIC™ - 80, SUPATHERMIC™ - 11
- SUPATHERMIC™ - MR-PB insulation
- LYSAGHT® roof sheeting

The following diagrams and text describe how the installation is completed. Installation of bridging members for roofs (purlins) can be commenced from the eaves or from the ridge (eaves start or ridge start). The following description is for an eaves start.

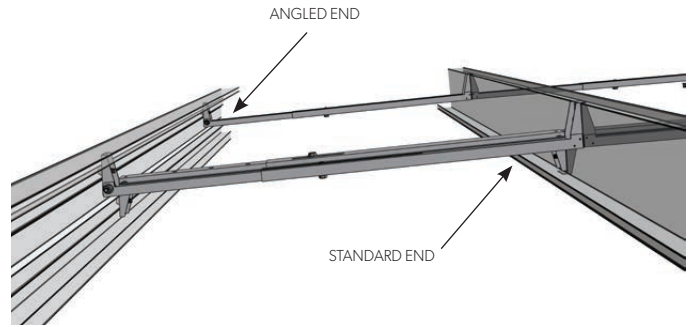
FIGURE 3.1-2:



Step 1: Install the SUPABRIDGE™ fascia bridging member temporarily inserting a M12 purlin bolt through the bracket and first purlin, adjust the opposite bracket to the fascia purlin angle and bolt the opposite end to the fascia purlin. Check purlin alignment and adjust the telescopic SUPABRIDGE™ member as needed. Tighten bolts including the adjusting bolt between the bracket and channel to Snug Fit*. Install 1 x 14 - 10 x 25 Shed Tek screw to each face beside the adjusting bolt to 'lock in' the angle.

*Snug Fit as described in AS4100-1998 Section 15.2.52

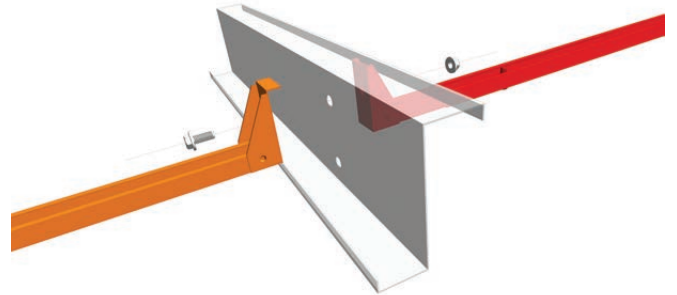
FIGURE 3.1-3:
SUPABRIDGE™ fascia purlin installation



Step 2: Moving to the next up-roof purlin bay, Install the standard SUPABRIDGE™ bridging member by resting the locator end over the holes of the next purlin, then bolt the opposite end to the 1st purlin and SUPABRIDGE™ fascia bridging member. Check purlin alignment and adjust the telescopic SUPABRIDGE™ member as needed.

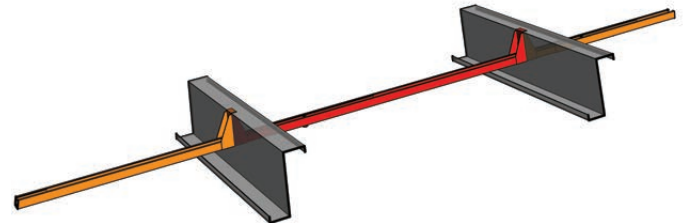
FIGURE 3.1-4:
SUPABRIDGE™ purlin connection

FIGURE 3.1-5:



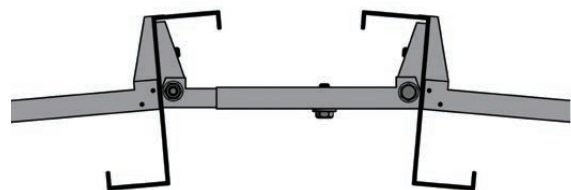
Step 3: Repeat step 2 up the roof line until reaching the Ridge Purlin. Install the SUPABRIDGE™ ridge purlin member, installing the down roof bolt only. Then install the next down roof SUPABRIDGE™ member on the other side of the roof and install the M12 to both the SUPABRIDGE™ ridge purlin member and standard SUPABRIDGE™ member. Tighten bolts including the adjusting bolt between the bracket and channel to Snug Fit*. Install 1 x 14 - 10 x 25 Shed Tek screw to each face beside the adjusting bolt to 'lock in' the angle.

FIGURE 3.1-6:



SUPABRIDGE™ ridge member installation

Step 4: Continue down the roof as per steps 1 to 3.



Step 5: Repeat steps 1-4 for the full roof area.

3.2 ROOF SAFETY WIRE

Step 6: Install roof safety wire :- Locate wire and wire trolley on roof purlins. Connect wire to 1st SUPABRIDGE™ member as per AS/NZS 4389-2015 and roll out along purlin run. Repeat and continue for entire roof.

FIGURE 3.2-1:

Connect roof safety wire to SUPABRIDGE™ end piece as per AS/NZS 4389-2015

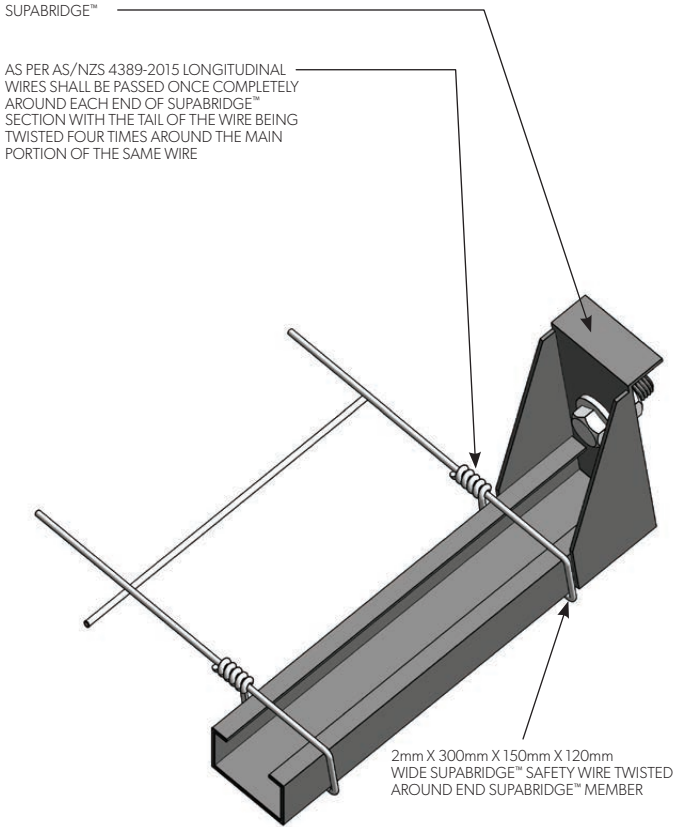


FIGURE 3.2-2:
Roof wire trolley



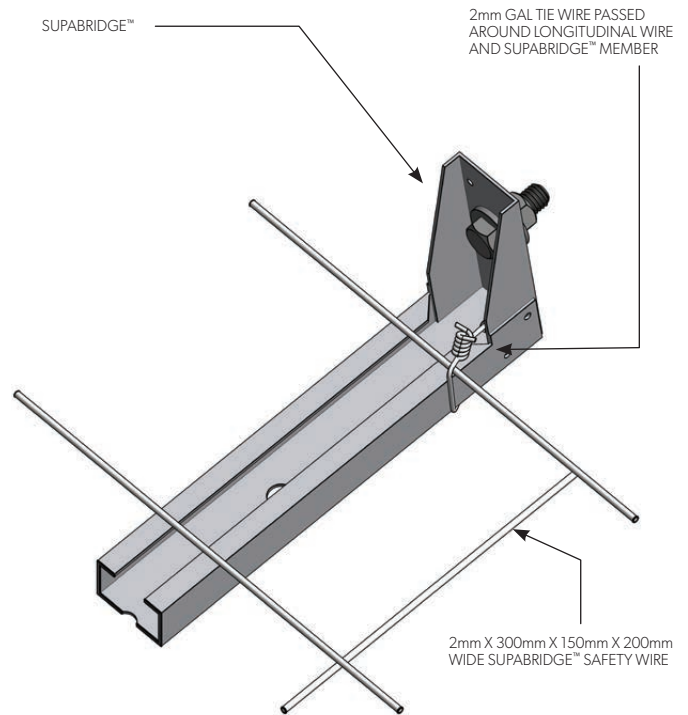
NB: 1300mm purlin centres will allow for unimpeded wire installation. For smaller purlin centres cut roofing wire to size on the ground before placing on the roof.

Safety wire to be connected to each SUPABRIDGE™ member as per Figure 3.3.2 with 2mm gal wire.

FIGURE 3.2-3:

Roof safety wire connection at intermediate SUPABRIDGE™ supports

WIRE INSTALL - CENTRAL SUPABRIDGE™



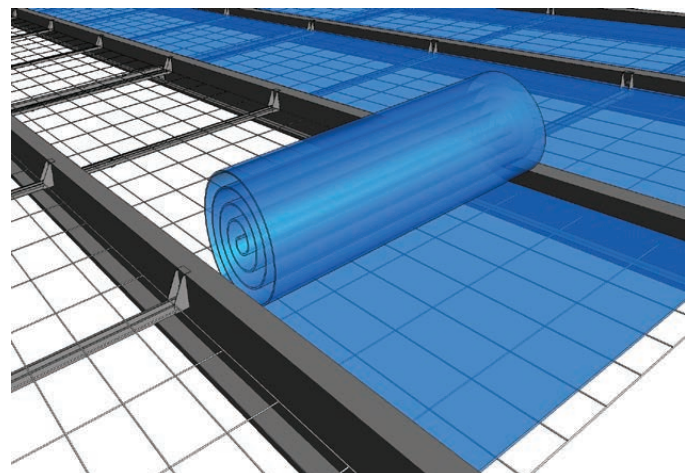
3.3 INSULATION

Step 7: Roll out selected SUPATHERMIC™ insulation over roof safety wire taking care to lay reflective silver side down and non-reflective gold face upward. The sarking foil facing can be neatly folded up 25mm on each side to fully cover the 1300mm space.

If required install SUPATHERMIC™ - TBS 4410 thermal break tape to SUPAPURLIN® top flange then roll out SUPATHERMIC™ - 11 insulation over roof across SUPAPURLIN® from ridge to fascia. Overlap and tape joints as per AS 4200.2.

FIGURE 3.3-1:

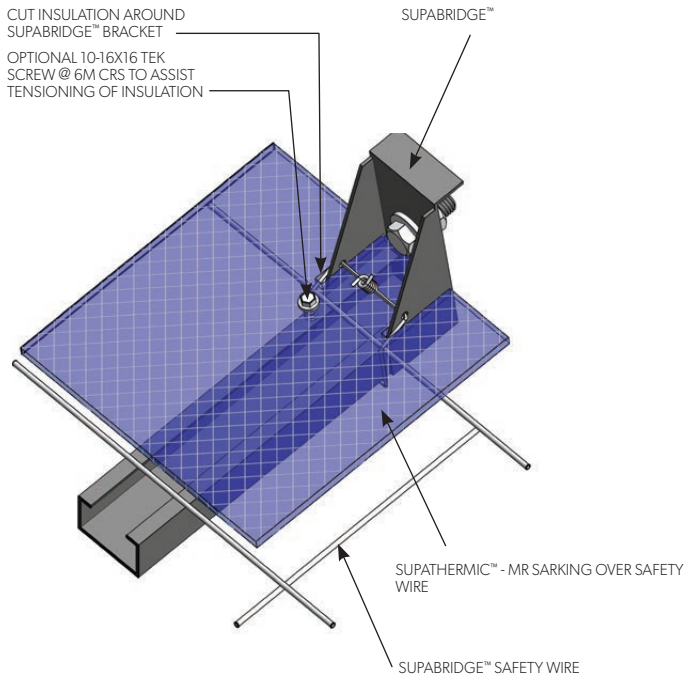
Roll out between purlins



SUPATHERMIC™ - MR Sarking maybe screw fixed to SUPABRIDGE™ members during installation to aid placement as shown at Figure 3.3.2

FIGURE 3.3-2:
Optional SUPATHERMIC™ - MR Sarking fixings

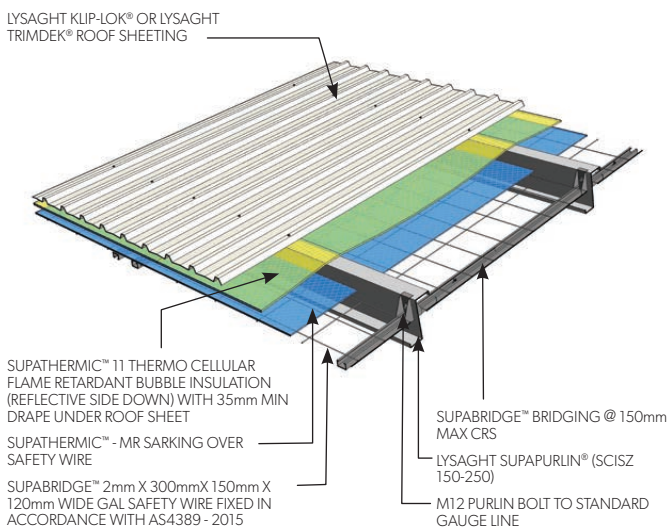
INSULATION INSTALL



Step 8: Install specified Lysaght Roof sheeting as per published recommendations.



FIGURE 3.3-3:
SUPABRIDGE™ component layout



PAGE 6:6
 LYSAGHT SUPABRIDGE® INSTALLATION GUIDE

**FOR DETAILED PRODUCT INFORMATION,
 MANUALS AND PROJECT CASE STUDIES VISIT:**

WWW.LYSAGHT.COM

® product and product brand names are registered trademarks and ™ product and product brand names are trademarks of BlueScope Steel Limited trading as Lysaght. © BlueScope Steel Limited August 2022 ABN 16 000 011 058. All rights reserved.



**A division of
 BlueScope**

INSPIRATION TO BUILD BETTER

LYT0186 - 08.22