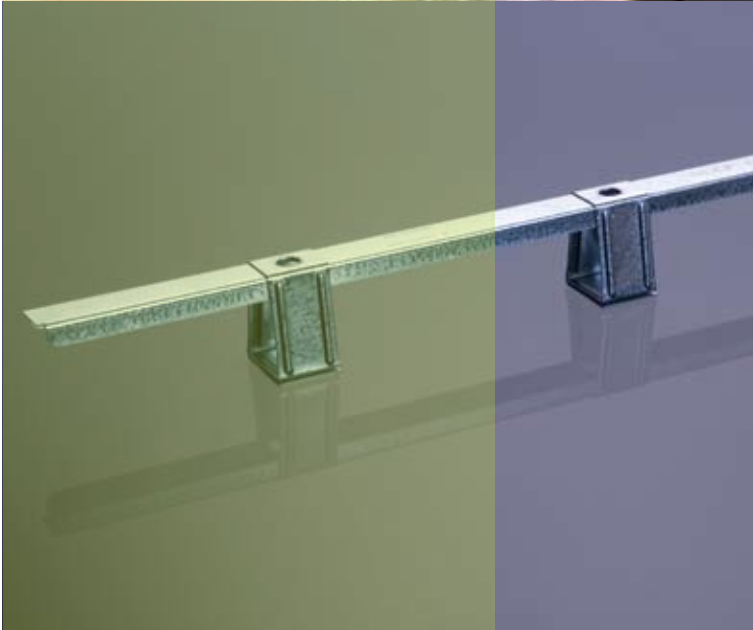
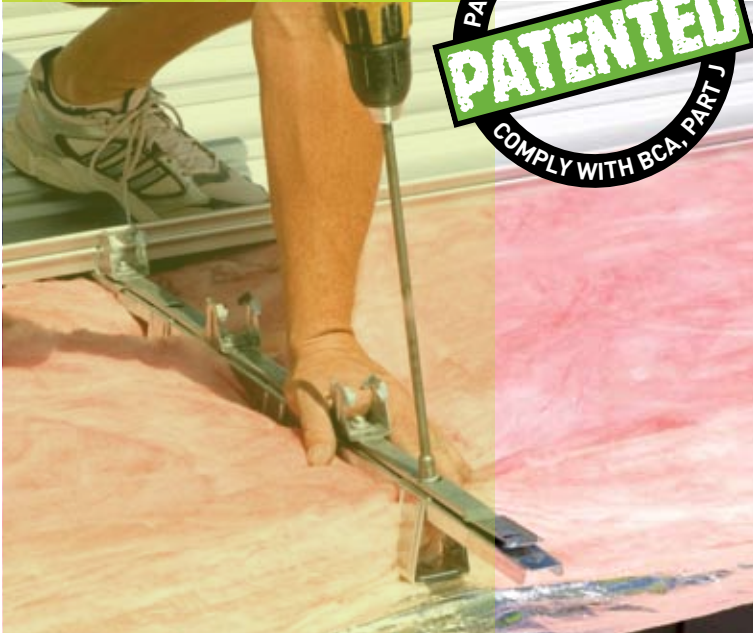


Roof Rack™

Raising metal roofs
to new heights

**ROOF
RACK**
▲▲▲

PATENTED SOLUTION TO
PATENTED
COMPLY WITH BCA, PART J



Fletcher™
Insulation

*Creating an environmentally
sustainable future*

Roof Rack™ - The easiest way to comply with Part J of the BCA.

Q. The Problem

In 2006 the BCA (Building Code of Australia) introduced Energy Efficiency provisions for conditioned commercial buildings including minimum deemed-to-satisfy insulation levels.

In most climate zones in Australia a Total R-value of R3.2 (heat down) is required to be achieved for the roof. These provisions apply to class 5 to 9 buildings including offices, shops, warehouses, hospitals and assembly buildings with a conditioned space.

There are numerous ways that the insulation requirements for metal roofs can be met. The most popular building method in Australia is installing a foil-faced glasswool building blanket, such as *Permastop* or *Vapa-Chek*, directly under the metal roofing. This system has become the standard due to its ease of installation, proven insulation performance and cost effective nature.

To achieve the requirements of Part J in the BCA of Total R-Value of R3.2 (heat down) in climate zones 1 - 6, Fletcher Insulation recommends the use of 100mm *Permastop* or *Vapa-Chek*. However, the insulation blanket must be able to recover to its full nominal thickness. In the past the safety wire mesh had been allowed to sag in between the purlins to allow for the insulation to recover below the purlin line.

Due to an increased focus on safety this practice is not ideal and there is now a need to create space above the purlin line for the insulation blanket to recover to its full nominal thickness.

The ideal solution will create the space required for insulation blanket to recover without compromising the integrity of the roof system or hampering existing installation methods in a way that reduces productivity.

A. Roof Rack™

Fletcher Insulation has developed a patented *Roof Rack* spacer to solve this problem in a simple and cost effective manner. *Roof Rack* creates the space needed for glasswool insulation blanket to recover to its full nominal thickness which is required to achieve a Total R3.2 rating.

Ideally *Roof Rack* spacers are attached to the rollformer's concealed fixed clips off-site to maintain speed and productivity of the installation. Once attached the assembled unit is simply fixed to the purlins in the usual manner using standard self drilling roofing screws. Roofers will need to use a socket to fix the *Roof Rack* to the purlin. *Fletcher Insulation* recommends the use of a 5/16" Hex drive socket for this. Note that the *Roof Rack* can also be installed on the roof by itself and the concealed fixed clips attached thereafter, but this would add an additional step which would reduce the productivity of installation.

Using *Roof Rack* as prescribed allows roofers to pull the safety mesh taut improving both worker safety and the finished appearance on the underside of the roof.

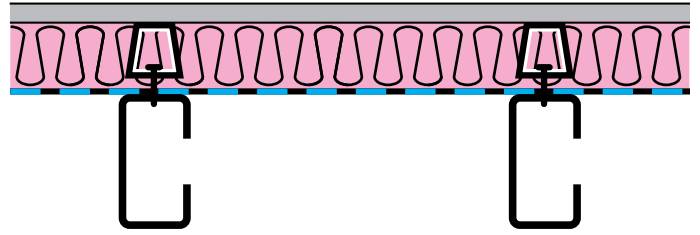
Roof Rack is simple to install, safe to work with and fast to use, but most importantly when used in conjunction with *Permastop* or *Vapa-Chek* foil faced roofing blankets it is the easiest way and the answer to achieving compliance with Part J in the BCA.



Application: Warehouse flat metal roof 0 to 5° pitch

Install 100mm *Permastop* or *Vapa-Chek* foil faced roofing blanket over the purlins after Safety Mesh has been secured. The foil facing should face down and will act as a vapour barrier. (Note - for tropical conditions an alternate installation method is recommended. Contact *Fletcher Insulation* for details). *Fletcher Insulation Roof Rack* (with concealed fixed clips already attached) should then be placed on top of the blanket and secured to the purlin using standard roofing screws as per roof manufacturer's recommendation. The roofing can then be secured to the clips as normal. This roof system will achieve the following Total R-values.

TOTAL R-value 100mm = R 2.9 (Winter) R 3.2 (Summer)



Key Benefits

- No need to change method of fixing roof panels.
- *Roof Rack* is a PATENTED insulation spacer and is endorsed by all leading roofing manufacturers.
- Install *Roof Rack* over 100mm *Permastop* or *Vapa-Chek* roofing blanket to comply with energy efficiency requirements in Part J of the BCA.
- No loss in productivity when pre-assembled.
- Roofing clips can be fixed to *Roof Rack* off-site or on the roof.
- *Roof Rack* uses standard small self drilling screws.
- *Roof Rack* is made from high tensile galvanized steel.
- *Roof Rack* COVER PLATES are used with pierce fixed roofs.

Proven Performance

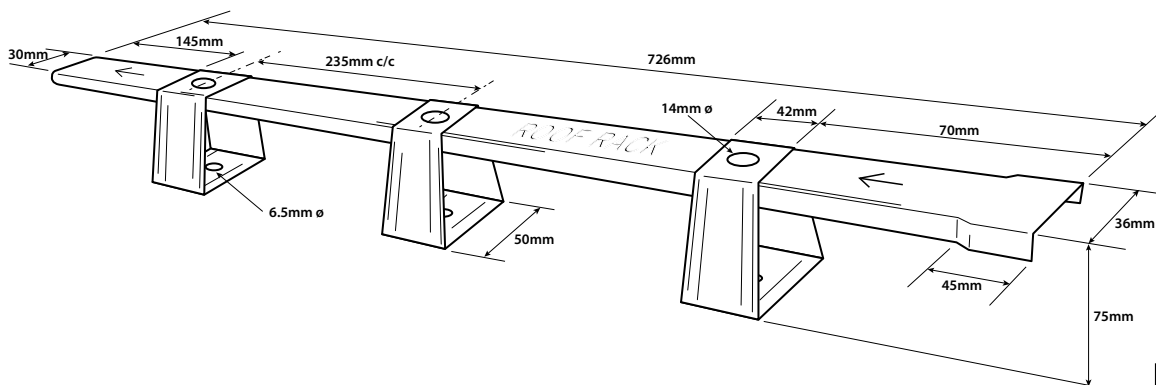
Roof Rack spacers have been tested at NATA accredited laboratories (with and without concealed roof sheeting attached) for wind uplift, serviceability and foot traffic / load limits according to AS1562.1. Testing demonstrated that the use of *Roof Rack* does not diminish the performance of concealed fixed roofing systems.



Material Specifications

Roof Rack is made from using high tensile BlueScope galvanised steel. The top channel is manufactured from 1.2mm, G50

(500MPa yield) with AZ150 (150g/m² coating mass). The legs are manufactured from 1.2mm, G2 with AZ150.



Height: 75mm
Length: 726mm
Weight: 675 grams
Clips Per Box: 20

Steeline

Metroll

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RACK**
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Testimonials

John McLanders (Marketing Manager)
– Stramit Building Products

Fletcher Insulation Roof Rack maximizes a buildings Energy Efficiency with a simple but robust product. A great result for roofers, architects and specifiers all over Australia.

Michael Celeban (Technical Support Manager)
– Bluescope Steel Lysaght

The requirement of BCA Part J Thermal efficiency is causing a lot of issues these days. I believe the Roof Rack is a long term solution for durability and rigidity.

Gavin Jones (Managing Director)
– Steeline Metal Roofing

With the use of the new Roof Rack, roofers can now confidently use thicker insulation to maintain the higher R-ratings of the insulation and make the sheet laying process much easier.

Kym Townley (General Manager - Sales)
– Fielders Australia

Roof Rack has undergone rigorous testing and at last we have a product that is commercially available and sets the standard for achieving compliance with the BCA's Energy Efficiency provisions.

Ray Jones (Executive Manager)
– Metal Roofing & Cladding Assoc. (MRCAA)

Roof Rack is a long term alternative for the industry and I believe that this has covered all the requirements of Section (Part) J of the BCA.

Chris Brown-Price (Roofing Sector Manager)
– OneSteel (Wire Mesh)

By using Roof Rack spacers the wire mesh can be used as it was intended - laid taut as a fall barrier, without compromising the insulation performance.

Steven Buckley (Regional Sales Manager)
– ITW Buildex

As a long term solution the Roof Rack appears to be the best option that's on the market. The advantages over the other products is its ease of application, and the availability and suitability of fasteners that are used.

Shane Lindley (Roofer)
– Direct Metal Roofing

The Roof Rack is a quick, easy and safe new way of laying roofs. Time wise there is no difference and you've still got all the benefits of the insulation.

Roof Rack Accessories

Roof Rack End Clips are used at the start and end (if required) of each purlin to provide extra support - refer to the installation instructions for more details.



Roof Rack Cover Plates are attached to standard Roof Rack spacers for use with all major pierced fixed roofing systems - refer to the installation instructions for more details.



Compatible Roof Systems

Roof Rack is suitable for use with the following concealed fixed roof systems

- > Lysaght Klip-Lok® 700
- > Stramit Speed Deck Ultra®
- > Fielders King Klip® 700
- > Steeline Lokdek® 680
- > Metrol Metlok® 700

- Please refer to the detailed installation instructions for the correct fixing of Roof Rack spacers.
- Standard Roof Rack spacers are not suitable for use in cyclonic areas. New cyclonic rated Roof Rack spacers will be available soon.



NEED HELP? For further information on Total R-value calculations for typical roof and wall systems performance please contact Fletcher Insulation's Specifier Advisory Service Team on:

TECHNICAL - 1800 000 878 SALES - 1300 654 444

info@insulation.com.au www.insulation.com.au

Additional assistance on Total R-values can also be found in the ICANZ Insulation Handbook at www.icanz.org.au

Fletcher[™]
Insulation

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