

INSULATION SPACERS

for commercial metal roofing



- Boasts an impressive national reputation built on ease and speed of installation
- Designed and manufactured specifically to meet Australian conditions, including options tested for cyclonic regions
- Reliable, with proven performance - manufactured in Australia since 2009
- Nationwide distribution and in-field support from market leader, Fletcher Insulation

With one of Australia's widest distribution and sales coverage networks, Fletcher Insulation provides energy efficient and acoustic solutions to the residential, commercial and industrial markets. We manufacture and distribute the widest range of insulation products specially designed for thermal and acoustic systems.

At the forefront of innovation and development of new trends, cost effective and compliant products, Fletcher Insulation remains committed to offering valuable service to the architectural and specifier market. Our national sales force has the experience and knowledge to provide assistance for any project or development to meet fire resistance, acoustic and energy efficiency performance requirements.

The commercial roofing building sector demands products that enable buildings to meet stringent requirements set out in the Building Code of Australia (BCA) for thermal, acoustic and fire performance. Our extensive product range, **now featuring Roof Razor™**, ensures we are able to supply the most suitable product for any application.

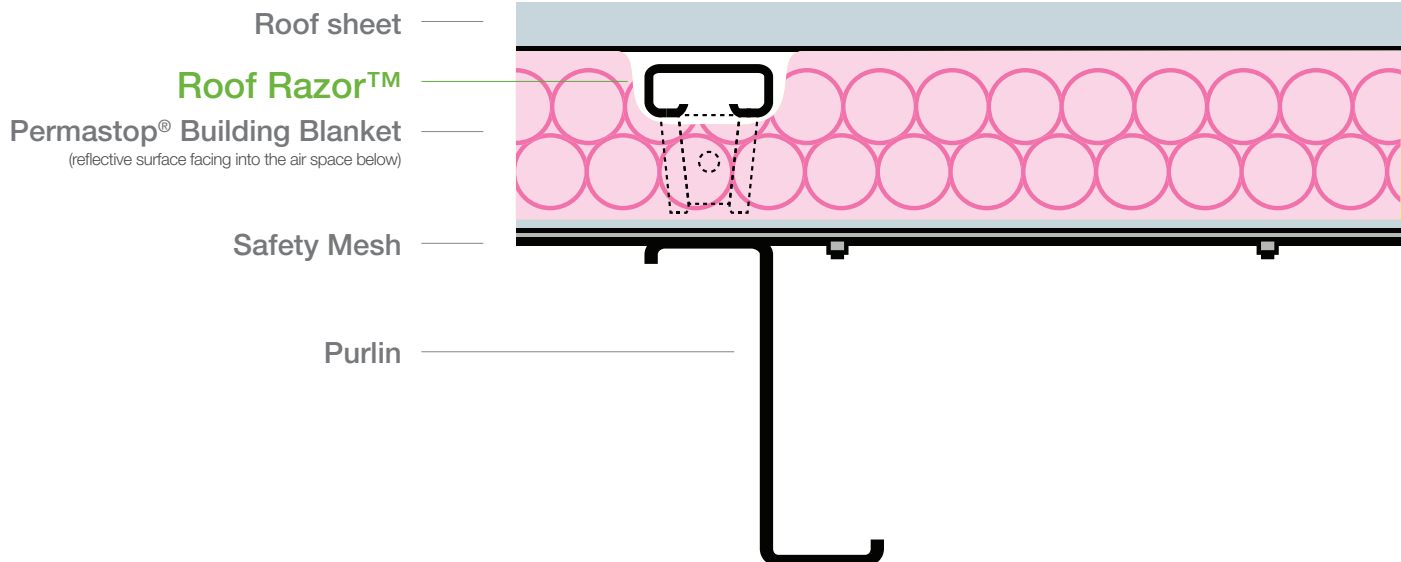


Fletcher Insulation presents Roof Razor™



Roof Razor™ is an insulation spacer specifically designed for Australian metal roof construction. It sits between the roof structure and the external cladding membrane, creating a space for insulation to recover to its full nominal thickness between the purlins. Roof Razor™ is a solution to the Section J requirement of the Building Code of Australia (BCA) that insulation must maintain its position and thickness between purlins. Roof Razor™ insulation spacer is compatible with both pierced and concealed fix roof cladding and is suitable for use on roofs with a pitch up to and including 30 degrees.

Typical Roof Razor™ system cross section



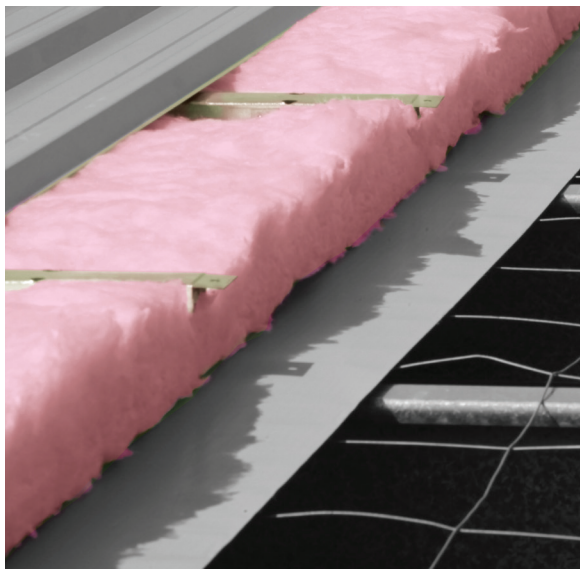
WHAT IS UNIQUE ABOUT ROOF RAZOR™?

The Roof Razor™ design philosophy is to achieve the highest product performance possible, whilst simultaneously reducing installation and unit costs through thoughtful design. As such, Roof Razor™ boasts an impressive national reputation built on ease and speed of installation and seamless compatibility with all relevant insulation blankets and roof cladding profiles. Roof Razor™ gives the appearance of a purlin on top of the blanket.

Roof Razor™ is easy to install due to the fasteners being pre-loaded into the unit and the system is comfortable to walk on once installed.

Compared to most competing products, the patented design offers the least amount of compression of insulation atop the purlin allowing for the highest possible thermal performance.

As the name suggests, Roof Razor™ cuts through insulation to give a direct connection to the purlin. There is no compressed glasswool at the join ensuring that over time the bracket will not loosen as a result of vibration and movement.



THERMAL PERFORMANCE

When compared to other spacers on the market, Roof Razor™ stands alone in that it cuts through the wool, drastically minimising the amount of compressed insulation atop the purlin.

THE FOLLOWING THERMAL PREDICTION TABLE CAN BE USED AS A PRODUCT SELECTION GUIDE AND ASSUMES THE FOLLOWING:

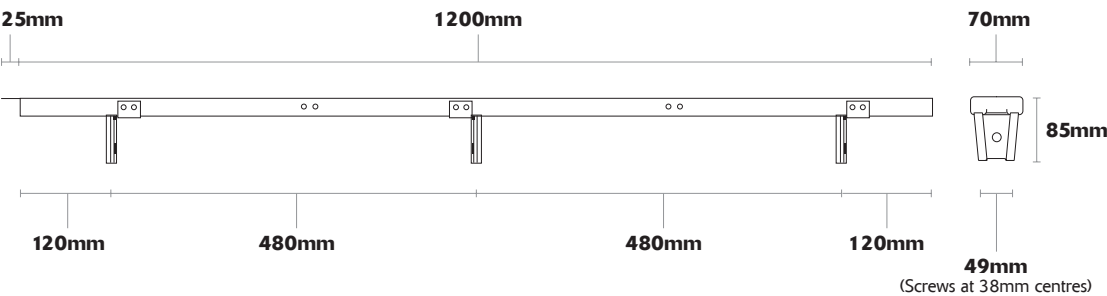
- Non-ventilated flat metal roof, no ceiling
- Safety mesh
- Permastop® Building Blanket with reflective foil underside

INSULATION THICKNESS (MM)	MATERIAL R-VALUE	SYSTEM TOTAL R-VALUE WINTER (UP)	SYSTEM TOTAL R-VALUE SUMMER (DOWN)	ROOF RAZOR™ HEIGHT REQUIRED
100	2.5	2.9	3.2	85mm
130	3.0	3.4	3.7	115mm
130	3.2	3.6	3.9	115mm
130	3.6	4.1	4.2	115mm

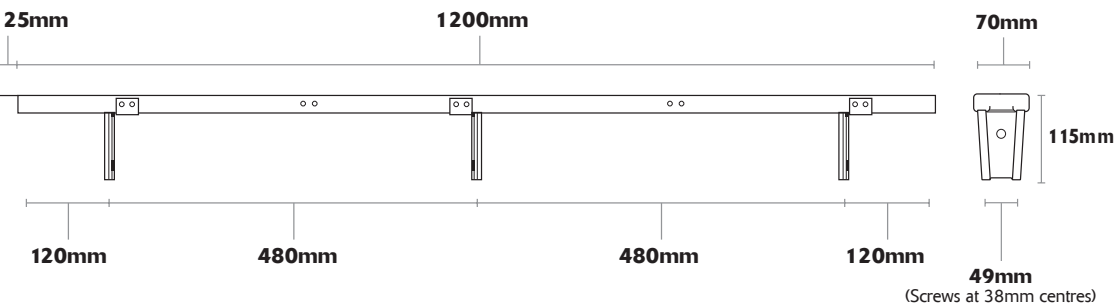
NB: The above table is a guide only, refer to insulation manufacturer's product specifications to confirm Material R-Value at the specified thickness.

ROOF RAZOR™ IS AVAILABLE IN TWO HEIGHTS TO SUIT MOST COMMONLY USED BLANKET THICKNESSES

85MM HIGH TO SUIT BLANKETS 100–120MM



115MM HIGH TO SUIT BLANKETS 130–145MM



ROOF RAZOR™ CYCLONIC

To battle Australia's cyclonic regions, Roof Razor™ CYCLONIC is Low High Low (LHL) tested and boasts an increased fastener yield capacity to satisfy wider purlin spacings.

FASTENER YIELD CAPACITY

NON-CYCLONIC

0.583 kN per 12 gauge 14 TPI fastener

CYCLONIC

1.43kN per 14 gauge 10 TPI fastener

Roof Razor™ CYCLONIC is equipped with an extra batten insert to increase the fastener yield capacity and is pre-loaded with 6 x 14 gauge 10TPI class 4 fasteners.

COMPLIANCE

- ✓ Compliant with section J of the BCA
- ✓ Structurally engineered and certified for use
- ✓ Roof Razor™ Cyclonic is LHL tested
- ✓ Safety mesh can be installed taut
- ✓ Compatible with both pierced and concealed fix roof cladding

OTHER BENEFITS

- ✓ Compatible with polyester blanket, Roof Razor™ pinches the blanket tight so the fastener can puncture the polyester without becoming tangled
- ✓ Manufactured and assembled locally in Australia
- ✓ Low environmental impact, recycled packaging materials and minimal cardboard packaging

TECHNICAL DATA SPECIFICATION TABLE

	STANDARD	CYCLONIC
Cover	1200mm	1200mm
Weight	2kg	3kg
Wind Regions	A&B Fastener yield capacity, 0.583 kN per 12g 14 TPI	C&D Fastener yield capacity, 1.43 kN per 14g 10TPI
Fastener yield capacity	0.583 kN per 12g 14TPI	1.43 kN per 14g 10TPI
Batten material	1.15BMT G550 Z275	1.15BMT G550 Z275
Cyclonic insert	N/A	1.15BMT G550 Z275
Fasteners	6 x 12g 14TPI Class 4	6 x 14g 10TPI Class 4
Minimum purlin thickness	1.2 BMT	1.5 BMT
Minimum purlin width	50mm	50mm
Fastener centres	38mm	38mm
Dead load capacity	205kg	205kg
Pack QTY	6	6
Pallet QTY and weight	180 (30 packs), 400kg	180 (30 packs), 540kg
Pallet dimensions l x w x h (m)	Roof Razor™ 85mm - 1.15 x 1.25 x 0.80 Roof Razor™ 115mm - 1.15 x 1.25 x 0.98	Roof Razor™ 85mm - 1.15 x 1.25 x 0.80 Roof Razor™ 115mm - 1.15 x 1.25 x 0.98

Installation guidance



3.1 An overlapping tab specifies where to position the consecutive Roof Razor™.



3.3 Fasteners are pre-loaded and provide easy access to the fastener head.



3.5 Roof Razor™ can be trafficked the same as a purlin.



3.2 Roof Razor™ spans the entire blanket width allowing for a direct line of sight to the purlin.



3.4 Roof Razor™ is wide and stable enough to walk and balance on.



3.6 A direct connection to the purlin gives a straight and consistent finish.



3.4

PREPARATION

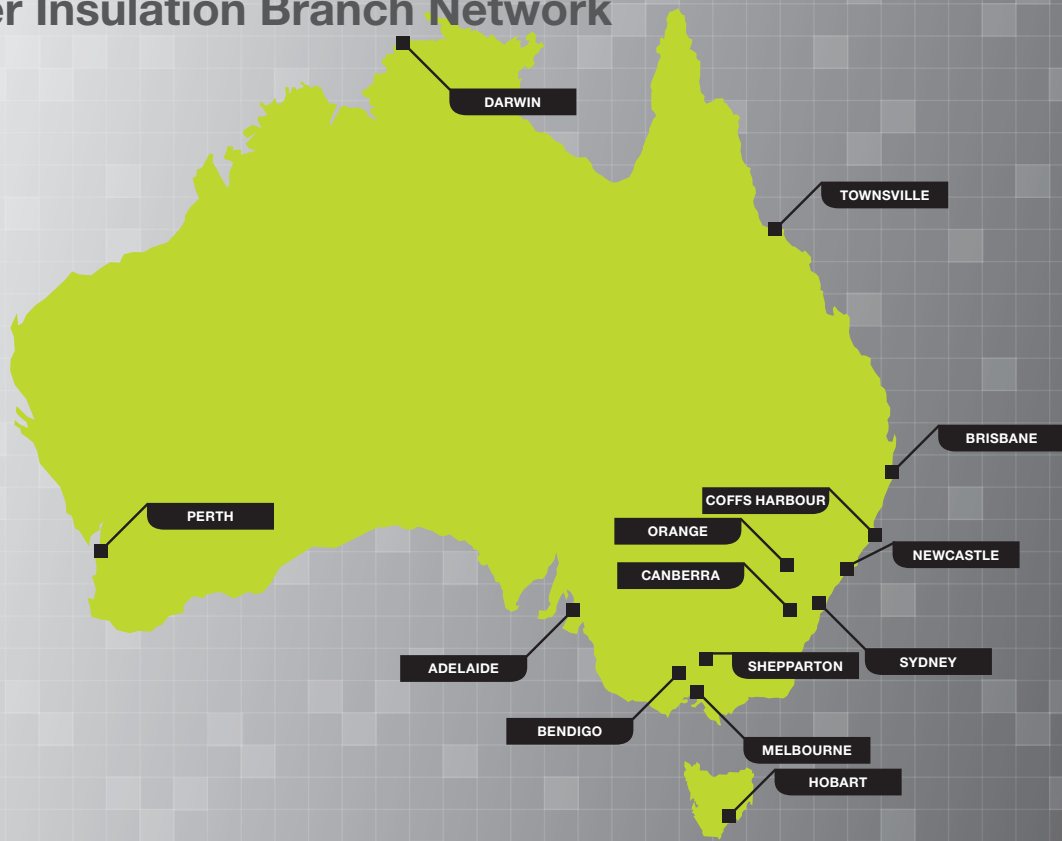
To install the Roof Razor™ system the following components are required:

- Assembled Roof Razor™ brackets
- Fasteners of at least 80mm length for Roof Razor™ 85 and at least 110mm length for Roof Razor™ 115 (unless supplied pre-loaded) being:
 - 12g fasteners for non cyclonic regions, 6 per bracket
 - 14g fasteners for cyclonic regions, 6 per bracket

PROCEDURE

- Install the safety mesh as per the manufacturer's instructions and in compliance with Codes and Regulations. The safety mesh can be pulled taut.
- Lay the Permastop® Building Blanket (reflective surface facing into the air space below) as per the manufacturer's instructions and in compliance with Codes and Regulations.
- Position the Roof Razor™ so that the end of its top channel is in line with the side edge of the Permastop® Building Blanket and is centred above and parallel to the top side of the purlin.
- Fasten the Roof Razor™ onto the purlin using the fixings provided. Firm downwards pressure will be needed to ensure contact of the fixing to the purlin through the Permastop® Building Blanket. Ensure all fixing screws are fastened.
- Lay the roof cladding as per manufacturer's instructions. For cyclonic regions, the fixings must penetrate the flat surfaces of both the Roof Razor™ top channel and the smaller channel reinforcement beneath it. Fixings must be in the centre of the channel with a variance of no more than 12mm to either side.
- When laying consecutive Roof Razor™ brackets, ensure that the tab from one end of the bracket slides completely into the flush end of the next. Abut the two brackets 'hard up' to avoid 'over running' the Roof Razor™ over long runs.
- The last Roof Razor™ on each run can be cut to length by way of a suitable metal cutting tool such as a saw or grinder. A vertical support bracket must be no greater than 120mm from the cut edge. The last vertical support bracket can be removed from the off cut and relocated as follows:
 - Remove the pre-loaded fasteners by unscrewing them from the vertical screw guide.
 - Using a flat edged tool such as a screw driver, disconnect the screw guide by using the tool as a wedge between the vertical flange of the screw guide and the side of the channel.
 - If the last set of pre-punched holes are within 120mm from the cut edge, relocate the bracket to these holes. If the last set of pre-punched holes are greater than 120mm from the cut edge, fix the top flat edge of the bracket to the underside of the channel with two fixings (one on either side of the underside of the channel). Use 2 x 12-14x25's for non-cyclonic and 2 x 14-10x25's for cyclonic regions (not supplied). Fix the bracket so that the pre-supplied fixing screws can be replaced into the bracket and so that the heads of the fixings clear the channel when installed.
 - Install fasteners as needed.

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NEED HELP?

For further information on Total R-value calculations for typical roof and wall systems performance please contact Fletcher Insulation on:

Phone: 1300 654 444 e: info@insulation.com.au w: www.insulation.com.au

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

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