

CYCLONE ASSEMBLY COMPONENTS

Comprising of self drilling screw & one piece cyclone washer

VORTEX CYCLONE UNIVERSAL SCREW

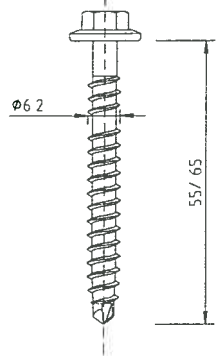
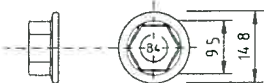
FOR METAL BATTENS, TIMBER BATTENS & STEEL PURLINS

M6 2-13 x 55 & 65mm

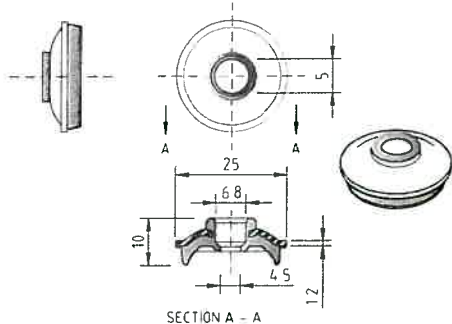
(HEAD MARKING B8, B8V)

All dimensions in mm (nominal)

Screws are Class 4 in accordance with AS3566

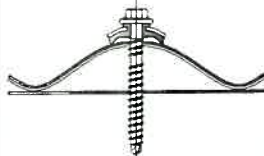


BREMICK BRA - CYCLONE WASHER / SEAL ONE PIECE ALUMINIUM / EPDM CYCLONE WASHER



FASTENING:

BSL CUSTOM ORB
0.42mm BMT G550 min.



FASTENING TO:

STEEL PURLINS
1.5mm BMT min. G450 min.
METAL BATTENS
0.75mm BMT min. G550 min.
TIMBER BATTENS
JD3 min.



FASTENING TO:

STEEL PURLINS
1.5mm BMT min. G450 min.
METAL BATTENS
0.75mm BMT min. G550 min.



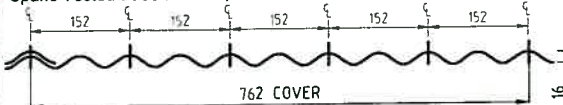
FASTENING TO:

STEEL PURLINS
1.5mm BMT min. G450 min.
METAL BATTENS

CORRUGATED ROOFING PROFILE - BSL CUSTOM ORB®

FASTENER SPACINGS

Crest Fastener Locations : Alternate Ribs (152mm Centres)
Spans Tested : 900mm End, 1150mm Intermediate, 900mm End



Supports	Crest Fixing	Side Lap Fixing
Steel Purins G450 1.5mm BMT min.	Bremick Vortex™ Cyclone	Bremick Vortex™ Stitch
Metal Battens 0.75mm BMT min.	M6 2-13x55 - BRA	M6 5-13x20 (900mm Centres min.)
Timber JD3 min.	M6 2-13x65 - BRA	

SQUARE RIB ROOFING PROFILES - BSL TRIMDEK®

FASTENER SPACINGS

Crest Fastener Locations : Each Rib (190mm Centres)
Spans Tested : 1200mm End, 1500mm Intermediate, 1200mm End

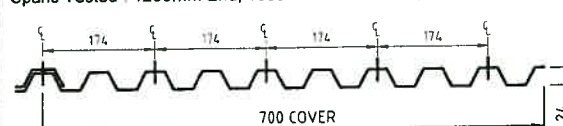


Supports	Crest Fixing	Side Lap Fixing
Steel Purins G450 1.5mm BMT min.	Bremick Vortex™ Cyclone	Bremick Vortex™ Stitch
Metal Battens 0.75mm BMT min.	M6 2-13x55 - BRA	M6 5-13x20 (900mm Centres min.)

SQUARE RIB ROOFING PROFILES - BSL SPANDEK®

FASTENER SPACINGS

Crest Fastener Locations : Alternate Ribs (174mm Centres)
Spans Tested : 1200mm End, 1500mm Intermediate, 1200mm End



Supports	Crest Fixing	Side Lap Fixing
Steel Purins G450 1.5mm BMT min.	Bremick Vortex™ Cyclone	Bremick Vortex™ Stitch
	M6 2-13x55 - BRA	M6 5-13x20 (900mm Centres min.)

Product Name

Vortex™ Cyclone - Cyclone Assembly

Product Description: Roofing Fasteners

M6.2-13x55 & 65 - BRA - Cyclone Assembly
With Lysaght Profiles

Manufacturer's Name:

BREMICK Pty Ltd
F1, 62 Maddox Street
Alexandria NSW 2015
Ph: 02 8332 1501
Email: sales@bremick.com.au

Design Criteria

Fastener & support spacing to be controlled such that the maximum design loading per fastener or maximum design pressures do not exceed:

Table 1 : Strength Limit State Design Loads per Fastener

Roofing Profile	Test Load (kN)	C.O.V. (K _f)	Design Load (kN)
Custom Orb®	0.88	1.30	0.68
Trimdek®	1.05	1.30	0.81
Spandek®	1.08	1.38	0.78

Table 2 : Strength Limit State Design Pressures

Roofing Profile	Test Pressure (kPa)	C.O.V. (K _f)	Design Capacity (kPa)
Custom Orb®	5.36	1.30	4.12
Trimdek®	4.04	1.30	3.11
Spandek®	4.49	1.38	3.26

Fixing of side laps with stitching screws is generally considered good practice during installation to maintain a weather-tight seal.

Limitations

This sheet confirms the structural adequacy of the roof sheeting assembly (sheeting, screw and washer) when correctly installed and does not extend to the capacity of the batten/purlin. Refer to the sheeting & batten manufacturers data for maximum support spacings. Axial withdrawal capacity for each fastener exceeds the 3 kN requirements of AS 3566.1: 2002 - Self-drilling screws for building and construction industries - General requirements and mechanical properties.

Strength limit state fastener loads have been derived from the test pressures using simplified static analysis with the uniform pressure (load) distribution.

The fastener is only applicable for use with BlueScope Lysaght cladding products with the conditions described in this data sheet.

Accepted for Inclusion

DTCM ref:

M/399/01

Chairman's Signature:

Chairman's Name: Paul Nowland

Date of Approval: 28/07/2021 Expiry Date: 28/07/2026

Testing was undertaken using fasteners with the "Revolution B8" coating system, indicated by the B8 & B8V head marking. Bremick fasteners has undertaken independent testing for "Revolution B8" coated fasteners in accordance to AS 3566: 2002 and has met and exceeded the requirements for Class 4 coating finish.

To achieve the required energy efficiency requirements, the use of an insulation spacer may be required. Refer to the roof sheeting manufacturers' recommendations of the particular roof profile insulation thickness combination. A longer screw of the same type may be required which will not impact on the capacity of the screw. As long as the major thread diameter clears the underside of the purlin to ensure maximum thread engagement.

Test Certificate Numbers

Eng Test Report No. CO90201, Low High Low Testing for Bremick Fasteners, 22 April 2009
Trevor John & Associates Report No: TR01 17 March 2009, TR03 20 March 2009, TR05 26 March 2009, TR07 250 March 2009 & TR11 19 March 2009.

BlueScope Lysaght Technology Centre Report No. BSC 11 March 2009

*Checking Engineers Certification

Name: LEO NOICOS
Registration Number: NER 70762
Date: 01.07.2021
Signature:

*registered as a structural engineer in Australia

*Certifying Engineers Certification

Name: Rachael Zeuner
NT Registration Number: 309710ES
Date: 5/7/2021
Signature:

*registered as a structural engineer in the Northern Territory