

# EXTREME WEATHER SCREW ASSEMBLY

**CYCLONIX**<sup>®</sup>

**APPROVED AND  
REFERENCED IN THE  
NT DEEMED TO COMPLY  
MANUAL (DTCM)**

ICCONS range of Cyclonix<sup>®</sup> Screw Assemblies have been specially engineered and proven suitable for Australia's most severe cyclonic regions. The selected ICCONS screws have undergone extensive and fully independent testing by The University of Adelaide (ENGTEST) and James Cook University (JCU) meeting or exceeding all current relevant Australian Standards for both strength and serviceability.

A select range of ICCONS Cyclonix<sup>®</sup> Screw Assemblies have also been approved and are now listed in the NT Deemed to Comply Manual (DTCM). The DTCM is referenced in the NCC (National Construction Code) Volume 2, Part 3.10.1 as an acceptable construction manual for high wind areas. The DTCM contains products and systems that have been approved by the NT Building advisory Committee (BAC). Approved Deemed to Comply Sheets (drawings) can be used and/or accepted by architects, builders, building certifiers and engineers for design and comply with the structural requirements of the NT Building Act.

To obtain a copy of the ICCONS DTC sheets (drawings) please contact your local ICCONS representative or visit the NT Building Advisory Committee website  
<http://www.ntlis.nt.gov.au/deemedtocomply/>

One piece washer assembly for both  
Corrugated and Square Rib Roofing Sheet Profiles



**NAUTILUS**<sup>®</sup>  
**XTEND**<sup>™</sup> 4



6 Star EPDM Sealing Washer and Pressure Plate design for  
optimum water tight security

Independently Tested and conforming to all current relevant Australian Standards

## 6 Star EPDM Sealing Washer and Pressure Plate Assembly

★ EPDM bonnet designed to suit the underhead profile of the Cyclonix® screw

★ Aluminium Series 5000 pressure plate for high tensile and yield strengths

★ Tapered Angle prevents washer spew

★ Inner ring seals against screw shank

★ Deep inner sealing ring for additional watertight security

★ Thick outer seal provides a secure seal against all profiles

## EXTREME WEATHER SCREW ASSEMBLY

### CYCLONIX™ Decks

#### Washer Assembly material.

80 Shore Hardness Non – Conductive EPDM compound. In compliance with Bluescope™ Steel Technical Bulletin TB16 for Fasteners.

SDS and Type 17 Hex 3/8 Head with Top Shank Protection Teeth



### CURRENT INDUSTRY STANDARDS AND DESIGN CRITERIA

Products conform to the structural requirements of the National Construction Code Series (NCC) and the relevant Australian Standards:

- AS 1562.1 – 1992 (R2016 amdt. 1 – 1993, amdt. 2 1995, amdt. 2012 Design and installation of sheet roof and wall cladding
- AS 4040 – 1992 – Methods of testing sheet roof and wall cladding  
Part 0: Introduction, list of methods and general requirements  
Method 3: Methods of testing sheet roof and wall cladding – Resistance to wind pressures for cyclone regions, pressure test regime as per BCA Low-High-Low pressure sequence.

### CORRUGATED ROOF SHEETING (0.42mm BMT) - LYSAGHT

- Screw Assembly: ICCONS Cyclonix® 14-10x55mm SDS Hex Class 4  
Part No: SDHXTG14055C4X  
Purlin Type: C1501.5 1.5mm thick  
Test Reference Number: C140202-1
- Screw Assembly: ICCONS Cyclonix® 14-10x50mm Hex Type 17 Class 4  
Part No: T17HXTG14050C4X  
Batten Type: 45mm x 90mm MGP10 Timber  
Test Reference Number: C140202-5
- Screw Assembly: ICCONS Cyclonix® 14-10x65mm Hex Type 17 Class 4  
Part No: T17HXTG14065C4X  
Batten Type: 45mm x 90mm MGP10 Timber  
Test Reference Number: C140202-4

### (0.42mm BMT) - Steeline

- Screw Assembly: ICCONS Cyclonix 14-13x57mm Hex SDS Class 4  
Part No: SDHXUNI1457C4X  
Supports: 0.75mm BMT G550 top hat battens  
Test Reference number: TS1230

### TRIMDEK ROOF SHEETING (0.42mm BMT) - LYSAGHT

- Screw Assembly: ICCONS Cyclonix® 14-10x55mm SDS Hex Class 4  
Part No: SDHXTG14055C4X  
Purlin Type: C1501.5 1.5mm thick  
Test Reference Number: C140202-2
- Screw Assembly: ICCONS Cyclonix® 14-10x65mm Hex Type 17 Class 4  
Part No: T17HXTG14065C4X  
Batten Type: 45mm x 90mm MGP10 Timber  
Test Reference Number: C140202-3

### (0.42mm BMT) - Steeline

- Screw Assembly: ICCONS Cyclonix 14-13x57mm Hex SDS Class 4  
Part No: SDHXUNI1457C4X  
Supports: 0.75mm BMT G550 top hat battens  
Test Reference number: TS1231

ALL TESTED IN ACCORDANCE WITH THE ABOVE STANDARDS AND DEEMED TO MEET ALL REQUIREMENTS.

## CYCLONIX®

### Self Drilling Hex Head

#### ■ 14 Gauge - Category 4



NAUTILUS®  
EXTEND 4

IC Find #	Part No. IC4 Cyclonix Washer	Description	Head / Drive Type	Tested Base Material Thickness - Steel (mm)	Thread Length (mm)	qty	NT Deemed to Comply Manual	Tested to NCC LHL Regime
370X	SDHXTG14055C4X	14-10 x 55	Hex 3/8	1.5	32	500	✓	✓
374X*	SDHXTG14065C4X	14-10 x 65			42		✗	✗
378X	SDHXUNI1457C4X	14-13 x 57 for Metal / Timber	Hex 3/8	0.75	30	500	✓	✓

\*Part No. SDHXTG14065C4X is suitable for cyclonic applications subject to letter of opinion from FYFE Consulting Engineers (Ref. 51176-1) and approval by the designer responsible for the application. This part is not referenced in the NT Deemed to comply manual (DTCM).

## CYCLONIX®

### Type 17 Hex Head

#### ■ 14 Gauge - Category 4



NAUTILUS®  
EXTEND 4

IC Find #	Part No. IC4 Cyclonix Washer	Description	Head / Drive Type	Tested Min. Embed. Depth - Timber (mm)	Thread Length (mm)	qty	NT Deemed to Comply Manual	Tested to NCC LHL Regime
670X	T17HXTG14050C4X	14-10 x 50	Hex 3/8	35	35	500	✓	✓
674X	T17HXTG14065C4X	14-10 x 65			50	500	✓	✓
524X*	T17HX14075C4X	14-10 x 75				400	✗	✗

\*Part No. T17HX14075C4X is suitable for cyclonic applications subject to letter of opinion from FYFE Consulting Engineers (Ref. 51176-5) and approval by the designer responsible for the application. This part is not referenced in the NT Deemed to comply manual (DTCM).

**ICCONS® Nautilus® Self - Drilling Screws**

ICCONS® is proud to offer a range of high quality, corrosion resistant Self-Drilling Screws for the Australian marketplace. ICCONS® guarantees the Structural Integrity of the Nautilus® Self-Drilling Screws against the effects of corrosion or other metallurgical manufacturing defects. ICCONS® references International Standard ISO 9223:2012(E) as guidance for establishing the screw warranty periods and conditions within.

Atmospheric conditions, pollution levels, chemicals, humidity and wetness all have a large impact on the expected serviceable life of the screws. ISO9223:2012(E) provides guidelines to assist in determining the severity of the corrosive environment that the ICCONS® Nautilus® screws will be exposed to.

ICCONS® follows ISO 9223:2012 (E) Categories C2 to CX and will warrant the structural integrity of the screw and washer system for the period indicated in each category. It should be noted the ICCONS® Warranty covers the structural integrity and performance of the screw, and does not include the aesthetic appearance of the coating.

**Corrosivity Category - ISO 9223:2012(E) Annex C**

	<b>C2 Low</b>	<b>C3 Medium</b>	<b>C4 High</b>	<b>C5 Very High</b>	<b>CX Extreme</b>
<b>Exposure Type</b>	Temperate Low Pollution Short Term Wet	Temperate Mild Pollution Low Industrial	Temperate Mild Pollution Low Marine Mild Industrial	Subtropical High Pollution Mild Marine Severe Industrial	Tropical Climate Extreme Pollution Severe Marine Extreme Industrial
<b>Location Guidance</b>	20km from Ocean	3km from Ocean	1-3km from Ocean	150m from Ocean	Breaking Surf
<b>ICCONS® Screw Recommendation</b>	IC4	IC4	IC4	IC4	Nautilus® XTEND™ 5
<b>Coating</b>	<b>Warranty Period (years)</b>				
<b>NAUTILUS® XTEND™ 5</b> (IC5)	40	30	25	15	On Inspection
<b>NAUTILUS® XTEND™ 4</b> (IC4)	30	20	15	10	On inspection
<b>NAUTILUS® 4</b> (IC4)	30	20	15	10	On Inspection
<b>NAUTILUS® 3</b> (IC)	25	15	7	NR	NR

NR = Not Recommended  
Nautilus® XTEND™ 5 - Available on request.

Australian Standard AS/NZS 2312-2002 states that it is "very difficult if not impossible, to predict accurately the aggressiveness of a given environment and a certain amount of educated judgement is required to assess its Category, an inspection of the local environment, the building type and the condition of similar structures in the area is usually necessary.

Screw selection should always be suitable for both the application intended and be fully compatible for use with the other materials in the build. ICCONS® Nautilus® 4 screws are suitable for use with Bluescope® Zinalume®, ColorBond® and UltraSteel® cladding and roofing profiles.

The table above is meant as a guide only to aid in the selection of appropriate screw material / coating for the application and conditions of the intended use. Always check with recommendations from relevant roll formers for material compatibility, if unsure seek professional advice.



**ICCONS® WARRANTY is subject to the following conditions and limitations:**

- ICCONS® Screws not exposed to rain are required to be washed down every 6 months.
- For applications in coastal regions or where there may be heavy industrial pollutants (chemical plants, airports), ICCONS® screws should be washed down every 3 months.
- All ICCONS® roofing and cladding screws must be head marked IC4.
- ICCONS® screws must be installed correctly by use of a screw gun.
- Any warranty claim must be supported by full written details of the alleged defect, the date of installation, the application and build detail, location of the installation and proof of purchase.

ICCONS® Warranty does not apply and ICCONS® will not be made liable for (to the extent permitted by law) any defect or fault arising from the following conditions:

- Damage caused by exposure to chemical agents, fumes, soils, ashes, fertilisers, liquids and solids other than natural rain fall.
- Tempest, War or act of God.
- Over tightened incorrectly installed screws that fail due to stress fatigue.
- Incorrect screw selection for the application or the environment they are used in.
- Incorrect screw selection for the compatibility with other materials used in the build.

ICCONS® will warrant any screws that are deemed to be defective after inspection of the specific project and consideration of the above criteria.

To the extent permitted by law, ICCONS® will not be liable for any loss or damage caused (including consequential or special loss or damage) whether by negligence or otherwise which may be suffered or incurred by any person or which may arise directly or indirectly in respect of the supply or use of the products or otherwise under or in connection with the warranty.

Our Goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to have any goods repaired or replaced if the goods fail to be acceptable quality and failure does not amount to a major failure.

It is recommended that an appropriate screw gun with depth gauge and clutch setting be used.

**Recommended Drill Speeds**

Screw Type	RPM
Metal SDS	2500 rpm
Metal SDS - 5 Series	1800 rpm
Timber - Type 17	1500 rpm
Needle Point - Steel	2500 rpm
Needle Point - Timber	1000 rpm
Chipboard	1000 rpm

While the 'IC find' number makes selection easier, the part number is still helpful because it contains information about the screw i.e. type, gauge, length, coating etc. While a part number may seem more complex it need not be, so ICCONS® have devised this table to help understand the "ICFIND" numbering system.

**Example Part Number:****104W - SDHXC1016C4W**

104	W		SD	HX	C	10	16	C4	W
IC FIND	IC FIND SUFFIX		SCREW GROUP	DRIVE/HEAD STYLE	THREAD TYPE	GAUGE	LENGTH (MM)	COATING / MATERIAL	SUFFIX
100 - 499	W Washer		SD SELF DRILLING	HX Hex Head	C Coarse	06	VARIOUS	ZY Zinc Yellow	
500 - 699			T17 TYPE 17	WA Wafer Head	F Fine	07		ZC Zinc Clear	
700 - 899	NP Needle Point		BU Bugle Head	TG Top Grip	08	ZG Zinc Grey			
000 - 099	CB		FH Flathead	UNI Metal & Timber	10	C3 Class 3			
			CS Countersunk	5F #5 Series Fine	12	C4 Class 4			
			BH Button Head	WG Wing	14	SS Stainless Steel			
		PH Pan Head	SE Self Embedding						
			BB Bugle Baton						