The ICCONS® screw range is unique and innovative providing extensive solutions for steel and timber applications that can outlast the harshest Australian climate.

ICCONS® screws are manufactured using ISO 9001 accredited facilities and in accordance with the requirements set out in AS3566.1-2002 (Self Drilling screws for the building and construction industries – Part 1).

ICCONS® screws are designed to suit a wide range of applications and special care should be taken to ensure that the correct screw is selected for the given application. Information published in this document is based on testing conducted in accordance with AS 3566.1-2002 and an appropriate safety factor should be applied to the published ultimate loads.

ICCONS® screw technical data should also be reviewed and approved by a design professional responsible for the given application prior to product use.

GENERAL INFORMATION - Gauge Conversion

Gauge	6g	8g	10g	12g	14g
Dia. (mm)	3.5	4.2	4.8	5.5	6.3
Dia (inch)	9/64"	11/64"	3/16"	7/32"	1/4"

GUIDELINES FOR SELECTION OF FASTENERS BASED ON GALVANIC ACTION

BASE METAL	FASTENER MATERIAL		
	STAINLESS STEEL	GALVANISED STEEL	ZINC PLATED STEEL
AUSTENITIC STAINLESS STEEL (302/ 304/ 316)	A	ADE	ADE
FERRITIC STAINLESS STEEL (430)	A	ADE	ADE
ZINC & GALVANISED STEEL	C	A	A
STEEL & CAST IRON	B	AD	AD
LEAD-TIN PLATED STEEL SHEETS	B	ADE	ADE
BRASS, COPPER,BRONZE	B	ADE	ADE
ALUMINIUM & ALUMINIUM ALLOYS	B	A	A

WARNING: Corrosion potential may be increased by connecting dissimilar materials.

A = The corrosion of the base material is not increased by the fastener.
B = The corrosion of the base material is marginally increased by the fastener.
C = The corrosion of the base material may be markedly increased by the fastener.
D = The Plating on the fastener is rapidly consumed, leaving the bare fastener metal.
E = The corrosion of the fastener is increased by the base material.

Note: surface treatment and environment can change activity
The table above is meant as a guide only to aid in the selection of appropriate screw material / coating compatibility, if unsure seek professional advice.

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

SCREW TECH GUIDE

GENERAL INFORMATION - SDS Screws

Gauge	6g	8g	10g		12g			13g	14g	
TPI	20	18	16	24	14	24	24 5 series	13	10	20
Max. Drill Capacity steel	2.3mm	2.5mm	3.5mm	4.5mm	4.5mm	6.0mm	12.5mm	1.0mm	3.0mm	6.4mm

	Material 1022	Gauge	TPI	Steel Grade G450 Thickness	Ultimate Average Pull Out Load	Torsional Strength	Axial Strength	Single Shear Strength
				(mm)	kN	Nm	kN	kN
6 GAUGE	 1022	6	20	1.5	3.1	4.0	5.1	3.4
8 GAUGE	 1022	8	18	1.5	3.6	6.7	9.5	5.3
10 GAUGE	 1022	10	16	1.5	3.3	9.7	11.3	6.4
	1022	10	24	3.0	8.7	9.8	11.3	6.4
12 GAUGE	 1022	12	14	1.5	3.7	15.2	15.8	9.1
	1022	12	14	3.0	8.6	15.2	15.8	9.1
	 1022	12	24	3.0	10.7	14.6	17.1	9.0
	* = Axial Strength of Screw							
	 (5 series) 1022	12	24	6.0	17.1*	14.6	17.1	9.0
13 GAUGE	 1022	13	13	0.55	1.6	14.7	15.3	8.3
14 GAUGE	 1022	14	10	1.5	4.7	19.9	19.6	11.9
	 1022	14	20	3.0	10.8	20.8	21.5	12.45

GENERAL INFORMATION - Type 17 (Pine - MGP10)					
Gauge	6g	8g	10g	12g	14g
TPI	18	15	12	11	10
Min. Embedment	20	20	25	30	35

	Material 1022	*Gauge*	*TPI*	*MGP10 (Pine) Min Embedment*	*Ultimate Average Pull Out Load*	*Torsional Strength (Min)*	*Axial Strength*	*Single Shear Strength*
				(mm)	kN	Nm	kN	kN
6 GAUGE	 1022	6	18	20	2.3	2.7	4.8	3.1
8 GAUGE	 1022	8	15	20	2.7	4.4	9.1	5.1
10 GAUGE	 1022	10	12	25	3.2	5.4	11	6.2
12 GAUGE	 1022	12	11	30	4.0	9.4	15.5	9.1
14 GAUGE	 1022	14	10	35	4.7	14.1	19.6	11.5

NOTE: Ultimate average pull-out loads for SDS and Type 17 Screws must be divided by an appropriate safety factor in order to determine either design or recommended loads.

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					
	C2 Low	C3 Medium	C4 High	C5 Very High	CX Extreme
Exposure Type	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
Location Guidance	20km from Ocean	3km from Ocean	1-3km from Ocean	150m from Ocean	Breaking Surf
ICCONS® Screw Recommendation	IC4	IC4	IC4	IC4	Nautilus® XTEND™ 5
Coating	Warranty Period (years)				
NAUTILUS® XTEND 5 (IC5)	40	30	25	15	On Inspection
NAUTILUS® XTEND 4 (IC4)	30	20	15	10	On inspection
NAUTILUS® 4 (IC4)	30	20	15	10	On Inspection
NAUTILUS® 3 (IC)	25	15	7	NR	NR
Nautilus (FRIULSIDER COATING)	15	7.5	NR	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® screws are suitable for use with Bluescope® Zincalume®, 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.