

# **MRX**®

ONE-PIECE STAINLESS STEEL SELF DRILLING SCREWS





# MRX<sup>®</sup>

SUPERB DRILLING PERFORMANCE IN STEEL, ALUMINIUM AND EVEN STAINLESS STEEL

**CAPABLE OF SELF DRILLING INTO STAINLESS** STEEL MATERIAL **UP TO 2mm THICK** 



# **SUPERIOR DRILLING PERFORMANCE** COMPARED TO MRX<sup>®</sup> self drilling screws are **BI-METAL OR CARBON STEEL**

**SCREWS** 

**RANGE OF SIZES AVAILABLE FOR FIXING INTO MATERIAL THICKNESS FROM** 1.20mm-12.5mm

formulation of stainless steel alloy which unlike other forms of stainless steel, can be heat treated to obtain a hardness equivalent to tempered carbon steel screws. MRZ° is a "one-piece" magnetic stainless steel screw, where the entire effective length can be utilized.

**ONE PIECE** 

**STAINLESS** 

made from a unique

**STEEL** 

MRX<sup>®</sup> one-piece self drilling screws are engineered to exhibit superior drilling performance compared to other stainless self drilling screws and even carbon steel screws. With the capacity to self drill steel up to 12mm thick, MRX\* has proven itself as the market leader with more than 16 years experience in the toughest environments.

MRX° screws exhibit greater shear and pullout strength compared to equivalent sizes manufactured from carbon steel.

12mm

**MADE TO LAST** 



With the addition of Molybdenum, MRX\* self drilling screws feature corrosion resistance properties better than or equivalent to stainless steel grade 304. Molybdenum is the element that gives type 316 stainless its superior corrosion resistance.

Salt spray and Kesternich (sulphur dioxide) tests indicate the durability of MRX° is superior to 304 bimetal screws (stainless head/shank with welded carbon steel point), stainless steel grade 410 self drilling screws and mechanically galvanized or organically coated carbon steel fasteners.

**EXTENSIVE IN PLACE COST SAVINGS** COMPARED **WITH PRE-DRILLING THREAD FORMING SCREWS** 

**NO WELDS** 

**OR POTENTIAL** 

**WEAK SPOTS** 





The risk of fractures at welding seams (sometimes evident with bi-metal alternatives) is entirely eliminated.



ANTI-CORROSION PROPERTIES **EOUIVALENT TO 304 STAINLESS** 





NO **SURPRISES** 



You can always trust MRX° When the demands are high we can guarantee that MRX° will perform exactly as we promise. Every process is critically controlled to ensure high and consistent quality in material and performance.

**SPECIFIED IN MAJOR AUSTRALIAN &** WORLDWIDE **PROJECTS SINCE 1996** 



Look for the unique MRX° head mark for assurance and peace of mind in the toughest environments, available in a range of styles and sizes to suit every professional need. MRX\* has been supplied to many successful construction projects in Australia and throughout the world and is today specified by leading consulting engineers and construction companies.

SUPERIOR STRENGTH & PULLOUT COMPARED TO **BI-METAL OR CARBON** STEEL SCREWS



Look for the unique MRX° head mark





# **MECHANICAL PROPERTIES**

Size	Torsional Strength	Tensile Strength	Shear Strength							Pull-O Plate	ut Streng Thicknes	gth (kN) ss (mm)
Gauge	<b>⊘</b> (Nm)	<b>♦</b> (kN)	←→ (kN)	1.6	2.0	2.3	3.6	4.5	5.0	6.0	9.0	12.0
8	8.7	12.5	8.1	4.2	5.0	6.0	_	_	_	_	_	_
10	12.8	16.3	10.7	4.7	5.6	6.8	10.5	14.1	-	_	_	_
12	20.0	223	14.6	4.8	5.4	6.6	11.6	-	20.1	-	-	-
12 (Series 500)	22.0	23.5	15.8	_	-	-	_	14.3	_	18.0	25.7	25.7
14	31.0	30.3	19.8	5.4	7.2	7.9	12.1	17.5	22.5	27.0	-	-

The above figures are based on actual test data and are ultimate failure loads, not recommended working loads. For combined loading an engineer should be consulted. As metal properties may vary, the above figures should be used as a guide only.

#### Installation Instructions

It is recommended to use a screwdriver with depth gauge attachment that maintains RPM of 1500–2500 when fixing into steel less than 2.0mm thick and RPM of 1200–1800 when fixing into thicker material. Always use a sealing washer for external installation or where there is a risk of condensation or splash. Use a depth gauge for correct tightening, never over tighten screws.



## **CORROSION PROPERTIES**

#### Kesternich Test DIN 50018 (ISO6988)

Sample	Drill Point	Thread	Head
MRX*	No Rust	No Rust	No Rust
304SS Bi-Metal Type 1	> 50% RR	> 50% RR	25-50% RR 25-50% WR
304SS Bi-Metal Type 2	> 50% RR	10-25% RR 5-10% BR 5-10% WR	1–2% BR 5–10% WR

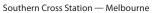
(Tested for 40 cycles of 8 hour duration in a saturated atmosphere with the presence of sulfur dioxide)

RR = Red Rust | BR = Black Rust | WR = White Rust

MRX" screws subjected to neutral salt spray test according to BS 7479:1991 (ISO 9227:1990) for up to 1000 hours showed no signs of corrosion.

MRX\* has high anti-corrosion properties however shouldn't be used where high levels of chlorine and humidity are present such as indoor swimming pool environments or where high levels of corrosional gas is present such as chemical plants or refineries.







Clem Jones Tunnel — Brisbane

# SUPERIOR SELF DRILLING PERFORMANC EXCEPTIONAL CORROSION RESISTANCE IN A CLASS OF THEIR OWN

				Threads		Max. Drill
Part no.	Description	Diam (mm)	Length (mm)	Per Inch (TPI)	Drive Type	Capacity (mm)



## HEX HEAD — MRX°

General purpos	se hex head screw for	fixing to stand	ard steel sectio	ns.		
	10.16 × 19mm	4.8	19	16	5/16"	4.0
SDHS10035	10.16 × 35mm	4.8	35	16	5/16"	4.0
SDHS12020	12.14 × 20mm	5.5	20	14	5/16"	4.5
	12.14 × 45mm	5.5	45	14	5/16"	4.5
SDHS12065	12.14 × 65mm	5.5	65	14	5/16"	4.5
	14.14 × 25mm	6.3	25	14	3/8″	6.0
SDHS14035	14.14 × 35mm	6.3	35	14	3/8"	6.0
SDHS14050*	14.14 × 50mm	6.3	50	14	3/8"	6.0
SDHS14060*	14.14 × 60mm	6.3	60	14	3/8"	6.0



### HEX HEAD — MRX® with Bonded Washer

Available with	a 16mm or 19mm OD	Aluminium or S	Stainless Steel b	onded wash	er.	
	10.16 × 19mm	4.8	19	16	5/16"	4.0
SDNS10035	10.16 × 35mm	4.8	35	16	5/16"	4.0
	12.14 × 20mm	5.5	20	14	5/16"	4.5
SDNS12045	12.14 × 45mm	5.5	45	14	5/16"	4.5
	12.14 × 65mm	5.5	65	14	5/16"	4.5
	14.14 × 25mm	6.3	25	14	3/8"	6.0
SDNS14035	14.14 × 35mm	6.3	35	14	3/8"	6.0
	14.14 × 50mm	6.3	50	14	3/8"	6.0
SDNS14060*	14.14 × 60mm	6.3	60	14	3/8"	6.0

\*Sizes available on order



## HEX HEAD SERIES 500 — MARUTEX®

Extended drill point for fixing to heavy gauge structural steel up to 12.0mm thickness.

S5HS12035	12.24 × 35mm	5.5	35	24	5/16"	12.0
S5HS12045	12.24 × 45mm	5.5	45	24	5/16"	12.0
S5HS12065	12.24 × 65mm	5.5	65	24	5/16"	12.0



# HEX HEAD SERIES 500 — MARUTEX® with Bonded Washer

Available with a 16mm or 19mm OD Aluminium or Stainless Steel bonded washer.

S5NS12035	12.24 × 35mm	5.5	35	24	5/16"	12.0
S5NS12045	12.24 × 45mm	5.5	45	24	5/16"	12.0
S5NS12065	12.24 × 65mm	5.5	65	24	5/16"	12.0

# E COMBINED WITH PUT MRX®

				inreads		Max. Drill
Part no.	Description	Diam (mm)	Length (mm)	Per Inch (TPI)	Drive Type	Capacity (mm)
i di ciio.	Description	(11111)	(11111)	(11.1)	Type	(11111)



# WAFER HEAD — MRX°

Broad wafer head for various sheet metal applications including architectural metal cladding.

SDWS10022	10.16 × 22mm	4.8	22	16	No.2 PH	4.0
SDWS10032	10.16 × 32mm	4.8	32	16	No.2 PH	4.0



# CSK (FLAT) HEAD — MRX°

Regular CSK head for a flush finish, suitable for fixing timber decking to steel sub-frame.

SDCS10032	10.16 × 32mm	4.8	32	16	No.2 PH	4.0
SDCS10038	10.16 × 38mm	4.8	38	16	No.2 PH	4.0
SDCS10050	10.16 × 50mm	4.8	50	16	No.2 PH	4.0
SDCS10064	10.16 × 64mm	4.8	64	16	No.2 PH	4.0



# CSK (FLAT) UNDERCUT HEAD — MRX°

10G screw with 8G CSK undercut head for applications requiring a very low and flush finish, suitable for hinge installation.

SDUS10020B 10.16 × 20mm 4.8 20 16 No.2 PH 4.0



# PAN HEAD — MRX°

Versatile and small pan head fastener for various sheet metal applications, also available with a square drive recess suitable for architectural metal cladding applications.

SDPS06013	6.20 × 12mm	3.2	13	20	No.2 PH	3.2
SDPS08013	8.18 × 13mm	4.2	13	18	No.2 PH	3.2
SDPS08016	8.18 × 16mm	4.2	16	18	No.2 PH	3.2
SDPS08019	8.18 × 19mm	4.2	19	18	No.2 PH	3.2
SDPS08019-sq	8.18 × 19mm	4.2	19	18	No.2 SQUARE	3.2
SDPS08025	8.18 × 25mm	4.2	25	18	No.2 PH	3.2





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ONE-PIECE STAINLESS STEEL SELF DRILLING SCREWS

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