



# PRODUCT DATA

## Tygabolt® Sleeve Anchor - 316 Stainless

The **Tygabolt®** is a fully-assembled single unit wedge-type anchors used in solid concrete applications. Fixing is achieved by controlled torquing of the nut which draws the cone section up in the sleeve, thereby expanding it outward and forcing the Tygabolt® against the sidewall of the pre-drilled hole.

Applications	
<ul style="list-style-type: none"> <li>• Hand rail fastening</li> <li>• Form-work support fastening</li> <li>• Mechanical, electrical and pipe bracket fastening</li> </ul>	

<b>Material</b>	 316 Stainless
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<b>Finish</b>	 316 Stainless
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Part	QFind	Diam (mm)	Length (mm)	Pack Qty
MTB16PM0650035	<b>MTB100</b>	6.5	35	100
MTB16PM0650055	<b>MTB101</b>	6.5	55	100
MTB16PM0800040	<b>MTB102</b>	8.0	40	100
MTB16PM0800060	<b>MTB103</b>	8.0	60	50
MTB16PM0800080	<b>MTB104</b>	8.0	80	50
MTB16PM1000050	<b>MTB105</b>	10.0	50	50
MTB16PM1000075	<b>MTB106</b>	10.0	75	50
MTB16PM100100	<b>MTB107</b>	10.0	100	25
MTB16PM1200060	<b>MTB108</b>	12.0	60	25
MTB16PM1200080	<b>MTB109</b>	12.0	80	25
MTB16PM120100	<b>MTB110</b>	12.0	100	20



### Features

- Suitable for light to medium duty loads
- Quick and easy to install
- Immediate loading is possible
- Expansion claws that prevent rotation during tightening
- Cold formed cone for efficient expansion of the sleeve

# TYgaBolt®

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Bolt Tension | Anti-Vibration | Product Reliability | Traceability

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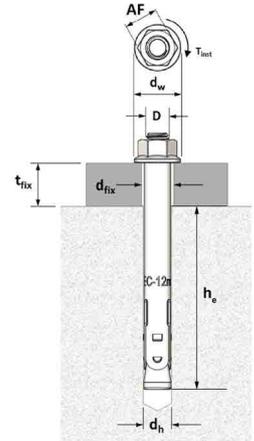


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### Installation Guide

Size	Thread Size	Hole	Minimum Depth	Hole on Fixture	Torque Guide	Wrench Size	Flange Head Diameter	Minimum Concrete Thickness	Minimum Spacing	Minimum Edge Distance
	D	d <sub>h</sub> (mm)	h <sub>o min</sub> (mm)	d <sub>fix</sub> (mm)	T <sub>inst</sub> (N-m)	AF (mm)	d <sub>w</sub> (mm)	h <sub>min</sub> (mm)	S <sub>min</sub> (mm)	C <sub>min</sub> (mm)
M5 x 6.5	M5	6.5	25	8	5	8	10.9	75	50	50
M6 x 8	M6	8.0	40	10	8	10	12.8	100	50	50
M8 x 10	M8	10.0	50	12	25	13	16.8	100	60	60
M10 x 12	M10	12.0	60	14	40	15	20.3	100	75	75



### Basic Load Performance in 32 MPa non-cracked concrete

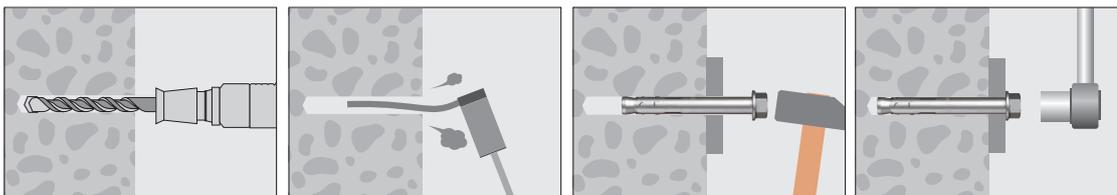
<sup>1</sup> Design Resistance is the governing minimum load resistance obtained by comparing relevant concrete and steel resistances. Strength reduction of  $\phi = 0.60$  for concrete and  $\phi = 0.80$  for steel are already included.

<sup>2</sup> Working Load is the governing minimum allowed load obtained by comparing relevant concrete and steel working loads. Factor of safety FOS = 2.5 for steel and FOS = 3.0 concrete are already included.

Size	Embedment Depth	Design Tensile Resistance <sup>1</sup>	Working Load in Tension <sup>2</sup>
	h <sub>o</sub> (mm)	∅ N <sub>d</sub> (kN)	N <sub>WLL</sub> (kN)
∅6.5 (M5)	25	3.6	2.0
	30	4.5	2.2
	40	4.5	2.2
∅8 (M6)	40	6.4	3.2
	60	6.4	3.2
	80	6.4	3.2
∅10 (M8)	60	11.7	5.8
	80	11.7	5.8
	100	11.7	5.8
∅12 (M10)	70	17.5	9.2
	90	18.5	9.2
	120	18.5	9.2

Size	Embedment Depth	Edge Distance	Design Shear Resistance <sup>1</sup>	Working Load in Shear <sup>2</sup>
	h <sub>o</sub> (mm)	c <sub>1</sub> (mm)	∅ V <sub>d</sub> (kN)	V <sub>WLL</sub> (kN)
∅6.5 (M5)	40	50	2.2	1.1
		60	2.2	1.1
		70	2.2	1.1
∅8 (M6)	50	50	3.2	1.6
		60	3.2	1.6
		80	3.2	1.6
∅10 (M8)	60	60	5.8	2.9
		80	5.8	2.9
		100	5.8	2.9
∅12 (M10)	70	75	9.2	4.6
		90	9.2	4.6
		120	9.2	4.6

### Installation



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