PRODUCT DATA

HOBSON ENGINEERING

Tygabolt® Flush Head Sleeve Anchor - Zinc Yellow

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

Applications
• Hand rail fastening
• Form-work support fastening
• Mechanical, electrical and pipe bracket fastening

Material	8.8	ISO Property Class 8.8

Finish	ZYP	Zinc Yellow Passivate

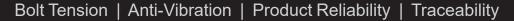| Part	QFind	Diam	Length	Pack Qty
		(mm)	(mm)	
MTH88YM080045	**MTH108**	8	45	100
MTH88YM080070	**MTH109**	8	70	50
MTH88YM080090	**MTH110**	8	90	50
MTH88YM100045	**MTH111**	10	45	50
MTH88YM100055	**MTH112**	10	55	50
MTH88YM100065	**MTH113**	10	65	50
MTH88YM100080	**MTH114**	10	80	50
MTH88YM100100	**MTH115**	10	100	25
MTH88YM120065	**MTH116**	12	65	25
MTH88YM120080	**MTH117**	12	80	25
MTH88YM120105	**MTH118**	12	105	25
MTH88YM160075	**MTH119**	16	75	20
MTH88YM160110	**MTH120**	16	110	10

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Features

- Suitable for light to medium duty loads
- Quick and easy to install
- Immediate loading is possible
- Internally threaded for neat final appearance

TygaBolt®

Bolt Tension | Anti-Vibration | Product Reliability | Traceability

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Installation Guide

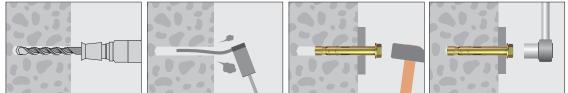| Size	Thread Size	Hole	Minimum Depth	Hole on Fixture	Torque Guide	Wrench Size	Washer OD	Minimum Concrete Thickness	Minimum Spacing	Minimum Edge Distance
(mm)	D	d_h (mm)	$h_{e\ min}$ (mm)	d_{fix} (mm)	T_{inst} (N-m)	AF (mm)	d_w (mm)	h_{min} (mm)	S_{min} (mm)	C_{min} (mm)
8	M6	8	40	10	8	10	12.8	100	50	50
10	M8	10	50	12	25	13	16.8	100	60	60
12	M10	12	60	14	40	15	20.3	100	75	75
16	M12	16	70	18	50	18	24.3	125	100	100

Basic Load Performance in 32 MPa non-cracked concrete

[1] *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.

[2] *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.

Thread Size	Embedment Depth	Design Tensile Resistance[1]	Working Load in Tension[2]
	h_e (mm)	ø N_d (kN)	N_{WLL} (kN)
ø8 (M6)	40	8.4	4.6
	60	9.5	5.2
	80	9.5	5.2
ø10 (M8)	40	8.4	4.6
	70	13.0	7.2
	90	13.0	7.2
ø12 (M10)	50	11.7	6.5
	75	21.6	12.0
	100	21.6	12.5
ø16 (M12)	60	15.4	8.5
	80	19.0	10.5
	105	19.0	10.5

Size	Embedment Depth	Edge Distance	Design Shear Resistance[1]	Working Load in Shear[2]
	h_e (mm)	c_1 (mm)	ø V_d (kN)	V_{WLL} (kN)
ø8 (M6)	50	50	6.2	2.0
		60	8.2	2.7
		80	9.5	3.8
ø10 (M8)	60	60	9.3	3.1
		80	14.3	4.7
		100	17.3	6.7
ø12 (M10)	70	75	14.4	4.8
		90	18.9	6.3
		120	27.4	9.7
ø16 (M12)	80	100	24.0	8.0
		120	31.6	10.5
		150	39.9	14.7

Installation

Bolt Tension | Anti-Vibration | Product Reliability | Traceability

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