

# FLUSH HEAD SLEEVE ANCHOR



Class 8.8 bolt  
or A4-70 Stainless Steel

Hardened  
Washer

Thin wall sleeve for  
application flexibility



Slots that help prevent  
sleeve rotation during  
tightening.

Hardened expansion  
wedge for efficient  
expansion



Hobson Tygabolts® are pre-assembled single unit wedge type anchors that are used in solid concrete applications. Fixing is achieved by controlled torquing of the nut 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.

- ✓ Suitable for light to medium duty loads
- ✓ Quick and easy to install
- ✓ Immediate loading is possible

Because of the Tygabolt's unique features, it can be used for many fastening applications, including but not limited to the following:

- Hand rail fastening
- Formwork support fastening
- Mechanical, electrical and pipe bracket fastening
- and many more...



*For further technical  
Information please contact  
Southeast Fasteners direct*

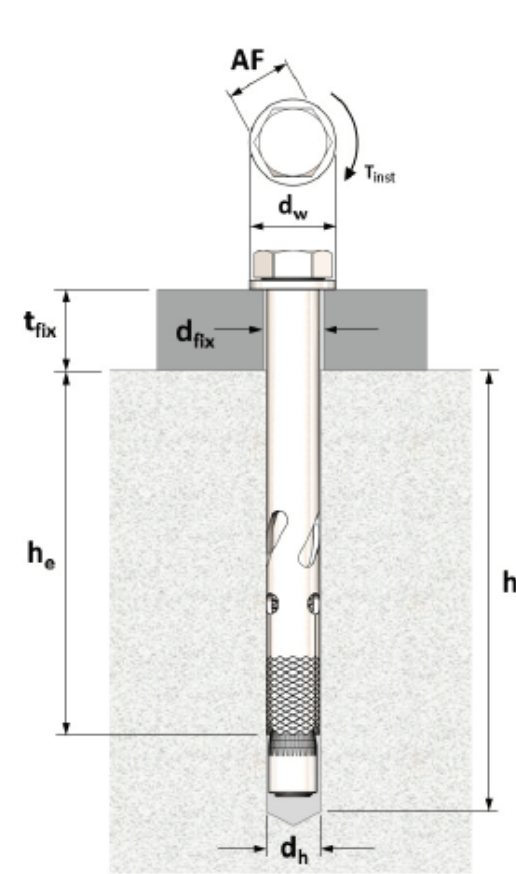


<b>Southeast Fastener</b>	<b>ABN 30117890114</b>	
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<b>Eagle Farm Branch:</b>	109A Links Avenue South, EAGLE FARM QLD 4009	TEL: 07 3268 77 88   FAX: 07 3268 5689

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## Installation Guide

Tygabolt Size	Thread Size D	Hole $\phi$ $d_h$ (mm)	Minimum depth $h_{e,min}$ (mm)	Hole $\phi$ on fixture $d_f$ (mm)	Torque Guide $T_{inst}$ (N-m)	Wrench size AF (mm)	Flange Head Diameter $d_w$ (mm)	Minimum concrete thickness $h_{min}$ (mm)	Minimum spacing $S_{min}$ (mm)	Minimum edge distance $c_{min}$ (mm)
$\phi 8$	M6	8	40	10	8	10	12.8	100	50	50
$\phi 10$	M8	10	50	12	25	13	16.7	100	60	60
$\phi 12$	M10	12	60	14	40	15	20.3	100	75	75
$\phi 16$	M12	16	70	18	50	18	24.3	125	100	100



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

<sup>1</sup> Limit State strengths are obtained by comparing the concrete and steel relevant strengths. Strength reduction of  $\phi = 0.60$  for concrete and  $\phi = 0.80$  for steel are already included.

<sup>2</sup> Working Loads (WLL) are obtained by comparing the concrete and steel relevant working loads. The factor of safety (FOS) used for steel is FOS = 2.5 and FOS = 3.0 is used for concrete.

Tygabolt Size	Embedment Depth	Limit State Strength <sup>1</sup>	Working Load Limit in Tension <sup>2</sup>
	$h_e$ (mm)	$\phi N$ (kN)	$N_{WLL}$ (kN)
Ø8	40	8.4 [8.4]	4.6 [4.6]
	60	9.5 [8.4]	5.2 [5.6]
	80	9.5 [8.4]	5.2 [5.6]
Ø10	40	8.4 [8.4]	4.6 [4.6]
	70	13.0 [13.0]	7.2 [10.2]
	90	13.0 [13.0]	7.2 [10.2]
Ø12	50	11.7 [11.7]	6.5 [6.5]
	75	21.6 [21.6]	12.0 [12.0]
	100	22.5 [32.4]	12.5 [16.2]
Ø16	60	15.4 [15.4]	8.5 [8.5]
	80	19.0 [23.8]	10.5 [13.2]
	105	19.0 [35.7]	10.5 [19.8]

Tygabolt Size	Embedment Depth	Edge Distance	Limit State Strength <sup>1</sup>	Working Load Limit in Shear <sup>2</sup>
		$c_1$ (mm)	$\phi V$ (kN)	$V_{WLL}$ (kN)
Ø8	50	50	6.2 [6.2]	2.0 [2.0]
		60	8.2 [8.2]	2.7 [2.7]
		80	9.5 [8.4]	3.8 [3.3]
Ø10	60	60	9.3 [9.3]	3.1 [3.1]
		80	14.3 [14.3]	4.7 [4.7]
		100	17.3 [15.3]	6.7 [6.1]
Ø12	70	75	14.4 [14.4]	4.8 [4.8]
		90	18.9 [18.9]	6.3 [6.3]
		120	27.4 [24.3]	9.7 [9.7]
Ø16	80	100	24.0 [24.0]	8.0 [8.0]
		120	31.6 [31.6]	10.5 [10.5]
		150	39.9 [35.4]	14.7 [14.1]

Load values in *grey* text inside brackets [ ] are for A4-70 stainless steel.



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