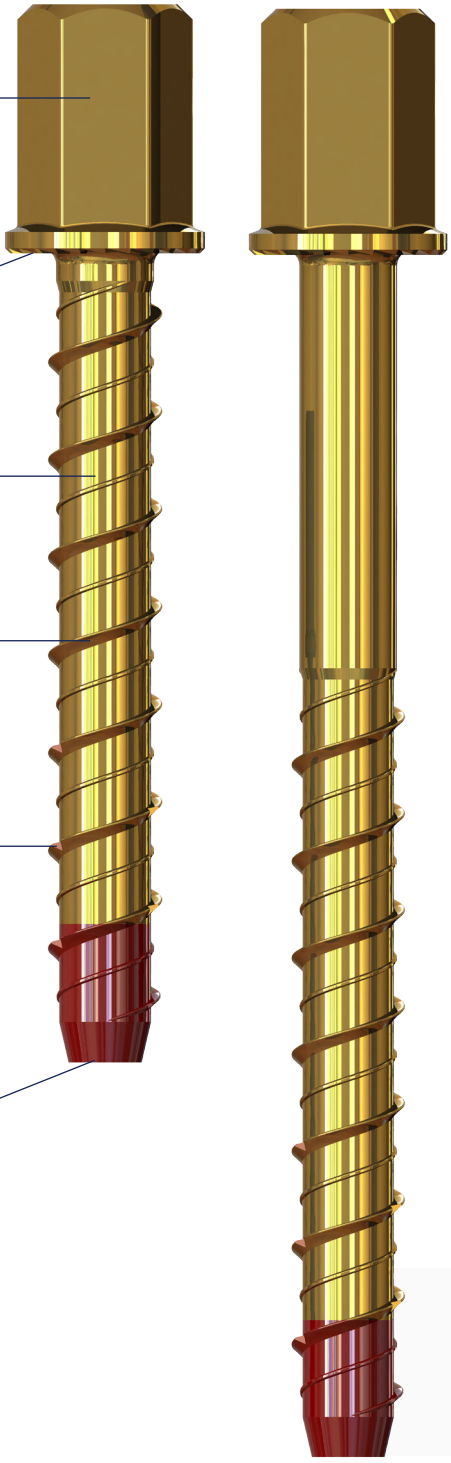
HobSpec DataSheet

XBolt® Tie Down Screw Anchor



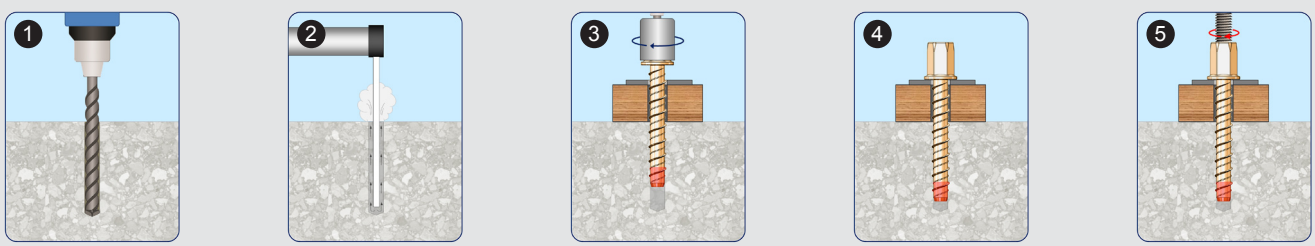
XBolts® are single unit screw type anchors that are used in solid concrete applications. Fixing is achieved by screwing the anchor into the hole. As it is screwed in, it creates its own undercut by tapping the concrete hole. The cutting and locking mechanism, enables the anchor to be used in close spacing and edge distance applications.

- ☑ Suitable for medium to heavy loads
- ☑ Suitable for small anchor spacing and edge distance applications
- ☑ Quick and easy to install
- ☑ Fully removable

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

- Mechanical, electrical and pipe hanger applications
- Ceiling hanger applications
- Bottom plates

XBolt . Quick . Easy . Reliable



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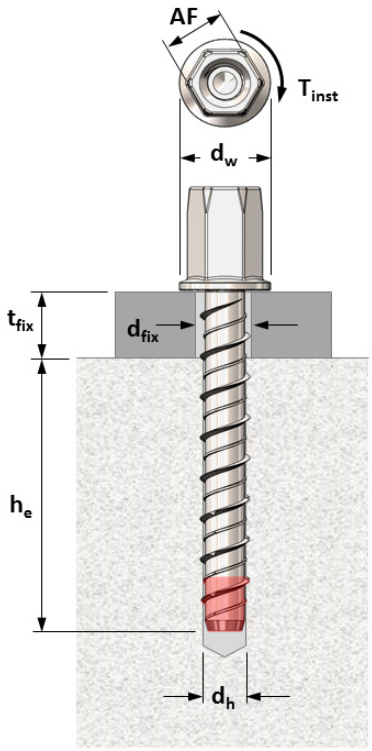
Installation Specification

Installation Parameters			XBolt™ Tie Down Screw Anchor Size	
			Ø12 X 100	Ø12 X 150
Nominal hole diameter	d_h	(mm)	12	12
Minimum embedment depth	$h_{e,min}$	(mm)	55	55
Min. hole diameter on fixture	d_f	(mm)	15	15
Wrench size (across flats)	AF	(mm)	19	19
Flange Head Diameter	d_w	(mm)	24.5	24.5
Minimum spacing	S_{min}	(mm)	60	60
Minimum edge distance	c_{min}	(mm)	60	60



Basic Load Performance in 32 MPa non-cracked concrete

XBolt™ Size	Embedment Depth h_e (mm)	Design Tensile Resistance[1] ϕN (kN)	Working Load in Tension[2] N_{WLL} (kN)
Ø12	55	7.80	4.30
	60	11.30	6.30
	90	24.60	13.70
	110	34.20	19.00

XBolt™ Size	Embedment Depth h_e (mm)	Edge Distance c_1 (mm)	Design Shear Resistance[1] ϕV (kN)	Working Load in Shear[2] V_{WLL} (kN)
Ø12	65	40	SUT	SUT
		80	9.70	5.40
		120	17.90	9.90
		150	25.00	13.80

Basic Load Performance in 20 MPa non-cracked concrete

XBolt™ Size	Embedment Depth h_e (mm)	Design Tensile Resistance[1] ϕN (kN)	Working Load in Tension[2] N_{WLL} (kN)
Ø12	55	6.10	3.30
	60	8.90	4.90
	90	19.40	10.80
	110	27.00	15.00

XBolt™ Size	Embedment Depth h_e (mm)	Edge Distance c_1 (mm)	Design Shear Resistance[1] ϕV (kN)	Working Load in Shear[2] V_{WLL} (kN)
Ø12	65	40	SUT	SUT
		80	7.60	4.20
		120	14.10	7.80
		150	19.70	10.90

[1] *Design Resistance* is the governing minimum load resistance obtained by comparing relevant concrete and steel resistances. Capacity reduction factors of $\phi = 0.60$ for concrete and $\phi = 0.80$ for steel are already included.

[2] *Working Load* is the governing minimum allowable load obtained by comparing relevant concrete and steel working loads. Factor of safety of FOS = 2.5 for steel and FOS = 3.0 for concrete are already included.

SUT = still under testing