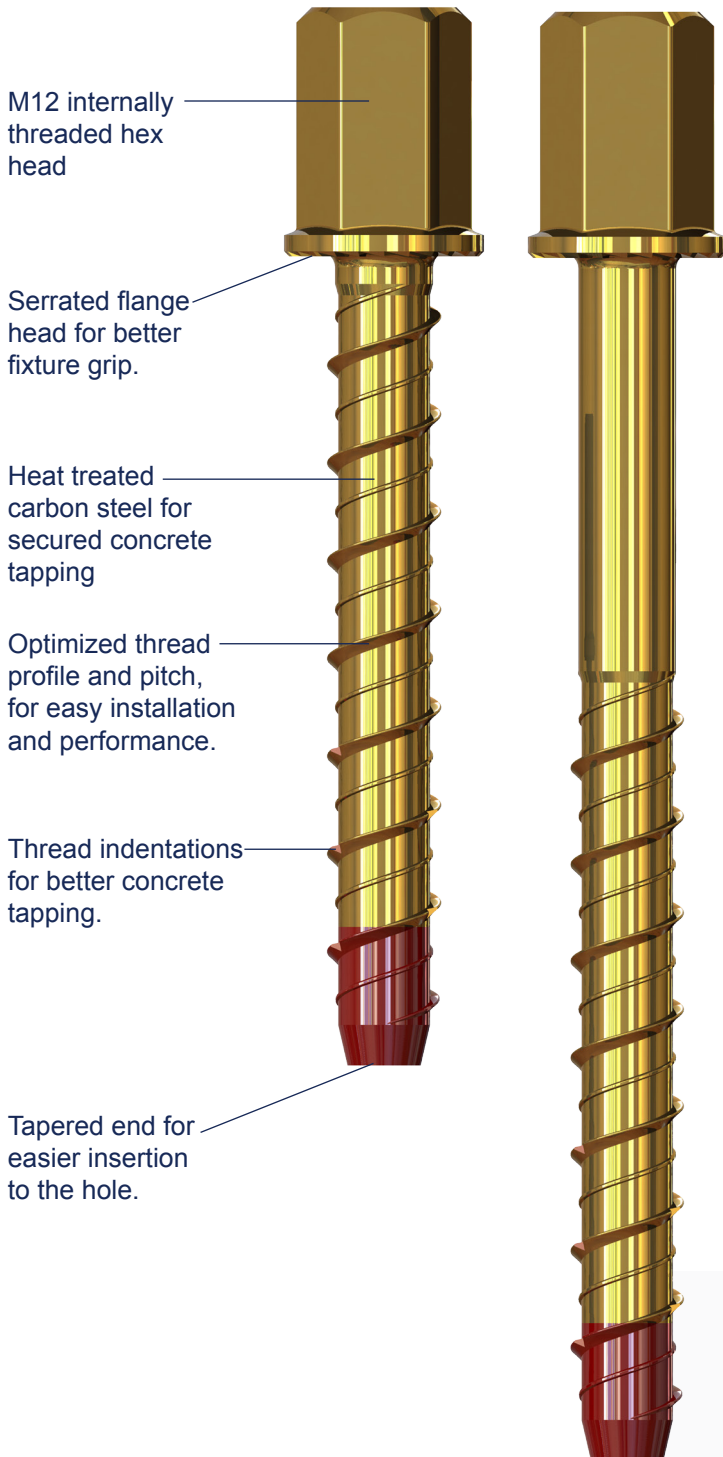


# HobSpec DataSheet

## **XBolt** Tie Down Screw Anchor



M12 internally threaded hex head

Serrated flange head for better fixture grip.

Heat treated carbon steel for secured concrete tapping

Optimized thread profile and pitch, for easy installation and performance.

Thread indentations for better concrete tapping.

Tapered end for easier insertion to the hole.

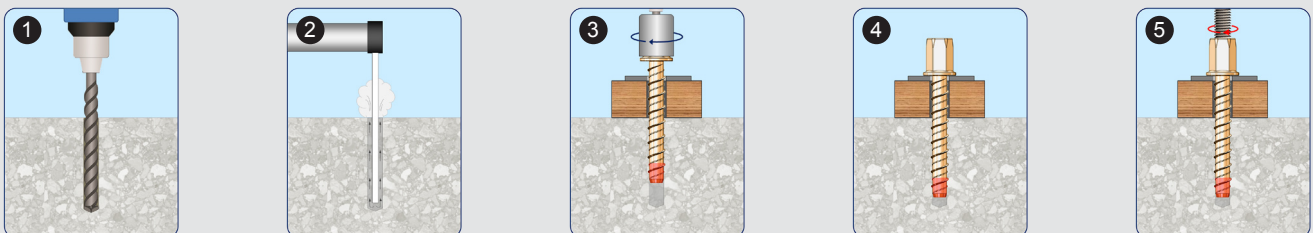
XBolts® are single unit screw type anchors that are used in solid concrete applications. Fixing is achieved by screwing the anchor into the hole. As it is screwed in, it creates its own undercut by tapping the concrete hole. The cutting and locking mechanism, enables the anchor to be used in close spacing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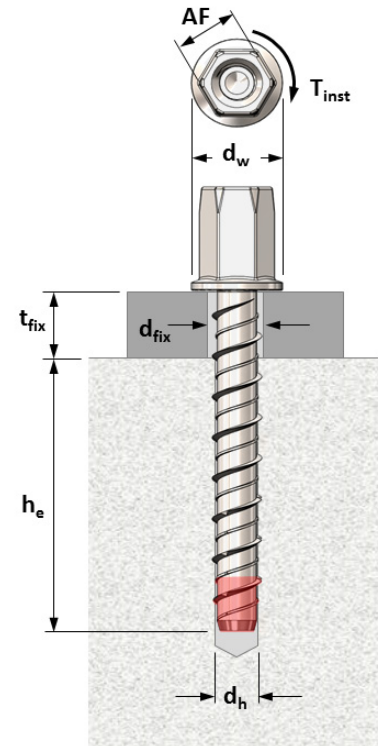
# HobSpec DataSheet

## **XBolt** Tie Down Screw Anchor



### 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	Design Tensile Resistance <sup>1</sup>	Working Load in Tension <sup>2</sup>	XBolt™ Size	Embedment Depth	Edge Distance	Design Shear Resistance <sup>1</sup>	Working Load in Shear <sup>2</sup>
	$h_e$ (mm)	$\phi N$ (kN)	$N_{WLL}$ (kN)		$h_e$ (mm)	$c_1$ (mm)	$\phi V$ (kN)	$V_{WLL}$ (kN)
Ø12	55	7.80	4.30	Ø12	65	40	SUT	SUT
	60	11.30	6.30			80	9.70	5.40
	90	24.60	13.70			120	17.90	9.90
	110	34.20	19.00			150	25.00	13.80

### Basic Load Performance in 20 MPa non-cracked concrete

XBolt™ Size	Embedment Depth	Design Tensile Resistance <sup>1</sup>	Working Load in Tension <sup>2</sup>	XBolt™ Size	Embedment Depth	Edge Distance	Design Shear Resistance <sup>1</sup>	Working Load in Shear <sup>2</sup>
	$h_e$ (mm)	$\phi N$ (kN)	$N_{WLL}$ (kN)		$h_e$ (mm)	$c_1$ (mm)	$\phi V$ (kN)	$V_{WLL}$ (kN)
Ø12	55	6.10	3.30	Ø12	65	40	SUT	SUT
	60	8.90	4.90			80	7.60	4.20
	90	19.40	10.80			120	14.10	7.80
	110	27.00	15.00			150	19.70	10.90

<sup>1</sup> 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.

<sup>2</sup> 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

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