PRODUCT DATA

HOBSON ENGINEERING

XBolt® Coupler Mechanical Galvanised

XBolt® is a single unit screw type anchor that can be used in solid concrete applications. Fixing is achieved by screwing the anchor into a drilled hole in concrete. As it is screwed in, the anchor taps the hole, thus enabling it to produce a mechanical interlock with the concrete.

Applications
• Mechanical, electrical and pipe hanger applications
• Bottom plate fixing to concrete slabs
• Ceiling hanger applications
• Timber frame tie down to concrete slabs

Material	**CS**	Carbon Steel
Finish	**MGAL**	Mechanical Galvanised

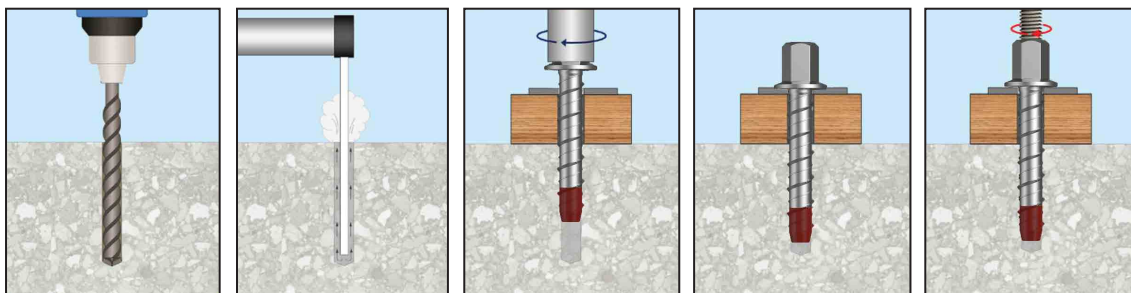| Part	QFind	Dia	Length	Pack Qty
		Ø (mm)	(mm)	
MXCMSGM120100	**MXC100**	M12	100	25
MXCMSGM120150	**MXC101**	M12	150	25
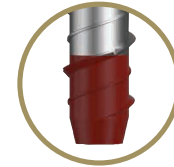
Tapered End

Features

• Suitable for medium to heavy loads
• Suitable for small anchor spacing and edge distance applications
• Quick and easy to install
• Fully removable
• For use with M12 HDG Allthreaded rod
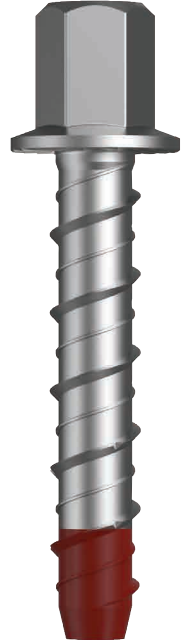
XBolt®

Installation

CONXTRUCT®

190307IDS

Bolt Tension | Anti-Vibration | Product Reliability | Traceability

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HOBSON ENGINEERING

# PRODUCT DATA

XBolt® Coupler Mechanical Galvanised

Installation Specification

Installation Parameters			Size	
			Ø12 X 100	Ø12 X 150
Nominal hole diameter	d_h	(mm)	12.0	12.0
Minimum embedment depth	$h_{e,min}$	(mm)	55.0	55.0
Min. hole diameter on fixture	d_{fix}	(mm)	15.0	15.0
Wrench size (across flats)	AF	(mm)	19.0	19.0
Coupler Height	h	(mm)	30.0	30.0
Flange Head Diameter	d_w	(mm)	25.0	25.0
Internal Thread Diameter	d_i	(mm)	M12 x 1.75	M12 x 1.75
Minimum spacing	S_{min}	(mm)	60.0	60.0
Minimum edge distance	C_{min}	(mm)	60.0	60.0
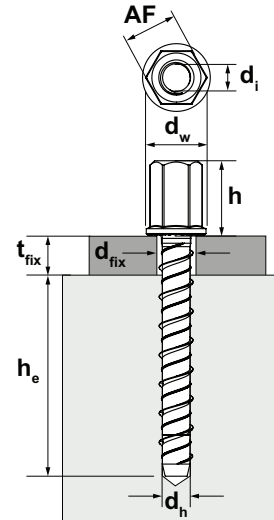
Basic Load Performance in 32 MPa non-cracked concrete

[1] *Design Resistance* is the governing minimum load resistance obtained by comparing relevant concrete and steel resistances. Capacity reduction factors of f = 0.60 for concrete and f = 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.

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

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

Basic Load Performance in 20 MPa non-cracked concrete

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

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

Maximum Installation Torque (Nm)

Base Material: 32 MPa Concrete	
Anchor Diameter ø (mm)	12
Installation Torque (Nm)	80

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Bolt Tension | Anti-Vibration | Product Reliability | Traceability