MXCMSYM

# PRODUCT DATA

## XBolt® Coupler Zinc Yellow Passivate



**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<br>• Bottom plate fixing to concrete slabs<br>• Ceiling hanger applications<br>• Timber frame tie down to concrete slabs |

| | |
|---|---|
| **Material** | CS Carbon Steel |
| **Finish** | ZYP Zinc Yellow Passivate |

| Part | QFind | Dia | Length | Pack Qty |
|---|---|---|---|---|
| | | Ø (mm) | (mm) | |
| MXCMSYM120100 | **MXC102** | M12 | 100 | 25 |
| MXCMSYM120150 | **MXC103** | M12 | 150 | 25 |

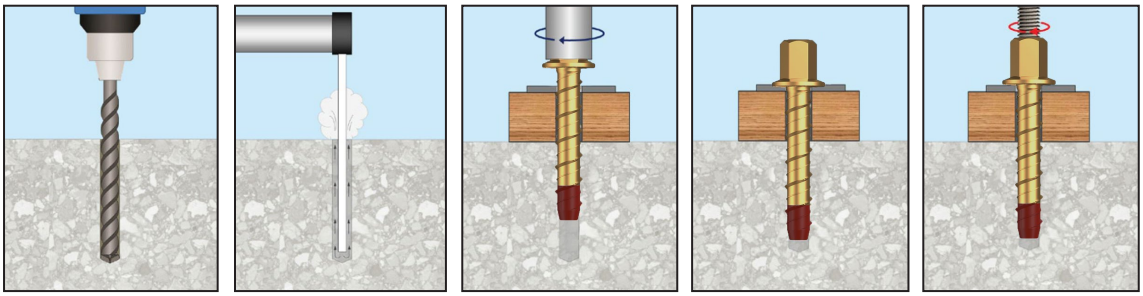
Tapered End

### 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®

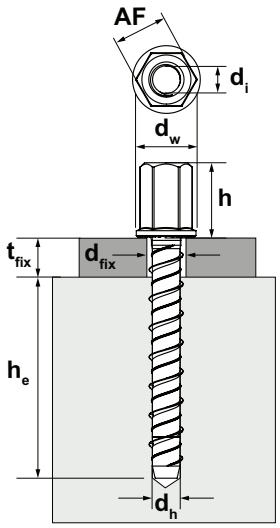
# PRODUCT DATA

## XBolt® Coupler Zinc Yellow Passivate



### 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 |