# PRODUCT DATA

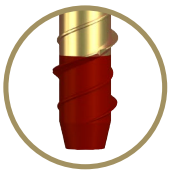
## XBolt® Countersunk Head Zinc Yellow Passivate



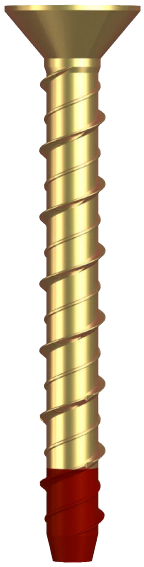
**XBolt®** is a single unit screw type anchor that can be used in solid concrete applications. Fixing is achieved by screwing the anchor into a drilled hole in concrete. As it is screwed in, the anchor taps the hole, thus enabling it to produce a mechanical interlock with the concrete.

| Applications |
|---|
| • Hand rail fastening<br>• Form-work support fastening<br>• Mechanical, electrical and pipe bracket fastening<br>• General flooring |

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



Tapered End



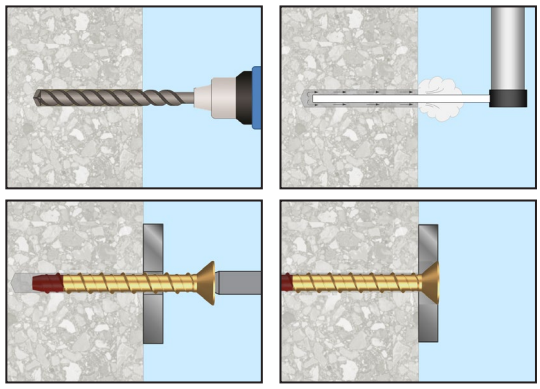
### Features

- Rapid simple installation
- Close edge distance install
- Immediate loading of fixture
- Shallow embedment depth
- Fully removable
- Countersunk head for flush finish

| Part | QFind | Dia | Internal Hex | Length | Pack Qty |
|---|---|---|---|---|---|
| | | Ø (mm) | (mm) | (mm) | |
| MXKMSYM060050 | **MXK111** | M6 | 5 | 50 | 100 |
| MXKMSYM060075 | **MXK112** | | 5 | 75 | 50 |
| MXKMSYM080050 | **MXK113** | M8 | 6 | 50 | 50 |
| MXKMSYM080075 | **MXK114** | | 6 | 75 | 50 |
| MXKMSYM080100 | **MXK115** | | 6 | 100 | 50 |
| MXKMSYM100060 | **MXK116** | M10 | 8 | 60 | 50 |
| MXKMSYM100075 | **MXK117** | | 8 | 75 | 50 |
| MXKMSYM100100 | **MXK118** | | 8 | 100 | 50 |
| MXKMSYM120075 | **MXK119** | M12 | 10 | 75 | 50 |
| MXKMSYM120100 | **MXK120** | | 10 | 100 | 50 |
| MXKMSYM120150 | **MXK121** | | 10 | 150 | 50 |

XBolt®

### Installation



CONXTRUCT®

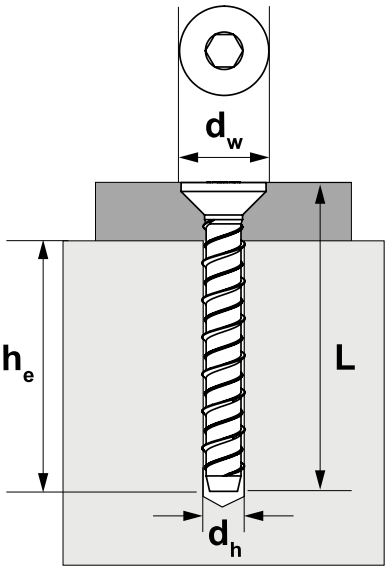
# PRODUCT DATA

## XBolt® Countersunk Head Zinc Yellow Passivate



### Installation Specification

| Size | Nominal hole diameter | Minimum embedment depth | Drive Bit | Head Diameter | Minimum spacing | Minimum edge distance |
|---|---|---|---|---|---|---|
| Ø | $d_h$ (mm) | $h_{e,min}$ (mm) | HEX | $d_w$ (mm) | $S_{min}$ (mm) | $c_{min}$ (mm) |
| M6 | 6 | 25 | 5 | 16 | 40 | 40 |
| M8 | 8 | 40 | 6 | 20 | 40 | 40 |
| M10 | 10 | 50 | 8 | 24 | 50 | 50 |
| M12 | 12 | 55 | 10 | 27 | 60 | 60 |




### 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 ϕ = 0.60 for concrete and ϕ = 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] |
|---|---|---|---|
| Ø | $h_e$ (mm) | Ø$N_d$ (kN) | $N_{WLL}$ (kN) |
| M6 | 25 | 2.4 | 1.3 |
| | 30 | 2.7 | 1.5 |
| | 45 | 6.1 | 3.3 |
| | 60 | 10.8 | 6.0 |
| M8 | 35 | 4.1 | 2.3 |
| | 40 | 5.7 | 3.1 |
| | 60 | 12.2 | 6.8 |
| | 80 | 20.1 | 11.1 |
| M10 | 45 | 6.6 | 3.6 |
| | 50 | 8.8 | 4.8 |
| | 75 | 18.2 | 10.1 |
| | 90 | 24.6 | 13.6 |
| M12 | 55 | 7.8 | 4.3 |
| | 60 | 11.3 | 6.2 |
| | 90 | 24.6 | 13.6 |
| | 110 | 34.2 | 19.0 |

| Size | Embedment Depth | Edge Distance | Design Shear Resistance$_1$ | Working Load in Shear$_2$ |
|---|---|---|---|---|
| Ø | $h_e$ (mm) | $c_1$(mm) | Ø$V_d$ (kN) | $V_{WLL}$ (kN) |
| M6 | 40 | 40 | 3.1 | 1.7 |
| | | 60 | 5.4 | 3.0 |
| | | 80 | 8.1 | 4.5 |
| | | 100 | 9.5 | 4.7 |
| M8 | 50 | 40 | 3.3 | 1.8 |
| | | 60 | 5.8 | 3.2 |
| | | 80 | 8.6 | 4.8 |
| | | 100 | 11.8 | 6.5 |
| M10 | 60 | 50 | 4.9 | 2.7 |
| | | 80 | 9.1 | 5.1 |
| | | 100 | 12.4 | 6.9 |
| | | 120 | 15.9 | 8.8 |
| M12 | 70 | 60 | 6.6 | 3.6 |
| | | 80 | 9.7 | 5.3 |
| | | 120 | 16.7 | 9.3 |
| | | 150 | 22.6 | 12.6 |

### Maximum Installation Torque (Nm)

| Base Material: 32 MPa Concrete | | | | |
|---|---|---|---|---|
| Anchor Diameter Ø (mm) | 6 | 8 | 10 | 12 |
| Installation Torque (Nm) | 15 | 45 | 55 | 80 |