

# NON SAFETY CRITICAL

## THROUGH BOLT

**M8 - M20 sizes**

Hot Dip Galvanised Studs  
Damp, external applications

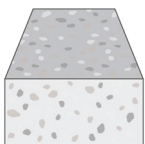
### FEATURES & BENEFITS

- Medium to heavy duty torque controlled expansion anchor.
- Convenient through fixture fastening.
- Load immediately after installing.
- Extensive range covers a multitude of applications.
- Optimised for high shear loads.

### APPLICATIONS/TRADES

- Warehouse racking.
- Conveyor lines / production plant.
- Plant room equipment hold down.
- Safety barriers.
- Timber bottom plate hold down.

### SUBSTRATE SUITABILITY



UNCRACKED  
CONCRETE



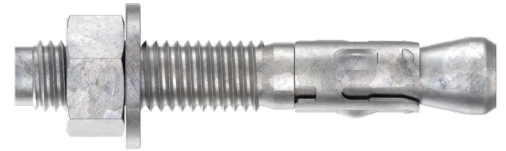
- Long thread section accommodates a wide range of fixture thicknesses.
- Robust form factor makes it ideal for tough conditions.
- Cold forged construction ensures superior strength and reliability.

**HOT DIPPED  
GALVANISED**

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### RANGE



#### HEXAGONAL FLANGE NUT HEAD

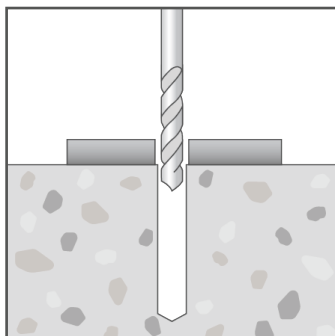
Product Code	Pack Qty	Anchor/ Drill hole Ø (mm)	Thread size	Anchor length (mm)	Maximum fixture thickness (mm)	Drill hole depth (mm) @ $t_{fix, max}$	Minimum embedment depth (mm) @ $t_{fix, max}$	Fixture clearance hole Ø (mm)
				$l_t$	$t_{fix, max}$	$h_1$	$h_{nom}$	
ATBMG080502	50	8	M8	50	10	50	40	10
ATBMG080752	20	8	M8	75	35	50	40	10
ATBMG080952	50	8	M8	95	55	50	40	10
ATBMG100652	25	10	M10	65	15	60	50	12
ATBMG100752	20	10	M10	75	25	60	50	12
ATBMG100902	25	10	M10	90	40	60	50	12
ATBMG101202	25	10	M10	120	70	60	50	12
ATBMG120802	20	12	M12	80	20	75	60	14
ATBMG121002	20	12	M12	100	40	75	60	14
ATBMG121202	20	12	M12	120	60	75	60	14
ATBMG121402	20	12	M12	140	80	75	60	14
ATBMG121802	20	12	M12	180	120	75	60	14
ATBMG161052	20	16	M16	105	25	95	80	18
ATBMG161252	20	16	M16	125	45	95	80	18
ATBMG161402	20	16	M16	140	60	95	80	18
ATBMG161802	20	16	M16	180	100	95	80	18
ATBMG201252	10	20	M20	125	25	120	100	24
ATBMG201602	10	20	M20	160	60	120	100	24
ATBMG202002	10	20	M20	200	100	120	100	24
ATBMG202152	10	20	M20	215	115	120	100	24

Note: For a fixture thickness ( $t_{fix}$ ) that is less than the  $t_{fix, max}$  value tabled above:  
 - increase both the drill hole depth ( $h_1$ ) & concrete thickness ( $h_{min}$ ) by ( $t_{fix, max} - t_{fix}$  actual)

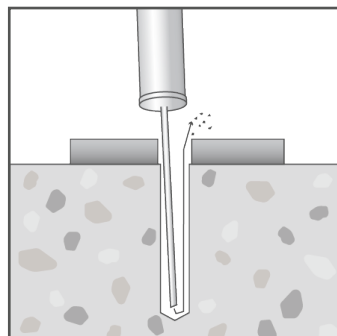
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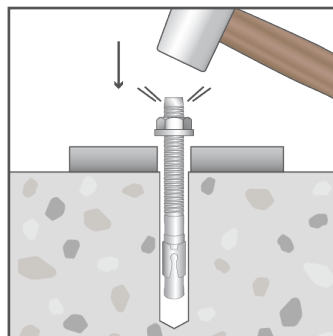
### INSTALLATION



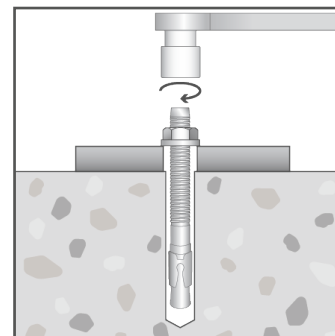
Drill hole through fixture into substrate to the specified diameter and depth.



Clear hole of drilling debris.



Insert anchor into hole and drive until anchor is flush with the surface of the fixture.



Using a wrench, expand anchor by tightening to the specified installation torque.

### PRODUCT INSTALL & PERFORMANCE INFORMATION

Anchor / Drill hole Ø (mm)	Minimum embedment depth	Minimum substrate thickness	Socket size AF (mm)	Installation torque (Nm)	Critical anchor spacing (mm)	Critical anchor edge distance (mm)	Recommended Capacities	
							Tensile (kN)	Shear (kN)
$d_{nom} / d_o$	$h_{nom}$	$h_{min}$	SW	$T_{inst}$	$s_{cr}$	$c_{cr}$	$N_{rec}$	$V_{rec}$
8	40	80	13	15	100	50	3.0	3.6
10	50	100	16	30	120	60	4.1	5.3
12	60	120	18	45	150	75	5.5	7.6
16	80	160	24	110	200	100	8.4	12.2
20	100	200	30	180	240	120	11.7	16.7

- Note:
- Recommended capacities are based on:
    - Single anchor.
    - Critical anchor spacing and edge distance values.
    - 20MPa concrete compressive strength.
    - (Characteristic ultimate concrete capacities / 3) & (characteristic ultimate steel capacities / 2.5).
    - Shear load directed away from concrete edge.
    - For combined load cases (tension & shear) - must also comply with  $(N_{app} / N_{rec}) + (V_{app} / V_{rec}) \leq 1.2$ .

Important Disclaimer: Capacity information is limited to the simple scope above and is provided to enable a relative comparison within and across product ranges. Please contact Bremick to enable an anchoring solution to be optimised for your particular anchoring application.

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