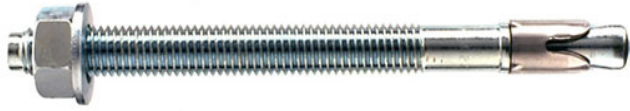




product datasheet

throughbolts (page 1 of 3)



Designed for:	Fixing to concrete in heavy duty applications.
Drive Bit:	19mm hex socket
Coating:	Electroplated zinc
Shank Material:	Carbon steel
Material Grade:	AISI 10B21
Effective Thread Length:	All sizes fully threaded

Evolution Fasteners (UK) Ltd
 Unit 4, Block 16
 Clydesmill Road
 Clydesmill Industrial Estate
 Glasgow
 G32 8RE
 Tel: +44(0)141 646 0055
 Fax: +44(0)141 646 0033
 technical@evolutionfasteners.co.uk

Throughbolts Range						
Product Code	Size	Box Qty	Carton Qty	Min. Drill Depth	Min. Embedment Depth	Pilot Hole
EATB880	8mm x 80mm	100	800	70mm	50mm	8mm
EATB1075	10mm x 75mm	50	500	65mm	48mm	10mm
EATB10100	10mm x 100mm	50	400	75mm	50mm	10mm
EATB12100	12mm x 100mm	30	240	70mm	95mm	12mm
EATB12120	12mm x 120mm	30	240	70mm	95mm	12mm

Anchor Dimensions						
Diameter	Min. Fixture Thickness (t _{min})	Max. Fixture Thickness (t _{max})	Shaft Diameter at Thread (Ø ₁)	Shaft Diameter at Expansion Core (Ø ₂)	Max. Anchor Length (L ₁)	Max. Length of Expansion Sleeve (L ₂)
8mm	0mm	30mm	8mm	5.8mm	80mm	11.5mm
10mm	0mm	30mm	10mm	7.6mm	100mm	17.5mm
12mm	0mm	50mm	12mm	9.0mm	120mm	20.0mm

Ask for Evolution



Drywall Screws



Tek Screws



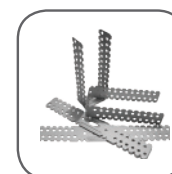
Collated Screws



Masonry Screws



Anchors



Clips & Brackets

product datasheet

throughbolts (page 2 of 3)

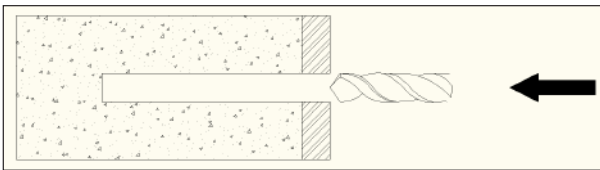


Application/Setting Guide

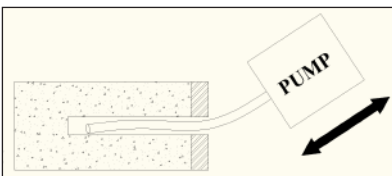
Mechanical anchor for use in both concrete block and concrete slab (both cracked and non-cracked) in dry/indoor environments.

The mechanism of torque controlled expansion allows for large pull out loads and pre-set through fastening.

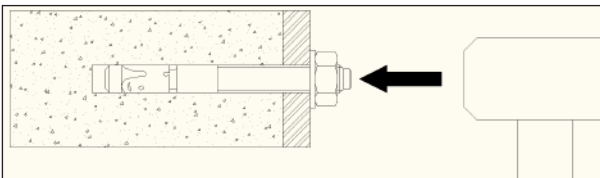
1. Drill appropriate diameter hole with masonry drill bit using a hammer action, high torque drill.



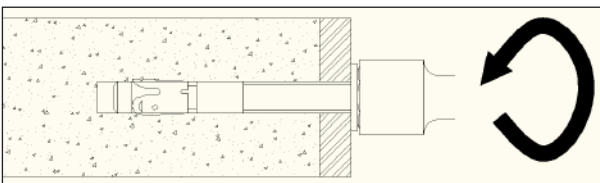
2. Clean out drill hole.



3. Insert anchor carefully using a hammer.



4. Tighten fastener to recommended torque using a suitable wrench.



Anchor Setting Details

Diameter	Drill Diameter (\varnothing_d)	Drill Bit Cutting Diameter (\varnothing_{dc})	Depth of Drill Hole (h)	Diameter of Clearance Hole in Fixture (\varnothing_c)	Embedment Depth (h_e)	Recommended Torque (τ)	Width Across Flats (W)
8mm	8mm	8.45mm	65mm	9mm	50mm	15Nm	13mm
10mm	10mm	10.45mm	70mm	12mm	50mm	30Nm	17mm
12mm	12mm	12.50mm	95mm	14mm	70mm	50Nm	19mm

Ask for Evolution



Drywall Screws



Tek Screws



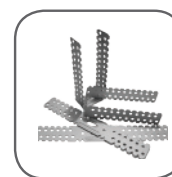
Collated Screws



Masonry Screws



Anchors



Clips & Brackets

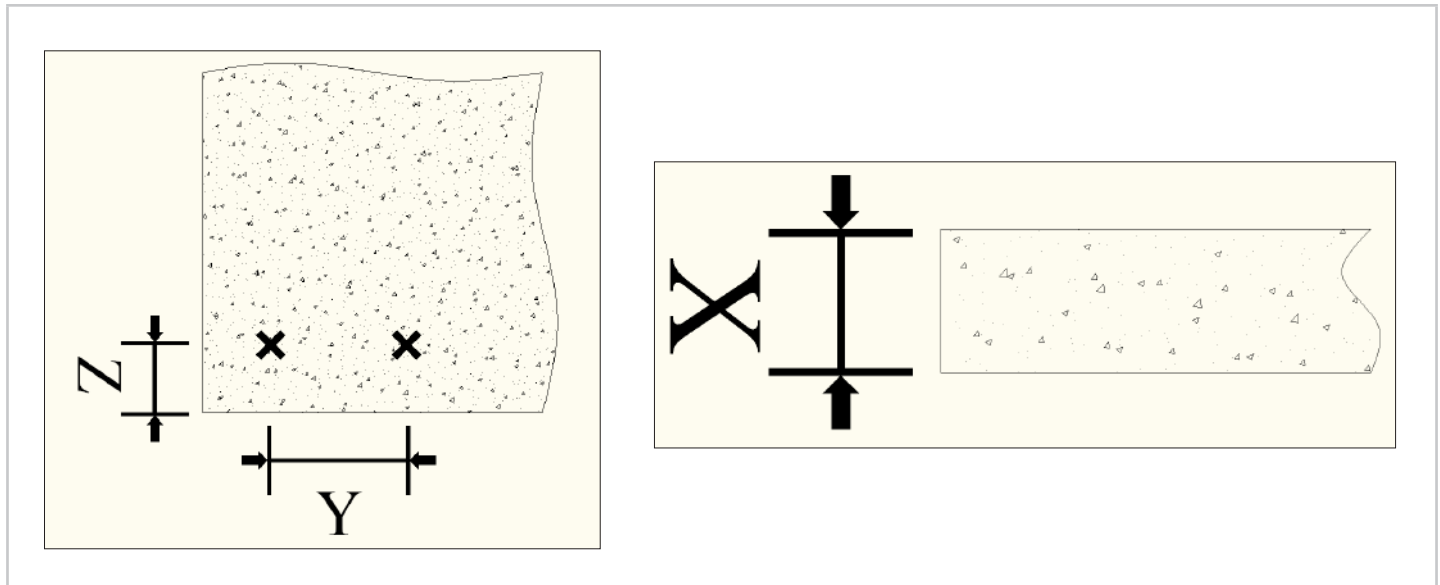
product datasheet

throughbolts (page 3 of 3)



Anchor Setting Guidelines

Diameter	Min. Substrate Material Thickness (x)	Min. Spacing Between Anchors (y)	Min. Distance from Edge of Slab (z)
8mm	100mm	50mm	60mm
10mm	100mm	60mm	70mm
12mm	100mm	80mm	90mm



Ultimate Pull Out Values

Diameter	Concrete Cube/Cylinder Strength						
	20/25 N/mm ²	25/30 N/mm ²	30/37 N/mm ²	35/45 N/mm ²	40/50 N/mm ²	45/55 N/mm ²	50/60 N/mm ²
8mm	4.6kN	5.1kN	5.6kN	6.2kN	6.5kN	6.8kN	7.1kN
10mm	6.1kN	6.7kN	7.4kN	8.2kN	8.6kN	9.1kN	9.8kN
12mm	9.5kN	10.5kN	11.6kN	12.7kN	13.5kN	14.4kN	19.0kN

Ultimate Mechanical Performance

Diameter	Design Steel Tensile Resistance	Ultimate Steel Tensile Strength	Design Steel Shear Resistance
8mm	9.6kN	644.0 N/mm ²	7.7kN
10mm	16.8kN	597.4 N/mm ²	12.5kN
12mm	23.8kN	742.6 N/mm ²	22.8kN

Ask for Evolution



Drywall Screws



Tek Screws



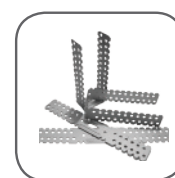
Collated Screws



Masonry Screws



Anchors



Clips & Brackets