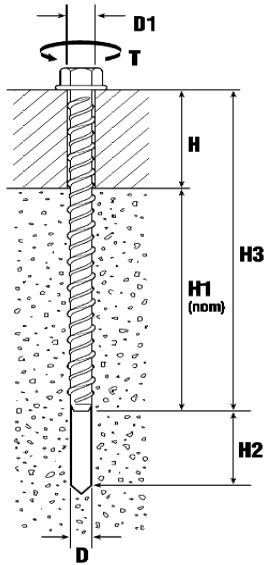


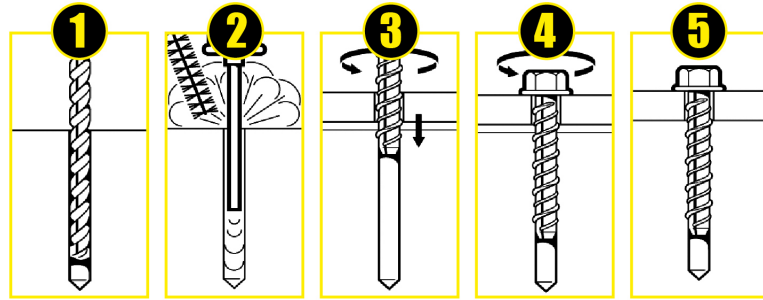
Thunderbolt Installation Instructions



(Also please see tables for relevant dimensions)

1. Drill at right angles using drill bit of same diameter (D) ensuring hole is slightly deeper than the Thunderbolt (H2).
2. Remove any loose dust from the hole.
3. Screw in the Thunderbolt with a socket wrench. Apply slight downward pressure to start the self-tapping action*.
4. Tighten the Thunderbolt until the fixture is in place. If resistance is experienced whilst tightening, unscrew one turn and re-tighten, ensuring not to over tighten.
5. For optimum performance, use a torque wrench. Do not exceed maximum tightening torque (T).

* If an impact wrench is to be used as means of installation it must be torque controlled and the maximum tightening torque must not be exceeded.



Nut Type Sleeve Anchors



- Suitable for medium to heavy duty applications such as wall plates, brackets, garage doors and signs
- The fixture can be positioned prior to fixing holes being drilled for ease of use

Code	Size	Drill Hole Diameter	Maximum Fixture Thickness	Minimum Hole Depth	Finish	Box Quantity
MSA08040	M8 x 40mm	8mm	10mm	35mm	Zinc & Yellow	100
MSA08065	M8 x 65mm	8mm	35mm	40mm	Zinc & Yellow	50
MSA08085	M8 x 85mm	8mm	55mm	40mm	Zinc & Yellow	50
MSA10050	M10 x 50mm	10mm	12mm	45mm	Zinc & Yellow	50
MSA10077	M10 x 77mm	10mm	37mm	45mm	Zinc & Yellow	50
MSA10097	M10 x 97mm	10mm	57mm	45mm	Zinc & Yellow	50
MSA10125	M10 x 125mm	10mm	80mm	45mm	Zinc & Yellow	50
MSA12075	M12 x 75mm	12mm	25mm	55mm	Zinc & Yellow	50
MSA12099	M12 x 99mm	12mm	49mm	55mm	Zinc & Yellow	25
MSA12129	M12 x 129mm	12mm	79mm	55mm	Zinc & Yellow	25
MSA16111	M16 x 111mm	16mm	65mm	60mm	Zinc & Yellow	20

Through Bolts



- A torque controlled through fixing suitable for medium to heavy duty work
- Ideal for fixing storage racking, holding down steel structures and safety fences
- The fixture can be positioned prior to fixing holes being drilled for ease of use

Code	Size	Drill Hole Diameter	Maximum Fixture Thickness	Minimum Hole Depth	Finish	Box Quantity
MTB06085	M6 x 85mm	6mm	45mm	35mm	Zinc & Yellow	100
MTB08075	M8 x 75mm	8mm	30mm	40mm	Zinc & Yellow	100
MTB08095	M8 x 95mm	8mm	50mm	40mm	Zinc & Yellow	100
MTB08115	M8 x 115mm	8mm	75mm	40mm	Zinc & Yellow	100
MTB10080	M10 x 80mm	10mm	15mm	50mm	Zinc & Yellow	50
MTB10100	M10 x 100mm	10mm	35mm	50mm	Zinc & Yellow	50
MTB10120	M10 x 120mm	10mm	65mm	50mm	Zinc & Yellow	50
MTB12100	M12 x 100mm	12mm	25mm	65mm	Zinc & Yellow	50
MTB12120	M12 x 120mm	12mm	45mm	65mm	Zinc & Yellow	25
MTB12140	M12 x 140mm	12mm	65mm	65mm	Zinc & Yellow	25
MTB12180	M12 x 180mm	12mm	105mm	65mm	Zinc & Yellow	25
MTB16125	M16 x 125mm	16mm	30mm	85mm	Zinc & Yellow	20