

## Through Bolt

**Zinc and Yellow Passivated**

**Product group: 0841**

Assembled through fixing with nut and washer.  
Bright Zinc plated and Yellow passivated min 5µm  
Suitable for use in concrete over 20 N/mm<sup>2</sup>



	Measure	M6	M8	M10	M12	M16	M20	M24
Thread Diameter	mm	6	8	10	12	16	20	24
Drill Hole Diameter	mm	6	8	10	12	16	20	24
Clearance Hole Diameter	mm	7	9	12	14	18	22	26
Embedment depth	mm	35	40	50	60	70	100	120
Min. structure Thickness	mm	50	60	80	100	110	130	180
Ultimate Tensile Strength	N/mm <sup>2</sup>	500	500	500	500	400	400	400
Yield Strength	N/mm <sup>2</sup>	400	400	400	400	240	240	240
Rec.Tightening Torque	Nm	6	10	28	34	85	160	300
Characteristic Tensile Load	kN	5.4	8.4	12.9	20.4	24.0	32.4	57.6
Recommended Tensile Load	kN	1.8	2.8	4.3	6.8	8.0	10.8	26.2
Characteristic Shear Load	kN	5.8	8.0	14.5	18.0	26.0	35.0	74.0
Recommended Shear Load	kN	2.3	3.2	5.8	7.2	10.4	14.0	49.3
Minimum Centre Spacing	mm	70	80	100	120	140	200	240
Minimum Edge Distance	mm	50	60	80	100	130	160	200

### Normal Embedment

Loads Stated are for 30 N/mm<sup>2</sup> concrete (C20/25)

Shear loads are away from a free edge

Ultimate Tensile Strength specified from the grade of material 5.8 and 4.6.

Yield Strength a multiplication of the grade factor x

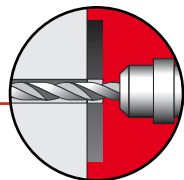
Ultimate tensile Strength (eg 5.8 = 500 x .8 = 400)

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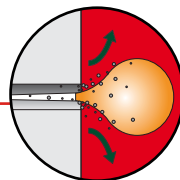
1. Position item being fixed and drill correct diameter hole to the minimum recommended depth through the fixture into the substrate.
2. Clean hole by brushing and blowing to remove excess debris and dust.
3. Insert Through Bolt through the fixture and into the hole.
4. Tap into position.
5. Tighten to recommended tightening torque.

### Potential applications:

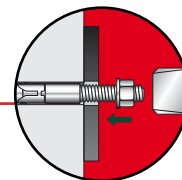
Brackets for pipework  
Industrial boilers  
Roof beams to concrete frames  
High rise racking  
Racking protection barriers  
Guide rails  
Water tanks  
Shutter footplates  
Supports  
Escape ladders  
Steel erection beams  
Fire escapes



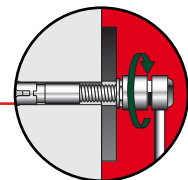
Drill your hole to the correct diameter...



...clear any debris...



...insert Through Bolt through fixture into hole...



...tighten to recommended tightening torque