



# Throughbolt HDG

Specification



### Product Information

A Hot Dipped Galvanised, torque controlled through fixing suitable for use in non-cracked concrete range between C20/25 & C50/60.

### Features

Through Fixing  
 Medium to heavy duty loads  
 Torque controlled expansion  
 Supplied pre-assembled for rapid installation

Hot Dipped Galvanised to EN 1461

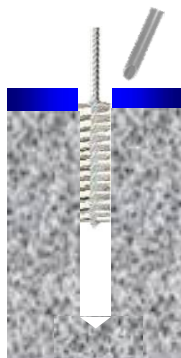
Range Data									
Part Number	Thread Diam	Anchor Length	Drill Hole Diam	Fixture Clearance Hole	Maximum Fixture Thickness	Minimum Embedment Depth	Minimum Hole Depth	Minimum Structure Thickness	Installation Torque
mm	mm		mm	mm	mm	mm	mm	mm	Nm
*TG08050	8	50	8	9	5	36	45	100	15
TG08075		75			10				
TG08095		95			30				
TG08120		120			55				
*TG10060	10	60	10	12	10	40	50	100	30
*TG10070		70			20				
TG10080		80			10				
TG10100		100			30				
TG10125	125	50							
*TG12085	12	85	12	14	10	60	70	100	50
TG12100		100			5				
TG12115		115			20				
TG12145		145			80				
TG12180	180	85							
*TG16110	16	110	16	18	15	75	85	150	100
TG16125		130			10				
TG16150		150			30				
TG16200		200			80				
TG20170	20	170	20	22	25	120	130	215	200
TG20220		220			75				
TG20280		280			135				

\* Use Reduce Embedment Loads, Spacings & Edge Distances

### Installation Instructions



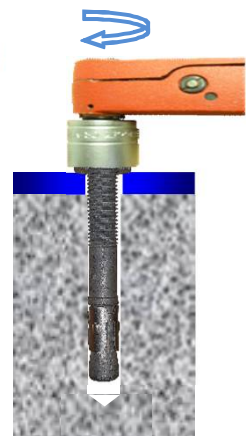
Position fixture and drill correct diameter hole to correct depth



Clean hole by brushing and blowing to remove all dust and drilling debris



Insert assembled anchor through fixture into concrete



Tighten with torque wrench to Installation Torque



## Standard Embedment

Performance Data (C20/25 Non-Cracked Concrete)											
Thread Diam	Minimum Structure Thickness	Characteristic Resistance		Design Resistance		Recommended Resistance		Design Spacing	Design Edge Distance		Tight. Torque
mm	mm	kN		kN		kN		mm	mm		Nm
		Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear	
8	100	13.5	11.0	7.4	8.7	5.2	6.2	85	70	95	15
10	110	18.3	18.9	10.1	12.6	7.2	9.0	145	100	125	30
12	140	27.4	25.0	15.2	19.9	10.8	14.2	240	130	175	50
16	180	41.6	44.0	23.1	33.0	16.5	23.5	265	180	250	100
20	215	55.1	69.0	30.6	55.1	22.6	39.3	320	210	380	200

Shear Loads towards a free edge are for single anchors where Spacing  $\geq 3 \times$  Edge Distance

For variations in structure thickness, reduced spacing and edge calculations download the free [Anchor Calculation Program](http://www.jcpfixings.co.uk) from [www.jcpfixings.co.uk](http://www.jcpfixings.co.uk)

## Reduced Embedment

Performance Data (C20/25 Non-Cracked Concrete)											
Thread Diam	Minimum Structure Thickness	Characteristic Resistance		Design Resistance		Recommended Resistance		Design Spacing	Design Edge Distance		Tight. Torque
mm	mm	kN		kN		kN		mm	mm		Nm
		Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear	
8	100	7.5	7.4	4.1	4.9	3.0	3.5	85	60	60	15
10	100	9.1	9.1	5.0	6.0	3.6	4.2	95	65	65	30
12	110	17.9	25.0	9.9	19.9	7.0	14.2	150	100	210	50
16	130	25.3	44.0	14.0	33.0	10.0	23.5	190	125	315	100

\* Reduce Embedment only for shorter anchors as indicated in Range Table  
 Shear Loads towards a free edge are for single anchors where Spacing  $\geq 3 \times$  Edge Distance

## Influence of concrete strength

Concrete strength		C20/25	C25/30	C30/37	C40/50	C45/55	C50/60
Cylinder	N/mm <sup>2</sup>	20	25	30	40	45	50
Cube	N/mm <sup>2</sup>	25	30	37	50	55	60
Factor		1.0	1.1	1.22	1.41	1.48	1.55