



Hexagon Bolt

Product Information

A zinc plated, torque controlled through fixing suitable for use in cracked and non-cracked concrete range between C20/25 & C50/60.

Features

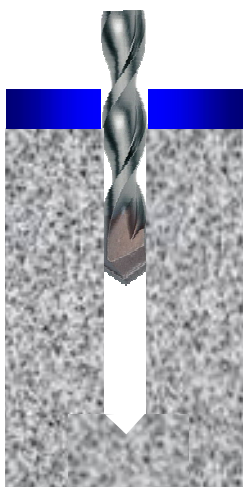
Through Fixing
Heavy duty loads
Torque controlled expansion
Option 1 European Technical Approval
Supplied pre-assembled for rapid installation



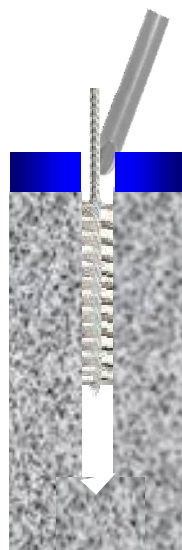
ETA 07/0331

Range Data

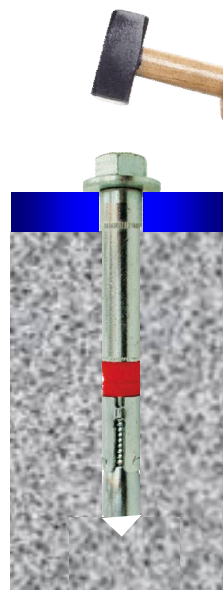
Part Number	Thread Diam	Anchor Length	Drill Hole Diam	Maximum Fixture Thickness	Fixture Clearance Hole	Embedment Depth	Minimum Hole Depth	Structure Thickness	Bolt Across Flats	Installation Torque
mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	Nm
JHD0610	6	75	10	10	12	60	65	105	10.0	15
JHD0630		95		30						
JHD0650		115		50						
JHD0810	8	87	12	10	14	70	80	125	13.0	30
JHD0830		107		30						
JHD0850		127		50						
JHD1015	10	108	15	15	17	85	95	145	17.0	50
JHD1025		118		25						
JHD1045		138		45						
JHD1210	12	117	18	10	20	95	105	165	19.0	80
JHD1220		127		20						
JHD1240		147		40						
JHD1270		177		70						
JHD1610	16	132	24	10	26	120	130	205	24.0	160
JHD1620		152		20						
JHD1650		182		50						
JHD2030	20	192	28	30	30	150	160	255	30.0	280
JHD2060		222		60						



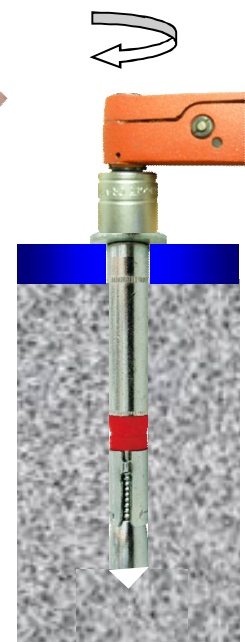
Position fixture and drill correct diameter hole to correct depth



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 recommended torque



Non-Cracked concrete

Performance Data (20/25 Concrete)									
Thread Diam mm	Characteristic Resistance kN		Design Resistance (γ_{Ms} frpm ETA) kN		Approved Resistance ($\gamma_F=1.4$) kN		Design Spacing mm	Design Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear
6	16.0	18.0	10.6	14.3	7.5	10.2	120	105	150
8	20.0	30.0	13.3	23.9	9.5	17.0	130	120	230
10	30.0	48.0	19.9	38.3	14.2	27.3	210	170	345
12	35.0	72.5	23.3	48.1	16.6	34.3	225	200	400
16	50.0	101.0	33.3	67.2	23.7	48.0	295	250	485
20	70.0	140.9	46.9	93.9	33.5	67.0	375	315	590

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

Cracked concrete

Performance Data (20/25 Concrete)									
Thread Diam mm	Characteristic Resistance kN		Design Resistance (γ_{Ms} frpm ETA) kN		Approved Resistance ($\gamma_F=1.4$) kN		Design Spacing mm	Design Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile	Tensile	Shear
6	5.0	18.0	3.3	14.3	2.3	10.2	50 ($C_{min} \geq 80$)	50 ($S_{min} \geq 100$)	220
8	12.0	33.4	7.9	22.3	5.6	15.9	60 ($C_{min} \geq 100$)	60 ($S_{min} \geq 120$)	315
10	16.0	43.0	10.6	28.7	7.5	20.5	115 ($C_{min} \geq 110$)	70 ($S_{min} \geq 215$)	365
12	25.0	51.5	16.6	34.3	11.8	24.5	225 ($C_{min} \geq 120$)	115 ($S_{min} \geq 245$)	405
16	36.0	72.0	23.9	48.0	17.0	34.2	300 ($C_{min} \geq 150$)	150 ($S_{min} \geq 300$)	490
20	50.0	100.5	33.3	67.0	23.7	47.8	370 ($C_{min} \geq 230$)	190 ($S_{min} \geq 540$)	600

(C_{min} = Minimum Edge Distance for Spacing, S_{min} = Minimum Spacing for Edge Distance)

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

Influence of concrete strength

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

When using concrete factors take care not to exceed Characteristic Steel Failure available from ETA