



ETA 12/0233

## Product Information

The Quartz Spin In Capsules are suitable for use in solid concrete and some solid brickwork and natural stone where a high strength, expansion free fixing is required. They can be used in wet and corrosive environments with a suitable grade of threaded stud and also gives good resistance to vibrating loads

## Features

- Expansion free
- High loads
- Close Spacing and Edge Distance
- Can be used in dry and wet concrete



Capsule Data			
Part Number	To Suit Thread Diam	Capsule Diameter	Capsule Length
		mm	mm
JSTUD08110	M8	9	80
JSTUD10130	M10	11	80
JSTUD12160	M12	13	95
JSTUD16190	M16	17	95
JSTUD20260	M20	17	160
JSTUD24300	M24	22	175
JSTUD30380	M30	25	230

Cure Times		
Base Material Temp [°C]	Cure Time Dry Concrete	Cure Time Wet Concrete
-5	5 Hours	10 Hours
+5	1 Hour	2 Hours
+20	20 Mins	40 Mins
+30	10 Mins	20 Mins



**Grade 5.8 Chisel End Studs**  
Zinc plated & clear passivated min 5µm

Installation Data									
Part Number	Thread Diam	Stud Length	Maximum Fixture Thickness	Drill Hole Diam.	Hole Depth	Embedment Depth	Minimum Base Material Thickness	Fixture Clearance Hole	Tightening Torque
		mm	Mm	mm	mm	mm	mm	mm	Nm
JSTUD08110	M8	110	18	10	80	80	110	10	10
JSTUD10130	M10	130	25	12	90	90	120	12	20
JSTUD12160	M12	160	34	14	110	110	140	14	40
JSTUD16190	M16	190	45	18	125	125	165	18	80
JSTUD20260	M20	260	55	22	170	170	215	22	120
JSTUD24300	M24	300	55	26	210	210	265	26	180
JSTUD30380	M30	380	55	32	280	280	345	34	300

For other Chisel Point Stud finishes use the following suffixes  
Hot Dipped Galvanised = G, High Tensile = HT, Stainless Steel A2 = SS, Stainless Steel A4 = SSA4



## Grade 5.8 Zinc Plated and Hot Dipped Galvanised Studs

Performance Data (20/25 Concrete)									
Thread Diam	Characteristic Resistance		Design Resistance ( $\gamma_{Ms}$ from ETA)		Approved Resistance ( $\gamma_F=1.4$ )		Design Spacing	Design Edge Distance	
mm	kN		kN		kN		mm	mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear
8	17.9	9.0	11.9	7.1	8.6	5.1	135	80	70
10	28.2	15.0	18.7	11.9	13.4	8.5	230	115	110
12	41.4	21.0	27.6	16.7	19.7	12.0	280	140	130
16	62.8	39.0	41.8	31.0	29.8	22.3	370	185	240
20	101.4	61.0	67.6	48.6	48.3	34.8	450	225	315
24	150.4	88.0	100.2	70.3	71.6	50.2	610	310	415
30	236.6	140.0	131.4	112.0	93.8	80.0	840	420	520

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

## Stainless Steel A2/304 and A4/316 Grade 70 Studs

Performance Data (20/25 Concrete)									
Thread Diam	Characteristic Resistance		Design Resistance ( $\gamma_{Ms}$ from ETA)		Approved Resistance ( $\gamma_F=1.4$ )		Design Spacing	Design Edge Distance	
mm	kN		kN		kN		mm	mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear
8	20.1	13.0	13.4	8.3	9.6	5.9	185	95	75
10	28.2	20.0	18.7	12.8	13.4	9.1	230	115	110
12	41.4	29.0	27.6	18.5	19.7	13.2	280	140	145
16	62.8	55.0	41.8	35.2	29.8	25.1	370	185	265
20	101.4	86.0	67.6	55.1	48.3	39.3	450	225	350
24	150.4	124.0	100.2	79.4	71.6	56.7	610	310	450

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

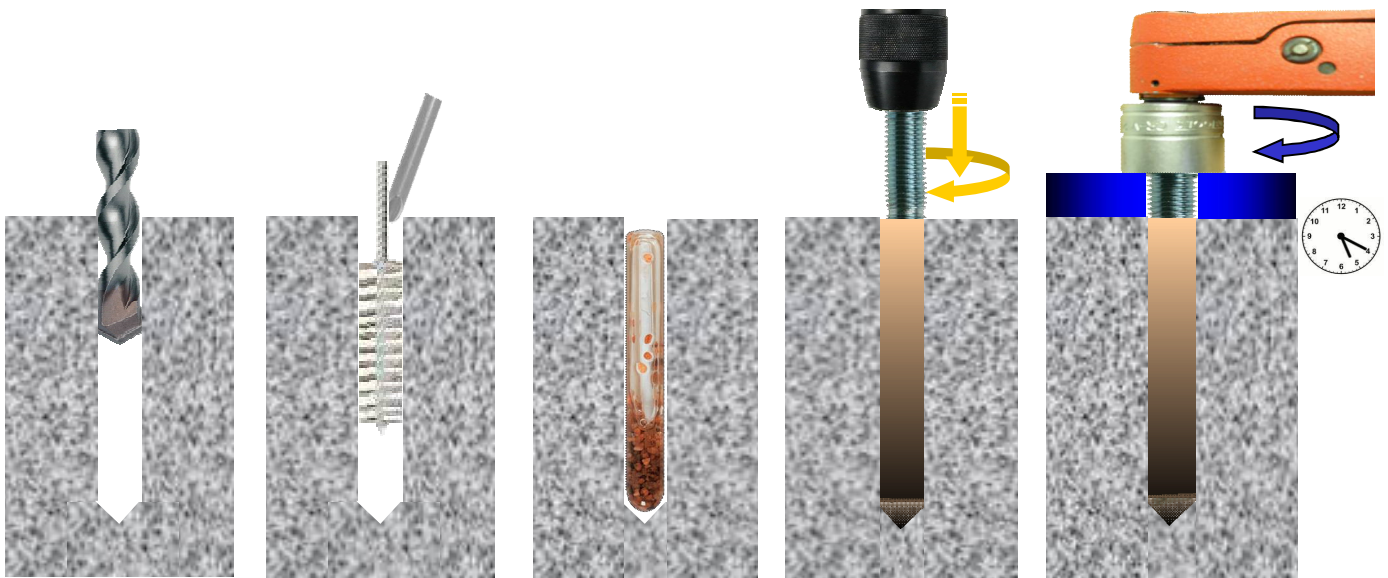
For variations in structure thickness, reduced spacing and edge calculations download the free [Anchor Calculation Program](http://www.jcpfixings.co.uk) from [www.jcpfixings.co.uk](http://www.jcpfixings.co.uk)

## Influence of concrete strength

Concrete strength		C20/25	C30/37	C40/50	C50/60
Cylinder	N/mm <sup>2</sup>	20	30	40	50
Cube	N/mm <sup>2</sup>	25	37	50	60
Factor		1.0	1.08	1.15	1.19

## Steel Design resistance for single anchor

		M8	M10	M12	M16	M20	M24	M30	
Tensile	kN	12.0	19.3	28.0	52.6	82.0	118.0	187.3	Grade 5.8
		19.3	30.6	44.6	84.0	130.6	188.0	299.3	Grade 8.8
		13.9	21.5	31.0	57.8	90.5	130.0	210.1	Stainless Steel Grade A4-70
Shear	kN	7.2	12.0	16.8	31.2	48.7	70.4	112.0	Grade 5.8
		12.0	18.4	27.2	50.4	78.4	112.8	179.2	Grade 8.8
		8.3	12.8	19.2	35.2	55.1	79.4	125.6	Stainless Steel Grade A4-70



Drill correct diameter hole to correct depth

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

Insert Spin In Capsule with air bubble nearest to surface of concrete

Attach setting tool to stud and spin in with drilling machine using rotary hammer action until depth mark is reached

Allow resin to cure, attach fixture and tighten to Recommended Torque