Internal Threaded Sockets

Product Information

The Internal threaded Sockets provide a flush fixing which allows for the attachment of a suitable bolt or threaded rod. Available in zinc plated and A2/304 stainless steel versions.

Features

1 Expansion free

2 High Loads

3 Close Spacing and Edge Distance

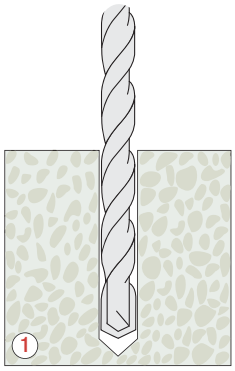
4 Allows removal of bolt to leave a re-usable socket in place

Data is for Spin In Capsules and Vinylester (Highload) Resin

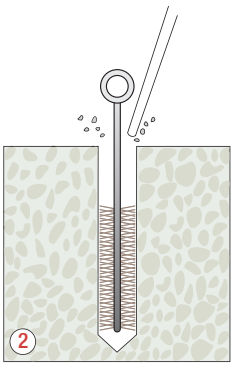
Socket Data

Part Number			Thread Diameter mm	Socket Length mm	Internal Thread Length mm	Drill Hole Diameter mm	Hole Depth mm	Fixture Clearance Hole mm	Minimum Structure Thickness mm	Tightening Torque Nm
Zinc Plated	Stainless Steel A2/304	Use with Capsule								
ITSM08BZP	ITSM08SS	JCAPSM12	8	90	30	14	90	10	110	7
ITSM10BZP	ITSM10SS	JCAPSM16	10	90	35	18	90	12	120	11
ITSM12BZP	ITSM12SS	JCAPSM16	12	90	40	25	90	14	140	25
ITSM016ZP	ITSM16SS	JCAPSM16	16	125	40	28	125	18	160	50

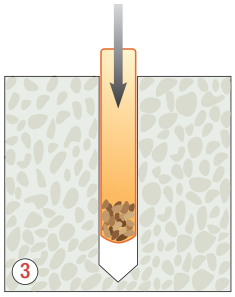
Installation Instructions



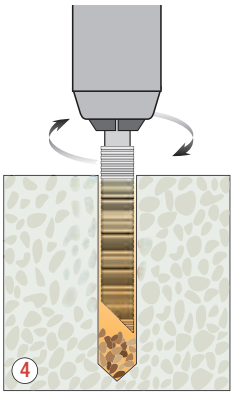
Drill hole of correct diameter and correct depth



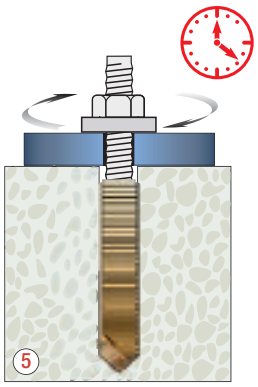
Clean hole by brushing and blowing to remove drilling debris and dust



Insert Spin-In Capsule into drilled hole with air gap in capsule nearest to surface



Attach setting tool to socket and spin in with drilling machine using rotary hammer action until flush with surface



Allow the resin to cure for appropriate time. Attach fixture and tighten anchor to Recommended Torque

For Injection Resin inject correct amount of resin into hole and insert socket rotating the socket by hand to ensure even distribution of resin

For Injection Resin installation it is advisable to insert a bolt into the socket prior to installation to prevent resin entering the internal threads of the socket

Cure Times

For appropriate cure times see instructions on relevant resin products

Performance Data (20/25 Concrete)									
Thread Diameter mm	Characteristic Resistance kN		Design Resistance kN		Recommended Load kN		Spacing mm	Edge Distance mm	
	Tensile	Shear	Tensile	Shear	Tensile	Shear	Tensile & Shear	Tensile	Shear
8	35.6	9.0	12.2	7.2	8.7	5.7	135	80	90
10	42.7	14.0	16.9	11.2	12.1	8.5	180	90	125
12	52.2	21.0	20.7	16.8	14.8	11.3	200	100	160
16	92.3	39.0	36.6	31.2	26.1	14.2	250	125	270

Shear Loads towards a free edge are for single anchors where Spacing ≥ 3 x Edge Distance

Loads are for JCP Grade 5.8 Studs and Grade 70 Stainless Steel Studs

Reduced Design Resistance (kN) • Divide Loads by 1.4 for Recommended Loads

Edge Distance (C20/25 Concrete) for single anchors								
Edge mm	Tensile Resistance				Shear Resistance			
	M8	M10	M12	M16	M8	M10	M12	M16
45	8.5				3.6			
50	9.0	11.6			4.0			
55	9.5	12.3	14.2		4.4			
60	10.1	13.0	14.9		4.8			
65	10.6	13.6	15.6		5.2	5.8		
70	11.1	14.3	16.4	24.3	5.6	6.3		
80	12.2	15.6	17.8	25.3	6.4	7.2	8.4	
90		16.9	19.3	27.4	7.2	8.1	9.5	
100			20.7	29.4		9.0	10.5	
110				31.5		9.9	11.6	
120				33.5		10.8	12.6	
125				36.6		11.2	13.1	
140							14.7	16.2
160							16.8	18.5
180								20.8
200								23.1
220								25.4
250								28.9
270								31.2

Spacing (C20/25 Concrete)				
Spacing mm	Tensile Resistance per Pair of Anchors			
	M8	M10	M12	M16
70	18.5			
80	19.4			
90	20.3			
100	21.2	26.3		
110	22.1	27.2		
120	23.0	28.2	33.1	
135	24.4	29.6	34.7	
150		31.0	36.2	58.6
160		31.9	37.3	60.0
170		32.9	38.3	61.5
180		33.8	39.3	63.0
190			40.4	64.4
200			41.4	65.9
210				67.3
220				68.8
230				70.3
240				71.7
250				73.2

Influence of Concrete Strength

Concrete Strength		C20/25	C25/30	C30/37	C40/50	C45/55	C50/60
Cylinder	N/mm²	20	25	30	40	45	50
Cube	N/mm²	25	30	37	50	55	60
Factor		1.00	1.10	1.22	1.41	1.48	1.55

When using concrete factors check all other information to ensure Steel Strength and Pull out Resistance is not exceeded

Steel Design Resistance for single anchor

		M8	M10	M12	M16	
Tension	kN	12.0	19.3	28.0	52.0	Grade 5.8
	kN	13.9	21.4	31.5	58.8	Stainless Steel Grade 70
Shear	kN	7.1	11.2	16.8	31.2	Grade 5.8
	kN	8.3	12.8	18.5	35.2	Stainless Steel Grade 70

Anchor Mechanical Properties

		M8	M10	M12	M16	
Nominal Tensile Strength	N/mm²	500	500	500	500	Zinc plated
		700	700	700	700	Stainless Steel
Yield Strength	N/mm²	400	400	400	400	Zinc plated
		450	450	450	450	Stainless Steel
Nut A/F	mm	13	17	19	24	
Washer Diameter	mm	16	21	24	30	