Sleeve Anchor Hex Nut

Product Information

The Sleeve Anchor is an all steel, thin walled, through fixing for general purpose applications. Suitable for fixing into Concrete, Solid Brick, Dense Blockwork and some Natural Stone. Finish available: Zinc Plated and Yellow Passivated min 5µm and Stainless Steel Grade A4-316.

Features

1 All Steel Anchor

2 Through fixing

3 Optimum collapse feature to ensure maximum clamping force

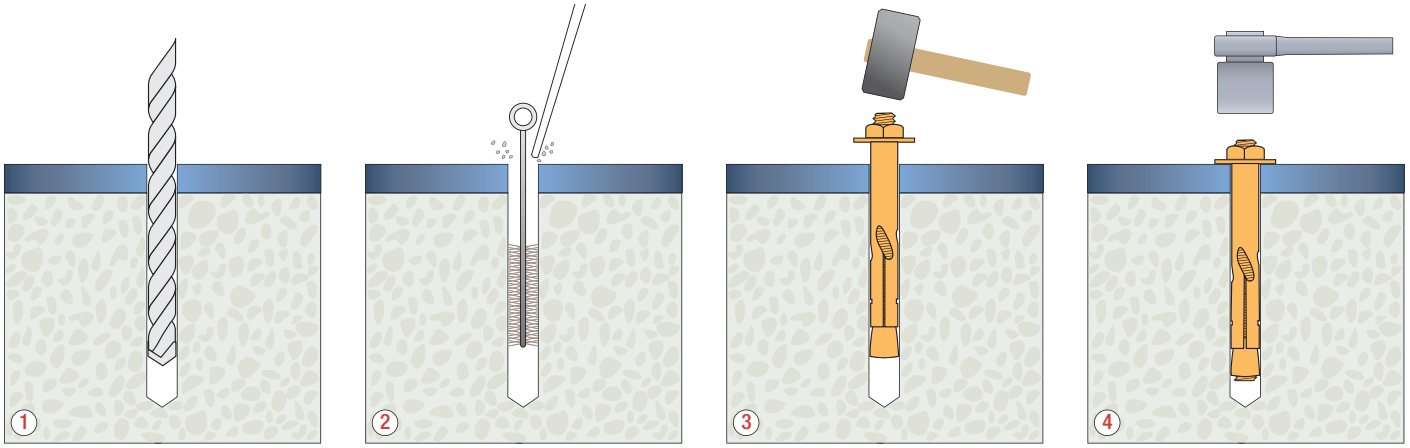
4 Stainless Steel Sleeve available

Range Data

Part Number		Thread Diameter	Drill Hole Diameter	Anchor Length	Maximum Fixture Thickness	Embedment Depth	Maximum Hole Depth	Fixture Clearance Hole	Minimum Structure Thickness	Tightening Torque
Hex Nut BZP	Hex Nut SS	mm	mm	mm	mm	mm	mm	mm	mm	Nm
	SLSS06060	4.5	6	60	25	30	35	7	50	10
SLN08040	SLSS08040	6	8	40	8*	30	35	9	60	20
SLN08065	SLSS08065			65	30	35	40			
SLN08085				85	50					
SLN10050	SLSS10050	8	10	50	8	40	45	12	70	40
SLN10075	SLSS10075			75	35					
SLN10100	SLSS10100			100	60					
SLN10125				125	80					
SLN12060	SLSS12060	10	12	60	10*	45	50	14	90	65
SLN12075	SLSS12075			75	22	50	60			
SLN12100	SLSS12100			100	45					
SLN12125				125	70					
SLN16065		12	16	65	12*	50	60	18	95	90
SLN16110				110	49	55	65			
SLN16150				150	90					
SLN20080		16	20	80	14	60	70	22	100	165
SLN20110				110	47					
SLN20150				150	90					

*Reduced Loading due to shallow embedment depths – Contact Technical Helpline

Installation Instructions



1 Position fixture and drill correct diameter hole to correct depth

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

3 Insert Sleeve Anchor through fixture into drilled hole

4 Tighten Anchor to Recommended Torque

Performance Data (20/25 Concrete)									
Anchor 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
6	5.4	4.0	2.6	2.2	1.8	1.6	80	40	60
8	6.6	4.5	3.1	2.5	2.2	1.8	90	45	80
10	10.2	8.3	4.9	4.6	3.4	3.3	100	50	100
12	12.6	13.3	6.0	7.4	4.2	5.3	130	65	120
16	15.0	19.3	7.1	10.7	5.0	7.7	140	70	160
20	17.7	36.0	8.4	20.0	5.9	14.3	150	75	200

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

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

Edge Distance (C20/25 Concrete) for single anchors												
Edge mm	Tensile Resistance						Shear Resistance					
	M8	M10	M12	M16	M20	M24	M8	M10	M12	M16	M20	M24
35	2.4											
40	2.6	2.9					1.5					
45		3.1	4.6				1.7					
50			4.9	5.0			1.8	1.6				
60				5.7	6.4		2.2	1.9				
65				6.0	6.7	7.6		2.0				
70					7.1	8.0		2.2	3.2			
75						8.4		2.3	3.5			
80								2.5	3.7	4.9		
90									4.1	5.6		
100									4.6	6.2	6.7	
120										7.4	8.0	
140											9.4	14.0
160											10.7	16.0
180												18.0
200												20.0

Spacing (C20/25 Concrete)						
Spacing mm	Tensile Resistance per Pair of Anchors					
	M8	M10	M12	M16	M20	M24
50	4.2					
55	4.4					
60	4.6					
65	4.7	5.3				
70	4.9	5.5				
75	5.0	5.7				
80	5.2	5.9	8.8			
85		6.0	9.1			
90		6.2	9.3	10.2		
95			9.6	10.4		
100			9.8	10.6	12.2	
110				11.1	12.7	14.6
120				11.5	13.2	15.1
130				12.0	13.7	15.7
140					14.2	16.2
150						16.8

Influence of Concrete Strength

Concrete Strength		C20/25	C25/30	C30/37	C40/50	C45/55	C50/60
Cylinder	N/mm²	Increased concrete strength factors cannot be used with this anchor					
Cube	N/mm²						
Factor							

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

		M6	M8	M10	M12	M16	M20
Tension	kN	Not Applicable					
Shear	kN						

Anchor Mechanical Properties

		M6	M8	M10	M12	M16	M20
Tensile Strength	N/mm²	400	400	400	400	400	400
Yield Strength	N/mm²	240	240	240	240	240	240
Nut A/F	mm		10.0	13.0	17.0	19.0	24.0
Washer Diameter	mm		12.0	17.0	21.0	24.0	30.0

Loads for solid Brickwork (20.5N/mm²)	
Anchor Diameter	Recommended Load kN
M6	0.6
M8	1.1
M10	1.5
M12	2.2
M16	2.5

Loads for Concrete Blocks (7N/mm²)	
Anchor Diameter	Recommended Load kN
M6	0.5
M8	0.8
M10	1.0
M12	1.4
M16	1.9

Loads are for any direction
Maintain Spacing as per Concrete Loads but only 1 fixing per brick is recommended
Do not fix closer than 1 brick away from a free edge
Due to the variable nature of Brickwork and Blockwork these figures are for guidance only
For critical applications a site test is recommended