



## Product Information

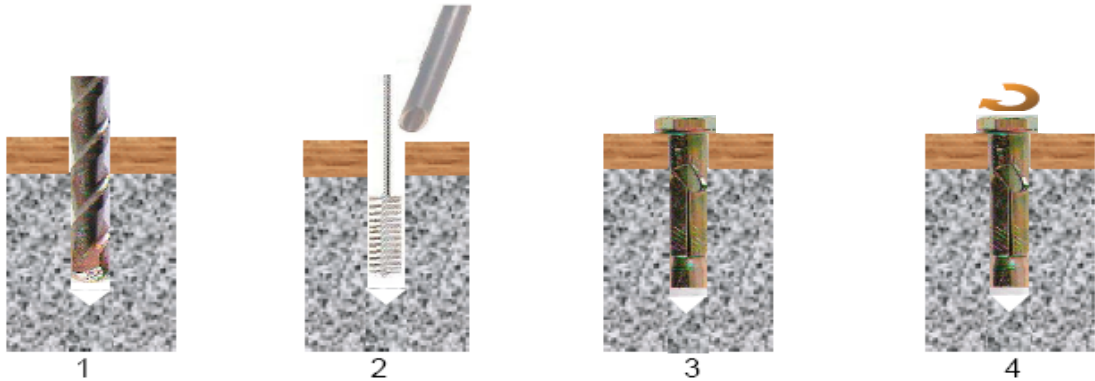
The Sleeve Anchor is an all steel, thin walled, through fixing for general purpose applications  
 Suitable for fixing into  
 Concrete, Solid Brick, Dense Blockwork  
 Some Natural Stone  
 Finish available :-  
 Zinc Plated and Yellow Passivated min 5µm  
 Countersunk in Stainless Steel Grade A2

## Features

1. All Steel anchor
2. Through fixing
3. Optimum collapse feature to ensure maximum clamping force
4. Hex Bolt and Countersunk Head for flush finish

Part Number		Thread Diam	Drill Hole Diam	Anchor Length	Maximum Fixture Thickness	Embedment Depth	Minimum Hole Depth	Fixture Clearance Hole	Min Structure Thickness	Tightening Torque
Hex Bolt	Countersunk	mm	mm	mm	mm	mm	mm	mm	mm	Nm
SLB08045	SLC08060 SLC08085	6	8	45	8	35	45	9	60	20
SLB08070				60	25					
SLB08090				70	30					
SLB08090				85	50					
SLB10045	SLC10075 SLC10100	8	10	45	6	35	40	11	70	40
SLB10055				55	14	40	45			
SLB10080				75	35	45	50			
SLB10100				80	35					
SLB12065	SLC12100	10	12	65	12	50	65	13	90	65
SLB12080				80	22					
SLB12100				100	40					
SLB16075	SLC16110			75	15	60	70	17	100	90
SLB16110				110	50					
	SLC08045SS	6	8	45	5	40	50	9	60	20
	SLC08060SS			60	20					
	SLC10060SS	8	10	60	5	55	60	11	70	40
	SLS10080SS			80	25					
	SLC12070SS	10	12	70	5	65	75	13	80	60
	SLC12100SS			100	35					

## Installation Instructions



- 1 Position fixture and drill correct diameter hole to minimum recommended depth through fixture
- 2 Clean 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.

# Sleeve Anchor Hex Bolt & Countersunk



## Performance Data C20/25 Concrete

Anchor Diam 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	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  $\geq 3 \times$  Edge Distance

## Reduced Design Resistance (kN)

Divide Loads by 1.4 for Recommended (Factored) Loads

### Edge Distance (C20/25 Concrete) for single anchors

Edge mm	Tensile Resistance					Shear Resistance				
	M8	M10	M12	M16	M20	M8	M10	M12	M16	M20
40	2.9									
45	3.1	4.6								
50		4.9	5.0			1.6				
60			5.7	6.4		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
75	5.7				
70	5.5				
75	5.7				
80	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/mm <sup>2</sup>	Increased concrete strength factors cannot be used with this anchor					
Cube	N/mm <sup>2</sup>						
Factor							

When using concrete factors check all other information to ensure Steel Tensile and Shear Resistance is not exceeded

## Steel design resistance for single anchor

		M8	M10	M12	M16	M20
Tension	kN	Not Applicable				
Shear	kN					

## Anchor mechanical properties

		M8	M10	M12	M16	M20
Tensile Strength	N/mm <sup>2</sup>	400	400	400	400	400
Yield Strength	N/mm <sup>2</sup>	240	240	240	240	240
Nut A/F	mm	10.0	13.0	17.0	19.0	24.0
Washer Diam.	mm	12.0	17.0	21.0	24.0	30.0

## Loads for solid Brickwork (20.5N/mm<sup>2</sup>)

Anchor Diam	Recommended Load kN
M8	1.1
M10	1.5
M12	2.2
M16	2.5

## Loads for Concrete Blocks (7N/mm<sup>2</sup>)

Anchor Diam	Recommended Load kN
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