



Product Information

The Shield Anchor is an all steel, internally threaded expansion anchor 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 Stainless Steel Grade A4-316 (Shield only).

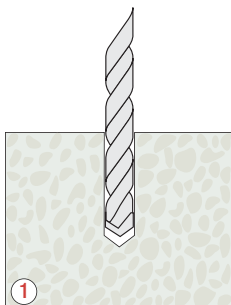
Features

- 1 All Steel anchor
- 2 High degree of expansion
- 3 High Tensile Bolt
- 4 Stainless Steel Shield available

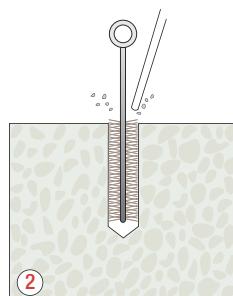
Range Data

Part Number		Anchor Length			(Figures in brackets are for Stainless Steel Shields)						
Shield Only BZP	Shield Only SS	Thread Diameter mm	Shield Only mm	Length Under Head mm	Maximum Fixture Thickness mm	Drill Hole Diameter mm	Minimum Hole Depth mm	Embedment Depth mm	Fixture Clearance Hole mm	Minimum Structure Thickness mm	Tightening Torque Nm
ASHOM06	PSM06SS	6	45(40)		–	12(10)	50(45)	45(40)	8	80	6
ASHOM08	PSM08SS	8	50		–	14	55	50	10	100	14
ASHOM10	PSM10SS	10	60		–	16	65	60	12	120	27
ASHOM12	PSM12SS	12	75(80)		–	20	85(90)	75(80)	14	160	46
ASHOM16		16	110		–	25	120	110	18	200	110
	Loose Bolt										
	ALB0610			55	10						
	ALB0625	6		70	25	12	50	45	8	80	6
	ALB0640			85	40						
	ALB0810			60	10						
	ALB0825	8		75	25	14	55	50	10	100	14
	ALB0840			90	40						
	ALB1010			70	10						
	ALB1025	10		85	25	16	65	60	12	120	27
	ALB1050			110	50						
	ALB1075			135	75						
	ALB1210			85	10						
	ALB1225	12		100	25	20	85	75	14	160	46
	ALB1240			115	40						
	ALB1260			135	60						
	ALB1615			135	15						
	ALB1630	16		150	30	25	120	110	18	200	110
	ALB1660			180	60						

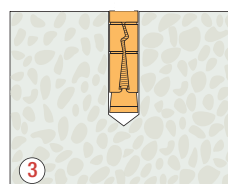
Installation Instructions



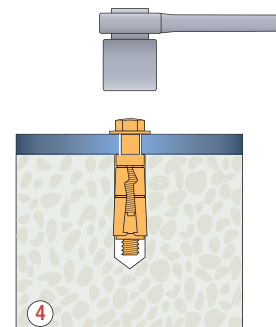
1 Position fixture and drill correct diameter hole to correct depth



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



3 Insert Shield into drilled hole



4 Position fixture, insert bolt into shield and tighten to Recommended Torque

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
6	7.2	8.8	4.0	4.9	2.9	3.5	140	70	100
8	12.7	15.8	7.1	8.8	5.0	6.3	150	75	120
10	20.3	25.1	11.3	13.9	8.1	10.0	180	90	150
12	28.6	36.6	15.9	20.3	11.3	14.5	230	120	180
16	48.9	69.2	27.2	38.4	19.4	27.5	330	170	250

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 Loads

Edge mm	Tensile Resistance					Shear Resistance				
	M8	M10	M12	M16	M20	M8	M10	M12	M16	M20
50	3.2									
60	3.6	6.1								
70	4.0	6.8	9.5			3.4				
75		7.1	10.0			3.7	5.5			
80			10.4	12.2		3.9	5.9			
90			11.3	13.1		4.4	6.6	8.3		
100				14.0		4.9	7.3	9.3		
110				15.0	20.5		8.1	10.2	12.4	
120				15.9	21.6		8.8	11.1	13.5	
125					22.2			11.6	14.1	
130					22.7			12.0	14.7	
150					25.0			13.9	16.9	
170					27.2				19.2	26.1
180									20.3	27.6
210										32.3
250										38.4

Spacing mm	Tensile Resistance per Pair of Anchors				
	M8	M10	M12	M16	M20
70	6.0				
90	6.6	11.4			
110	7.1	12.3			
130	7.7	13.3	19.5		
140	8.0	13.7	20.1		
145		14.0	20.4		
150		14.2	20.7	26.3	
160			21.3	27.0	
170			22.0	27.7	
180			22.6	28.3	42.0
200				29.7	43.7
220				31.1	45.3
230				31.8	46.2
270					49.5
300					51.9
330					54.4

Influence of Concrete Strength

Concrete Strength		C20/25	C25/30	C30/37	C40/50	C45/55	C50/60
Cylinder	N/mm ²	Increased concrete strength factors cannot be used with this anchor					
Cube	N/mm ²						
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
Tension	kN	10.7	19.3	30.7	44.7	84.0
Shear	kN	6.1	11.3	17.9	26.1	49.4

Anchor Mechanical Properties

		M6	M8	M10	M12	M16
Tensile Strength	N/mm ²	800	800	800	800	800
Yield Strength	N/mm ²	640	640	640	640	640
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/mm ²)	
Anchor Diameter	Recommended Load kN
M6	1.8
M8	2.3
M10	2.9
M12	4.3

Due to the variable nature of brickwork these loads are for guidance only

Where loading is critical a site test is recommended

Loads are for both Tension & Shear but Combined Loads must not exceed quoted figures

Anchors above 12mm are not recommended in Brickwork