SLEEVE ANCHORS - TECHNICAL DATA

Product Information

Thin walled torque controlled expansion anchor for light to medium duty .

For applications in a variety of solid sub-strates.

Through fixing: thus eliminating the need for marking out as the fixture can be used as a template.

Material

Hex Bolt: DIN 933 grade 6.8

Cone bolt: 4.6 Grade

Sleeve/Body: Steel C1008

Washer: DIN 125

Nut: DIN 934

Typical Applications

Storage systems
Barriers & Balustrades
Racking
Hand rails
Signs

Loose Nut

SIZE	Anchor Hole Size	Anchor Length mm	Max Fix-ture Thick-ness mm	Min Hole Depth mm	Clearance hole in fixture
8 x 40	8	40	10	40	10
8 x 65	8	65	30	40	10
8 x 85	8	85	50	40	10
10 x 50	10	50	10	45	12
10 x 75	10	75	35	45	12
10 x 100	10	100	60	45	12
12 x 60	12	60	15	55	14
12 x 75	12	75	25	55	14
12 x 100	12	100	50	55	14
12 x 125	12	125	75	55	14
16 x 65	16	65	15	65	18
16 x 110	16	110	55	65	18
16 x 150	16	150	90	65	18
20 x 80	20	80	15	75	22
20 x 110	20	110	50	75	22
20 x 150	20	150	90	75	22

Loose Bolt

SIZE	Anchor Hole Size	Anchor Length	Max Fix-ture Thick-ness mm	Min Hole Depth mm	Clearance hole in fixture
8 x 45	8	45	10	40	10
8 x 70	8	70	30	40	10
8 x 90	8	90	50	40	10
10 x 45	10	45	5	45	12
10 x 55	10	55	15	45	12
10 x 80	10	80	35	45	12
10 x 100	10	100	55	45	12
12 x 65	12	65	10	55	14
12 x 80	12	80	25	55	14
12 x 100	12	100	40	55	14
16 x 75	16	75	15	65	18
16 x 110	16	110	50	65	18

SLEEVE ANCHORS - TECHNICAL DATA

PERFORMANCE DATA									
				Concrete C20 / C25			Masonry * (rec tensile and rec shear loads)		
Size	Centre Spacing mm	Edge Distance mm	Minimum Concrete Thickness mm	Rec Load Tension kN	Rec Load Shear kN	Rec Torque Nm	Block Work 7-10 N/mm2	Sand Lime Solid Brick 12 N/mm2	Brickwork > 20 N/mm2
8	80	70 / 80	60	2.0	2.1	15	0.6	0.9	1.5
10	90	80 / 95	70	3.1	3.6	35	1.0	1.3	2.0
12	105	95 / 120	85	4.0	5.5	60	1.4	1.5	2.3
16	130	120 / 160	100	5.0	7.9	80	1.9	1.9	2.6
20	150	135 / 220	120	6.1	12.2	160	-	-	-

* Fix in centre line of bricks 35 to 40 mm from ends and avoid top three courses, edge bricks, part bricks and mortar joints. Installation torque should be reduced by 70% for materials 7 - 10 N/mm2 and 50% for 12 - 20 N/mm2. Site tests recommended as masonry is variable.

CENTRE TO CENTRE SPACING: For Tensile and Shear loads					
Sleeve Anchor: Standard embedment: Axial spacing Tension & Shear					
anchor size	8	10	12	16	20
Axial mm					
45	0.80				
50	0.83	0.79			
55	0.87	0.81			
60	0.90	0.84	0.77		
70	0.97	0.90	0.81		
80	1.00	0.96	0.86	0.79	
90		1.00	0.90	0.83	0.80
105			1.00	0.88	0.85
120				0.94	0.90
130				1.00	0.93
150					1.00
S Min	45	50	60	80	90
S Char	80	90	105	130	150
H min	60	70	85	100	120
hef	25	30	40	50	65

Notes

EDGE DISTANCE: Tensile loads and Shear loads away from edge					
Sleeve Anchor: Standard embedment: Edge Distance / Tension					
anchor size	8	10	12	16	20
EDGE mm					
40	0.68				
45	0.74	0.69			
55	0.85	0.79	0.70		
60	0.91	0.84	0.74		
65	0.96	0.89	0.78	0.65	
70	1.00	0.94	0.82	0.68	
75		0.97	0.87	0.71	0.68
80		1.00	0.91	0.74	0.71
95			1.00	0.83	0.80
105				0.90	0.86
120				1.00	0.95
135					1.00
C Min T	40	45	55	65	75
C Char T	70	80	95	120	135
H min	60	70	85	100	120
hef	25	30	40	50	65

EDGE DISTANCE: Shear loads towards edge					
Sleeve Anchors: Standard embedment: Edge Distance / Shear					
anchor size	8	10	12	16	20
EDGE mm					
40					
45	0.50				
55	0.55				
60	0.75	0.50			
65	0.80	0.55			
70	0.90	0.60	0.50		
75	0.95	0.65	0.55		
80	1.00	0.75	0.60	0.50	
95		1.00	0.80	0.60	
105			0.95	0.65	0.50
120			1.00	0.80	0.60
135				0.90	0.70
160				1.00	0.85
220					1.00
C Min S	45	60	70	80	105
C Char S	80	95	120	160	220
H min	60	70	85	100	120
hef	25	30	40	50	65