



### Product Information

The Drop In Anchor is a deformation controlled anchor for use in solid concrete. It has an internal thread suitable for attaching threaded studs and bolts. The Lipped Drop in can be used in Hollow Concrete Planks and set independent of hole depth. Finish available Zinc Plated and Yellow Passivated min 5µm and A4 Stainless Steel (not Lipped Drop).

### Features

- 1 Internal thread suitable for bolt or threaded stud
- 2 Permanent socket to allow removal and replacement of fixture
- 3 Lipped version allows for installation independent of hole depth
- 4 Stainless Steel version available

### Straight Drop In anchors (Figures in brackets are for Stainless Steel anchors)

Part Number		Thread Diameter mm	Drill Hole Diameter mm	Anchor Length mm	Hole Depth mm	Internal Thread Length mm	Fixture Clearance Hole mm	Tightening Torque Nm
Zinc Plated	Stainless Steel							
DBM06	DSSM06	6	8	25 (30)	25 (30)	10 (11)	8	4
DBM08	DSSM08	8	10	30	30	14 (13)	10	9
DBM10	DSSM10	10	12	40	40	15 (15)	12	17
DBM12	DSSM12	12	15	50	50	20 (19)	14	30
DBM16	DSSM16	16	20	65	65	22 (25)	18	75
DBM20		20	25	80	80	30	22	144

Figures in brackets are for Stainless Steel anchors

### Lipped Drop In

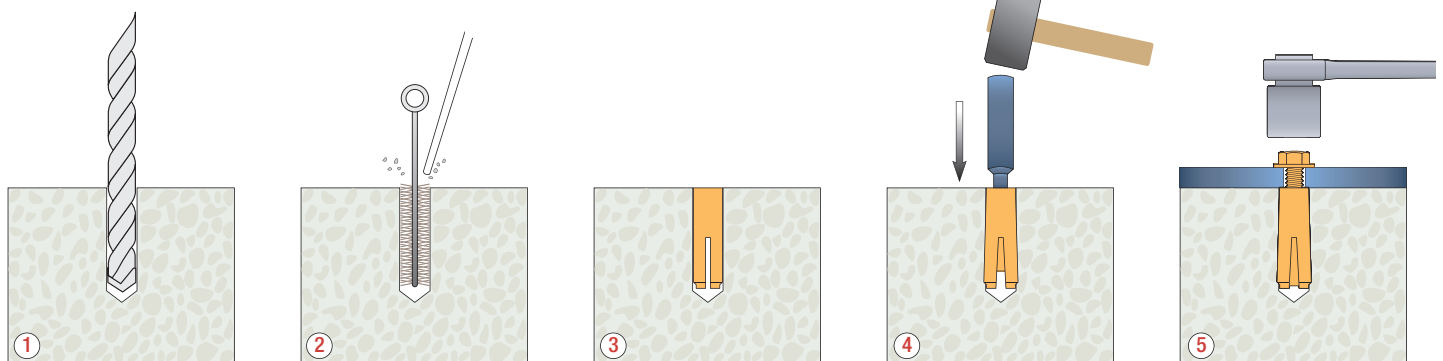
Part Number		Thread Diameter mm	Drill Hole Diameter mm	Anchor Length mm	Hole Depth mm	Internal Thread Length mm	Fixture Clearance Hole mm	Tightening Torque Nm
Zinc Plated								
DBM06SH		M6	8	25	25	10	8	4
DBM08SH		M8	10	30	30	14	10	9
DBM10SH		M10	12	30	30	15	10	9
DBM10SHL		M10	12	40	40	15	12	17
DBM12SH		M12	15	50	50	20	12	30
DBM16SH		M16	20	65	65	22	18	75

### Setting Punch



The correct size Setting Punch must be used to safely instal Drop In Anchors

### Installation Instructions



1 Drill correct diameter hole to correct depth

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

3 Insert Anchor into drilled hole

4 Expand using correct Setting Punch & suitable size hammer

5 Position fixture, insert bolt and tighten to recommended Torque

*Care must be taken not to overtighten the bolt or stud where it is not possible to use torque wrench ie Scaffold Ring Bolts.*

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	5.9	4.4	3.3	2.9	2.3	2.1	90	95	95
8	8.3	4.8	4.6	3.2	3.3	2.3	100	100	100
10	12.7	6.1	7.1	4.1	5.1	2.9	140	135	135
12	17.8	11.6	9.9	7.7	7.1	5.5	180	175	175
16	26.4	18.3	14.7	12.2	10.3	8.7	230	230	230
20	36.1	22.1	20.0	14.7	14.3	10.5	280	285	285

Shear Loads towards a free edge are for single anchors where Spacing  $\geq 3 \times$  Edge Distance

\*For M10 Short Lipped Drop In use Loads for M8 anchors

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

Edge mm	Tensile Resistance						Shear Resistance					
	M6	M8	M10	M12	M16	M20	M6	M8	M10	M12	M16	M20
70												
80												
90	0.0						0.0					
95	3.3	0.0					2.9	0.0				
100		4.6						3.2				
120			0.0						0.0			
135			7.1						4.1			
165				0.0						0.0		
175				9.9						7.7		
220					0.0						0.0	
230					14.7						12.2	
275						0.0						0.0
285						20.0						14.7

Spacing mm	Tensile Resistance per Pair of Anchors					
	M6	M8	M10	M12	M16	M20
70	5.9					
80	6.2					
90	6.6	8.7				
95		9.0				
100		9.2	12.2			
110			12.7			
120			13.2			
140			14.2	17.6		
150				18.2		
160				18.7		
180				19.8	22.6	
200					23.7	
210					24.2	
230					25.3	26.8
250						27.8
270						28.9
280						29.4

**Influence of Concrete Strength**

Concrete Strength		C20/25	C25/30	C30/37	C40/50	C45/55	C50/60
Cylinder	N/mm <sup>2</sup>	20	25	30	40	45	50
Cube	N/mm <sup>2</sup>	25	30	37	50	55	60
Factor		1.0	1.1	1.22	1.41	1.48	1.55

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

**Steel Design Resistance for single anchor**

		M6	M8	M10	M12	M16	M20
Tension	kN	4.1	5.2	5.7	11.7	20.5	30.7
Shear	kN	2.9	3.2	4.1	7.7	12.2	14.7

(May be limited by bolt strength)

Steel Sheer is for a Grade 4.6 bolt

**Anchor Mechanical Properties**

		M6	M8	M10	M12	M16	M20
Tensile Strength	N/mm <sup>2</sup>	500	500	500	500	500	500
Yield Strength	N/mm <sup>2</sup>	400	400	400	400	400	400