LDT Large Diameter Tapcon

For installation speed, high performance and easy removability,

Large Diameter Tapcon is the high performance, concrete anchor that cuts its own threads!

Applications

Stadium seating, Tunnels, Racking, shelving and conveyors are just a few high volume applications ideal for Large Diameter Tapcon (LDT™). The ease and speed of installation of the LDT can reduce installation time to less than half the time of typical systems used today.

Specification

Diameter	8, 10, 16, 20mm
Thread form	Reversed Hi-Lo® and Patented Sawtooth™ thread
Finish	M10 and M12 - Meets ASTM B695 specifications for zinc plating of 5µm, mechanically zinc plated, this material is well suited for non-corrosive environments. M16 and M20 - Meets ASTM B633 service condition 1 type 3. Electro deposited zinc plating of 7µm with a supplementary clear chromate finish.
Head style	Hex Head with length indicator.

Installation Equipment

- Rotary Hammer (SP21, 322, 327, 331, 335)
- Impact Wrench
- Correct size drill bit
- Correct size Metrinch Socket
- SDS socket driver

Installation

1. Drill hole with correct size drill bit to recommended depth and diameter (see table attached). Hole can be drilled through part to be fixed into substrate.

2. Insert anchor into corresponding Metrinch socket.

3. Use drill (hammer setting off) or Impact Wrench to drive the anchor into pre drilled hole until head of anchor is flush with part to be fixed.

Tensile and Shear Recommended Loads (kN) in Concrete

Anchor Diameter	Embed Depth	Med Density Block Tensile	Med Density Block Shear	C20 / 25 Tensile	C20 / 25 Shear	30N/mm2 Tensile	30N/mm2 Shear
10mm	38mm	1.5kN	2.3kN	1.8kN	3.1kN	2.1kN	3.8kN
10mm	51mm	1.7kN	3.4kN	2.2kN	3.6kN	2.8kN	3.8kN
10mm	64mm	4.2kN	3.7kN	4.2kN	3.7kN	4.2kN	3.8kN
10mm	89mm	6.0kN	3.7kN	7.4kN	3.7kN	8.7kN	3.8kN
12mm	51mm	4.0kN	6.3kN	4.3kN	7.2kN	4.7kN	8.2kN
12mm	89mm	8.0kN	7.2kN	8.9kN	8.1kN	9.8kN	9.0kN
12mm	114mm	11.3kN	8.2kN	11.5kN	8.9kN	11.7kN	9.5kN
16mm	70mm	5.85kN	9.63kN	8.73kN	14.98kN	-	-
16mm	89mm	8.85kN	11.35kN	13.03kN	15.63kN	-	-
16mm	114mm	12.85kN	13.68kN	18.78kN	16.48kN	-	-
20mm	83mm	7.65kN	7.93kN	14.05kN	15.90kN	-	-
20mm	114mm	11.45kN	14.58kN	16.48kN	22.90kN	-	-
20mm	139mm	14.50kN	19.90kN	25.85kN	28.50kN	-	-

Recommended Edge and Spacing Requirements for Tensile Loads*

Anchor Diameter	Embedment Depth	Edge Distance Rqd to obtain Max Work Load	Load Factor applied at Min Edge Distance (44mm)	Spc Distance Rqd to obtain Max work Load	Factor Applied Minimum Space Distance
10mm	38mm	52mm	70%	152mm	44%
10mm	51mm	51mm	70%	152mm	44%
10mm	64mm	76mm	70%	152mm	44%
10mm	89mm	102mm	70%	152mm	44%
12mm	51mm	57mm	65%	203mm	27%
12mm	89mm	76mm	65%	203mm	27%
12mm	114mm	102mm	65%	203mm	27%
16mm	70mm	160mm	65%	256mm	-
16mm	89mm	160mm	65%	256mm	-
16mm	114mm	160mm	65%	256mm	-
20mm	83mm	200mm	65%	320mm	-
20mm	114mm	200mm	65%	320mm	-
20mm	139mm	200mm	65%	320mm	-

Recommended Edge and Spacing Requirements for Shear Loads*

Anchor Diameter	Embed Depth	Edge Dist Rqd to obtain Max Work Load	Load Factor applied at Min Edg Dist (44mm)	Load Factor applied at Min Edg Dist (44mm)	Spc Dist Rqd to obtain Max work Load	Factor Applied Min Spc Dist
10mm	38mm	76mm	25%	57%	152mm	-
10mm	51mm	102mm	25%	57%	152mm	-
10mm	64mm	127mm	25%	57%	152mm	-
10mm	89mm	127mm	25%	57%	152mm	-
12mm	51mm	127mm	25%	60%	203mm	-
12mm	89mm	127mm	25%	60%	203mm	-
12mm	114mm	140mm	25%	60%	203mm	-
16mm	70mm	160mm	15%	60%	256mm	-
16mm	89mm	160mm	15%	60%	256mm	-
16mm	114mm	160mm	15%	60%	256mm	-
20mm	83mm	200mm	15%	60%	320mm	-
20mm	114mm	200mm	15%	60%	320mm	-
20mm	139mm	200mm	15%	60%	320mm	-

* Edge and spacing distance shall be divided by .75 when anchors are placed in structural lightweight concrete. Linear interpolation may be used for intermediate spacing and edge distances.

For M16 and M20 LDT anchors, the critical edge distance is 10 times the anchor diameter. The edge distance of these anchors may be reduced to 45mm provided a 0.65 load factor is used for tensile loads. A 0.15 load factor is used for shear loads applied perpendicular to the edge, or a 0.60 load factor is used for shear loads applied to the parallel to the edge. linear interpolation may be used for intermediate edge distances.

For M16 and M20 LDT Anchors, the critical spacing distance between anchors is 16 times the anchor diameter. Load factors for reduced spacing distances have not yet been determined.

LDT Anchors Recommended Tensile and Shear Loads in Hollow Concrete Block

Anchor Diameter	Embed Depth	Hollow Concrete Block Tensile	Hollow Concrete Block Shear	Grouted Filled Concrete Block Tensile	Grouted Filled Concrete Block Shear
9.5mm	38.1mm	1.0kN	3.5kN	1.8kN	4.3kN
12.7mm	63.5mm	-	-	6.6kN	7.4kN