

Spit Large Diameter Tapcon Concrete Screw Range



For installation speed, high performance and easy removability,

LDT is the high performance, concrete anchor that cuts its own threads!

Product Advantages

- Easily installed
- Installs in less than half the time of M12 Shield or adhesive anchor
- Simply drill a pilot hole and drive the LDT anchor by hand or impact wrench
- Easily removed and reusable (in same hole only) - ensure threads engaged before torquing
- No grinding required to remove anchors
- Lower drill bit costs than traditional anchors
- Single piece design, no nut and washer to assemble
- Use standard metric bits
- Length identification head stamp (located on top of anchor for easy inspection)
- Close edge / spacing distance
- Equals performance of adhesive anchors, often higher loads at shallow embedment
- Patented Sawtooth threads for easier installation on M16 and M20 sizes which dramatically reduces installation labour
- Anti rotation serrations on the washer prevent loosening
- Absence of exposed threads on warehouse floors reduces wear to fork lift tyres

Applications

Stadium seating, Tunnels, Racking, shelving and conveyors are just a few high volume applications ideal for Large Diameter Tapcon (LDT™).

Length Indication Code



Code	Length of Anchor
A	38 < 51mm
B	51 < 64mm
C	64 < 76mm
D	76 < 89mm
E	89 < 100mm
F	100 < 114mm
G	114 < 127mm
H	127 < 140mm
J	140 < 159mm

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



1. Using a 8mm (for 10mm LDT), 11mm (for 12mm LDT), 13mm (for 16mm LDT), 16mm (for 20mm LDT) carbide tipped bit.
2. Remove dust from hole and always ensure the hole is 10mm deeper than anchor embedment.
3. Using a socket wrench (hand install) or electric impact wrench, insert anchor into hole and tighten anchor until fully seated. 14mm socket (for 10mm LDT) and 19mm socket (for 13mm LDT), 21mm socket (for 16mm LDT), 24mm socket (for 20mm LDT).

Installation Steps for Block

1. Using a 8mm (for 10mm LDT), 11mm (for 12mm LDT), 13mm (for 16mm LDT), 16mm (for 20mm LDT) carbide tipped bit.
2. Remove dust from hole and always ensure the hole is 10mm deeper than anchor embedment.
3. Using a socket wrench (hand install), insert anchor into hole and tighten anchor until fully seated. 14mm socket (for 10mm LDT) and 19mm socket (for 13mm LDT), 21mm socket (for 16mm LDT), 24mm socket (for 20mm LDT).

LDT's can be installed by hand or with an impact wrench

Installation by hand - is easy, simply using a socket wrench. Installation by impact wrench - recommended for faster installations or high volume projects. Installation with impact wrench is not recommended for hollow block.

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Product Range - Large Diameter Tapcon - Zinc Plated 5µm



Eurocode	Description	Thread Diameter	Max Fixture Thickness	Anchor Length	Hole Diameter	Hole Depth	Min Hole Embed	Min Clearance	Min Hole Clearance	Box Qty
921372	M10 x 45	10mm	7mm	45mm	8mm	8mm	48mm	38mm	11mm	50
921419	M10 x 64	10mm	26mm	64mm	8mm	8mm	48mm	38mm	11mm	50
921373	M10 x 76	10mm	38mm	76mm	8mm	8mm	48mm	38mm	11mm	50
921420	M10 x 101	10mm	63mm	101mm	8mm	8mm	48mm	38mm	11mm	50
921421	M10 x 128	10mm	90mm	128mm	8mm	8mm	48mm	38mm	11mm	50
921422	M12 x 76	12mm	13mm	76mm	11mm	11mm	73mm	63mm	15mm	25
921423	M12 x 101	12mm	38mm	101mm	11mm	11mm	73mm	63mm	15mm	25
921424	M12 x 127	12mm	64mm	127mm	11mm	11mm	73mm	63mm	15mm	25
921425	M12 x 152	12mm	89mm	152mm	11mm	11mm	73mm	63mm	15mm	25

Product Range - Large Diameter Tapcon - Zinc Plated 7µm with chromate finish



Eurocode	Description	Thread Diameter	Max Fixture Thickness	Anchor Length	Hole Diameter	Hole Depth	Min Hole Embed	Min Clearance	Min Hole Clearance	Box Qty
921426	M16 x 76	16mm	6mm	76mm	13mm	13mm	80mm	70mm	17mm	10
921427	M16 x 101	16mm	31mm	101mm	13mm	13mm	80mm	70mm	17mm	10
921428	M16 x 127	16mm	57mm	127mm	13mm	13mm	80mm	70mm	17mm	10
921429	M16 x 152	16mm	82mm	152mm	13mm	13mm	80mm	70mm	17mm	10
921430	M20 x 114	20mm	32mm	114mm	16mm	16mm	92mm	82mm	21mm	10
921431	M20 x 140	20mm	58mm	140mm	16mm	16mm	92mm	82mm	21mm	10
921432	M20 x 159	20mm	77mm	159mm	16mm	16mm	92mm	82mm	21mm	10

Product Range - Large Diameter Tapcon Cut Box Range

Eurocode	Description	Thread Diameter	Max Fixture Thickness	Anchor Length	Hole Diameter	Hole Depth	Min Hole Embed	Min Clearance	Min Hole Clearance	Box Qty
921536	M10 x 45	10mm	7mm	45mm	8mm	8mm	48mm	38mm	11mm	20 x 4
921537	M10 x 64	10mm	26mm	64mm	8mm	8mm	48mm	38mm	11mm	20 x 4
921538	M10 x 76	10mm	38mm	76mm	8mm	8mm	48mm	38mm	11mm	20 x 4
921539	M12 x 101	12mm	38mm	101mm	11mm	11mm	73mm	63mm	15mm	15 x 4

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Product Range - Large Diameter Tapcon Accessories

Eurocode	Description	Box Qty
921552	14mm Metrinch Socket for M10 LDT	1
921553	19mm Metrinch Socket for M12 LDT	1
921554	21mm Metrinch Socket for M16 LDT	1
921555	24mm Metrinch Socket for M20 LDT	1
921556	Socket Driver 12.5mm SDS for use with LDT Sockets	1

Product Range - Large Diameter Tapcon Drill Bits

Eurocode	Description	Box Qty
054053	8 x 160mm SDS Drill Bit	1
054054	8 x 210mm SDS Drill Bit	1
054064	11 x 160mm SDS Drill Bit	1
222769	11 x 210mm SDS Drill Bit	1
222770	11 x 260mm SDS Drill Bit	1
054070	13 x 160mm SDS Drill Bit	1
222771	13 x 250mm SDS Drill Bit	1
054025*	16 x 210mm SDS Max Spitro Head Drill Bit	1

*Order to Order Only

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/mm ² Tensile	30N/mm ² 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%

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Recommended Edge and Spacing Requirements for Tensile Loads* Continued

Anchor Diameter	Embed Depth	Edge Dist Rqd to obtain Max Work Load	Load Factor applied at Min Edg Dist (44mm)	Spc Dist Rqd to obtain Max work Load	Factor Applied Min Spc Dist
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

Anchoring Overhead in 20.7N/mm² Concrete on metal Deck

Anchor Diameter	Drill Hole Diameter	Embed Depth	20.7N/mm ² Concrete Tensile Load Upper Flute	20.7N/mm ² Concrete Tensile Load Lower Flute	20.7N/mm ² Concrete Available Working Loads Upper Flute	20.7N/mm ² Concrete Available Working Loads Lower Flute
M12 LDT	7.9mm	38.1mm	12.9kN	8.3kN	3.2kN	2.1kN