

TNT — Titen Turbo™ Concrete and Masonry Screw

Material

Carbon Steel

Finish

Zinc plated with baked ceramic coating
(Use in dry interior environments only)



Size: See the table below

Features & Benefits

- Reliable installation. Less torque. Superior holding power.
- Patented Torque Reduction Channel that traps dust where it can't obstruct the thread action, reducing the likelihood of binding in the hole
- Serrated screw point for easier starts when fastening timber, and timber to timber applications.
- Designed for installation with a cordless drill or impact driver
- Flat head version with 6-lobe drive for better bit life and performance
- Availability with either a hex head or, for a smoother installed profile, a T30 6-lobe-drive countersunk head

Applications

- Electrical Boxes
- Light Fixtures
- Window Frames
- Timber Strapping
- Pipe and Cable Clips
- Furring Strips / Framing to Concrete
- Shelf Mounting to Concrete/CMU
- Handrails, Brackets, Connectors

Specifications - TNT

Model No.	Size (mm)	Head Style	Thread	Point	Material & Finish	Drill Bit Dia.	Box Qty	Ctn Qty
TNT25114H	6.35 x 32	5/16" Hex Head	Serrated Threads	Sharp Point	Carbon Steel Zinc plated with a baked ceramic coating	3/16"	100	1,600
TNT25134H	6.35 x 45							500
TNT25214H	6.35 x 57							500
TNT25234H	6.35 x 70							500
TNT25314H	6.35 x 83							400
TNT25334H	6.35 x 95							400
TNT25400H	6.35 x 102							400
TNT25134TF	6.35 x 45	T30 6-Lobe Flat Head (Countersunk Head)	Serrated Threads	Sharp Point	Carbon Steel Zinc plated with a baked ceramic coating	3/16"	100	500
TNT25214TF	6.35 x 57							500
TNT25234TF	6.35 x 70							500
TNT25314TF	6.35 x 83							400
TNT25334TF	6.35 x 95							400
TNT25400TF	6.35 x 102							400
MDB18512C1	3/16" x 140							Percussion Drill Bits to suit above screw anchors

- 6-lobe bit included in packaging for flat head version
- Percussion Drill Bits sold separately

Titen Turbo Installation Data			
Drill Bit Diameter		d (mm)	4.76
Clearance Hole Diameter in Fixture		d _c (mm)	7.94
Min Hole Depth		h _{hole} (mm)	57.15
Nominal Embedment Depth		h _{nom} (mm)	44.45
Effective Embedment Depth		h _{ef} (mm)	31.75
Minimum Yield Strength		f _{ya} (MPa)	689
Minimum Ultimate Tensile Strength		f _{uta} (MPa)	861
Min. Tensile and Shear Stress Area		A _{se} (mm ²)	13.61

• The information presented in this table is to be used in conjunction with the design criteria of ACI 318-14 Chapter 17 or ACI 318-11 Appendix D.

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This flyer reflects information available as of April 29, 2021 and may be updated periodically. Please visit our website for current information and limited warranty.



T30 6-Lobe Flat Head
(Countersunk Head)

Hex Head



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Concrete Thickness, Edge Distance and Spacing			
Minimum Concrete Thickness	h_{min} (mm)		82.55
Minimum Edge Distance	c_{min} (mm)		44.45
Minimum Spacing	s_{min} (mm)		50.80
Critical Edge Distance	c_{ac} (mm)		76.20
Design Resistance			
Anchor category	1, 2 or 3		1
Nominal Embedment Depth	h_{nom} (mm)		44.5
Steel Strength in Tension			
Tension Resistance of steel	N_{sa} (kN)		11.7
Strength reduction factor - Steel Failure	ϕ_{sa}		0.65
Concrete Breakout Strength in Tension			
Effectiveness Factor for Uncracked Concrete	k_{unscr}		10
Modification Factor	$\psi_{c,N}$		1
Strength reduction factor - Concrete Breakout	ϕ_{cb}		0.65
Pullout Strength in Tension			
Pullout Resistance in Uncracked Concrete ($f'_c=18\text{MPa}$)	$N_{p,unscr}$ (kN)		6.74
Strength reduction factor - Pullout Failure	ϕ_p		0.65
Steel Strength in Shear			
Shear Resistance of steel	V_{sa} (kN)		3.2
Strength reduction factor - Steel Failure	ϕ_{sa}		0.6
Concrete Breakout Strength in Shear			
Outside Diameter	d_a (mm)		4.17
Load Bearing Length of Anchor in Shear	l_e (mm)		30.48
Strength Reduction Factor - Concrete Pryout Failure	ϕ_{cb}		0.7
Concrete Pryout Strength in Shear			
Coefficient for Pryout Strength	k_{cp}		1
Strength Reduction Factor - Concrete Pryout Failure	ϕ_{cp}		0.7

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