THDWH - Titen HD® Screw Anchor with Washer Head

The Titen HD Washer Head is a high-strength screw anchor for use in cracked and uncracked concrete, as well as masonry.

Technical Data

Installation Data

Description	Symbol	Units	Anchor Size - M12
Drill Hole Diameter	d_o	mm	12
Maximum Diameter of Drill Bit	$d_{cut,\ max}$		12.5
Drill Depth	h_1		105
Nominal Embedment Depth	h_{nom}		95
Anchor Length Range	L		150
Clearance Hole Diameter in Fixture	d_f		18
Maximum Thickness of Fixture	$t_{fix,max}$		55
Recommended impact screw driver with max. power output specified according to manufacturer's instructions.			
Max. **Installation** Torque	$T_{inst,\ max}$	Nm	450

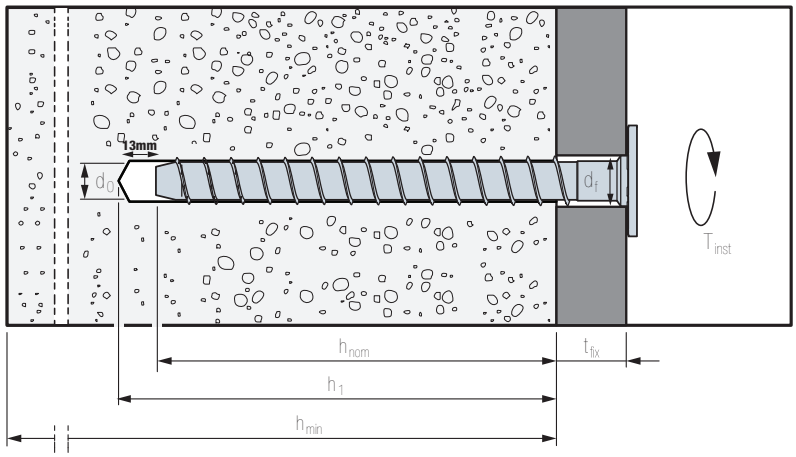
Concrete Thickness, Edge Distance and Spacing

Description	Symbol	Units	Anchor Size - M12
Minimum Concrete Thickness	h_{min}	mm	150
Minimum Edge Distance	c_{min}		80
Minimum Spacing	s_{min}		80
Critical Edge Distance (cone)	$C_{cr,}N$		1. 5 x h_{ef}
Critical Spacing (cone)	$s_{cr,}N$		3 x h_{ef}
Critical Edge Distance (splitting)	$c_{cr,sp}$		1. 5 x h_{ef}
Critical Spacing (splitting)	$s_{cr,sp}$		3 x h_{ef}

Design Resistance — Single Anchor, No Concrete Edge or Spacing Influence

Description	Symbol	Units	Anchor Size - M12
Effective Embedment Depth	h_{ef}	mm	70
Minimum Concrete Thickness	h_{min}	mm	150
Uncracked Concrete			
TENSION	N_{Rd}	kN	**16.9**
SHEAR	V_{Rd}		**25.2**
Cracked Concrete			
TENSION	N_{Rd}	kN	**8.1**
SHEAR	V_{Rd}		**25.2**

1. Concrete strength is 30MPa (cylinder) unreinforced.
2. N_{Rd} and V_{Rd} is based on use of a Carbon Steel, Zinc plated bolt, or mechanically galvanised.
3. All Design resistances as per ETAG requirements.



Application

The THD12150WHMG Washer Head is an alternative fastening solution for concrete anchors used in Bottom Plate applications which complies with the requirements stated in AS5216.

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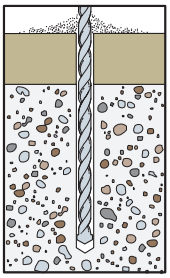
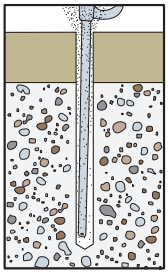
Installation

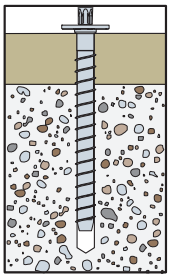
1. Drill a hole in the base material using a carbide drill bit the same diameter as the nominal diameter of the anchor. Drill the hole to the specified embedment depth plus minimum hole depth overdrill to allow the thread tapping dust to settle.



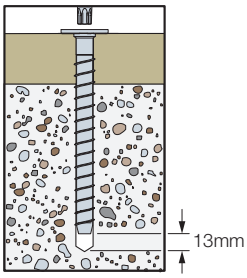
2. Blow it clean using compressed air. (Overhead installations need not be blown clean.) Alternatively, drill the hole deep enough to accommodate embedment depth and the dust from drilling and tapping.



3. Insert the anchor through the fixture and set anchor with Mid Torque (300- 400NM) using an Impact Wrench and TX-50 bit.



4. Tighten the anchor into the base material until the washer head contacts the fixture.



Caution:

-Holes in metal fixtures to be mounted should match the d_f diameter specified in the table.

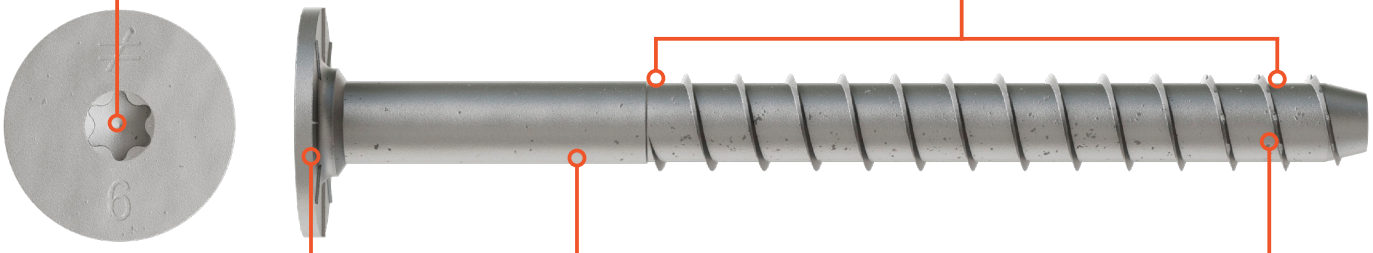
-Use a Titen HD screw anchor one time only — installing the anchor multiple times may result in excessive thread wear and reduce load capacity.

-Do not use impact wrenches to install into hollow CMU.

-Manual installation is not allowed.

-Oversized holes in base material will reduce or eliminate the mechanical interlock of the threads with the base material and reduce the anchor's load capacity.

Features



Deep 6-lobe TX-50 recess provides improved control and greater bit life

Long thread length for excellent pull-out values and high load-bearing capacities

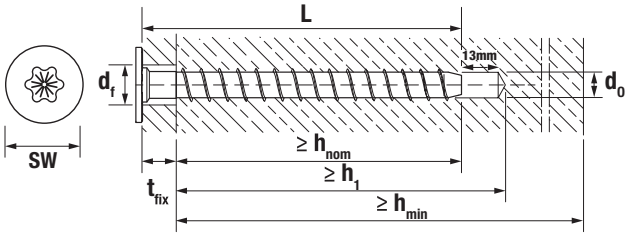
Flat countersunk head with underhead nibs creates a flush finish

Mechanical Galvanised coating for exterior applications

Conical point and serrated threads help to tap a thread

Dimensions

Model No.	d_0	L_d	h_1	h_{nom}	h_{min}	$t_{fix\ max}$	SW	d_f	$T_{impact\ max}$
	(mm)								(Nm)
THD12150WHMG	12	150	105	95	150	55	35	18	≤ 450



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