

# TITEN HD® MINI SCREW ANCHOR LOAD VALUES IN HOLLOW CMU

Tension and shear load values have been established for 1/4" and 3/8" Titen HD® Mini screw anchor in 8-inch hollow CMU (meeting Grade N, Type II specifications per UBC standard 21-4 or ASTM C90). Anchors are to be installed in the center of the CMU face shell per Figure 1 below.

### Tension and Shear Loads in 8-inch Lightweight, Medium-Weight and Normal-Weight Hollow CMU

Size in. (mm)	Drill Bit Dia. in.	Embed. Depth <sup>4</sup> in. (mm)	Min. Edge Dist. in. (mm)	Min. End Dist. in. (mm)	8-inch Hollow CMU Loads Based on CMU Strength			
					Tension Load		Shear Load	
					Ultimate lbs. (kN)	Allowable lbs. (kN)	Ultimate lbs. (kN)	Allowable lbs. (kN)
<b>Anchor Installed in Face Shell (See Figure 1)</b>								
1/4 (6.4)	1/4	1 1/2 (38)	4 (102)	4 5/8 (117)	520 (2.3)	105 (0.5)	1,240 (5.5)	250 (1.1)
3/8 (9.5)	3/8	1 1/2 (38)	4 (102)	4 5/8 (117)	720 (3.2)	145 (0.6)	1,240 (5.5)	250 (1.1)

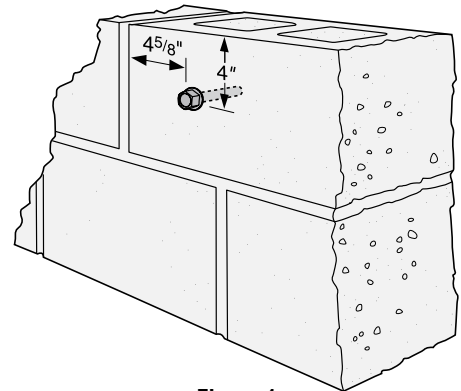


Figure 1

1. The tabulated allowable loads are based on a safety factor of 5.0 for installations under the IBC and IRC. For installations under the UBC use a safety factor of 4.0 (multiply the tabulated allowable loads by 1.25).
2. Values for 8-inch wide CMU Grade N, Type II, lightweight, medium-weight, and normal-weight concrete masonry units conforming to UBC Standard 21-4 or ASTM C90.
3. The minimum specified compressive strength of masonry, f'c, at 28 days is 1,500 psi.
4. Embedment depth is measured from the outside face of the concrete masonry unit and is based on the anchor being embedded an additional 1/4" through the 1 1/4" thick face shell.
5. Allowable loads may not be increased for short-term loading due to wind or seismic forces. CMU wall design must satisfy applicable design standards and be capable of withstanding applied loads.
6. Set drill to rotation-only mode when drilling into hollow CMU.
7. Do not use impact wrenches to install in hollow CMU.

For complete information on the Titen HD® Mini screw anchor, including additional performance information and installation instructions, see [www.simpsonanchors.com](http://www.simpsonanchors.com) or request the Anchoring and Fastening Systems for Concrete and Masonry catalog.

*This technical bulletin is effective until January 31, 2012, and reflects information available as of July 1, 2009. This information is updated periodically and should not be relied upon after January 31, 2012; contact Simpson Strong-Tie for current information and limited warranty or see [www.simpsonanchors.com](http://www.simpsonanchors.com).*