Holdowns

**TD** – Different welded configurations and sizes achieve a great deal of versatility within the TD series.

**TDX** – The TDX2 and TDX5 feature formed designs, all others are welded. All are self-jigging.

All models, except TD2, TD5, and TD7, feature a self-jigging design with code required end distances built in. (End distance = 7 bolt diameters from the top of the sill to the center of the first bolt hole in the studs or post.)

Materials: See chart

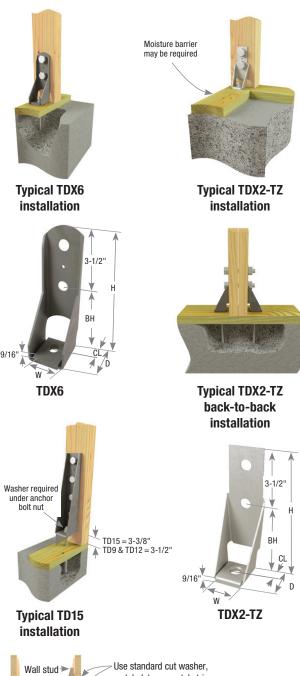
Finish: TDX5- G90 galvanizing; TDX2-TZ - G-185 galvanizing;

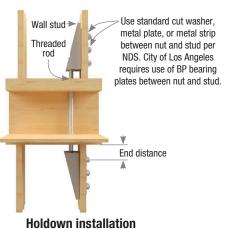
All others - Primer

**Codes:** See chart for code references **Patents:** U.S. Patent No. 5,092,097 – TDX2

## Installation:

- Use all specified fasteners. See Product Notes, page 18.
- Do not use lag bolts. Washers are not required for anchor bolts or between holdown and bolt hex head, but standard washers should be used against stud or post under the nut. See page 51 for BP/LBP Bearing Plates.
- Bolt holes should be a minimum of 1/32" to a maximum of 1/16" larger than the bolt diameter (as per NDS® specifications).
- See pages 49-50 for STB Anchor Bolt section for anchorage options. A design professional may specify alternate anchorage with conventional anchor bolts.
- A design professional shall determine the adequacy of the stud to resist published loads. Holdown fasteners specified shall not be considered to attach multiple plies together.
- Self-jigging models are designed to provide the required minimum end distance of 7 bolt diameters from the bottom of the stud or post to the centerline of the first bolt hole.
- Tighten anchor bolt nuts finger tight to base plus 1/3 to 1/2 additional turns with a wrench. Wood members may shrink over time; if possible, nut tightness should be checked periodically.
- If used to anchor a built-up post, such as a double 2x4, the post component shall be designed to act as a single unit.





between floors

Continued on next page

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			Dimensions (in)					Fastene	Fastener Schedule <sup>4</sup>				DF/SP														
MiTek USP								Anchou	В	olts	Min. Required	Length of Bolt in Vertical	Allowable Tension Loads (Lbs.) <sup>1,2,3</sup>		Corrosion Finish	Code											
		Steel						Anchor Bolt			Bolt End																
Stock No.	Ref. No.		w	Н	D	ВН	CL	Dia.	Qty	Dia.	Distance <sup>5</sup>	Member	160%	Δ (in) <sup>8</sup>	Sori Filia	Ref.											
TD5		uuugo										1-1/2"	2405	0.122 <sup>6</sup>													
		7	,	6-3/8	2 2/4			2/4		2/4	F 1/4	3"	4040	0.140 <sup>6</sup>	1	IBC,											
		7	3		3-3/4			3/4	2	3/4	5-1/4	3-1/2"	4040	0.140 <sup>6</sup>	1	FL, LA											
																								5-1/2"	4040	0.140 <sup>6</sup>	1
TD7				11-7/8									1-1/2"	4600	0.095 <sup>6</sup>												
		3	3-3/8		3-5/8	3-3/8	2-1/8	1-1/8	3	7/8	6-1/8	3"	8195	0.125 <sup>6</sup>													
		3	3-3/0		3-5/0							3-1/2"	9420	0.139 <sup>6</sup>													
												5-1/2"	10510	0.152 <sup>6</sup>		IBC,											
TD9			2.2/0									3"	9330	0.146 <sup>6</sup>		FL											
		3		16-1/2	4 1/4	4-1/8	2-1/8	1-1/8	3	1	7	3-1/2"	10715	0.160 <sup>6</sup>													
		3	3-3/8	10-1/2	4-1/4							4-1/2"	13370	0.169 <sup>6</sup>													
												5-1/2"	13500	0.170 <sup>6</sup>													
TD12 HD12															3"	12070	0.132 <sup>6</sup>										
	UD12	2	3 3-1/2 2	20-1/2	4-1/4	4-1/8	2-1/8	3 1-1/8	4	1	7	3-1/2"	13960	0.142 <sup>6</sup>													
	ПОТ	3										4-1/2"	16550	0.185 <sup>6</sup>													
												5-1/2"	16550	0.185 <sup>6</sup>													
TD15 HD19			3 3-1/2	/2 25	4-3/8	4-1/4	2-1/8	/8 1-1/4	5		7	3"	14505	0.167 <sup>6</sup>													
	HD19	3								1		3-1/2"	16845	0.178 <sup>6</sup>													
												4-1/2"	20710	0.155 <sup>6</sup>													
												5-1/2"	20390	0.153 <sup>6</sup>													
TDX2-TZ HD3B		03B 12	12 2-1/16	2-1/16 8-1/8		4-1/2	1-1/2	/2 5/8	2	5/8	4-1/2	1-1/2"	1920	0.150 <sup>6</sup>													
	HD3B				2-3/4							3"	3295	0.169 <sup>6</sup>													
	TIDOD		2-1/10	0-1/0	2-3/4							3-1/2"	3295	0.169 <sup>6</sup>													
												5-1/2"	3295	0.169 <sup>6</sup>													
TDX5		10		-1/2 9-3/8									1-1/2"	2340	0.079 <sup>6</sup>												
			2-1/2		3-7/8	6	2	3/4	2	3/4	5-1/4	3"	4515	0.151 <sup>6</sup>													
			10 2-1/2									3-1/2"	4530	0.151 <sup>6</sup>		IDO											
												4-1/2"	4530	0.151 <sup>6</sup>		IBC, FL,											
TDX6 HD5B				3-1/2 11-1/8 3-3/4 6-1/8 2 7/8 2 7/8 6-1/		1-1/2"	2835	0.093 <sup>6</sup>		LA																	
	HD5R	05B 7	7 3-1/2		3-3/4	6-1/8	2	7/8	2	7/8	6-1/8	3"	5350	0.128 <sup>6</sup>													
	TIDOD											3-1/2"	5805	0.138 <sup>6</sup>													
												4-1/2"	5805	0.138 <sup>6</sup>													
TDX8		7								7/8	6-1/8	1-1/2"	4160	0.060 <sup>6</sup>													
			7 3-1/2	14-5/8	3-3/4	6-1/8	2	7/8	3			3"	7870	0.132 <sup>6</sup>													
												3-1/2"	9125	0.172 <sup>6</sup>													
												4-1/2"	9125	0.172 <sup>6</sup>													
TDX10		B 7	7 3-1/2 18-		3-1/8 3-3/4	6-1/8	2			7/8	6-1/8	3"	10140	0.128 <sup>6</sup>													
	HD7B			18-1/8				7/8	4			3-1/2"	10570	0.137 <sup>6</sup>													
	11070	,		10-1/0								4-1/2"	10570	0.137 <sup>6</sup>													
												5-1/2"	10570	0.137 <sup>6</sup>													
TDX14 HD9		19B 3	3 3-1/2	/2 20-1/2	3-5/8	7	2-1/8	1	4	1	7	3"	11995	0.117 <sup>6</sup>													
	HD9B											3-1/2"	13895	0.146 <sup>6</sup>													
	ספטוו				3-5/0	′						4-1/2"	15015	0.166 <sup>6</sup>													
														5-1/2"	15015	0.166 <sup>6</sup>	1										

<sup>1)</sup> Allowable loads shown are for single shear connections and may be doubled for back-to-back installations. The designer must verify post and anchor bolt capacities.

<sup>2)</sup> Allowable loads have been increased 60% for wind or seismic loads; no further increase shall be permitted.

<sup>3)</sup> The designer must specify stud or post to resist published load values.

<sup>4)</sup> The designer must specify anchor bolt type, length, and embedment.

<sup>5)</sup> TD models - install TD holdown raised off of bottom plate if the BH dimension is less than end distance dimension.

<sup>6)</sup> Deflections are derived from static, monotonic load tests of devices connected to DF wood members and consider both the deflection of the holdown and cross grain crushing of the wood post.

<sup>7)</sup> The designer shall consider the effect of compression, bearing, tension, and combined bending due to device eccentricity when applicable.

<sup>8)</sup> The TD/TDX may be elevated off the sill which may increase deflection. Reference page 72 for more information.

Corrosion Finish ■ Stainless Steel ■ Gold Coat ■ HDG ■ Triple Zinc