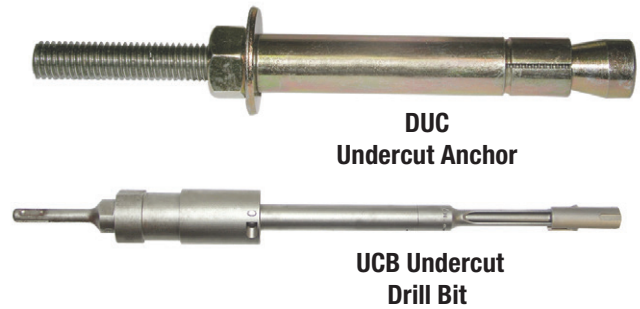


DUCs are mechanical anchors expanded into holes that have been undercut at the bottom using an undercutting drill bit. This creates a true bearing type anchor that performs like a cast-in-place headed anchor. Load is transferred into the concrete through bearing, not friction like traditional expansion anchors. Excellent performance in seismic and dynamic loading conditions. Meets ACI 318-14 Chapter 17 (2018 IBC) requirements as a code anchor, including seismic loading, tension zone, and cracked concrete provisions.

Rod Materials: ASTM A36 (L Series), A193 Grade B7 (H Series), or AISI 316 Stainless Studs

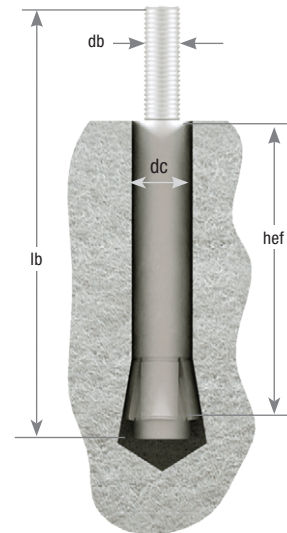
Anchor Body Materials: ASTM A 513 Type 5, or AISI 316 Stainless

Codes: IBC, FL, LA



Tension and shear capacities for DUC Anchors in $f'_c \geq 2,500$ psi concrete

MiTek USP Stock No.	Rod Dia. d_b (in)	Anchor Length l_b (in)	Expansion Coupling Dia. d_c (in)	Drilled Hole Depth of Stop Bit (in)	Effective Embedment h_{ef} (in)	Allowable Tensile Capacity (Lbs.)	Allowable Shear Capacity (Lbs.)	Code Ref.
DUC38-275L	3/8	5-1/2	5/8	3-1/8	2-3/4	2280	2245	IBC, FL, LA
DUC38-275LT				4-3/8	4	4910	4855	
DUC38-400H		6-3/4		4-1/4	4	4170	4110	
DUC38-400HT				5-1/4	5	7365	8855	
DUC12-400L	1/2	7	3/4	7	6-3/4	8990	8855	
DUC12-400LT		8		5	7365	14110		
DUC12-500H		9-3/4		5-1/4	5			
DUC12-500HT				7	6-3/4	8990		
DUC12-675H	5/8	7-3/4	1	5	4-1/2	6290	6560	
DUC12-675HT				8	7-1/2	13530	14110	
DUC58-450L		10-3/4		9-1/2	9	14315		
DUC58-450LT				12-1/4	9	14315		
DUC58-750H	3/4	8-5/8	1-1/8	5-7/8	5	7365	9685	
DUC58-750HT				10-7/8	10	20830	20875	
DUC58-900H		13-5/8		5-7/8	5	7365	9685	
DUC58-900HT				10-7/8	10	20830	20875	



1) Allowable tensile and shear capacities are for anchors installed at standard edge distance and spacing in uncracked concrete in accordance with the 2018 IBC and referenced ACI documents.

2) See ICC-ES ESR-1970 for additional information.

Screw-Bolt+ anchors are a one-piece, heavy duty screw anchor with a finished hex head. The patented thread design, designed for use with standard ANSI drill bits, reduces installation torque and enhances productivity. The steel threads along the anchor body tap into the hole during installation to provide keyed engagement and allow for reduced edge and spacing distances.



Diameter and length identification mark



Screw-Bolt™+
(zinc plated)

Finish: Zinc Plated or Mechanically Galvanized

Codes: IBC, FL, LA

Zinc Plated		Mechanically Galvanized		Anchor Size (in) ¹	Hole Size (in)	Socket Size (in)	Code Ref.
MiTek USP Stock No.	Ref. No.	MiTek USP Stock No.	Ref. No.				
PFM1411000	THDB25178H	--	--	1/4 x 1-1/4	1/4	7/16	IBC, FL, LA
PFM1411020	THD25134H	--	--	1/4 x 1-3/4			
PFM1411060	THD25214H	--	--	1/4 x 2-1/4			
PFM1411100	THDB25300H	--	--	1/4 x 3	3/8	9/16	
PFM1411160	THD37134H	--	--	3/8 x 1-3/4			
PFM1411220	THD37212H	--	--	3/8 x 2-1/2			
PFM1411240	THD37300H	--	--	3/8 x 3			
PFM1411280	THD37400H	PFM1461280	THD37400HMG	3/8 x 4			
PFM1411300	THD37500H	PFM1461300	THD37500HMG	3/8 x 5			
PFM1411320	THD37600H	PFM1461320	THD37600HMG	3/8 x 6	1/2	3/4	
PFM1411340	--	--	--	1/2 x 2			
PFM1411360	--	--	--	1/2 x 2-1/2			
PFM1411380	THD50300H	--	--	1/2 x 3			
PFM1411420	THD50400H	PFM1461420	THD50400HMG	1/2 x 4			
PFM1411460	THD50500H	PFM1461460	THD50500HMG	1/2 x 5			
PFM1411480	THD50600H	PFM1461480	THD50600HMG	1/2 x 6	5/8	15/16	
PFM1411520	THD50800H	PFM1461520	THD50800HMG	1/2 x 8			
PFM1411540	--	--	--	5/8 x 3			
PFM1411580	THD62400H	--	--	5/8 x 4			
PFM1411600	THD62500H	PFM1461600	THD62500HMG	5/8 x 5			
PFM1411640	THD62600H	PFM1461640	THD62600HMG	5/8 x 6			
PFM1411680	THD62800H	PFM1461680	THD62800HMG	5/8 x 8	3/4	1-1/8	
PFM1411700	--	--	--	3/4 x 3			
PFM1411720	THD75400H	--	--	3/4 x 4			
PFM1411760	THD75500H	--	--	3/4 x 5			
PFM1411800	THD75600H	PFM1461800	THD75600HMG	3/4 x 6			
PFM1411840	THD75812H	--	--	3/4 x 8			
--	--	PFM1461850	THD75812HMG	3/4 x 8-1/2	3/4	10	
PFM1411880	THD75100H	--	--	3/4 x 10			

1) The anchor size includes the diameter and length of the anchor measured from under the head.

Power-Stud® HD5 Wedge Expansion Anchors

Concrete & Masonry

The Power-Stud® HD5 anchor is a fully threaded, torque-controlled, wedge expansion anchor. Suitable base materials include normal-weight concrete, sand-lightweight concrete and grouted concrete masonry. Nut and washer are included.

Materials: Anchor Body – Carbon Steel;
Expansion Clip: Type 304 Stainless Steel;
Hex Nut: ASTM A 563, Grade A; Washer: ASTM F 844

Finish: Anchor Body, Nut, Washer – Hot-dip galvanized;
Expansion Clip: Stainless Steel

MiTek USP Stock No. ²	Ref. No.	Anchor Size (in) ¹	Thread Length (in)	Code Ref.
7716HD5	WA37500MG	3/8 x 5	3-1/2	--
7720HD5	WA50234MG	1/2 x 2-3/4	1	
7723HD5	WA50414MG	1/2 x 4-1/2	2-3/4	
7724HD5	WA50512MG	1/2 x 5-1/2	3-3/4	
7726HD5	WA50700MG	1/2 x 7	5-1/4	
7733HD5	WA62500MG	5/8 x 5	3	
7734HD5	WA62600MG	5/8 x 6	4	
7738HD5	WA62812MG	5/8 x 8-1/2	6-1/2	
7748HD5	WA75812MG	3/4 x 8-1/2	6	



Power-Stud® HD5

- 1) The anchor size includes the diameter and the overall length of the anchor.
- 2) All anchors are packaged with nuts and washers.

Power-Stud+® SD1 Wedge Expansion Anchors

Power-Stud+® SD1 anchor is a fully threaded, torque-controlled, wedge expansion anchor which is designed for consistent performance in cracked and uncracked concrete. Suitable base materials include normal-weight concrete, sand-lightweight concrete, concrete over steel deck and grouted concrete masonry. Nut and washer are included.

Materials: Anchor Body, Expansion Clip – Carbon Steel;
Hex Nut: ASTM A 563, Grade A; Washer: ASTM F 844

Finish: Zinc Plated

Codes: IBC, FL, LA

MiTek USP Stock No. ²	Ref. No.	Anchor Size (in) ¹	Thread Length (in)	Code Ref.
7413SD1	WA37300	3/8 x 3	1-5/8	IBC, FL, LA
7416SD1	WA37500	3/8 x 5	3-5/8	
7424SD1	WA50512	1/2 x 5-1/2	3-3/4	
7426SD1	WA50700	1/2 x 7	5-1/4	
7427SD1	WA50812	1/2 x 8-1/2	6-3/4	
7433SD1	WA62500	5/8 x 5	3	
7434SD1	WA62600	5/8 x 6	4	
7436SD1	WA62700	5/8 x 7	5	
7438SD1	WA62812	5/8 x 8-1/2	6-1/2	
7439SD1	WA62100	5/8 x 10	8	
7442SD1	WA75512	3/4 x 5-1/2	3	



Power-Stud+® SD1 anchor

- 1) The anchor size includes the diameter and the overall length of the anchor.
- 2) All anchors are packaged with nuts and washers.

THR's support the deck oriented code requirements for mechanically reinforced railing post and deck to house ledger board attachments.

Materials: ASTM A36 steel, also conforms to ASTM F1554, Grade 36

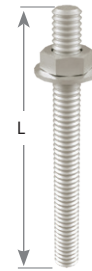
Finish: Hot-dip galvanized

Installation:

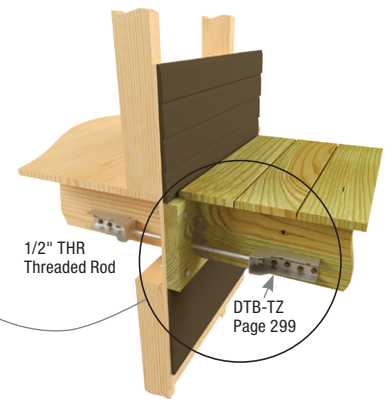
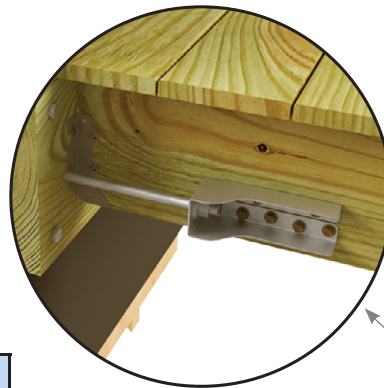
- Install into wet concrete with nut embedded or drill minimum 1/16" – 1/8" oversized hole depending on rod size and secure with anchor epoxy. Nut and washer included.



Typical THR installation



THR



Typical THR deck to ledger installation

MiTék USP Stock No.	Ref. No.	Bolt Dia.	L (in)	Corrosion Finish	Code Ref.
THR125-HDG	RFB#4X5HDG	1/2	5	HDG	
THR126-HDG	RFB#4X6HDG	1/2	6	HDG	
THR128-HDG	RFB#4X8HDG	1/2	8	HDG	
THR1218-HDG	--	1/2	18	HDG	
THR1224-HDG	--	1/2	24	HDG	--
THR1236-HDG	--	1/2	36	HDG	
THR588-HDG	RFB#5X8HDG	5/8	8	HDG	
THR5812-HDG	RFB#5X12HDG	5/8	12	HDG	
THR5816-HDG	RFB#5X16HDG	5/8	16	HDG	

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