

# Concrete Anchors

## TOLCO™ Fig. 109DD - DDI+™ † - Concrete Deck Insert - Hanger Application

**Size Range:** 3/8"-16 thru 7/8"-9 rod

**Material:** Steel

**Function:** For use in concrete filled metal deck (20 GA. min.) assemblies (i.e. pan deck, Q-deck) applications. After installation, the threaded male hanger of the insert protrudes below the surface of the deck. The threaded bolt offers adjustability for precise height requirements and guarantees the minimum embedment depth. The longer plate enables a variety of installation locations across the deck. Pre-mounted drill screws included for installation.

**Approvals:** International Code Council, Evaluation Service (ICC-ES), ESR-3958 for concrete, for 3/8"-16 thru 5/8"-11" anchor sizes.

Approved for seismic and wind loading.

**UL** (Underwriters Laboratories) Listed

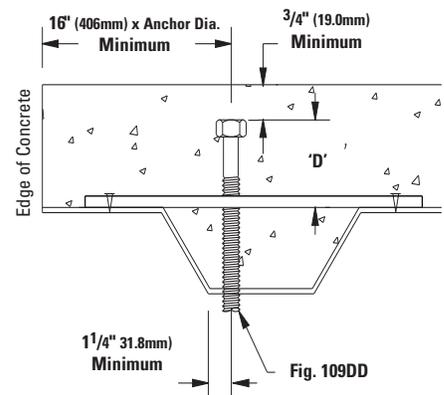
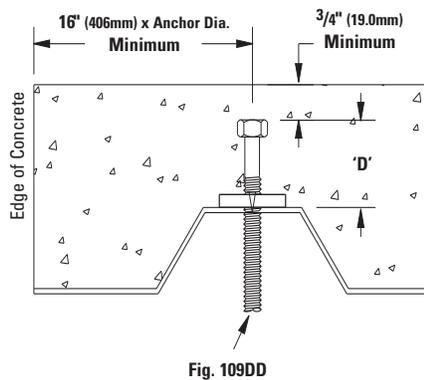
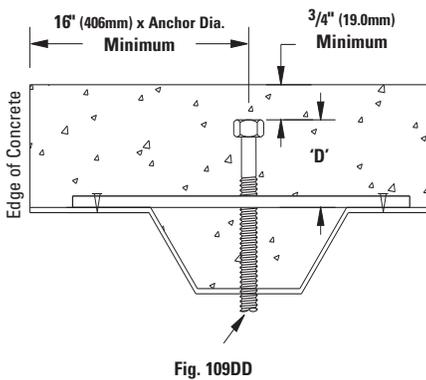
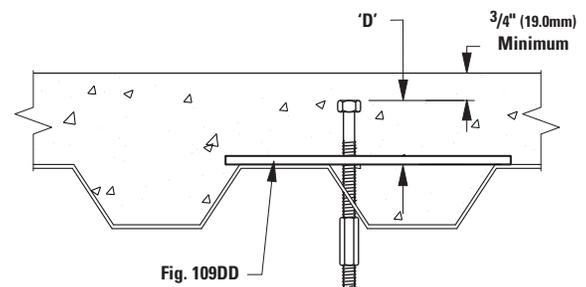
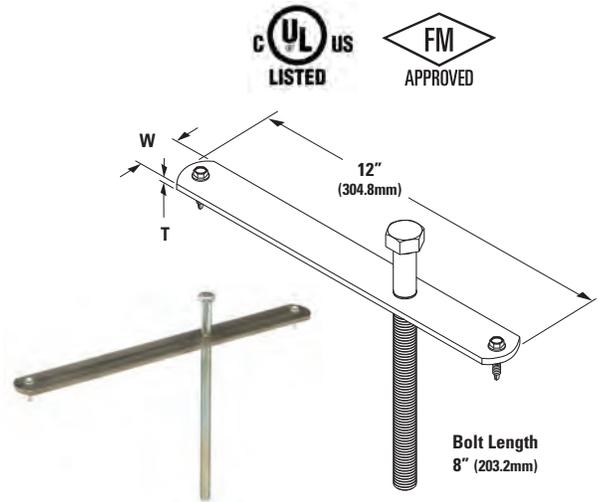
**FM** (Factory Mutual) Approved

**Finish:** Plate: Plain Steel. Rod: Electro-Galvanized.

**Order By:** Figure number, rod size and finish.

Applications Per NFPA 13 (2010): UL Listed as a component of a hanger assembly per Section 9.1.1.4.1  
See dimensions and installation Detail below.

**Note:** Fig. 109DD replaces Fig. 109A which has been discontinued.



Part No.	Rod Size	T in. (mm)	W in. (mm)	Max. Vertical Load lbs. (kn)	'D' Min. Anchor Embedment Depth in. (mm)	Approx. Wt./100 lbs. (kg)
109DD-3/8	3/8"-16	3/16" (4.7)	1 1/4" (31.7)	467 (2.08)	2 1/2" (63.5)	98.1 (44.5)
109DD-1/2	1/2"-13	3/16" (4.7)	1 1/4" (31.7)	680 (3.02)	2 1/2" (63.5)	112.8 (51.1)
109DD-5/8	5/8"-11	3/16" (4.7)	1 1/4" (31.7)	647 (2.88)	2 1/2" (63.5)	139.3 (63.2)
109DD-3/4	3/4"-10	3/8" (9.5)	2" (50.8)	612 (2.72)	2 1/2" (63.5)	112.8 (153.6)
109DD-7/8	7/8"-9	3/8" (9.5)	2" (50.8)	577 (2.56)	2 1/2" (63.5)	381.2 (172.9)

### NOTES:

1. Mounting holes are standard. If the plate is not mechanically secured to the deck ribs, a jam nut is required to prevent the anchor bolt from laying over when concrete is poured. There is no structural strength added from the use of a mechanical fastener to hold the product in place before the pour.
2. Minimum spacing between inserts shall be not less than 3 times the embedment depth or 12 times the anchor diameter (whichever is greater)

† DDI+™ is a registered trademark used by DEWALT®

All dimensions in charts and on drawings are in inches. Dimensions shown in parentheses are in millimeters unless otherwise specified.