

June 8, 2018

Subject: Hilti HDV flush anchor reduced allowable tension loads for 1/4-in and 3/8-in

diameter anchors

To whom it may concern,

The Hilti HDV flush anchor is a traditional drop-in anchor with 1/4-in, 3/8-in, and 1/2-in nominal internal diameters. Hilti technical data has been available for this anchor ever since the introduction of the HDV in 2013.

Recently, Hilti has made some manufacturing changes in the 1/4-in and 3/8-in anchors which upon retesting have shown a reduction in tension capacity when compared to the previous published technical data.

The new technical supplement for the HDV flush anchors is at Hilti Online in both the United States (<a href="www.hilti.com">www.hilti.com</a>) and Canada (<a href="www.hilti.ca">www.hilti.ca</a>). The following page shows the new technical data for the HDV 1/4-in and 3/8-in anchors with revised capacities in red.

Please feel free to contact our Engineering Technical Services department for more information or any questions.

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The following tables are from the new Hilti HDV technical supplement, dated May, 2018, with revisions from the previous published capacities noted in red.

## **HDV Allowable Loads in Concrete**

Anchor	2,000 psi (13.8 MPa)				4,000 psi (27.6 MPa)				6,000 psi (41.4 MPa)			
dia.	Tension		Shear		Tension		Shear		Tension		Shear	
1/4	385	(1.7)	450	(2.0)	510	(2.3)	625	(2.8)	640	(2.8)	700	(3.1)
3/8	785	(3.5)	965	(4.3)	1,070	(4.8)	1,250	(5.6)	1360	(6.0)	1500	(6.7)

## **HDV Ultimate Loads in Concrete**

Anchor	2	,000 psi (	(13.8 MPa	a)	4	,000 psi (	27.6 MPa	a)	6,000 psi (41.4 MPa)			
dia.	Tension		Shear		Tension		Shear		Tension		Shear	
1/4	1,535	(6.8)	1,800	(8.0)	2,040	(9.1)	2,500	(11.1)	2,555	(11.4)	2,800	(12.5)
3/8	3,130	(13.9)	3,850	(17.1)	4,275	(19.0)	5,000	(22.2)	5,430	(24.2)	6,000	(26.7)

HDV Allowable Loads in Lightweight Concrete and Lightweight Concrete over Metal Deck

Anchor dia.		Anchor	installed		Anchor installed				Anchor installed			
	in	3,000 psi	(20.7 MF	Pa)	Throu	gh steel o	deck uppe	er flute	Through steel deck lower flute			
		ا د د د د اد ا	4 0	4	Into	3,000 ps	si (20.7 M	IPa)	Into 3,000 psi (20.7 MPa)			
	L	ightweigh	it Concre	te	Lightweight concrete				Lightweight concrete			
	Ten	sion	Shear		Tension		Shear		Tension		Shear	
1/4	355	(1.6)	340	(1.5)	405	(1.8)	335	(1.5)	290	(1.3)	250	(1.1)
3/8	665	(3.0)	940	(4.2)	775	(3.4)	1010	(4.5)	440	(2.0)	500	(2.2)