

## HDI, HDI-L, HDI+ and HDI-L+ Drop-in Anchor 3.3.11

### 3.3.11.1 Product description

HDI+, HDI-L+ and HDI drop-in anchors are internally threaded, flush mounted expansion anchors for use in concrete.

#### Product features

##### HDI+, HDI-L+ and HDI

- Anchor, setting tool and Hilti drill bit form a matched tolerance system to provide reliable fastenings
- Allows shallow embedment without sacrificing performance
- Lip allows accurate flush surface setting, independent of hole depth for the HDI-L+
- Ideal for repetitive fastenings with threaded rods of equal length
- HDI+ and HDI-L+ have an innovative stepped plug that reduces number of hammer blows by up to 50%

- HDI+ and HDI-L+ can be installed with the new HDI+ Setting Tool system (stop drill bit and machine setting tool) for improved productivity

#### Guide specifications

**Expansion anchor** shall be drop-in, shell or flush type. Carbon steel anchors are zinc plated in accordance with ASTM B633, SC 1, Type III. Stainless steel anchors are manufactured from AISI Type 303 stainless steel. Anchors shall be Hilti HDI+ (HDI-L+) (HDI) anchors as supplied by Hilti.

#### 3.3.11.1 Product description

#### 3.3.11.2 Material specifications

#### 3.3.11.3 Technical data

#### 3.3.11.4 Installation instructions

#### 3.3.11.5 Ordering information



### 3.3.11.2 Material specifications

HDI+, HDI-L+ and HDI anchors are manufactured from mild carbon steel. Anchor bodies are zinc plated in accordance with ASTM B633, SC 1, Type III.

HDI stainless steel anchors are manufactured from AISI Type 303 stainless steel.

### 3.3.11.3 Technical data

Table 1 - HDI+, HDI-L+ and HDI specifications<sup>1</sup>

Setting Information	Symbol	Units	HDI+ and HDI-L+			HDI	
			1/4	3/8	1/2	5/8	3/4
Insert thread	d	UNC	1/4-20	3/8-16	1/2-13	5/8-11	3/4-10
Nominal bit diameter	d <sub>bit</sub>	in.	3/8	1/2	5/8	27/32	1
Nominal embedment	h <sub>nom</sub>	in.	1	1-9/16	2	2-9/16	3-3/16
Anchor length	ℓ	(mm)	(25)	(40)	(51)	(65)	(81)
Hole depth	h <sub>o</sub>						
Useable thread length	ℓ <sub>th</sub>	in.	7/16	5/8	11/16	7/8	1-3/8
		(mm)	(11)	(15)	(17)	(22)	(34)
Installation torque	T <sub>inst</sub>	ft-lb	4	11	22	37	80
		(Nm)	(5)	(15)	(30)	(50)	(109)
Minimum slab thickness	h	in.	3	3-1/8	4	5-1/8	6-3/8
		(mm)	(76)	(79)	(102)	(130)	(162)

<sup>1</sup> HDI+ and HDI-L+ are available in 1/4-, 3/8- and 1/2-in. The HDI is available in 5/8- and 3/4-in.

#### Combined shear and tension loading

$$\left( \frac{N_d}{N_{rec}} \right)^{5/3} + \left( \frac{V_d}{V_{rec}} \right)^{5/3} \leq 1.0$$

#### Listings/Approvals

##### FM (Factory Mutual)

Pipe Hanger Components for Automatic Sprinkler Systems HDI+ 3/8, HDI-L+ 3/8, HDI+1/2, HDI-L+ 1/2, HDI 5/8 and HDI 3/4

##### UL LLC

UL 203 Pipe Hanger Equipment for Fire Protection Services HDI+ 3/8, HDI-L+ 3/8, HDI+1/2, HDI-L+ 1/2, HDI 5/8 and HDI 3/4



### 3.3.11 HDI, HDI-L, HDI+ and HDI-L+ Drop-in Anchor

#### 3.3.11.4 Installation instructions

Manufacturer's Printed Installation Instructions (MPII) are included with each product package. They can also be viewed or downloaded at [www.us.hilti.com](http://www.us.hilti.com) (U.S.) and [www.hilti.ca](http://www.hilti.ca) (Canada). Because of the possibility of changes, always verify that downloaded MPII are current when used. Proper installation is critical to achieve full performance. Training is available on request. Contact Hilti Technical Services for applications and conditions not addressed in the MPII.

#### 3.3.11.5 Ordering information<sup>1</sup>

##### HDI+, HDI-L+ and HDI

###### Carbon steel

Description	Description	Anchor thread size	Qty / box
HDI+ 1/4	HDI-L+ 1/4	1/4	100
HDI+ 3/8	HDI-L+ 3/8	3/8	50
HDI+ 1/2	HDI-L+ 1/2	1/2	50
HDI 5/8	–	5/8	25
HDI 3/4	–	3/4	25

##### HDI-SS anchors

###### Stainless steel

Description	Anchor thread size	Qty / box
HDI 1/4 SS303	1/4	100
HDI 3/8 SS303	3/8	50
HDI 1/2 SS303	1/2	50
HDI 5/8 SS303	5/8	25
HDI 3/4 SS303	3/4	25

##### Setting tools for HDI and HDI-SS anchors

Description	Anchor thread size
HST 5/8 Setting Tool	5/8
HST 3/4 Setting Tool	3/4



##### Setting Tools for HDI+ and HDI-L+

Anchor thread size	Description
1/4	HST 1/4 Setting tool
	HSD-MM 1/4 (TE-C-24D6 1/4 Setting tool)
	HDI+ Setting Tool includes a TE-CX 3/8x1 carbide bit
	HST 3/8 Setting tool
3/8	HSD-MM 3/8 (TE-C-24SD10 3/8 Setting tool)
	HDI+ Setting Tool includes a TE-CX 1/2x1-9/16 carbide bit
1/2	HST 1/2 Setting tool
	HSD-MM 1/2 (TE-C-24SD12 1/2 Setting tool)
	HDI+ Setting Tool includes a TE-CX 5/8x2 carbide bit



<sup>1</sup> All dimensions in inches