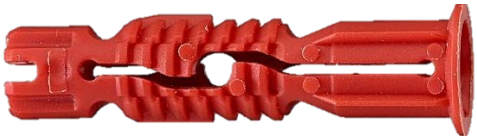
HUD-2 Plastic anchor

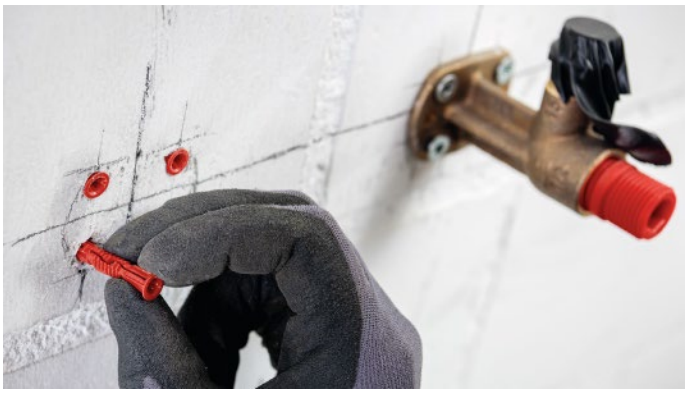
Product Technical Datasheet

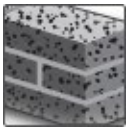
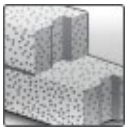
Update: April 25

HUD-2 Universal Plastic Anchor

Hilti universal plastic anchor

Anchor version	Benefits
 HUD-2 (5, 6, 8)	- Versatile – you can use the same plastic wall anchor to fasten to a wide range of base materials: concrete, solid brick, hollow brick, autoclaved aerated concrete, drywall - Anti-twist design – redesigned fins help to prevent rotation during screwdriving, especially in hollow bricks and autoclaved aerated concrete - Simpler installation – a wide collar prevents HUD-2 plastic anchor slipping into the wall cavity, while precise screw guidance helps to prevent damage during screwdriving - Recommended for use with HUD-S screws



Base material					Load conditions
 Concrete (uncracked)	 Solid brick	 Hollow brick	 Autoclaved aerated concrete	 Drywall	 Static/ quasi-static

Drilling, cleaning, setting	Other information
 Hammer drilled holes	 Hilti Technical data

Instructions for use (IFU)

The instructions for use can be viewed using the link in the instructions for use table or the QR code/link in the Hilti webpage table.

Anchor size	5X25	6X30	8X40
HUD-2	IFU HUD-2		

Link to Hilti Webpage

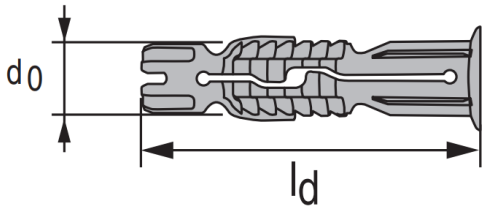
HUD-2	

Fastener special dimensions

HUD-2 dimension

Anchor size			HUD-2 5x25	HUD-2 6x30	HUD-2 8x40
Nominal diameter of HUD-2	d_0	[mm]	5	6	8
Length of HUD-2	l_d	[mm]	25	30	40

HUD-2

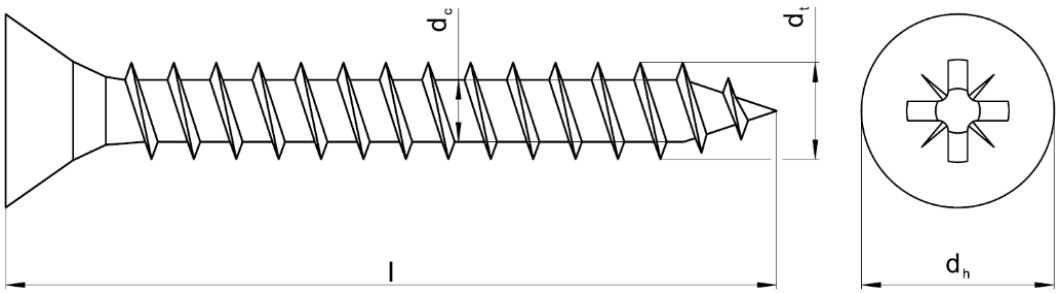


Recommended screw dimension

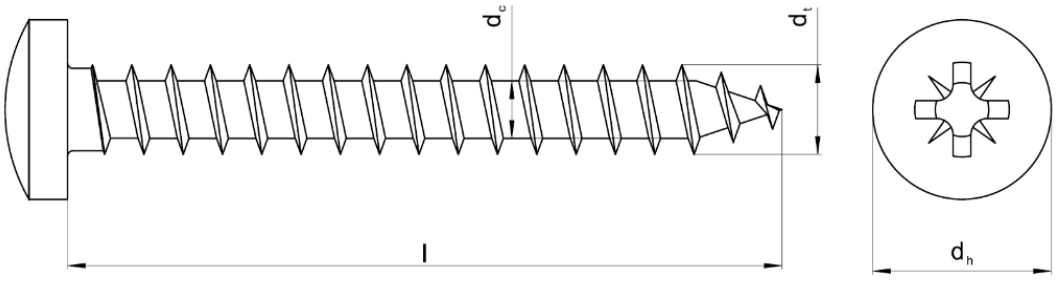
Screw type	Nominal diameter d_s [mm]	Thread diameter d_t [mm]	Core diameter d_c [mm]	Head diameter d_h [mm]	Lengths l [mm]	Screw drive	Recommended for
HUD-S	4	3,9	2.6	8	35 / 40[1)]	PZ2	HUD-2 5x25
	5	4,8	3.0	10	40	PZ2	HUD-2 6x30
	6	5,8	3.8	12	50 / 55[1)]	PZ3	HUD-2 8x40
HDS	4	3,9	2,4	8	35	TX20	HUD-2 5x25
	5	4,8	2,9	10	55-70	TX25	HUD-2 6x30
Chipboard screw	4	3,9	2,4	8	35 / 40[1)]	-	HUD-2 5x25
	5	4,8	2,9	10	40	-	HUD-2 6x30
	6	5,8	3,8	12	50 / 55[1)]	-	HUD-2 8x40

[1)] For countersunk screw

Countersunk head screw (HUD-S-**C** […] / HDS-**C** […])



Pan head screw (HUD-S-**P** […] / HDS-**P** […])



Brick and drywall types and properties

Brick type and properties

Brick type	Brick name	Image	Minimum Brick size l / b / h [mm]	Minimum Compressive strength f_b [N/mm²]	Bulk density ρ [kg/dm³]	Drilling mode
Solid clay brick EN 771-1	-		230 / 110 / 60	20	2,0	hammer
Autoclaved aerated concrete EN 771-4 AAC2	-		600 / 175 / 200	3	0,4	rotary
Autoclaved aerated concrete EN 771-4 AAC4	-		625 / 250 / 250	6	0,6	rotary
Hollow clay brick	ThermoPlan Planziegel-TS 1,2		375 / 175 / 250	15	0,9	rotary
Hollow clay brick	Tramezza “Tavella”		200 / 250 / 30	25	0,8	rotary
Hollow clay brick	“Doppio Uni”		120 / 120 / 240	20	1,0	rotary
Hollow clay brick	Poroton “Blocchi portanti”		300 / 200 / 200	10	0,8	rotary
Hollow clay brick	Pignata “Blocchi intermedi		120 / 120 / 240	25	0,8	rotary

Drywall type and properties

Drywall type	Drywall name	Image	Thickness [mm]	Bulk density ρ [kg/dm³]	Drilling mode
Drywall DIN 18180/EN520 A	Knauf GKB 12,5		12,5	0,68	rotary
Drywall, double layer DIN 18180/EN520 A	Knauf GKB 12,5		2 x 12,5	0,68	rotary
Drywall with fibers EN 15283-2 C1	Knauf Vidiwall 1Mann		12,5	1,2	rotary

Basic loading data and design based on Hilti Technical data.

All data in this section applies to:

- Correct setting (see setting instruction)
- Load data are only valid for the specified screw type
- No edge distance and spacing influence
- Base material as specified in the brick and drywall types and properties table
- Minimum base material thickness for concrete = $4 \cdot h_{nom}$
- For a single anchor
- Drilling mode (see brick and drywall types and properties table)
- Embedment depth, as specified in the table of this section
- Load data given in the tables is independent of load direction
- Design loads: with safety factors $\gamma_M = 1{,}8$ for concrete; $\gamma_M = 2{,}0$ for AAC, $\gamma_M = 2{,}5$ for masonry, $\gamma_M = 2{,}5$ for drywall
- Recommended loads: with additional safety factor $\gamma = 1{,}4$ to design values

Recommended loads

Anchor size			**HUD-2 5x25**	**HUD-2 6x30**	**HUD-2 8x40**
Screw type			**HUD-S [1)]**	**HUD-S [1)]**	**HUD-S [1)]**
Nominal diameter		**d_s**	**4**	**5**	**6**
Base material					
Nominal embedment depth	h_{nom}	[mm]	25	30	40
Concrete, uncracked >= C16/20	F_{rec}	[Kn]	0,24	0,48	1,0
Solid clay brick EN 771-1	F_{rec}	[Kn]	0,17	0,26	0,71
Autoclaved aerated concrete EN 771-4 AAC2	F_{rec}	[Kn]	0,04	0,04	0,11
Autoclaved aerated concrete EN 771-4 AAC4	F_{rec}	[Kn]	0,11	0,21	0,32
Hollow clay brick ThermoPlan Planziegel-TS2 1,2	F_{rec}	[Kn]	0,17	0,23	0,34
Hollow clay brick Tramezza “Tavella”	F_{rec}	[Kn]	0,1	0,1	0,2
Hollow clay brick “Doppio Uni”	F_{rec}	[Kn]	0,1	0,1	0,15
Hollow clay brick Poroton “Blocchi portanti”	F_{rec}	[Kn]	0,1	0,1	0,1
Hollow clay brick Pignata “Blocchi intermedi”	F_{rec}	[Kn]	0,1	0,1	0,1
Drywall DIN 18180/EN520 A Knauf GKB 12,5	F_{rec}	[Kn]	0,04	0,04	0,04
Drywall, double layer DIN 18180/EN520 A 2 x Knauf GKB 12,5	F_{rec}	[Kn]	0,06	0,07	0,11
Drywall, Fiber reinforced EN 15283-2 C1 Knauf Vidiwall 1Mann	F_{rec}	[Kn]	0,14	0,17	0,17

[1)] Recommended screw dimensions see fastener special dimensions section

Setting information

Installation temperature
-10°C to +40°C

In service temperature range
Hilti HUD-2 universal plastic anchor may be applied in the temperature range given below.

Temperature in base material

Temperature range	Base material temperature	Max. long term base material temperature	Max. short term base material temperature
Temperature range I	-40 °C to +80 °C	+50 °C	+80 °C

Max short term base material temperature
Short-term elevated base material temperatures are those that occur over brief intervals, e.g. as a result of diurnal cycling.
Max long term base material temperature
Long-term elevated base material temperatures are roughly constant over significant periods of time.

Installation parameters

Anchor size			HUD-2 5x25	HUD-2 6x30	HUD-2 8x40
Nominal diameter of drill bit	d_0	[mm]	5	6	8
Minimum depth of drill hole	h_1	[mm]	35	40	50
Nominal embedment depth	h_{nom}	[mm]	25	30	40
Anchor length	l_d	[mm]	25	30	40
Minimum length of the screw recommended	-	[mm]	30 + t_{fix}	35 + t_{fix}	45 + t_{fix}