



DX-KWIK X-M6 H, X-M8 H AND DNH, X-DKH DATA SHEET

Threaded stud and nail

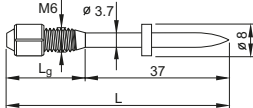


DX-Kwik – X-M6 H, X-M8 H and DNH, X-DKH Threaded studs and nails

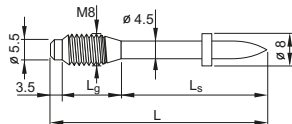
Product data

Dimensions

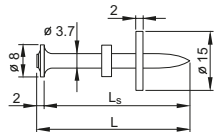
X-M6H-__-37 P8



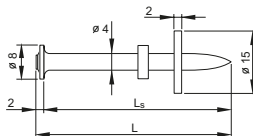
X-M8H-__-37 P8



DNH 37 P8S15



X-DKH 48 P8S15



Material specifications

Carbon steel shank: HRC 58

Zinc coating: 5–20 µm

Recommended fastening tools

DX 6 F8, DX 5 F8, DX 460 F8, DX 2

i • See fastener program in the next pages.

Approvals

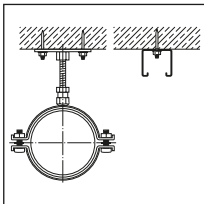
IBMB 3041/8171 X-M8H, X-DKH, X-M6H

DIBt (Germany): X-M8H

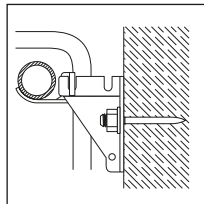
i Not all information presented in this product data sheet may be subject to approval / certificate content. Please refer to approval/certificate for further information.

Applications

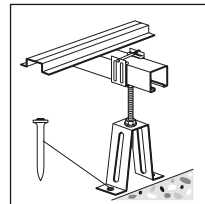
Examples



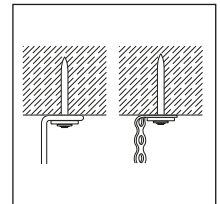
Base plates,
rails for piping



Radiator brackets



Floor stands, metal
fixtures to concrete



Suspended ceilings

Performance data

Recommended resistance under tension and shear load

	$N_{rec,1}$	$N_{rec,2}$	$V_{rec,1}$	$M_{rec,1}$
X-M6H, DNH 37	2.0 kN	0.6 kN	2.0 kN	5.5 Nm
X-M8H, X-DKH 48	3.0 kN	0.9 kN	3.0 kN	10.0 Nm

Conditions

- $N_{rec,1}$: concrete in compressive zone.
- $N_{rec,2}$: concrete in tension zone.
- Predominantly static loading.
- Concrete C20/25–C50/60.
- A sufficient redundancy has to be ensured, that the failure of a single fastening will not lead to collapse of the entire system.
- Recommended loads are based on failure of the fastener anchorage in the concrete.

Thickness and quality of the fastened material may lower the loadings.

– Observance of all pre-drilling requirements, fastened thickness limits, and recommended details.

– The recommended loads in the table refer to the resistance of the individual fastening and may not be the same as the loads F_N and F_V acting on the fastened part.

Note: If relevant, prying forces need to be considered in design, see example.

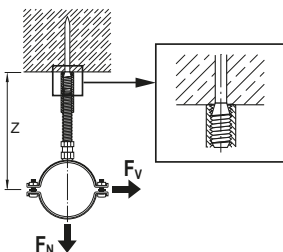
Moment acting on fastener shank only in case of a gap between base and fastened material.



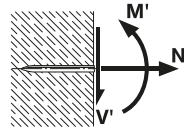
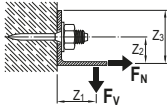
- For more details in relation to base material properties, please refer to the chapter **Fastener selection guide** in the Direct Fastening Manual (DFTM).

Arrangements to prevent moment on shank

Coupler tight against concrete



Non-symmetric arrangement



Resultant forces on nail

- Moment on fastened part
- Prying effect must be considered in determining loads acting on fastener

Application recommendation

Base material thickness

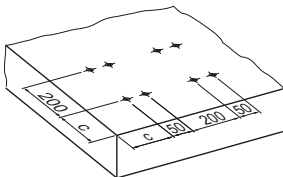
X-M6H, DNH 37: $h_{\min} = 100 \text{ mm}$
 X-M8H, X-DKH 48: $h_{\min} = 100 \text{ mm}$

Fastened material thickness

X-M6H: $t_l \leq L_g - t_{\text{washer}} - t_{\text{nut}} \cong \text{up to } 13.5 \text{ mm}$
 X-M8H: $t_l \leq L_g - t_{\text{washer}} - t_{\text{nut}} \cong \text{up to } 14.0 \text{ mm}$
 DNH 37: $t_l \leq 2.0 \text{ mm}$
 X-DKH 48: $t_l \leq 5.0 \text{ mm}$ or $t_l \leq 2.0$ by pre-drilling through fastened material

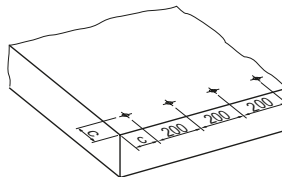
Fastener positioning in base material

Pairs



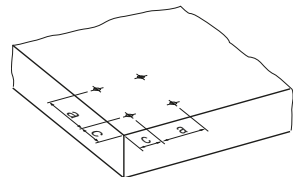
	Reinforced	Non-reinforced
c	100 mm	150 mm

Row along edge



	Reinforced	Non-reinforced
c	80 mm	150 mm

General (e.g. group of fasteners)



	Reinforced	Non-reinforced
c	80 mm	150 mm
a	80 mm	100 mm

Corrosion information



- The intended use only comprises fastenings which are not directly exposed to external weather conditions or moist atmospheres.
- For more details, please refer to following technical document: Hilti Corrosion Handbook.

System recommendation

- For more details, please refer to the chapter **Accessories and consumables compatibility** in the Direct Fastening Technology Manual (DFTM).

Cartridge recommendation

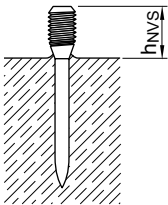
Base material	Cartridge color (tool power level)	
	Tool type: DX 6 F8	Tool type: DX 5 F8, DX 460 F8, DX 2
	Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
Soft/medium concrete	titanium ■ (2-6)	yellow ■, red ■
Tough concrete	titanium ■ (4-8)	yellow ■, red ■

- Tool power level adjustment by setting tests on site.
- Start tool energy selection with lowest recommended tool power level.
- Correct according requirement from chapter quality assurance.

Quality assurance

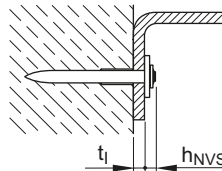
Fastening inspection

X-M6H, X-M8H



$$h_{NVS} = L - h_{ET}, \quad h_{ET} = 37-41 \text{ mm}$$

DNH 37, X-DKH 48

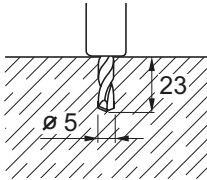


$$h_{NVS} \approx 4 \text{ mm}$$

Place nails so that heads and washers bear tightly against each other and against the fastened material

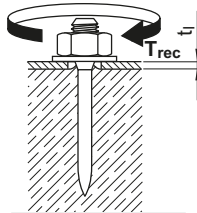
Installation

X-M6H, X-M8H



Pre-drill with drill bit

Designation	Item no
TX-C-5/23B	28557
or	
TX-C-5/23	61787



Tightening torque

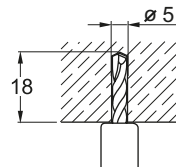
Designation	T _{rec} [Nm]
X-M6H	6.5
X-M8H	10.0

DNH 37, X-DKH 48

Pre-drilling details (not through fastened material)

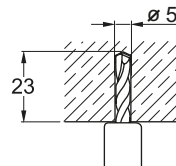
DNH 37

t _i [mm]	Drill-bit	Item no.
≤ 2	TX-C-5/18	61793



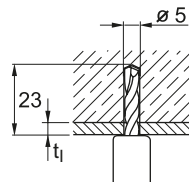
X-DKH 48

t _i [mm]	Drill-bit	Item no.
≤ 5	TX-C-5/23B	28557
or		
	TX-C-5/23	00061787



Details valid for C20/25–C50/60

Pre-drilling details (through fastened material)



X-DKH 48

t _i [mm]	Drill-bit	Item no.
≤ 2	only TX-C5/23	61787

Details valid for C20/25–C50/60

These are abbreviated instructions which may vary by application.

ALWAYS review/follow the instructions accompanying the product.

Fastener program

Fastened thickness $t_{i,max}$ [mm]	Fastener				
	Designation	Item no.	L_g [mm]	L_s [mm]	L [mm]
-	X-M6H-10-37 FP8	40464	10	37	47
-	X-M8H-10-37 P8	20059	10	37	50.5
5.0	X-M8H/5-15-37 P8	26325	15	37	55.5
15.0	X-M8H/15-25-37 P8	20064	25	37	65.5
2.0	DNH 37 P8S15	44165	-	37	39
5.0*	X-DKH 48 P8S15	40514	-	48	50

*) with pre-drilling through fastened material $t_{i,max} = 2.0$ mm