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

Threaded stud and nail

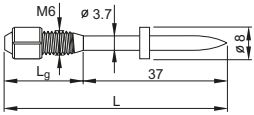
December 2017

DX-Kwik X-M6 H, X-M8 H and DNH, X-DKH Threaded stud and nail

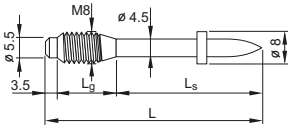
Product data

Dimensions

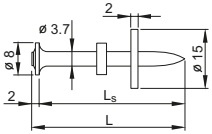
X-M6H-__-37 FP8



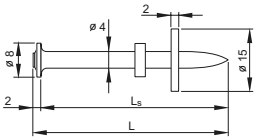
X-M8H___-37 P8



DNH 37 P8S15



X-DKH 48 P8S15



General information

Material specifications

Carbon steel shank:	HRC 58
Zinc coating:	5–20 µm

Recommended fastening tools

DX 460, DX 5, DX 36, DXE-72

See **DX-Kwik fastener program** in the next pages and **Tools and equipment** chapter for more details.

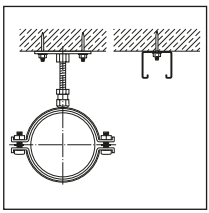
Approvals

IBMB 3041/8171	X-M8H, X-DKH, X-M6H
DIBt (Germany):	X-M8H

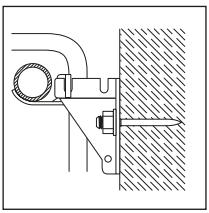
Note:
Technical data presented in these approvals and design guidelines reflect specific local conditions and may differ from those published in this handbook.

Applications

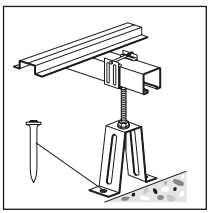
Examples



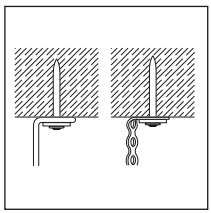
Base plates, rails for piping



Radiator brackets



Floor stands, metal fixtures to concrete



Suspended ceilings

Load data

Recommended loads

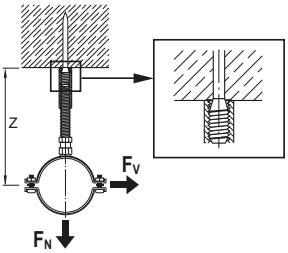
	$N_{rec,1}$ [kN]	$N_{rec,2}$ [kN]	$V_{rec,1}$ [kN]	$M_{rec,1}$ [Nm]
X-M6H, DNH 37	2.0	0.6	2.0	5.5
X-M8H, X-DKH 48	3.0	0.9	3.0	10.0

Conditions

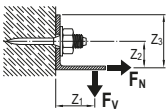
- **$N_{rec,1}$:** concrete in compressive zone.
- **$N_{rec,2}$:** concrete in tension zone.
- Predominantly static loading.
- Concrete C20/25–C50/60.
- A sufficient redundancy has to be ensured, that the failure of a single fastening will not lead to collapse of the entire system.
- Recommended loads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

Arrangements to prevent moment on shank:

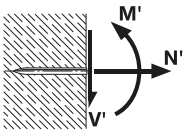
Coupler tight against concrete



Non-symmetric arrangement



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



Resultant forces on nail

Application requirements

Thickness of base material

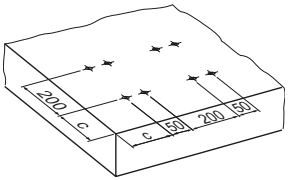
X-M6H, DNH 37: h_{min} = 100 mm
X-M8H, X-DKH 48: h_{min} = 100 mm

Thickness of fastened material

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

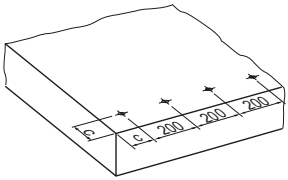
Spacing and edge distances (mm)

Pairs



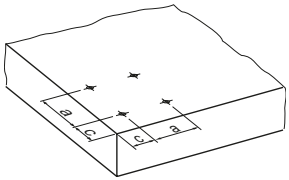
	Reinforced	Non-reinforced
c	100	150

Row along edge



	Reinforced	Non-reinforced
c	80	150

General (e.g. group of fasteners



	Reinforced	Non-reinforced
c	80	150
a	80	100

Corrosion information

The intended use only comprises fastenings which are not directly exposed to external weather conditions or moist atmospheres. For further detailed information on corrosion see relevant chapter in **Direct Fastening Principles and Technique** section.

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

Tools, cartridge selection and tool energy setting

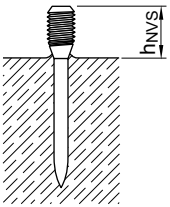
DX 460, DX 5, DX 36, DXE-72: 6.8/11M yellow or red cartridge

Tool energy adjustment by setting tests on site.

Fastening quality assurance

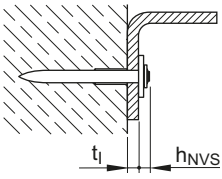
Fastening inspection

X-M6H, X-M8H



$h_{NVS} = L - h_{ET}$, h_{ET} = 37–41 mm

DNH 37, X-DKH 48

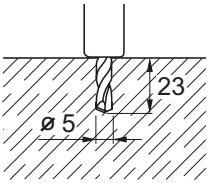


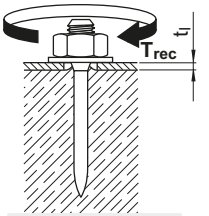
Place nails so that heads and washers bear tightly against each other and against the fastened material

$h_{NVS} \cong 4$ mm

Installation

X-M6H, X-M8H





Pre-drill with drill bit	
Designation	Item no
TX-C-5/23B	28557
or	
TX-C-5/23	61787

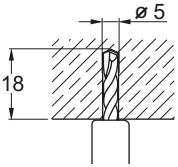
Tightening torque	
Designation	T_{rec} [Nm]
X-M6H	6.5
X-M8H	10.0

DNH 37, X-DKH 48

Pre-drilling details (not through fastened material)

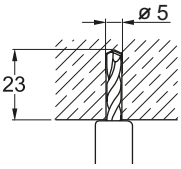
DNH 37

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



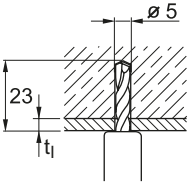
X-DKH 48

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.