

Electrical hanger system

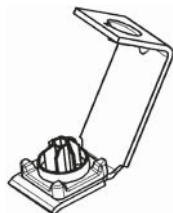


X-EHS MX, X-ECC MX Electrical hanger system

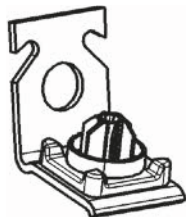
Product data

Dimensions

X-EHS MX



X-ECC MX



Material specifications

X-EHS MX / X-ECC MX:

Zinc coating: $\geq 5 \mu\text{m}$

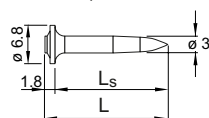
Recommended fastening tools

DX 6 MX, DX 5 MX, DX 460 MX, DX 351 MX,
DX 6 F8, DX 5 F8, DX 460 F8, DX 351, DX 2,
GX 120 ME, GX 3 ME, BX 3 ME

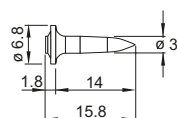


• See fastener program in the next pages.

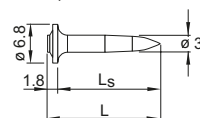
X-GHP 20/24



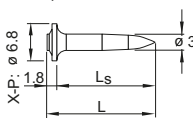
X-EGN 14



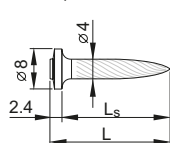
X-P 20/24 G3 MX



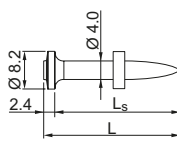
X-P 20/24 B3 MX



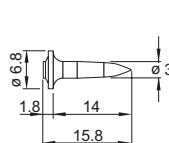
X-U 16/22



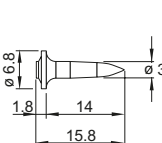
X-P 22



X-S 14 G3 MX

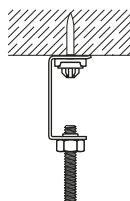


X-S 14 B3 MX



Applications

Example



- Hanger systems for light cable trays, etc. threaded rod attachments, wire attachments
- These fasteners are not recommended for fastening of suspended ceilings.
- These zinc coated fasteners are not suitable for long-term service outdoors or in otherwise corrosive environments.

Performance data


Recommended resistance under tension and shear load on concrete

Designation	N_{rec}	V_{rec}
X-EHS MX	0.1 kN	0.1 kN
X-ECC MX	0.05 kN*	0.1 kN

*) eccentric loading considered

Conditions

- Fastened with X-P 20/24 G3 MX, X-P 20/24 B3 MX, X-GHP 20/24 MX, X-U 22 or X-P 22.
- Minimum 5 fastenings per fastened unit (normal weight concrete).
- All visible failures must be replaced.
- With lightweight concrete base material and appropriate washers, greater loading may be possible, please contact Hilti.
- Predominantly static loading.
- Observance of all application limitations and recommendations.

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

Recommended resistance under tension and shear load on steel

Designation	N_{rec}	V_{rec}
X-EHS MX	0.45 kN	0.45 kN
X-ECC MX	0.45 kN	0.45 kN

Conditions

- Fastened with X-S 14 G3 MX, X-S 14 B3 MX, X-EGN 14 or X-U 16.

Application recommendation

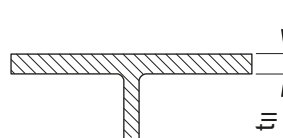
Base material thickness

Concrete

X-U, X-P:	$h_{min} = 80$ mm
X-P G3 MX:	$h_{min} = 60$ mm
X-P B3 MX:	$h_{min} = 60$ mm
X-GHP:	$h_{min} = 60$ mm

Steel

$t_{II} \geq 4$ mm



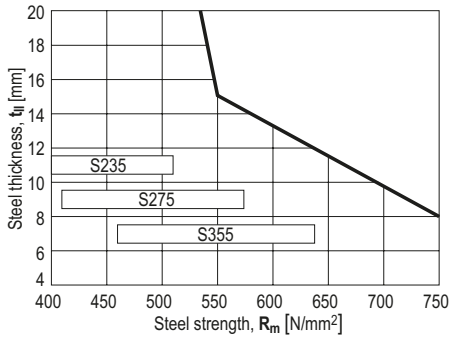
Fastener positioning

Spacing and edge distances depending on job site requirements.

Application limits

Fastening to steel

X-EGN 14, X-S 14 G3 MX, X-S 14 B3 MX



Corrosion information



- These zinc-coated fasteners are not suitable for long-term service outdoors or in otherwise corrosive environments.
- 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).

Fastener selection

Designation	Shank diameter d_s	Shank length L_s	Fastener length L	Base material
X-P 20 G3 MX	3.0 mm	20 mm	21.8 mm	Concrete
X-P 24 G3 MX	3.0 mm	24 mm	25.8 mm	
X-P 20 B3 MX	3.0 mm	20 mm	21.8 mm	
X-P 24 B3 MX	3.0 mm	24 mm	25.8 mm	
X-GHP 20 MX	3.0 mm	20 mm	21.8 mm	
X-GHP 24 MX	3.0 mm	24 mm	25.8 mm	
X-P 22 MX	4.0 mm	22 mm	24.4 mm	
X-U 22 MX	4.0 mm	22 mm	24.4 mm	
X-S 14 G3 MX	3.0 mm	14 mm	15.8 mm	Steel
X-S 14 B3 MX	3.0 mm	14 mm	15.8 mm	
X-EGN 14 MX	3.0 mm	14 mm	15.8 mm	
X-U 16 MX	4.0 mm	16 mm	18.4 mm	

Cartridge recommendation

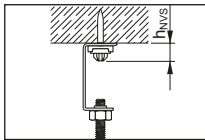
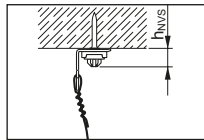
Base material	Cartridge color (tool power level)	
	Tool type: DX 6 MX DX 6 F8 Cartridge type: 6.8/11 M	Tool type: DX 6 MX, DX 5 MX, DX 460 MX, DX 351 MX DX 6 F8, DX 5 F8, DX 460 F8, DX 351, DX 2 Cartridge type: 6.8/11 M
Soft/medium concrete	titanium ■ (2-5)	yellow ■, red ■
Tough concrete	titanium ■ (4-8)	yellow ■, red ■

Cartridge recommendation

Base material		Cartridge color (tool power level)	
		Tool type: DX 6 MX	Tool type: DX 6 MX, DX 5 MX, DX 460 MX, DX 351 MX DX 6 F8, DX 5 F8, DX 460 F8, DX 351, DX 2
		DX 6 F8	
		Cartridge type: 6.8/11 M	
S235, S275, S355	$4 \leq t_{II} \leq 20 \text{ mm}$	titanium ■ (2-8)	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
X-EHS MX

 $h_{NVS} = 4-8 \text{ mm}$
X-ECC MX

 $h_{NVS} = 4-8 \text{ mm}$
Fastener program
Item no. and description

Designation	Item no.	Description
X-EHS M4 MX	273367	Threaded Rod Hanger
X-EHS M6 MX	272073	
X-EHS W6 MX	228341	
X-EHS M8 MX	273368	
X-EHS W10 MX	386468	
X-ECC MX	228342	Ceiling clip