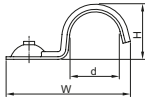


X-FB-E, X-DFB-E Electrical conduit fastener

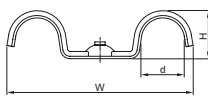
Product data

Dimensions

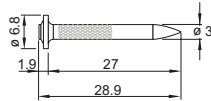
X-FB-E



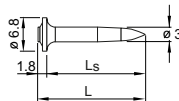
X-DFB-E



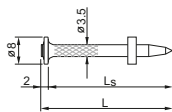
X-GN 20/27



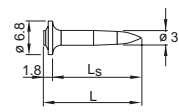
X-GHP 20



X-C 22/27

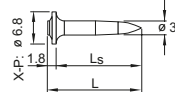


X-P 20 G3 MX

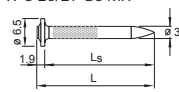


X-P 20 B3 MX

X-C 20 B3 MX



X-C 20/27 G3 MX



Material specifications

Galvanized steel sheet

$f_u = 270-420 \text{ N/mm}^2$

10-20 μm zinc coating

Recommended fastening tools

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



• See fastener program in the next pages.

Applications

Example



X-FB-E for rigid conduits



X-FB-E for flexible conduits

Performance data

Recommended resistance under tension load

Designation	Concrete N_{rec}	Sandlime stone N_{rec}
X-FB-E or X-DFB-E with X-GN 20, X-C 20 G3 MX or X-C 20 B3 MX	0.02 kN	0.02 kN
X-FB-E or X-DFB-E with X-GN 27 or X-C 27 G3 MX	0.06 kN	0.06 kN
X-FB-E or X-DFB-E with X-GHP 20, X-P 20 G3 MX or X-P 20 B3 MX	0.02 kN	–
X-FB-E or X-DFB-E with X-C 22/27	0.06 kN	0.06 kN

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

Application recommendation

Base material thickness

X-GN, X-GHP, X-C G3 MX, X-P G3 MX:	$h_{min} = 60 \text{ mm}$
X-C B3 MX, X-P B3 MX:	$h_{min} = 60 \text{ mm}$
X-C:	$h_{min} = 80 \text{ mm}$

Fastened material thickness

X-FB-E:	To fasten conduits, pipes and tubes of $\varnothing 16 \text{ mm}$ to 25 mm
X-DFB-E:	To fasten conduits, pipes and tubes of $\varnothing 20 \text{ mm}$ to 25 mm

Fastener positioning

Space fastenings as needed to control sag and maintain alignment.

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).

Cartridge recommendation for fastening to concrete and masonry

Base material	Cartridge color (tool power level)	
	Tool type: DX 6 MX	Tool type: DX 5 MX, DX 460 MX, DX 351 MX
	DX 6 F8	DX 5 F8, DX 460 F8, DX 351 F8, DX 2
	Cartridge type: 6.8/11 M	Cartridge type: 6.8/11 M
Sand lime masonry	titanium ■ (1-5)	green ■, yellow ■
Soft/medium concrete	titanium ■ (2-5)	yellow ■, red ■
Tough concrete	titanium ■ (4-7)	yellow ■, red ■

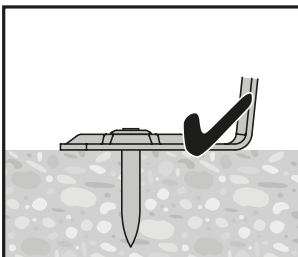


- Tool power level adjustment by setting tests on site.
- Start tool energy selection with lowest recommended tool power level.
- Correct according requirement from chapter quality assurance.

System recommendation for gas-actuated and battery-actuated tools

GX tools	GX 120-ME	Gas can GC 20, GC 21 and GC 22
	GX 3-ME	Gas can GC 40, GC 41 and GC 42
BX tools	BX 3-ME	No gas can required

Quality assurance



Nail head not protruding

Fastener program

Item no. and technical information

Designation	Item no.	d	W	H
X-FB-E 16 MX	2112585	16 mm	44 mm	17.5 mm
X-FB-E 20 MX	2112586	20 mm	48 mm	21.5 mm
X-FB-E 25 MX	2112587	25 mm	55 mm	26.5 mm
X-DFB-E 20 MX	2112588	20 mm	80 mm	20 mm
X-DFB-E 25 MX	2112589	25 mm	90 mm	25 mm

Tool selection

X-GN, X-GHP:	GX 120
X-C G3 MX, X-P G3 MX:	GX 3 ME
X-C B3 MX, X-C B3 MX	BX 3 ME
X-C_P8:	DX 6 F8, DX 5 F8, DX 460 F8, DX 351 F8
X-C_MX:	DX 6 MX, DX 5 MX, DX 460 MX, DX 351 MX