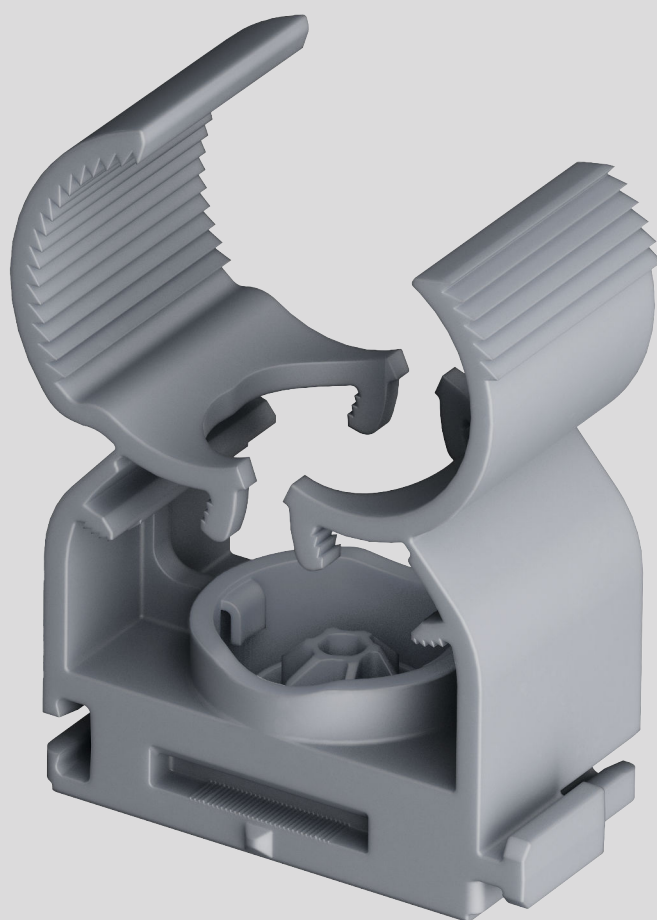




X-FC MX

Multi clip

Data Sheet



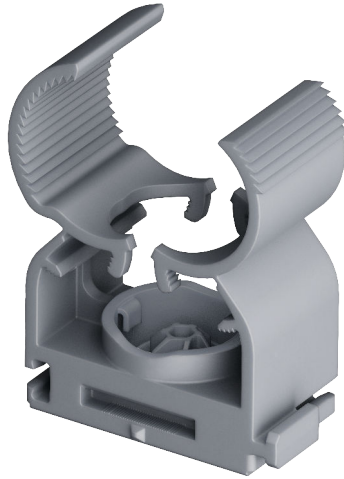
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1 PRODUCT INFORMATION

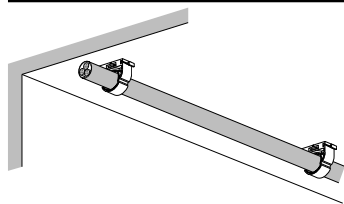
1.1 Product description

Designation	Features
X-FC MX	• Approvals and certificates – technical data, test reports and approvals available. • Versatile fastening methods – compatible with push-fit anchors, wood and metal screws, or standard plastic anchors for fastening to a wide variety of base materials • Interlocking system – fully modular system allows you to combine multiple clips and clamps to increase your range of applications • Fully adjustable – flexible interface allows you to adjust the clip into position even after fastening, and fasten a range of conduit diameters • High-quality installations – ETA approved solution with 50-year lifetime in cracked concrete and UL listed



2 APPLICATION CONDITIONS

2.1 Application examples



Fastening plastic conduits

2.2 Base materials

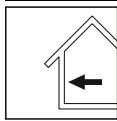
Concrete	Steel	Solid brick	Hollow brick	Limestone masonry	Aerated concrete	Drywall / Gypsum board	Wood

2.3 Load conditions



Static / quasi-static

2.4 Environmental conditions



Dry indoor



- For more details, please refer to the [Hilti Corrosion Handbook](#).

2.5 Temperature conditions

Fastener	Component part	Long term temperature	Short term temperature	Installation temperature	Approval / Certificate number
		T [°C]	T [°C]	T [°C]	
X-FC MX	Multi clip	0 – 24	0 – 40	-10 – 40	ETA-16/0301

Fastener	Component part	Maximum operation temperature	Approval / Certificate number
		T [°C]	
X-FC MX	Multi clip	50	UL E533326

3 APPROVALS AND CERTIFICATES

Authority	Approval/Certificate number	Date of issue
Deutsches Institut für Bautechnik (DIBt)	ETA-16/0301	21 Nov 2024
Underwriters Laboratories (UL)	UL E533326	14 Jul 2024



- Not all information presented in this product data sheet might be subject to approval/certificate content.
- Information presented in this product data sheet might also be based on Hilti Technical Data.
- Please refer to approval/certificate for further information.

4 PRODUCT DATA

4.1 Dimensions

Technical drawing	Element	Height h [mm]	Length l [mm]	Width b [mm]
	X-FC 16-20 MX	44.1	38	20
	X-FC 20-25 MX	50.6	42	20
	X-FC 25-32 MX	58.4	50	20
	X-FC 32-40 MX	69.3	58	20

4.2 Material properties for plastic parts

Element	Component part	Material	Color
X-FC MX	Multi clip	High Density Polyethylene (HDPE)	Light grey

5 SYSTEM RECOMMENDATION

5.1 Fastener recommendation

Element	Fastener	Base material	Fastening method
X-FC MX	X-P 20 B4 MX, X-P 20 B3 MX	Concrete, Limestone masonry	Recommended
	X-P 17 B4 MX, X-P 24 B4 MX, X-P 17 B3 MX, X-P 24 B3 MX, X-C 20 B4 MX, X-C 20 B3 MX, X-C 24 B3 MX	Concrete, Limestone masonry	Suitable
	X-S 14 B4 MX, X-S 14 B3 MX	Steel	Suitable
	X-EAP 30	Concrete	Recommended
	X-EAP 50	Solid brick, Hollow brick, Aerated concrete, Drywall / Gypsum board	Recommended
	HMF 5x25, HMF 6x30, HUD-2 5x25, HUD-2 6x30	Solid brick, Hollow brick, Aerated concrete, Drywall / Gypsum board	Suitable
	S-WS03Z 4.2x35	Wood	Recommended

5.2 Connection Type

Conne- tion type	Ceiling	Wall	Fastened element	Connected element	Fastener
CT 1.1			X-FC 16-20 MX		
CT 1.2			X-FC 20-25 MX		
CT 1.3			X-FC 25-32 MX		
CT 1.4			X-FC 32-40 MX		
CT 2.1			X-FC 16-20 MX	X-FC 16-20 MX	
CT 2.2			X-FC 20-25 MX	X-FC 16-20 MX, X-FC 20-25 MX	HMF 5x25, HMF 6x30, HUD-2 5x25, HUD-2 6x30, S-WS03Z 4.2x35, X-C 20 B3 MX, X-C 20 B4 MX, X-C 24 B3 MX, X-P 17 B3 MX, X-P 17 B4 MX, X-P 20 B3 MX, X-P 20 B4 MX, X-P 24 B3 MX, X-S 14 B3 MX, X-S 14 B4 MX
CT 2.3			X-FC 25-32 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX	
CT 2.4			X-FC 32-40 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX, X-FC 32-40 MX	
CT 3.1			X-FC 16-20 MX	X-FC 16-20 MX	
CT 3.2			X-FC 20-25 MX	X-FC 16-20 MX, X-FC 20-25 MX	
CT 3.3			X-FC 25-32 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX	
CT 3.4			X-FC 32-40 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX, X-FC 32-40 MX	

Conne- ction type	Ceiling	Wall	Fastened element	Connected element	Fastener
CT 4.1			X-FC 16-20 MX		
CT 4.2			X-FC 20-25 MX		
CT 4.3			X-FC 25-32 MX		
CT 4.4			X-FC 32-40 MX		
CT 5.1			X-FC 16-20 MX	X-FC 16-20 MX	
CT 5.2			X-FC 20-25 MX	X-FC 16-20 MX, X-FC 20-25 MX	
CT 5.3			X-FC 25-32 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX	
CT 5.4			X-FC 32-40 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX, X-FC 32-40 MX	X-EAP 30, X-EAP 50
CT 6.1			X-FC 16-20 MX	X-FC 16-20 MX	
CT 6.2			X-FC 20-25 MX	X-FC 16-20 MX, X-FC 20-25 MX	
CT 6.3			X-FC 25-32 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX	
CT 6.4			X-FC 32-40 MX	X-FC 16-20 MX, X-FC 20-25 MX, X-FC 25-32 MX, X-FC 32-40 MX	

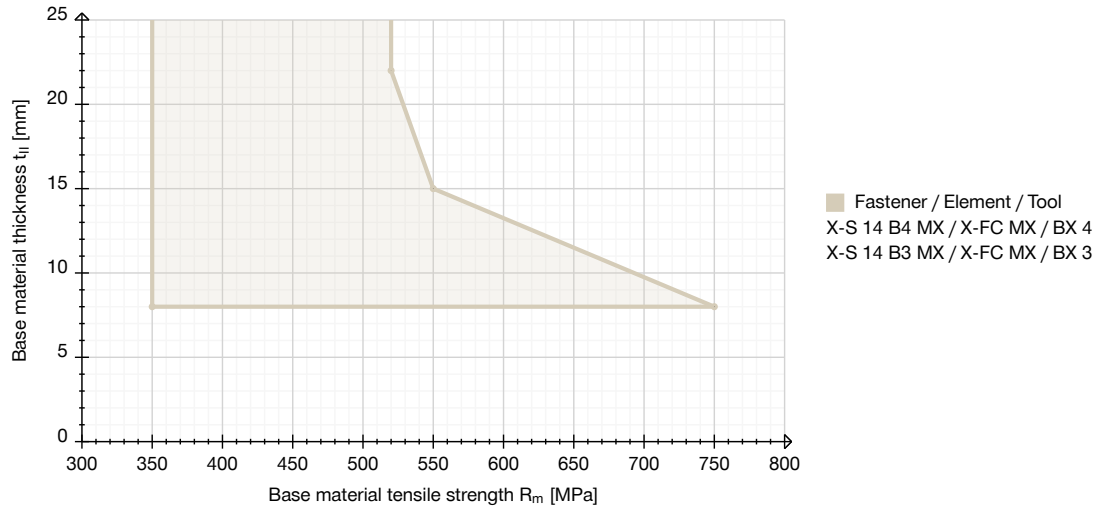
Positioning of fastening point.



- For floor applications, use the same disposition of elements as for ceiling.

6 APPLICATION REQUIREMENTS

6.1 Application range for fastening to steel



- i** • The marked area represents the admissible field of application.

7 PERFORMANCE DATA

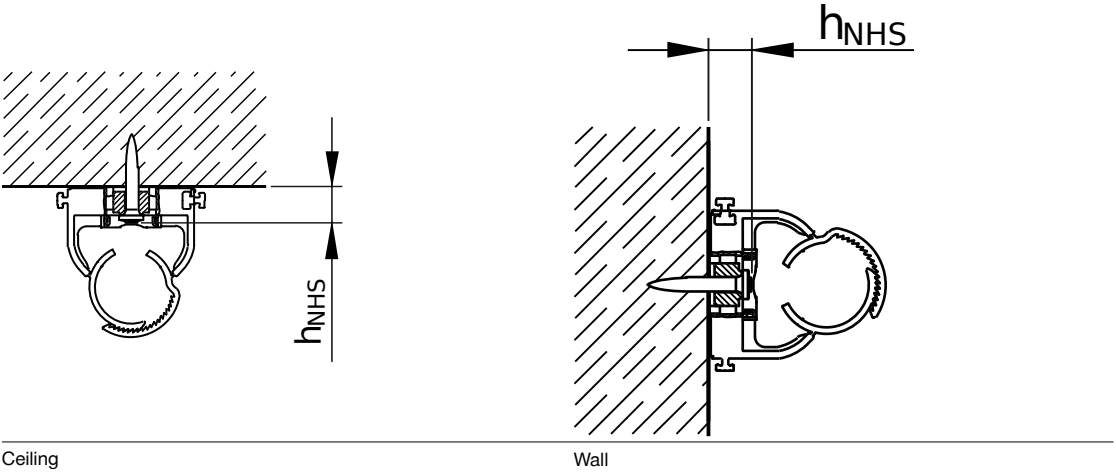
7.1 Recommended loads under quasi static/static loading

Connection Type	Tension load	Shear load
	N_{rec} [kN]	V_{rec} [kN]
CT 1.1, CT 2.1, CT 3.1, CT 4.1, CT 5.1, CT 6.1	0.003	0.003
CT 1.2, CT 2.2, CT 3.2, CT 4.2, CT 5.2, CT 6.2	0.0045	0.0045
CT 1.3, CT 2.3, CT 3.3, CT 4.3, CT 5.3, CT 6.3	0.007	0.007
CT 1.4, CT 2.4, CT 3.4, CT 4.4, CT 5.4, CT 6.4	0.012	0.012

- i** • Redundancy of fastening points is required.
 • Minimum number of fastening points for safety relevant fastenings: ≥ 5 .
 • Recommended load is the total load on fastening point.
 • For stacked configurations, the maximum load on a connected element is $\frac{F_{rec}}{n}$ (n =number of total elements).
 • Choose fastener spacing to control sag and maintain alignment.

8 QUALITY ASSURANCE

8.1 Fastening inspection



Element	Fastener	Fastener standoff h_{NHS} [mm]
X-FC MX	X-C 20 B3 MX, X-C 20 B4 MX, X-C 24 B3 MX, X-P 17 B3 MX, X-P 17 B4 MX, X-P 20 B3 MX, X-P 20 B4 MX, X-P 24 B3 MX, X-P 24 B4 MX	6 – 11
	X-S 14 B3 MX, X-S 14 B4 MX	6 – 9
	S-WS03Z 4.2x35	
	HMF 5x25, HMF 6x30, HUD-2 5x25, HUD-2 6x30	≥ 6

- Visible setting failures must be replaced with a new fastener, not in the same hole.
- These are abbreviated instructions which may vary by application.
- Always review/ follow the instructions accompanying the product.
- For HMF/HUD-2: Screw head must be in contact with the plastic fastener.

9 ORDERING INFORMATION

9.1 Item number and description

Designation	Item number	Description
HMF 5x25	2185263	HMF Wall plug
HMF 6x30	2185268	
HUD-2 5x25	2287817	HUD-2 Plastic wall plug
HUD-2 6x30	2287820	
S-WS03Z 4.2x35	413322	S-WS 03 Z Sharp-point electrical screws
X-C 20 B3 MX	2123993, 2246267	X-C B3 MX Concrete nails (collated)
X-C 24 B3 MX	2123994, 2314526	
X-C 20 B4 MX	2361658, 2361663, 2412651, 2412652	X-C B4 MX Concrete nails (collated)
X-EAP 30	2388259	X-EA MX Push fit anchor
X-EAP 50	2388260	
X-FC 16-20 MX	2388263	X-FC MX Multi clip
X-FC 20-25 MX	2388264	
X-FC 25-32 MX	2388265	
X-FC 32-40 MX	2388266	
X-P 17 B3 MX	2105403, 2156216, 2156219, 2314520, 2314521, 2348330, 2348333	X-P B3 MX Concrete nails (collated)
X-P 20 B3 MX	2105404, 2156217, 2156390, 2314522, 2314523, 2348331, 2348334	
X-P 24 B3 MX	2156218, 2156391, 2298507, 2298508, 2348332, 2348335	
X-P 17 B4 MX	2361537, 2361651, 2361655, 2412761, 2412762, 2412763	X-P B4 MX Concrete nails (collated)
X-P 20 B4 MX	2361538, 2361652, 2361656, 2412764, 2412765, 2412766	
X-P 24 B4 MX	2361539, 2361653, 2361657, 2412767, 2412768, 2412769	
X-S 14 B3 MX	2156392, 2156393, 2314524, 2314525	X-S B3 MX Steel nails (collated)
X-S 14 B4 MX	2361536, 2361650, 2361654, 2412772, 2412773, 2412774	X-S B4 MX Steel nails (collated)



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