Metal frame fixing F-M

The fixing for stress-free installation of window and door frames with fire classification

Fire protection doors

Applications

- Window frames
- Door frames
- Squared timbers

Advantages

- The F-M metal frame plug achieves fire resistance R 120. This allows for use in areas where fire resistance is relevant.
- The operating principle prevents the window frame from being pulled against the substrate, and ensures a stress-free and long-lasting fixing of the frame.
- The special plug geometry anchors the metal and plastic profiles against compressive and tensile loads, and allows for a secure hold of the window frame.
- The cover caps (available separately) can be used to discreetly cover the screw heads.

Certificates

Fire resistance classification
R120

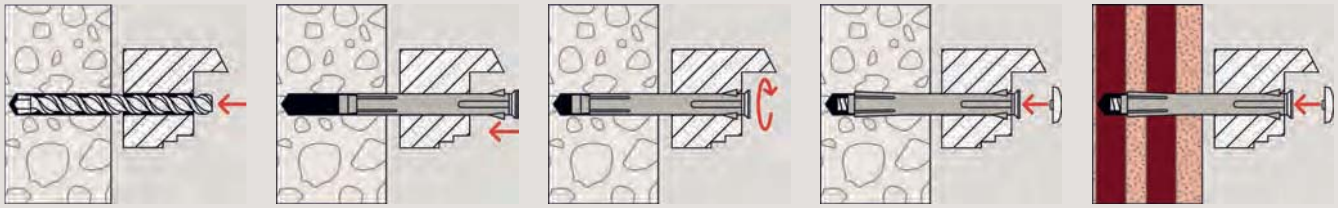
Building materials

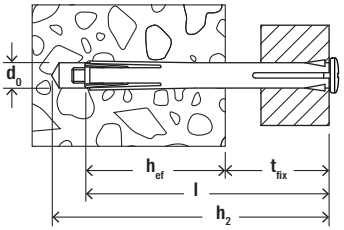
- Concrete
- Vertically perforated brick
- Hollow blocks made from lightweight concrete
- Perforated sand-lime brick
- Solid sand-lime brick
- Aerated concrete
- Solid brick made from lightweight concrete
- Solid brick

Functioning

- The F-M is suitable for push-through installation.
- By tightening the screw, the cone is drawn into the sleeve and the fixing is expanded which wedges it inside the drill hole. The window frames are thus fixed in a stress-free manner.
- The maximum installation torque is 5 Nm.

Installation F-M





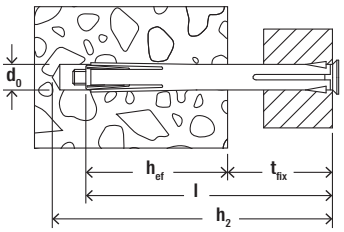
Technical data

Metal frame fixing F-M

F 8 M - with zinc-plated raised countersunk screw and cross drive PZ2

Item	Item No.	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Effect. anchorage depth h_{ef} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Drive	Sales unit [pcs]
F 8 M 72	088660 [1]	8	90	30	72	42	PZ2	100
F 8 M 92	088662 [1]	8	110	30	92	62	PZ2	100
F 8 M 112	088664 [1]	8	130	30	112	82	PZ2	100
F 8 M 132	088666 [1]	8	150	30	132	102	PZ2	100

1) Screw head Ø 10 mm



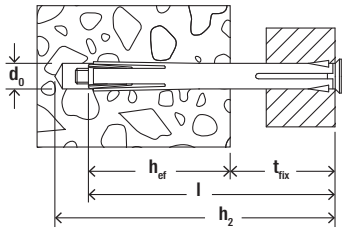
Technical data

Metal frame fixing F-M

F 10 M - with zinc-plated countersunk head screw and cross drive PZ3

Item	Item No.	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Effect. anchorage depth h_{ef} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Drive	Sales unit [pcs]
F 10 M 72	088670 [1]	10	90	30	72	42	PZ3	100
F 10 M 92	088672 [1]	10	110	30	92	62	PZ3	100
F 10 M 112	088674 [1]	10	130	30	112	82	PZ3	100

1) Screw head Ø 13 mm



Technical data

Metal frame fixing F-M

F 10 M - with zinc-plated countersunk head screw and cross drive PZ3

	Item No.	Drill hole diameter d_0 [mm]	Min. drill hole depth for through fixings h_2 [mm]	Effect. anchorage depth h_{ef} [mm]	Anchor length l [mm]	Max. fixture thickness t_{fix} [mm]	Drive	Sales unit [pcs]
Item								
F 10 M 132	**088676** [1]	10	150	30	132	102	PZ3	100
F 10 M 152	**088678** [1]	10	170	30	152	122	PZ3	100
F 10 M 182	**088680** [1]	10	200	30	182	152	PZ3	50
F 10 M 202	**061064** [1]	10	220	30	202	172	PZ3	50

1) Screw head Ø 13 mm

Accessories

Cover cap (F-M)

ADM 10 W

	Item No.	Colour	Cap height [mm]	Cap [Ø mm]	Match	Sales unit [pcs]
Item						
ASM 10 W	**060320**	white	3	15	F 10 M	100
ADM 10 W	**088688**	white	4	16,5	F 10 M	100

Loads

Metal frame fixing F-M

Recommended loads[1] of a single anchor as part of a multiple fixing of non-structural systems.

Type			F 8 M	F 10 M
Recommended loads in the respective base material F_{rec} [2]				
Concrete	≥ C20/25	**[kN]**	1.00	1.40
Solid brick	≥ Mz 12	**[kN]**	0.30	1.30
Solid sand-lime brick	≥ KS 12	**[kN]**	0.70	1.30
Solid brick of lightweight aggregate concrete	≥ V 2	**[kN]**	-	0.50
Perforated sand-lime brick	≥ KSL 6	**[kN]**	0.25	0.60

[1] Required safety factors are considered.
[2] Valid for tensile load, shear load and oblique load under any angle.