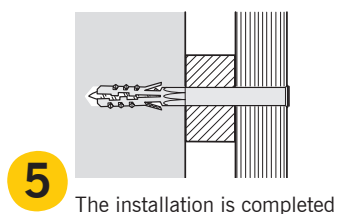
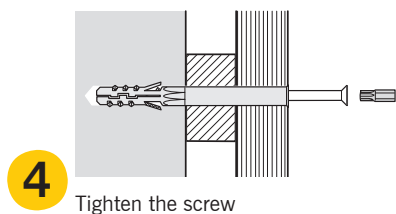
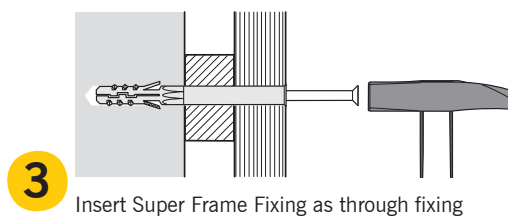
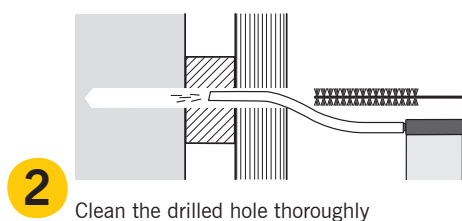
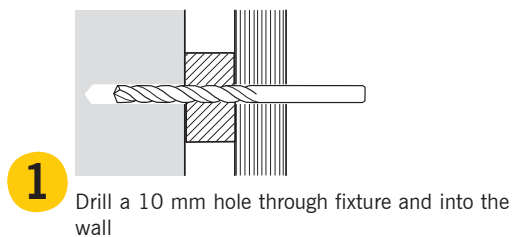


SUPER FRAME FIXING

Installation:

For fixing of door and window frames, timber battens etc. in solid brick and concrete



Advantages:

- Through fixing.
- High loads in massive materials.
- No thermal bridge.

Accessories:

- Covercaps.
- Self-adhesive FastCap covercaps.

Materials:

Expandet Super Frame Fixing is supplied with either zinc plated or hot-dipped galvanized screw, with countersunk or hexagon head.

Anchor: Nylon (PA6)

Withstands temperatures from -40°C to +80°C.

Screw: Galvanized steel $f_{uk} = 500 \text{ N/mm}^2$ $f_{yk} = 400 \text{ N/mm}^2$

Zinc plated min. 5 μm .

Hot dipped galvanized min. 45 μm .

Stainless steel

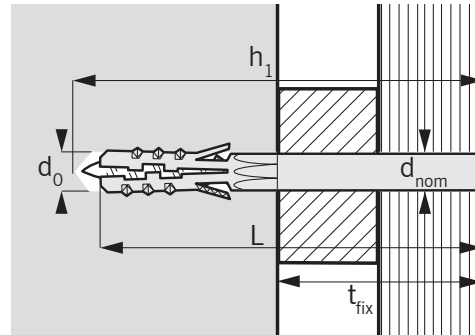
Stainless Inox A4, property class 70 (available on request)

Further information:

See overleaf



SUPER FRAME FIXING



Type	Dimensions			Fixing		Load Capacities			
	d_{nom}	L	t_{fix}	d_0	h_1	Concrete 25 N/mm ²		Solid brick 15 N/mm ²	
	Outside diameter of anchor mm	Anchor length mm	Thickness of fixture (Max.) mm	Drill hole diameter mm	Depth of drilled hole (Min.) mm	Design load tension kN*	Design load shear kN*	Design load tension kN [◇]	Design load shear kN [◇]
Expandet Super Frame Fixing									
10x 80	10	80	30	10	90	2,4	2,7	1,8	1,5
10x100	10	100	50	10	110	2,4	2,7	1,8	1,5
10x115	10	115	65	10	125	2,4	2,7	1,8	1,5
10x135	10	135	85	10	145	2,4	2,7	1,8	1,5
10x160	10	160	110	10	170	2,4	2,7	1,8	1,5
10x200	10	200	150	10	210	2,4	2,7	1,8	1,5
10x240	10	240	190	10	250	2,4	2,7	1,8	1,5

* Design loads are valid for a single anchor in concrete \geq C 20/25 not influenced by edge distance and/or spacing. Partial safety factor for material (γ_m) is included. Partial safety factor for actions (γ_f) must be applied according to national building code.

◇ Design loads are valid for a single anchor in solid brick with a compressive strength \geq 15 N/mm² and joints completely filled with mortar not influenced by edge distance and/or spacing. Partial safety factor for material (γ_m) is included. Partial safety factor for actions (γ_f) must be applied according to national building code.

If no guidance for γ_f exists Expandet recommend a partial safety factor for actions of minimum 1,5.

1 kN \approx 100 kg.

Combined resistance shall be verified if both tension and shear actions are applied. See "Principles for Fastening" page 5 (Verification Method 1).

Important: See Expandet's "Principles for fastening" for general information on fastening as well as information on limited liability. (Can be downloaded at www.expandet.com)

Spacing and edge distance ▼

	Spacing mm	Edge distance mm
Concrete	100	100
Solid brick ¹	100 ²	100 ³

▼ If above spacing and/or edge distance are not observed loads are reduced.

¹ Fixing in the first 3 courses down from the top of the wall should be avoided.

² Only one anchor in each brick.

³ It is recommended that edge distance to free edges is minimum one clear brick.



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Version 06.012

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