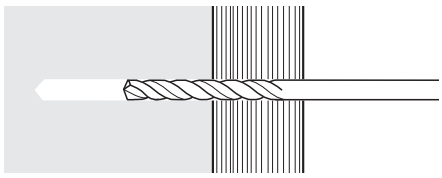
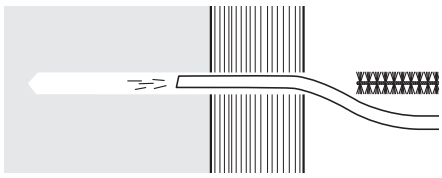
# 8 mm SUPER FRAME FIXING

**For fixing of door and window frames, wooden laths, substructures, cladding etc. in concrete, aerated concrete, solid and hollow brick**

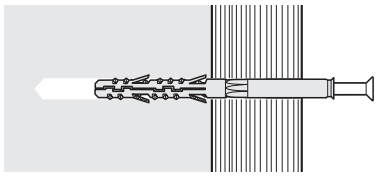
## Installation:



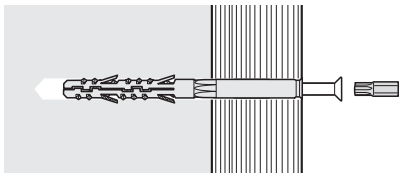
1 Drill a 8 mm hole through fixture and into the wall. Use HSS-drill in aerated concrete and other solid low density base-materials. In hollow brick, only use rotary drilling



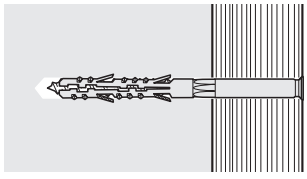
2 Clean the drilled hole thoroughly



3 Insert 8 mm Super Frame Fixing as through fixing



4 Tighten the screw



5 The installation is completed

## Advantages:

Through fixing
High load capacities
All-round use - useable in several building material
Resistant to vibrations
No thermal bridge
Supplied assembled.

## Materials:

Expandet 8 mm Super Frame Fixing is supplied with zinc plated screw with countersunk head (torx 30):

Anchor: Nylon (PA6).
Withstands temperatures from -40°C til +80°C.

Screw: Galvanized steel $f_{uk}$ = 500 N/mm² $f_{uk}$ = 400 N/mm².
Zinc plated min. 5 µm.

## Accessories:

Self-adhesive FastCap covercaps.
Covercaps.

## Further information:

See overleaf.

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Graphic: Vedkom /Expandet

# Technical Sheet No. 300

EXPANDET

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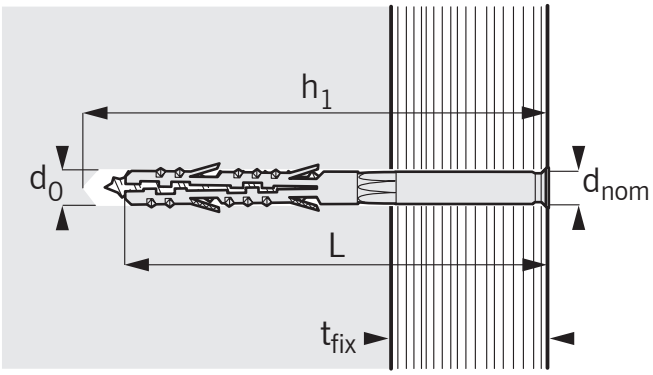


| Type | Dimensions | | | Fixing | |
|---|---|---|---|---|---|
| | $d_{nom}$ | L | $t_{fix}$ | $d_o$ | $h_1$ |
| Expandet 8 mm Super Frame Fixing | Outside diameter of anchor mm | Anchor length mm | Thickness of fixture (Max.) mm | Drill hole diameter mm | Depth of drill hole (Min.) mm |
| 8x 80 | 8 | 80 | 20 | 8 | 90 |
| 8x100 | 8 | 100 | 40 | 8 | 110 |
| 8x120 | 8 | 120 | 60 | 8 | 130 |

| Type | Load Capacities | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| | $N_{Rd}$ | $V_{Rd}$ | $N_{Rd}$ | $V_{Rd}$ | $F_{Rd}$ | $F_{Rd}$ | $N_{Rd}$ | $V_{Rd}$ | $N_{Rd}$ | $V_{Rd}$ |
| Expandet 8 mm Super Frame Fixing | Aerated concrete P4 Design resistance tension kN▼ | shear kN▼ | Aerated concrete P2 Design resistance tension kN▼ | shear kN▼ | Leca 3 N/mm² Design resistance kN▽ | Hollow brick 22 Design resistance kN◆ | Solid brick Design resistance tension kN◈ | shear kN◈ | Concrete Design resistance tension kN◇ | shear kN◇ |
| 8x 80 | 0,60 | 0,50 | 0,27 | 0,35 | 0,37 | 0,65 | 1,44 | 1,20 | 1,64 | 1,80 |
| 8x100 | 0,60 | 0,50 | 0,27 | 0,35 | 0,37 | 0,65 | 1,44 | 1,20 | 1,64 | 1,80 |
| 8x120 | 0,60 | 0,50 | 0,27 | 0,35 | 0,37 | 0,65 | 1,44 | 1,20 | 1,64 | 1,80 |

▼ Design resistance in aerated concrete PP2 and PP4 is valid for a single anchor not influenced by edge distance and/ or spacing:
Minimum edge distance PP4 ≥ 50 mm and minimum spacing ≥ 100 mm
Minimum edge distance PP2 ≥ 100 mm and minimum spacing ≥ 100 mm

▽ Design resistance – independent of load direction - in Leca with a minimum compressive strength of 3 N/mm2 is valid for a single anchor not influenced by edge distance and/ or spacing: Minimum edge distance ≥ 100 mm and minimum spacing ≥ 100 mm.

◆ Design resistance – independent of load direction - in hollow brick with a minimum compressive strength of 15 N/mm2 is valid for a single anchor not influenced by edge distance and/ or spacing: Minimum edge distance ≥ 100 mm and minimum spacing ≥ 100 mm.

◈ Design resistance in solid brick with a minimum compressive strength of 15 N/mm2 is valid for a single anchor not influenced by edge distance and/ or spacing: Minimum edge distance ≥ 100 mm and minimum spacing ≥ 100 mm.

◇ Design resistance in concrete C20/25 is valid for a single anchor not influenced by edge distance and/ or spacing: Minimum edge distance ≥ 50 mm and minimum spacing ≥ 100 mm.

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

Partial safety factor for material ($\gamma_m$) is included. Partial safety factor for actions ($\gamma_f$) must be applied according to national building code.

If no guidance for $\gamma_f$ exists Expandet recommend a partial safety factor for actions of minimum 1,5. 1 kN ≈ 100 kg.

**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)

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