Expandet MFA with Flange head

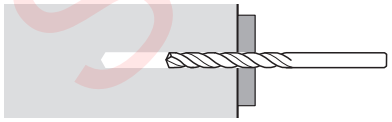
Expandet MFA with Flange head is a multi facade/frame anchor that is suitable for fixing of facades, gates, cable trays, metal bracket etc. in concrete, solid brick, hollow brick and aerated concrete.

MFA is CE-marked for fixing of lightweight facades.

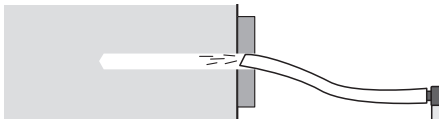
ADVANTAGES

- Through fixing
- High load capacities
- All-round use.
- Resistant to vibrations
- No thermal bridge
- Fire classified R90.
- The extensive range allows a wide range of applications

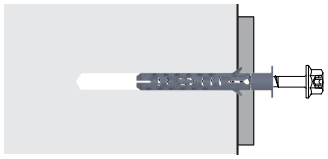
INSTALLATION:



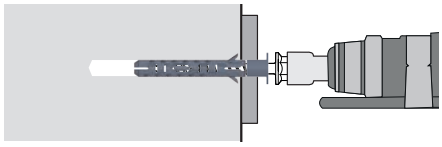
1] Drill a 10 mm hole through fixture and into the wall in correct depth in the base material. avoid using hammerdrill in porous material.



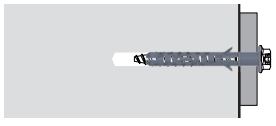
2] Clean the drilled hole thoroughly



3] Insert MFA as through fixing



4] Tighten the screw



5] The installation is finished

ETA CE
Use category A, B, C og D

Fire classified R90

Expandet MFA with Flangehead

EXPANDET MFA, with flange (Technical Sheet No. 322)

TYPE DIMENSION	DRILL DIA. MM	DRILL DEPTH MM	THICKNESS OF FIXTURE (MAX.) MM	EXPANDET ARTICLE NO.	PCS. PER BOX	Part No	EAN 13 PER BOX
ZINC-PLATED							
10 x 70	10	80	5	584070	50	N5L4910070	5708620059938
10 x 85	10	95	20	584085	50	N5L4910085	5708620059945
10 x 100	10	110	35	584100	50	N5L4910100	5708620059952
10 x 115	10	125	50	584115	50	N5L4910115	5708620059969
10 x 135	10	145	70			N5L4910135	
10 x 160	10	170	95			N5L4910160	
HOT DIP GALVANIZED							
10 x 70	10	80	5	585070	50		5708620059976
10 x 85	10	95	20	585085	50		5708620059983
10 x 100	10	110	35				
10 x 115	10	125	50				
10 x 135	10	145	70				
10 x 160	10	170	95				

Type	Load capacities							
DIMENSION	Aerated concrete PP4	Aerated concrete PP2	Hollow brick 228x108x54 mm 28N/mm²	Solid brick 19N/mm2	Beton C12/15		Beton ≥ C16/20	
	Design load capacities (kN)▼ F_{Rd}	Design load capacities (kN)▼ F_{Rd}	Design load capacities (kN)◆ F_{Rd}	Design load capacities (kN)◇ F_{Rd}	Tension load Design load capacities (kN)◇ N_{Rd}	Shear load Design load capacities (kN)◇ V_{Rd}	Tension load Design load capacities (kN)◇ N_{Rd}	Shear load Design load capacities (kN)◇ V_{Rd}
10 x 70	0,45	0,15	0,60	1,0	1,67	3,13	2,22	3,61
10 x 85	0,45	0,15	0,60	1,0	1,67	3,13	2,22	3,61
10 x 100	0,45	0,15	0,60	1,0	1,67	3,13	2,22	3,61
10 x 115	0,45	0,15	0,60	1,0	1,67	3,13	2,22	3,61
10 x 135	0,45	0,15	0,60	1,0	1,67	3,13	2,22	3,61
10 x 160	0,45	0,15	0,60	1,0	1,67	3,13	2,22	3,61

The design load capacity F_{Rd} is valid for tension load, shear load or tension combined with shear load.

▼ Design resistance F_{Rd} in aerated concrete PP2 and PP4 is valid for a single anchor not influenced by edge distance and/or spacing:
For one anchor: Minimum edge distance ≥ 100 mm and minimum spacing ≥ 250 mm. For anchor group: Minimum edge distance ≥ 100 mm and minimum spacing perpendicular to the edge ≥ 400 mm and minimum spacing parallel to the edge ≥ 200

◆ Design resistance F_{Rd} in hollow brick with min. compressive strength 28 N/mm² is valid for a single anchor not influenced by edge distance and/or spacing:
For one anchor: Minimum edge distance ≥ 110 mm and minimum spacing ≥ 250 mm. For anchor group: Minimum edge distance ≥ 110 mm and minimum spacing perpendicular to the edge ≥ 440 mm and minimum spacing parallel to the edge ≥ 220

◈ Design resistance F_{Rd} in solid brick with min. compressive strength 19 N/mm² is valid for a single anchor not influenced by edge distance and/or spacing:
For one anchor: Minimum edge distance ≥ 110 mm and minimum spacing ≥ 250 mm. For anchor group: Minimum edge distance ≥ 110 mm and minimum spacing perpendicular to the edge ≥ 440 mm and minimum spacing parallel to the edge ≥ 220

◇ Design resistance in concrete 12/15 is valid for a single anchor not influenced by edge distance and/or spacing:
For one anchor: Minimum edge distance ≥ 70 mm and minimum spacing ≥ 70 mm. For anchor group: Minimum edge distance ≥ 70 mm and minimum spacing perpendicular to the edge ≥ 70 mm and minimum spacing parallel to the edge ≥ 70

Design resistance in concrete ≥ C16/20 is valid for a single anchor not influenced by edge distance and/or spacing:
For one anchor: Minimum edge distance ≥ 50 mm and minimum spacing ≥ 50 mm. For anchor group: Minimum edge distance ≥ 50 mm and minimum spacing perpendicular to the edge ≥ 50 mm and minimum spacing parallel to the edge ≥ 50

Combined resistance shall be verified if both tension and shear actions are applied : $\left(\frac{N_{Sd}}{N_{Rd}}\right)+\left(\frac{V_{Sd}}{V_{Rd}}\right)\leq 1{,}2$

Partial safety factor (γm) is included.
Partial safety factor for actions (γf) must be applied according to national building code.

Max. recommended permissible resistance: N_{Rd}, V_{Rd} og F_{Rd}. If no guidance for γ_f exists Expandet recommend a partial safety factor for actions of minimum 1,5.

DIMENSION	Aerated concrete PP4	Aerated concrete PP2	Hollow brick 228x108x54 mm 28N/mm²	Solid brick 19N/mm2	Beton C12/15	Beton ≥ C16/20
Minimum thickness of material h_{min}	100	100	108	108	100	100
Minimum spacing, one anchor S_{min}	250	250	250	250	70	50
Minimum edge distance, one anchor C_{min}	100	100	110	110	70	50
Minimum spacing, anchor group perpendicular to edge $S1_{min}$	400	400	440	440	70	50
Minimum spacing, anchor group parallel to edge $S2_{min}$	200	200	220	220	70	50
Minimum edge distance, anchor group C_{min}	100	100	110	110	70	50