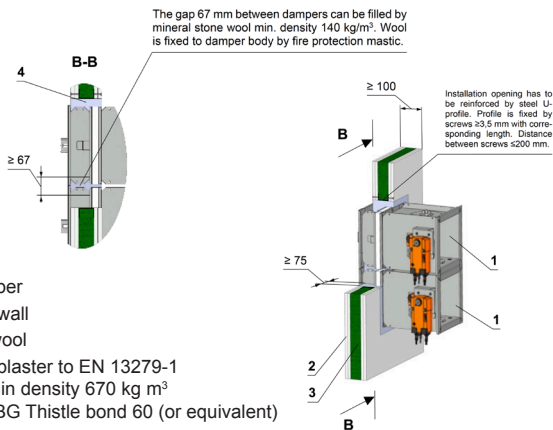


FDMQ Battery EI 90 S (Lightweight wall - Gypsum fire stop)



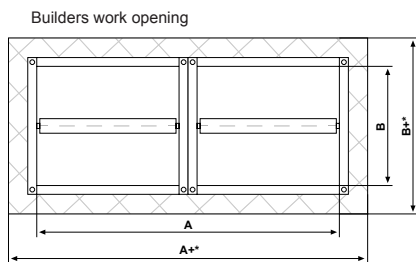
Position:

- 1 Fire damper
- 2 Gypsum wall
- 3 Mineral wool
- 4 Gypsum plaster to EN 13279-1 class A min density 670 kg m³ typically BG Thistle bond 60 (or equivalent)

Notice:

- Installation opening for each damper has minimal dimensions $a \times b = (A+100) \times (2 \times B+100)$ mm or $(2 \times A+100) \times (B+100)$ mm
- Gap between damper and construction is filled by mortar or gypsum
- Distance between dampers 60mm
- Flange to flange connection - up to 4 dampers can be installed

Wall build construction must be symmetrical and in accordance with BS EN 1363-1 and tested in accordance with BS EN 1364-1.

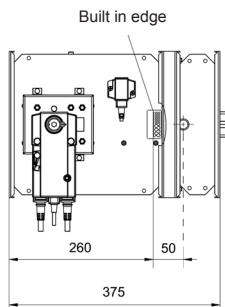


A (B) x no. of dampers + 30mm for each flange

+ 70mm min opening + 150mm max opening

For example: 200mm x 2 dampers + 30mm x 2 flanges = 460mm

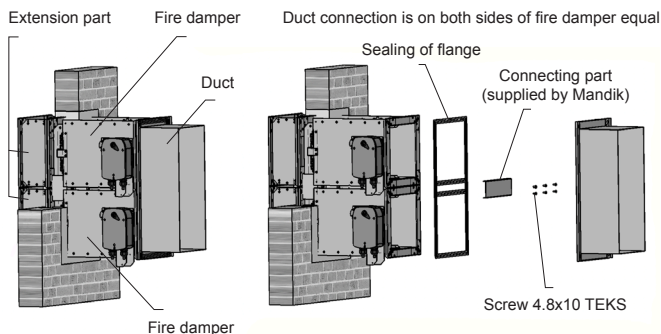
+ 70mm min BWO = 530mm + 150mm max BWO = 610mm



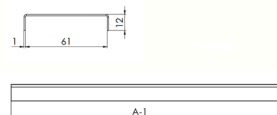
Vertical battery's require equal width, horizontal requires equal height

Built in edge signifies depth of damper insertion into wall

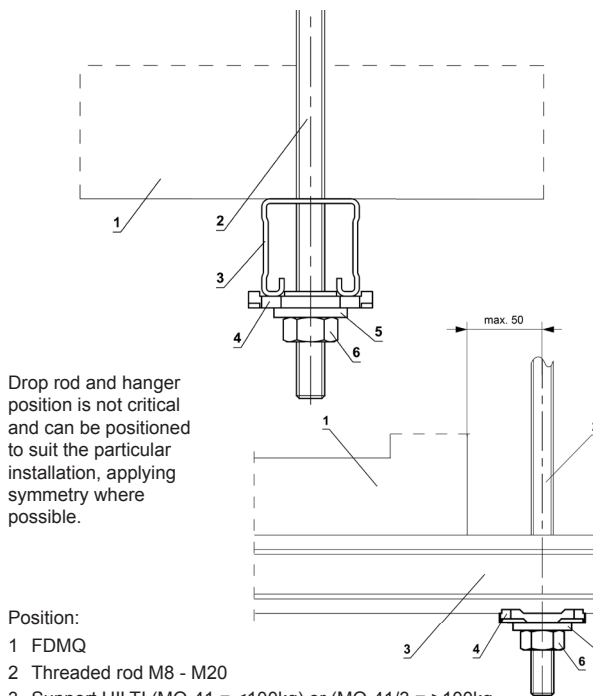
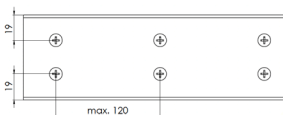
U shaped channel mounted front and rear to create a single unit.



Connecting part



Screws placement

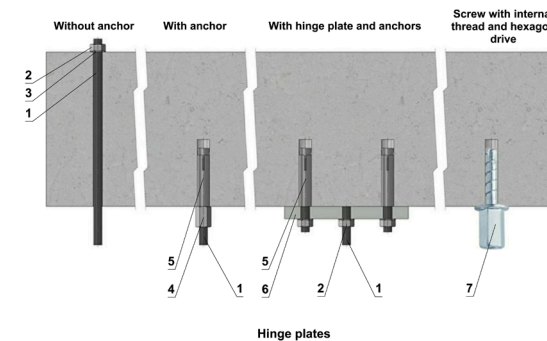


Drop rod and hanger position is not critical and can be positioned to suit the particular installation, applying symmetry where possible.

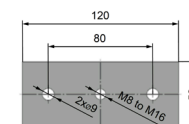
Position:

- 1 FDMQ
- 2 Threaded rod M8 - M20
- 3 Support HILTI (MQ-41 = <100kg) or (MQ-41/3 = >100kg)
- 4 Bored plate HILTI MQZ-L
- 5 Washer for M8 - M20
- 6 Nut M8 - M20

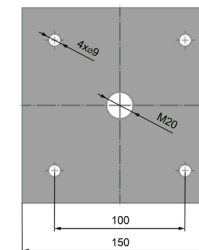
Advice provided by a fixing specialist contractor takes precedence.



Hinge plates



Screw with internal thread and hexagon drive



Load capacities of threaded hanger rods F [N] at the required fire resistance 90 minutes

Size	A _s [mm]	Weight G [kg]	
		for 1 piece	for 1 pair
M8	36.6	22	44
M10	58	35	70
M12	84.3	52	104
M14	115	70	140
M16	157	96	192
M18	192	117	234
M20	245	150	300

Position:

- 1 Threaded rod M8 - M20
- 2 Nut
- 3 Washer
- 4 Coupling nut
- 5 Anchor
- 6 Hinge plate - min. thickness 10mm
- 7 Concrete screw tested for fire resistance R30-R90, max. tension up to 0.75KN (length 35mm)

Drop rod diameter is based on damper weight, see full Damper TPM for further technical details or contact help@Mandik.co.uk. Mandik reserves the right to update this information without prior notice.

MANDIK ®		Mandik UK Ltd www.mandik.co.uk Office: 0117 4526376	Redwood House Brotherswood Court Great Park Road Almondsbury Bristol BS32 4QW
Title: FDMQ Battery - Lightweight wall/ Gypsum		CE certified acc. to EN 15650	
Classification: EI 90 (ve i<->o) S		Tested in accordance with EN 1366-2	
Drawing No: 0000-0000-029 Rev 2		Size: (min-max) 150x150 - 1500x800	Date: 11/10/21
		Illustrated: GP	Approved: MF
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