

QB-FW100-D-11

Insulated metal pipe penetrating a flexible or rigid wall (100mm or thicker)

This standard detail is intended for general information only and all details should be checked against all relevant supporting test evidence, certification and installation guidelines. In line with the company's policy of continual development, details are subject to change and/ or withdrawal therefore you must ensure this is the latest published detail and instructions.

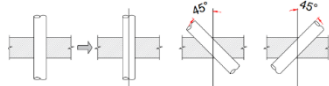
Additional Instructions

Flexible walls (Insulated or Uninsulated) to have a minimum 50mm wide metal or timber stud and minimum 2no. layer of 12.5mm Gypsum boards in accordance with EN 520 or Calcium Silicate boards which are CE Marked based on an ETA on both sides of the stud. For timber stud walls there shall be a minimum distance of 100mm from the penetration seal to any timber stud and the void between the stud and seal shall be filled with a minimum 100mm depth of Class A1 or A2 insulation.

Apertures / Letterboxes should be constructed in accordance with the fire rated wall system manufacturer's' recommendations.

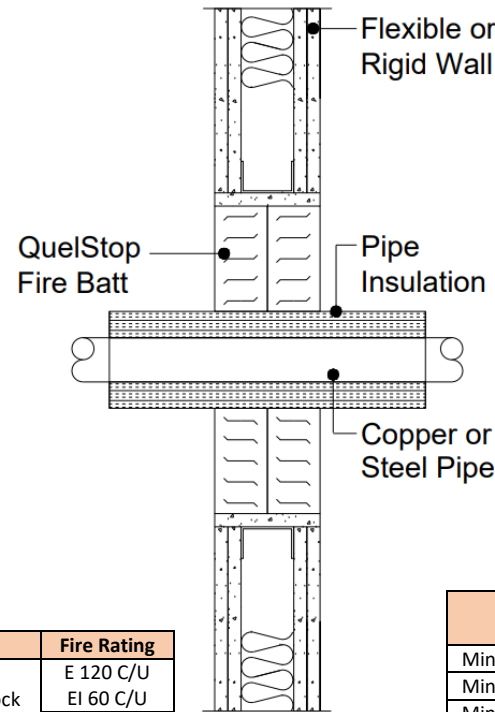
Follow the installation steps referenced in the [QuelStop Fire Batt installation guidance](#) document.

Pipes can also be installed at an angle between 45 - 89°



Multiple Service Penetrations: The total amount of cross section area of the services (including insulation) should not exceed 60% of the service penetration area.

Test results obtained with flexible supporting walls may be applied to concrete or masonry elements of an overall thickness equal to or greater than that of the element used in the test.



Quelfire Products Required

Product Code	Description
QB50D	QuelStop Fire Batt
QSS310	QuelStop Intumescent Acrylic Sealant
QSC5KG	QuelStop Ablative Coating 5kg tub

Single Skin Plasterboard Walls

This standard detail can also be used in conjunction with single skin plasterboard wall systems that are 100mm or thicker and where apertures are framed and lined.

This does however affect the overall scope/fire rating. Please refer to detail [QB-FW100-D-00B](#) for full details and information.

Unframed and unlined apertures

Apertures can be lined with QuelStop Fire Batt refer to [QB-FW100-D-00C](#) for further information.

For 100mm thick walls only, this detail can be used in conjunction with [QB-FW100-D-00D](#) for a 700mm wide x 600mm high unframed and unlined aperture.

Multiple Service Penetration Spacing

Distances are from edge of fire stop seal

Minimum distance from edge of Opening	0mm
Minimum distance between Services within the table shown	0mm
Minimum distance between other Service types	50mm

Service Type	Size of Services	Pipe Wall Thickness	Pipe Insulation	Fire Rating
Copper/ Cast Iron & Steel Pipe*	≤Ø42mm	1.0 - 14.2mm	25mm thick foil faced glass wool / rock fibre insulation (min 30kg/m ³) C/S	E 120 C/U
	Ø42 - 159mm	1.2 - 14.2mm		EI 60 C/U
	≤Ø108mm	1.5 - 14.2mm	≥25mm foil faced rock fibre insulation min ≥120kg/m ³ density C/S	EI 120 C/U
0.7 - 1.5mm***		≥25mm foil faced rock fibre insulation min ≥90kg/m ³ density C/S		
Cast Iron & Steel Pipe*	≤Ø323.9mm	6.3mm***	≥50mm foil faced rock fibre insulation min ≥90kg/m ³ density (L/S 400mm)	

* All metal pipe materials are covered which have a thermal conductivity equal or lower than the metal pipe tested and provided the melting point is at least equal or greater.

*** Due to recent testing from WF 541462/R specimens D1 & WF 532900 Specimens A1 - A3. This will be included in the next QuelStop Fire Batt Classification Report update. The fire test report detailed is not for general distribution but can be requested by the project's qualified fire consultant/ engineer if they contact the Quelfire Technical Team directly.

To be read in conjunction with:	UL Classification Report 4790517197 Issue 3 , Pages 66, 67, 68 & 107
Test & Classification standard:	BS EN1366-3 & EN13501-2
Substrate minimum thickness:	100mm
First Service Support:	≤400mm
Maximum Aperture:	2600mm wide x 1200mm high (Framed & Lined)
Maximum aperture size may be increased to 2600 x 2600mm but limits the fire rating to a maximum of EI60 or the lowest fire rating given on any service penetration detail used.	
Drawing Scale:	Not to Scale
Issue Number:	8
Date of Issue:	July 2024
Detail Reference:	QB-FW100-D-11

Important Information:

- The supporting construction must be installed in accordance with the manufacturer's guidelines and must be capable of achieving the required fire rating of the firestop.
- All services should be adequately supported on both sides of the firestop to ensure that no load is transferred onto the firestop seal.

Scope and Liability:

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