



APPLICATION:

Metal Pipe w/ Combustible Insulation

ID:

CFS-FS: 01

INFORMATION:

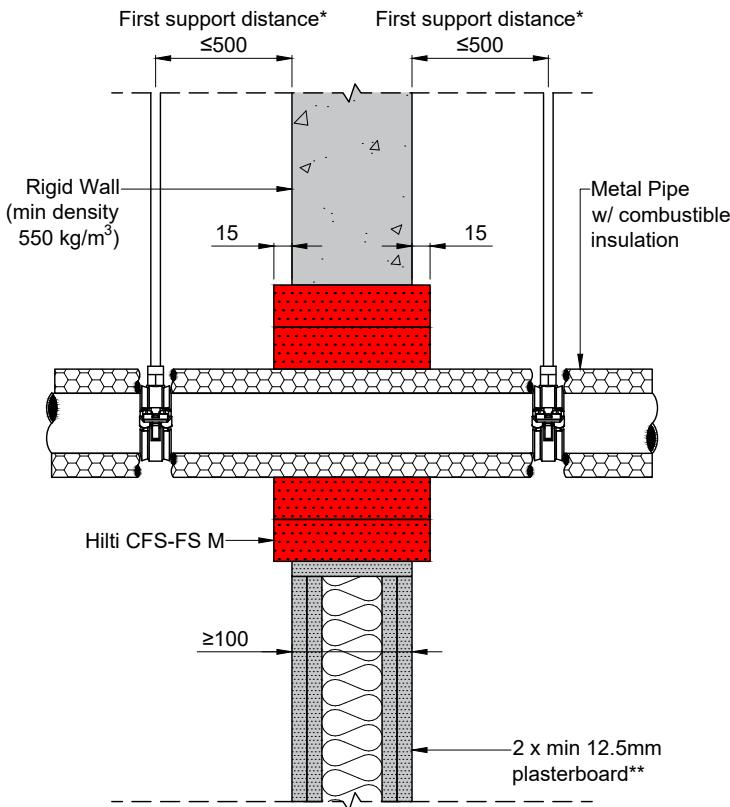
- Not to scale
- All units are in millimetres
- Tested according EN 1366-3
- Approval ETA - 18/1024

CFS-FS M Flexible Seal

REV:	DATE:
02	02/2025

Fire Rating up to EI 60

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Acoustics rating: $R_w = 50$

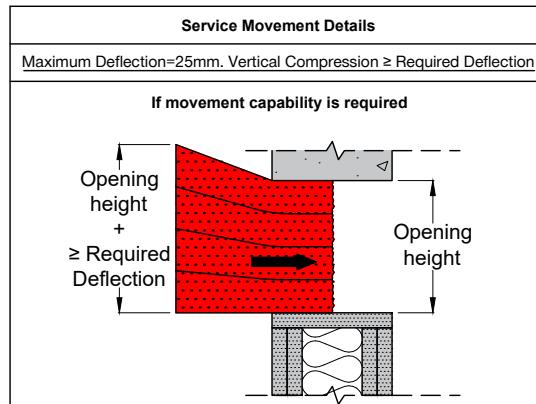
Maximum opening dimensions: 1200x500mm. For blank openings see approval documents

*First support and ancillary products should be capable of achieving the same fire performance as the seal and supporting structure.

**Comprising timber or steel studs. Wall construction itself has been classified according to EN 13501-2.

Metal Pipe w/ Combustible Insulation

Metal Pipes w/ Combustible Insulation				
Material	Diameter Range; (Min. Wall Thickness Range) [mm]	Type of Insulation	Insulation Thickness Range; Type [mm]	Classification
Copper, Steel, Stainless Steel, Iron	d ≤ 54 (0/0.6 - 54/1.2)	Armacell Armaflex®	7.5 - 38 (AF1 - AF6); CS	EI 60 (C/U)
		Kingspan Kooltherm®	15 - 40; CS	
	54 ≤ d ≤ 108 (54/1.2 - 108/1.5)	Armacell Armaflex®	17 - 42.5 (AF3 - AF6); CS	
		Kingspan Kooltherm®	20 - 40; CS	
Steel, Stainless Steel, Iron	d ≤ 114 (0/2.0 - 114/2.0)	Armacell Armaflex®	18 - 43 (AF3 - AF6); CS	EI 60 (C/U)
		Kingspan Kooltherm®	20 - 40; CS	

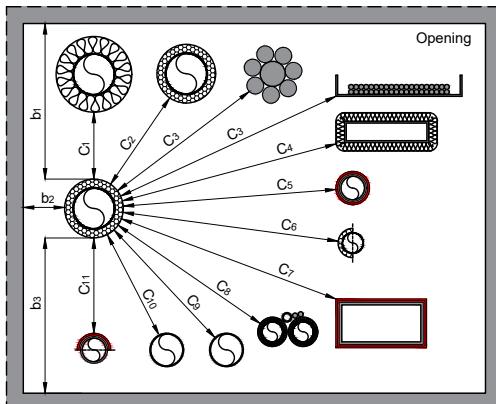


Ref.	Service Type (See service standard detail for more specific information)	Distance (mm) [†]
b ₁	To top of opening	≥70 ^{††}
b ₂	To side of opening	≥0 ^{††}
b ₃	To bottom of opening	≥35 ^{††}
C ₁	To metal pipe w/ mineral wool insulation	≥0
C ₂	To metal pipe w/ combustible insulation	≥30
C ₃	To cables/cable bundles/cable carrier	≥30 ^{††}
C ₄	To cable trunking w/ mineral wool insulation or TracPipe [®]	≥30
C ₅	To combustible plastic pipe w/ Hilti CFS-B	≥30
C ₆	To MLC (Aluminium composite) pipe w/ or w/o insulation	≥30
C ₇	To rectangular PVC Duct w/ Hilti CFS-B	≥30
C ₈	To ClimaSplit bundle	≥50
C ₉	To CPVC	≥50
C ₁₀	To combustible plastic pipe w/o addn. protection	≥50
C ₁₁	To conduit w/ or w/o Hilti CFS-B	≥30

[†]All distance values can be horizontal, vertical or diagonal.

†† $b_1, b_2, b_3 = 0\text{mm}$ if no movement is required.

††† For cables $d > 21\text{mm}$, a min distance of 100mm from other services is required.



1. The application limits on this detail are for guidance purposes only. For more detailed information based on the full range of available test results please contact the Hilti Technical Advisory Service.
2. The product and application has been assessed as a minimum to the BS 476 standard. It may have additional European and worldwide testing. Please contact Hilti for further information.
3. All test results are to be read in conjunction with the Hilti Product Data Sheet for the relevant product. All test results are to be read in conjunction with the Hilti Technical Advisory Service.

3. All installations should be carried out in accordance with Hilti's installation instructions and by competent & experienced installers using Hilti branded products.
4. All services are to be correctly and adequately supported to prevent collapse and distortion.

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