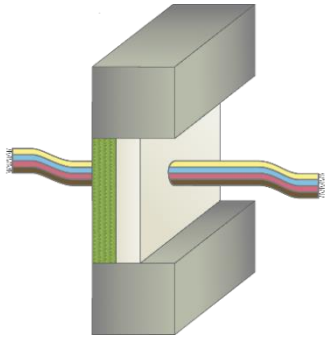


## System FC194

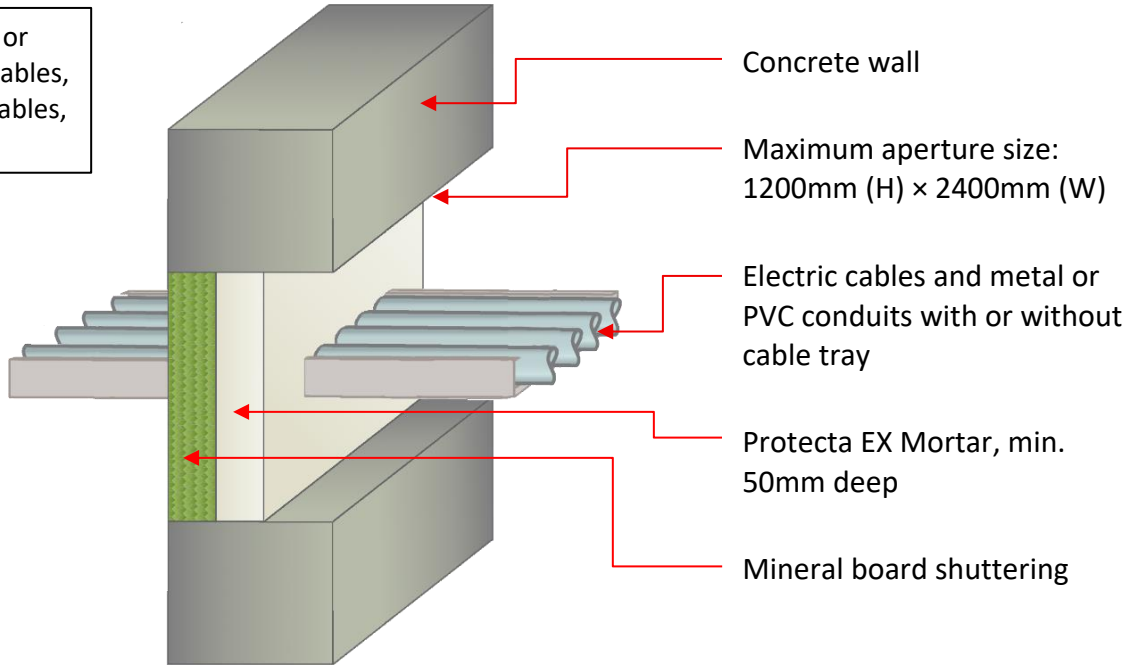
**Penetration Detail:** Electric Cables & Conduits with or without Cable Tray fire-stopped with Protecta EX Mortar

**Separating Element:** Min. 150mm thick Concrete, Masonry or ACC Wall (min. 650kg/m<sup>3</sup>)

**Cable Types:** Insulated copper or aluminium cables, fibre optic cables, and bundled communication cables, excluding hollow cables.



Protecta®



**Installation Instructions:**

1. Clean apertures of dust, grease, and debris.
2. Seal may be positioned on either side of the construction or within the depth.
3. Penetrations a min. 25mm separation from seal edges and min. 30mm from other penetrations.
4. Friction fit min. 50mm thick mineral wool shutter board shuttering (min. 150kg/m<sup>3</sup> density) within aperture. Seal gaps with Protecta FR Acrylic.
5. Add mortar to clean water and mix to required lump-free consistency (do not add water to mortar).
6. Apply/trowel into aperture, ensuring full coverage around services and corners. Compact to remove air voids and build to required min. 50mm depth.

**Services & Ratings (FRR)**

Service Penetration	Cable Sizes	FRR
None (blank)	N/A	-/180/120
Single cable	≤21mm	-/180/60
*Single cable		-/240/60
Electric cables	≤21mm (single, bundles or on tray)	-/180/60
	≤50mm (single, bundles or on tray)	-/180/45
	≤80mm (single, bundles or on tray)	-/120/45
Telecommunication cables	≤21mm (single, bundles) ≤100mm	-/180/90

Service Penetration	Cable & Conduit Sizes	FRR
Copper conduit	≤16mm	-/180/30
Steel conduit		-/180/60
PVC conduit		
Steel cable trays & ladders	N/A	
Non-sheathed wires	≤17mm	-/180/45
	≤24mm	-/180/30
*Aperture size: 80mm x 80mm		

**Compliance**

**Report** Jensen Hughes 53619700C  
**Rev/Ref** R4.4 / FAS210027, 260234  
**Page** 18  
**Standards** AS1530.4-2014 & AS4072.1-2005

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Drawing Rev: 1.1

Scale: NTS

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