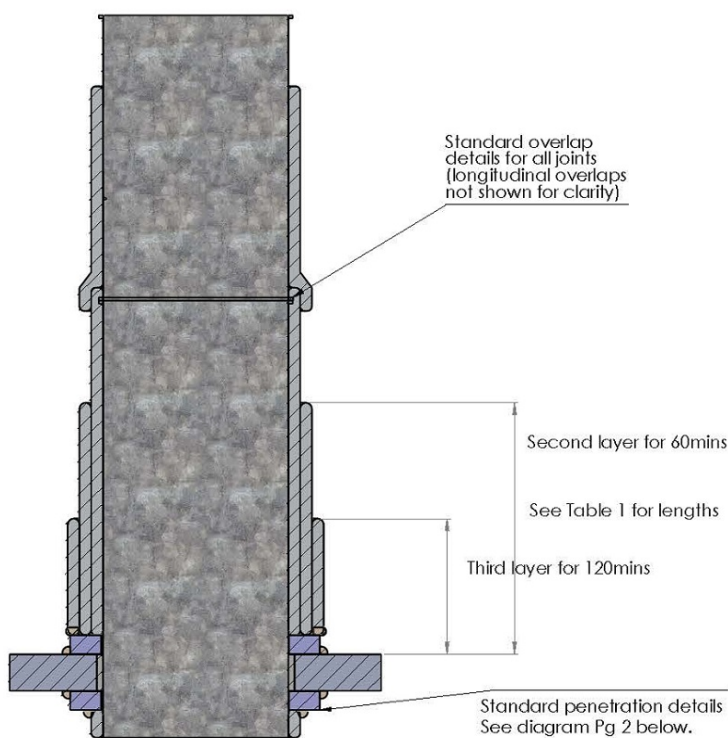


Trafalgar FyreWrap Duct Penetration Fire Stopping Systems

A. Ducts Penetrating Concrete Fire-rated Floors - Internal or External Fire

Through Penetration	Construction Type	FRR	Compliance Reports
Steel ducts (air or grease) in accordance with AS 4254.2-2012, Pressure Class 500, up to 1200 x 1200mm or equivalent	Concrete floor slab min 120mm thickness. <u>NB:-</u> where the FRR of the floor is less than the FRR of the duct seal, the duct is limited to the same FRR as the floor.	Up to 120/120/120	AS 1530.4 & AS 4072.1 BRANZ FAR 4205 CSIRO FCO-3226 System / FPA Register ID# FC497



Installation

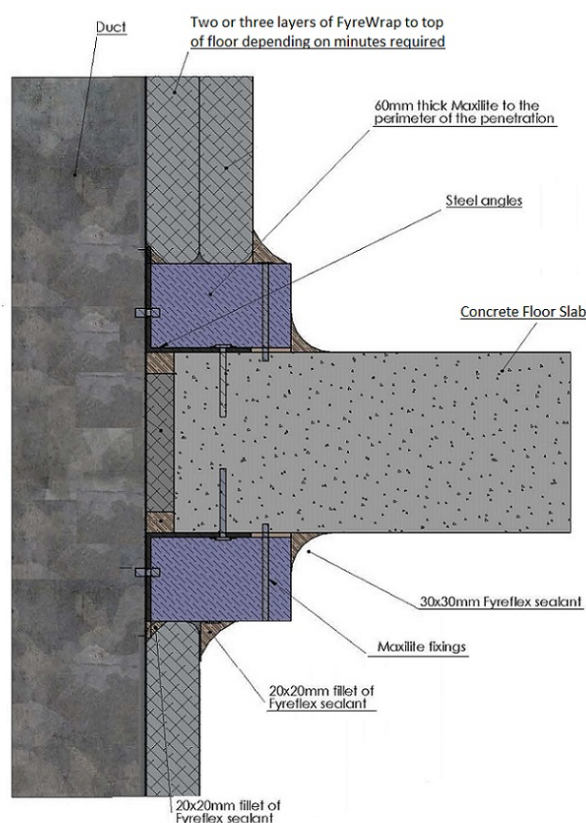
1. Apply one layer of Trafalgar FyreWrap continuously along the duct and a second (and/or third) layer at the penetration according to Table 1 below.
2. Tape edges with Foil Duct Tape.
3. Fit discharge pins of appropriate length (depending on layers) at 300mm centres on all sides of the duct.
4. Fit 12mm stainless steel bands or ties at 300mm centres along the duct.
5. Construct the floor penetration detail as set out in the following diagram.
6. Install Trafalgar Duct Access Panels as required.

Table 1 (Summary only - for details refer CSIRO FCO-3226)

		FRR 60/60/60	FRR 120/120/120	
Duct Size 1 (mm)	Duct Size 2 (mm)	Second layer	Second layer	Third layer
600	600	600mm	2000mm	N/A
600	900	700mm	2400mm	1200mm
600	1200	750mm	2550mm	1250mm
900	900	1000mm	2800mm	1300mm
900	1200	1050mm	2900mm	1400mm
1200	1200	1300mm	3100mm	1500mm

Trafalgar FyreWrap Duct Penetration Fire Stopping Systems

B. Ducts Penetrating Fire-rated Floors - Penetration Details



1. First place un-foiled Trafalgar FyreWrap material compressed 30% into the annular gap (max 30mm).
2. Then seal each side of floor with 15mm deep Trafalgar FyreFLEX Sealant.
3. Attach 75 x 75mm steel angle to all sides.
Fix to duct with steel rivets 10mm x 5mm diam at 200mm centres.
Fix to floor slab with M6 x 30mm masonry anchors @ 400mm centres.
4. Create a 100mm high collar from 60mm thick Trafalgar Maxilite Board.
Then fix collar directly to floor slab with M6 x 100mm masonry screws @ 400mm centres (ensure min 30mm embedment).
5. Use Trafalgar FyreFLEX Sealant to fill any gaps between the Maxilite sections or between Maxilite and floor slab. Then apply a 20mm fillet at the floor/Maxilite joint and at the duct/Maxilite joint.
6. Install the two (or three) layers of Trafalgar FyreWrap and seal the FyreWrap/Maxilite joint with a 20mm fillet of Trafalgar FyreFLEX Sealant.
7. Important Note: It is not necessary to wrap the open duct between the fire source and the first internal fire seal, but the penetration seal (Maxilite/steel angle/sealant) must still be applied both sides of the floor.

NOTE: Systems exist for several alternative situations, such as:

- FRR up to 180/180/180 for external or internal fire
- Larger ducts up to 3600 x 3600mm for internal fire
- 2-sided or 3-sided wrapping when adjacent to fire-resistant construction
- Wrapping on one side of wall only for one way fire-rated walls (e.g. external walls)
- Inclusion of cable penetration

For further information contact Firestop Centre Ltd (09) 483 4000 or info@firestopcentre.co.nz