

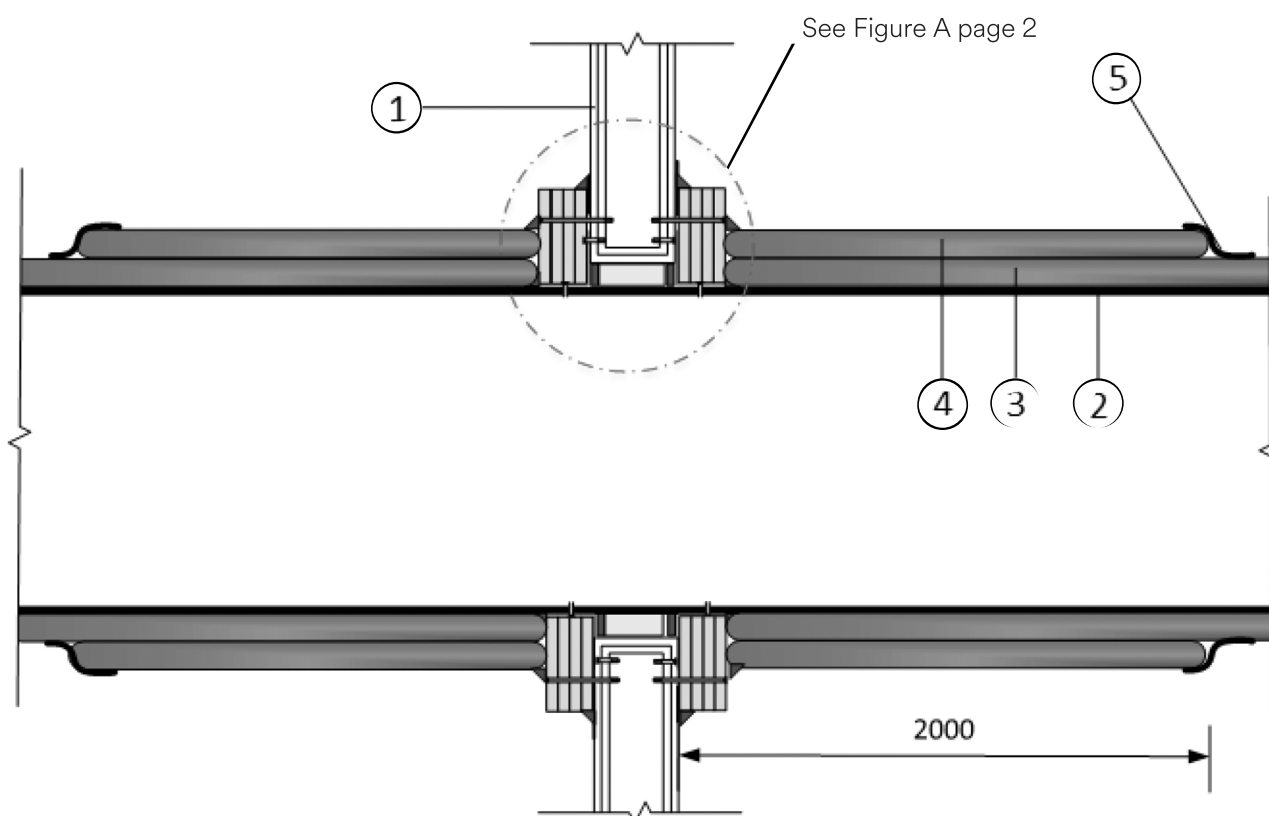
3M™ Fire Protection Design Specification Sheet : FW-6002

15/05/2018

Through Penetration	Construction Type	FRL / FRR	Reference as per
Ducting, Internal Exposure, Horizontal Orientation	116 mm Plasterboard Wall	90/90/90	AS 1530.4 & AS 4072.1 Report # FCO-3273

3M™ Fire Barrier Duct Wrap 615+ Fire Stopping System

Horizontal Ducts, Internal Exposure



- ① Wall Assembly – 90/90/90 FRL fire rated plasterboard wall assembly: 2 layers of 13 mm fire rated plasterboard board, minimum wall thickness 116 mm .
- ② Ducting , Maximum 1200 mm (w) , 1000 mm (h) , constructed to AS 4254 , pressure class 1000 Pa or higher.
- ③ 3M Duct Wrap 615+ (38 mm thick) - 1st layer to extend onthe entire length of the duct.
- ④ 3M Duct Wrap 615+ (38 mm thick) - 2nd layer toextend a minimum of 2000mm from the wall.
- ⑤ Min 96 mm width 3M Foil Tape 425

3M™ Fire Barrier Duct Wrap 615+ Fire Stopping System

Horizontal Ducts, Internal Exposure

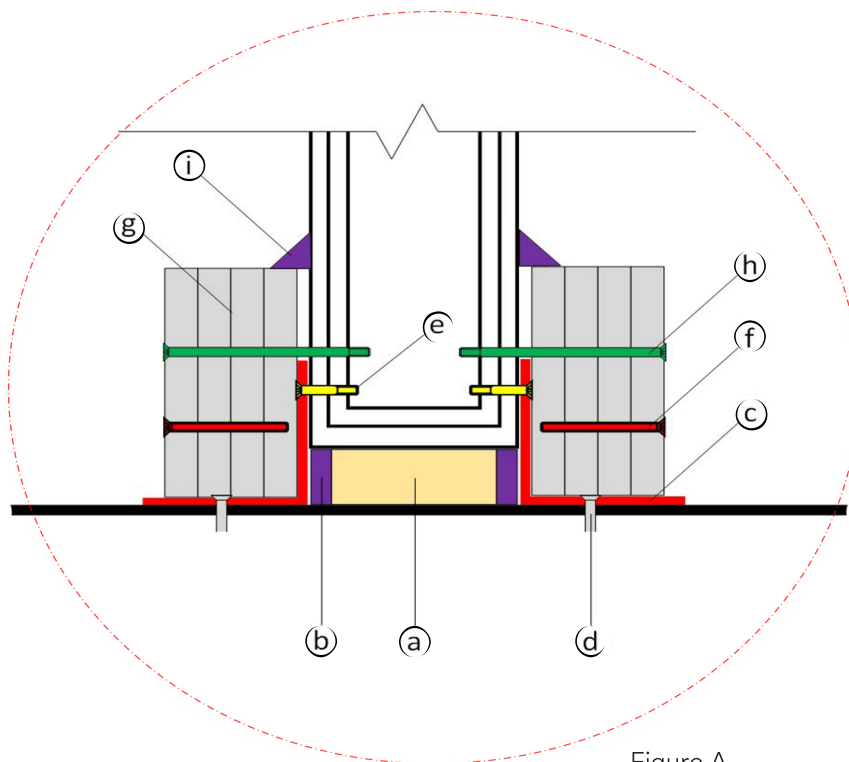


Figure A

Wall Penetration Detail

- Ⓐ Un-foiled 3M Duct Wrap 615+ contents , compressed to 30%. Annular Gap 20- 35 mm
- Ⓑ 3M Fire Barrier Silicone 2000+, 15 mm depth
- Ⓒ 2mm Gauge , 75 x 75 mm steel retaining angle, fastened to duct & wall at maximum 300 mm spacing
- Ⓓ 5mm Ø x 10mm shell length blind steel rivets.
- Ⓔ 30 mm length plasterboard screw, fastening steel angle to plaster board at 200 mm spacing.
- Ⓕ 50 mm length plasterboard screw.
- Ⓖ 150 mm width plasterboard collar, min 60 mm thickness (eg, 4 x 16 mm) , ganged together with plasterboard screws.
- Ⓗ 100 mm Plasterboard screws, fastening Plasterboard "collar" to wall.
- Ⓘ 15 mm fillet of 3M Fire Barrier Silicone 2000+.



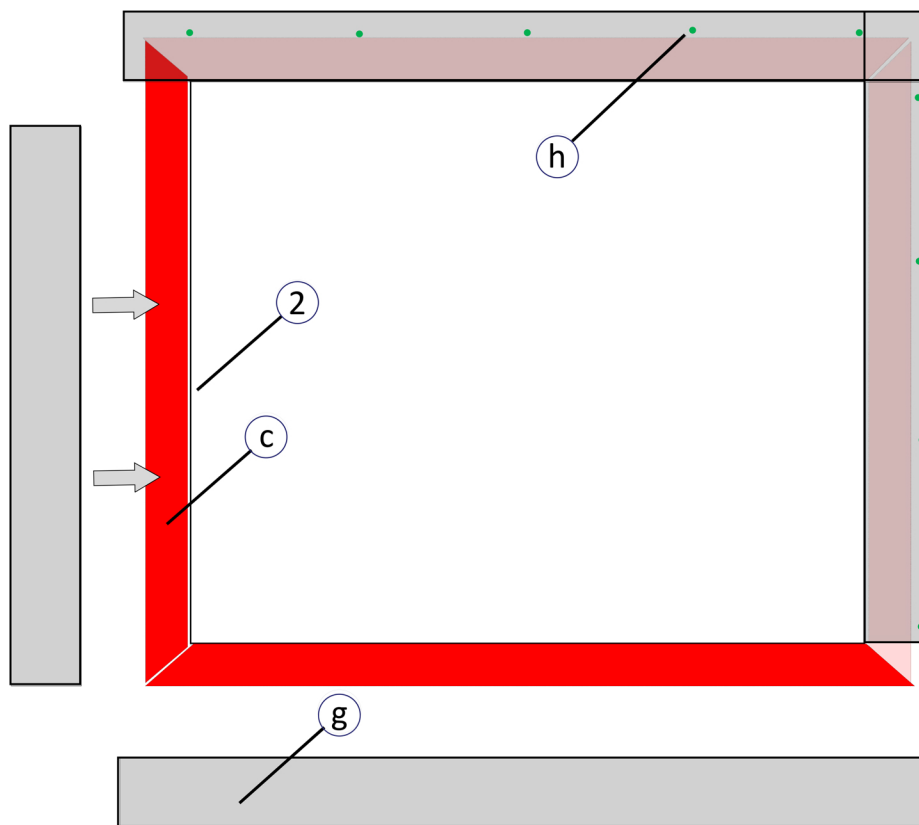
3M™ Fire Protection

Design Specification Sheet : FW-6002 continued

15/05/2018

3M™ Fire Barrier Duct Wrap 615+ Fire Stopping System

Horizontal Ducts, Internal Exposure



- ② Ducting , Maximum 1200 mm (w) , 1000 mm (h) , constructed to AS4254 , pressure class 1000 Pa or higher.
- ③ 2mm Gauge , 75 x 75 mm steel retaining angle, fastened to duct & wall at maximum 300 mm spacing
- ⑨ 150 mm width plasterboard collar, min 60 mm thickness (eg, 4 x 16 mm) , ganged together with plasterboard screws
- ⑩ 100 mm Plasterboard screws, fastening Plasterboard collar to wall. All joints sealed with 3M Fire Barrier Silicone 2000+



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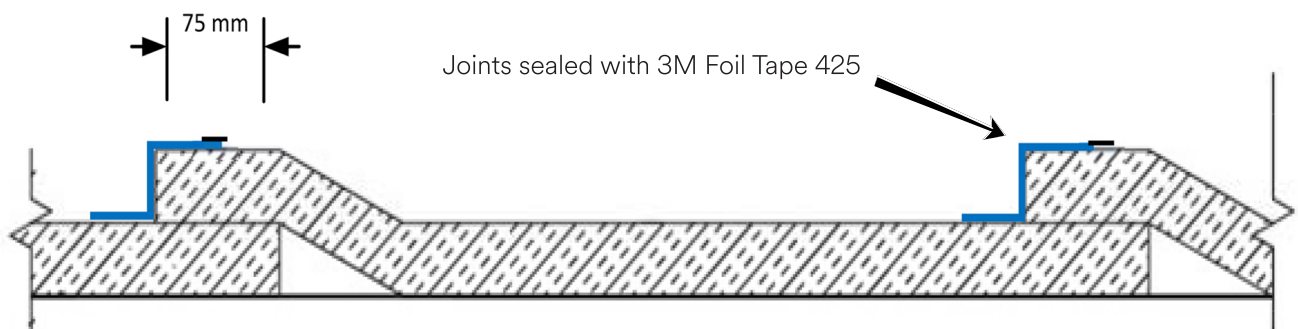
Design Specification Sheet : FW-6002 continued

15/05/2018

3M™ Fire Barrier Duct Wrap 615+ Fire Stopping System

Telescoping method

First Layer of 3M Duct Wrap 615+ Telescoping with 75-100 mm Overlap. Each blanket overlaps one adjacent blanket. Each blanket has one edge initially exposed which is then covered by the edge of the next blanket as shown below:



The wrap is temporarily held in place with 3M Filament Tape 8981, and each overlap is taped with 96 mm width 3M Foil Tape 425. Where a second layer of wrap is not required, the wrap is secured with steel banding, 12 mm x 0.5 mm. For Ducts > 600 x 600 mm, the underside is pinned with Capacitive discharge cup-head pins to prevent sagging.



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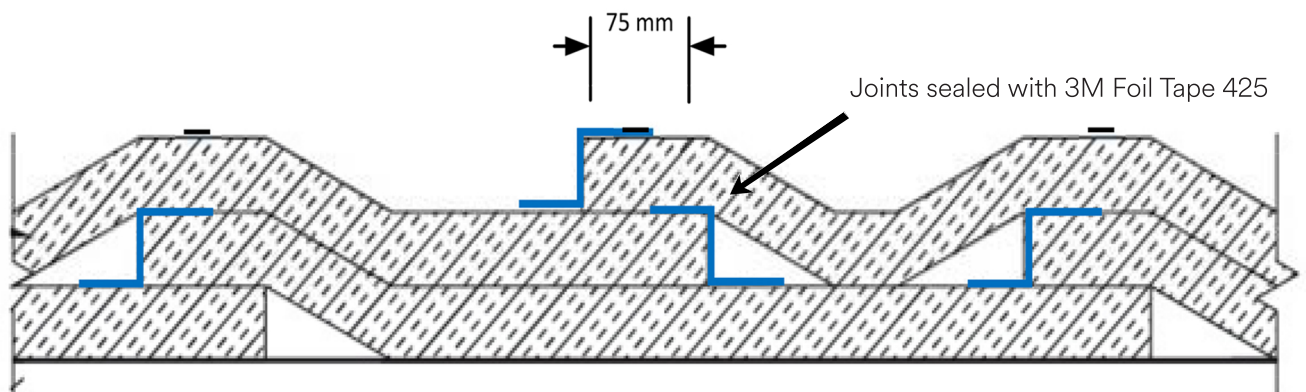
Design Specification Sheet : FW-6002 continued

15/05/2018

3M™ Fire Barrier Duct Wrap 615+ Fire Stopping System

Telescoping method

Second Layer of 3M Duct Wrap 615+ Where a second layer of wrap is required, the layer is applied over the top of the first layer, with joints off set from the previous layer. Each blanket overlaps one adjacent blanket. Each blanket has one edge initially exposed which is then covered by the edge of the next blanket as shown below:



The wrap is temporarily held in place with 3M Filament Tape 8981, and each overlap is taped with 96 mm width 3M Foil Tape. The wrap is secured with steel banding , 12 mm x 0.5 mm at 300 mm spacing .

For ducts > 600 x600 mm, the underside is pinned with capacitive discharge cup-head pins to prevent sagging.

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