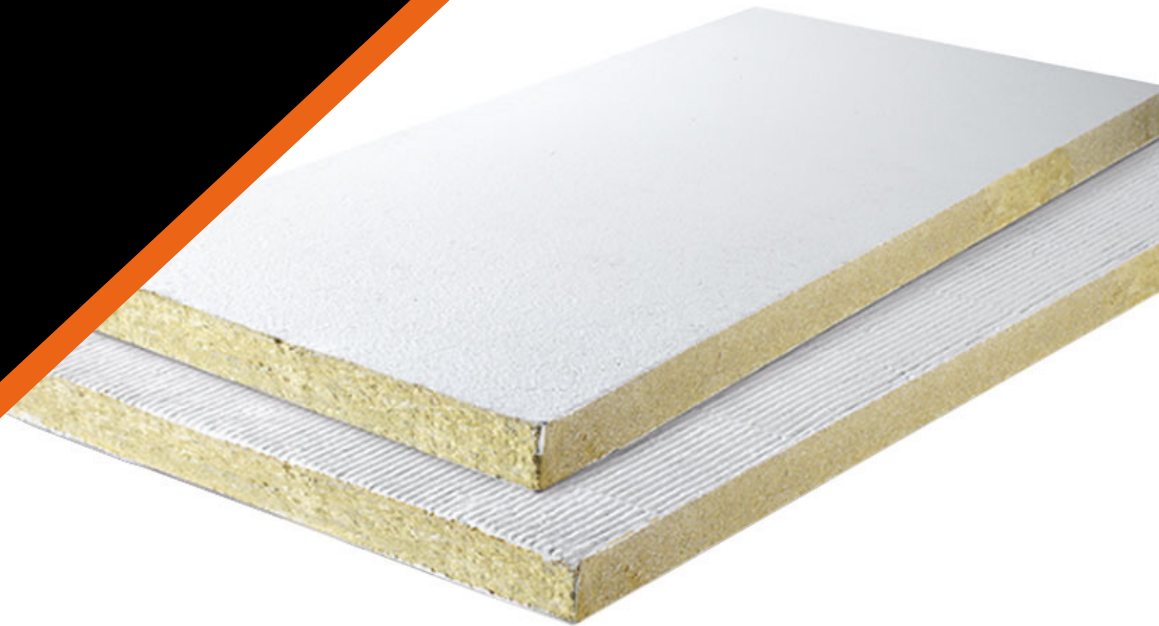


# Technical Data Sheet

## Astro PFP FR Boards

Revision 3 - 24th April 2020





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## General Product Description

Astro PFP FR Board has been designed to maintain the fire resistance of separating walls and floors where they are breached by single or multiple building services. The board consists of a stone wool core, sealed with Astro PFP FR Coating on 1 or both faces. Selection of the board coated on 1 or both faces is determined by installation considerations and fire resistance requirements. When installed on site, Astro PFP FR Board should be used with Astro PFP FR Acrylic for sealing around service penetrations and the adjacent separating construction.

## General Guide

**Minimum separations and limitations:** Services can be sealed as specified in the detailed drawings. An aperture can include several services, and they may also be different. The minimum permitted separation between adjacent seals/apertures is 200mm. Services should be a minimum of 25mm from seal edges. Services within the system Astro PFP FR Board seal do not require a minimum separation, except pipes where combustible pipe insulation penetrates the seal and plastic pipe penetrations which should be a minimum of 30 mm from other services in the aperture. The total amount of cross sections of services (including insulation) should not exceed 60% of the penetration area.

**Supporting constructions:** Flexible walls must have a minimum thickness of 75 mm and comprise steel studs or timber studs\*) lined on both faces with minimum 1 layer of 12.5 mm thick boards. Rigid walls must have a minimum thickness of 75 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 650 kg/m<sup>3</sup>. Rigid floors must have a minimum thickness of 150 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m<sup>3</sup>. The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period.

\*) Timber studs: no part of the penetration seal may be closer than 100 mm to a stud, and minimum 100 mm of insulation of class A1 or A2 according to EN 13501-1 must be provided within the cavity between the penetration seal and the stud.

## Installation

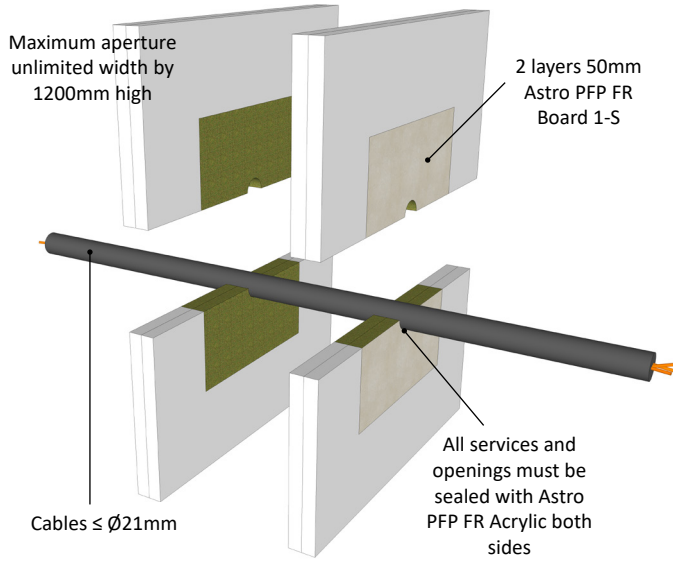
1. Before installing Astro PFP FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Astro PFP FR Coating and Astro PFP FR Acrylic are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. Select the type and number of boards to meet the required fire classification using the drawings on pages 2-20.
4. When fitting boards into drywalls the coated side of the board should be flush with the surface of the wall on both sides. In seals wider than 2400mm, uninterrupted separating studs will be required at 2400mm centers or less.
5. When fitting double layer 60mm thick boards in masonry or concrete constructions, the boards should be flush with the surface of the construction on both sides to maximize the fire resistance. If this is not possible, there should be an air gap of at least 30mm between the boards.
6. When fitting single layer boards in masonry or concrete constructions, the board can be positioned to either side of the construction or anywhere in between.
7. When installing Astro PFP FR Board in hollow floor slabs or boards, fire seals specified as single layer boards should be installed from the soffit side of the floor assuming there is sufficient thickness of concrete below the void to follow the installation guide. Where this is not the case, tubular voids should be filled with stone wool normally the same thickness as the depth of the floor slab. Alternatively, simply fire seal on both sides.
8. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s). All exposed and cut edges of the board can be sealed with Astro PFP FR Coating or Astro PFP FR Acrylic prior to fitting which will act as an adhesive and ensure a smoke tight seal.
9. All joints, gaps or imperfections in the installed seal must be filled with Astro PFP FR Acrylic on both sides.
10. Astro PFP FR Board can be over-painted with most emulsion or alkyd (gloss) paints.

## Test Standards

This Installation Instruction is based on the product's European Technical Assessment issued in accordance with regulation (EU) No 305/2011 on the basis of EAD 350454-00-1104, September 2017.

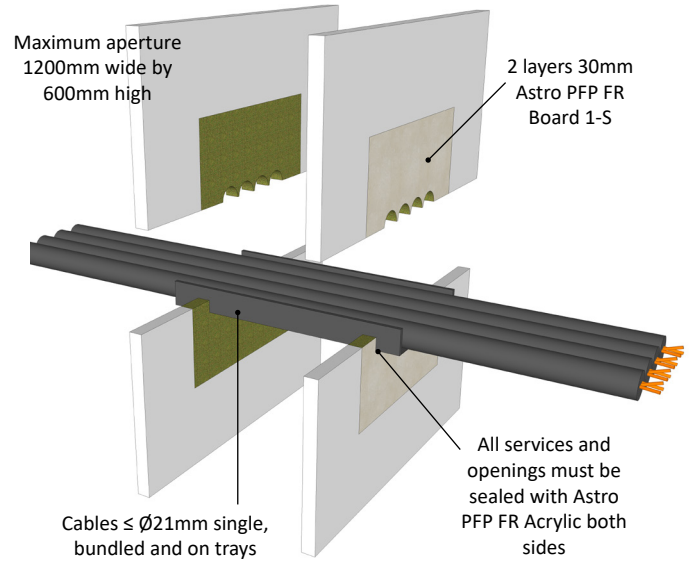
**CABLES FIRE RESISTANCE EI 60 (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



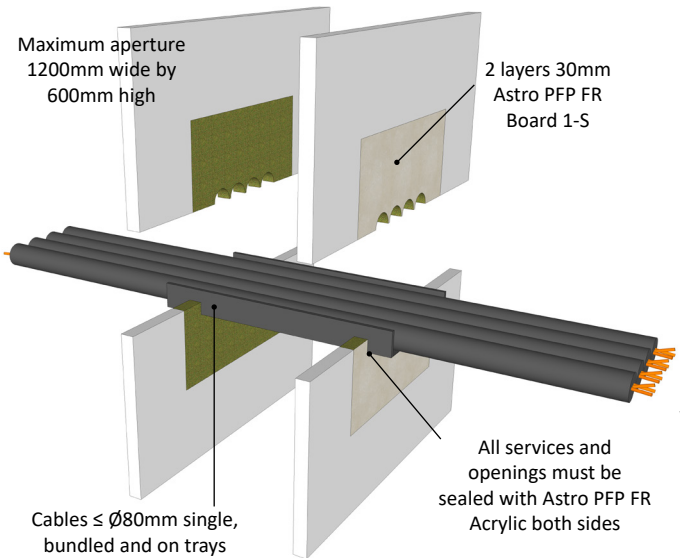
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 45 (E 45)**

**≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS**



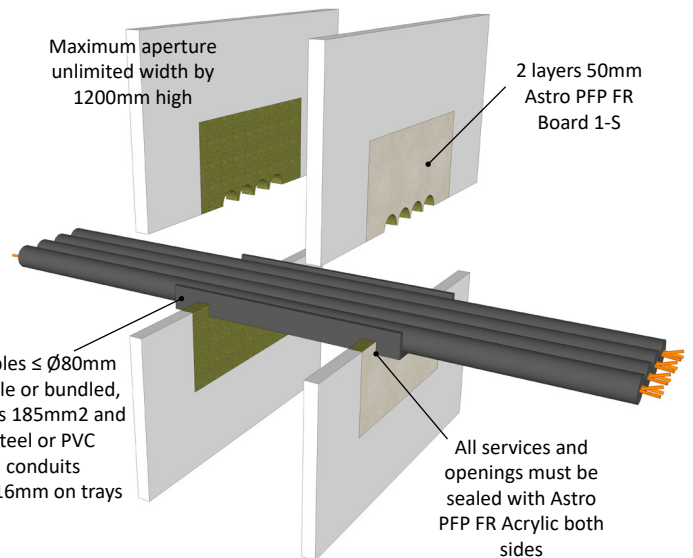
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 30 (E 45)**

**≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS**



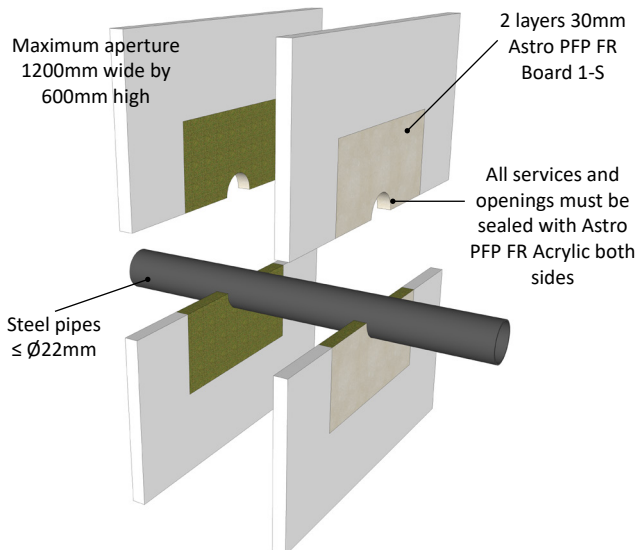
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 60)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



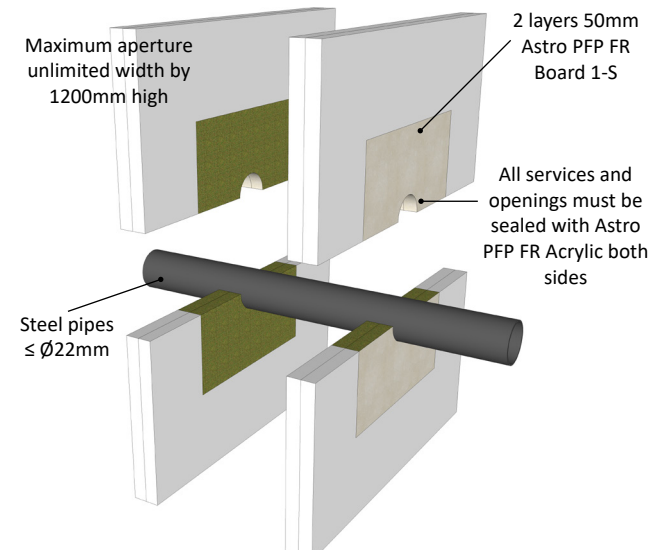
**STEEL PIPES FIRE RESISTANCE EI 30 C/U (E 45)**

**≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS**



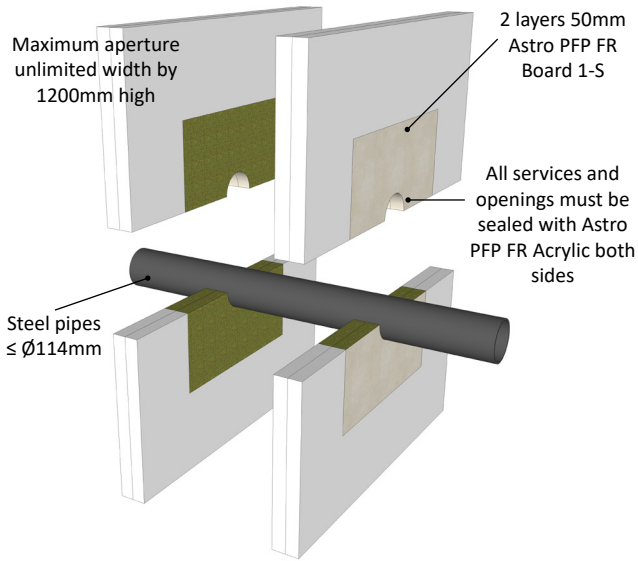
**STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



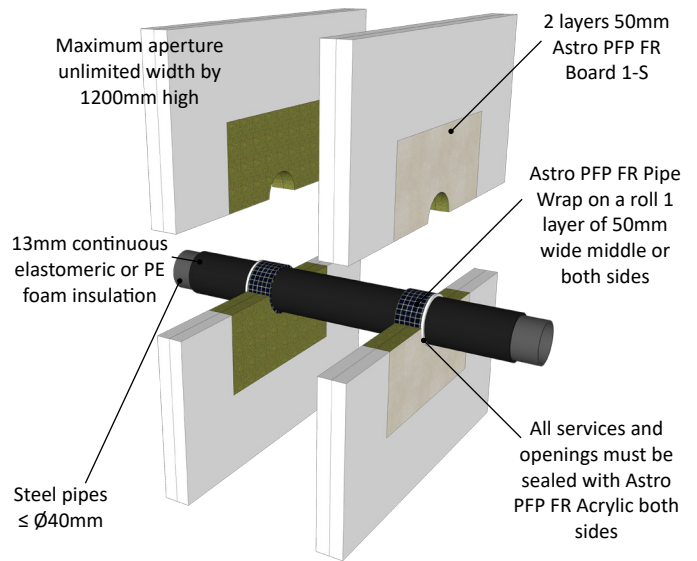
**STEEL PIPES FIRE RESISTANCE EI 20 C/U (E 90)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



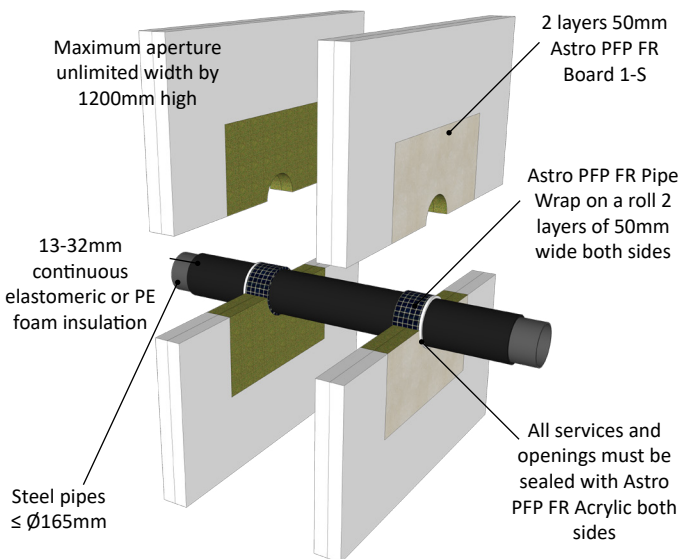
**INSULATED STEEL PIPES FIRE RESISTANCE EI 120 U/U (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



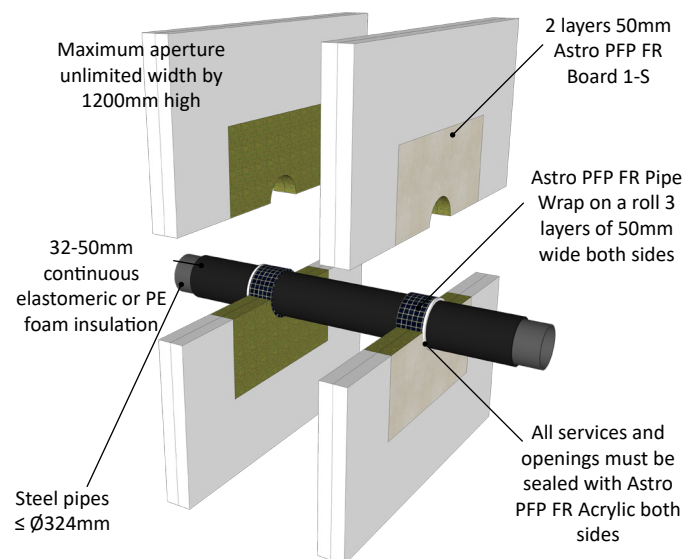
**INSULATED STEEL PIPES FIRE RESISTANCE EI 120 U/U (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



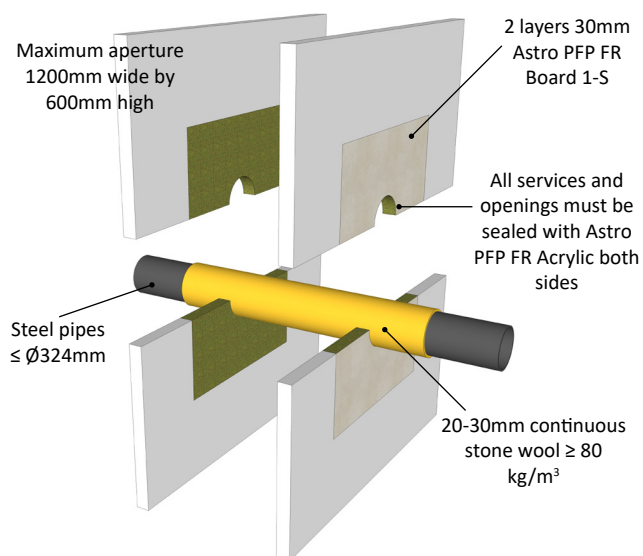
**INSULATED STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 90)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



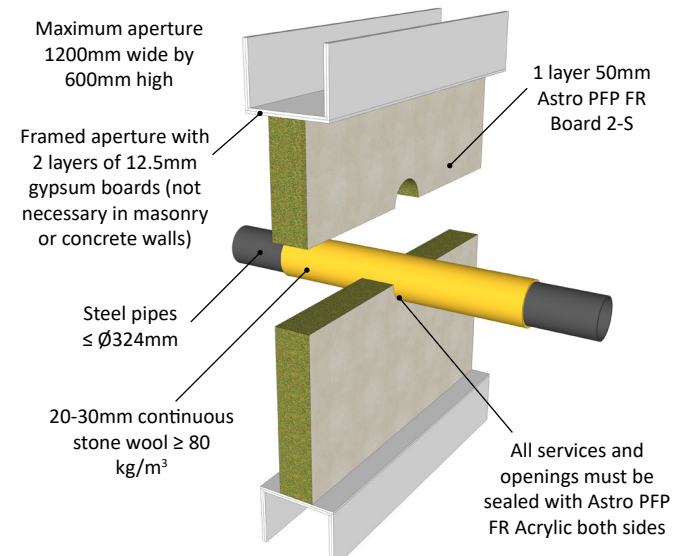
**INSULATED STEEL PIPES FIRE RESISTANCE EI 45 C/U (E 45)**

**≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS**



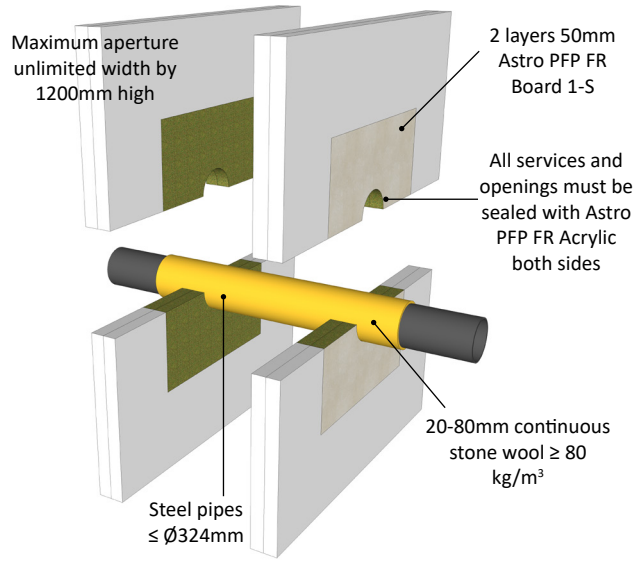
**INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 90)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**

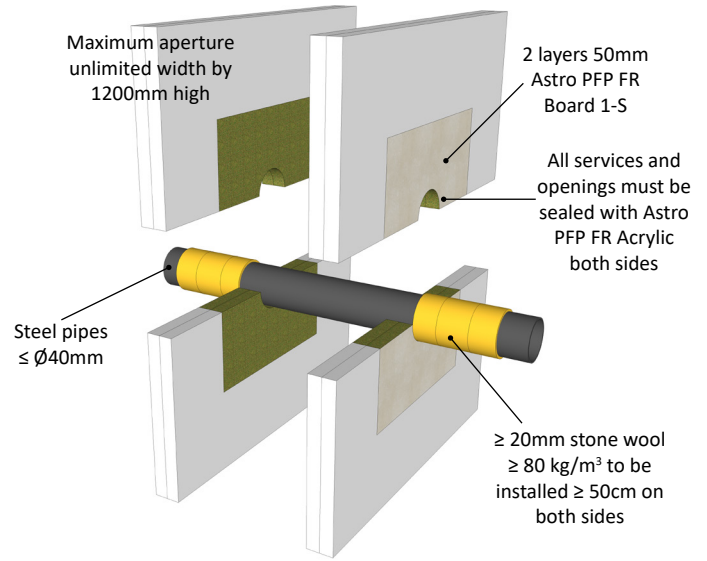




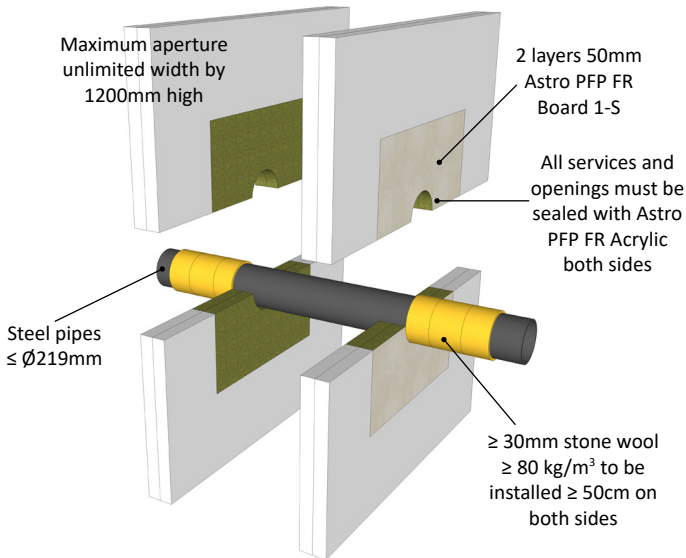
**INSULATED STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 120)**  
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



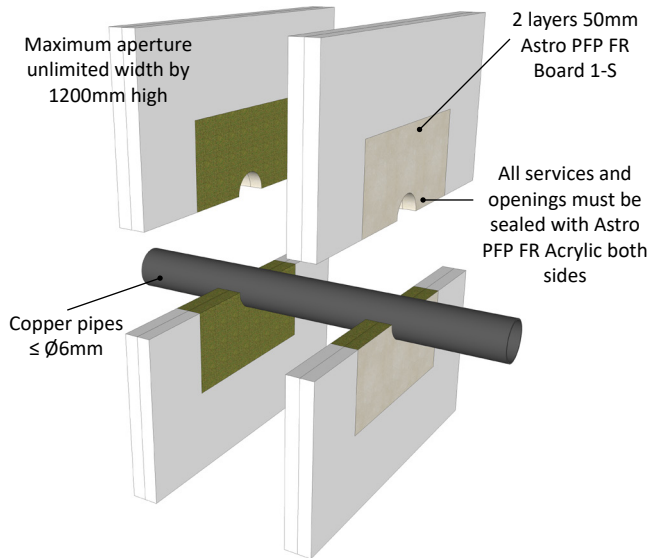
**STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 120)**  
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



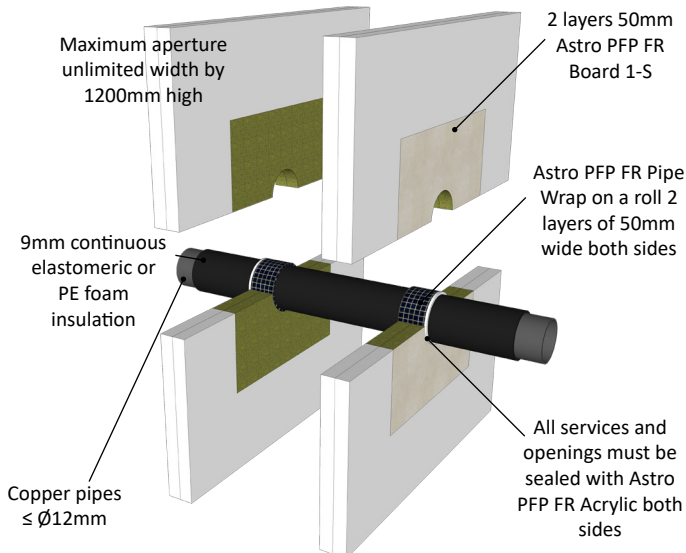
**STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)**  
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



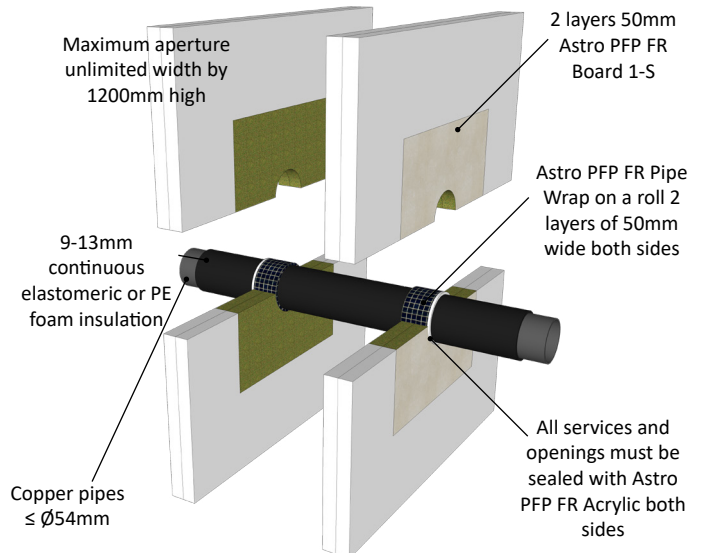
**COPPER PIPES FIRE RESISTANCE EI 60 C/C (E 120)**  
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



**COPPER PIPES FIRE RESISTANCE EI 120 C/C (E 120)**  
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**

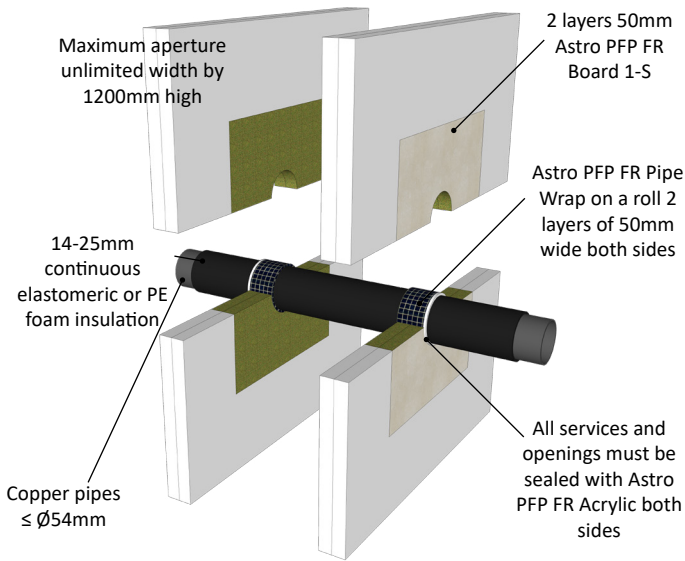


**COPPER PIPES FIRE RESISTANCE EI 90 C/C (E 120)**  
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



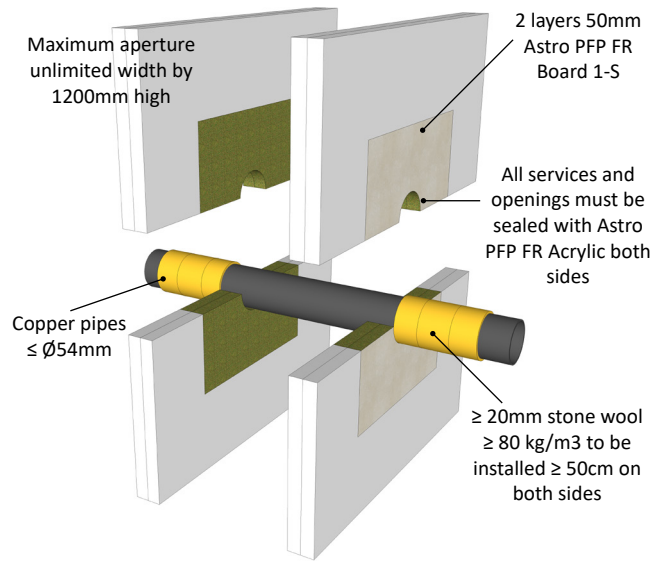
**COPPER PIPES FIRE RESISTANCE EI 60 C/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



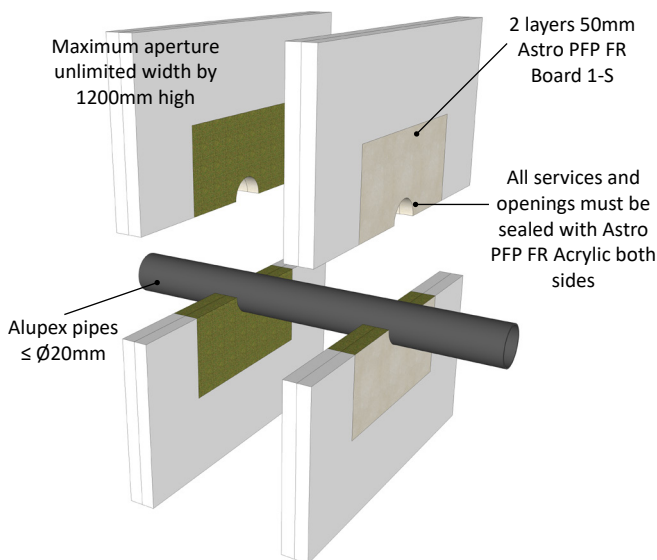
**COPPER PIPES FIRE RESISTANCE EI 120 C/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



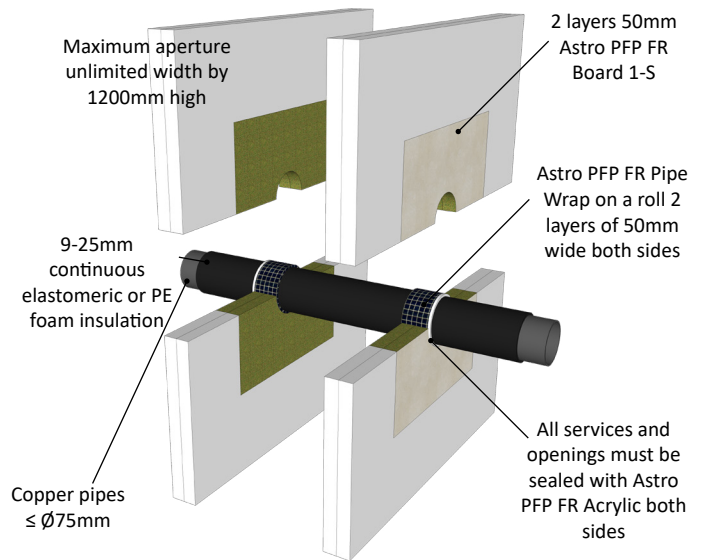
**ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



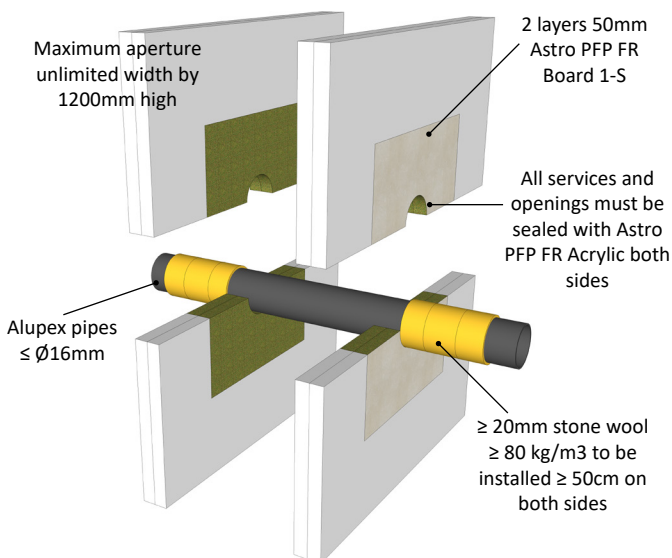
**ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



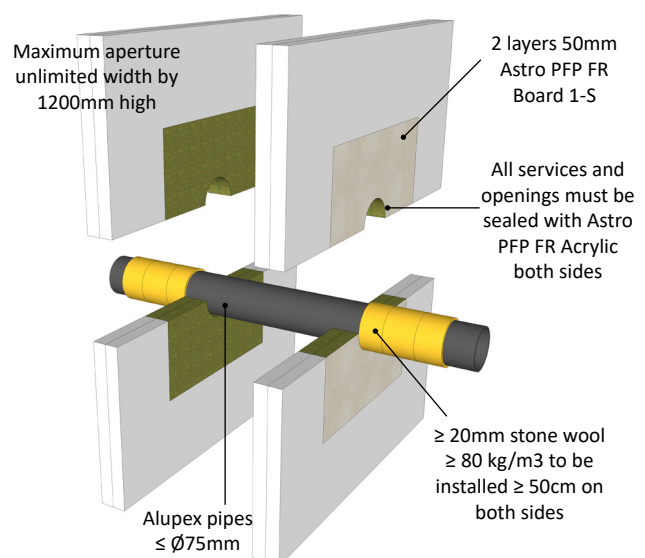
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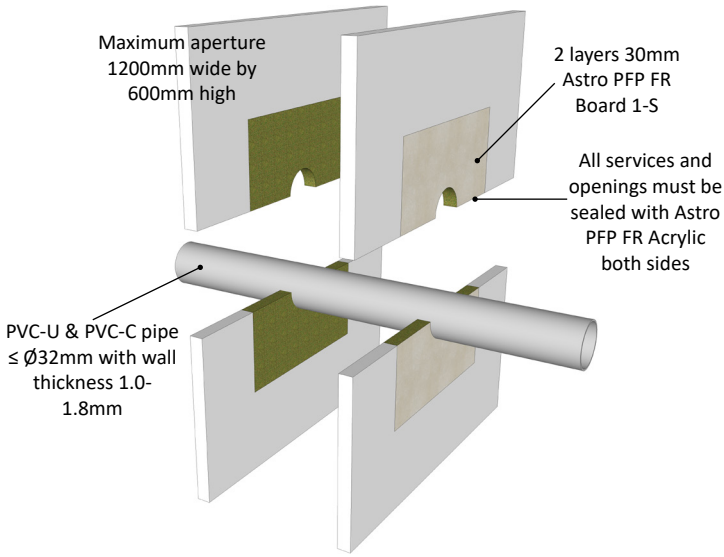
**ALUPEX PIPES FIRE RESISTANCE EI 60 C/C (E 60)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



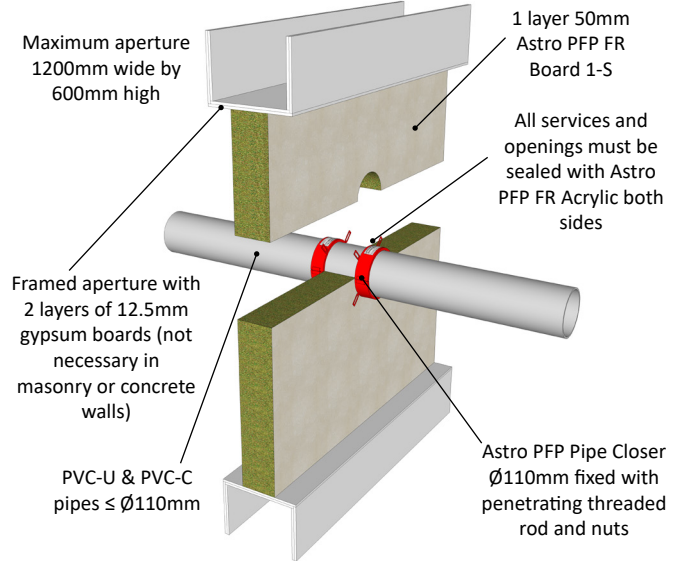
**PVC PIPES FIRE RESISTANCE EI 45 U/C (E 45)**

**≥ 75MM DRYWALLS, MASONRY OR CONCRETE WALLS**



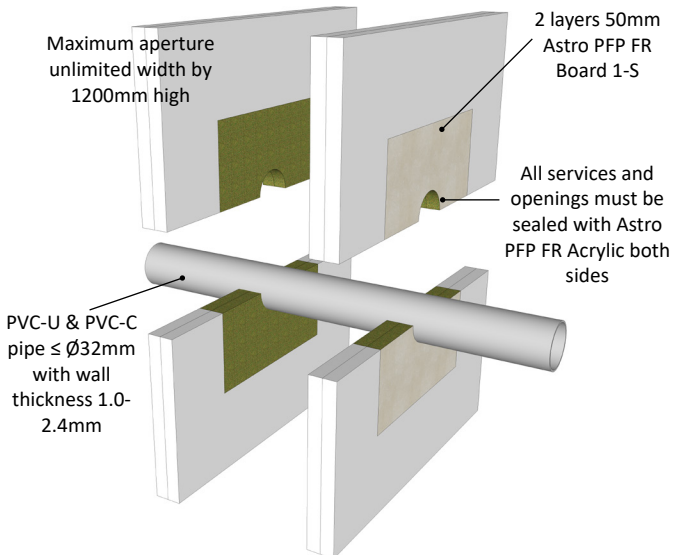
**PVC PIPES FIRE RESISTANCE EI 60 U/C (E 90)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



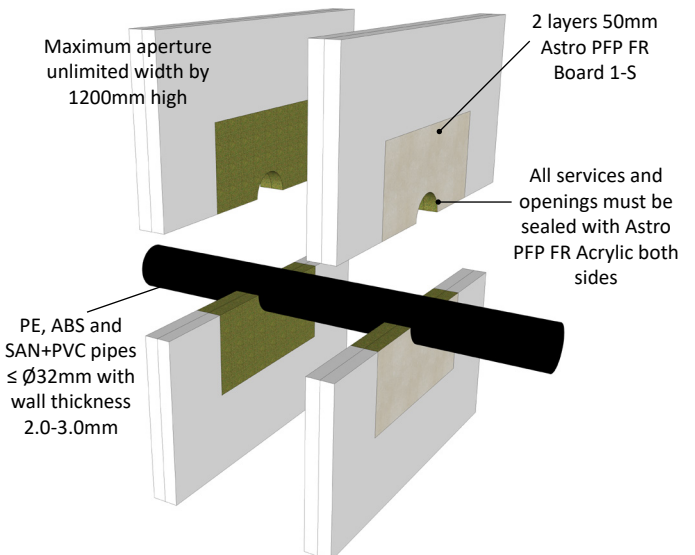
**PVC PIPES FIRE RESISTANCE EI 60 U/C (E 90)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



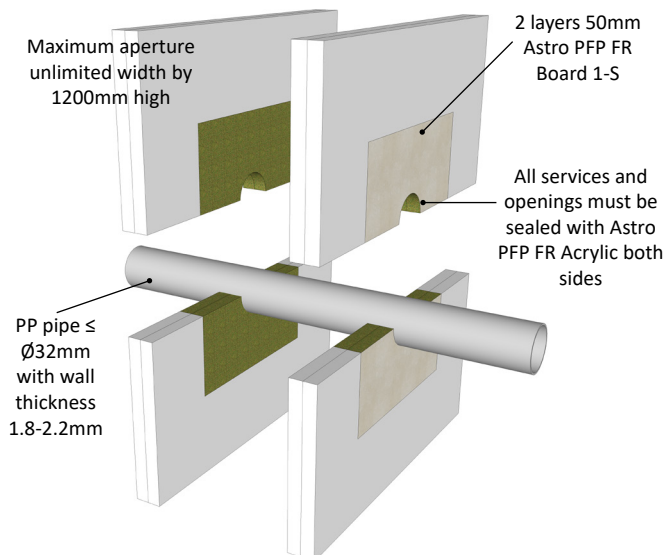
**PE PIPES FIRE RESISTANCE EI 60 U/C (E 60)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



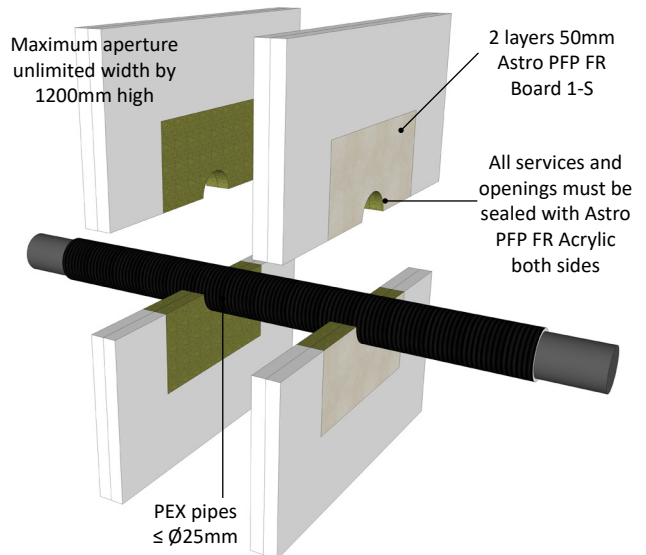
**PP PIPES FIRE RESISTANCE EI 60 U/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



**PEX PIPE IN PIPE SYSTEM FIRE RESISTANCE EI 90 C/C (E 90)**

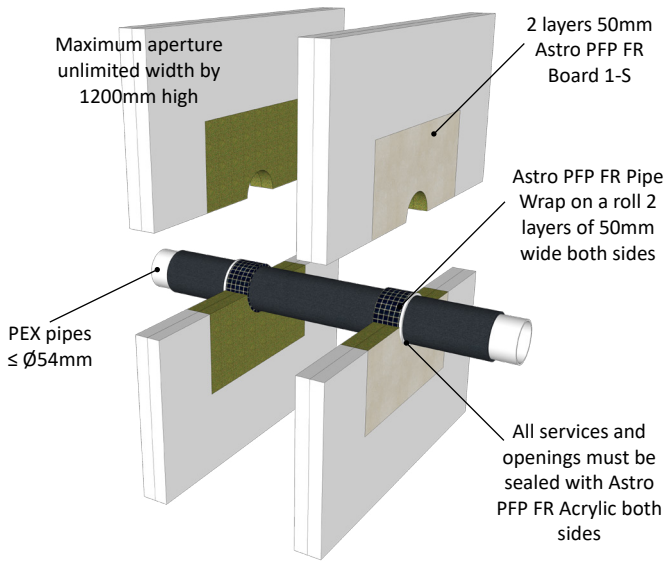
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**





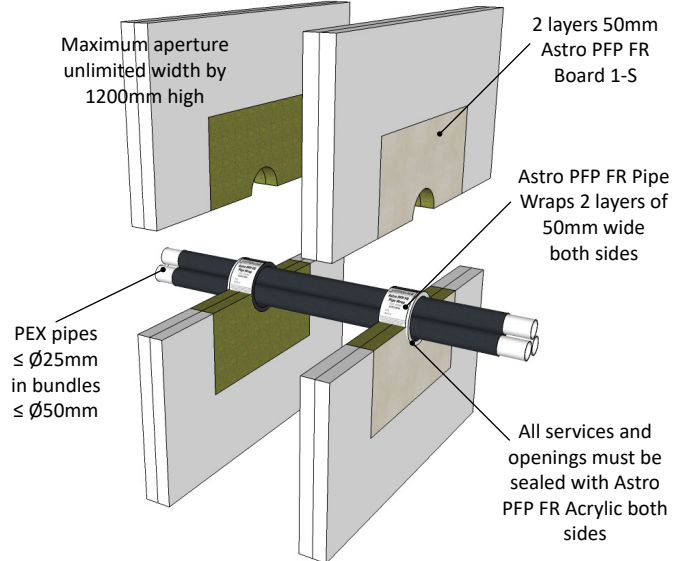
**PEX PIPE IN PIPE SYSTEM FIRE RESISTANCE EI 120 C/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



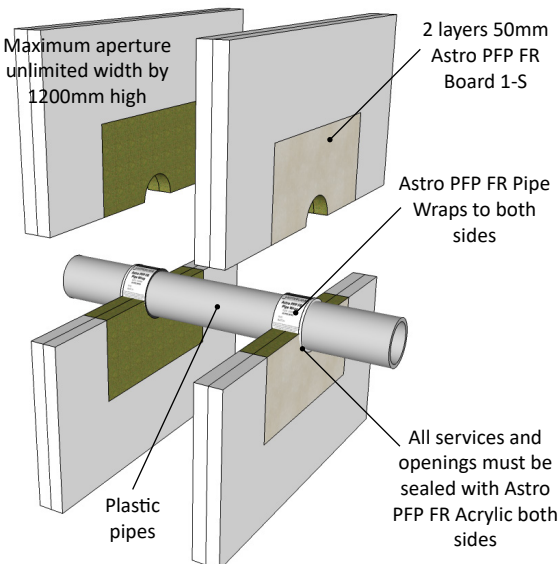
**PEX PIPE IN PIPE SYSTEM FIRE RESISTANCE EI 90 C/C (E 90)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



**PLASTIC PIPES FIRE RESISTANCE EI 90-120**

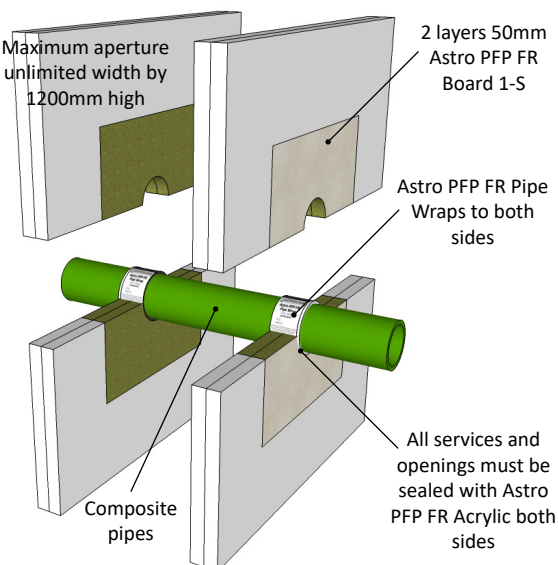
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Pipe Wall Thickness	Astro PFP FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 110mm PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	4.2 – 10.0mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 110mm PP	2.7 – 15.1mm	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
≤ Ø 125mm PVC-U & PVC-C	3.7 – 7.4mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 125mm PE, ABS & SAN+PVC	4.8 – 12.0mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 125mm PP	3.1 – 17.1mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PVC-U & PVC-C	9.5mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	14.6mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 160mm PP	21.9mm	50 x 7.2mm (4 layers)	EI 90 U/C (E 120 U/C)
≤ Ø 200mm PVC-U & PVC-C	9.0 – 10.2mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 250mm PVC-U & PVC-C	8.5 – 11.0mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 315mm PVC-U & PVC-C	7.7 – 12.1mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 400mm PVC-U & PVC-C	9.8 – 15.3mm	50 x 28.8mm (16 layers)	EI 90 C/C (E 90 C/C)

**COMPOSITE AQUATHERM GREEN SDR9 PLASTIC PIPES FIRE RESISTANCE EI 90**

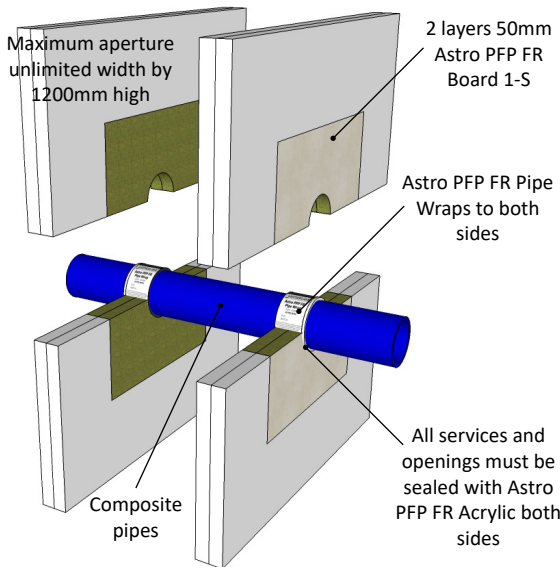
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Astro PFP FR Pipe Wrap	Classification
Ø 32mm Aquatherm Green SDR9 pipes	50 x 1.8mm (1 layer)	EI 90 C/C (E 120 C/C)
Ø 40mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
Ø 50mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
Ø 63mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
Ø 75mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
Ø 90mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)
Ø 110mm Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 90 C/C (E 120 C/C)

**COMPOSITE BLUEPOWER PLASTIC PIPES FIRE RESISTANCE EI 90**

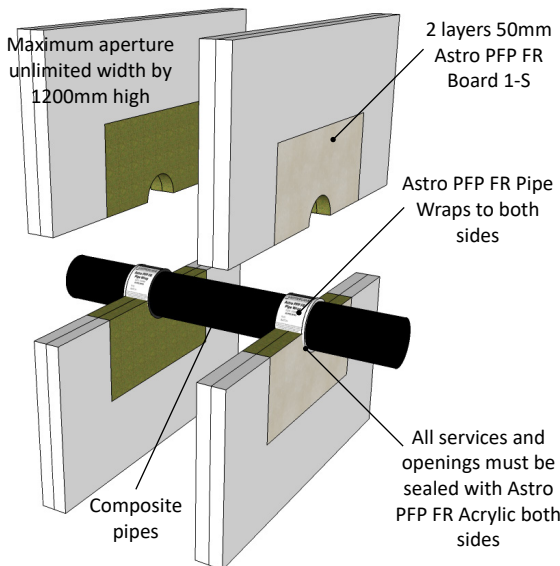
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Astro PFP FR Pipe Wrap	Classification
Ø 32mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 40mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 50mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 75mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 C/U (E 90 C/U)
Ø 90mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 C/U (E 90 C/U)
Ø 110mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 C/U (E 90 C/U)

**COMPOSITE GEBERIT SILENT-PP PIPES FIRE RESISTANCE EI 120**

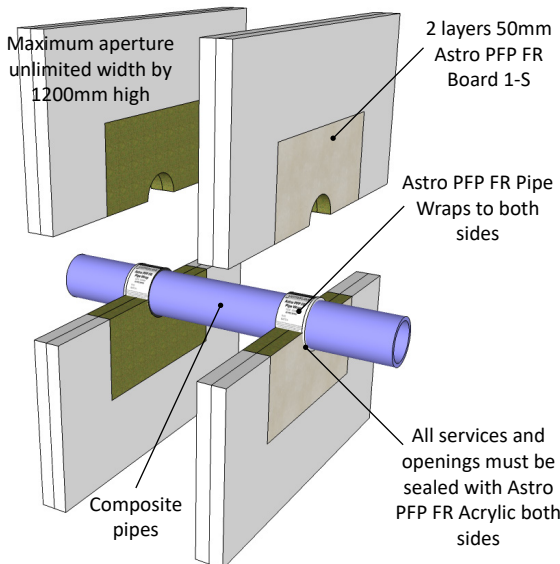
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Astro PFP FR Pipe Wrap	Classification
Ø 32mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 40mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 50mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)

**COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 120**

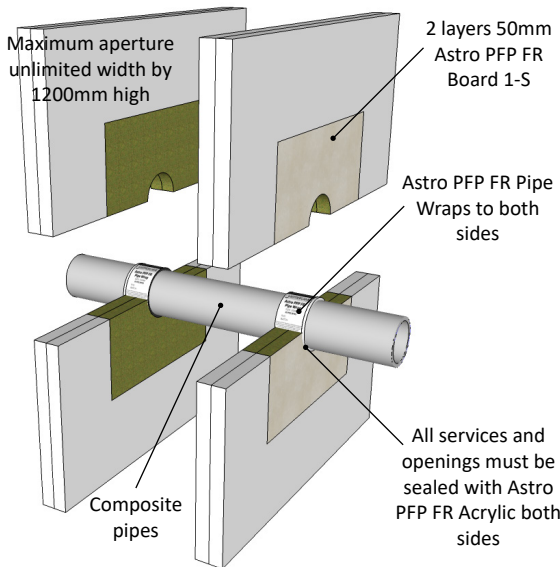
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Astro PFP FR Pipe Wrap	Classification
Ø 32mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 40mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 50mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Polo-Kal NG pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Polo-Kal NG pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)

**COMPOSITE REHAU RAUPIANO PLUS PLASTIC PIPES FIRE RESISTANCE EI 120**

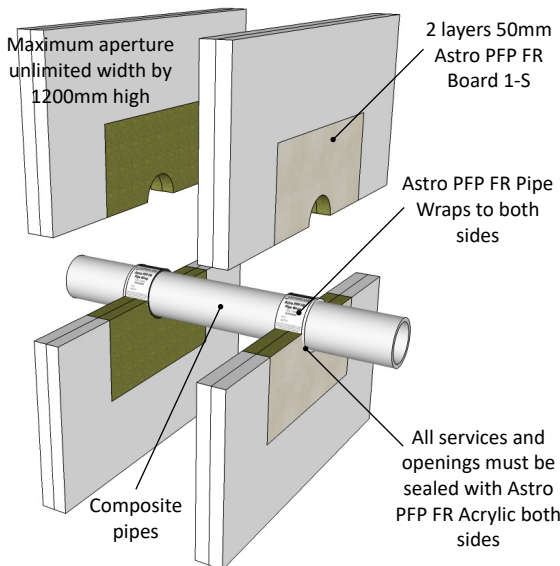
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Astro PFP FR Pipe Wrap	Classification
Ø 40mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 50mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/U (E 120 U/U)
Ø 75mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 90mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 110mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 120 U/C (E 120 U/C)
Ø 125mm Rehau Raupiano Plus pipes	50 x 7.2mm (4 layers)	EI 120 U/C (E 120 U/C)
Ø 160mm Rehau Raupiano Plus pipes	50 x 10.8mm (6 layers)	EI 120 U/C (E 120 U/C)

**COMPOSITE WAVIN SITECH PLASTIC PIPES FIRE RESISTANCE EI 60-90**

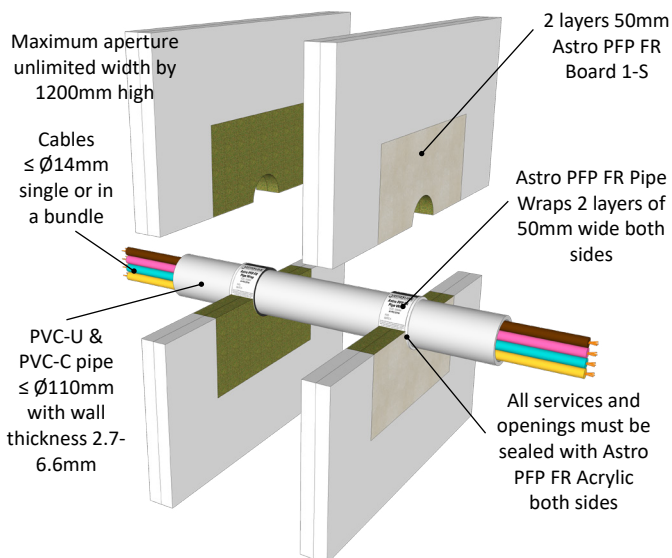
**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



Services	Astro PFP FR Pipe Wrap	Classification
Ø 32mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
Ø 40mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
Ø 50mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
Ø 75mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 120 U/C)
Ø 90mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 120 U/C)
Ø 110mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 120 U/C)

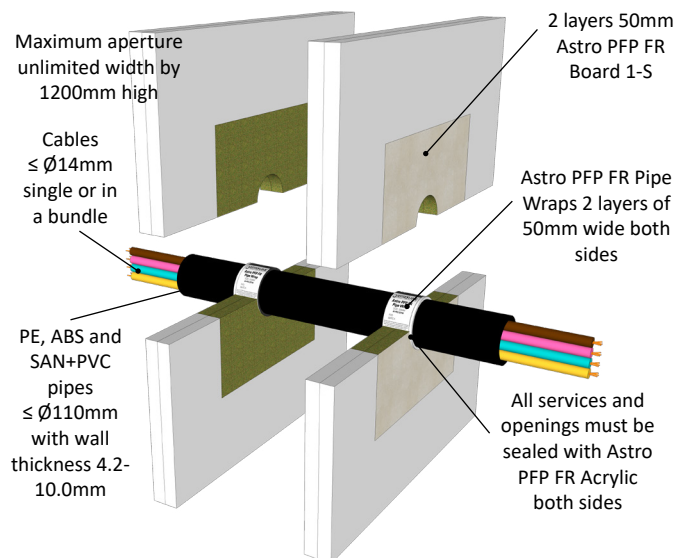
**PVC CONDUIT FIRE RESISTANCE EI 90 U/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



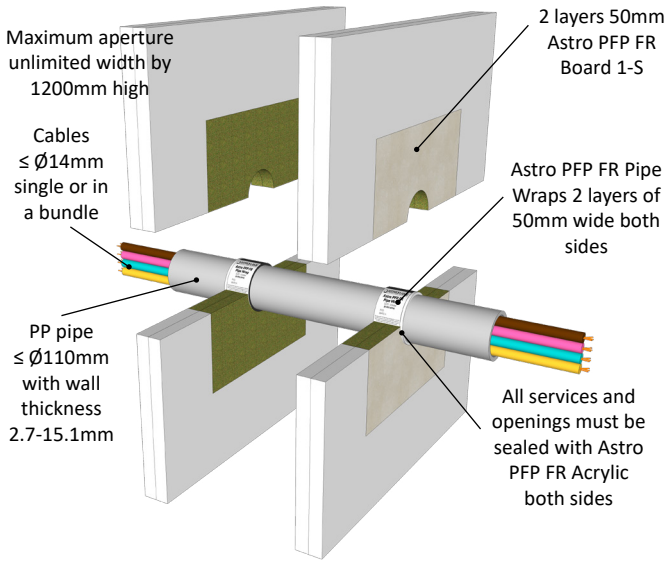
**PE CONDUIT FIRE RESISTANCE EI 90 U/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



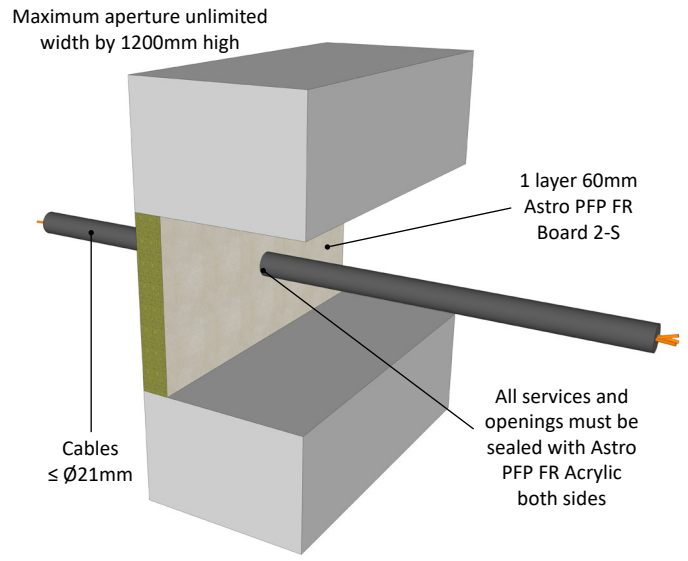
**PP CONDUIT FIRE RESISTANCE EI 90 U/C (E 120)**

**≥ 100MM DRYWALLS, MASONRY OR CONCRETE WALLS**



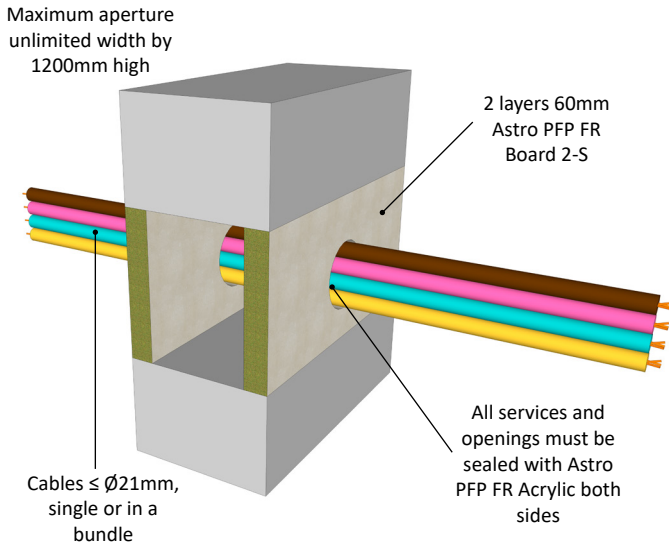
**CABLES FIRE RESISTANCE EI 90 (E 240)**

**MASONRY OR CONCRETE – WALLS**



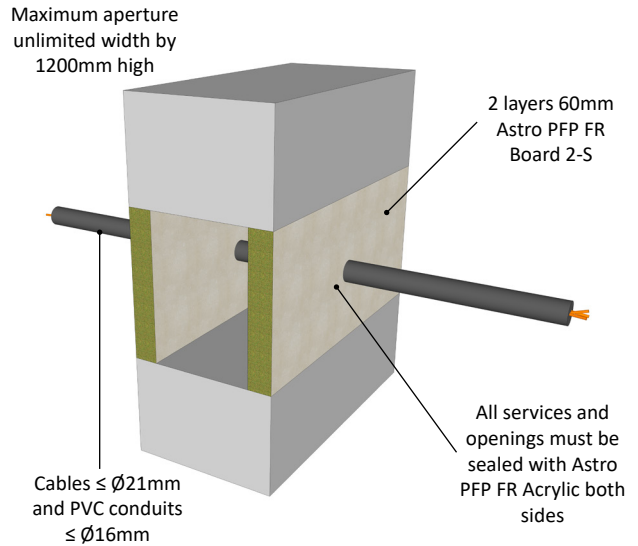
**CABLES FIRE RESISTANCE EI 120 (E 240)**

**MASONRY OR CONCRETE – WALLS**



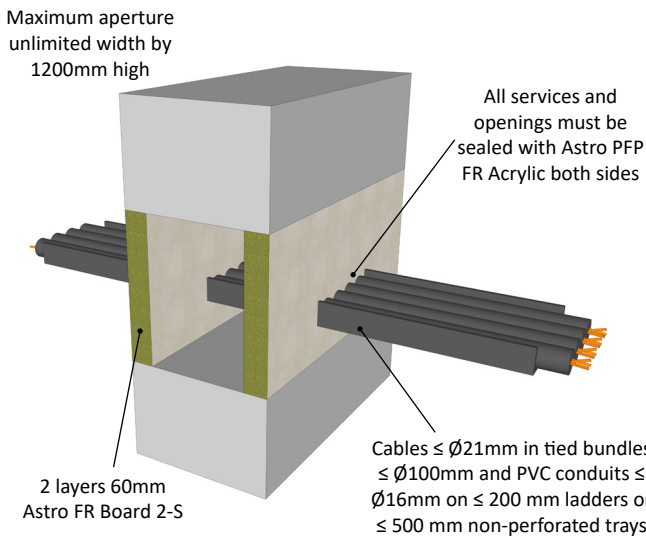
**CABLES AND PVC CONDUITS FIRE RESISTANCE EI 180 (E 240)**

**MASONRY OR CONCRETE – WALLS**



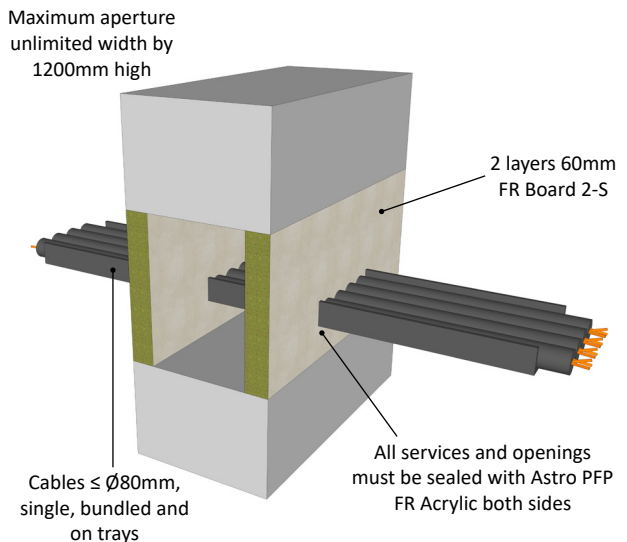
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 120 (E 180)**

**MASONRY OR CONCRETE – WALLS**



**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 180)**

**MASONRY OR CONCRETE – WALLS**





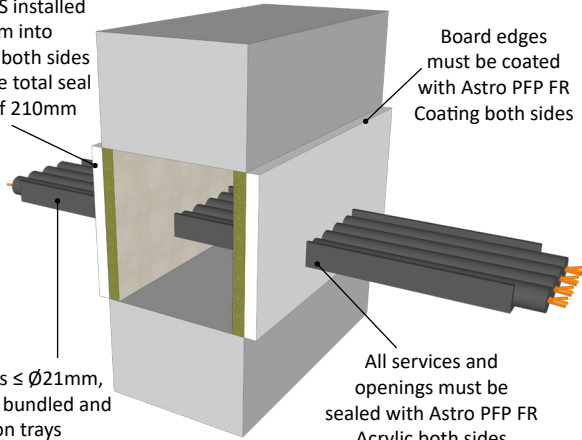
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 120 (E 240)**

**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
600 x 600mm

60mm Astro PFP FR Board 2-S installed 30mm into aperture both sides to achieve total seal width of 210mm

Board edges must be coated with Astro PFP FR Coating both sides



Cables  $\leq \varnothing 21\text{mm}$ , single, bundled and on trays

All services and openings must be sealed with Astro PFP FR Acrylic both sides

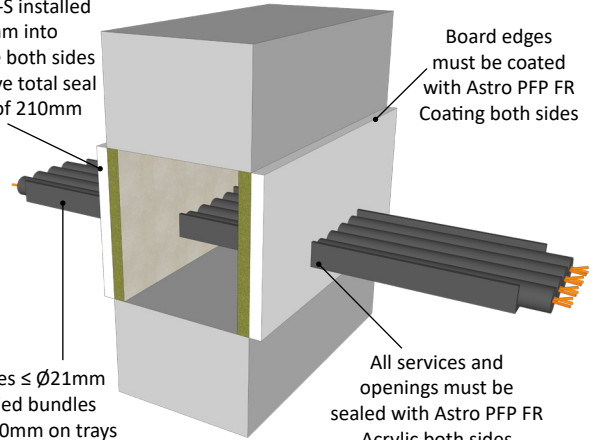
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 240 (E 240)**

**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
600 x 600mm

60mm Astro PFP FR Board 2-S installed 30mm into aperture both sides to achieve total seal width of 210mm

Board edges must be coated with Astro PFP FR Coating both sides



Cables  $\leq \varnothing 21\text{mm}$  in tied bundles  $\leq \varnothing 100\text{mm}$  on trays

All services and openings must be sealed with Astro PFP FR Acrylic both sides

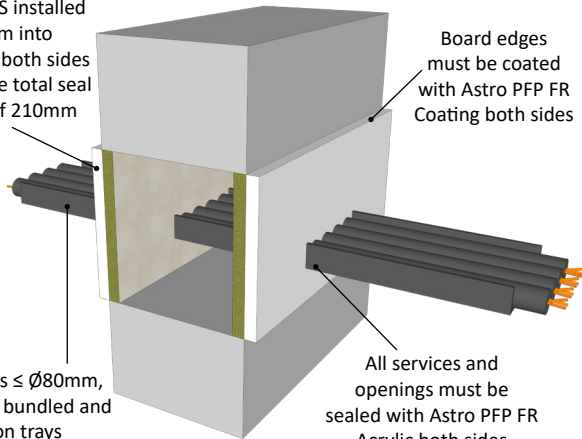
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 240)**

**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
600 x 600mm

60mm Astro PFP FR Board 2-S installed 30mm into aperture both sides to achieve total seal width of 210mm

Board edges must be coated with Astro PFP FR Coating both sides



Cables  $\leq \varnothing 80\text{mm}$ , single, bundled and on trays

All services and openings must be sealed with Astro PFP FR Acrylic both sides

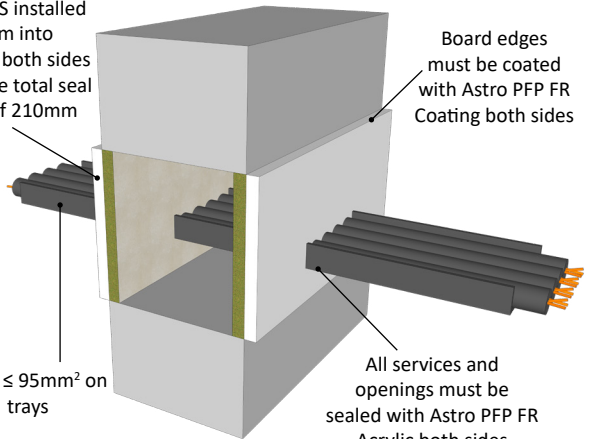
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 180 (E 240)**

**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
600 x 600mm

60mm Astro PFP FR Board 2-S installed 30mm into aperture both sides to achieve total seal width of 210mm

Board edges must be coated with Astro PFP FR Coating both sides



Wires  $\leq 95\text{mm}^2$  on trays

All services and openings must be sealed with Astro PFP FR Acrylic both sides

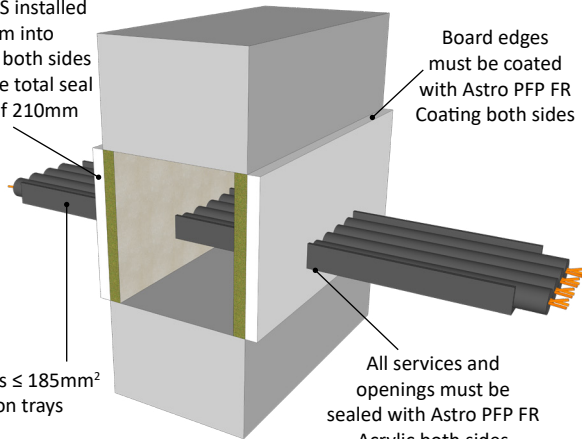
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 90 (E 240)**

**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
600 x 600mm

60mm Astro PFP FR Board 2-S installed 30mm into aperture both sides to achieve total seal width of 210mm

Board edges must be coated with Astro PFP FR Coating both sides



Wires  $\leq 185\text{mm}^2$  on trays

All services and openings must be sealed with Astro PFP FR Acrylic both sides

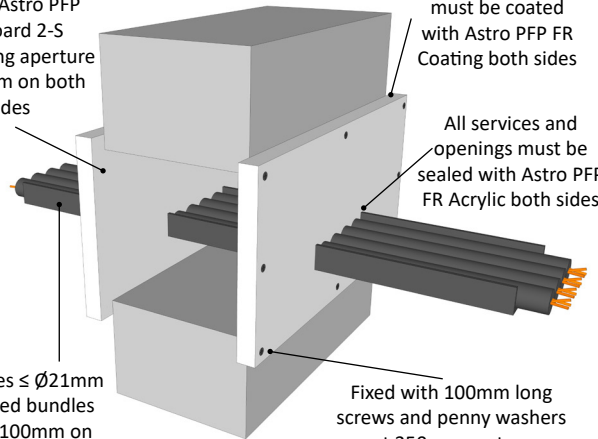
**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 240 (E 240)**

**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
600 x 600mm

60mm Astro PFP FR Board 2-S oversailing aperture by 50mm on both sides

Board edges must be coated with Astro PFP FR Coating both sides



Cables  $\leq \varnothing 21\text{mm}$  in tied bundles  $\leq \varnothing 100\text{mm}$  on trays

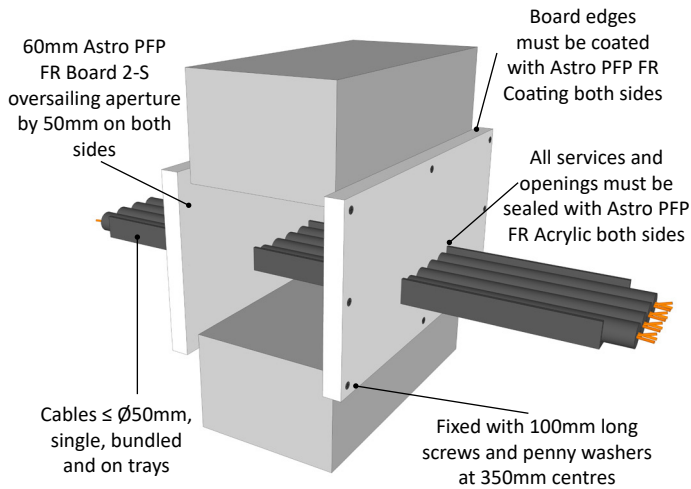
All services and openings must be sealed with Astro PFP FR Acrylic both sides

Fixed with 100mm long screws and penny washers at 350mm centres

**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 90 (E 240)**

**MASONRY OR CONCRETE – WALLS**

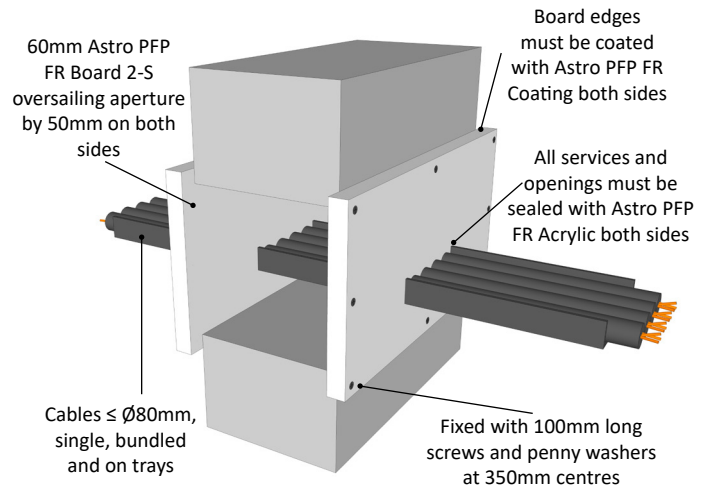
Maximum aperture  
600 x 600mm



**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 240)**

**MASONRY OR CONCRETE – WALLS**

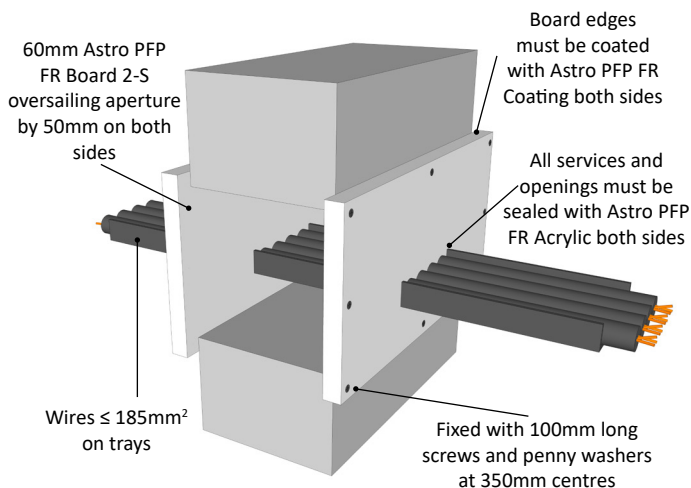
Maximum aperture  
600 x 600mm



**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 180 (E 240)**

**MASONRY OR CONCRETE – WALLS**

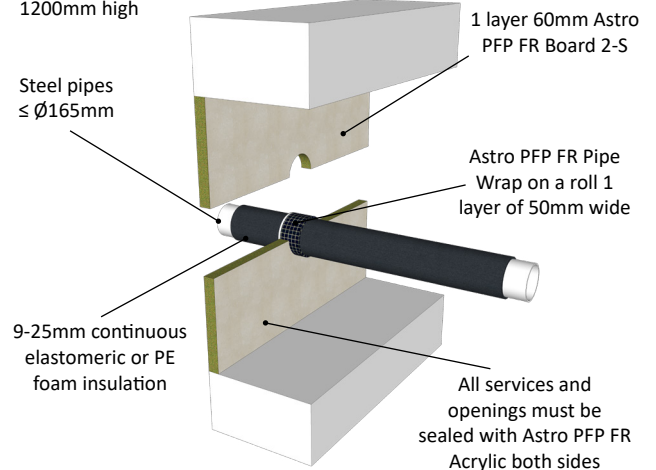
Maximum aperture  
600 x 600mm



**INSULATED STEEL PIPES FIRE RESISTANCE EI 45 C/U (E 120)**

**MASONRY OR CONCRETE – WALLS**

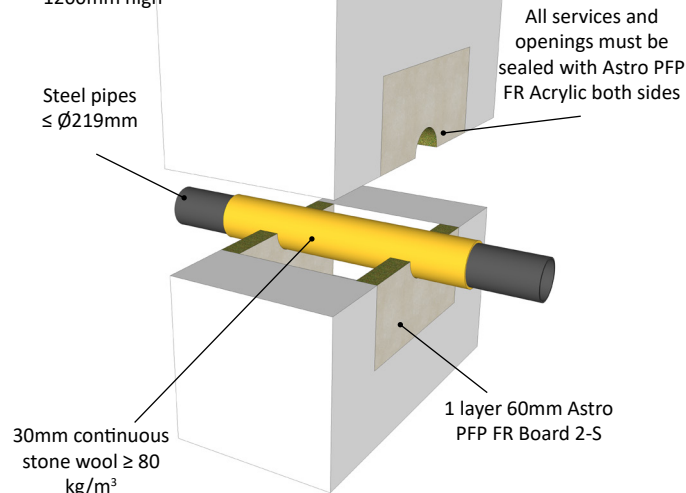
Maximum aperture  
unlimited width by  
1200mm high



**INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**

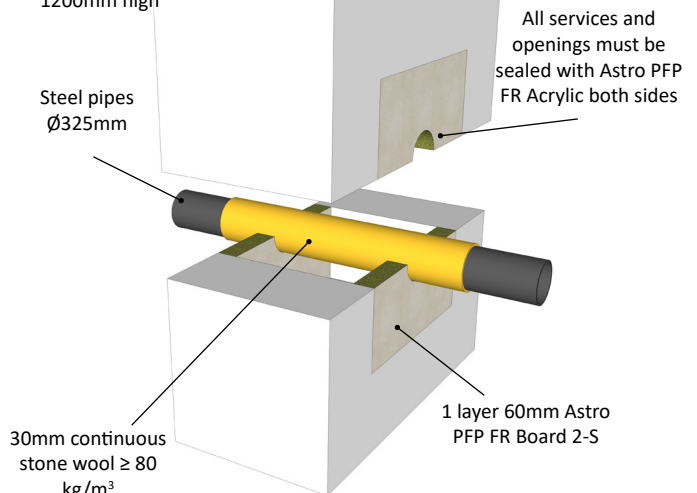
Maximum aperture  
unlimited width by  
1200mm high



**INSULATED STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)**

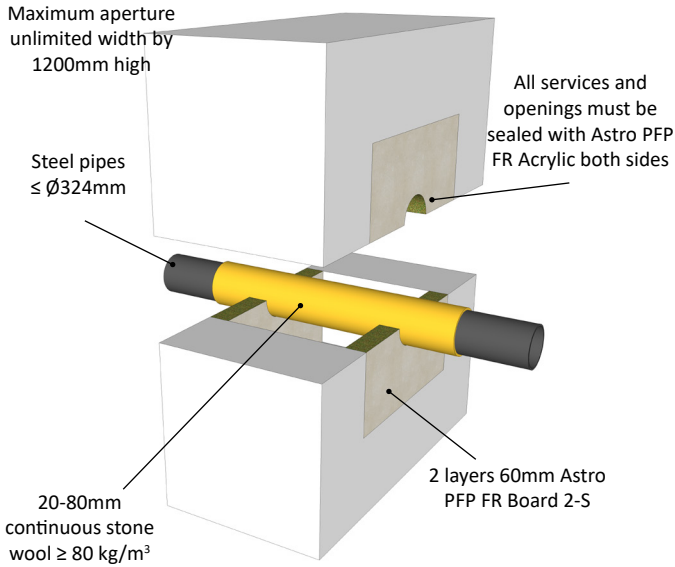
**MASONRY OR CONCRETE – WALLS**

Maximum aperture  
unlimited width by  
1200mm high



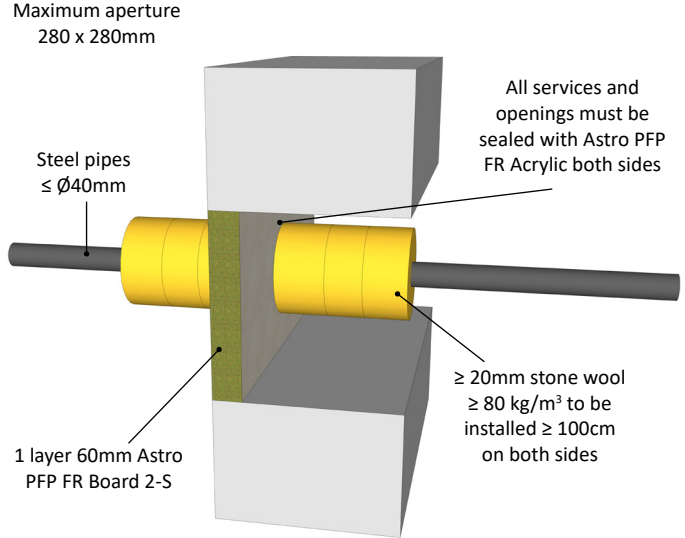
**INSULATED STEEL PIPES FIRE RESISTANCE EI 180 C/U (E 240)**

**MASONRY OR CONCRETE – WALLS**



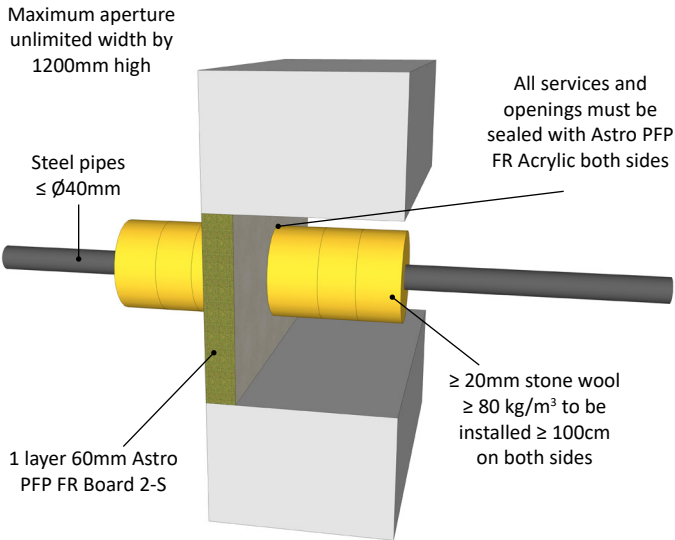
**STEEL PIPES FIRE RESISTANCE EI 240 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**



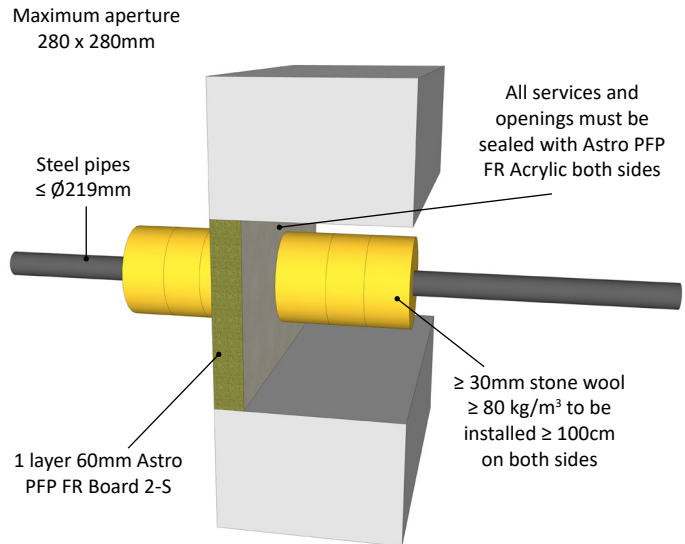
**STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**



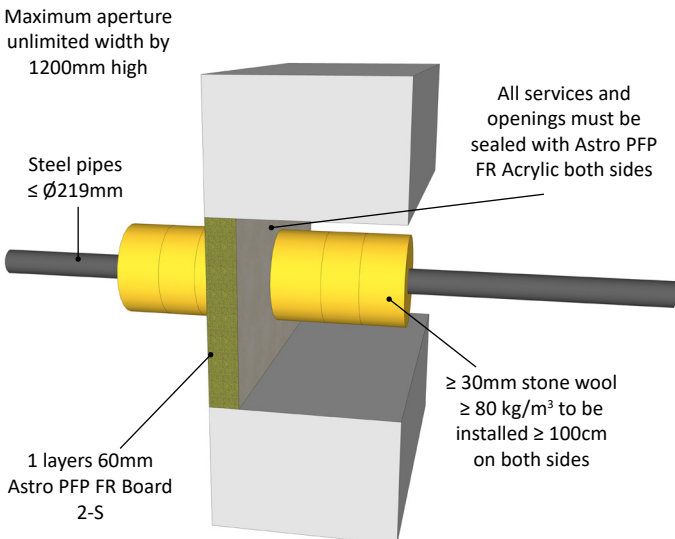
**STEEL PIPES FIRE RESISTANCE EI 240 C/U (E 240)**

**MASONRY OR CONCRETE – WALLS**



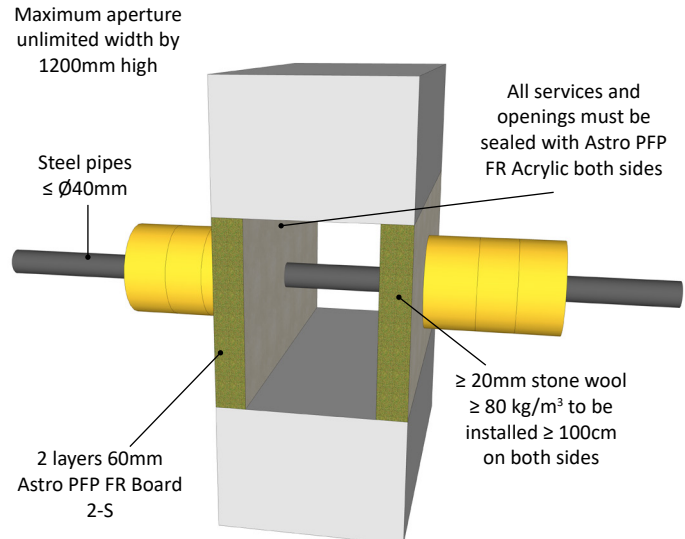
**STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**



**STEEL PIPES FIRE RESISTANCE EI 180 C/U (E 240)**

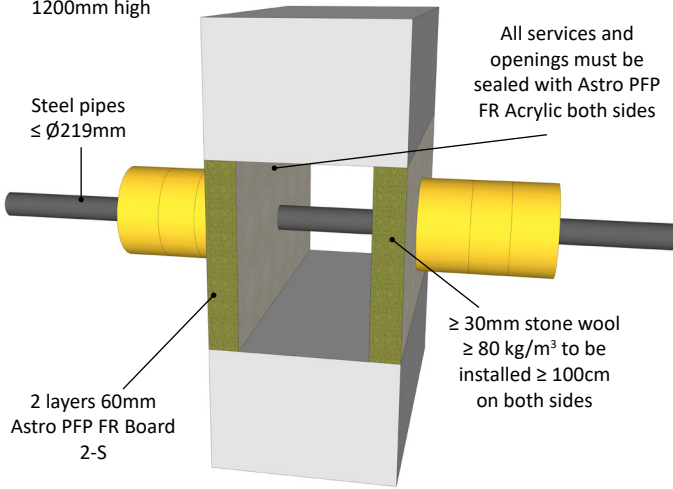
**MASONRY OR CONCRETE - WALLS**



**STEEL PIPES FIRE RESISTANCE EI 180 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**

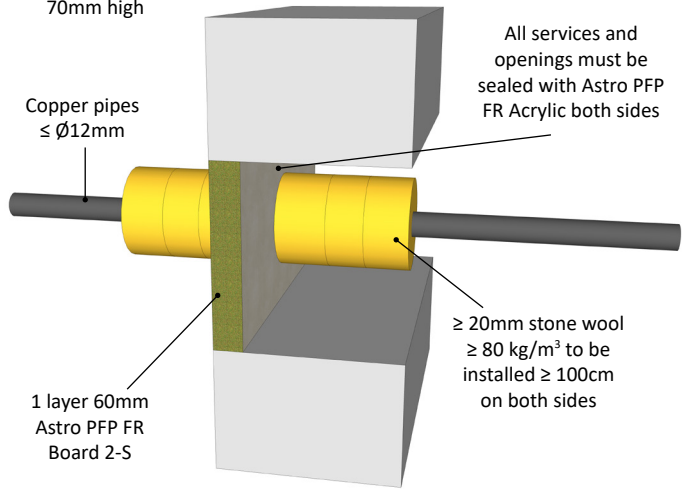
Maximum aperture unlimited width by 1200mm high



**COPPER PIPES FIRE RESISTANCE EI 240 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**

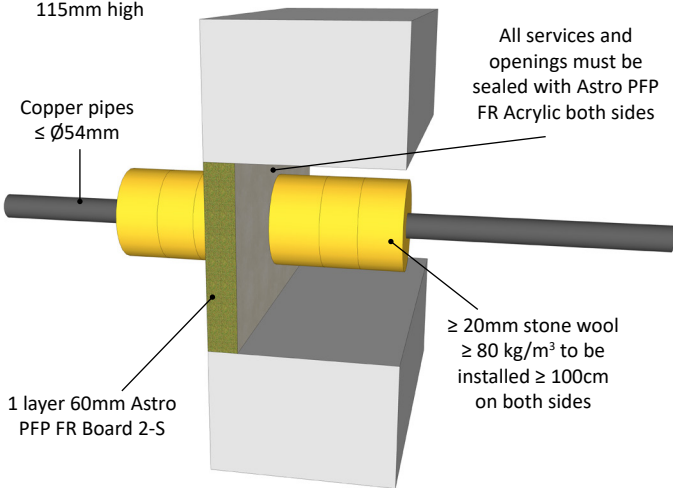
Maximum aperture 70mm wide and 70mm high



**COPPER PIPES FIRE RESISTANCE EI 120 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**

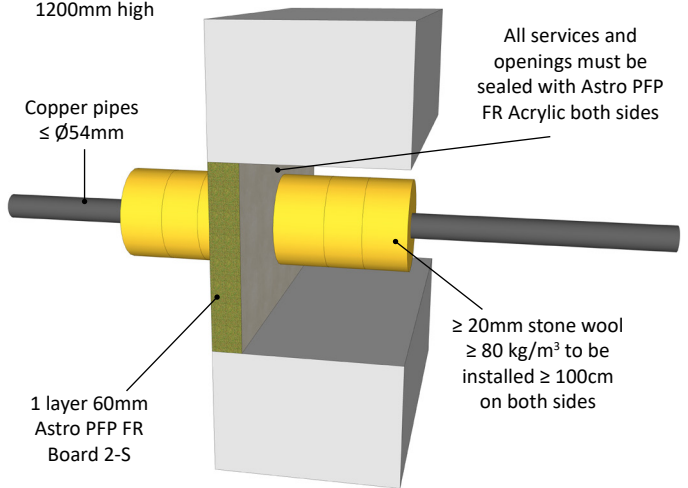
Maximum aperture 115mm wide and 115mm high



**COPPER PIPES FIRE RESISTANCE EI 90 C/U (E 240)**

**MASONRY OR CONCRETE - WALLS**

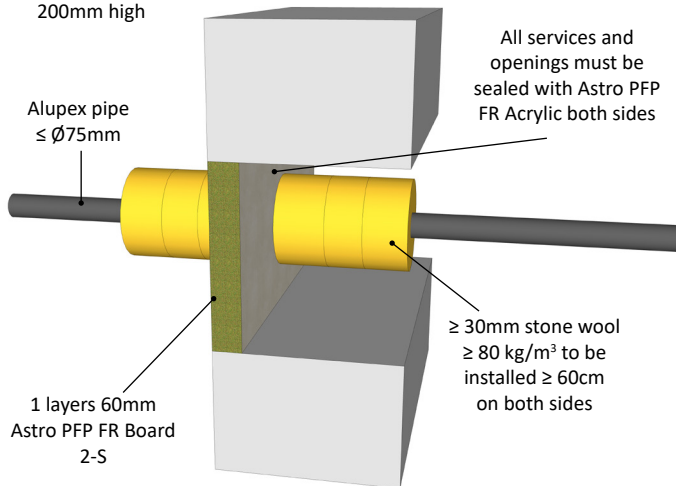
Maximum aperture unlimited width by 1200mm high



**ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)**

**MASONRY OR CONCRETE - WALLS**

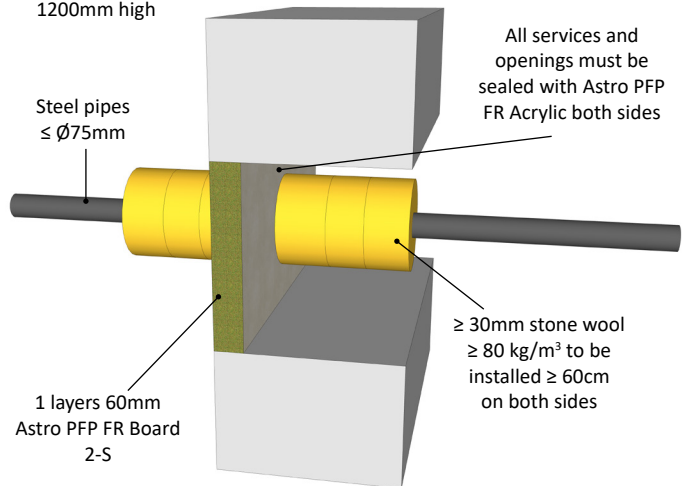
Maximum aperture 200mm wide and 200mm high



**ALUPEX PIPES FIRE RESISTANCE EI 90 C/C (E 120)**

**MASONRY OR CONCRETE - WALLS**

Maximum aperture unlimited width by 1200mm high

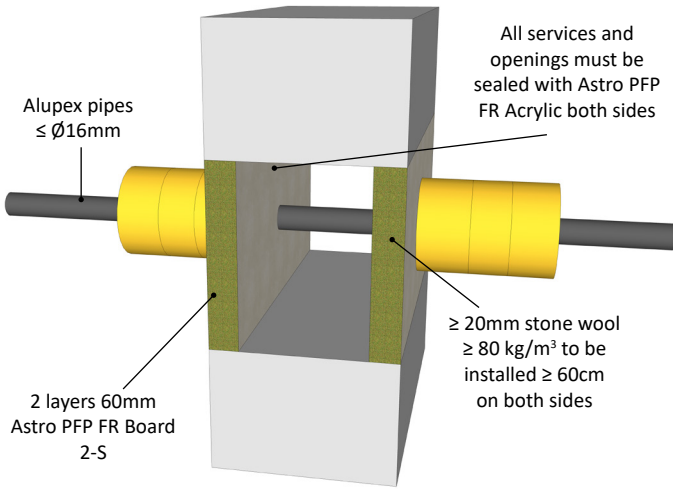




**ALUPEX PIPES FIRE RESISTANCE EI 240 U/C (E 240)**

**MASONRY OR CONCRETE - WALLS**

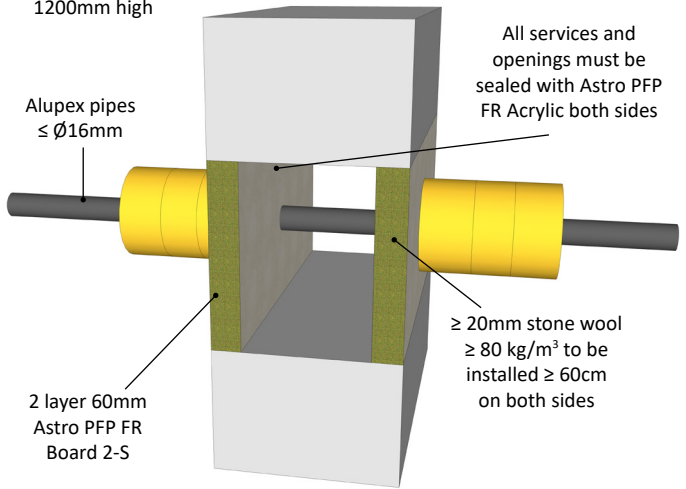
Maximum aperture  
1200 x 1200mm



**ALUPEX PIPES FIRE RESISTANCE EI 180 U/C (E 240)**

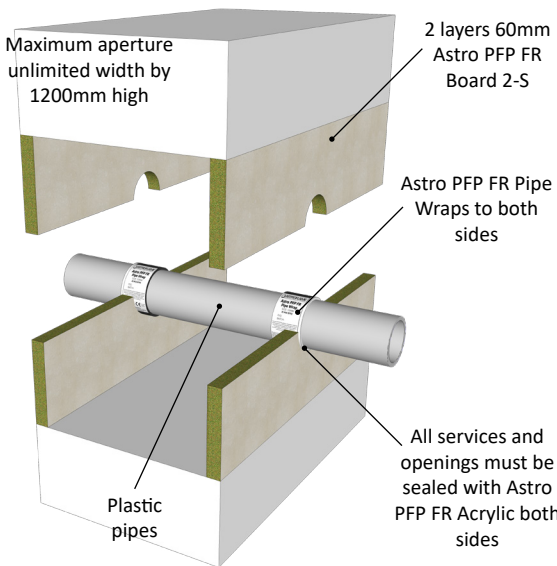
**MASONRY OR CONCRETE - WALLS**

Maximum aperture  
unlimited width by  
1200mm high



**PLASTIC PIPES FIRE RESISTANCE EI 120-240**

**MASONRY OR CONCRETE - WALLS**

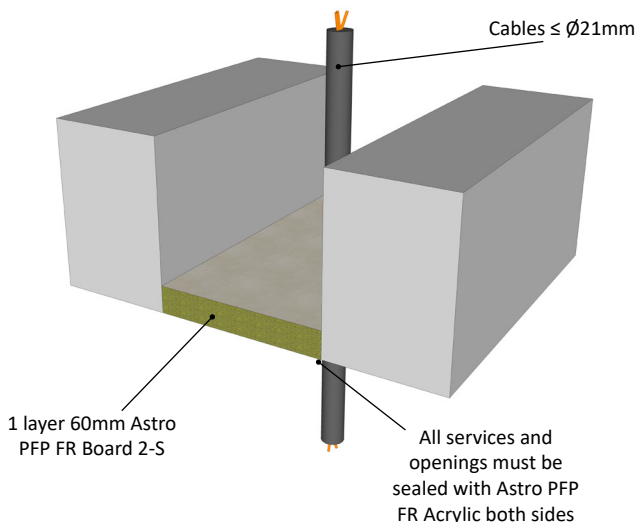


Services	Pipe Wall Thickness	Astro PFP FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 4.6mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	50 x 3.6mm (2 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PP	2.7 – 10.0mm	50 x 3.6mm (2 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 125mm PVC-U & PVC-C	4.7 – 7.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 125mm PE, ABS & SAN+PVC	3.9 – 7.4mm	50 x 7.2mm (4 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 125mm PP	3.1 – 11.4mm	50 x 7.2mm (4 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 160mm PVC-U & PVC-C	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	4.9 – 9.5mm	50 x 10.8mm (6 layers)	EI 240 U/C (E 240 U/C)
≤ Ø 160mm PP	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 240 C/C (E 240 C/C)
≤ Ø 200mm PVC-U & PVC-C	5.0 – 10.2mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 250mm PVC-U & PVC-C	6.0 – 11.0mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 315mm PVC-U & PVC-C	7.7 – 12.1mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 400mm PVC-U & PVC-C	9.8 – 15.3mm	75 x 28.8mm (16 layers)	EI 120 C/C (E 120 C/C)

**CABLES FIRE RESISTANCE EI 30 (E 240)**

**RIGID FLOORS**

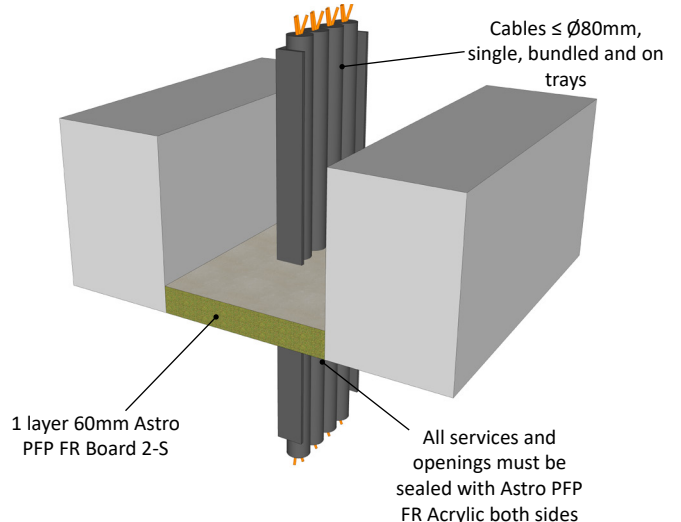
Maximum aperture  
600 x 1200mm



**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 30 (E 45)**

**RIGID FLOORS**

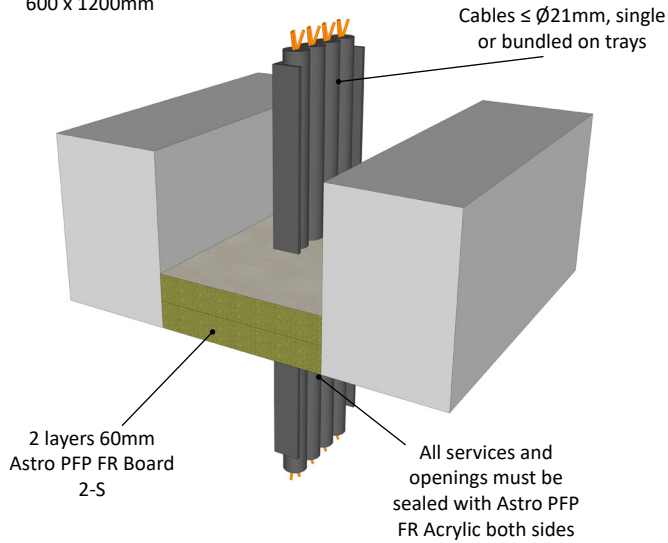
Maximum aperture  
1200 x 2400mm



**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 120 (E 120)**

**RIGID FLOORS**

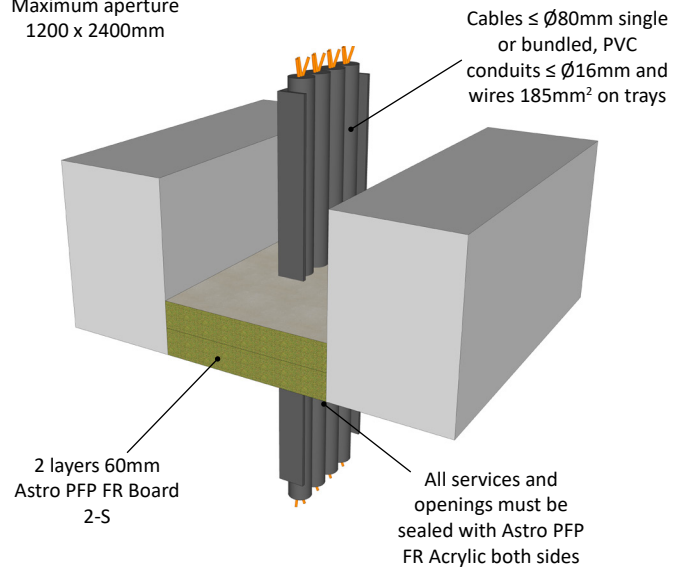
Maximum aperture  
600 x 1200mm



**CABLES AND CABLE TRAYS FIRE RESISTANCE EI 60 (E 120)**

**RIGID FLOORS**

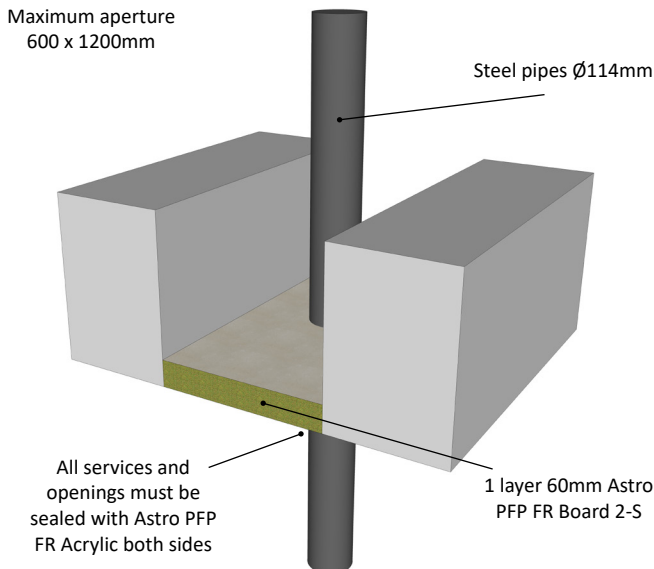
Maximum aperture  
1200 x 2400mm



**STEEL PIPES FIRE RESISTANCE EI 20 C/C (E 240)**

**RIGID FLOORS**

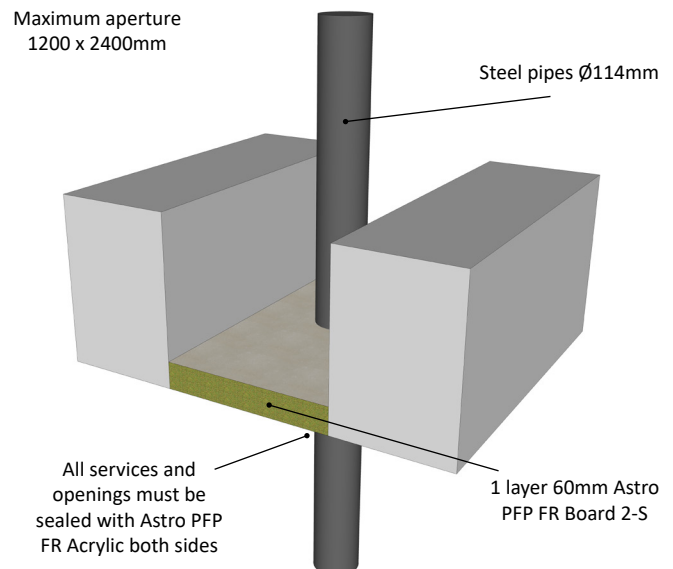
Maximum aperture  
600 x 1200mm



**STEEL PIPES FIRE RESISTANCE EI 20 C/C (E 120)**

**RIGID FLOORS**

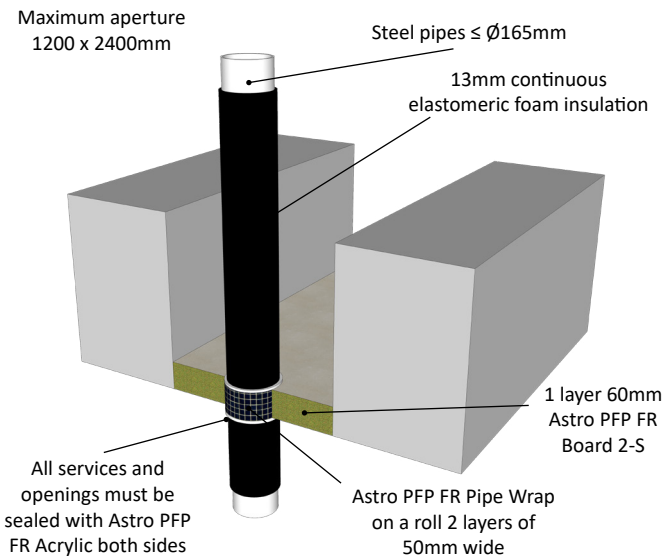
Maximum aperture  
1200 x 2400mm



**INSULATED STEEL PIPES FIRE RESISTANCE EI 45 C/U (E 90)**

**RIGID FLOORS**

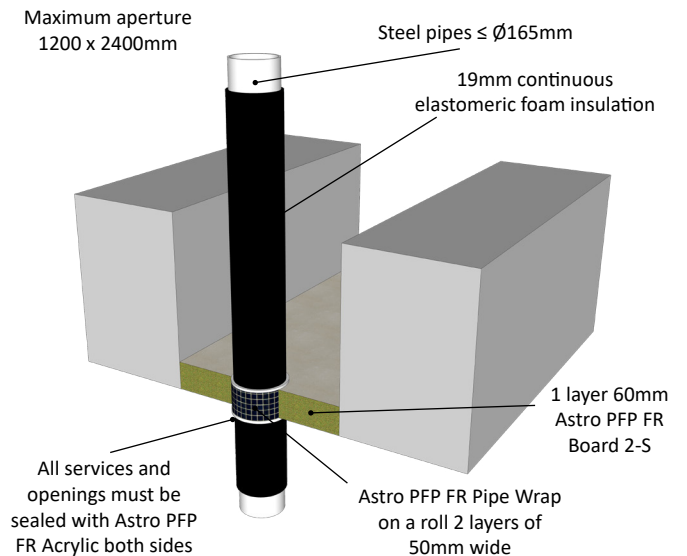
Maximum aperture  
1200 x 2400mm



**INSULATED STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 90)**

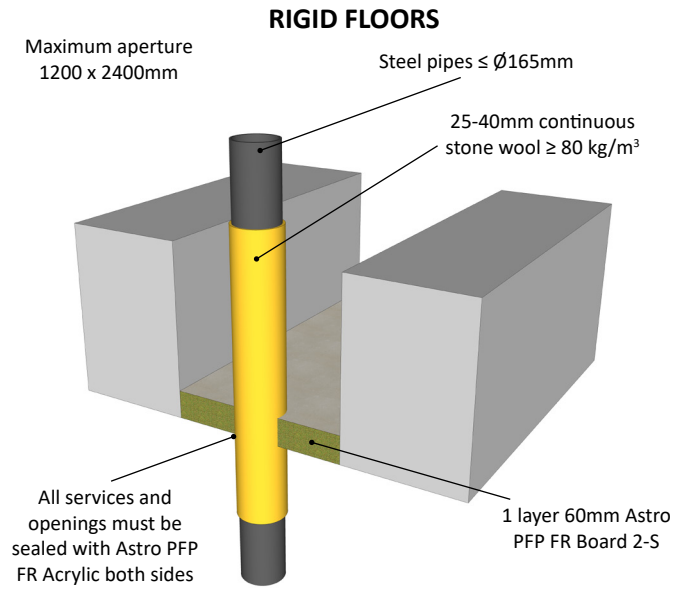
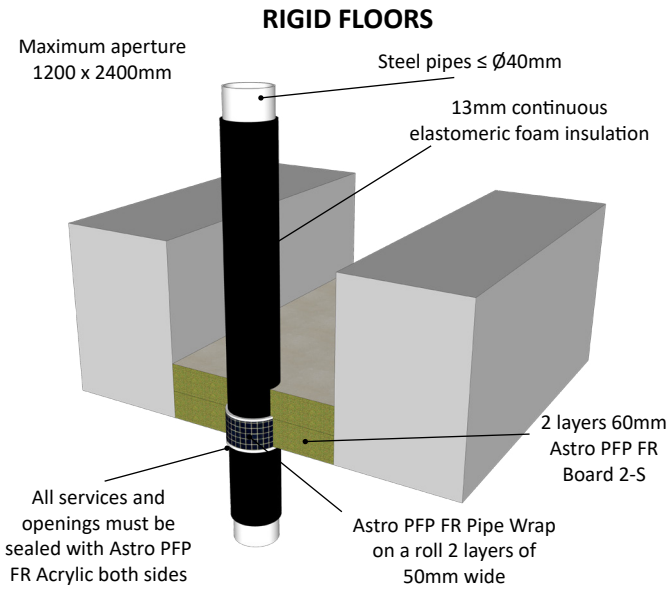
**RIGID FLOORS**

Maximum aperture  
1200 x 2400mm



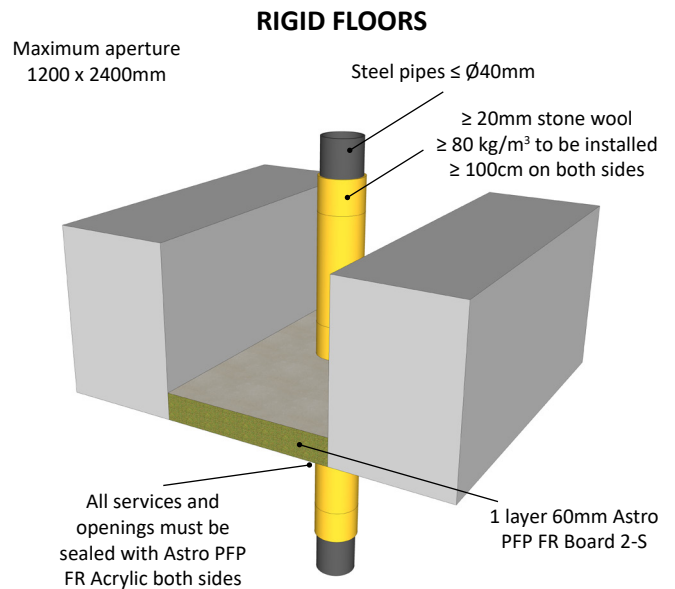
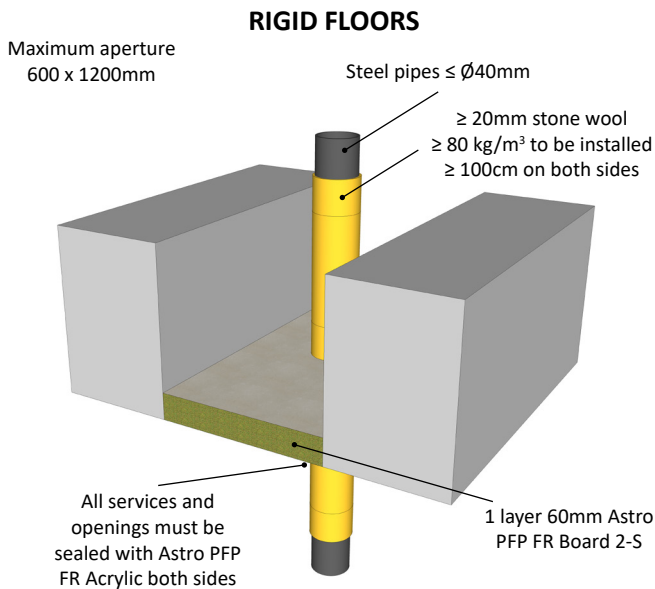
**INSULATED STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 90)**

**INSULATED STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 90)**



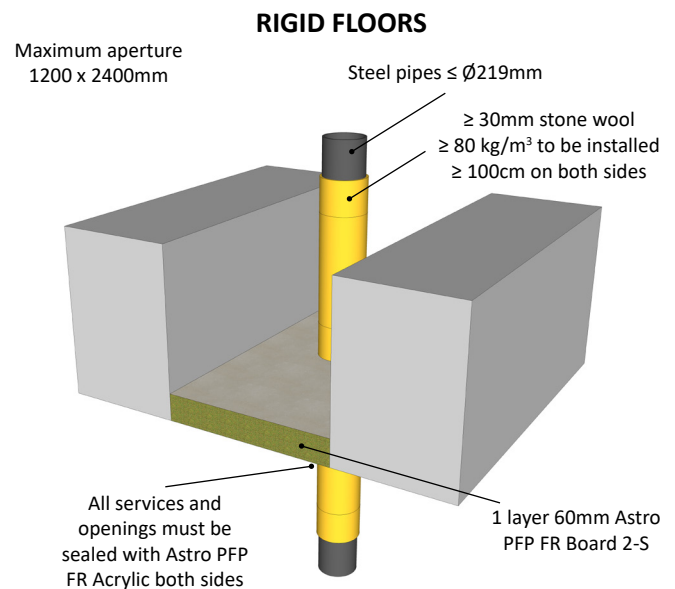
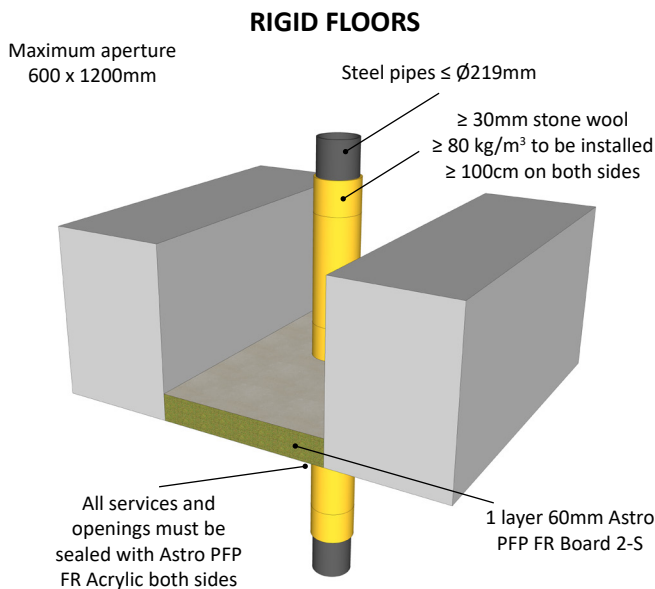
**STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 240)**

**STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 120)**

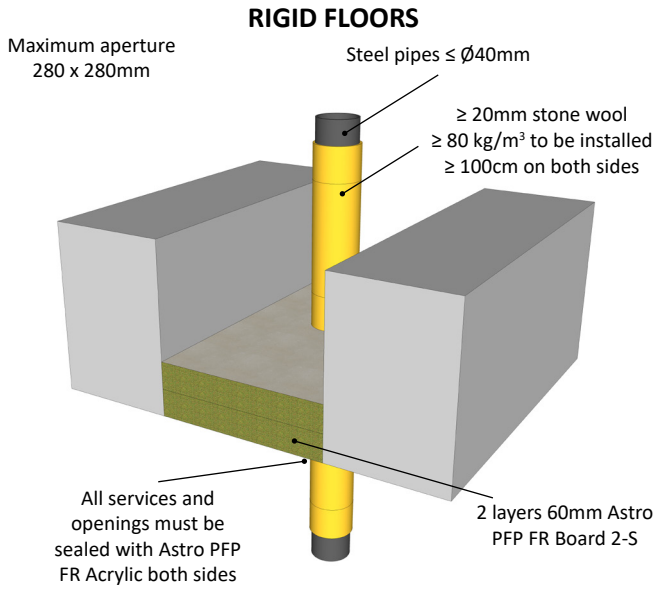


**STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 240)**

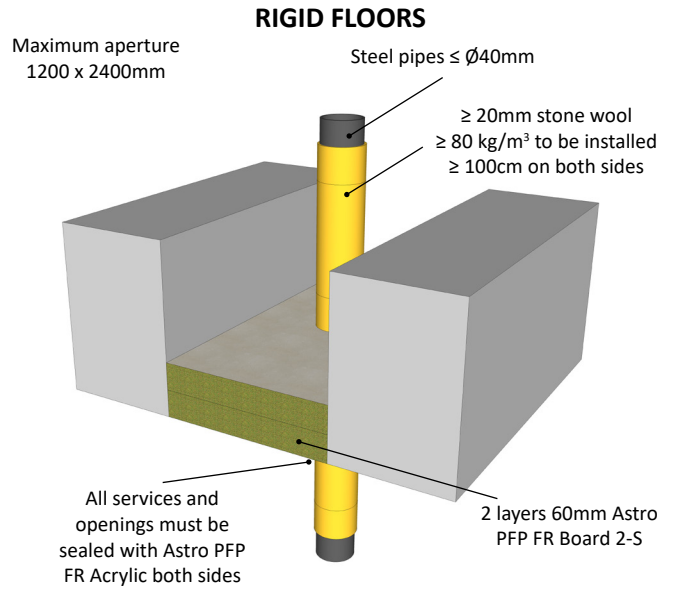
**STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)**



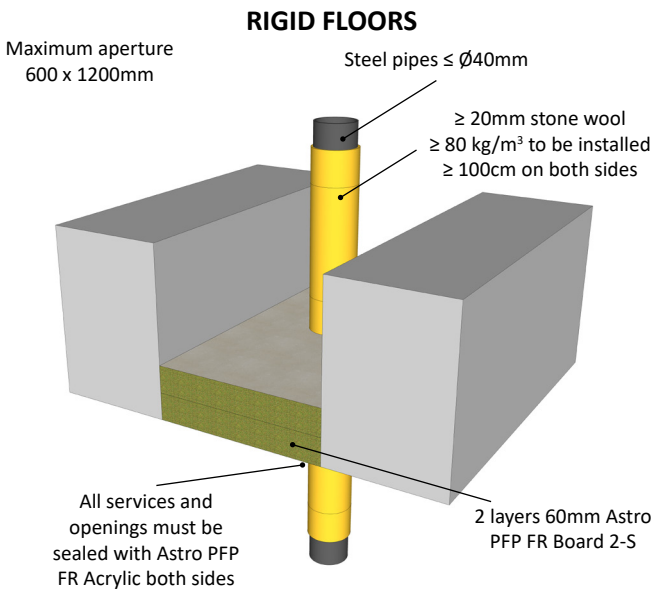
**STEEL PIPES FIRE RESISTANCE EI 240 C/U (E 240)**



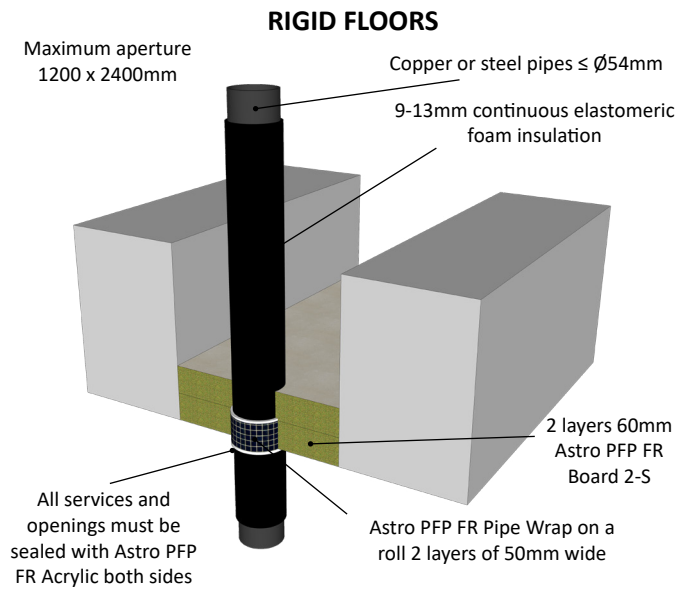
**STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 180)**



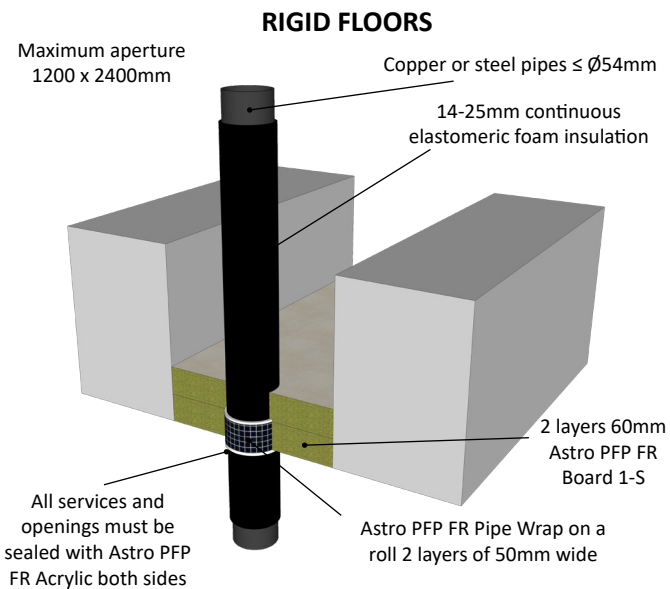
**STEEL PIPES FIRE RESISTANCE EI 180 C/U (E 180)**



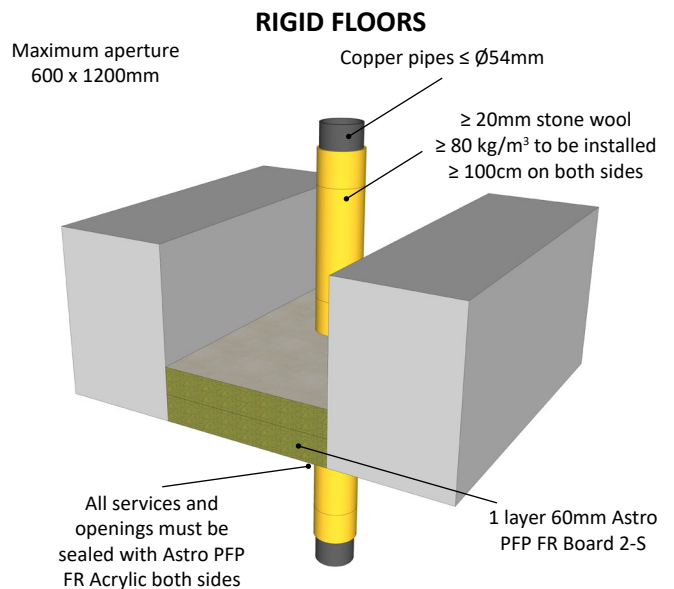
**COPPER OR STEEL PIPES FIRE RESISTANCE EI 60 C/C (E 240)**



**COPPER PIPES FIRE RESISTANCE EI 45 C/C (E 180)**

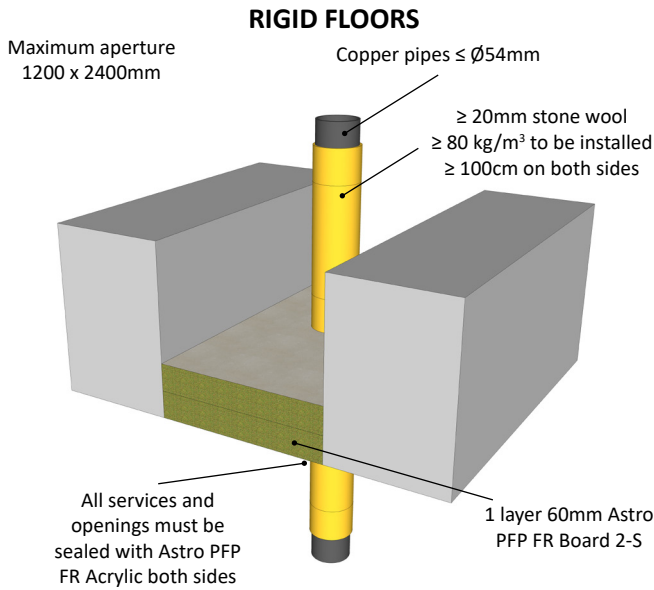


**COPPER PIPES FIRE RESISTANCE EI 0 C/U (E 240)**

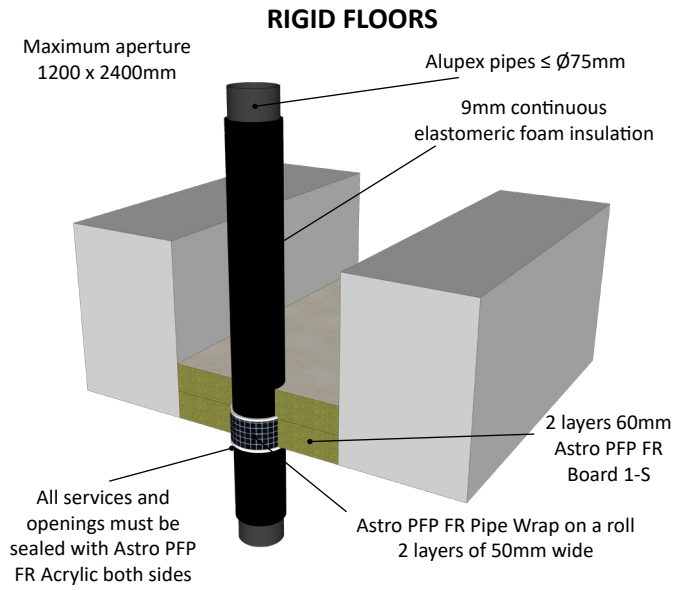




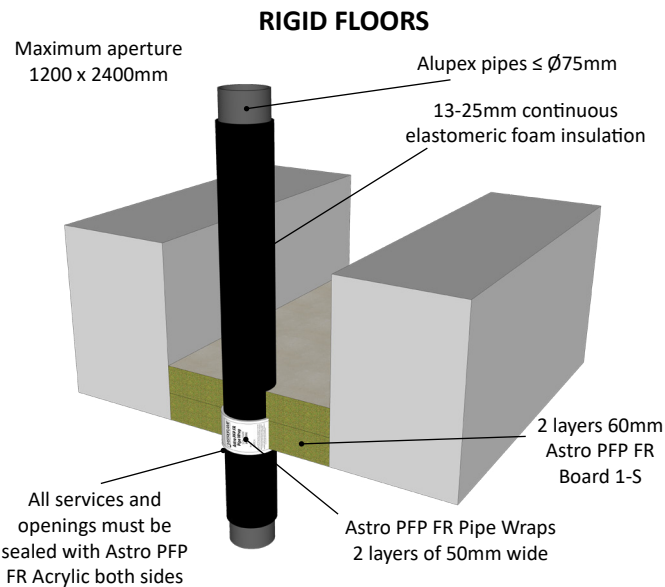
**COPPER PIPES FIRE RESISTANCE EI 0 C/U (E 120)**



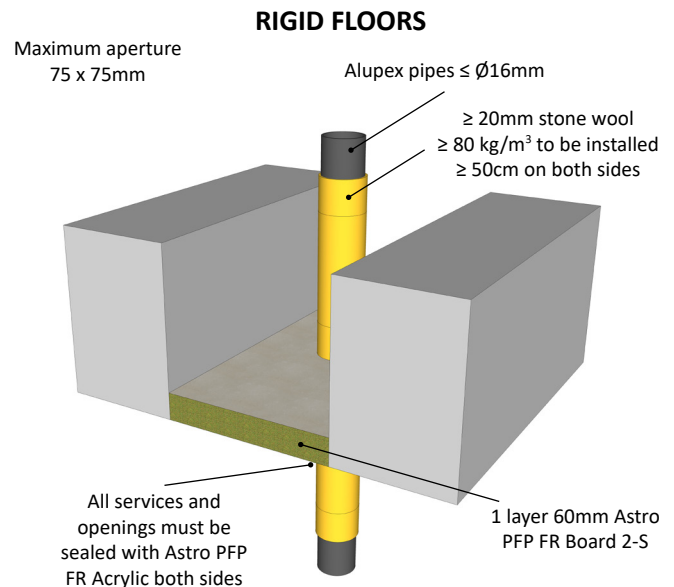
**ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)**



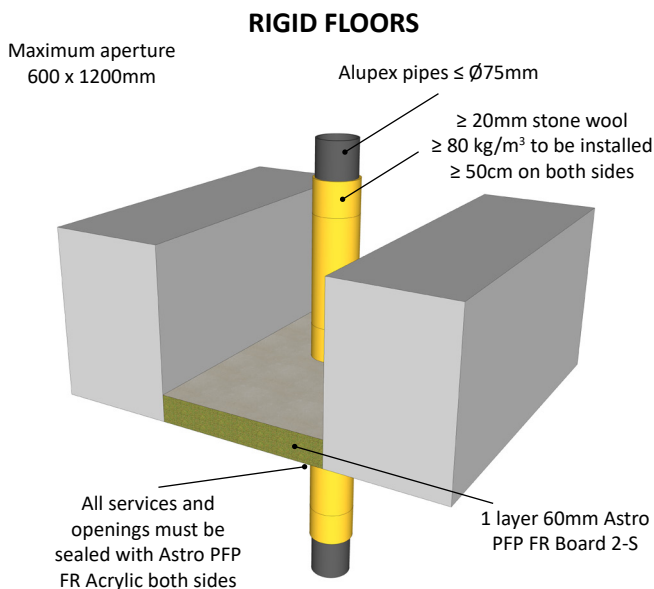
**ALUPEX PIPES FIRE RESISTANCE EI 45 C/C (E 60)**



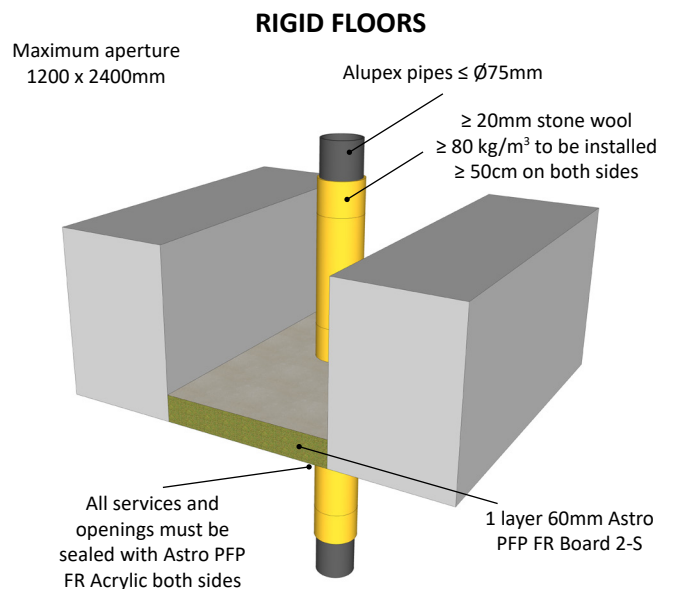
**ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 240)**



**ALUPEX PIPES FIRE RESISTANCE EI 90 C/C (E 240)**

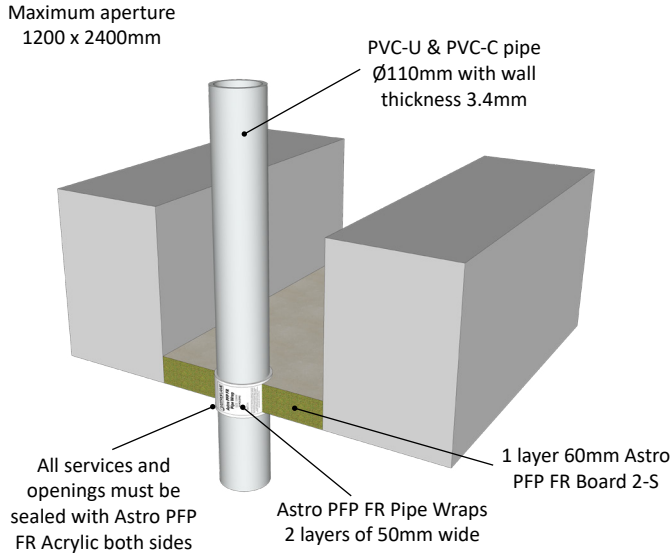


**ALUPEX PIPES FIRE RESISTANCE EI 90 C/C (E 120)**



## PVC PIPES FIRE RESISTANCE EI 90 U/C (E 90)

### RIGID FLOORS



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