

PROTECTA® FR BOARD

INSTALLATION INSTRUCTIONS



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Please refer to Protecta® FR Damper for guidance on fire sealing ventilation ducts. Please also refer to the Technical Data Sheet.

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 100 mm. Services should be a minimum of 25 mm from seal edges.

Services within the system Protecta® FR Board seal do not require a minimum separation, except where Protecta® FR Pipe Wraps are used, which should be a minimum of 30 mm from other services in the aperture.

Protecta® FR Board seals which involve services penetrating both sides of a flexible wall may also be used in the situation where the services penetrates one side of the wall only and the remaining side of the wall is not penetrated at the same point (i.e. the services continues on the inside of the wall).

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. Timber walls must have a minimum thickness of 100 mm and comprise solid wood or cross-laminated timber. Rigid walls must have a minimum thickness of 75 mm and comprise concrete, aerated concrete or masonry, with a minimum density of 350 kg/m³ (650 kg/m³ in rigid wall details). Rigid floors must have a minimum thickness of 125 mm and comprise aerated concrete or concrete with a minimum density of 650 kg/m³. Timber floors must have a minimum thickness of 150 mm and comprise solid wood or cross-laminated timber.

The supporting construction must be classified in accordance with EN 13501-2 for the required fire resistance period. Services in floors should be supported at maximum 450 mm from the top face. Services in walls should be supported at maximum 270 mm from both faces of the wall.

*) 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.

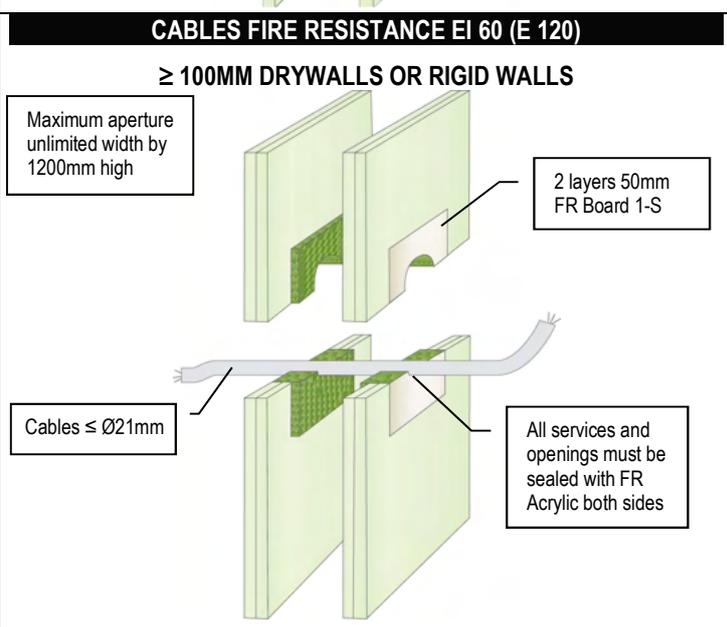
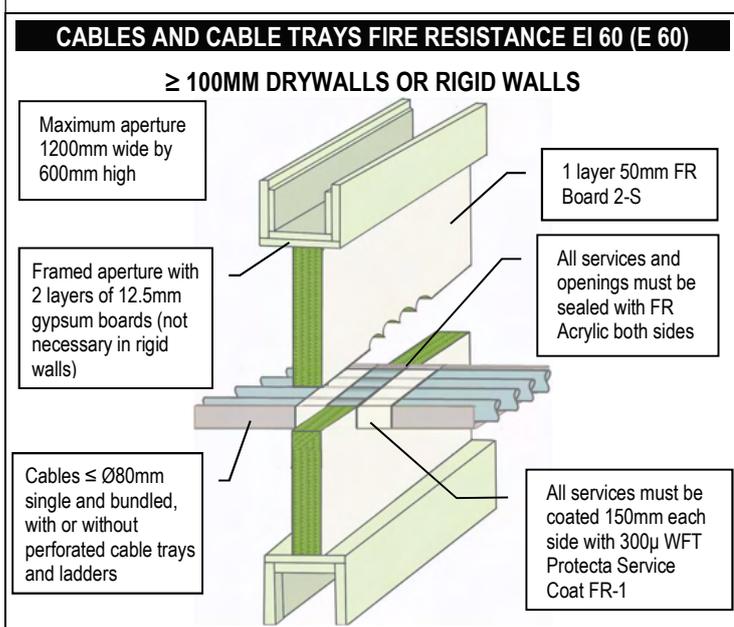
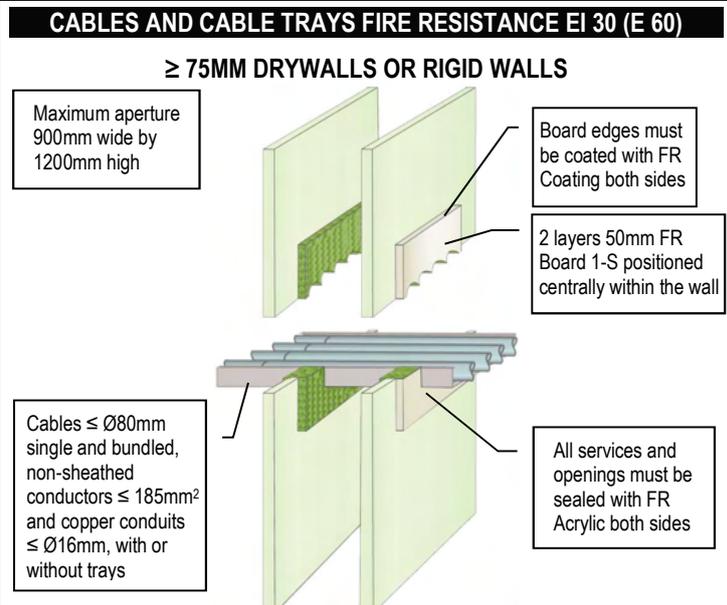
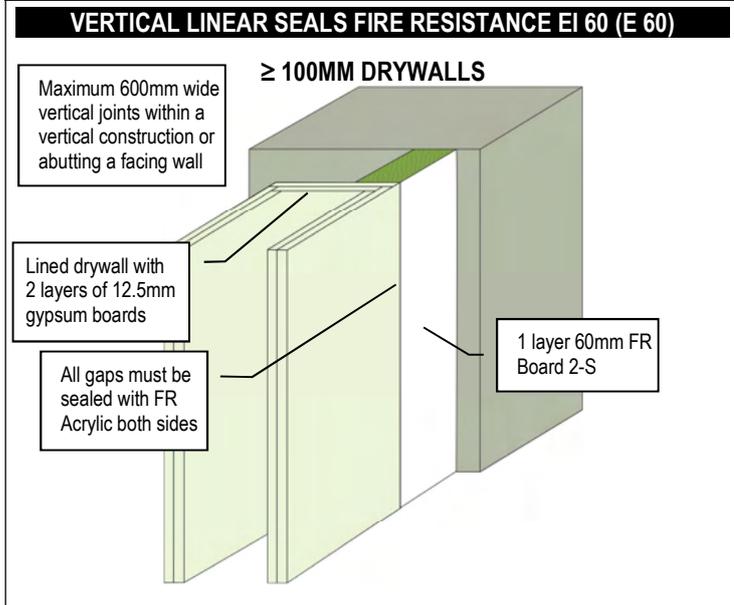
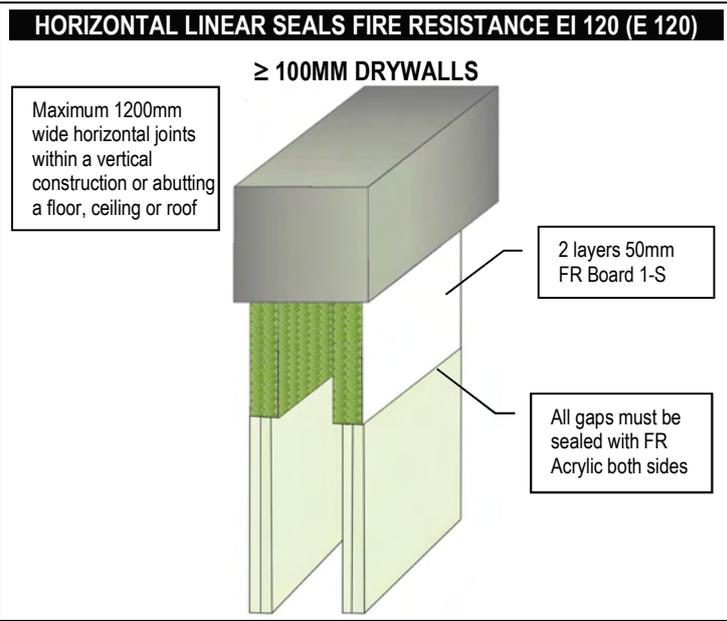
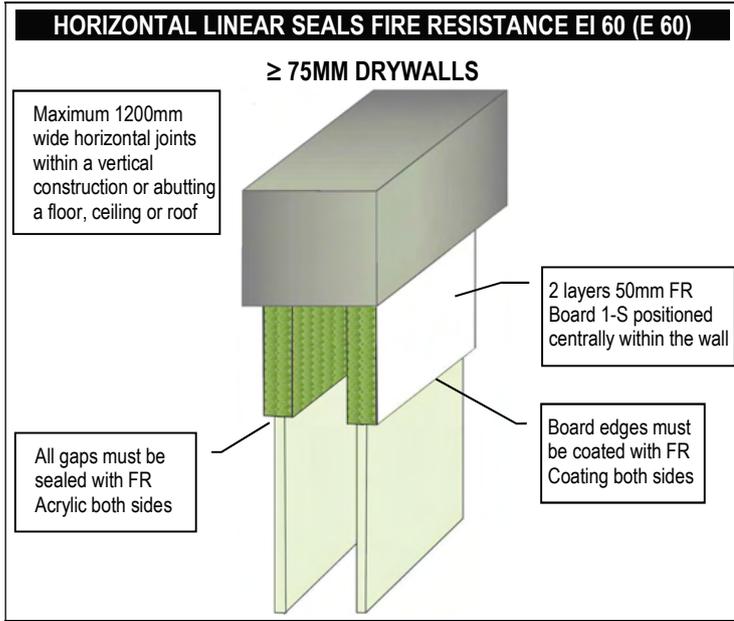
Services: Metallic pipes through the system Protecta® FR Board may be used in all angles between 90° and 45° in all directions.

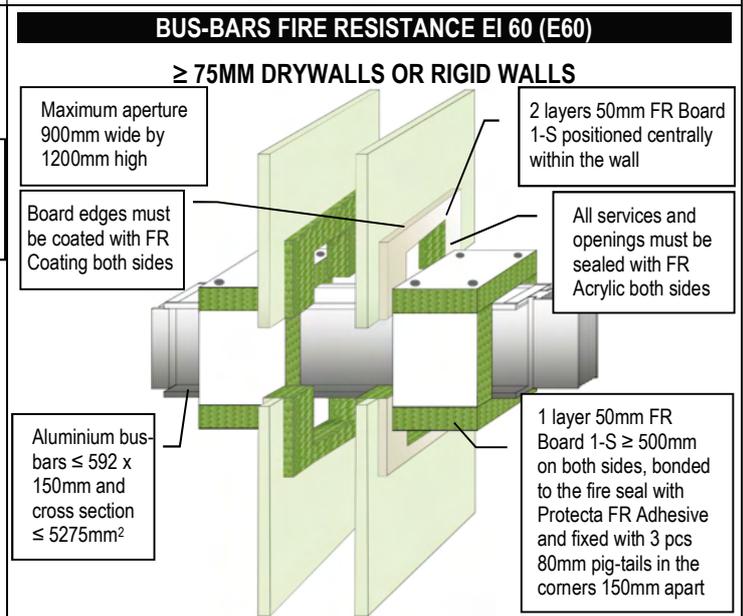
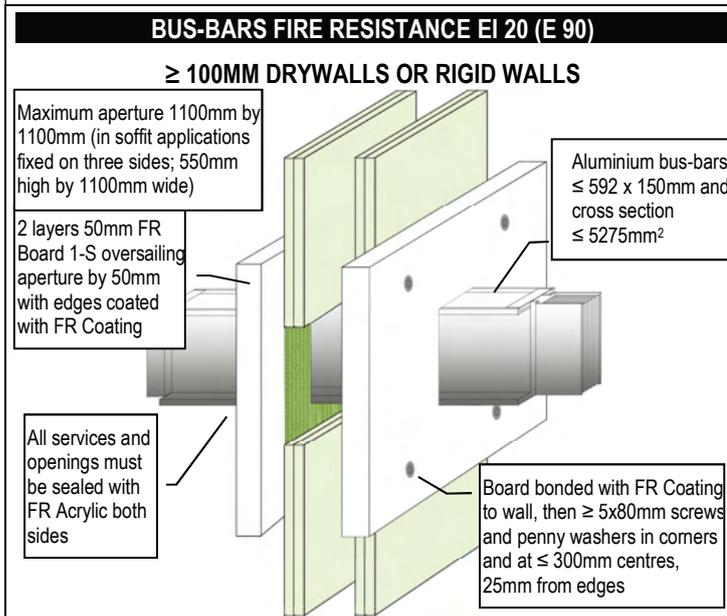
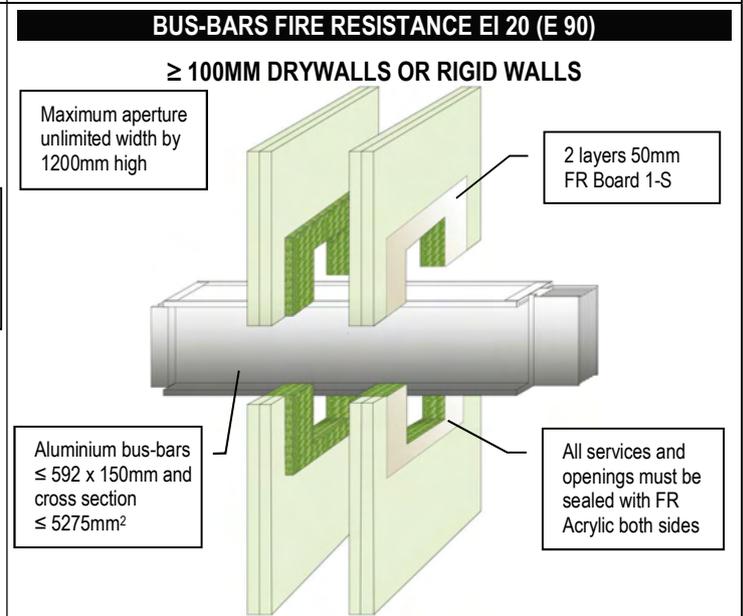
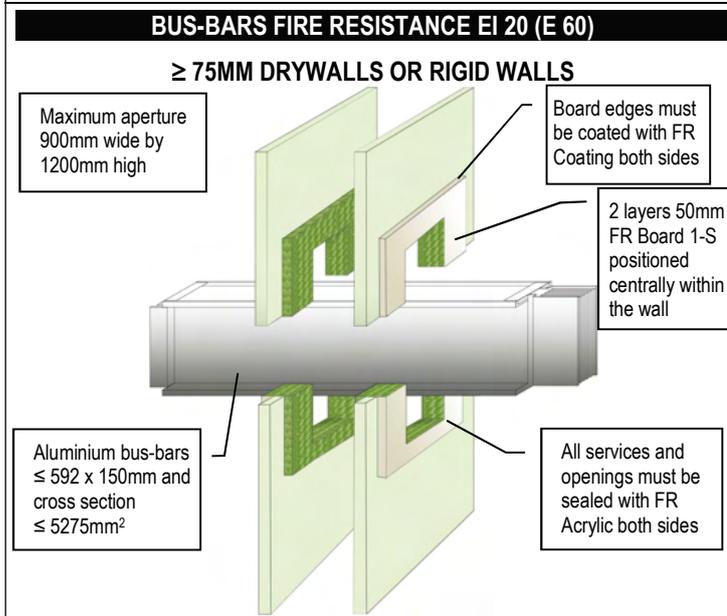
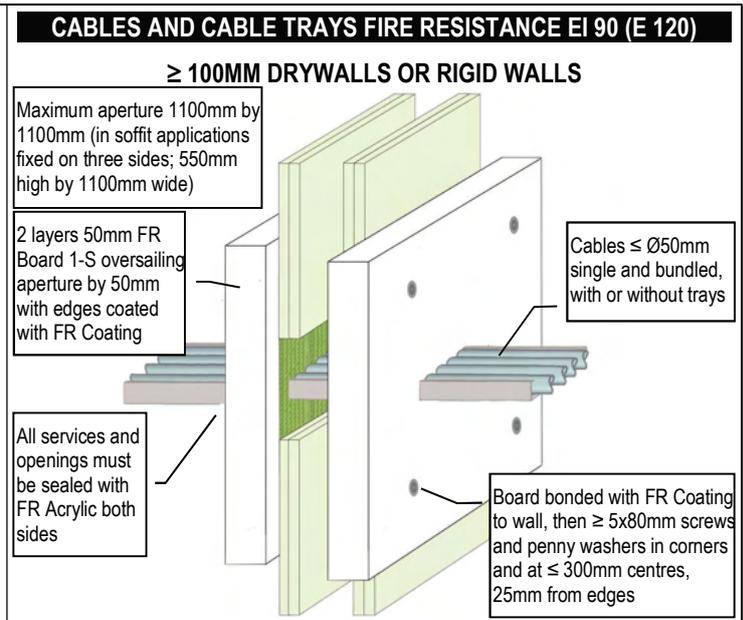
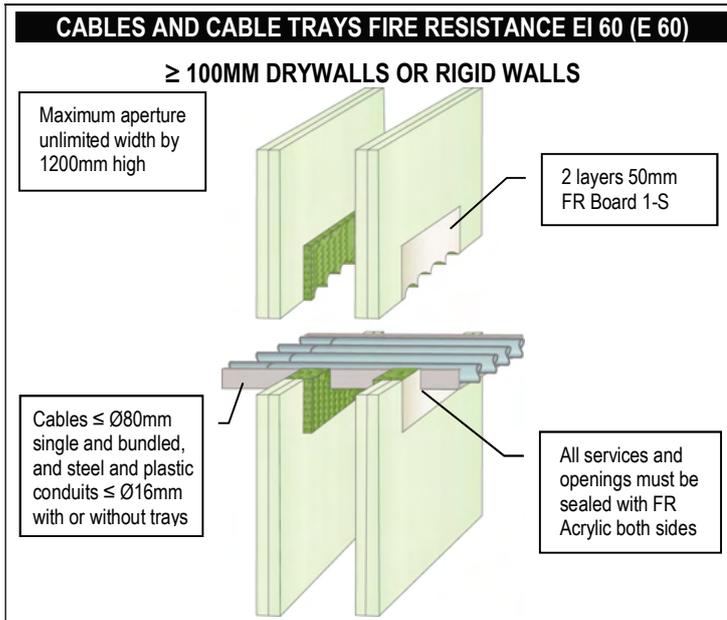
Where PVC pipes are mentioned, this includes PVC-U, PVC-C and similar if the pipe is according to EN 1329-1, EN 1452-2, EN 1453-1 and EN 1566-1. Where PP pipes are mentioned in Annex A, this includes PP-MV, PP-H, PP-R and similar if the pipe is according to EN 1451-1 or DIN 8077/8078. Where PE pipes are mentioned, this includes PE-LD, PE-MD, PE-HD, PE-X and similar according to EN 1519-1, EN 12201-2 or EN 12666-1, ABS according to EN 1455-1 and pipes made from SAN+PVC according to EN 1565-1.

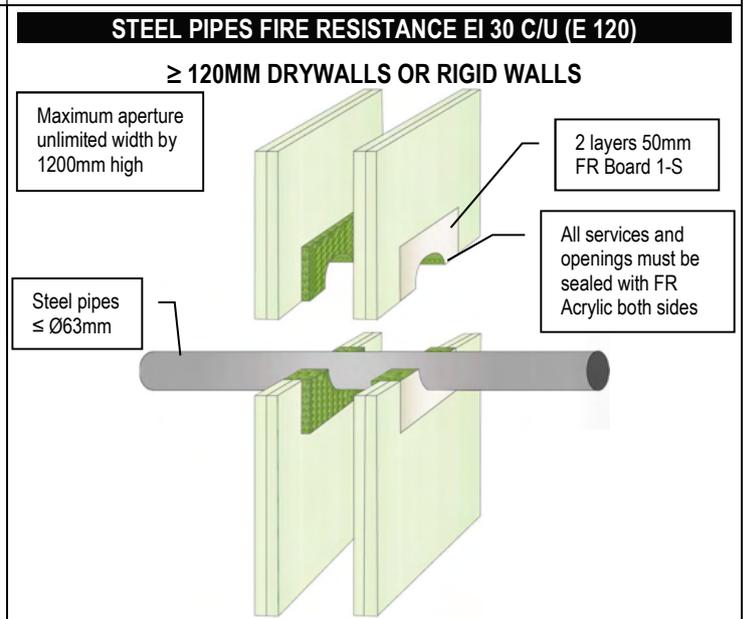
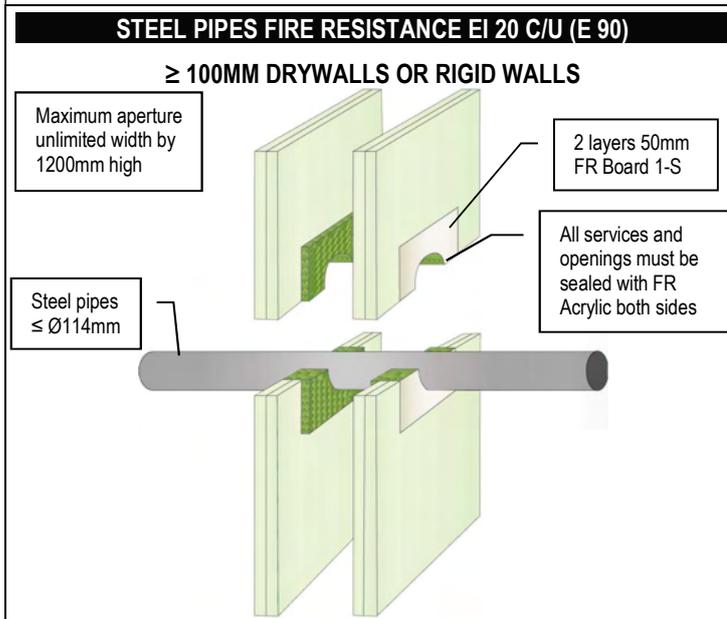
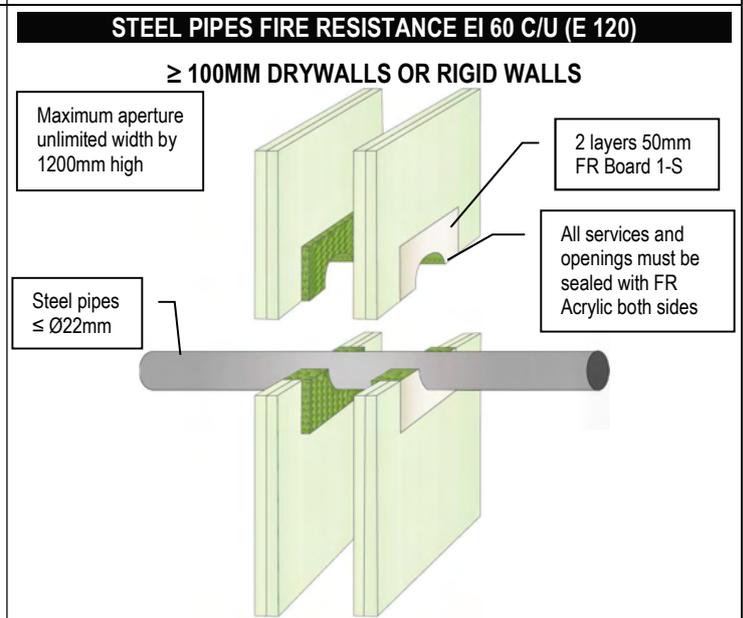
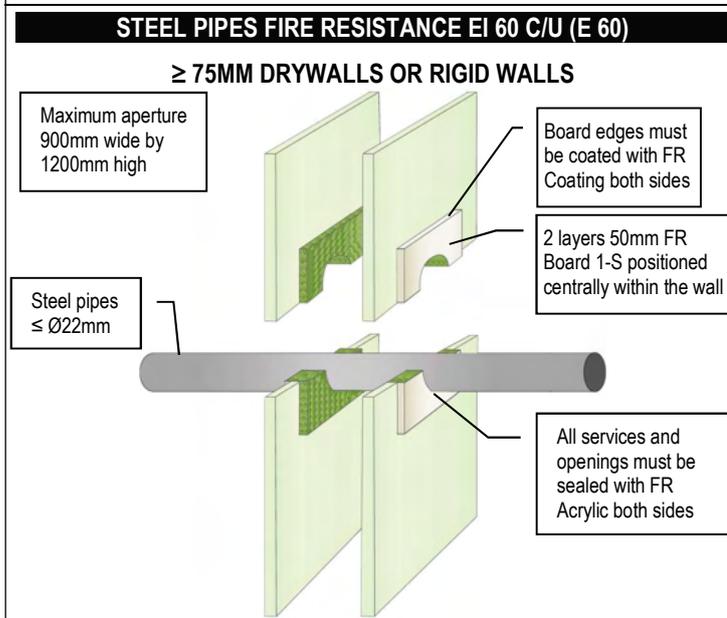
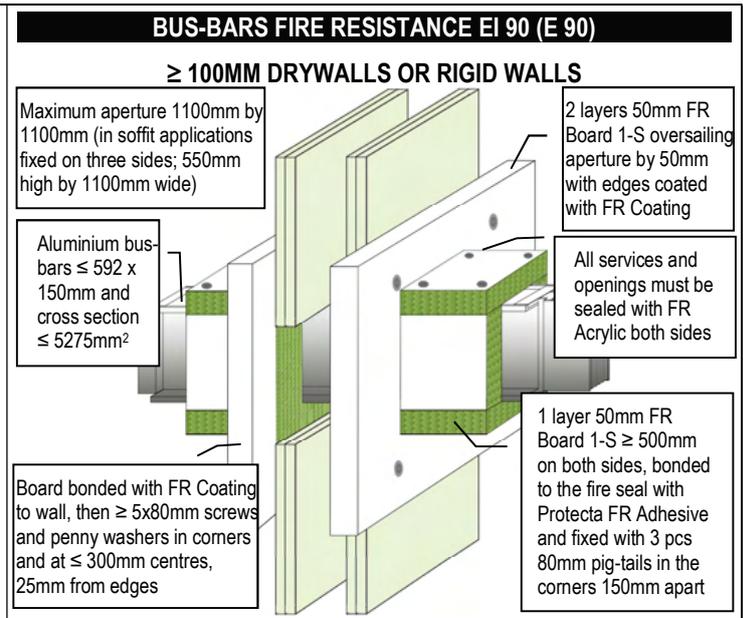
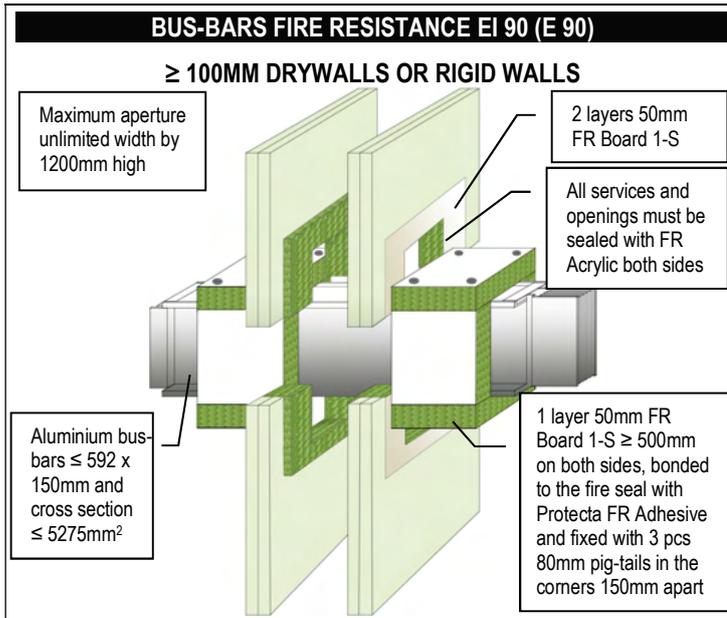


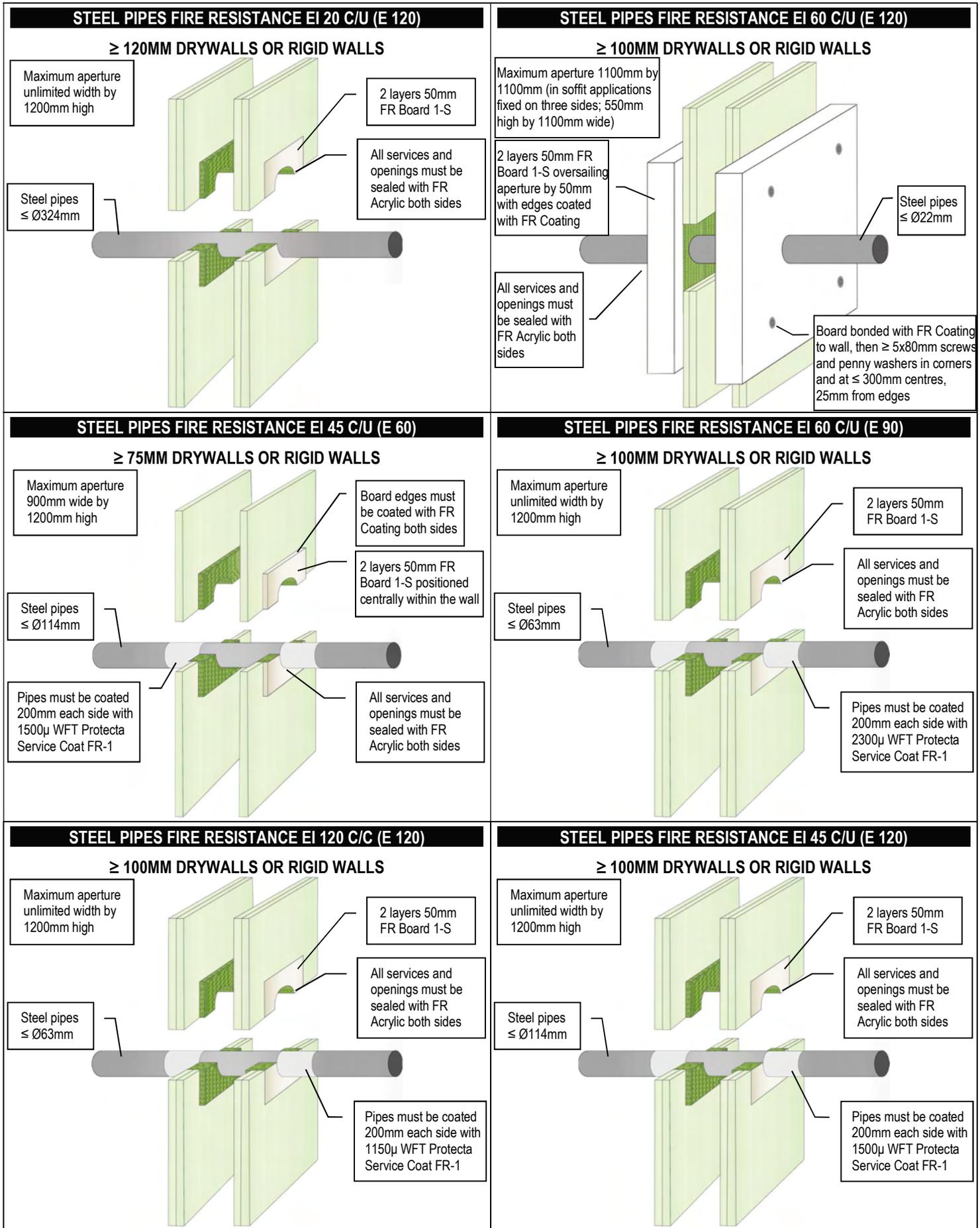
INSTALLATION

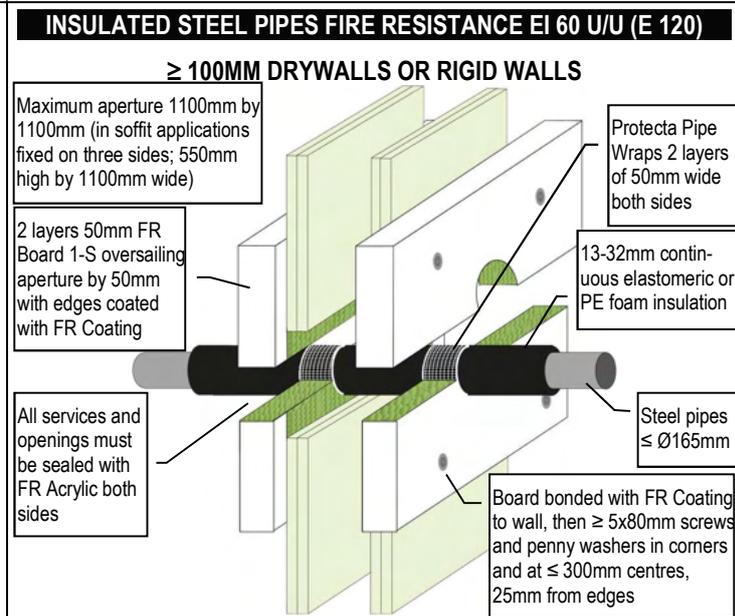
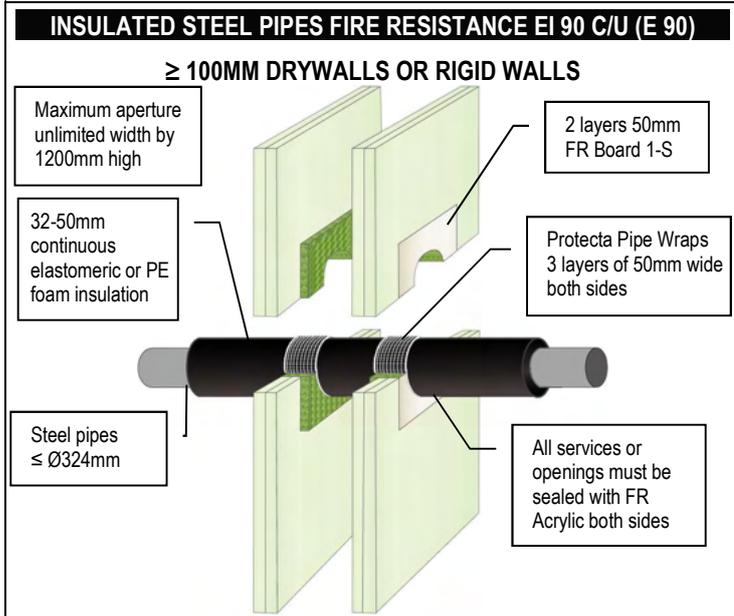
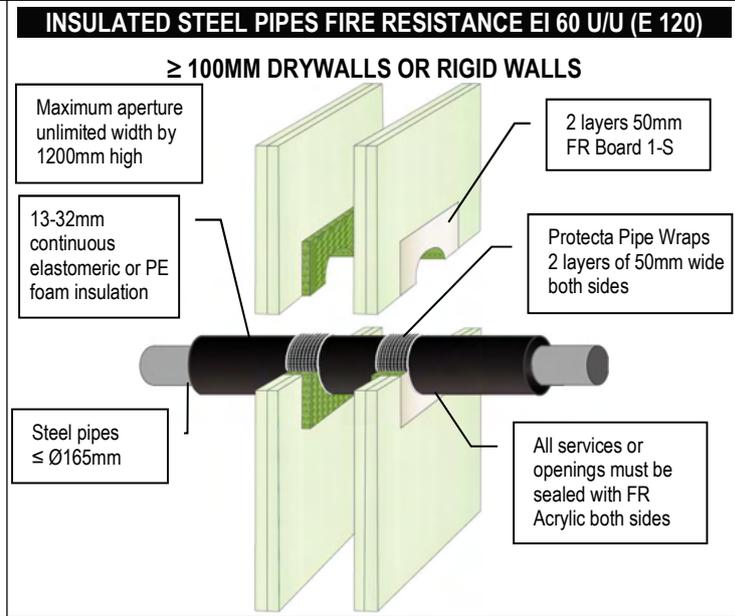
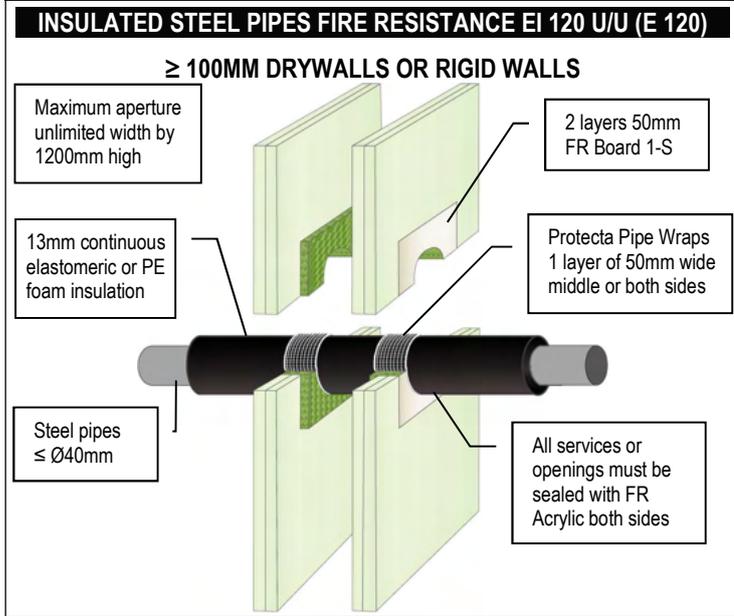
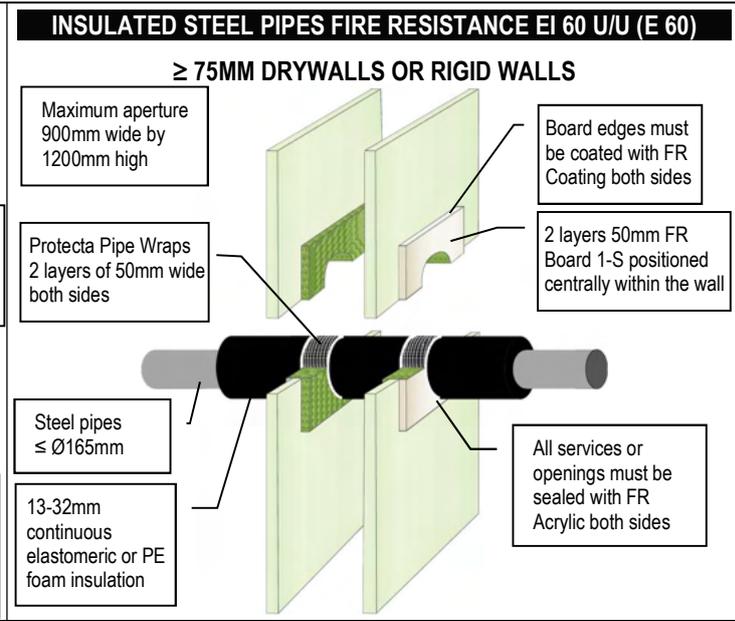
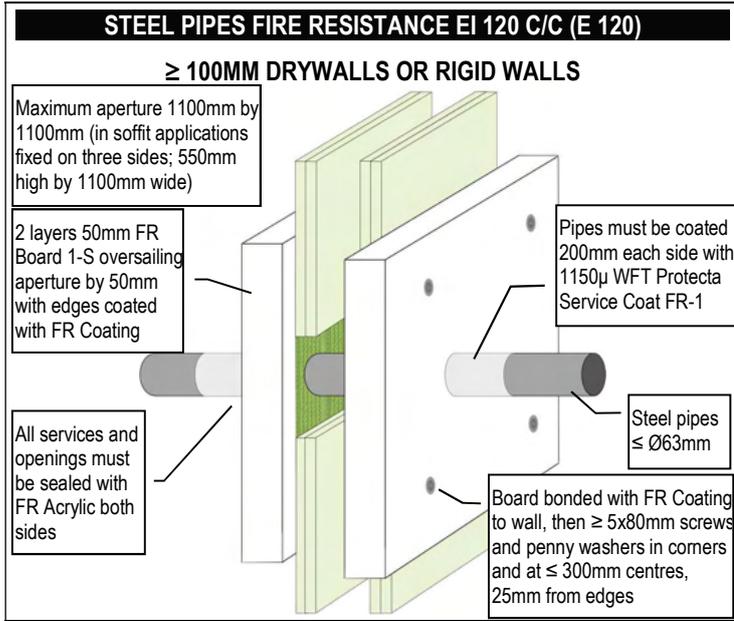
1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating, FR Acrylic, FR Graphite and Service Coat FR-1 are water based, so in cases where corrosion protection is a problem, some metals may require a barrier between the seal and the surface prior to this installation.
3. When fitting double layer boards into drywalls, the coated side of the board should normally be flush with the surface of the wall on both sides. In seals wider than 2,400 mm, uninterrupted separating studs will be required at 2,400 mm centres or less.
4. When fitting double layer 60 mm thick boards into rigid constructions, the boards should normally 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 30 mm between the boards, unless described differently in the detailed drawings.
5. When fitting single layer boards into constructions, the board can be positioned to either side of the construction or anywhere in between, unless described differently in the detailed drawings.
6. When installing boards in hollow floor slabs, fire seals should be installed with double layer boards flush on both sides.
7. Where single sided top face seals are described, these can also be used in composite floors (e.g., concrete filled, steel trapezoidal decking).
8. An aperture with or without penetrating services, can include a steel or plastic sleeve casted or friction fitted within rigid constructions. Plastic sleeves should have a maximum wall thickness of 9.5 mm (36.3 mm limited to EI 60).
9. The boards may be surrounded on two sides, horizontally and vertically, with Protecta® FR Flexi Board, maximum 400 mm wide. The solution is limited to EI 120.
10. Cut the required board(s) to suit the aperture dimensions and type and size of service penetration(s) (see detailed drawings). All exposed and cut edges of the board(s) can be sealed with Protecta® FR Coating or Protecta® FR Acrylic prior to fitting which will act as an adhesive (optional). The board(s) must be friction fitted into the aperture with a tight fit (unless patress fitted). All joints, gaps or imperfections in the installed seal must be filled with Protecta® FR Acrylic on the coated exposed side(s) of the board(s). Visible edges of Protecta® FR Pipe Wraps can be sealed with Protecta® FR Acrylic (optional).
11. Board(s) can be over-painted with most emulsion or alkyd (gloss) paints. For a moisture proof seal protect the cured Protecta® FR Acrylic and FR Graphite seals by painting over with Protecta® FR Coating.

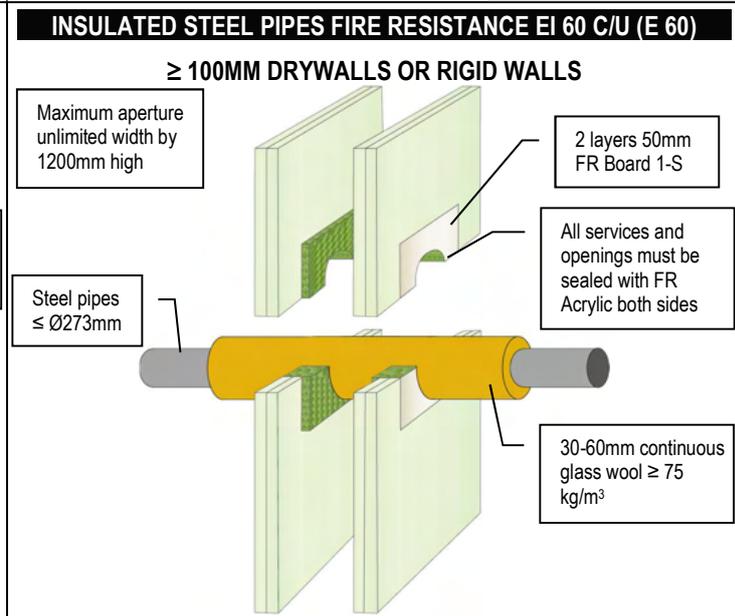
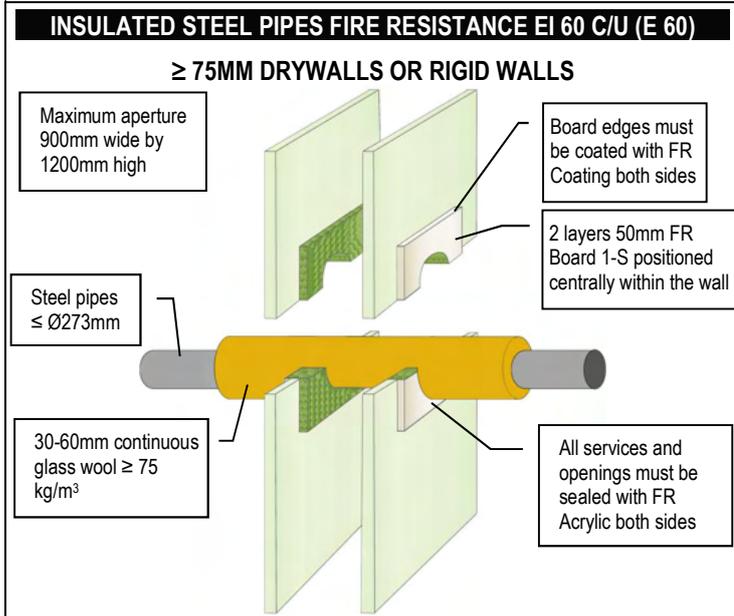
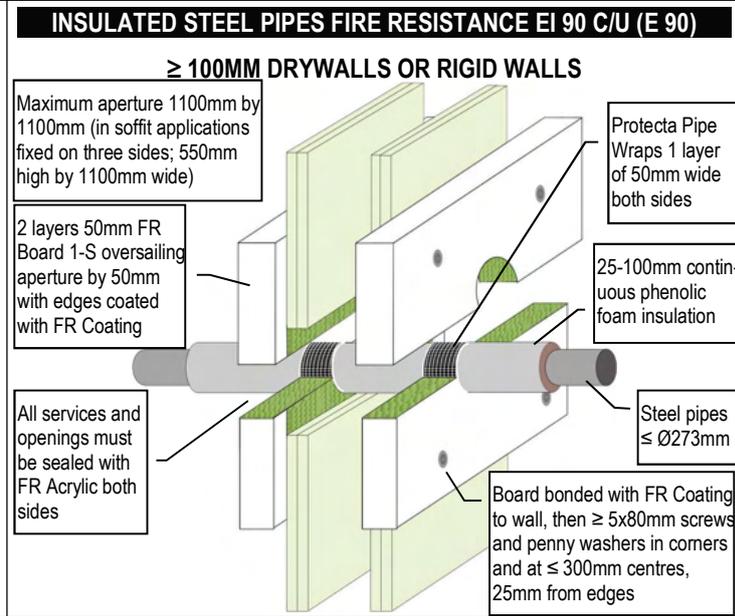
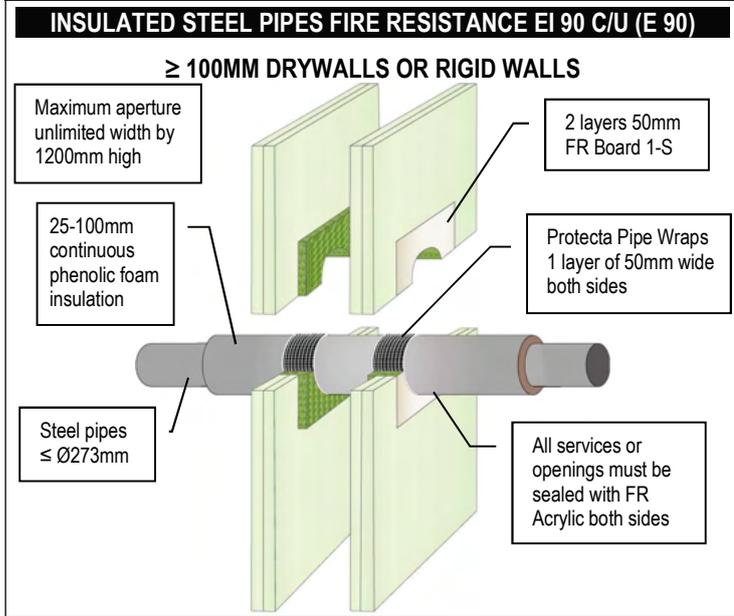
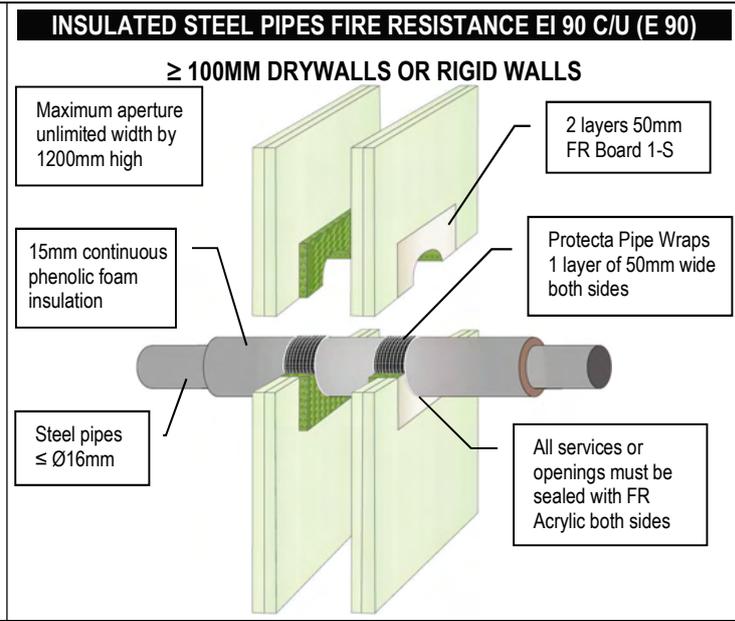
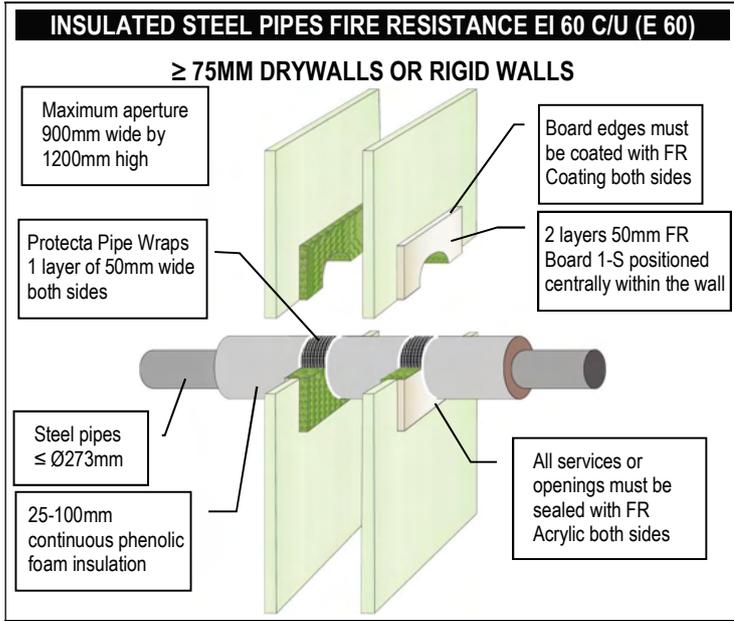


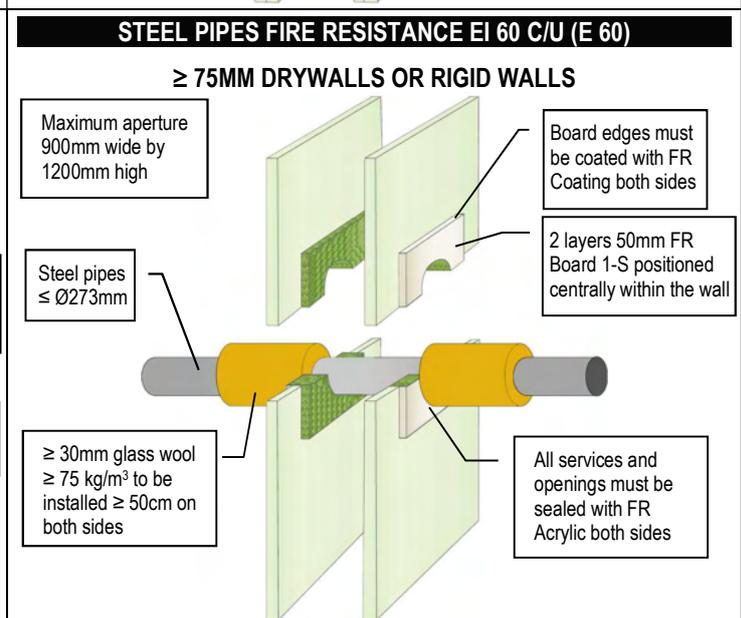
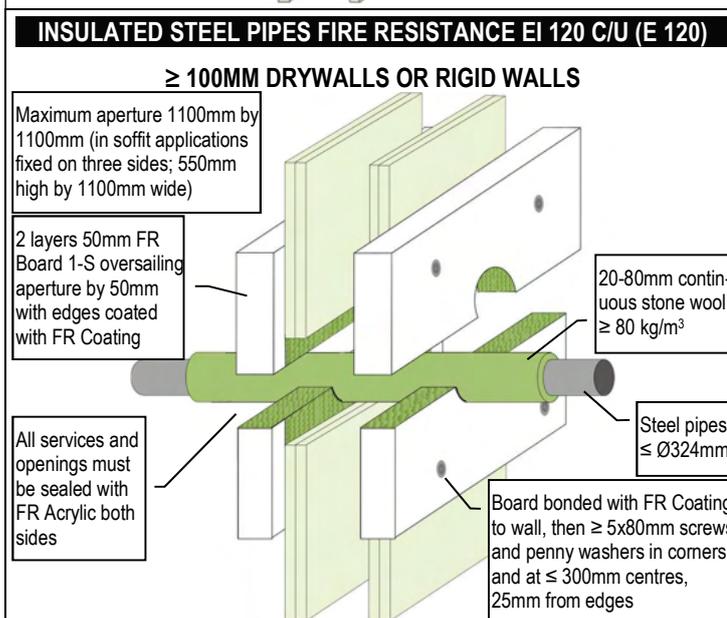
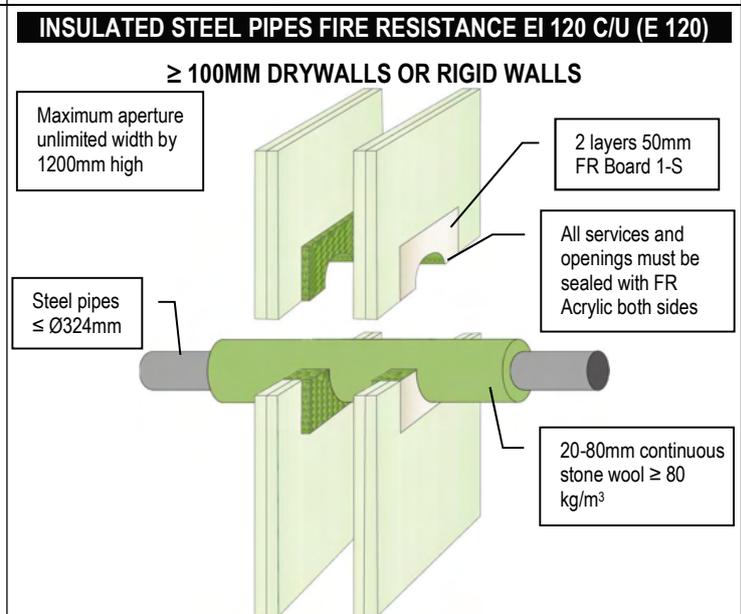
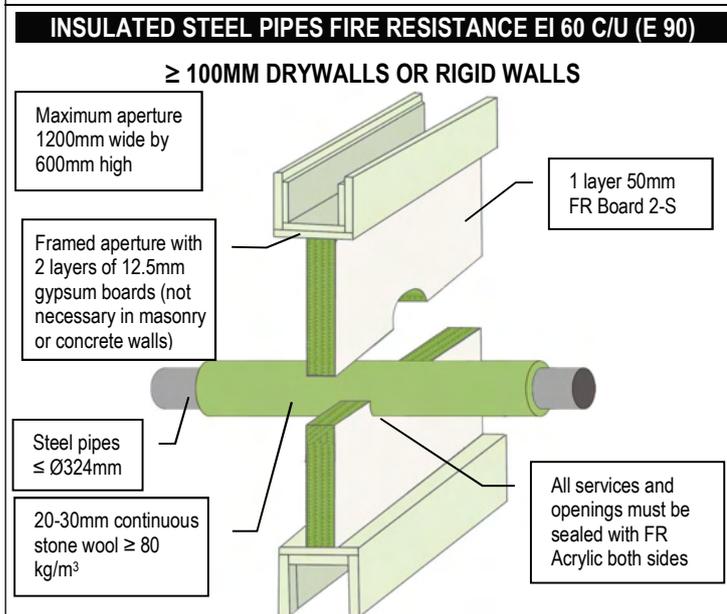
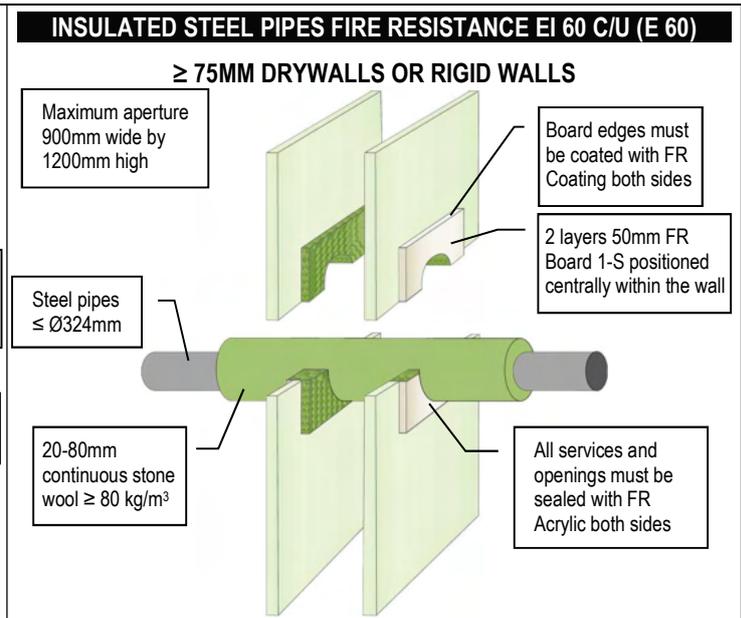
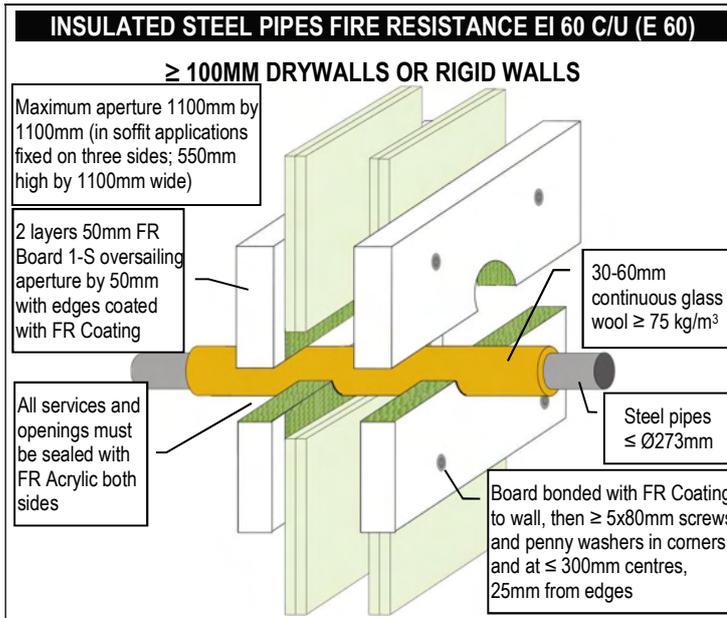




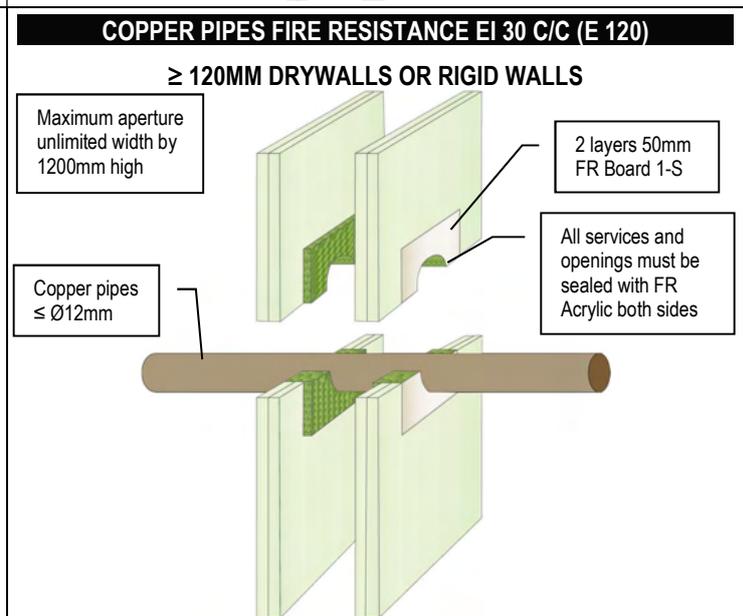
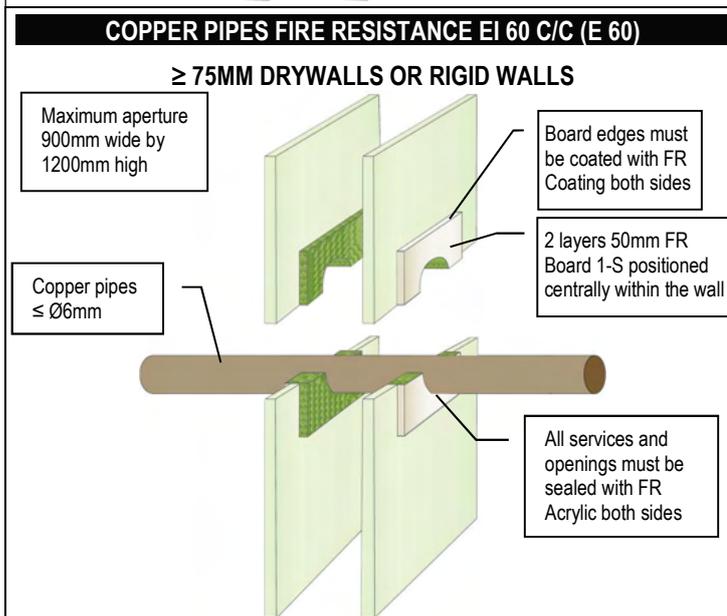
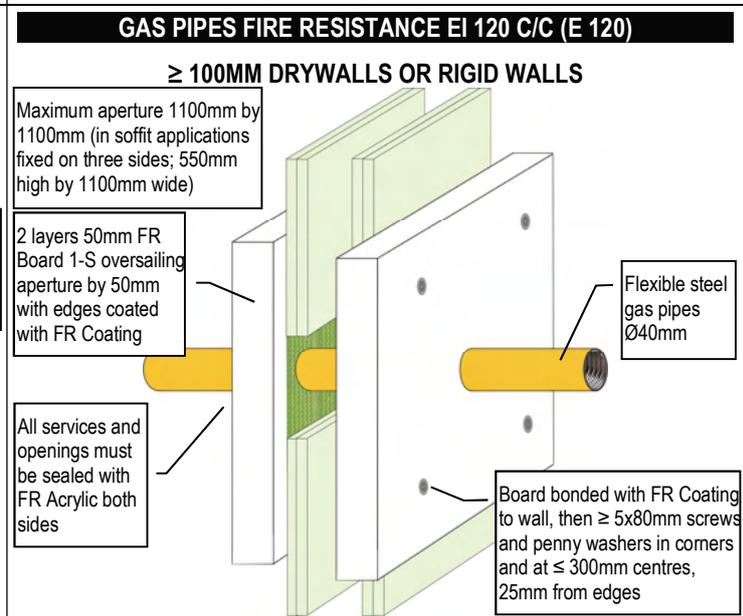
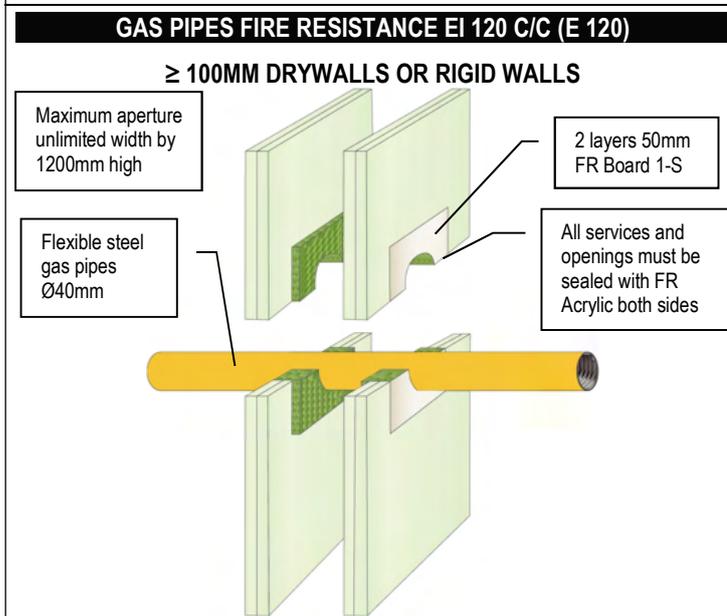
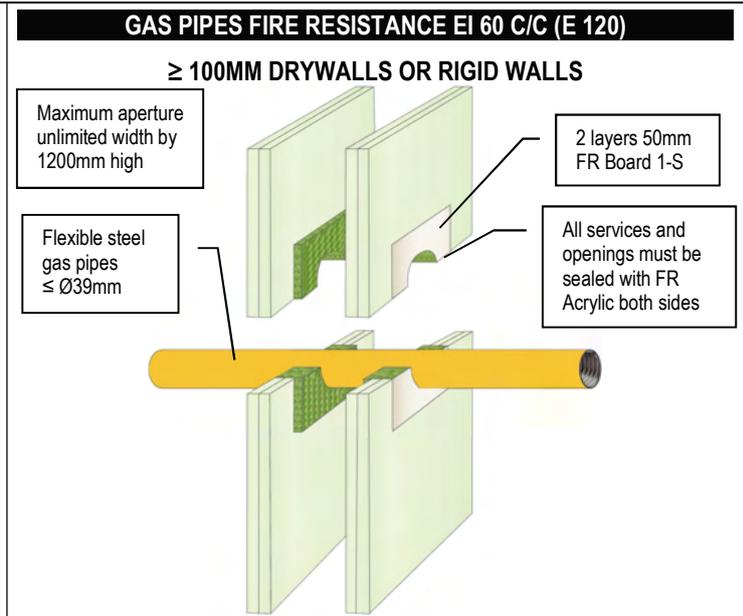
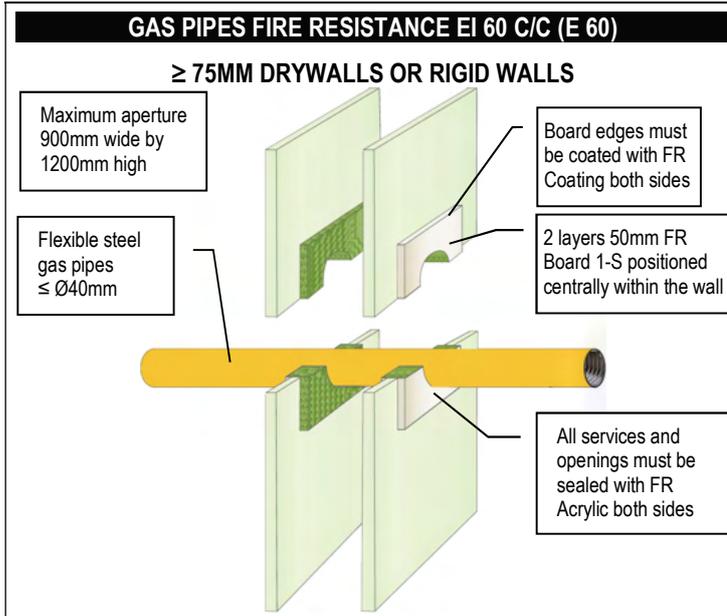


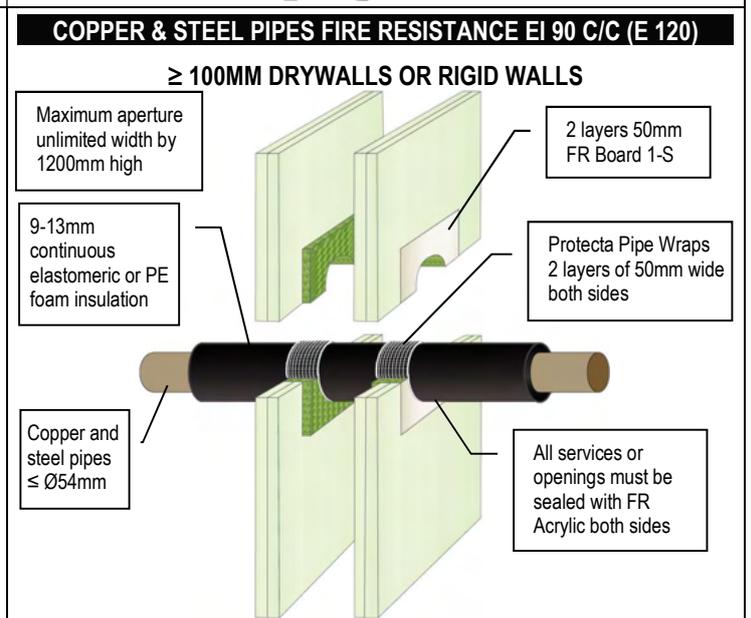
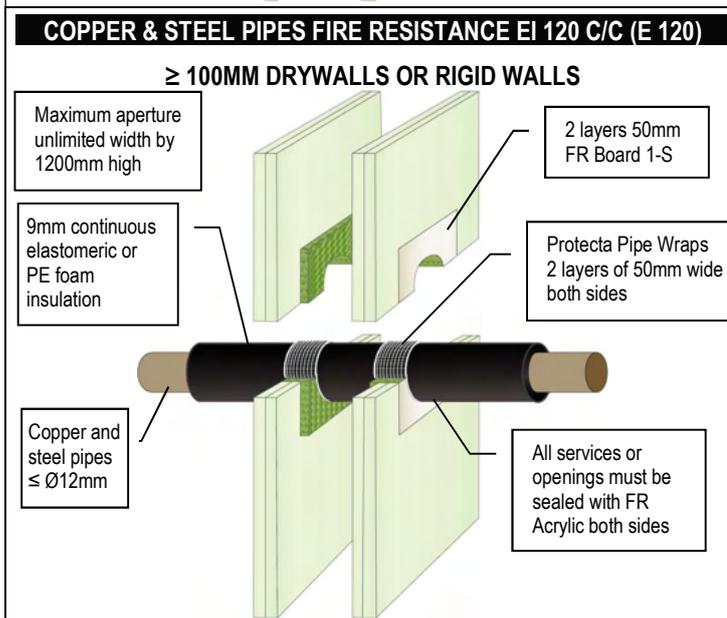
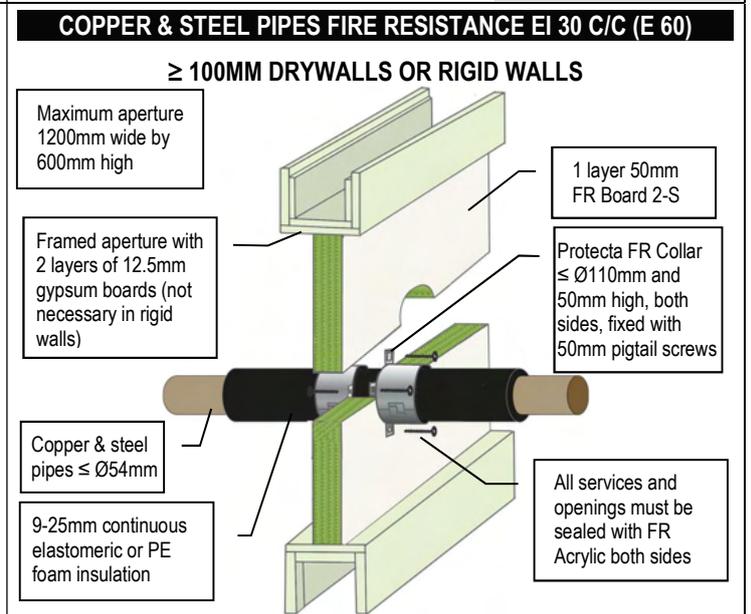
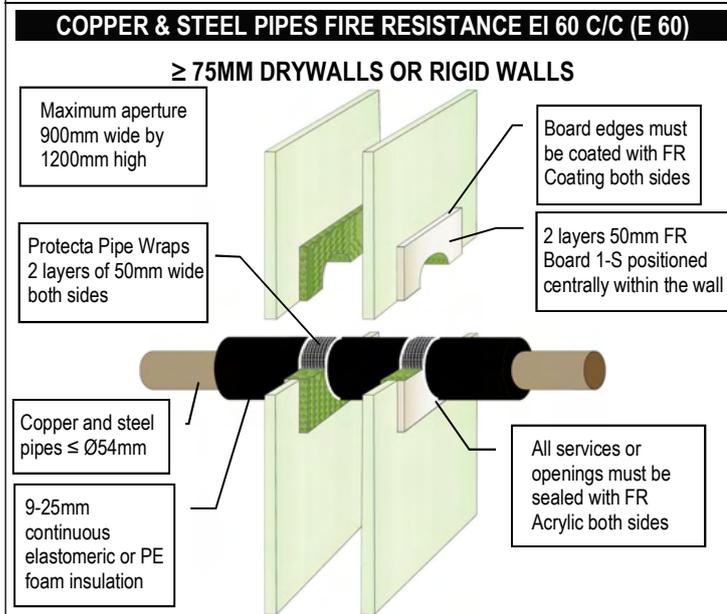
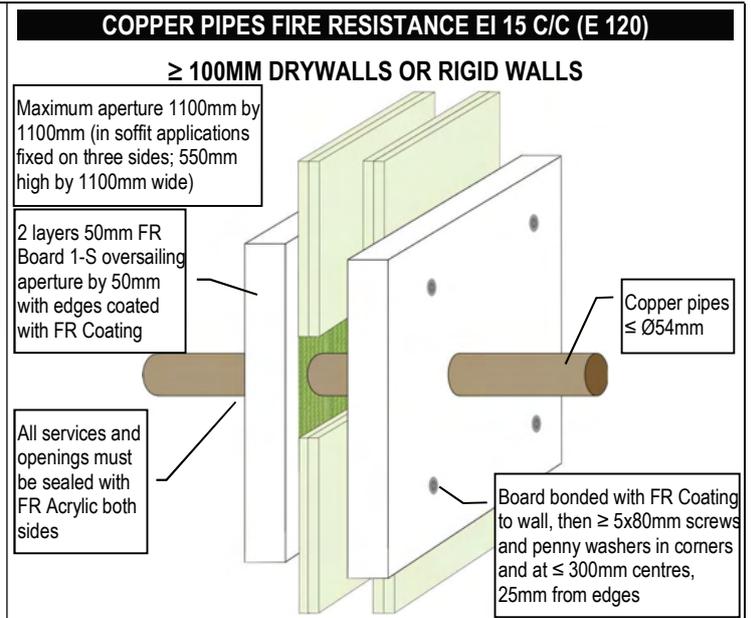
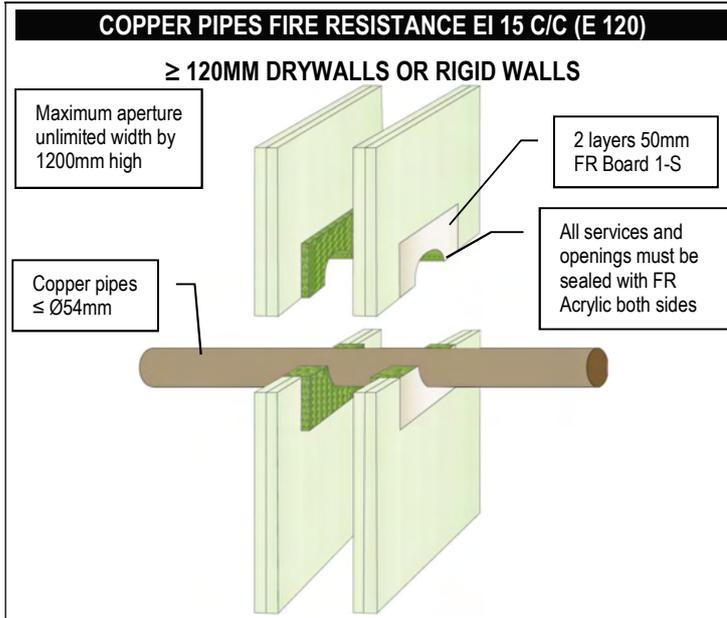


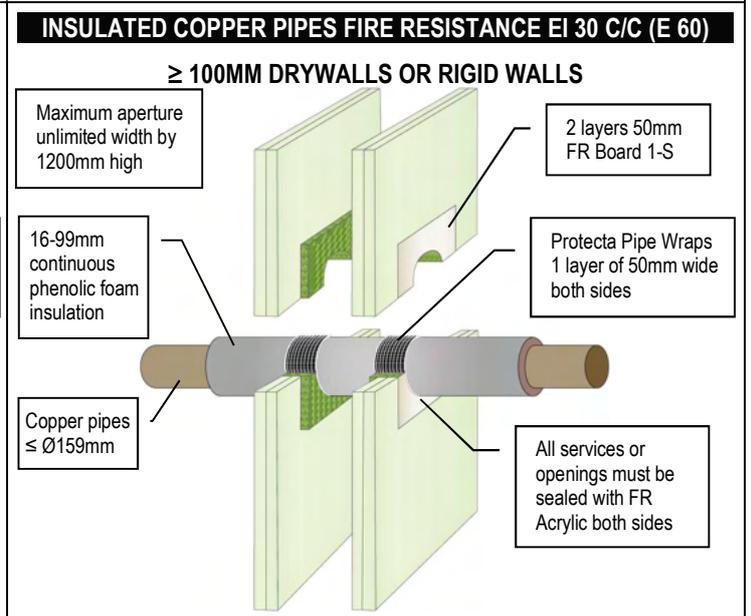
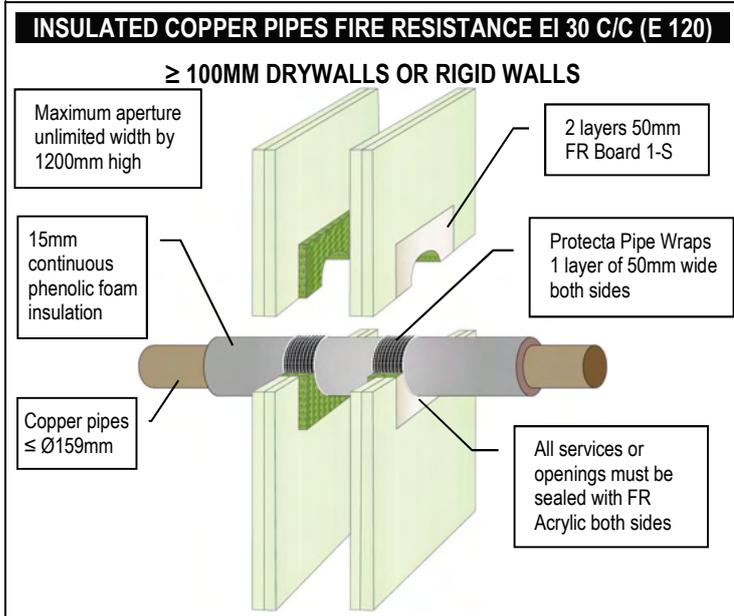
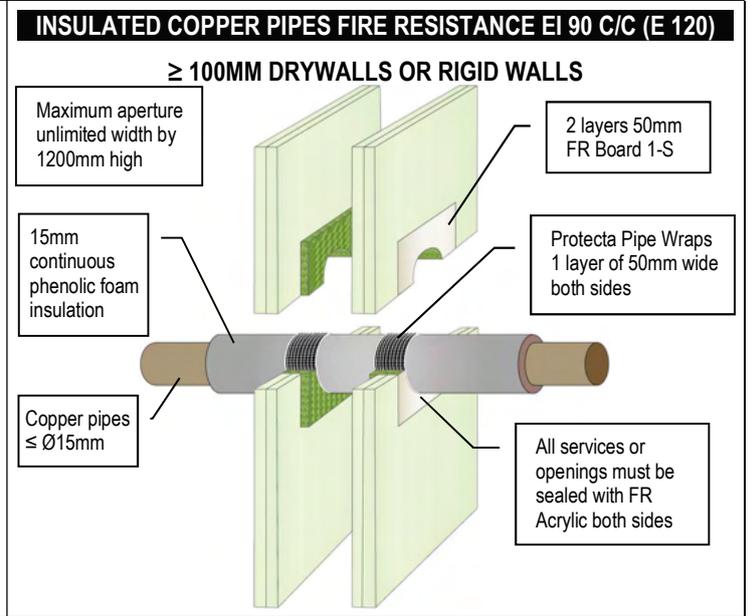
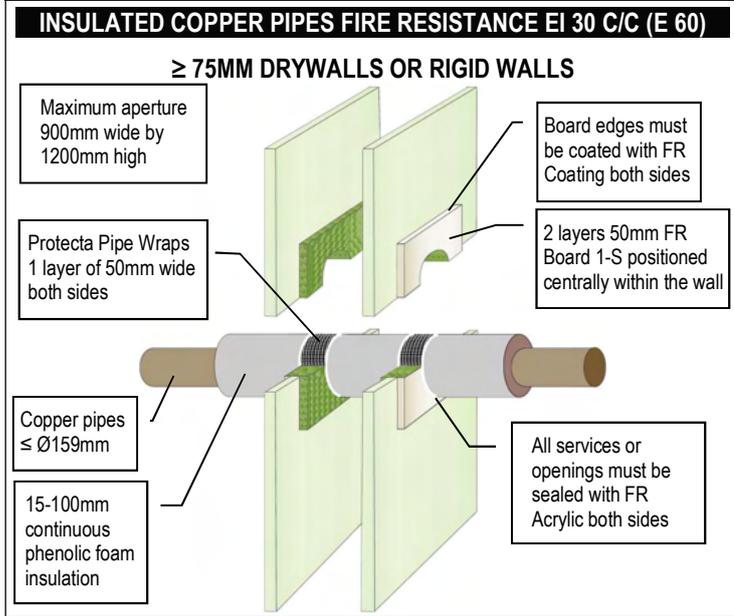
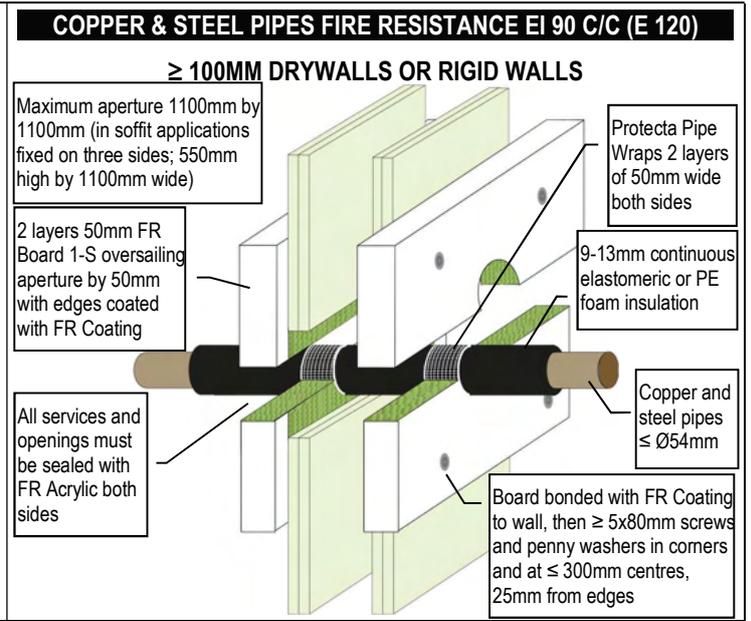
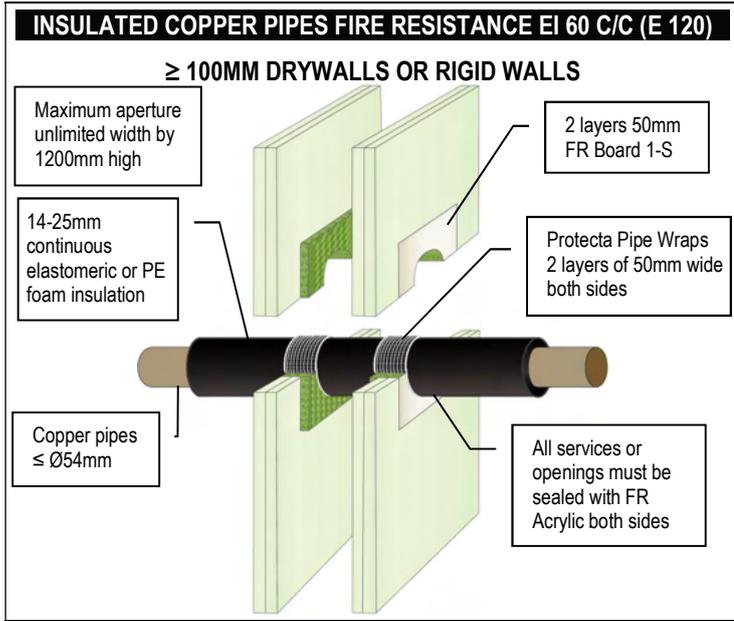


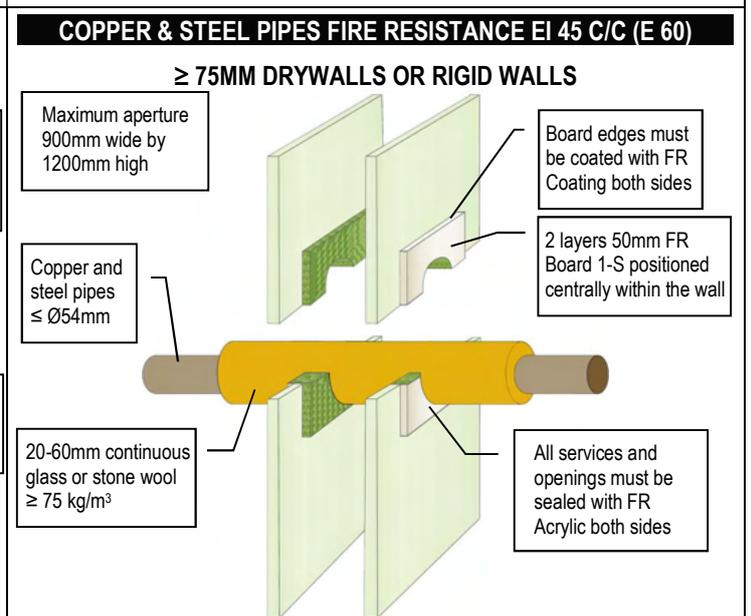
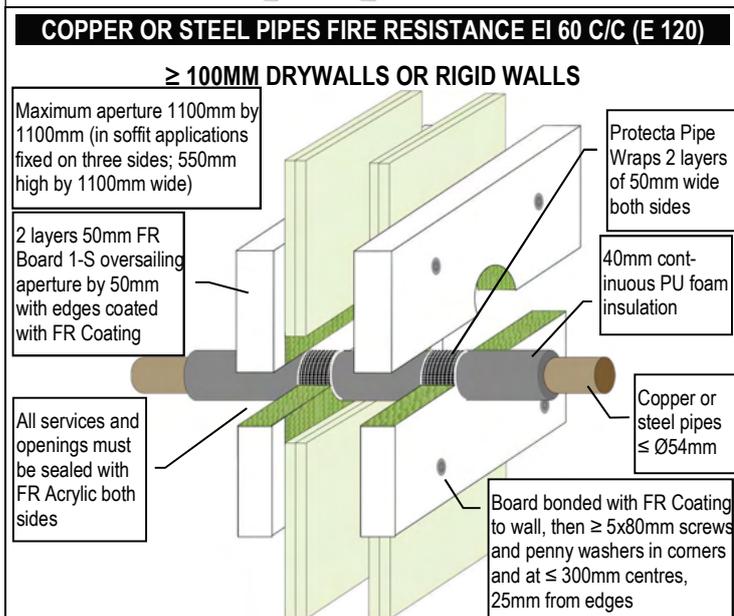
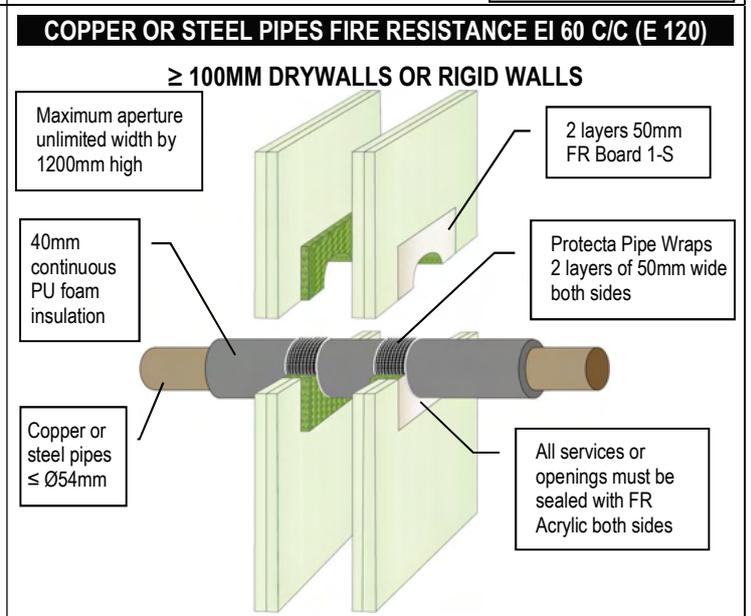
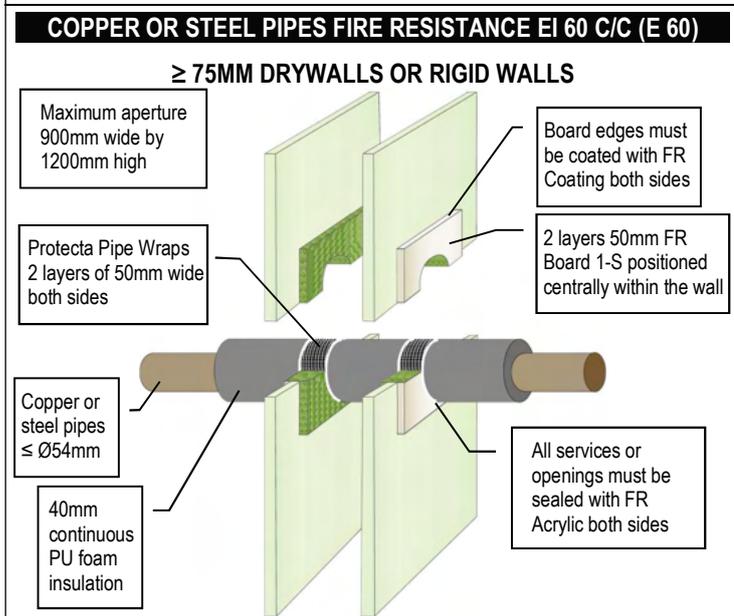
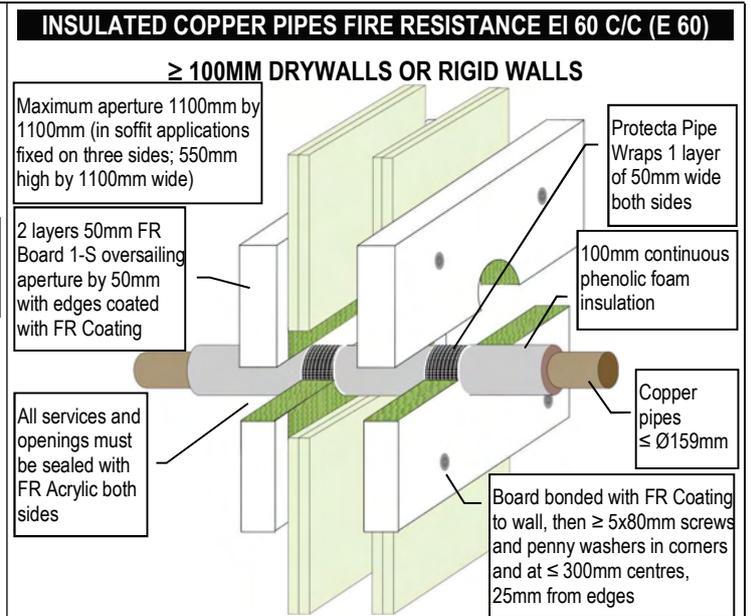
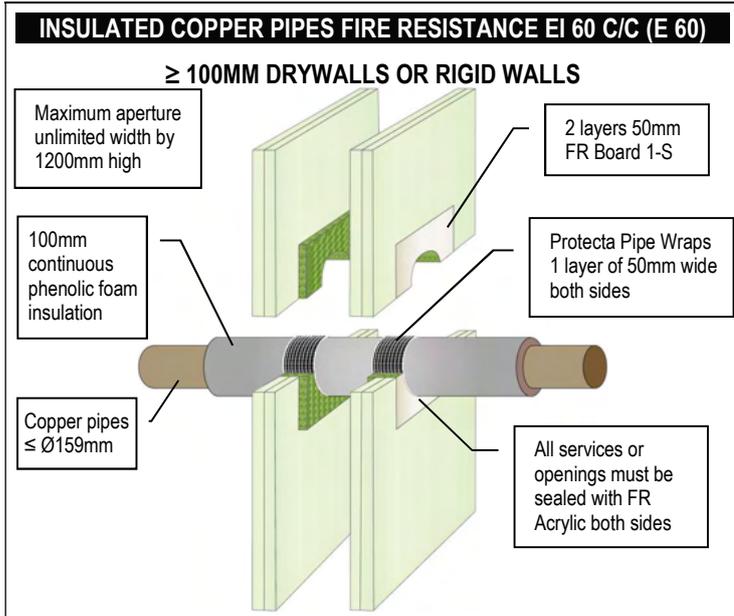


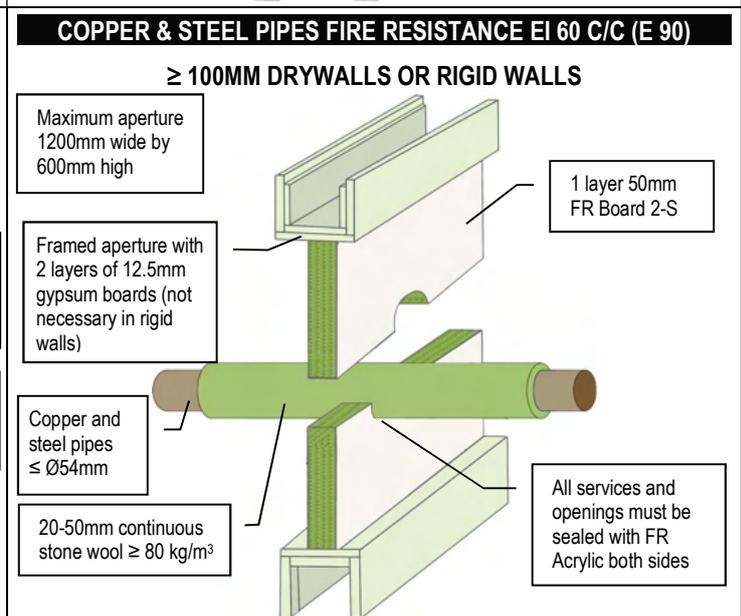
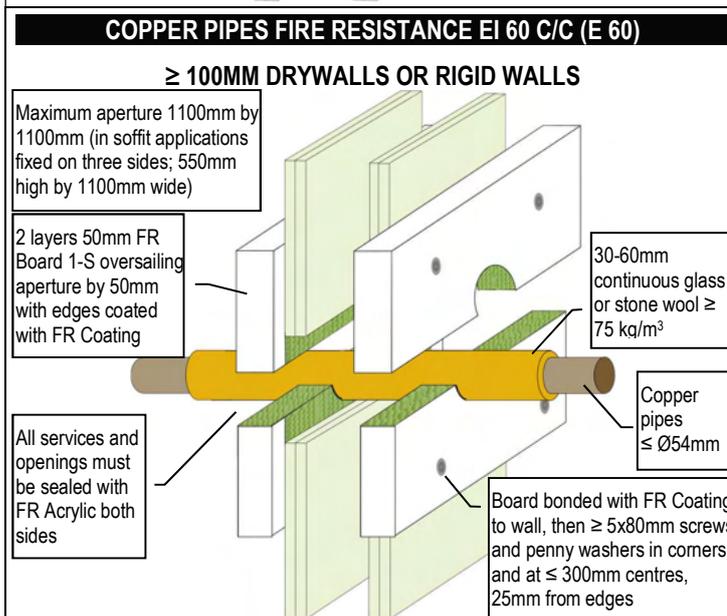
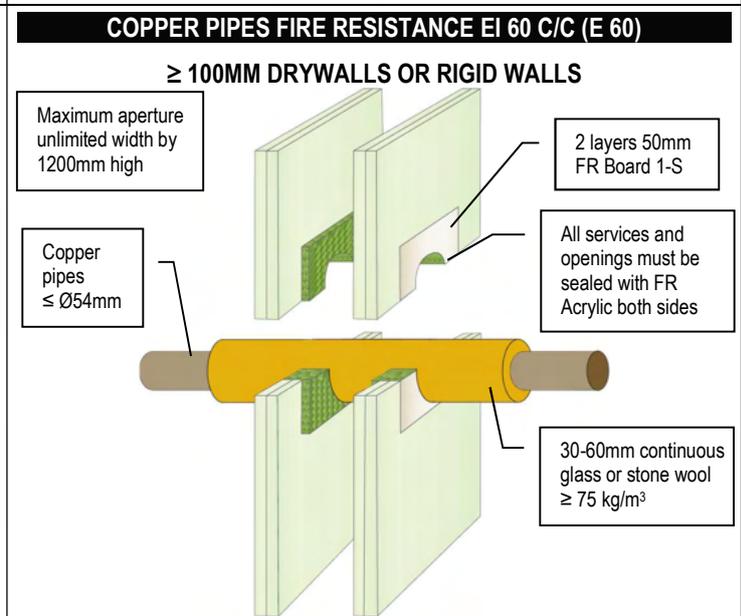
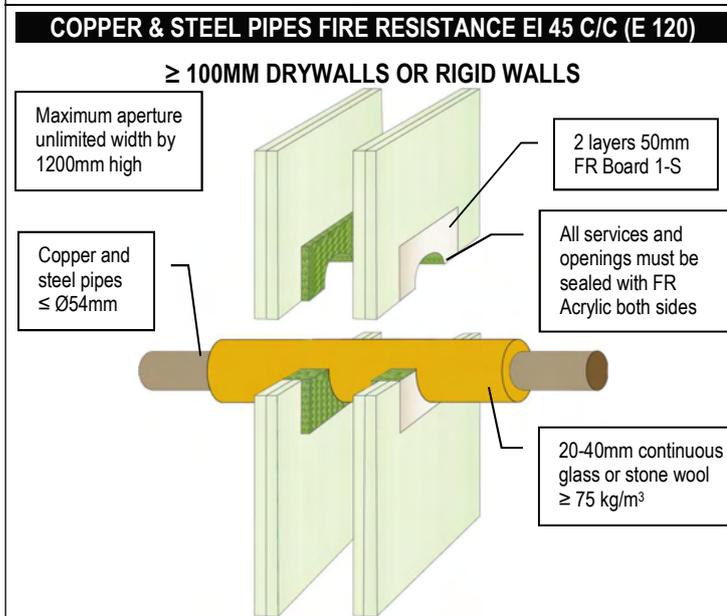
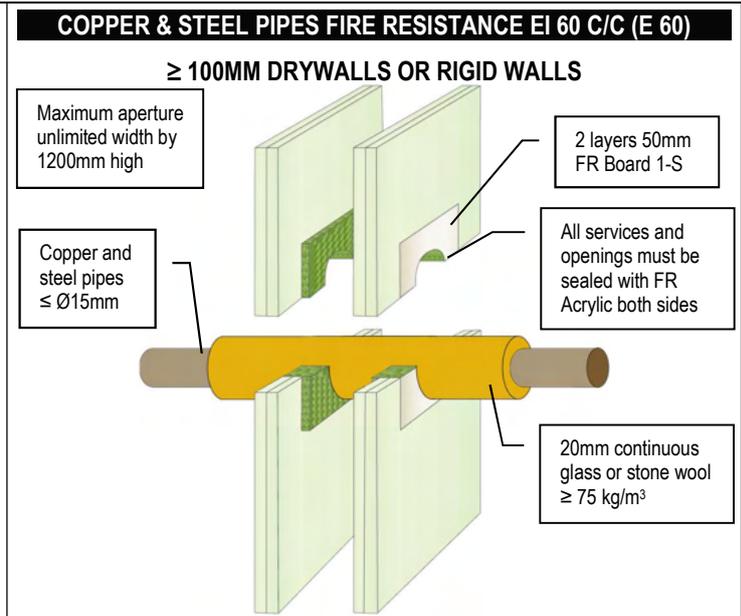
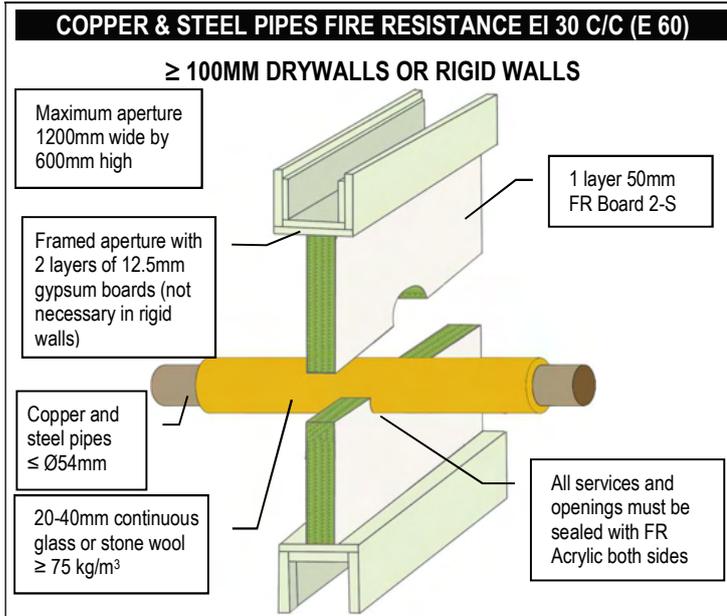
<p>STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 90)</p> <p>≥ 100MM DRYWALLS OR RIGID WALLS</p> <p>Maximum aperture unlimited width by 1200mm high</p> <p>Steel pipes ≤ Ø273mm</p> <p>2 layers 50mm FR Board 1-S</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>≥ 30mm glass wool ≥ 75 kg/m³ to be installed ≥ 50cm on both sides</p>	<p>STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 90)</p> <p>≥ 100MM DRYWALLS OR RIGID WALLS</p> <p>Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)</p> <p>Steel pipes ≤ Ø273mm</p> <p>2 layers 50mm FR Board 1-S oversailing aperture by 50mm with edges coated with FR Coating</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Board bonded with FR Coating to wall, then ≥ 5x80mm screws and penny washers in corners and at ≤ 300mm centres, 25mm from edges</p> <p>≥ 30mm glass wool ≥ 75 kg/m³ to be installed ≥ 50cm on both sides</p>
<p>STEEL PIPES FIRE RESISTANCE EI 60 C/U (E 60)</p> <p>≥ 75MM DRYWALLS OR RIGID WALLS</p> <p>Maximum aperture 900mm wide by 1200mm high</p> <p>Steel pipes ≤ Ø219mm</p> <p>Board edges must be coated with FR Coating both sides</p> <p>2 layers 50mm FR Board 1-S positioned centrally within the wall</p> <p>≥ 30mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides</p> <p>All services and openings must be sealed with FR Acrylic both sides</p>	<p>STEEL PIPES FIRE RESISTANCE EI 120 C/U (E 120)</p> <p>≥ 100MM DRYWALLS OR RIGID WALLS</p> <p>Maximum aperture unlimited width by 1200mm high</p> <p>Steel pipes ≤ Ø40mm</p> <p>2 layers 50mm FR Board 1-S</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>≥ 20mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides</p>
<p>STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)</p> <p>≥ 100MM DRYWALLS OR RIGID WALLS</p> <p>Maximum aperture unlimited width by 1200mm high</p> <p>Steel pipes ≤ Ø219mm</p> <p>2 layers 50mm FR Board 1-S</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>≥ 30mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides</p>	<p>STEEL PIPES FIRE RESISTANCE EI 90 C/U (E 120)</p> <p>≥ 100MM DRYWALLS OR RIGID WALLS</p> <p>Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)</p> <p>Steel pipes ≤ Ø219mm</p> <p>2 layers 50mm FR Board 1-S oversailing aperture by 50mm with edges coated with FR Coating</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Board bonded with FR Coating to wall, then ≥ 5x80mm screws and penny washers in corners and at ≤ 300mm centres, 25mm from edges</p> <p>≥ 30mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides</p>

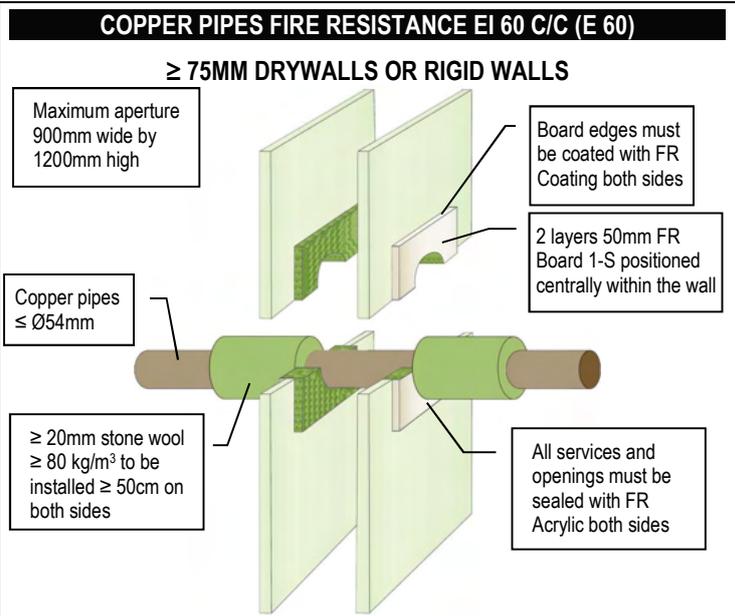
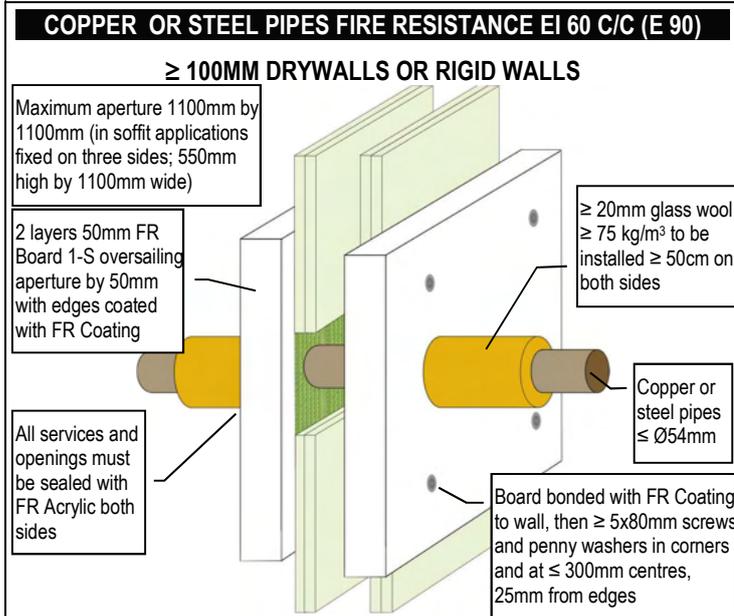
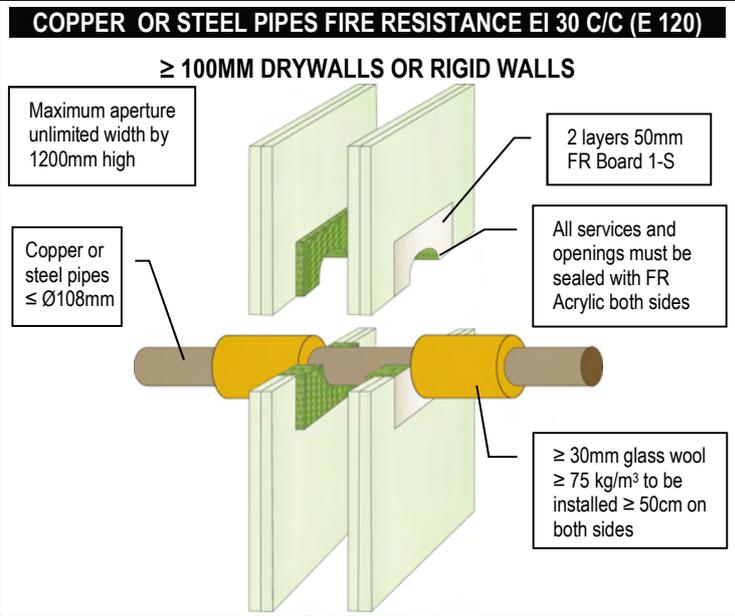
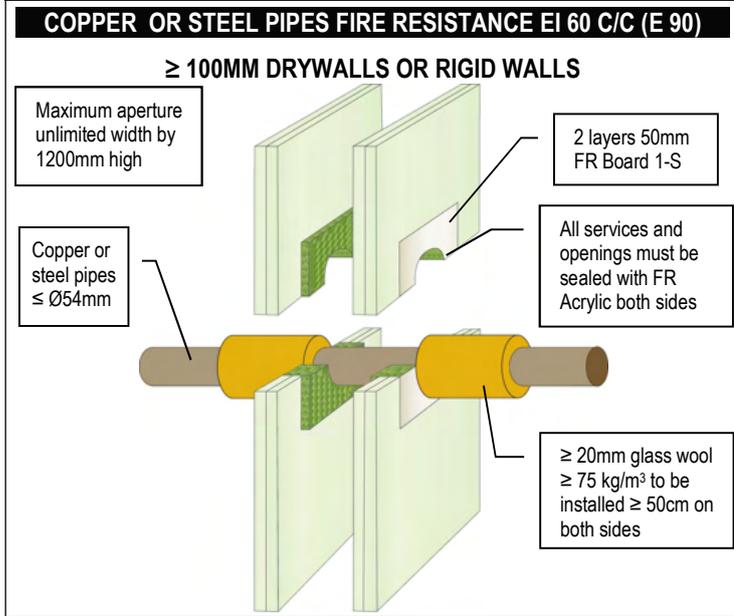
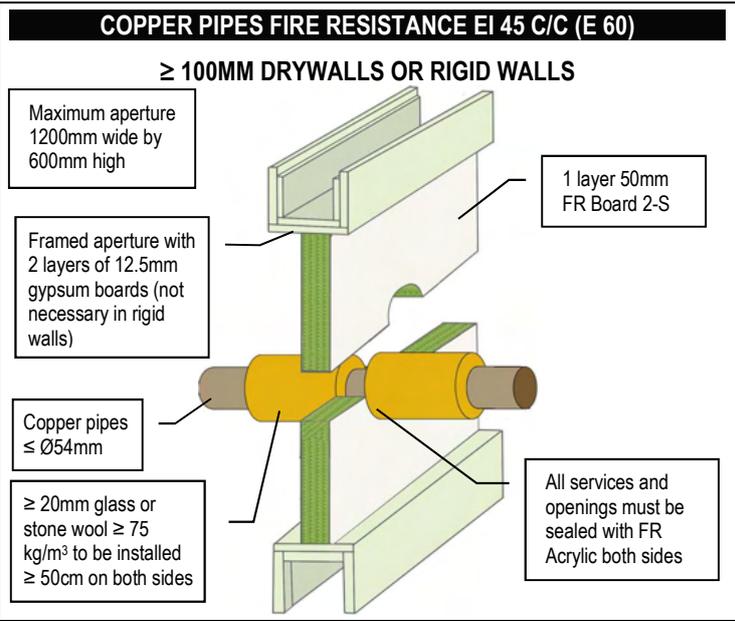
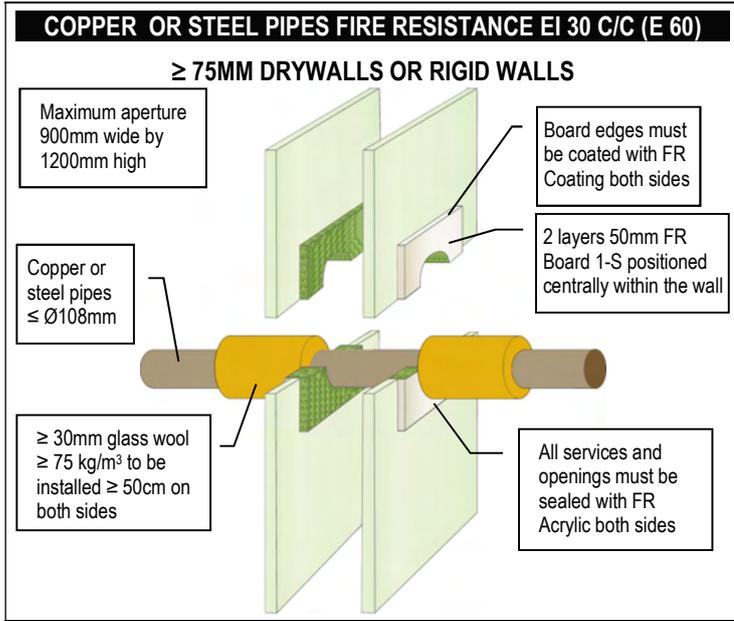


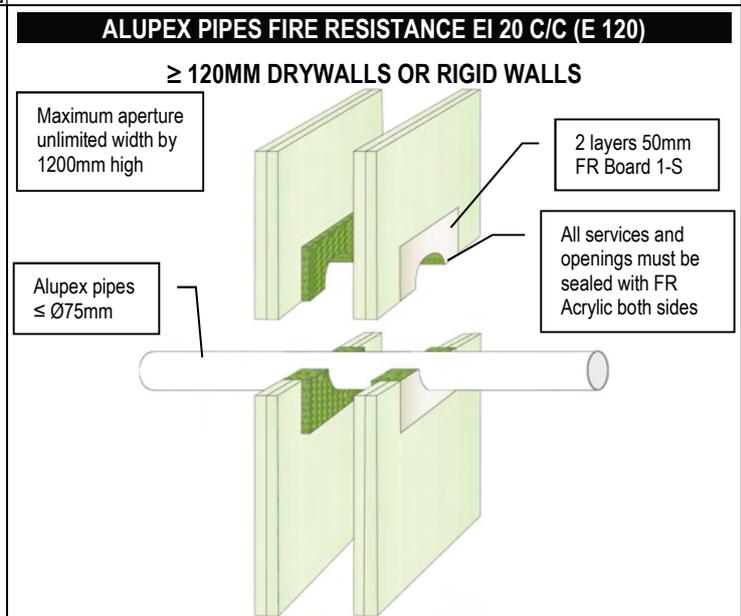
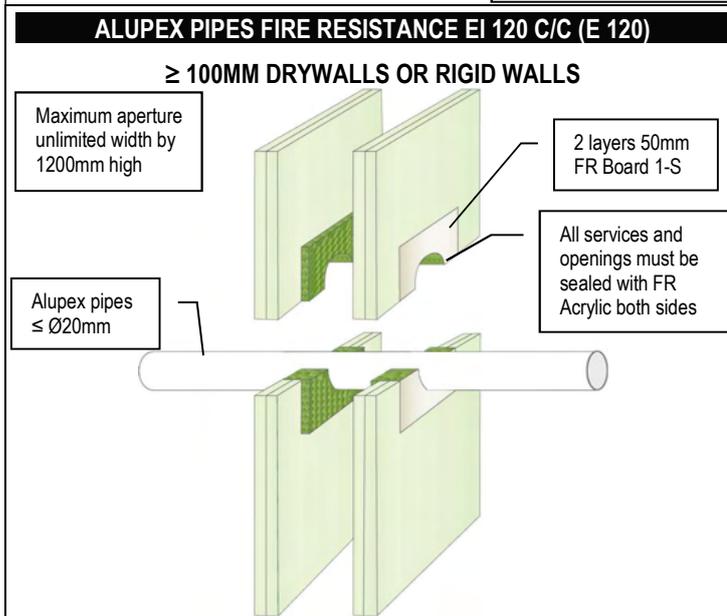
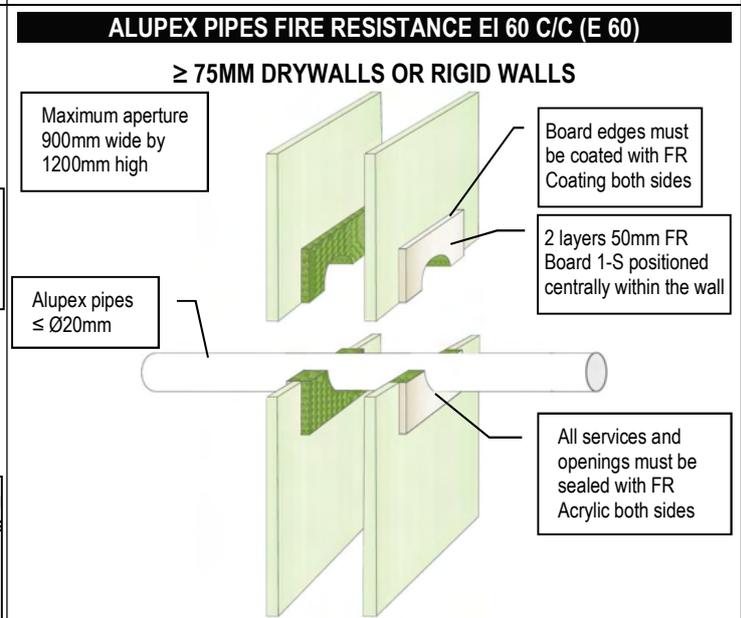
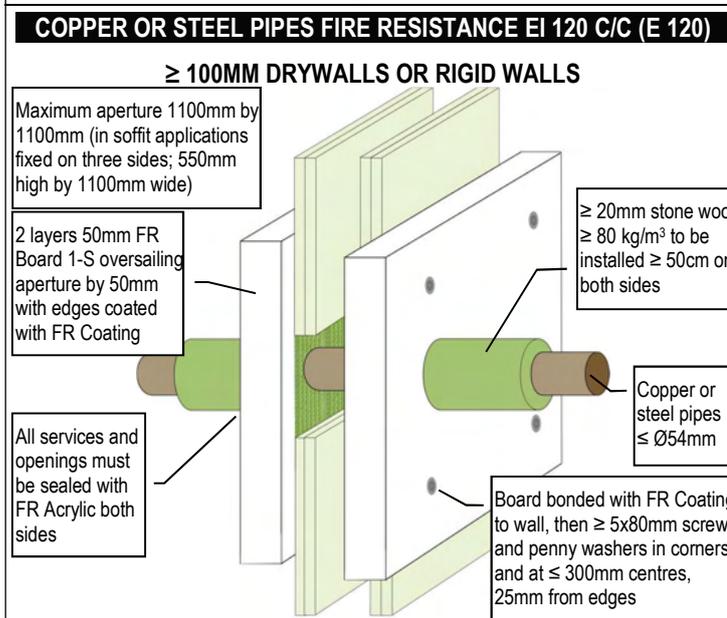
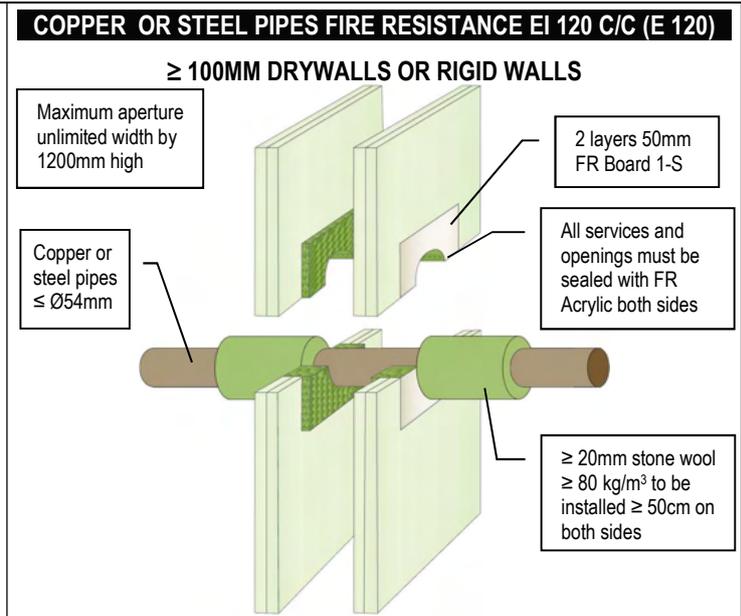
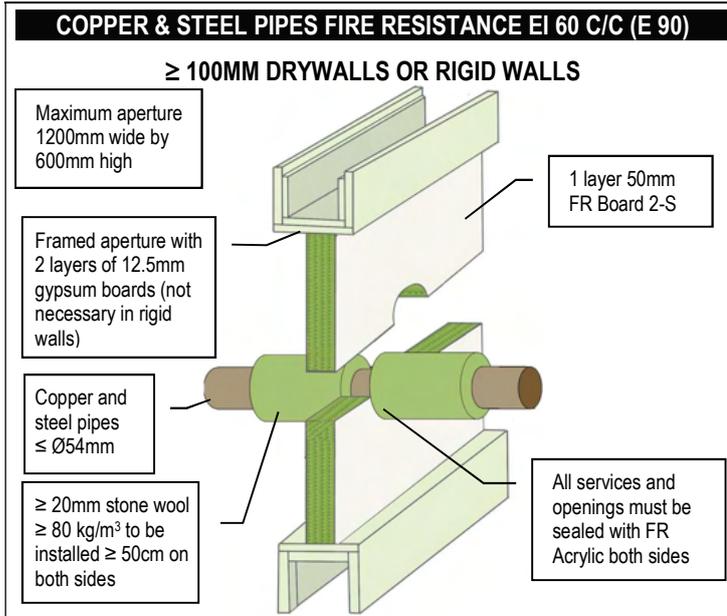


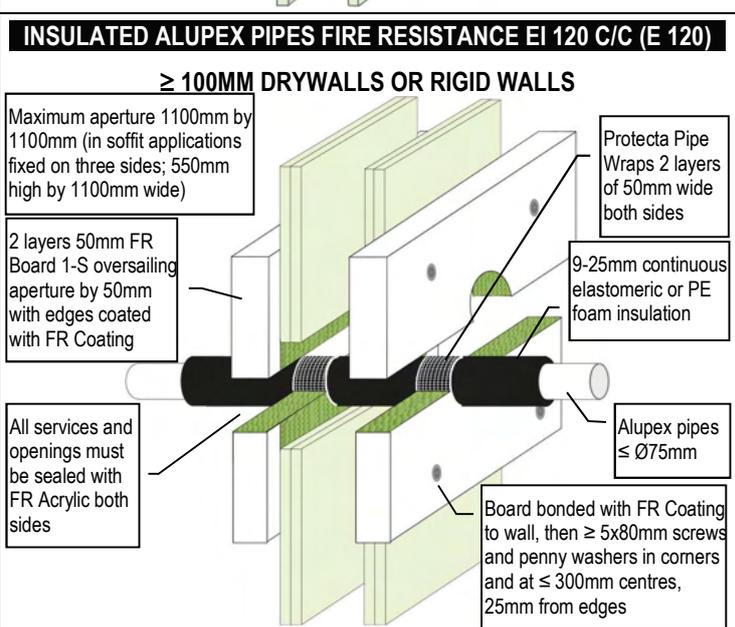
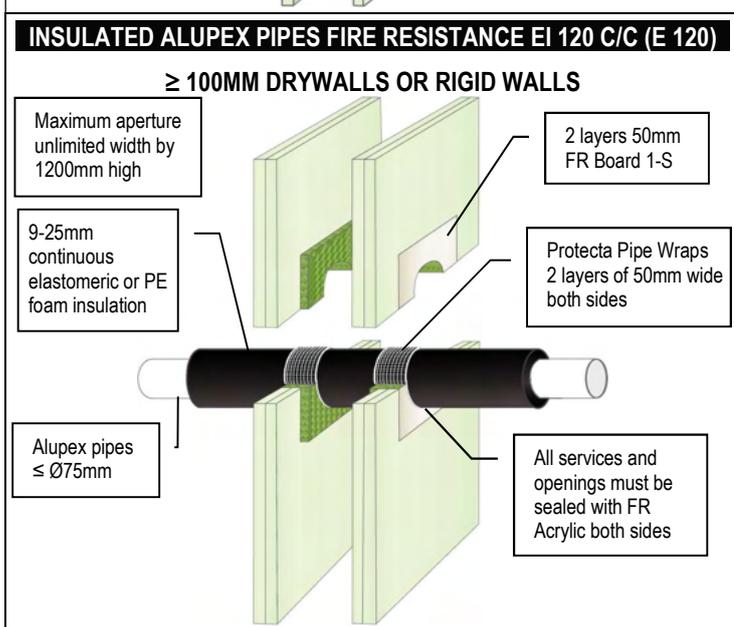
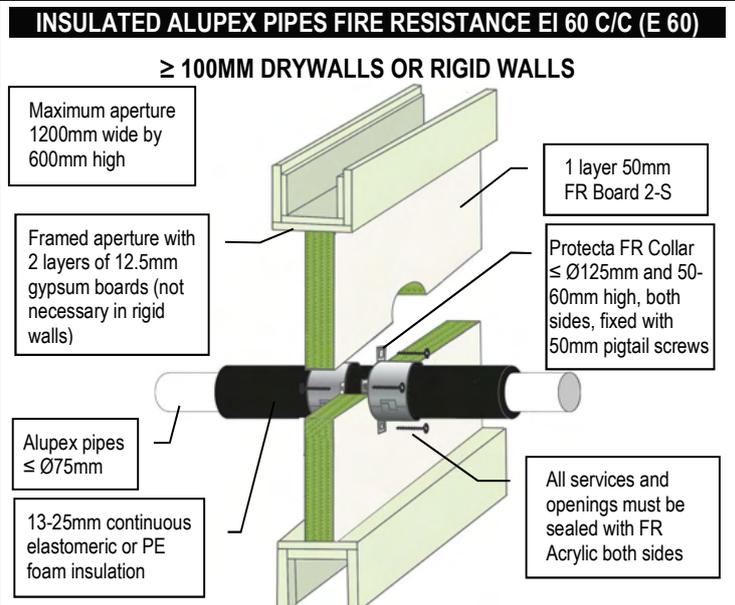
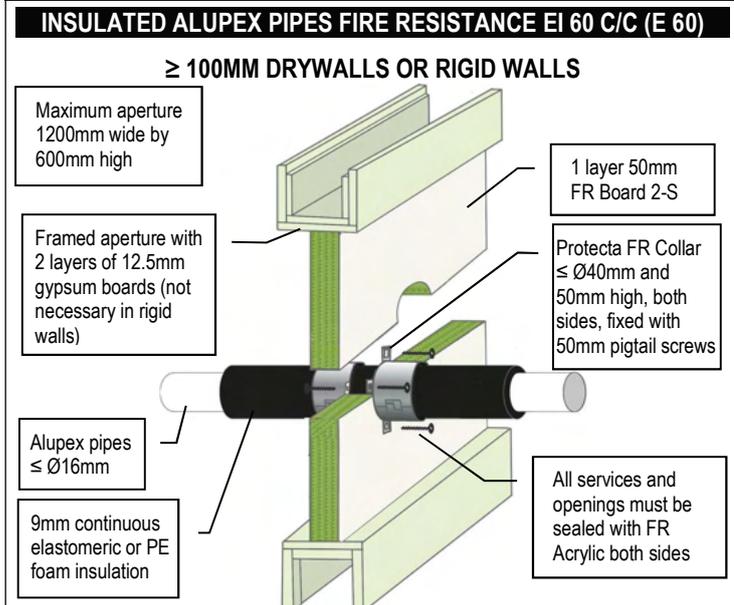
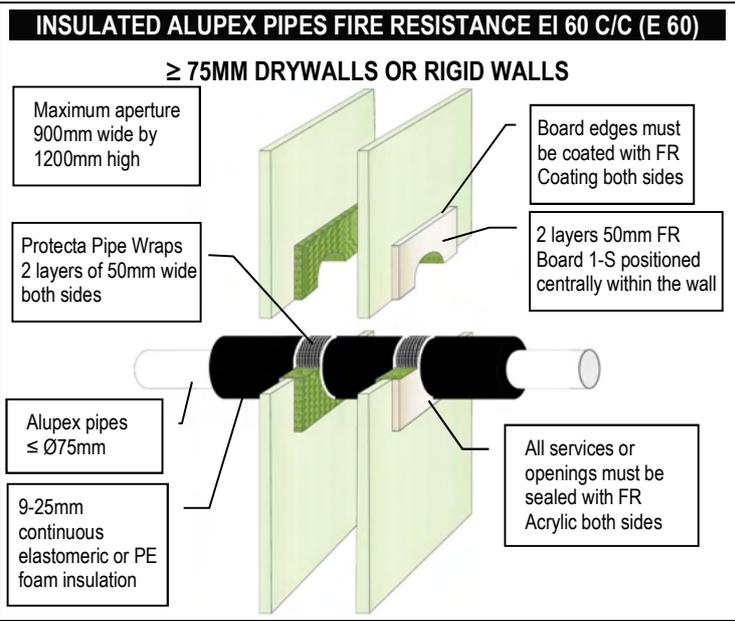
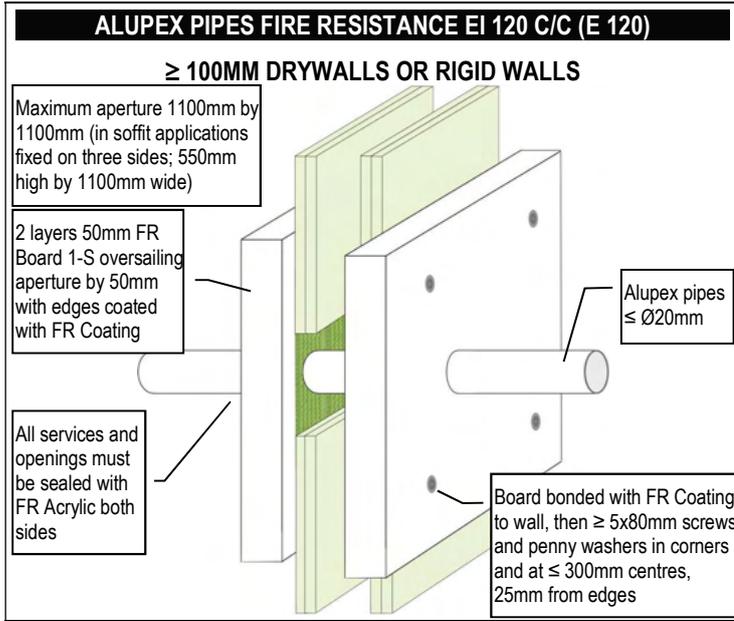


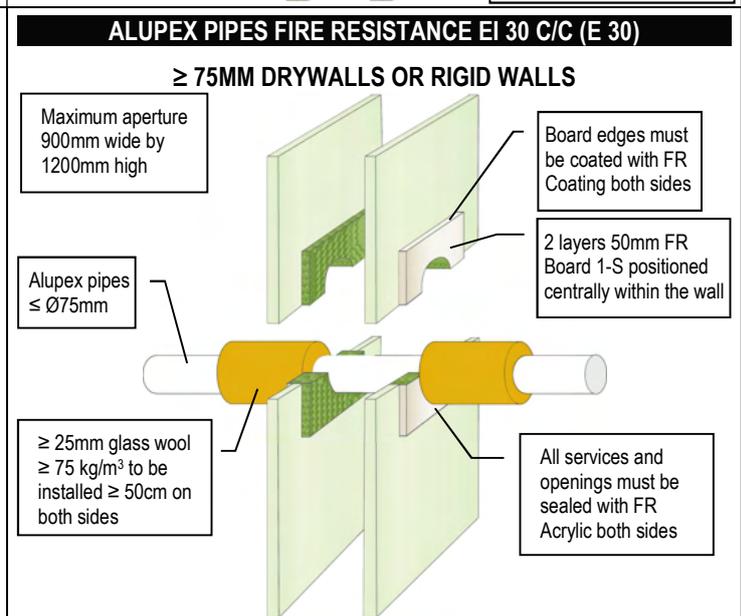
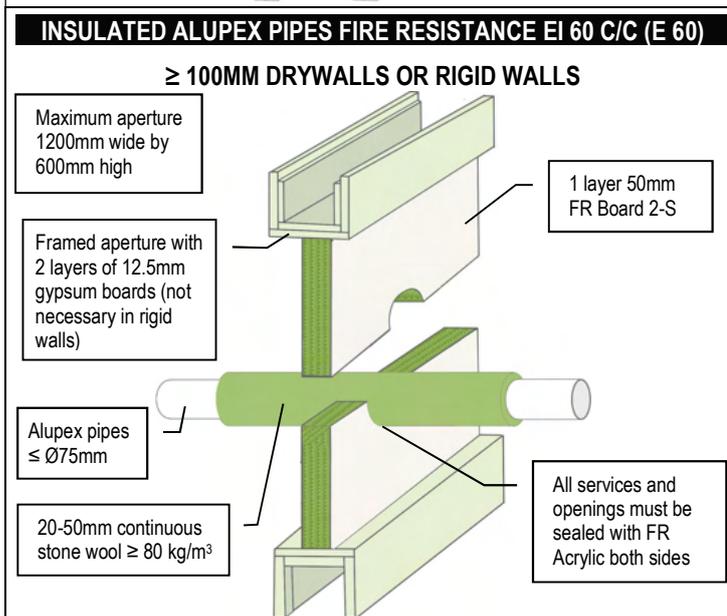
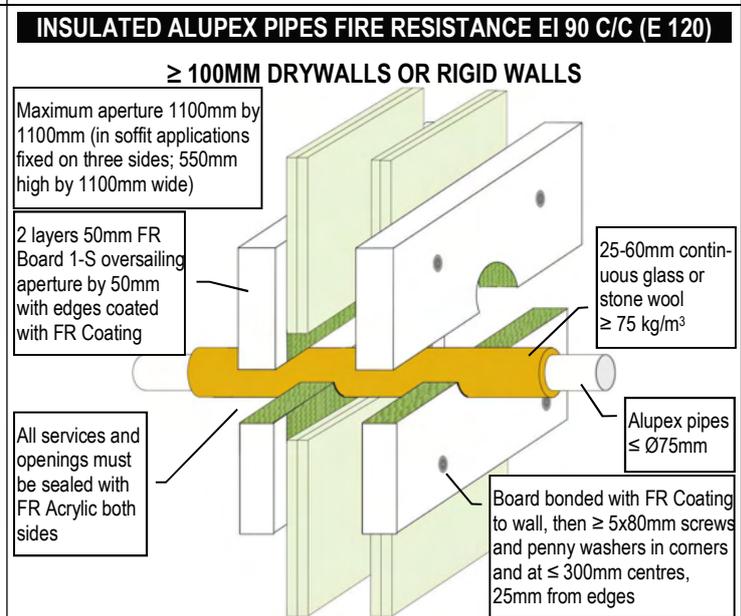
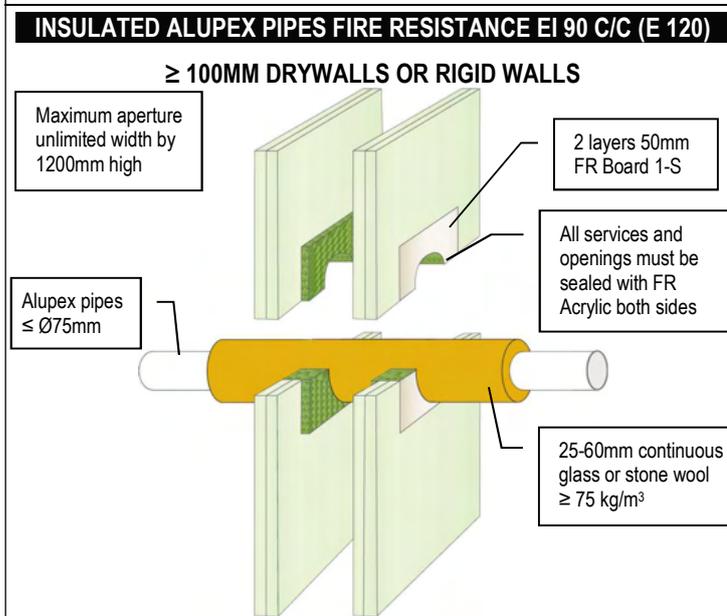
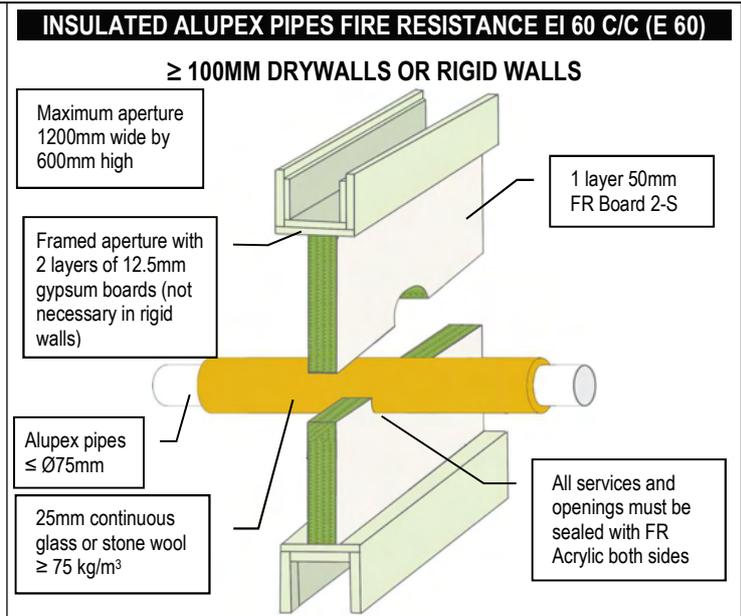
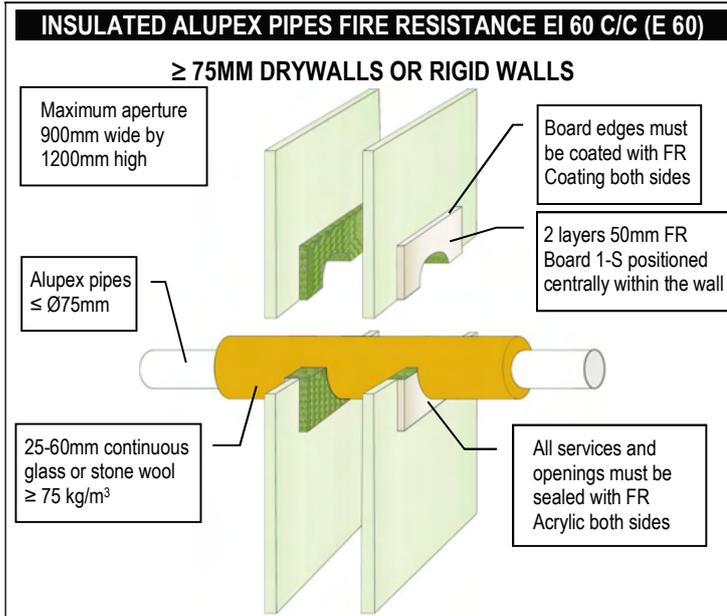


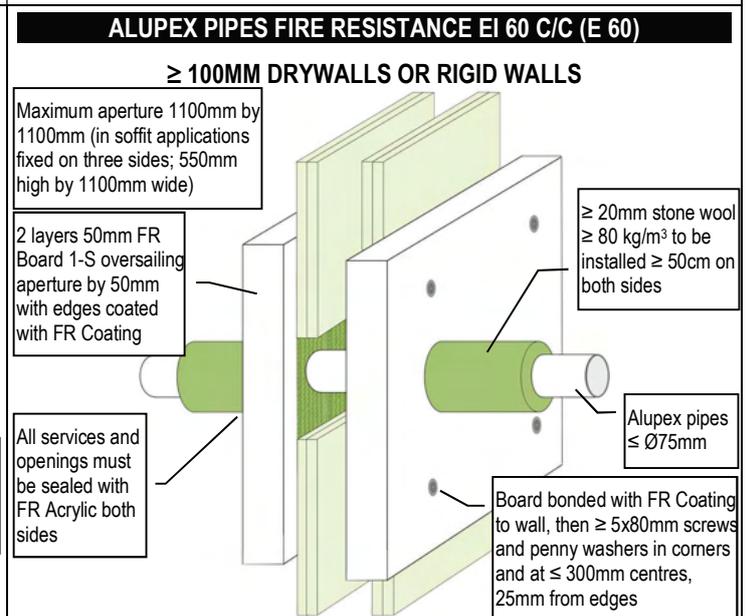
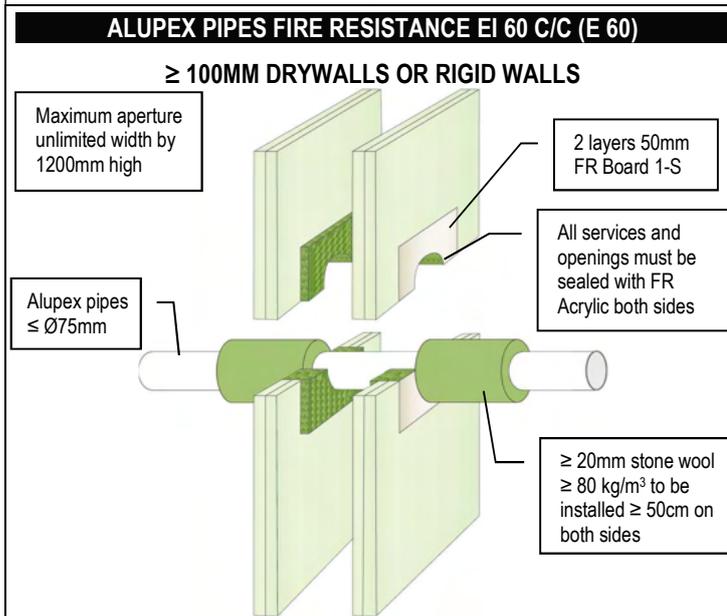
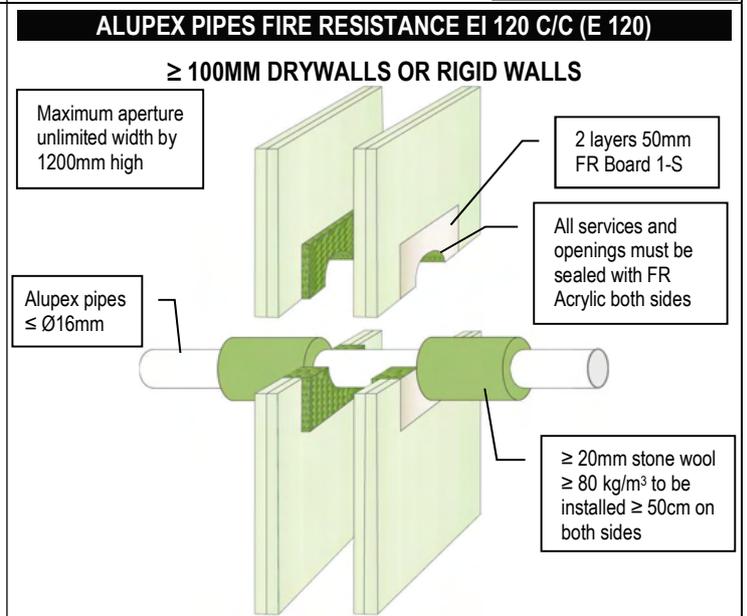
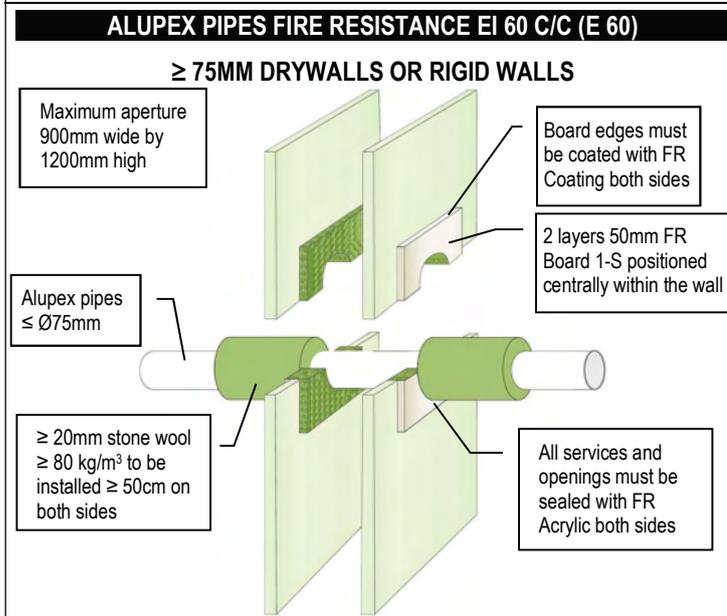
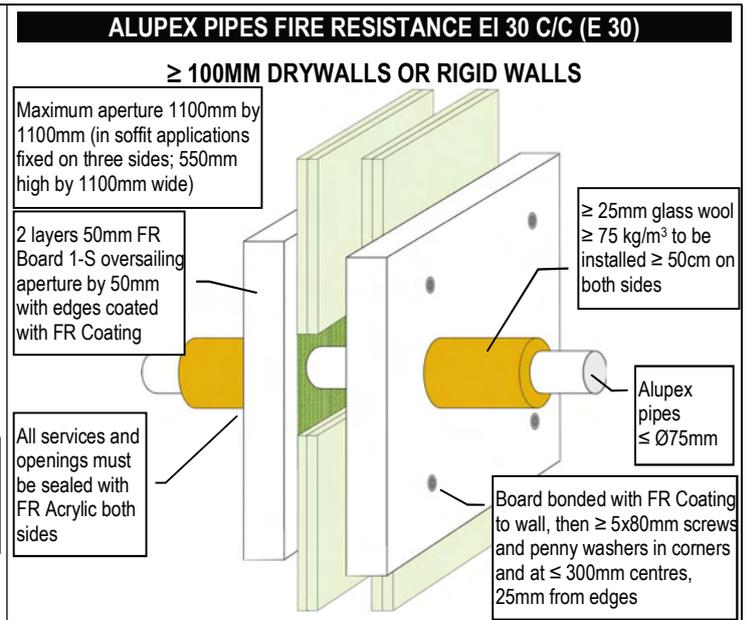
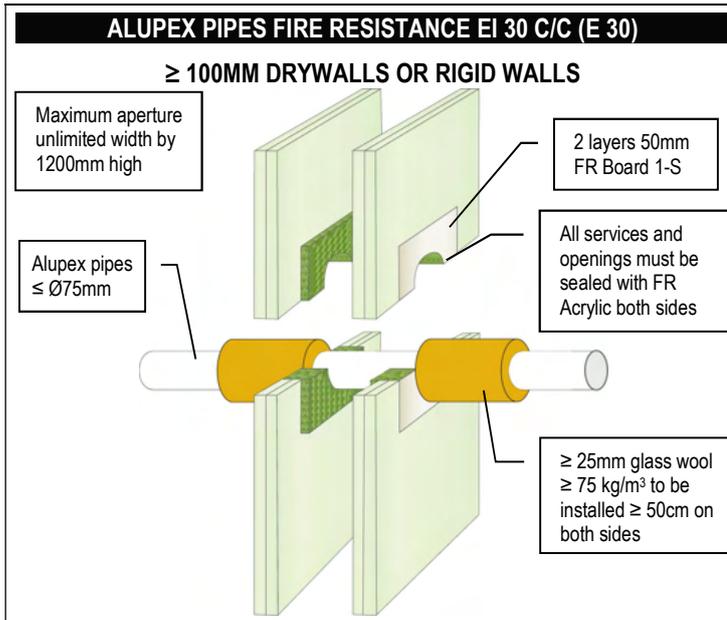












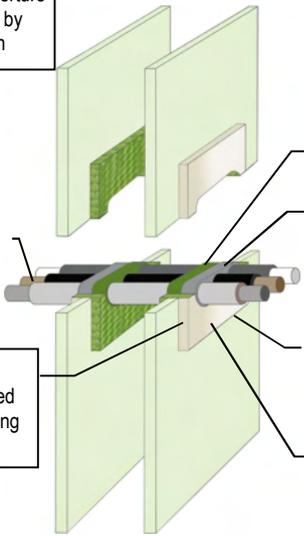
INSULATED METAL PIPES WITH FR GRAPHITE FIRE RESISTANCE EI 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

Metal pipes with no minimum distance in-between

Board edges must be coated with FR Coating both sides



Stone wool depth ≥ 25mm, density ≥ 33kg/m³ or similar on both sides

FR Graphite depth ≥ 25mm on both sides with seal width 5-10mm

All openings must be sealed with FR Acrylic both sides

2 layers 50mm FR Board 1-S positioned centrally within the wall

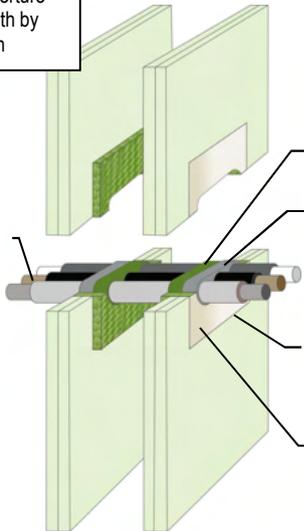
Services	Pipe Insulation	Classification
Ø6mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 60 C/C (E 60 C/C)
≤ Ø18mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 60 C/C (E 60 C/C)
≤ Ø54mm steel or copper pipes	19mm elastomeric insulation class ≥ B-s3, d0	EI 60 C/C (E 60 C/C)
≤ Ø54mm steel or copper pipes	25mm phenolic foam insulation	EI 60 C/C (E 60 C/C)
Ø14mm alupex pipes	6mm PE foam insulation	EI 60 C/C (E 60 C/C)

INSULATED METAL PIPES WITH FR GRAPHITE FIRE RESISTANCE EI 60-120

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high

Metal pipes with no minimum distance in-between



Stone wool depth ≥ 25mm, density ≥ 33kg/m³ or similar on both sides

FR Graphite depth ≥ 25mm on both sides with seal width 5-10mm

All openings must be sealed with FR Acrylic both sides

2 layers 50mm FR Board 1-S

Services	Pipe Insulation	Classification
Ø6mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 120 C/C (E 120 C/C)
≤ Ø18mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54mm steel or copper pipes	19mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54mm steel or copper pipes	25mm phenolic foam insulation	EI 60 C/C (E 120 C/C)
Ø14mm alupex pipes	6mm PE foam insulation	EI 60 C/C (E 90 C/C)

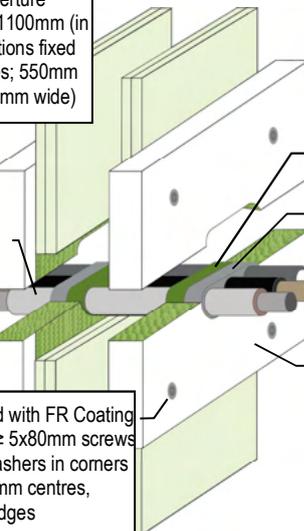
INSULATED METAL PIPES WITH FR GRAPHITE FIRE RESISTANCE EI 60-120

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

Metal pipes with no minimum distance in-between

Board bonded with FR Coating to wall, then ≥ 5x80mm screws and penny washers in corners and at ≤ 300mm centres, 25mm from edges

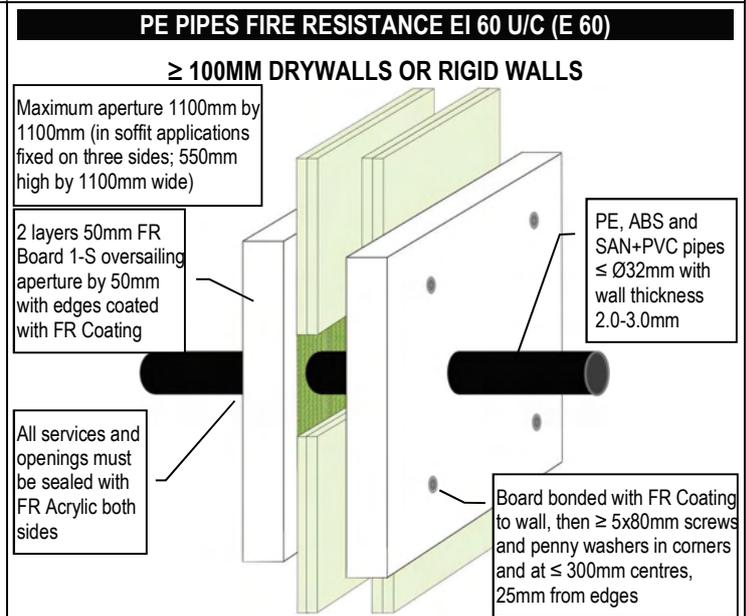
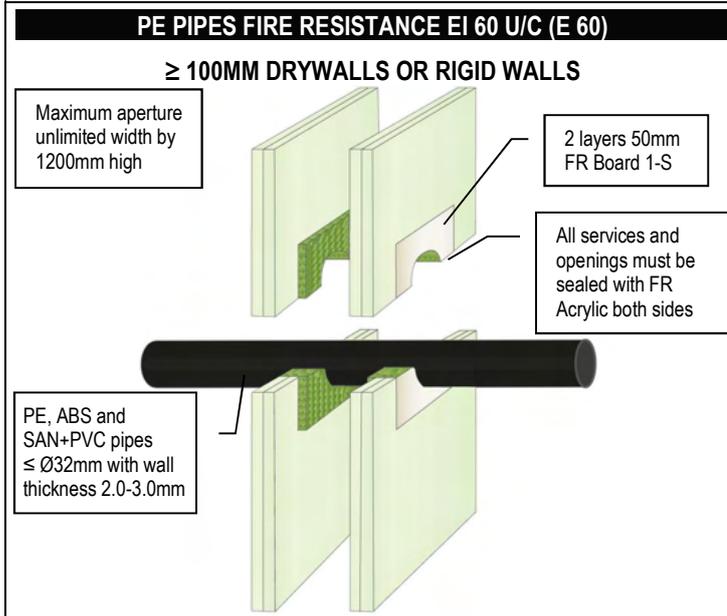
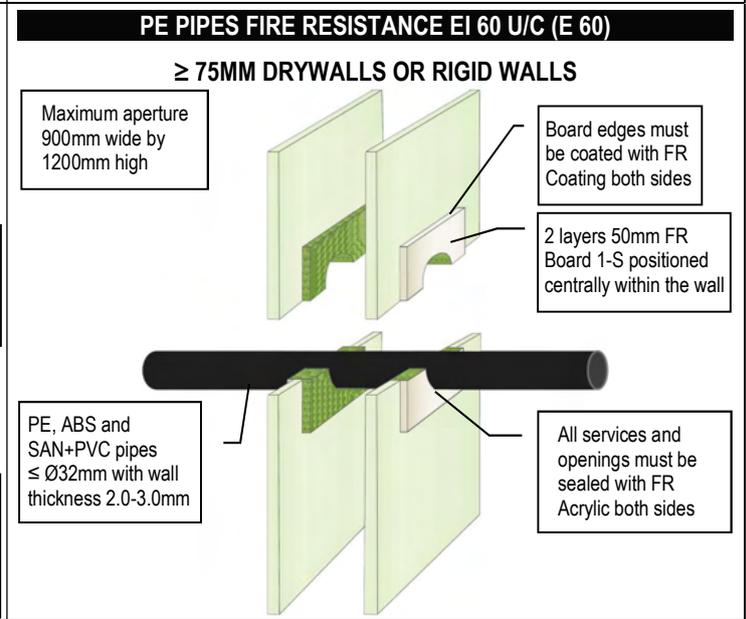
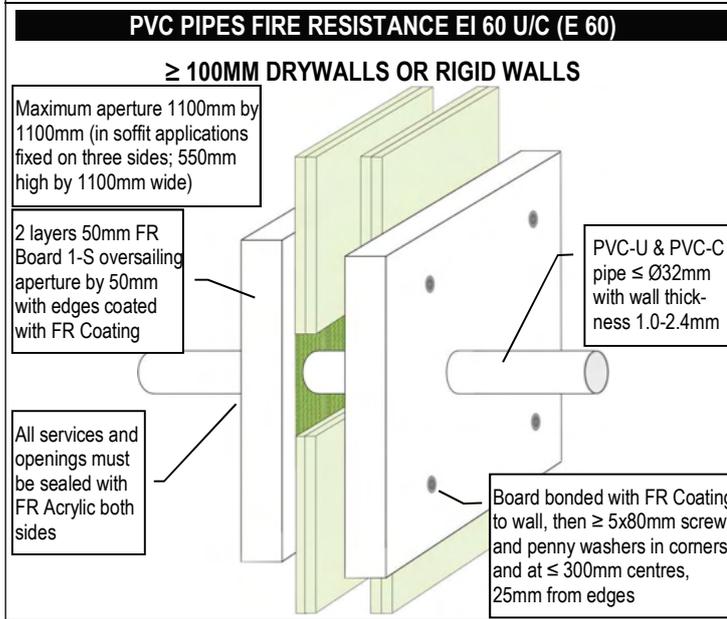
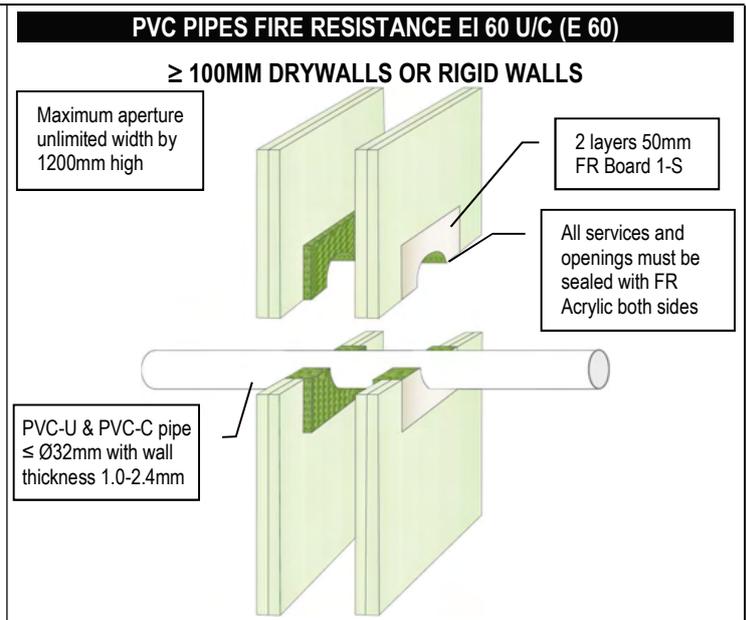
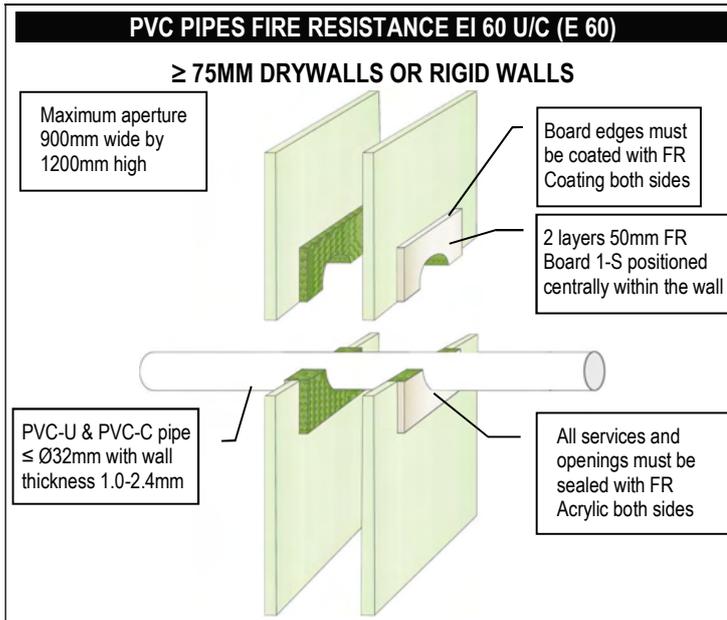


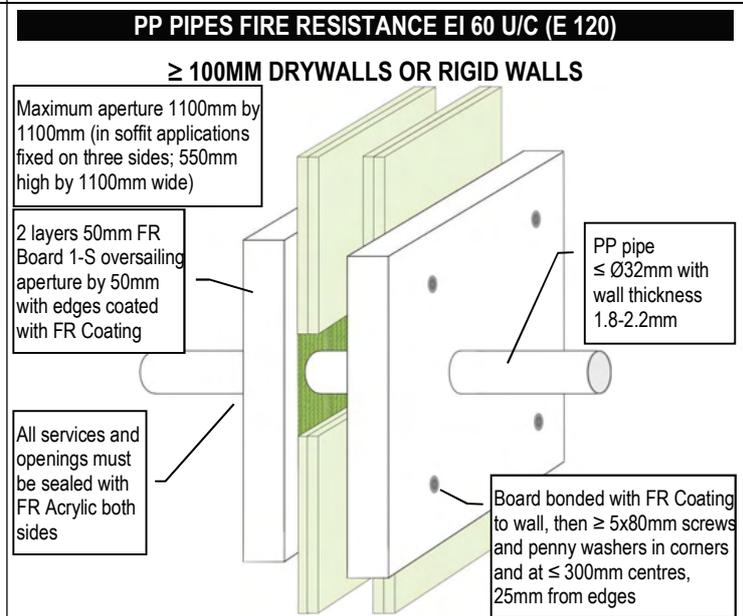
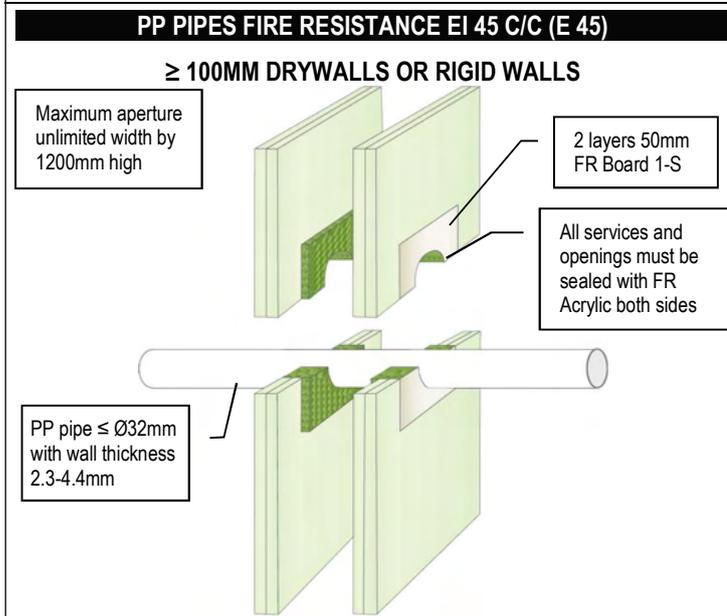
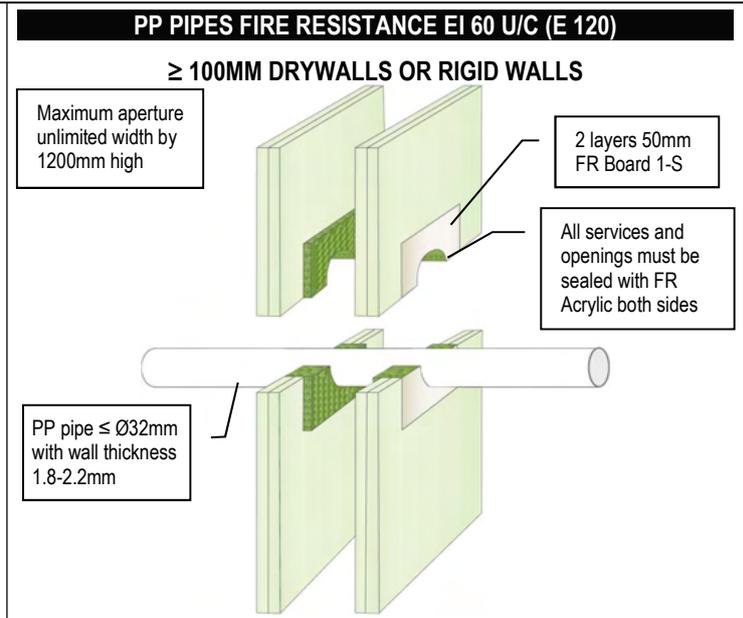
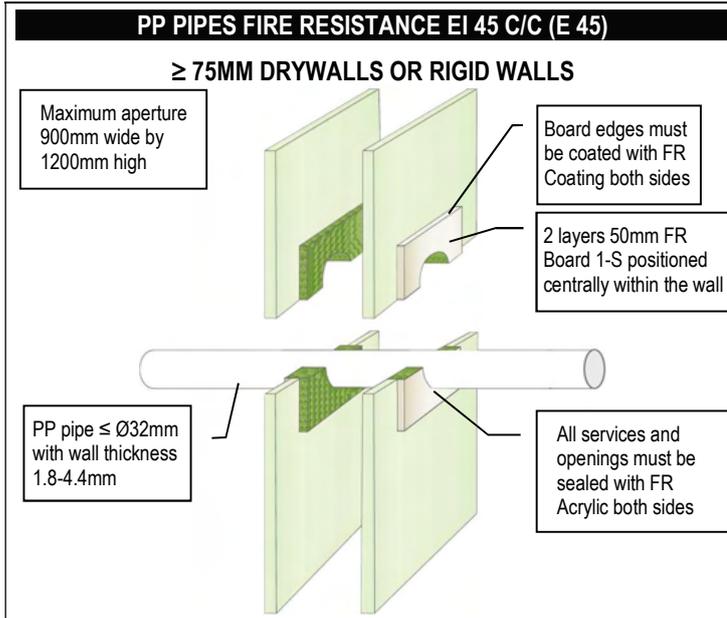
Stone wool depth ≥ 25mm, density ≥ 33kg/m³ or similar on both sides

FR Graphite depth ≥ 25mm on both sides with seal width 5-10mm

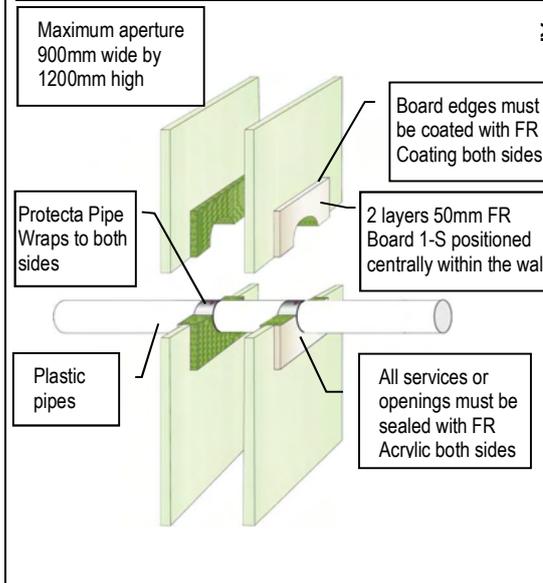
2 layers 50mm FR Board 1-S oversailing aperture by 50mm with edges coated with FR Coating

Services	Pipe Insulation	Classification
Ø6mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 120 C/C (E 120 C/C)
≤ Ø18mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54mm steel or copper pipes	19mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54mm steel or copper pipes	25mm phenolic foam insulation	EI 60 C/C (E 120 C/C)
Ø14mm alupex pipes	6mm PE foam insulation	EI 60 C/C (E 90 C/C)





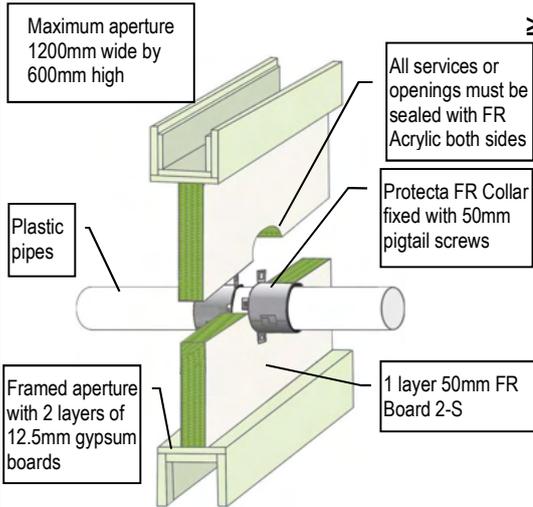
PLASTIC PIPES FIRE RESISTANCE EI 60



Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 60 U/U (E 60 U/U)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 60 U/U (E 60 U/U)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 60 U/U (E 60 U/U)
≤ Ø 110mm PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	4.2 – 10.0mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 110mm PP	2.7 – 15.1mm	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
≤ Ø 125mm PVC-U & PVC-C	3.7 – 7.4mm	50 x 5.4mm (3 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 125mm PE, ABS & SAN+PVC	4.8 – 12.0mm	50 x 5.4mm (3 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 125mm PP	3.1 – 17.1mm	50 x 5.4mm (3 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 160mm PVC-U & PVC-C	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 160mm PP	4.9 – 21.9mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 200mm PVC-U & PVC-C	4.9 – 11.9mm	50 x 10.8mm (6 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 200mm PE, ABS & SAN+PVC	6.2 – 18.2mm	50 x 10.8mm (6 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 200mm PP	4.9 – 18.2mm	50 x 10.8mm (6 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 315mm PVC-U & PVC-C	7.7 – 12.1mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 315mm PE, ABS & SAN+PVC	18.7mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 315mm PP	28.6mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 400mm PVC-U & PVC-C	9.8 – 15.3mm	50 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 400mm PE, ABS & SAN+PVC	23.7mm	50 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)

PLASTIC PIPES FIRE RESISTANCE EI 30-60

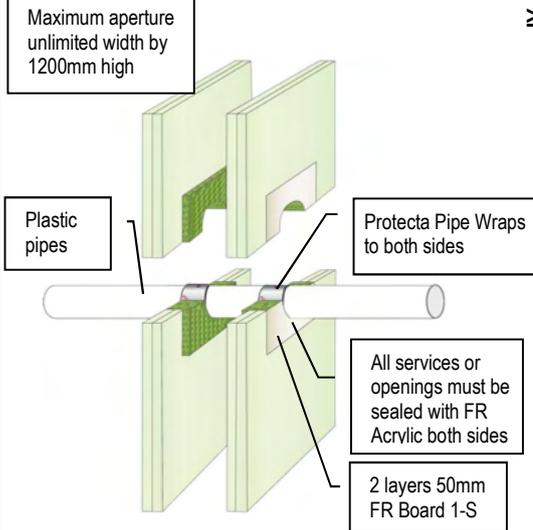
≥ 100MM DRYWALLS OR RIGID WALLS



Pipe & Collar Descriptions	Pipe Wall Thickness	Min. Collar Height	Classification
≤ Ø 110mm PVC-U & PVC-C	1.9 – 6.6mm	30mm	EI 30 U/C (E 90 U/C)
≤ Ø 50mm PVC-U & PVC-C	1.9 – 3.7mm	50mm	EI 60 U/C (E 120 U/C)
≤ Ø 110mm PVC-U & PVC-C	2.1 – 6.6mm	50mm	EI 60 U/C (E 90 U/C)
≤ Ø 160mm PVC-U & PVC-C	3.1 – 9.5mm	60mm	EI 60 C/C (E 60 C/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	30mm	EI 45 U/C (E 60 U/C)
≤ Ø 50mm PE, ABS & SAN+PVC	3.0 – 4.6mm	50mm	EI 60 U/C (E 120 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.0 – 10.0mm	50mm	EI 60 C/C (E 90 C/C)
≤ Ø 160mm PE, ABS & SAN+PVC	3.9 – 9.5mm	60mm	EI 60 C/C (E 60 C/C)
≤ Ø 90mm PP	1.8 – 4.6mm	50mm	EI 60 C/C (E 60 C/C)
≤ Ø 110mm PP	2.7mm	50mm	EI 60 C/C (E 60 C/C)
≤ Ø 160mm PP	3.4 – 9.1mm	60mm	EI 60 C/C (E 60 C/C)

PLASTIC PIPES FIRE RESISTANCE EI 60-120

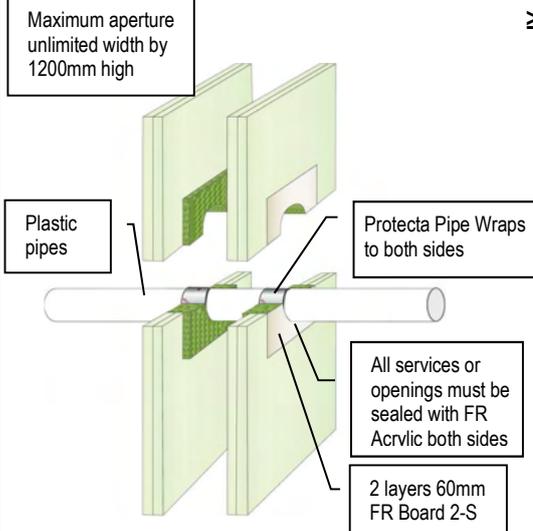
≥ 100MM DRYWALLS OR RIGID WALLS



Services	Pipe Wall Thickness	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	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 90 U/C)
≤ Ø 160mm PE, ABS & SAN+PVC	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 90 U/C)
≤ Ø 160mm PP	4.9 – 21.9mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
≤ Ø 200mm PVC-U & PVC-C	4.9 – 11.9mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 200mm PE, ABS & SAN+PVC	6.2 – 18.2mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 200mm PP	4.9 – 18.2mm	50 x 10.8mm (6 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 315mm PE, ABS & SAN+PVC	18.7mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 315mm PP	28.6mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 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)
≤ Ø 400mm PE, ABS & SAN+PVC	23.7mm	50 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)

PLASTIC PIPES FIRE RESISTANCE EI 120

≥ 120MM DRYWALLS OR RIGID WALLS



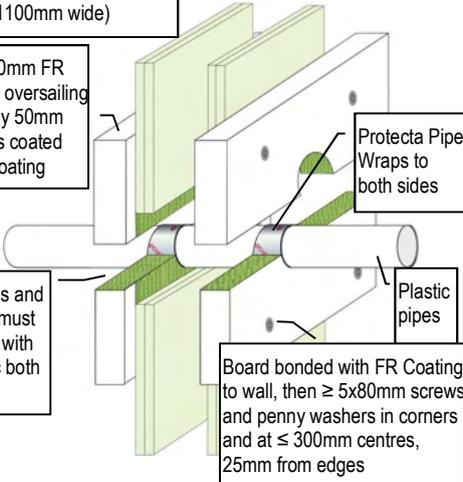
Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
≤ Ø 40mm PE, ABS & SAN+PVC	3.8 – 4.6mm	50 x 1.8mm (1 layer)	EI 120 C/C (E 120 C/C)
≤ 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 120 C/C (E 120 C/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	50 x 3.6mm (2 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 110mm PP	2.7 – 10.0mm	50 x 3.6mm (2 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 160mm PVC-U & PVC-C	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 160mm PE, ABS & SAN+PVC	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 160mm PP	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)

PLASTIC PIPES FIRE RESISTANCE EI 60-120

Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

2 layers 50mm FR Board 1-S oversailing aperture by 50mm with edges coated with FR Coating

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



≥ 120MM DRYWALLS OR RIGID WALLS

Services	Pipe Wall Thickness	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 PE, ABS & SAN+PVC	3.8 – 4.6mm	50 x 1.8mm (1 layer)	EI 120 C/C (E 120 C/C)
≤ 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 120 C/C (E 120 C/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	50 x 3.6mm (2 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 110mm PP	2.7 – 10.0mm	50 x 3.6mm (2 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 160mm PVC-U & PVC-C	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 160mm PE, ABS & SAN+PVC	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 160mm PP	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 120 C/C (E 120 C/C)
≤ Ø 200mm PVC-U & PVC-C	4.9 – 11.9mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 200mm PE, ABS & SAN+PVC	6.2 – 18.2mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
≤ Ø 200mm PP	4.9 – 18.2mm	50 x 10.8mm (6 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 315mm PE, ABS & SAN+PVC	18.7mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
≤ Ø 315mm PP	28.6mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 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)
≤ Ø 400mm PE, ABS & SAN+PVC	23.7mm	50 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)

INSULATED PE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

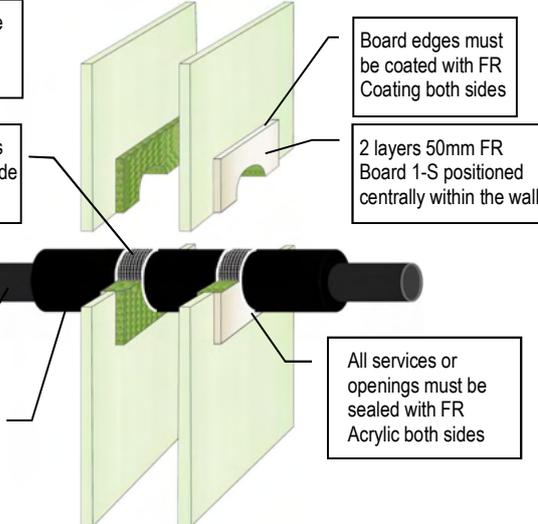
≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

Protecta Pipe Wraps 2 layers of 50mm wide both sides

PE pipes with wall thickness 3.0-9.5mm, ≤ Ø68mm incl. insulation

9-50mm continuous elastomeric or PE foam insulation



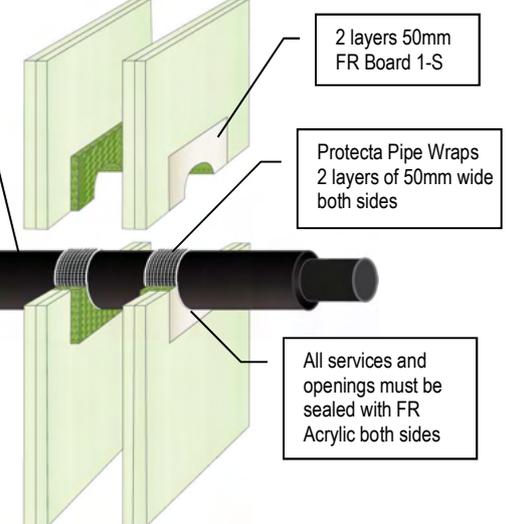
INSULATED PE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high

9-50mm continuous elastomeric or PE foam insulation

PE, ABS and SAN+PVC pipes with wall thickness 3.0-9.5mm, ≤ Ø68mm incl. insulation



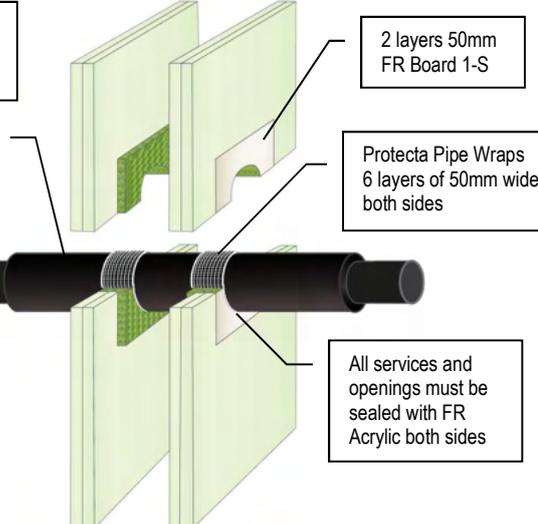
INSULATED PE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high

9-50mm continuous elastomeric or PE foam insulation

PE, ABS and SAN+PVC pipes with wall thickness 3.0-9.5mm, ≤ Ø178mm incl. insulation



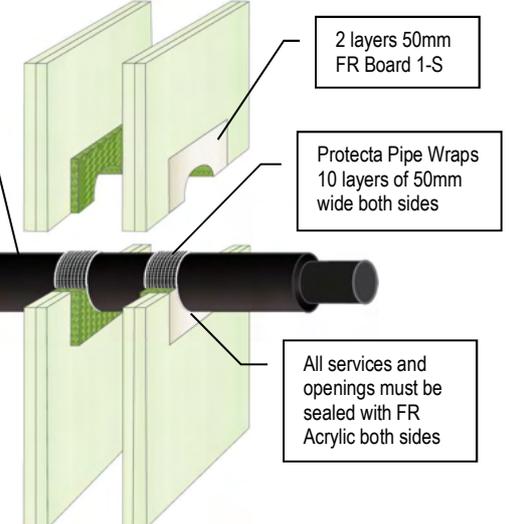
INSULATED PE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

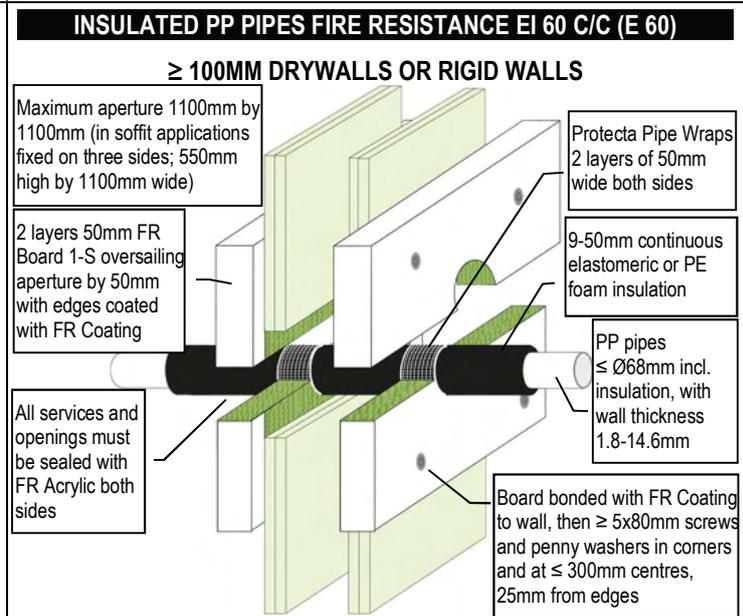
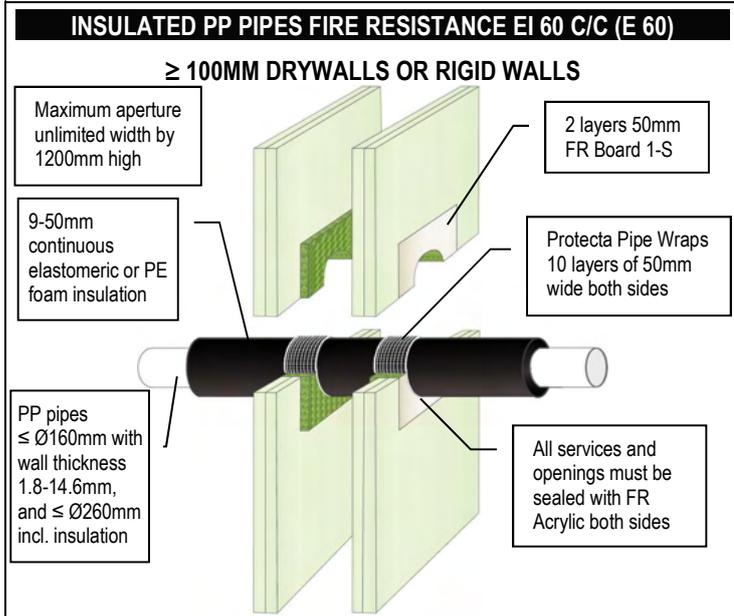
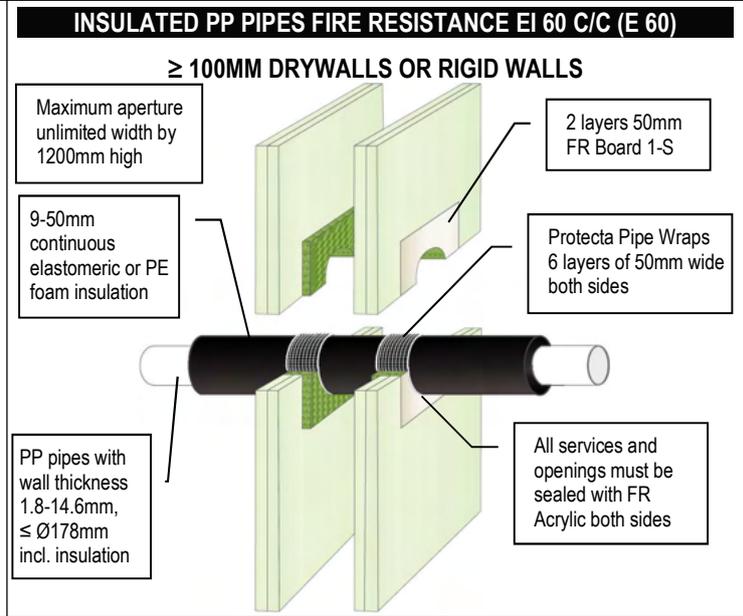
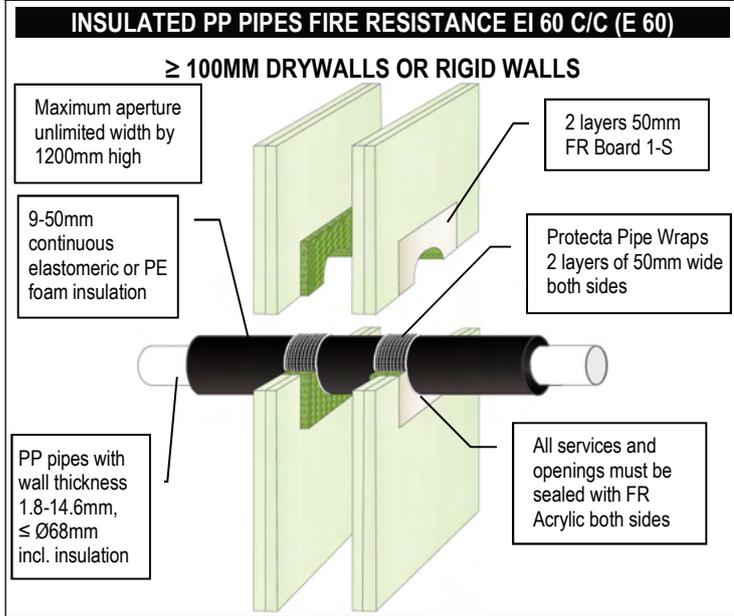
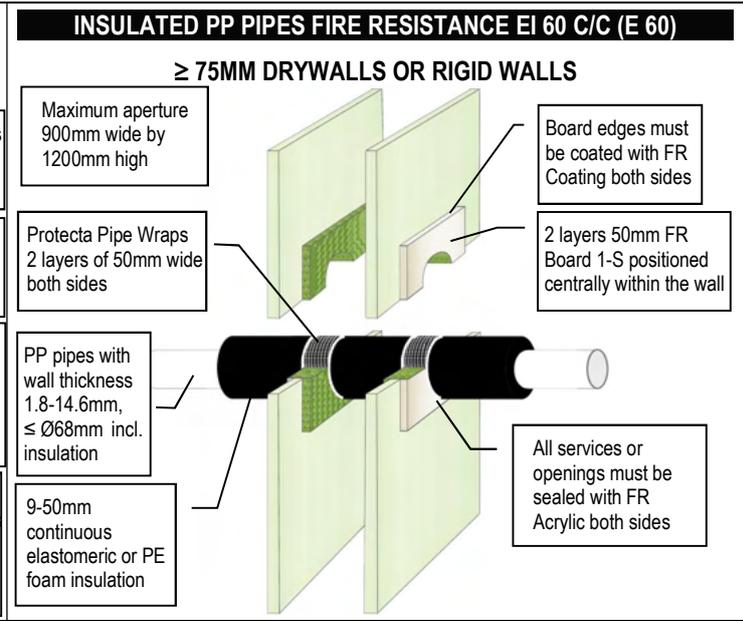
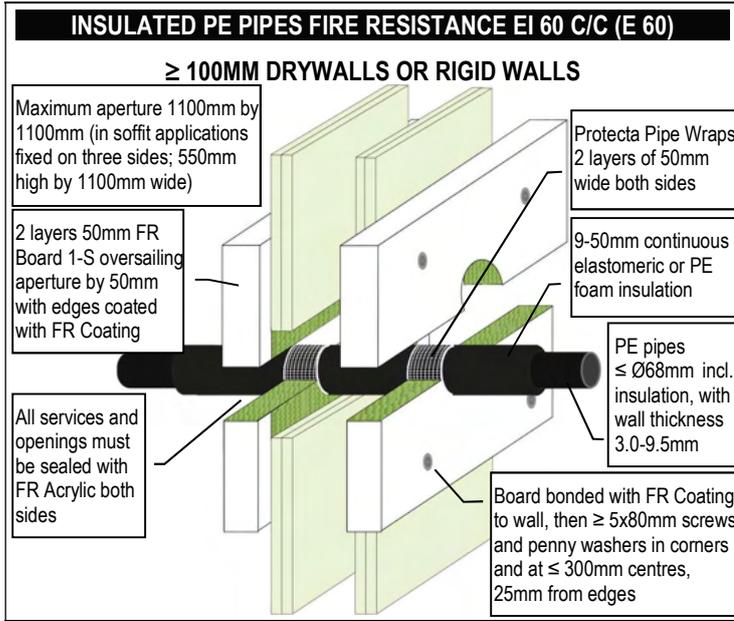
≥ 100MM DRYWALLS OR RIGID WALLS

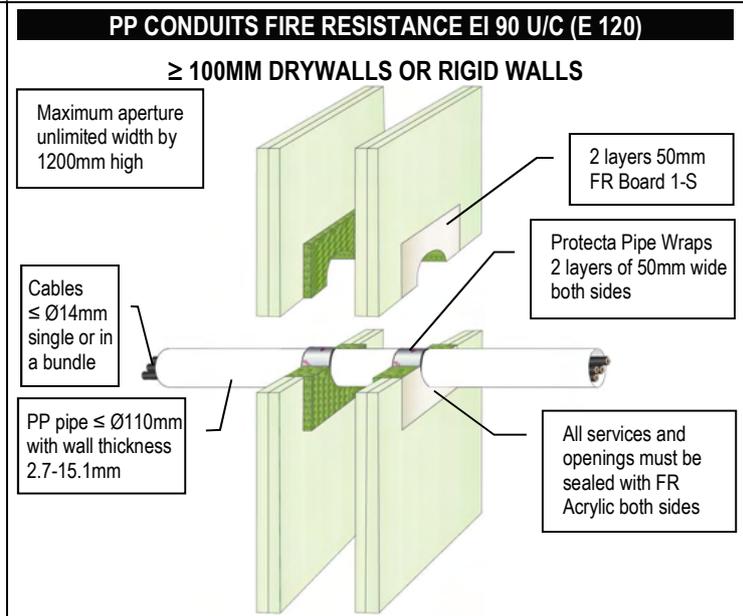
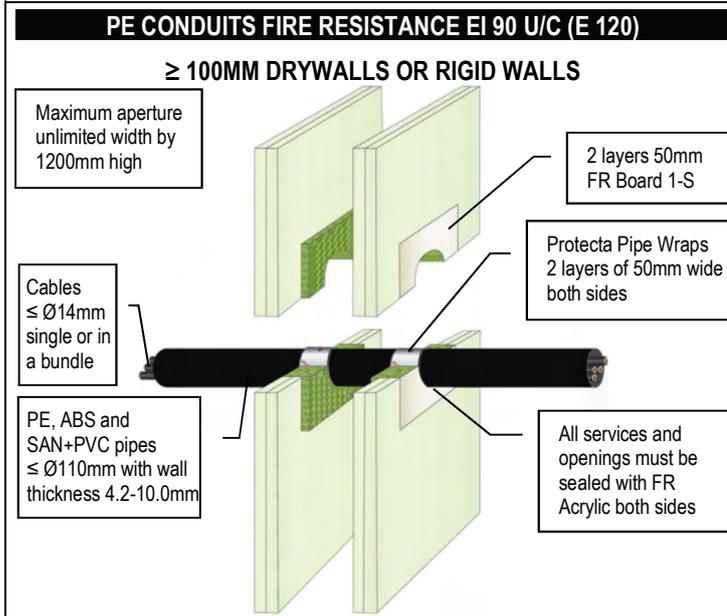
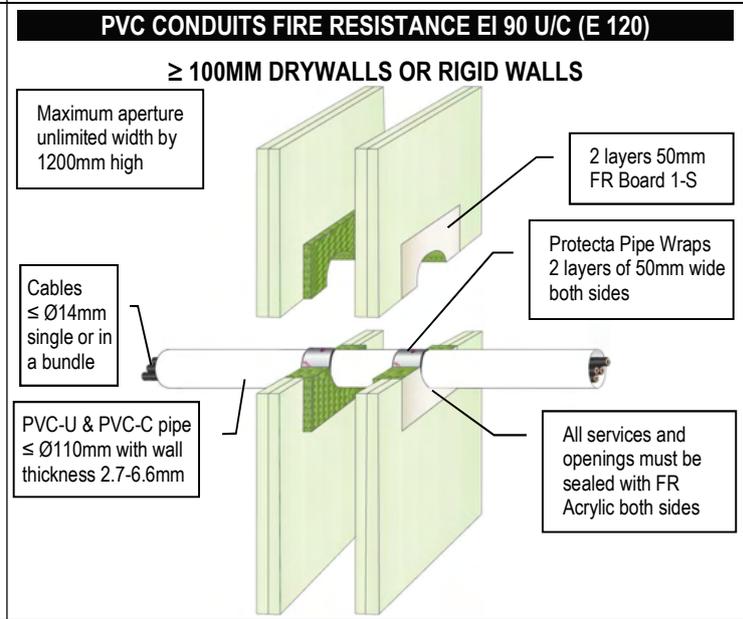
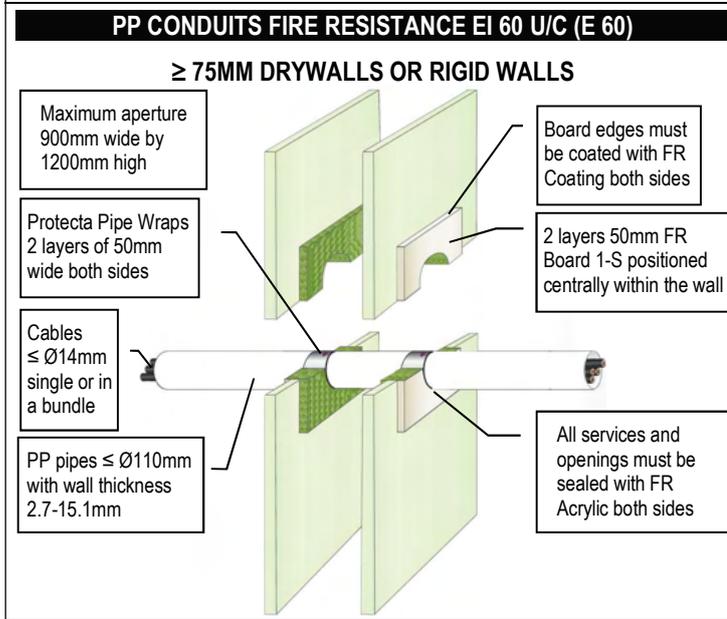
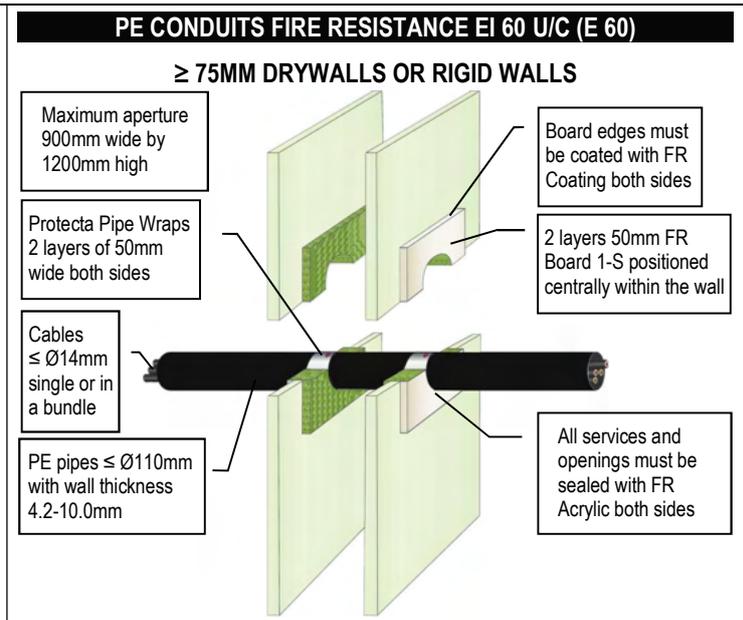
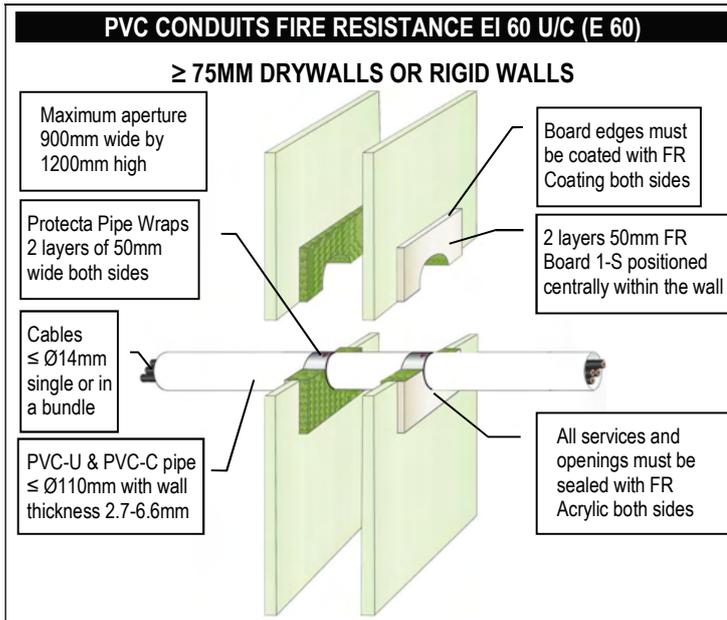
Maximum aperture unlimited width by 1200mm high

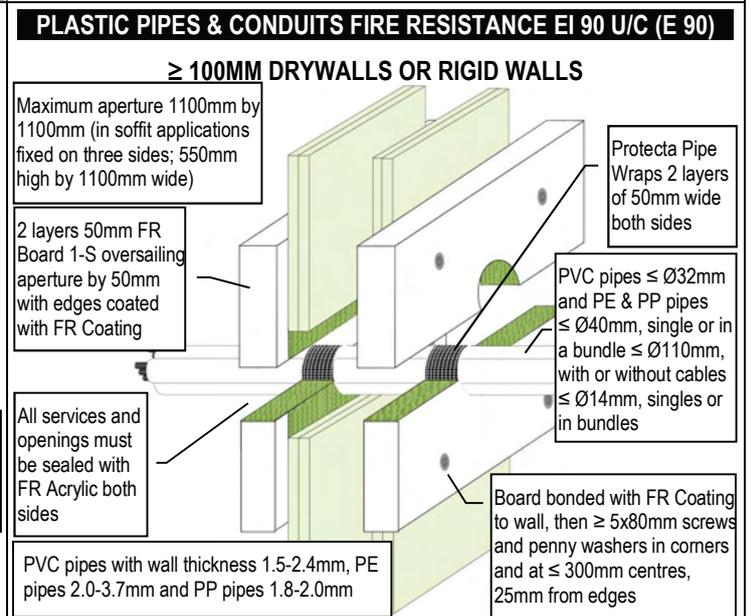
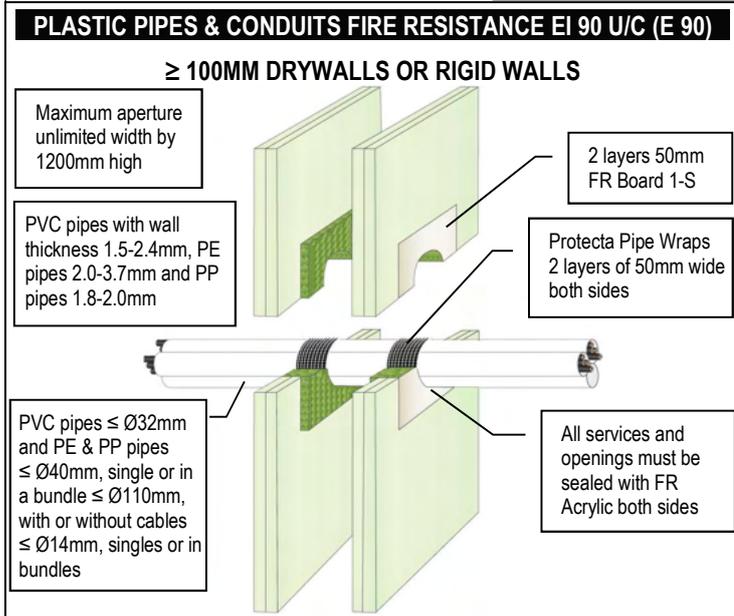
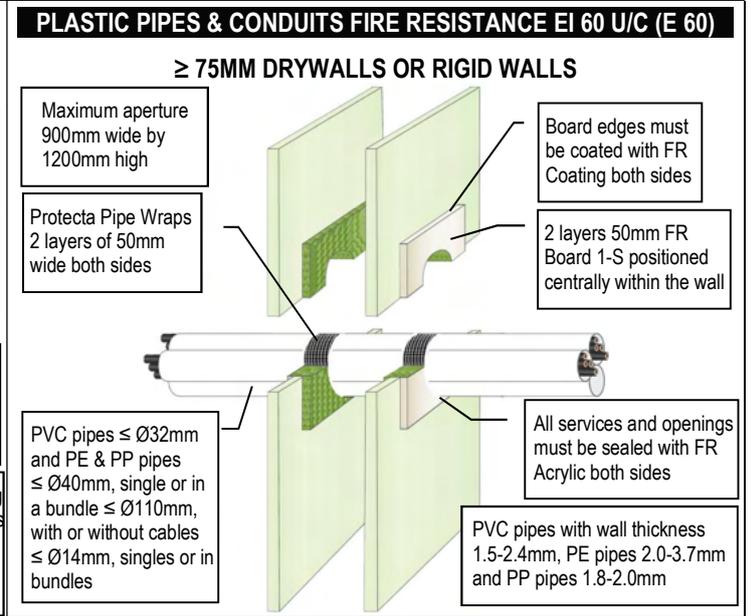
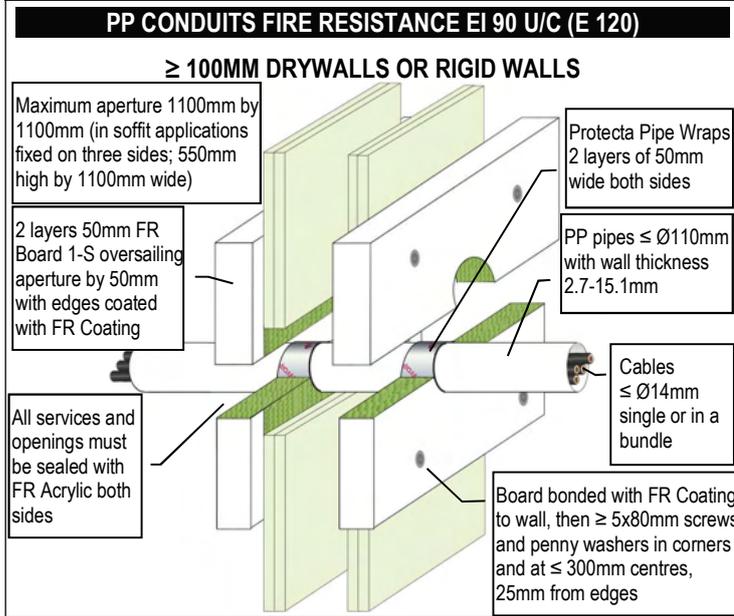
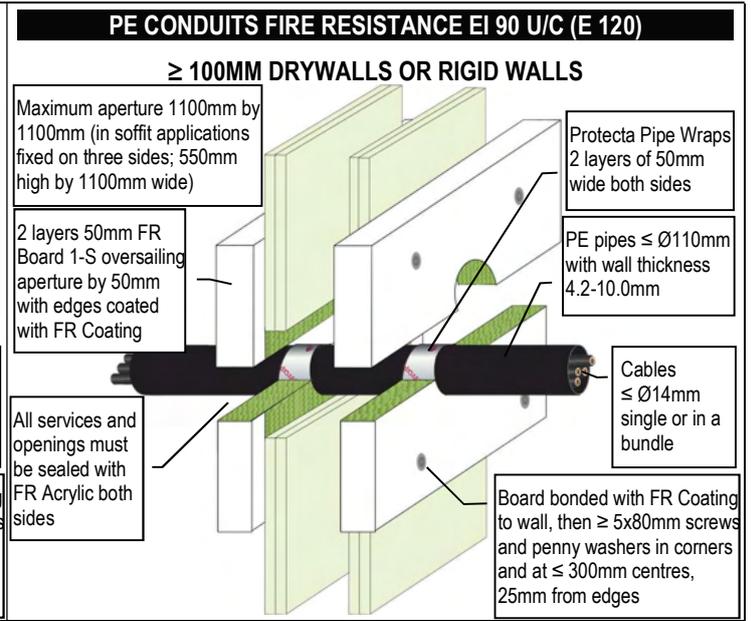
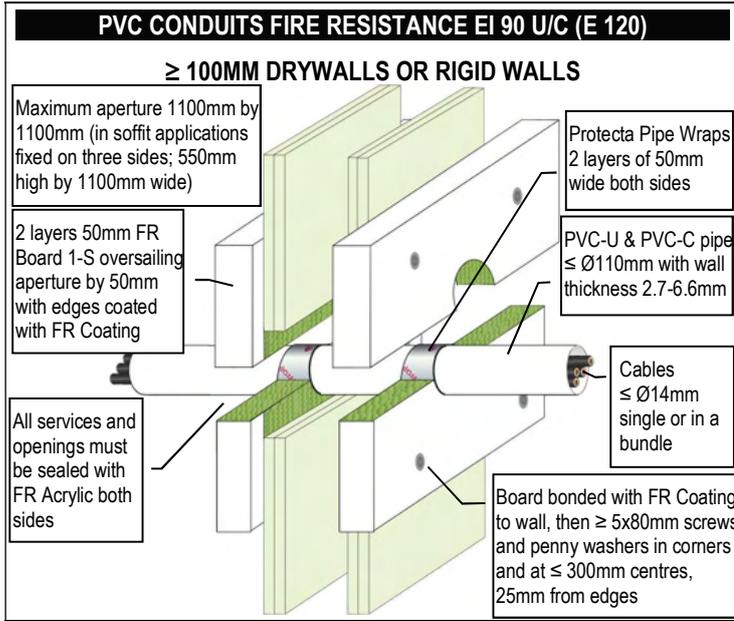
9-50mm continuous elastomeric or PE foam insulation

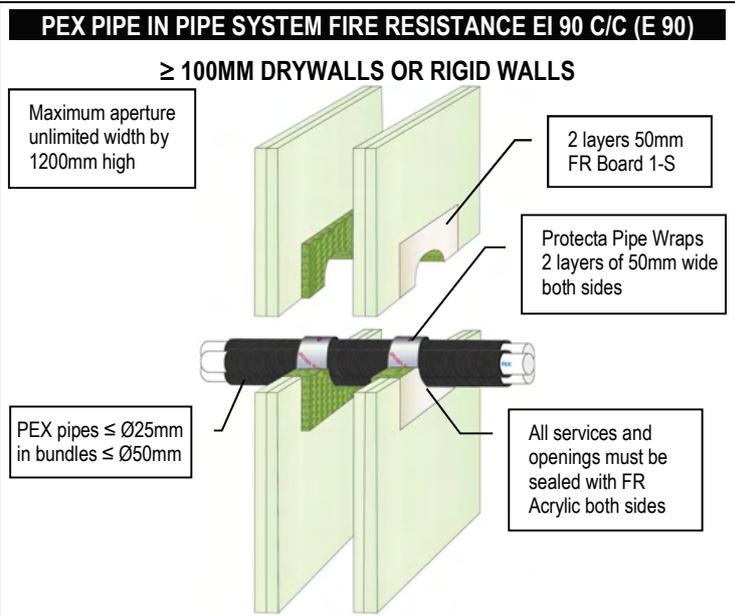
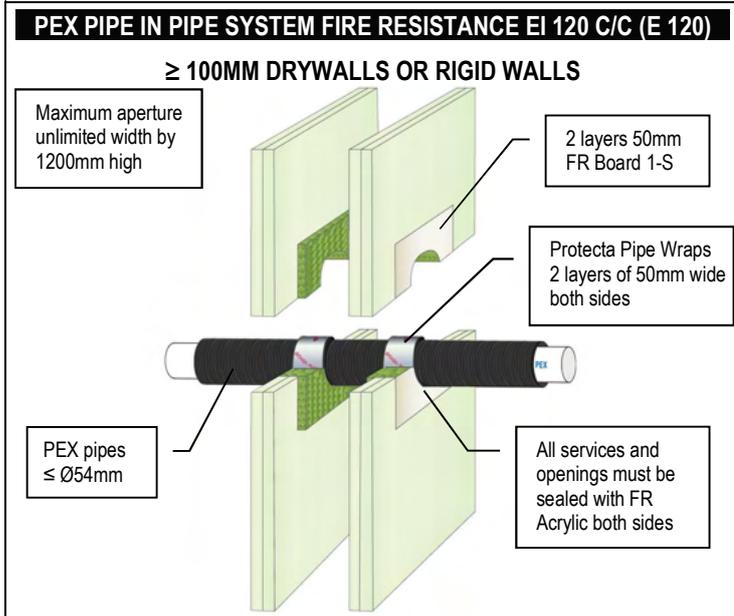
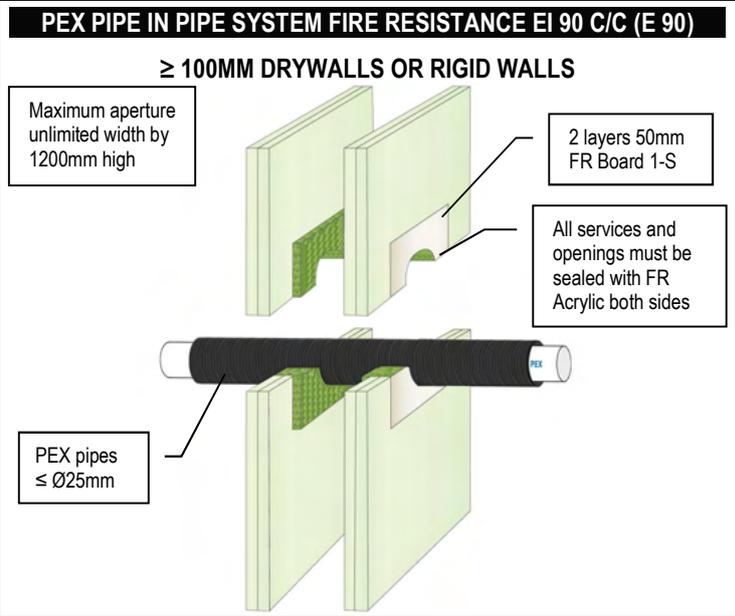
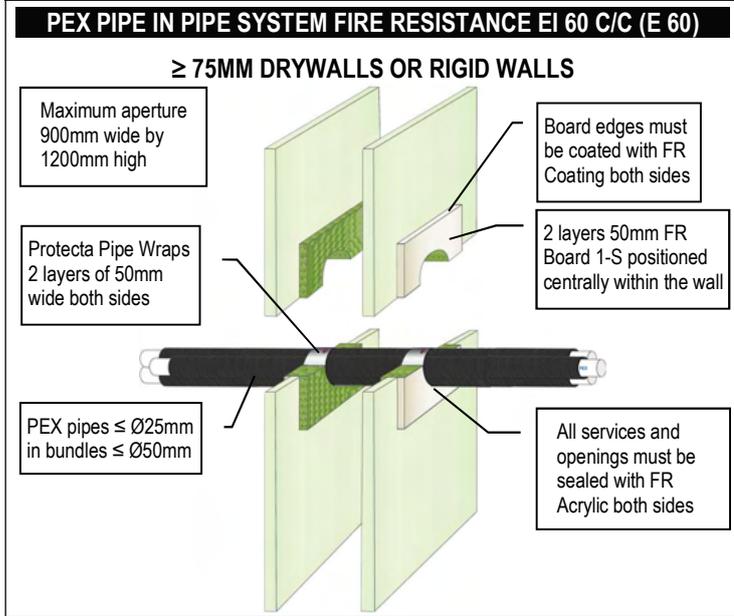
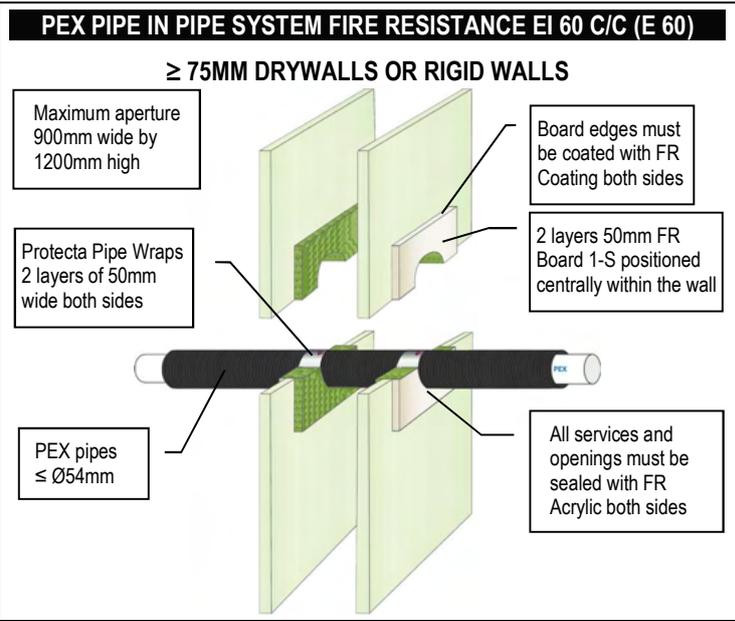
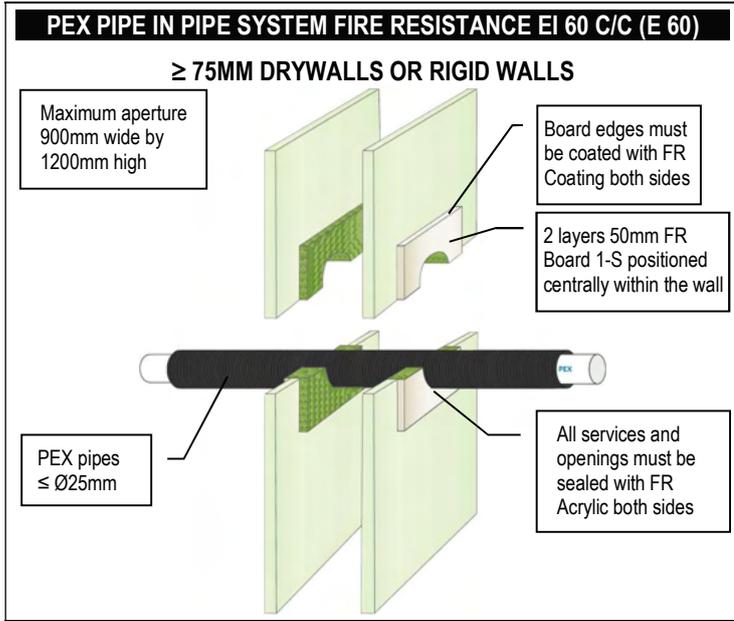
PE, ABS and SAN+PVC pipes ≤ Ø160mm with wall thickness 3.0-9.5mm, and ≤ Ø260mm incl. insulation

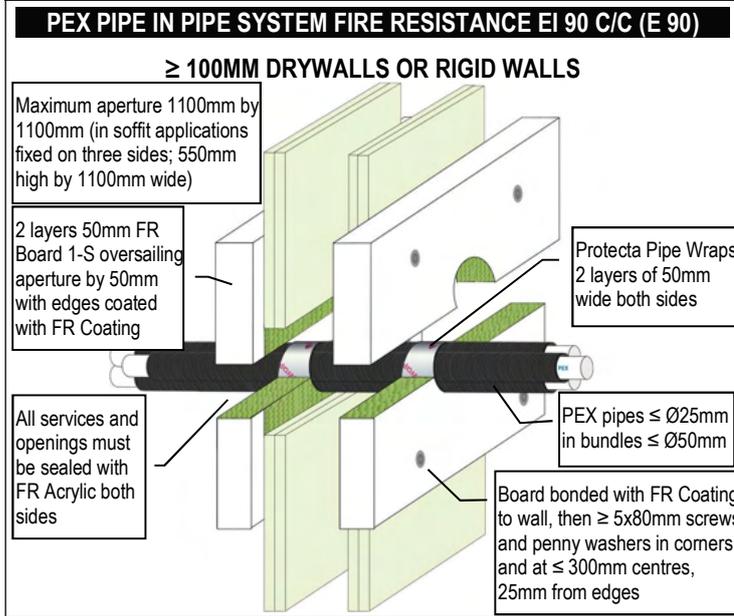
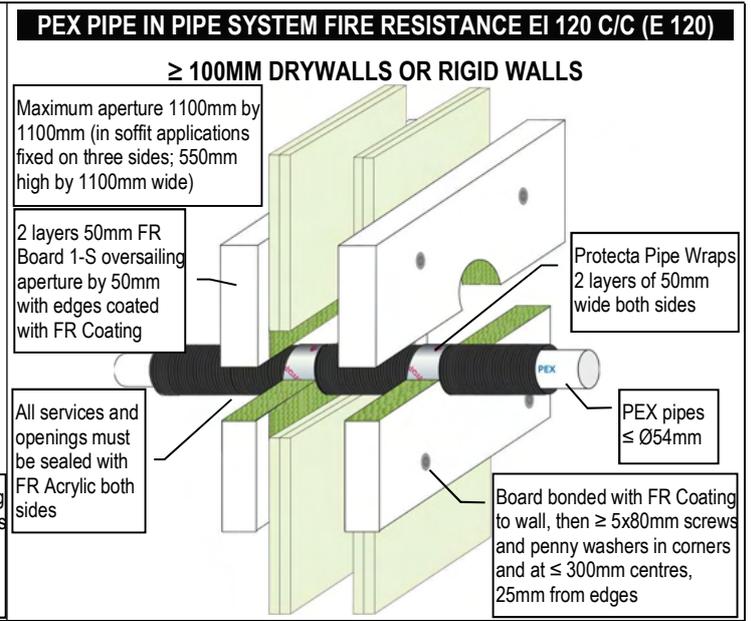
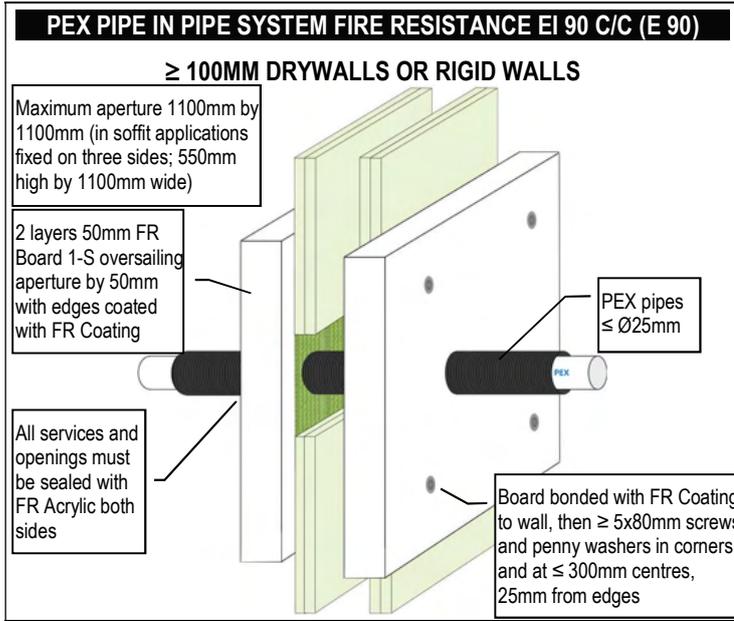




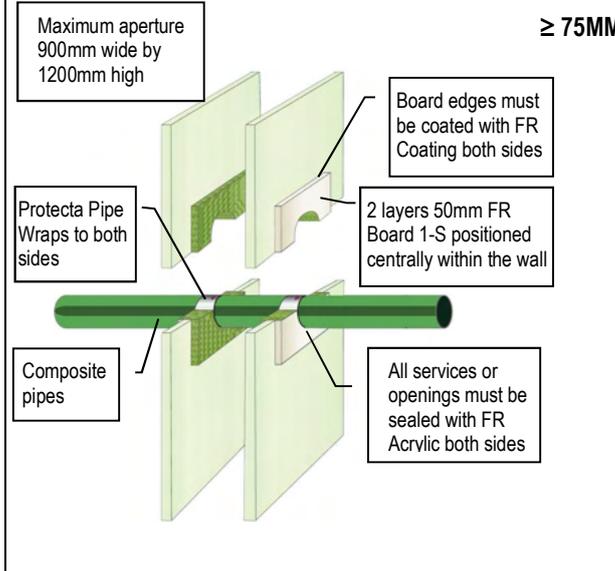








COMPOSITE AQUATHERM GREEN SDR9 PLASTIC PIPES FIRE RESISTANCE EI 60

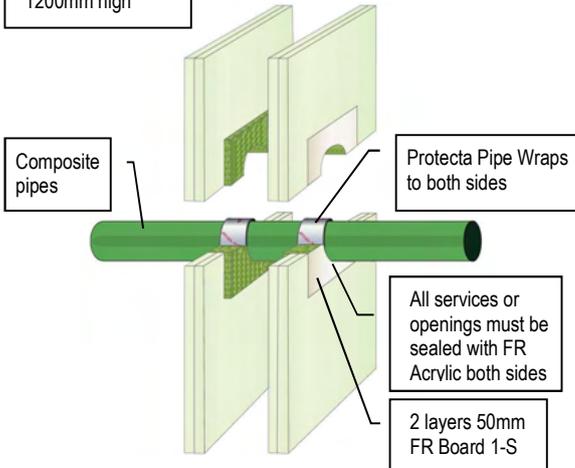


Services	FR Pipe Wrap	Classification
$\varnothing 32\text{mm}$ Aquatherm Green SDR9 pipes	50 x 1.8mm (1 layer)	EI 60 C/C (E 60 C/C)
$\varnothing 40\text{mm}$ Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 60 C/C (E 60 C/C)
$\varnothing 50\text{mm}$ Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 60 C/C (E 60 C/C)
$\varnothing 63\text{mm}$ Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 60 C/C (E 60 C/C)
$\varnothing 75\text{mm}$ Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 60 C/C (E 60 C/C)
$\varnothing 90\text{mm}$ Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 60 C/C (E 60 C/C)
$\varnothing 110\text{mm}$ Aquatherm Green SDR9 pipes	50 x 3.6mm (2 layers)	EI 60 C/C (E 60 C/C)

COMPOSITE AQUATHERM GREEN SDR9 PLASTIC PIPES FIRE RESISTANCE EI 90

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high



Services	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)

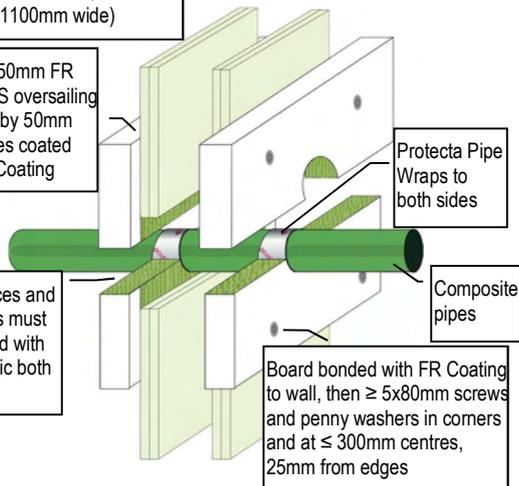
COMPOSITE AQUATHERM GREEN SDR9 PLASTIC PIPES FIRE RESISTANCE EI 90

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

2 layers 50mm FR Board 1-S oversailing aperture by 50mm with edges coated with FR Coating

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



Services	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 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

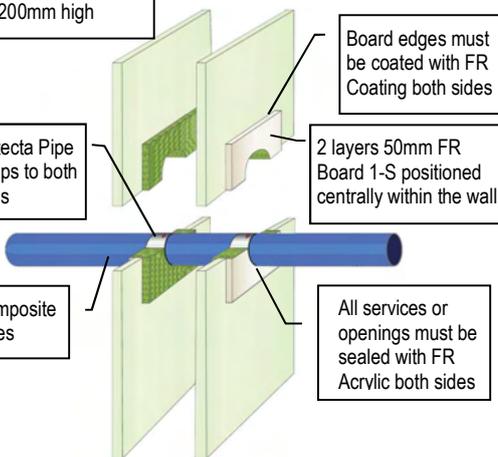
Board edges must be coated with FR Coating both sides

2 layers 50mm FR Board 1-S positioned centrally within the wall

Protecta Pipe Wraps to both sides

Composite pipes

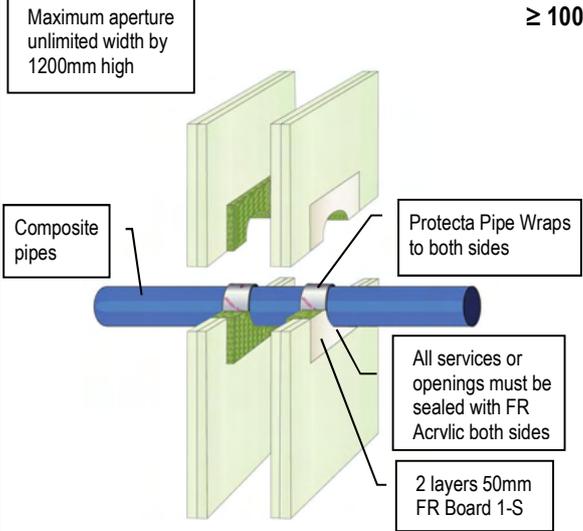
All services or openings must be sealed with FR Acrylic both sides



Services	FR Pipe Wrap	Classification
Ø 32mm BluePower pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 40mm BluePower pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 50mm BluePower pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 75mm BluePower pipes	50 x 3.6mm (2 layers)	EI 60 C/U (E 60 C/U)
Ø 90mm BluePower pipes	50 x 3.6mm (2 layers)	EI 60 C/U (E 60 C/U)
Ø 110mm BluePower pipes	50 x 3.6mm (2 layers)	EI 60 C/U (E 60 C/U)
Ø 125mm BluePower pipes	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
Ø 160mm BluePower pipes	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)

COMPOSITE BLUEPOWER PLASTIC PIPES FIRE RESISTANCE EI 90

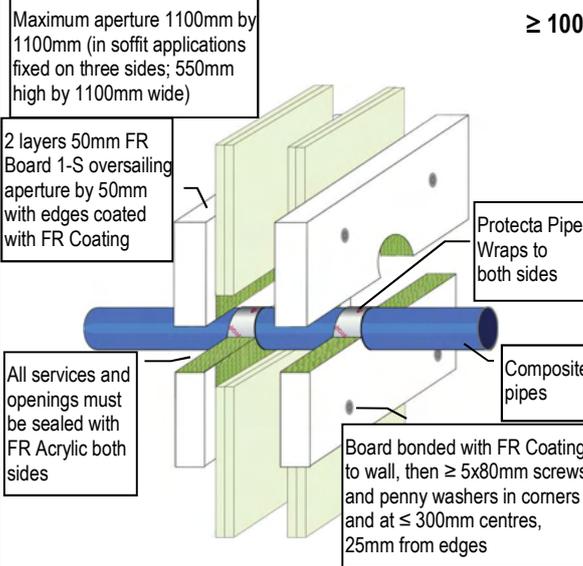
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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)
Ø 125mm BluePower pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø 160mm BluePower pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE BLUEPOWER PLASTIC PIPES FIRE RESISTANCE EI 90

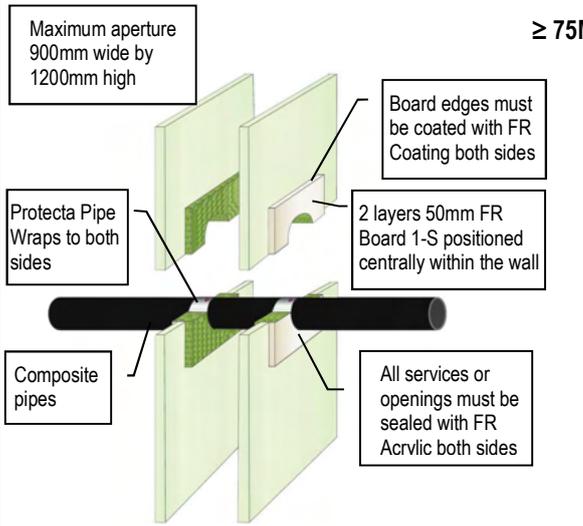
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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)
Ø 125mm BluePower pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø 160mm BluePower pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE GEBERIT SILENT-PP PIPES FIRE RESISTANCE EI 60

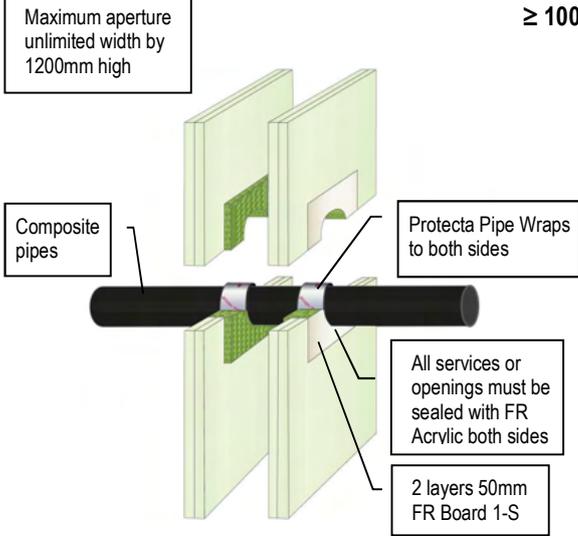
≥ 75MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 32mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 40mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 50mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 75mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 90mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 110mm Geberit Silent-PP pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 125mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
Ø 160mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)

COMPOSITE GEBERIT SILENT-PP PIPES FIRE RESISTANCE EI 90-120

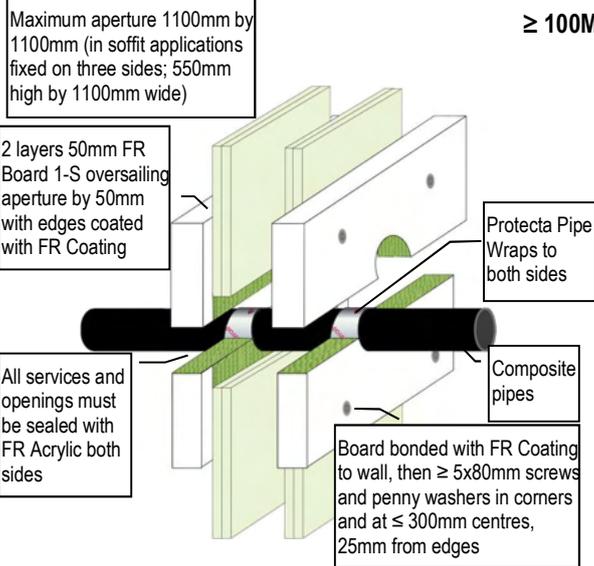
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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)
Ø 125mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø 160mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE GEBERIT SILENT-PP PIPES FIRE RESISTANCE EI 90-120

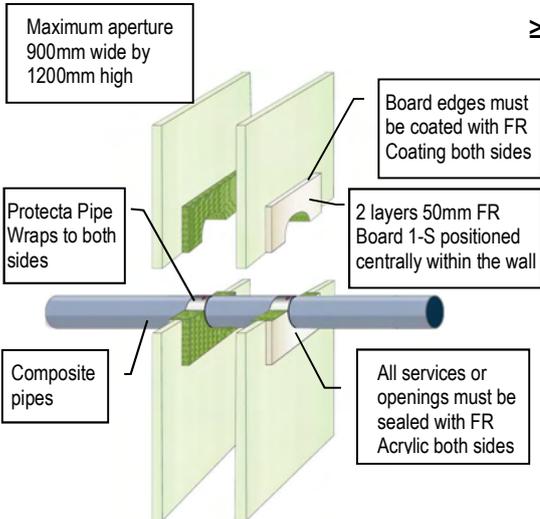
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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)
Ø 125mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø 160mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 60

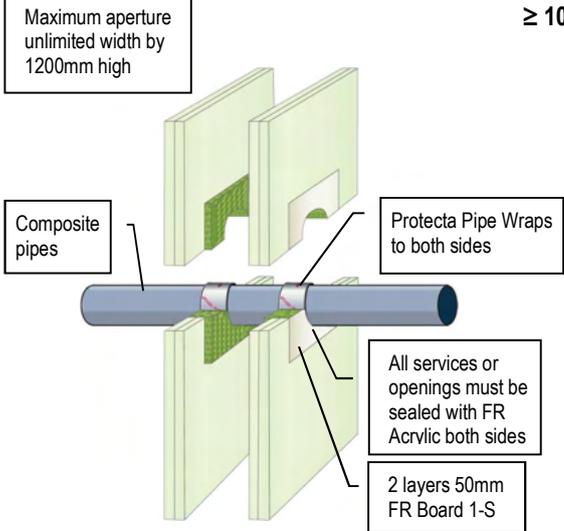
≥ 75MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 32mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 40mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 50mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 75mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 90mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 110mm Polo-Kal NG pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 125mm Polo-Kal NG pipes	50 x 7.2mm (4 layers)	EI 60 U/C (E 60 U/C)
Ø 160mm Polo-Kal NG pipes	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)

COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 120

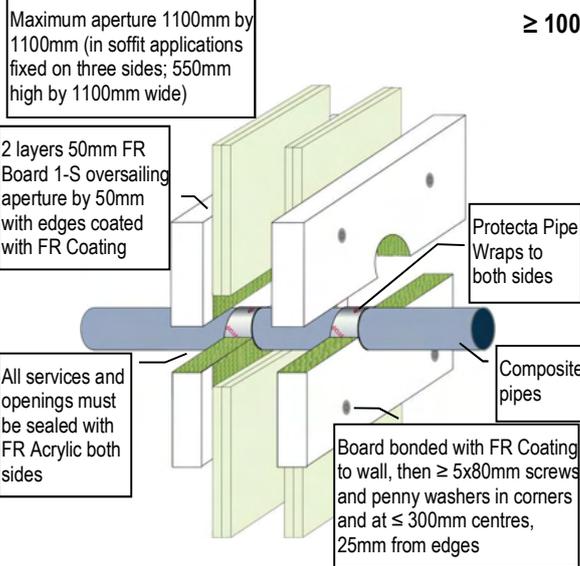
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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 POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 120

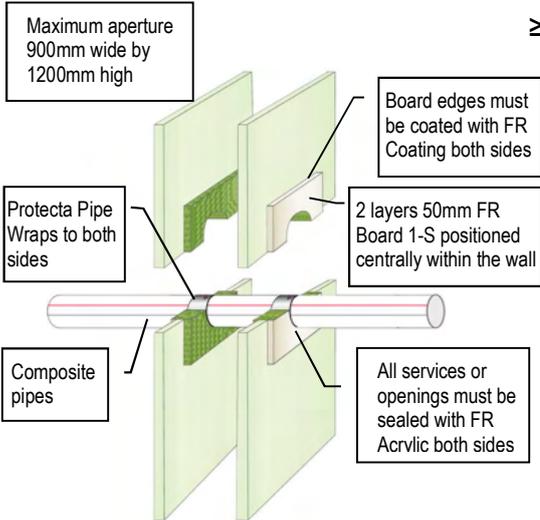
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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 60

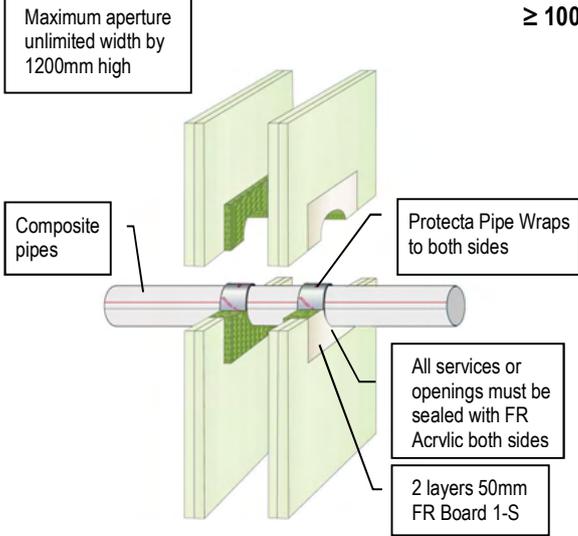
≥ 75MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 40mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 50mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 75mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 90mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 110mm Rehau Raupiano Plus pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 125mm Rehau Raupiano Plus pipes	50 x 7.2mm (4 layers)	EI 60 U/C (E 60 U/C)
Ø 160mm Rehau Raupiano Plus pipes	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)

COMPOSITE REHAU RAUPIANO PLUS PLASTIC PIPES FIRE RESISTANCE EI 120

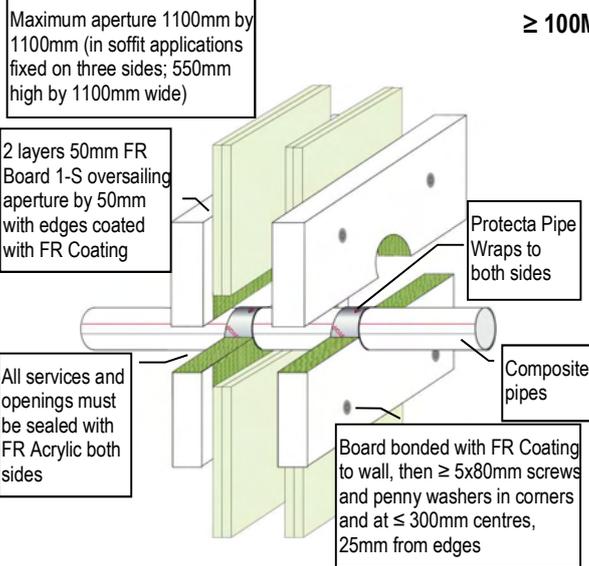
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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 REHAU RAUPIANO PLUS PLASTIC PIPES FIRE RESISTANCE EI 120

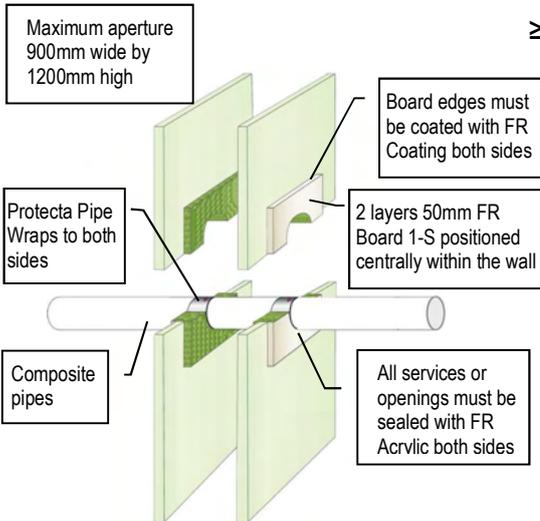
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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 UPONOR DECIBEL PIPES FIRE RESISTANCE EI 60

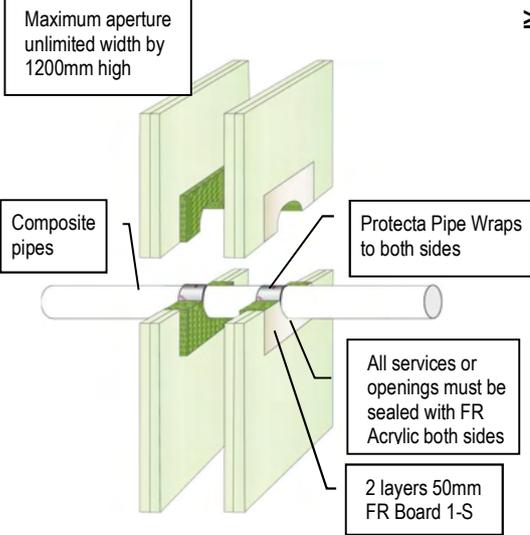
≥ 75MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 50mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 60 U/U (E 60 U/U)
Ø 75mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 110mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)

COMPOSITE UPONOR DECIBEL PLASTIC PIPES FIRE RESISTANCE EI 90

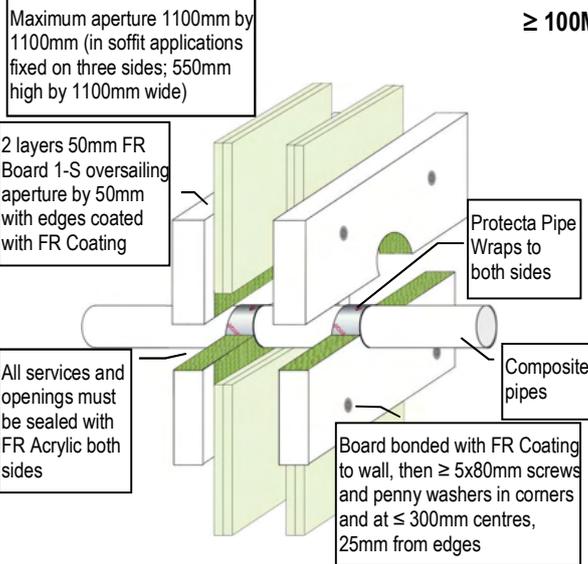
≥ 100MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 50mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 75mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 90 U/C)
Ø 110mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE UPONOR DECIBEL PLASTIC PIPES FIRE RESISTANCE EI 90

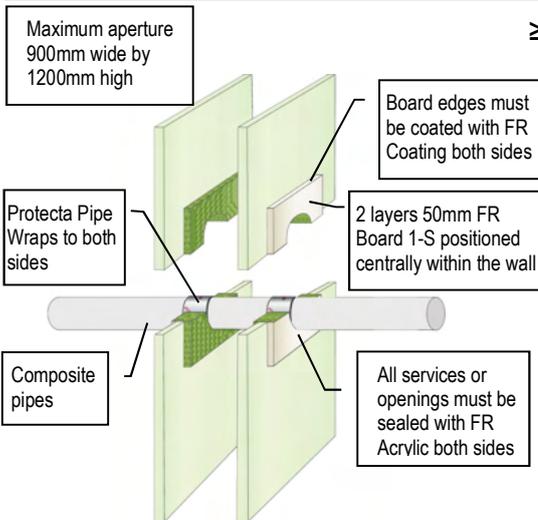
≥ 100MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 50mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 75mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 90 U/C)
Ø 110mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE WAVIN AS+ PLASTIC PIPES FIRE RESISTANCE EI 60

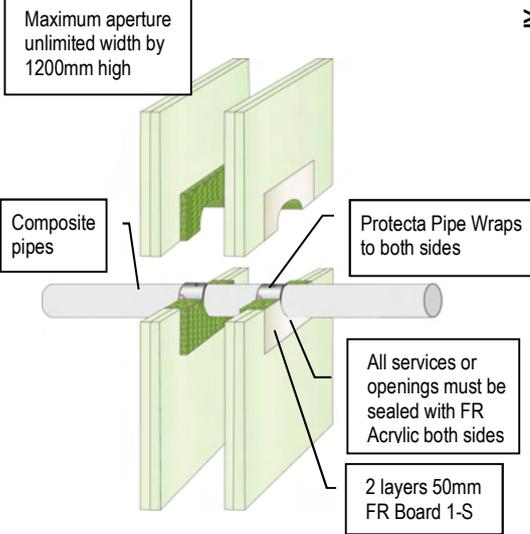
≥ 75MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 50mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 75mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 90mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 110mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 60 U/C (E 60 U/C)
Ø 125mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 60 C/C (E 60 C/C)
Ø 160mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 60 C/C (E 60 C/C)
Ø 200mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 60 C/C (E 60 C/C)

COMPOSITE WAVIN AS+ PLASTIC PIPES FIRE RESISTANCE EI 90

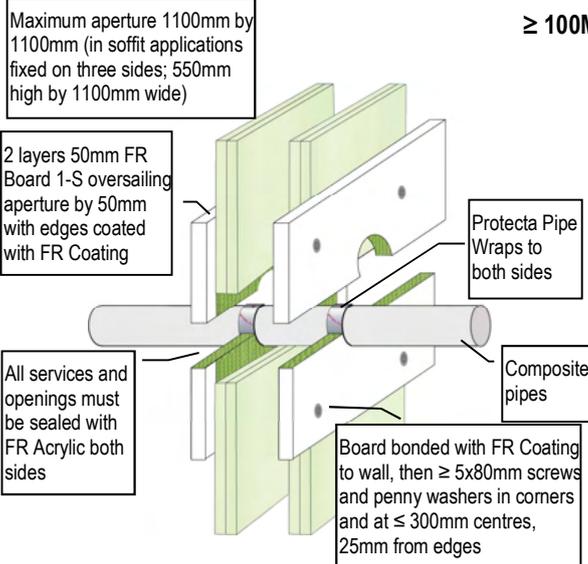
≥ 100MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 50mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 75mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 90mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 110mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 125mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø 160mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø 200mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)

COMPOSITE WAVIN AS+ PLASTIC PIPES FIRE RESISTANCE EI 90

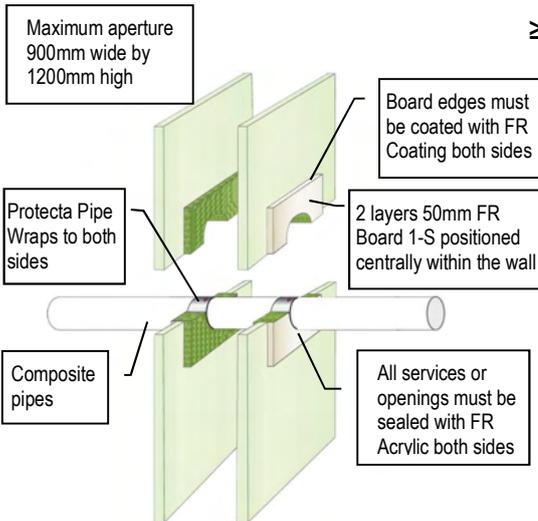
≥ 100MM DRYWALLS OR RIGID WALLS



Services	FR Pipe Wrap	Classification
Ø 50mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 75mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 90mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 110mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 125mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø 160mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø 200mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)

COMPOSITE WAVIN SITECH PIPES FIRE RESISTANCE EI 60

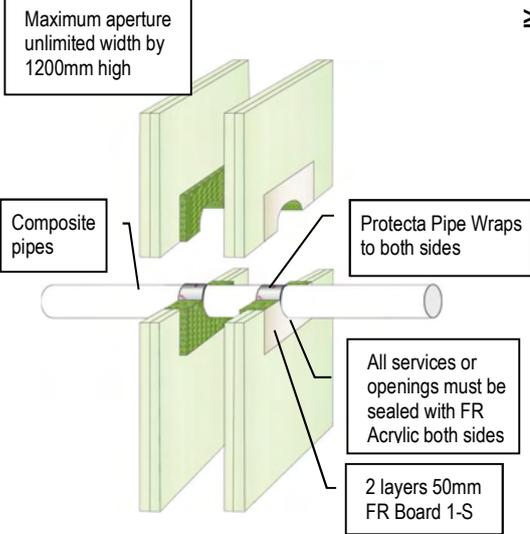
≥ 75MM DRYWALLS OR RIGID WALLS



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

COMPOSITE WAVIN SITECH PLASTIC PIPES FIRE RESISTANCE EI 60-90

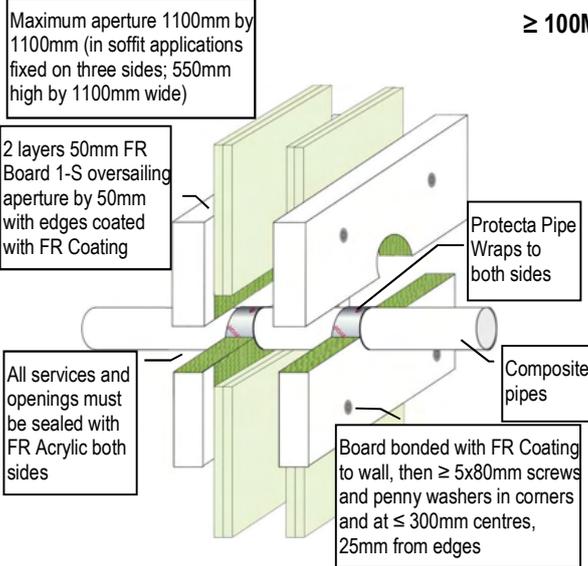
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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)

COMPOSITE WAVIN SITECH PLASTIC PIPES FIRE RESISTANCE EI 60-90

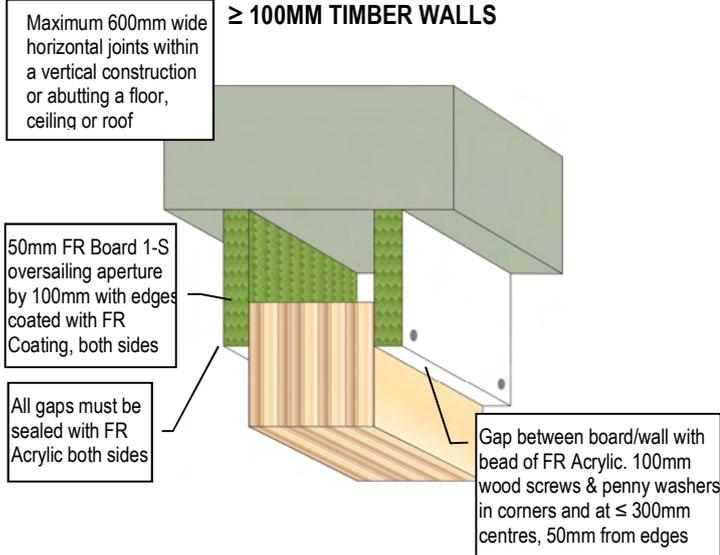
≥ 100MM DRYWALLS OR RIGID WALLS



Services	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)

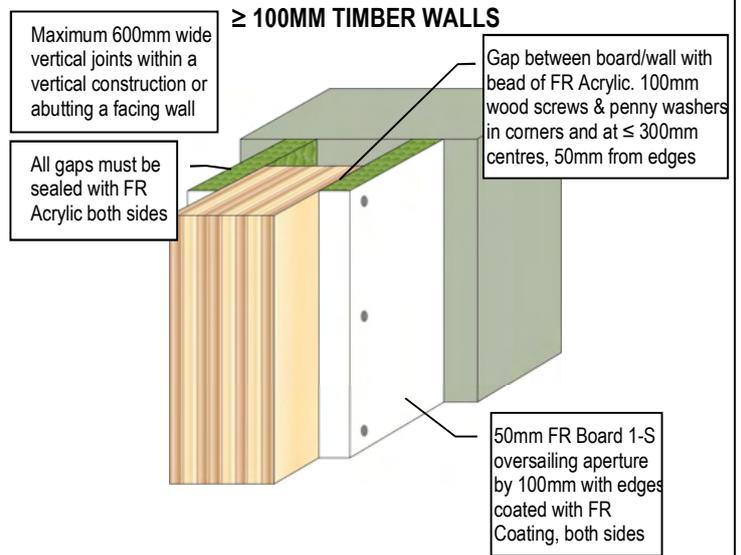
HORIZONTAL LINEAR SEALS FIRE RESISTANCE EI 120 (E120)

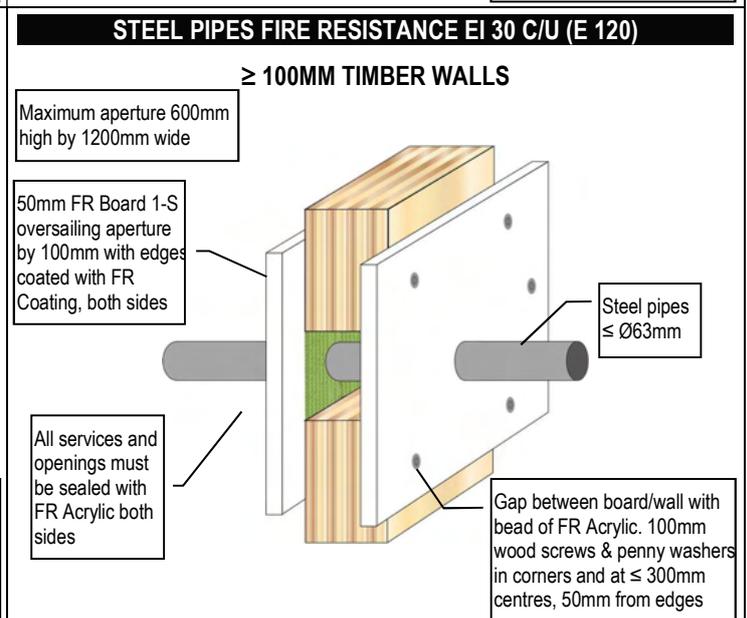
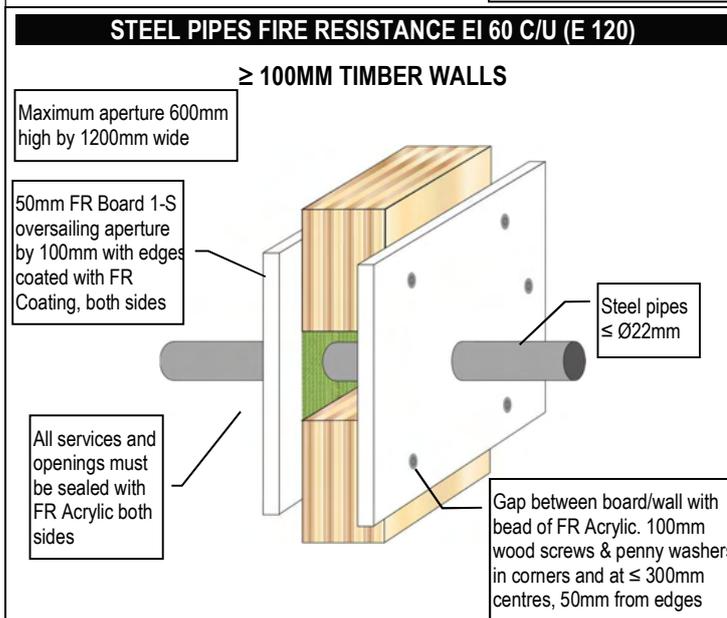
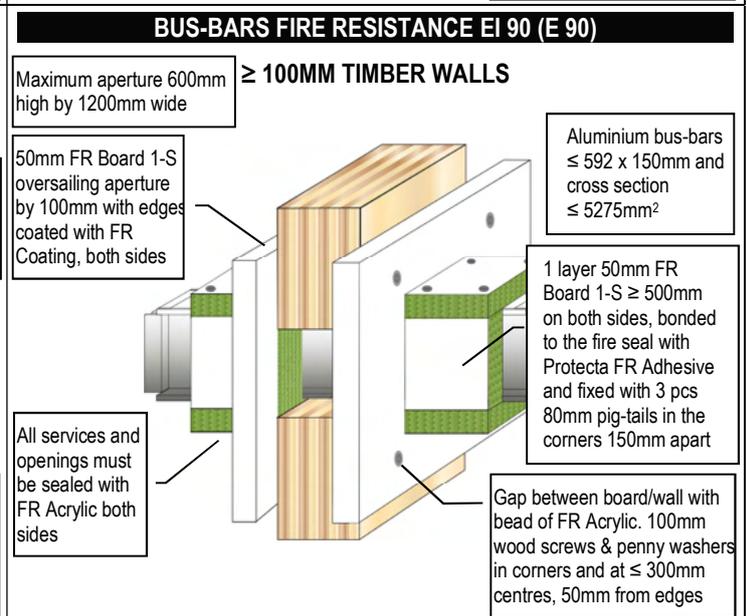
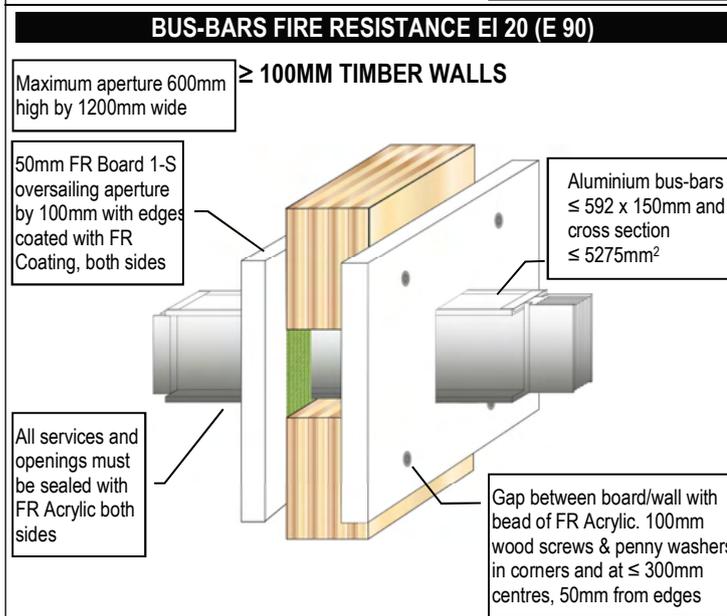
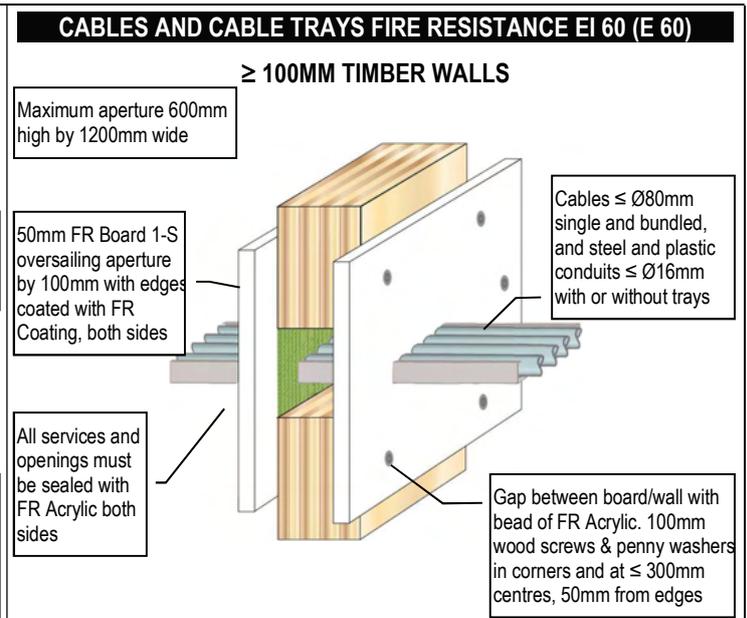
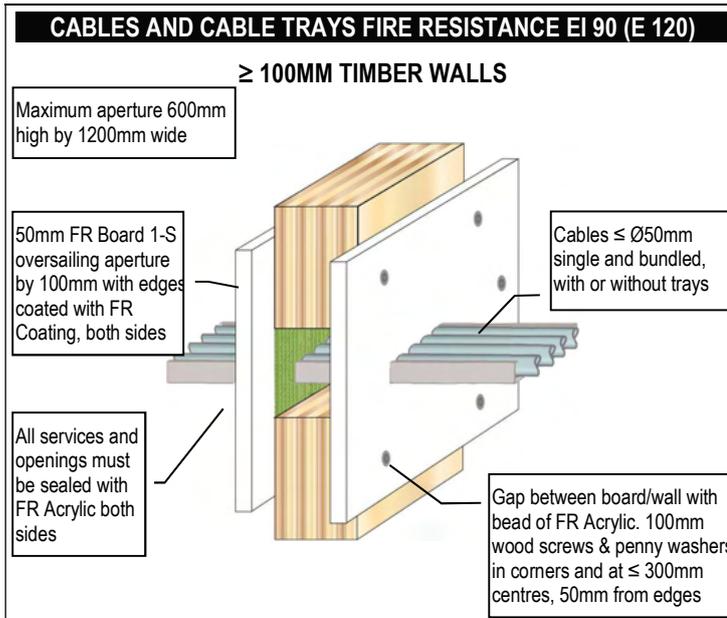
≥ 100MM TIMBER WALLS

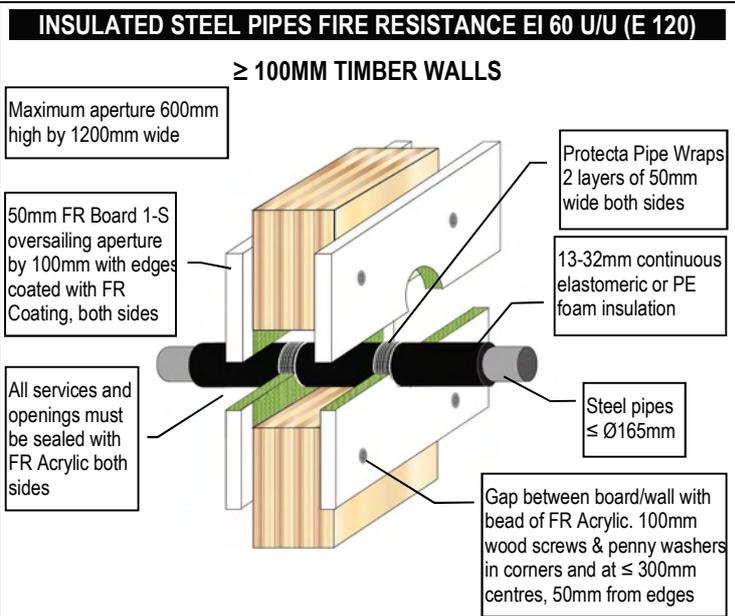
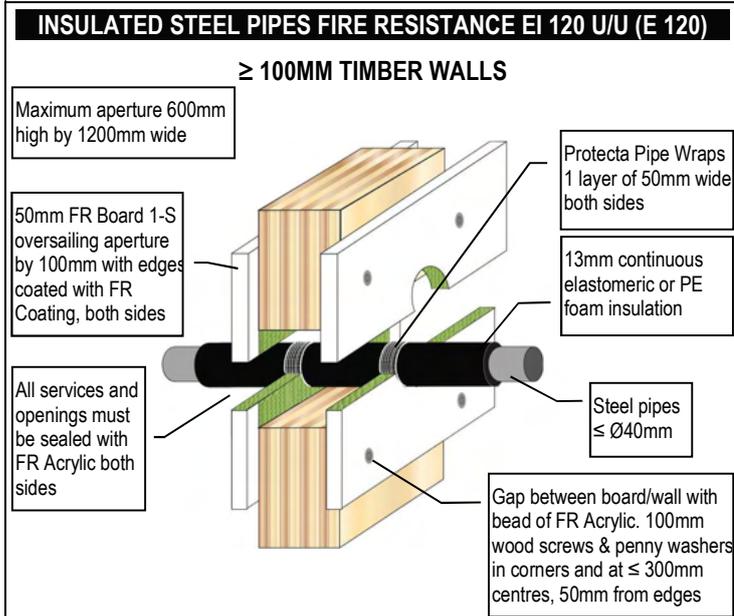
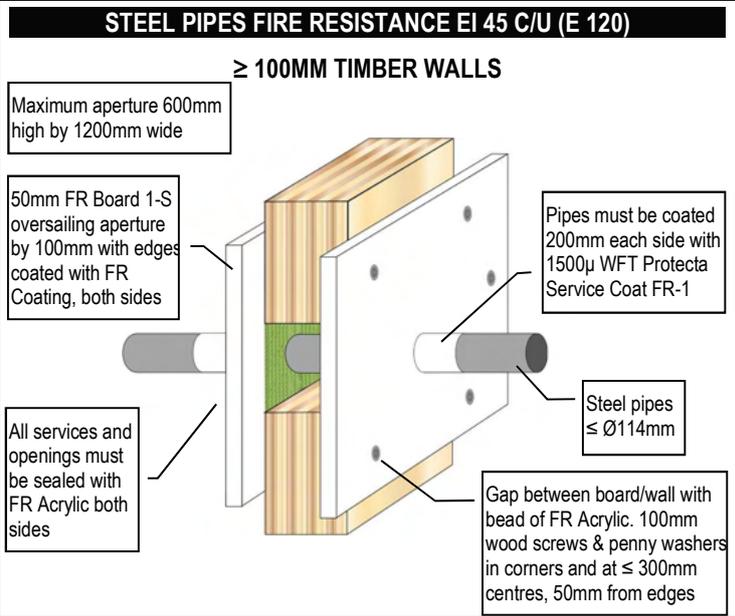
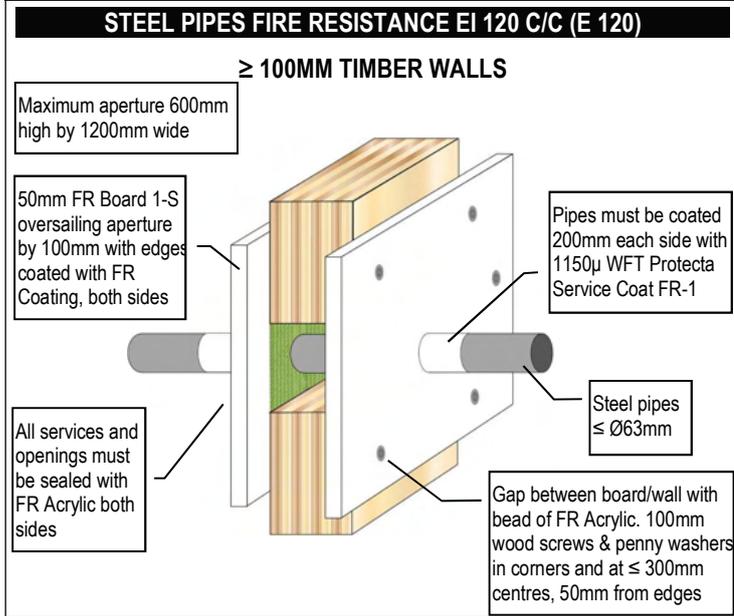
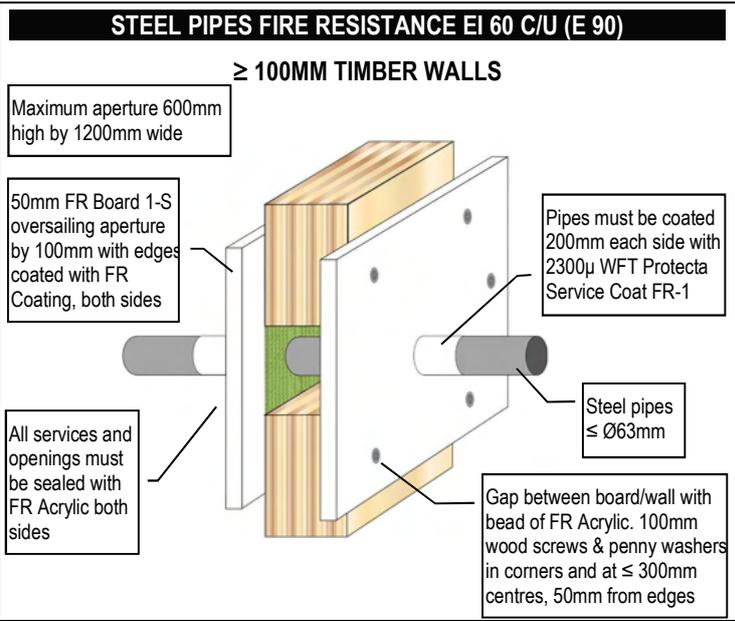
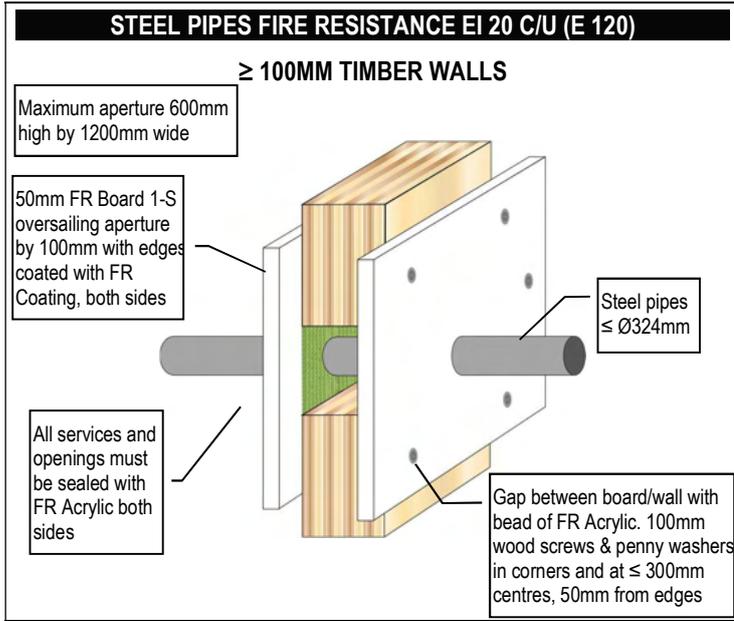


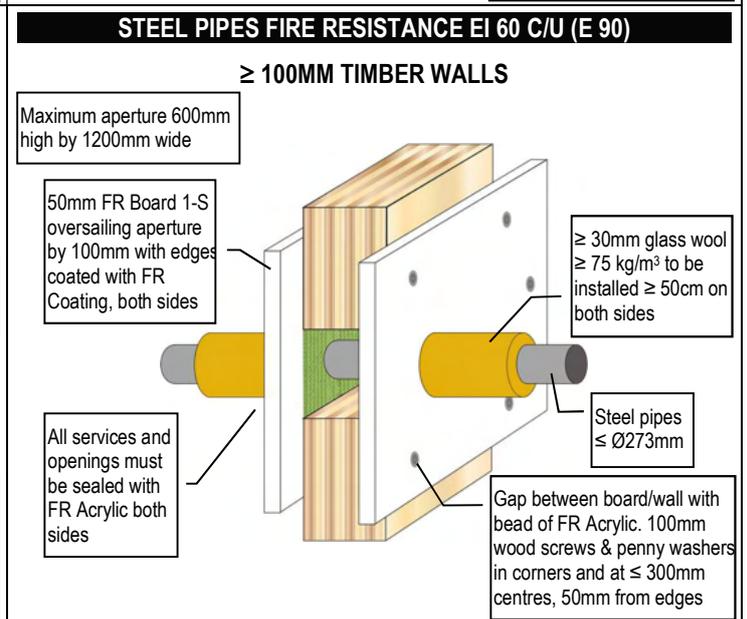
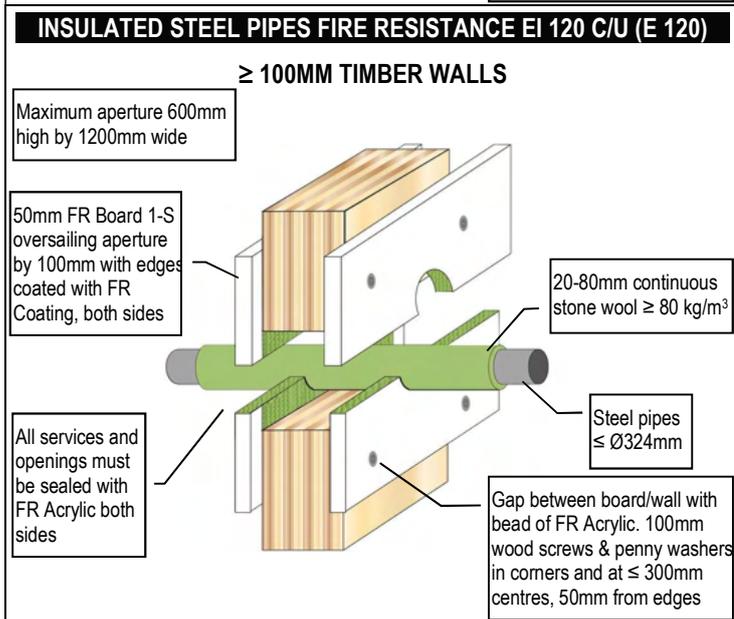
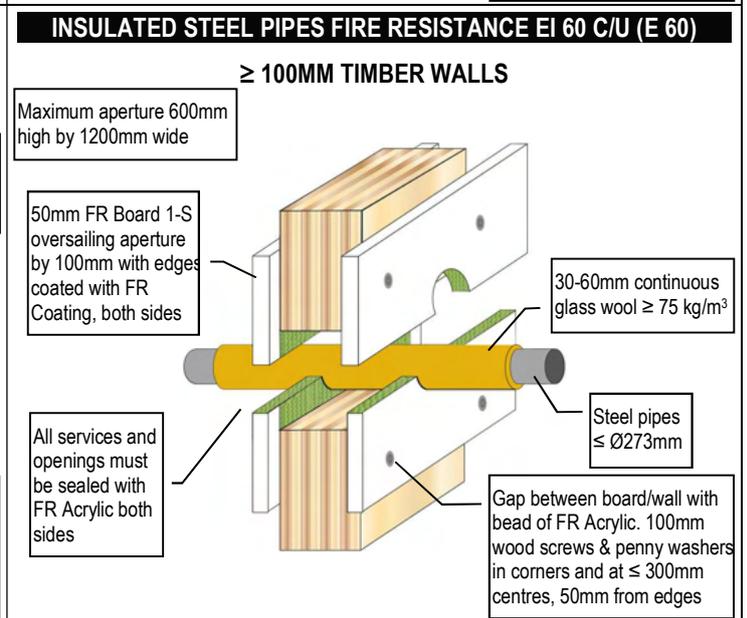
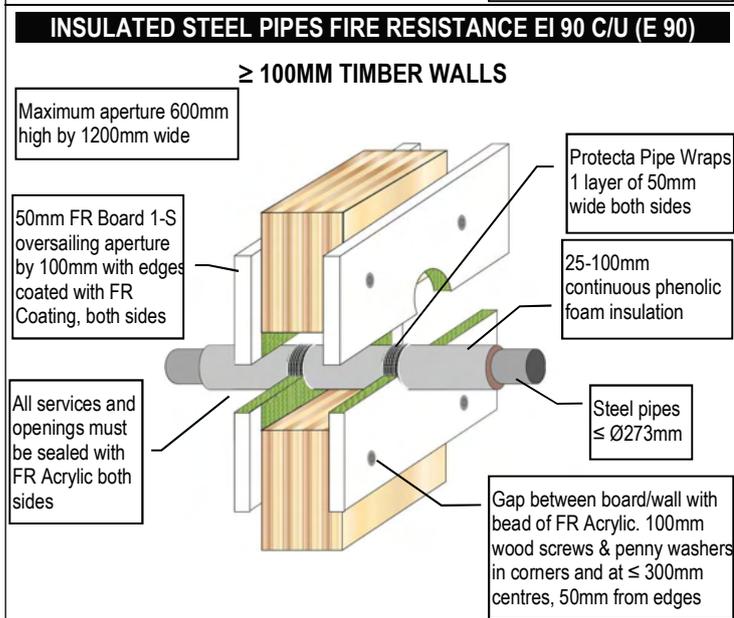
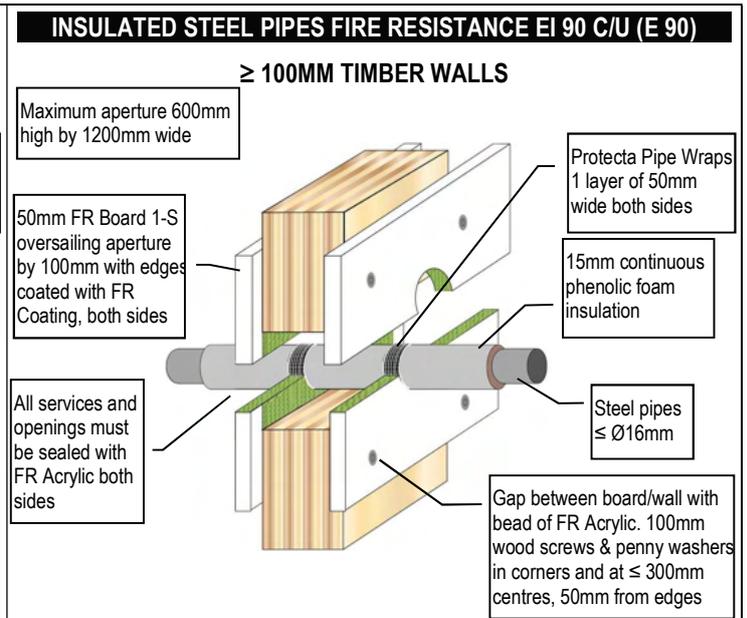
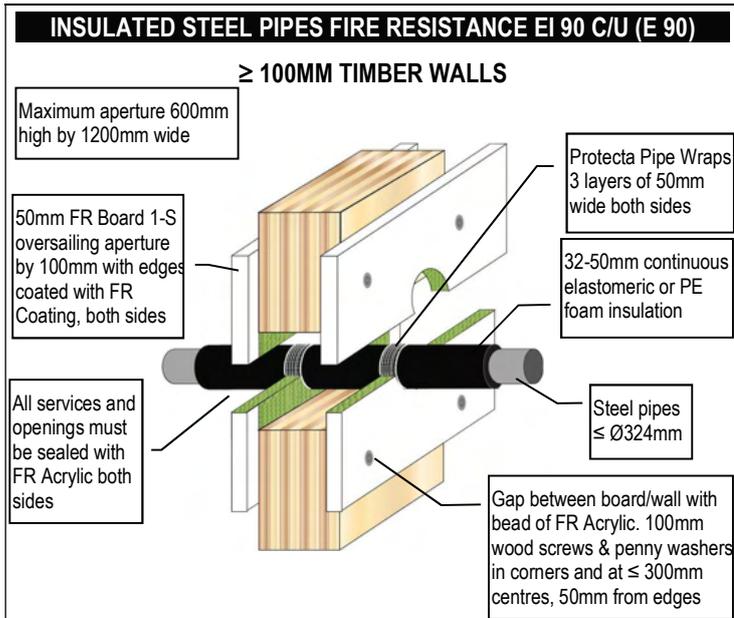
VERTICAL LINEAR SEALS FIRE RESISTANCE EI 60 (E 60)

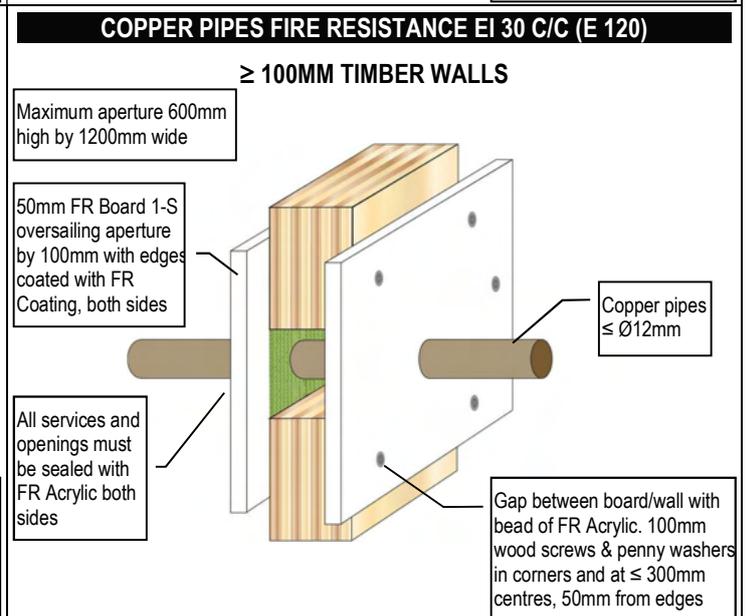
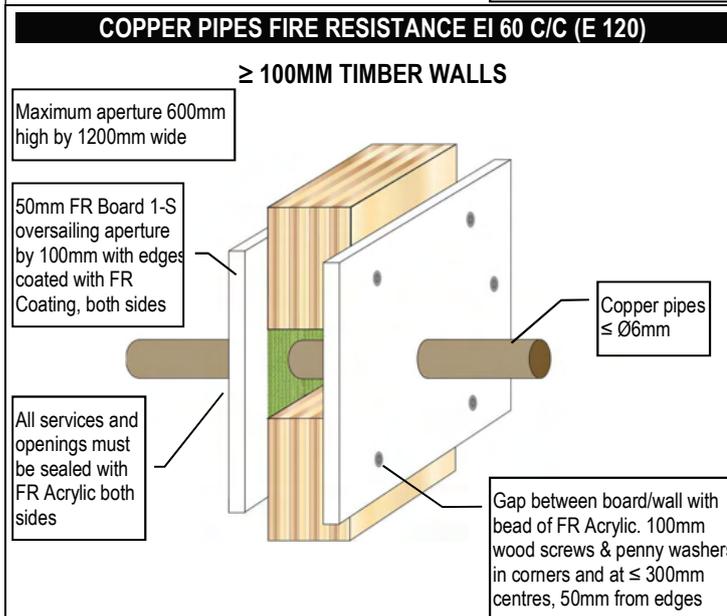
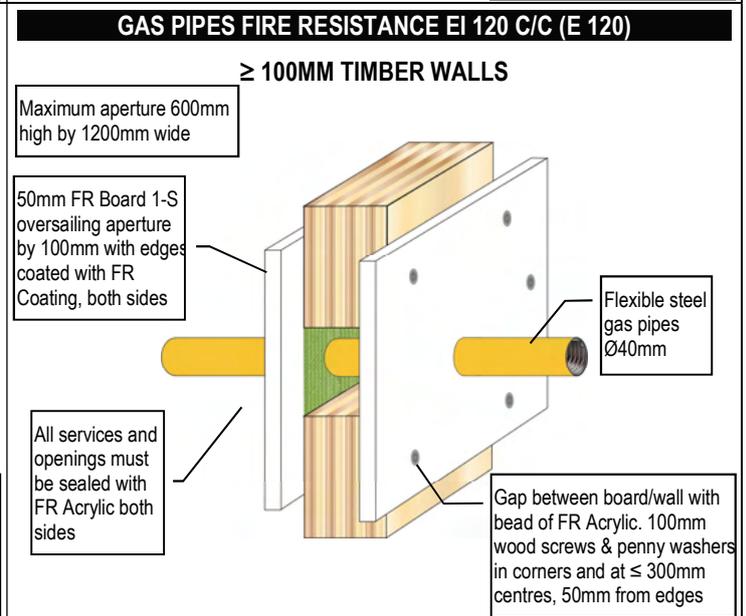
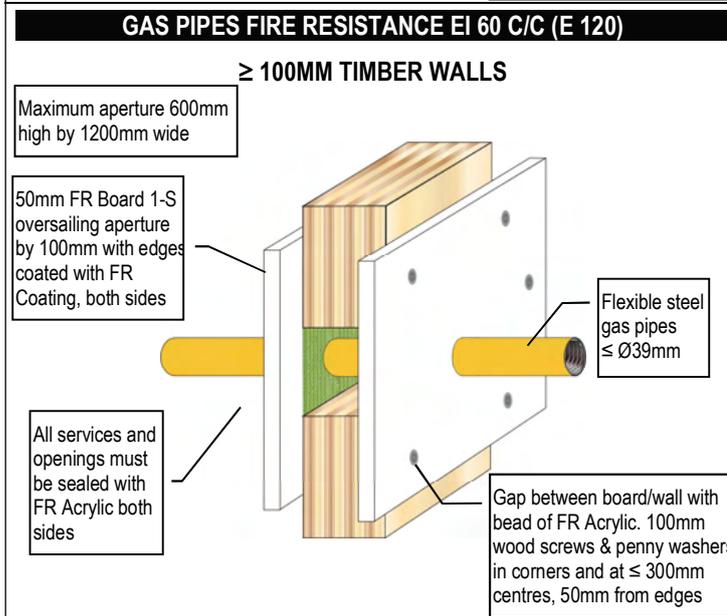
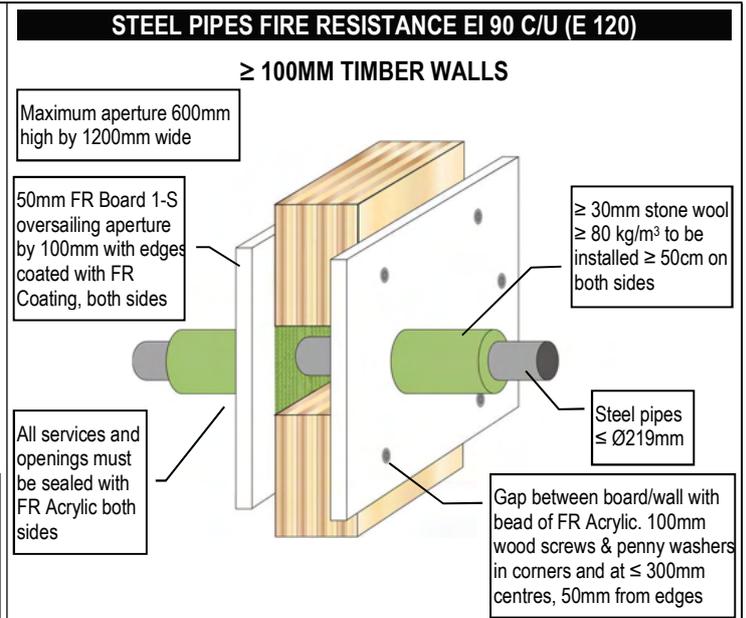
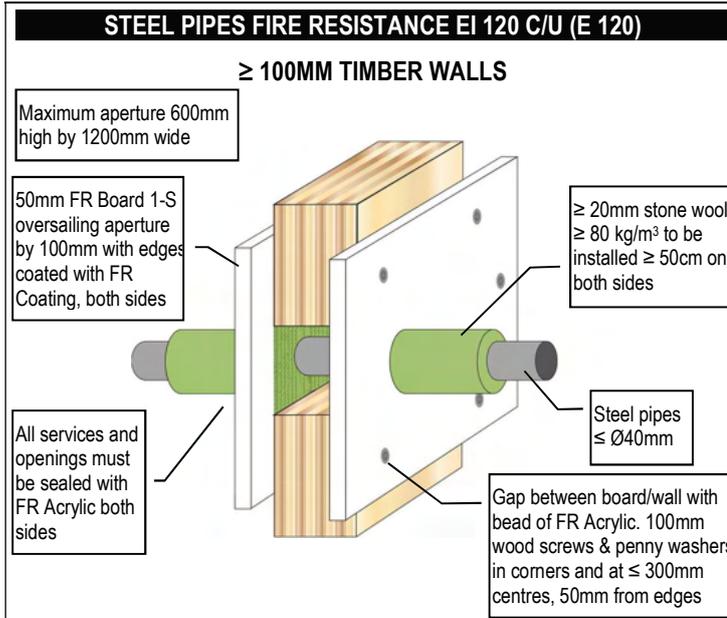
≥ 100MM TIMBER WALLS

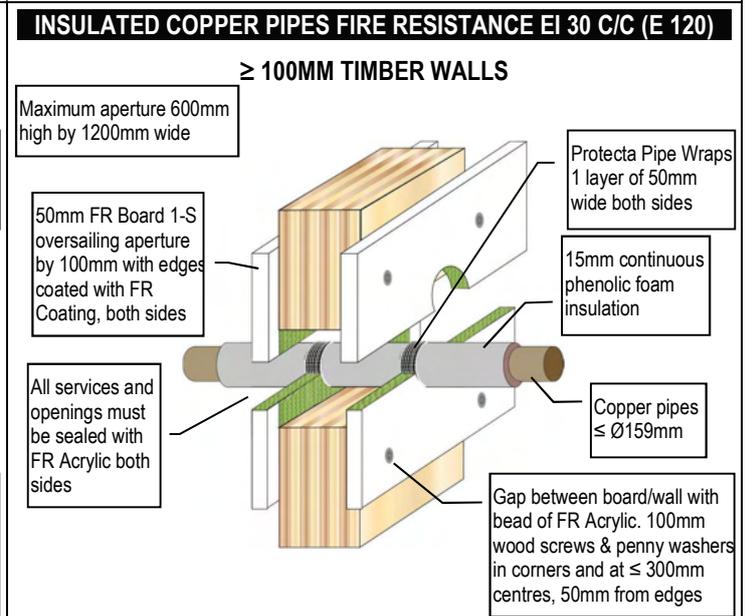
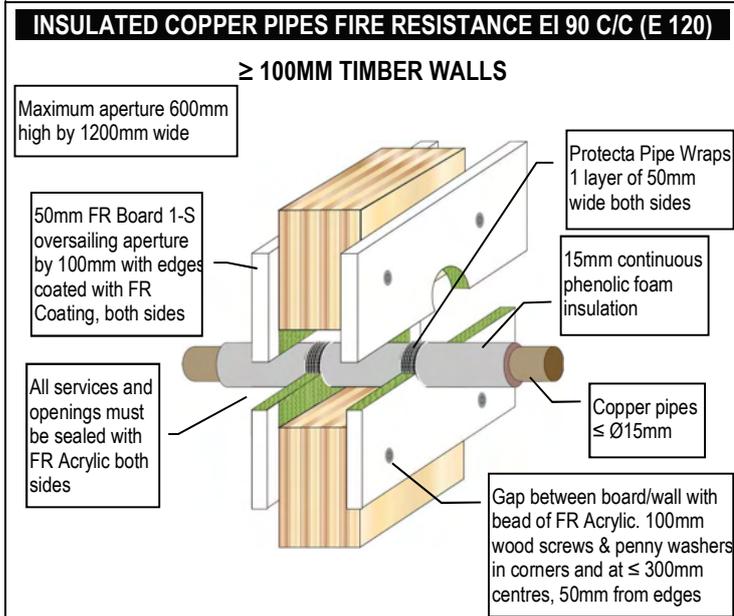
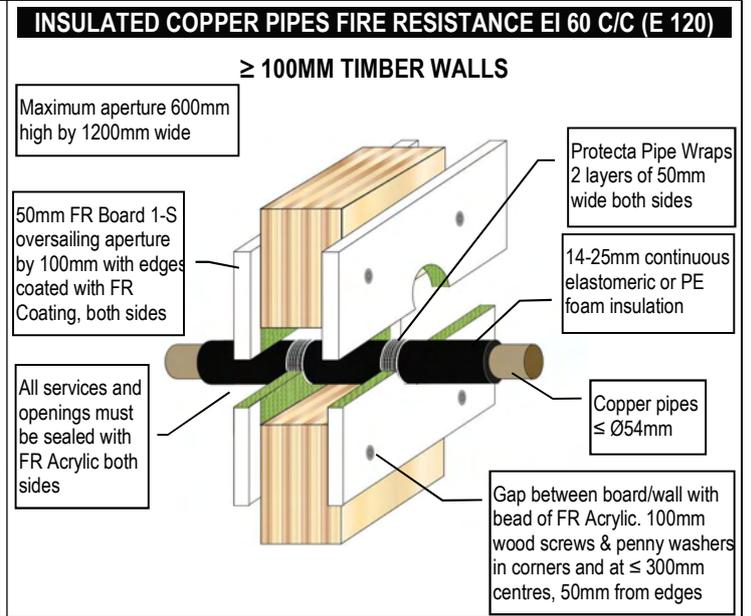
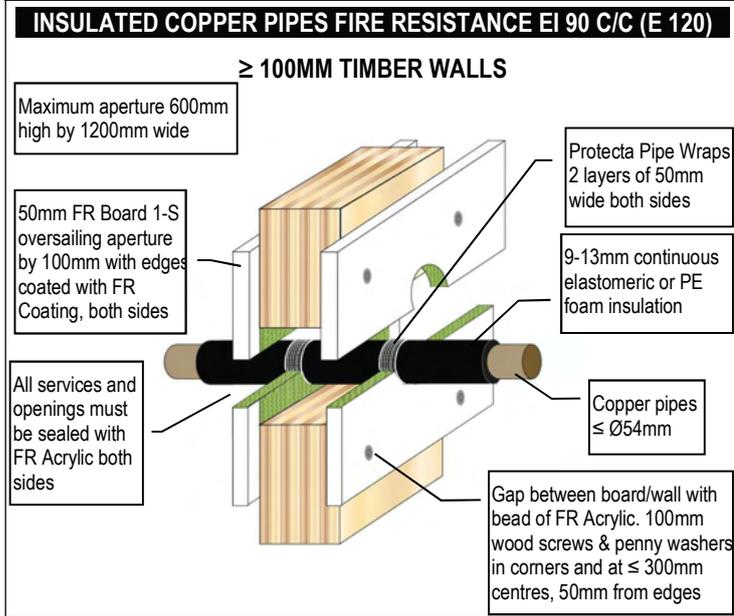
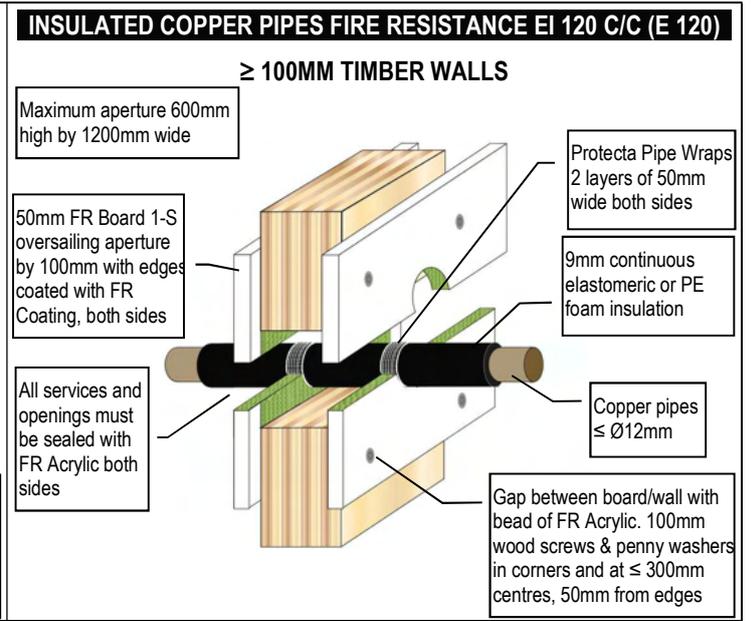
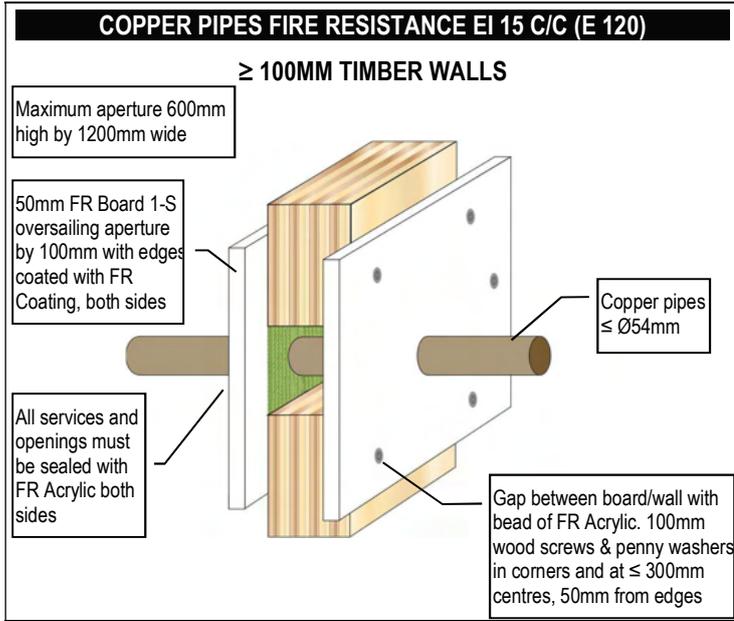


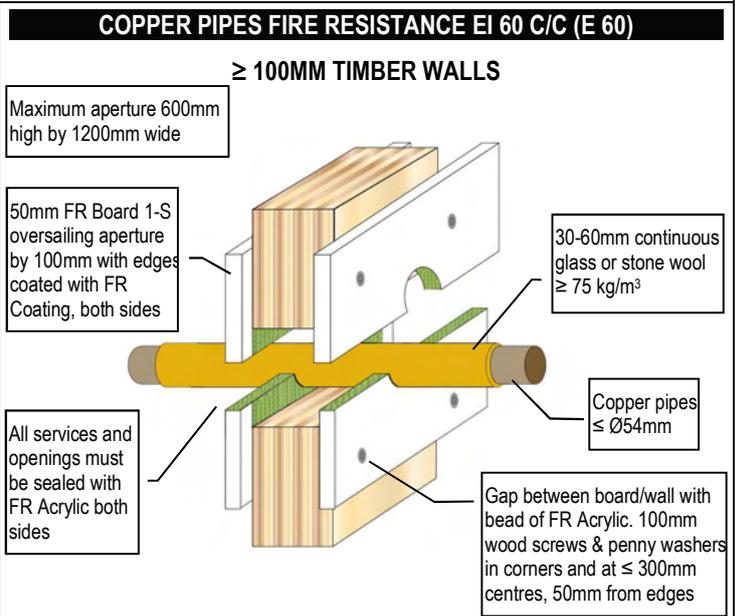
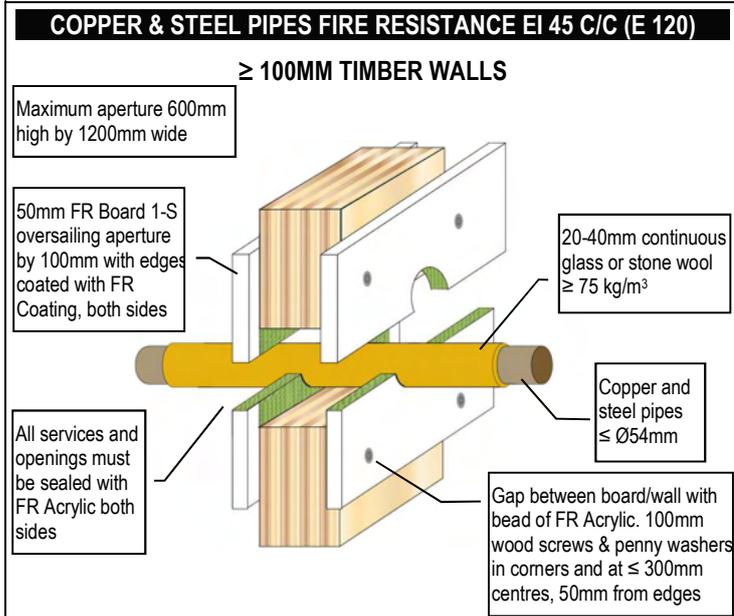
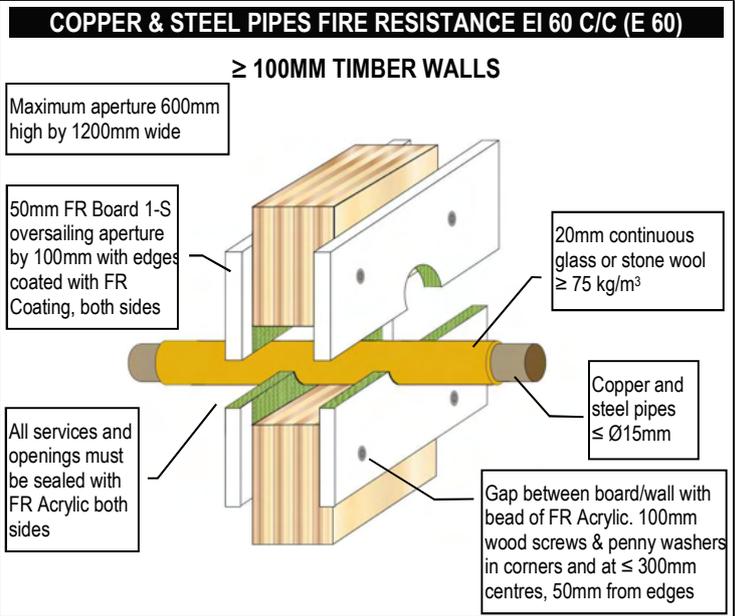
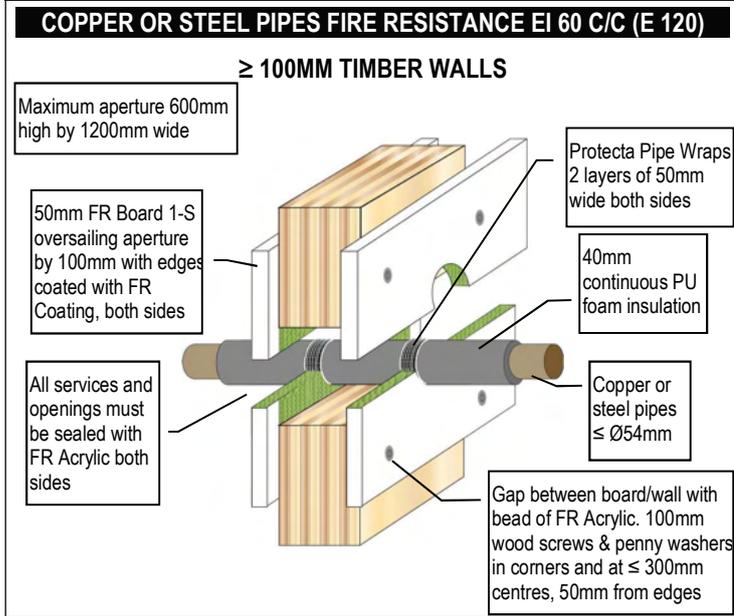
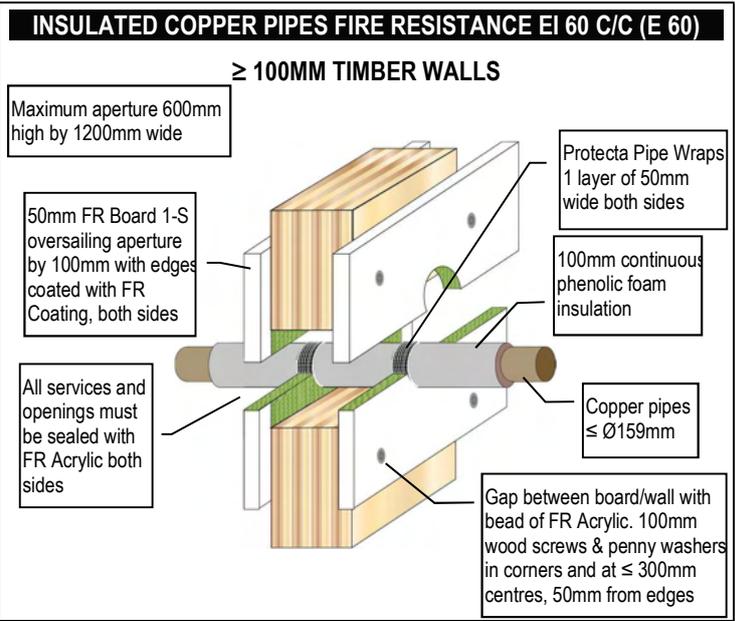
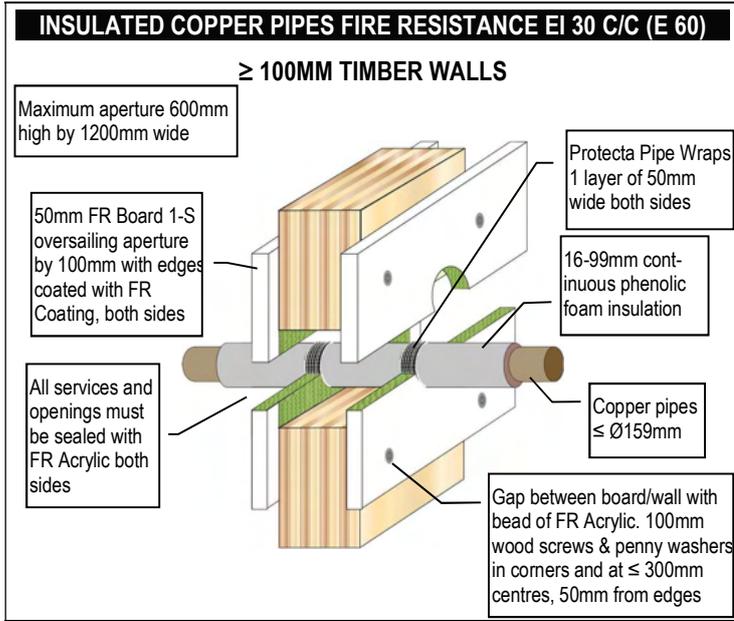












<p>COPPER OR STEEL PIPES FIRE RESISTANCE EI 60 C/C (E 90)</p> <p>≥ 100MM TIMBER WALLS</p> <p>Maximum aperture 600mm high by 1200mm wide</p> <p>50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides</p> <p>≥ 20mm glass wool ≥ 75 kg/m³ to be installed ≥ 50cm on both sides</p> <p>Copper or steel pipes ≤ Ø54mm</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges</p>	<p>COPPER OR STEEL PIPES FIRE RESISTANCE EI 30 C/C (E 120)</p> <p>≥ 100MM TIMBER WALLS</p> <p>Maximum aperture 600mm high by 1200mm wide</p> <p>50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides</p> <p>≥ 30mm glass wool ≥ 75 kg/m³ to be installed ≥ 50cm on both sides</p> <p>Copper or steel pipes ≤ Ø108mm</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges</p>
<p>COPPER OR STEEL PIPES FIRE RESISTANCE EI 120 C/C (E 120)</p> <p>≥ 100MM TIMBER WALLS</p> <p>Maximum aperture 600mm high by 1200mm wide</p> <p>50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides</p> <p>≥ 20mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides</p> <p>Copper or steel pipes ≤ Ø54mm</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges</p>	<p>ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)</p> <p>≥ 100MM TIMBER WALLS</p> <p>Maximum aperture 600mm high by 1200mm wide</p> <p>50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides</p> <p>Alupex pipes ≤ Ø20mm</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges</p>
<p>ALUPEX PIPES FIRE RESISTANCE EI 20 C/C (E 120)</p> <p>≥ 100MM TIMBER WALLS</p> <p>Maximum aperture 600mm high by 1200mm wide</p> <p>50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides</p> <p>Alupex pipes ≤ Ø75mm</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges</p>	<p>INSULATED ALUPEX PIPES FIRE RESISTANCE EI 120 C/C (E 120)</p> <p>≥ 100MM TIMBER WALLS</p> <p>Maximum aperture 600mm high by 1200mm wide</p> <p>50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides</p> <p>Protecta Pipe Wraps 2 layers of 50mm wide both sides</p> <p>9-25mm continuous elastomeric or PE foam insulation</p> <p>Alupex pipes ≤ Ø75mm</p> <p>All services and openings must be sealed with FR Acrylic both sides</p> <p>Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges</p>

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

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

25-60mm continuous glass or stone wool ≥ 75 kg/m³

Alupez pipes ≤ Ø75mm

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

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

ALUPEX PIPES FIRE RESISTANCE EI 30 C/C (E 30)

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

≥ 25mm glass wool ≥ 75 kg/m³ to be installed ≥ 50cm on both sides

Alupez pipes ≤ Ø75mm

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

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

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

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

≥ 20mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides

Alupez pipes ≤ Ø16mm

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

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

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

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

≥ 20mm stone wool ≥ 80 kg/m³ to be installed ≥ 50cm on both sides

Alupez pipes ≤ Ø75mm

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

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

INSULATED METAL PIPES WITH FR GRAPHITE FIRE RESISTANCE EI 60-120

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

Stone wool depth ≥ 25mm, density ≥ 33kg/m³ or similar on both sides

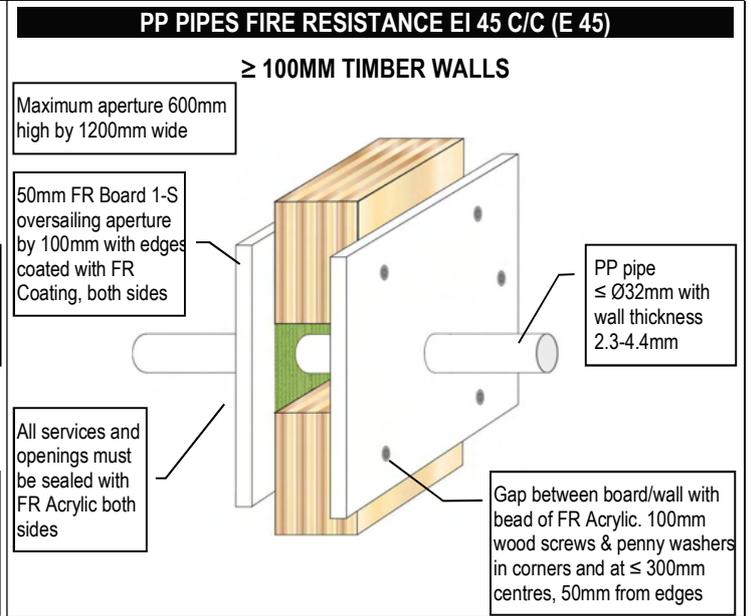
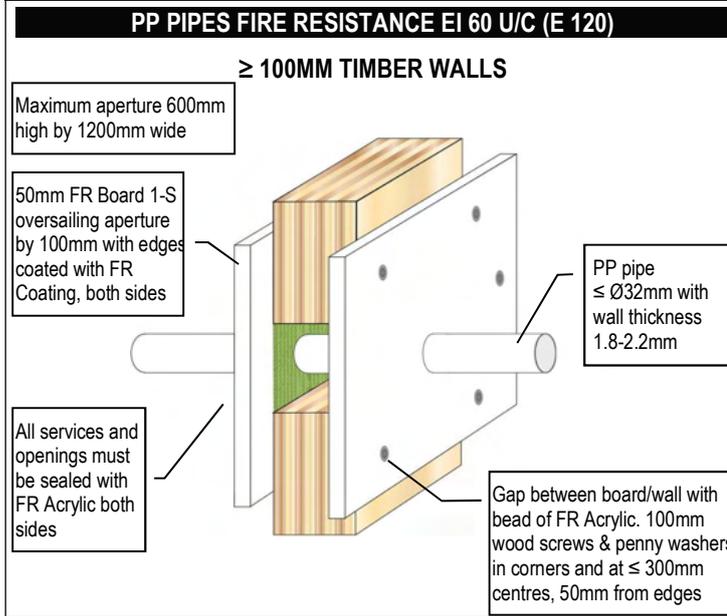
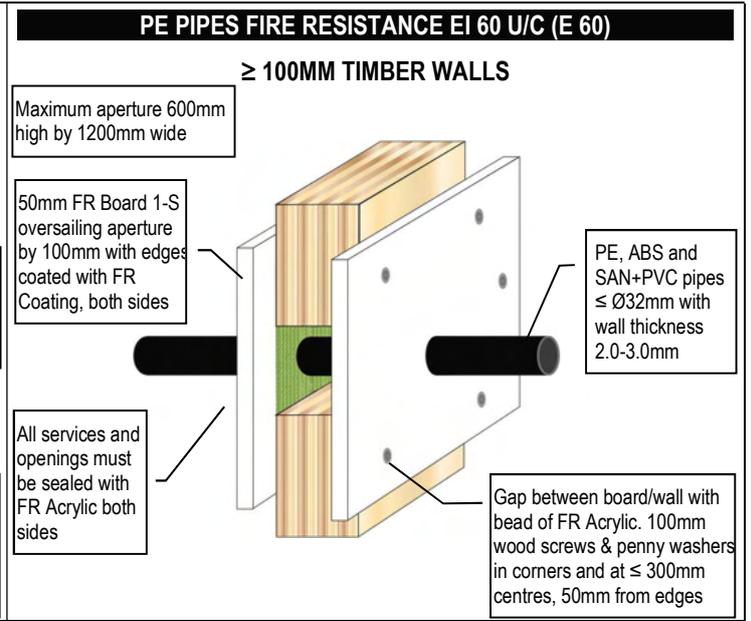
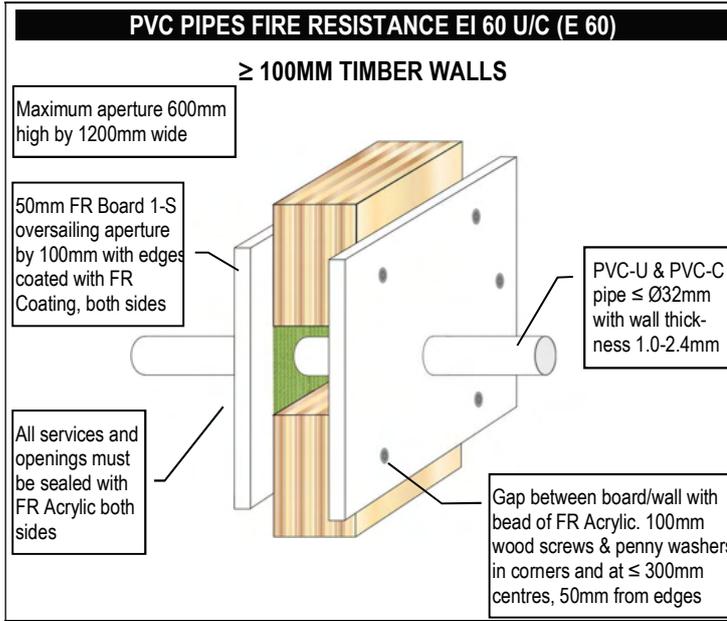
FR Graphite depth ≥ 25mm on both sides with seal width 5-10mm

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

Metal pipes with no minimum distance in-between

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

Services	Pipe Insulation	Classification
Ø6mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 120 C/C (E 120 C/C)
≤ Ø18mm steel or copper pipes	9mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54mm steel or copper pipes	19mm elastomeric insulation class ≥ B-s3, d0	EI 90 C/C (E 120 C/C)
≤ Ø54mm steel or copper pipes	25mm phenolic foam insulation	EI 60 C/C (E 120 C/C)
Ø14mm alupez pipes	6mm PE foam insulation	EI 60 C/C (E 90 C/C)



PLASTIC PIPES FIRE RESISTANCE EI 60-120

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

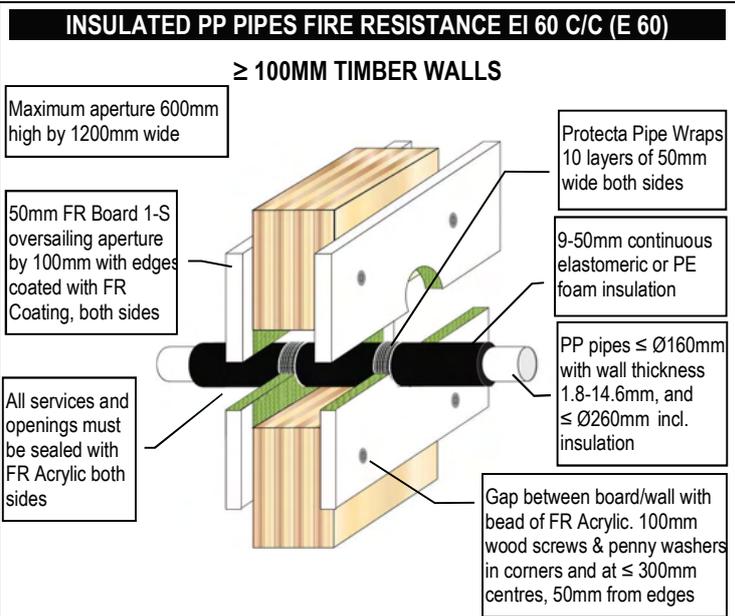
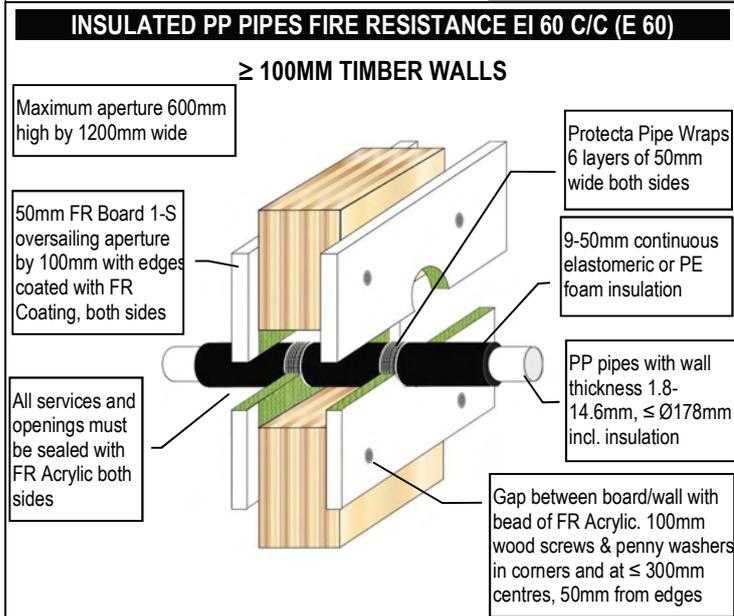
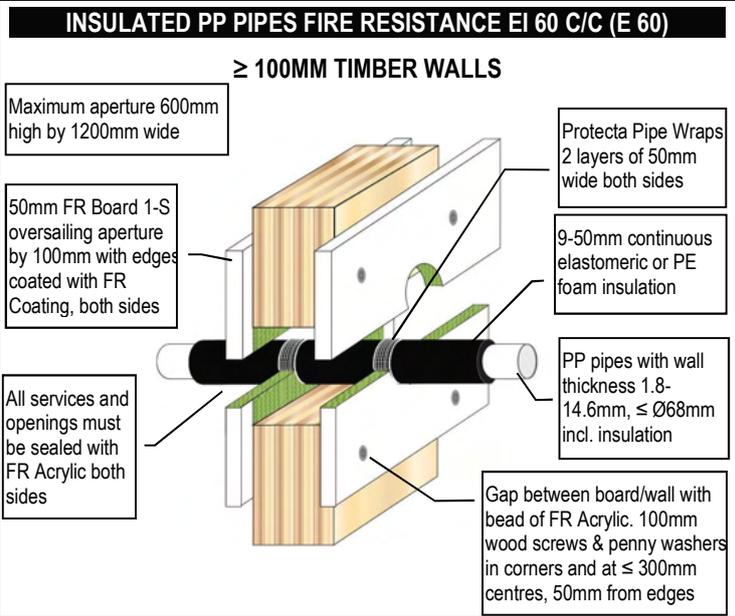
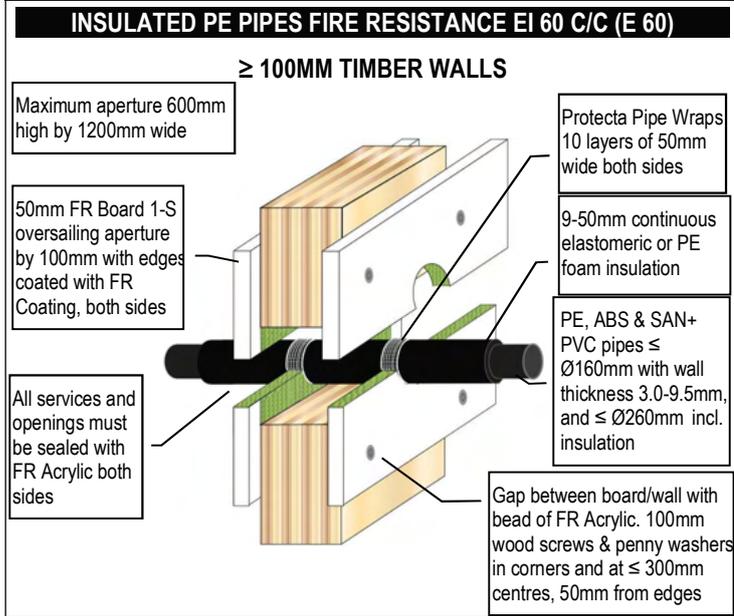
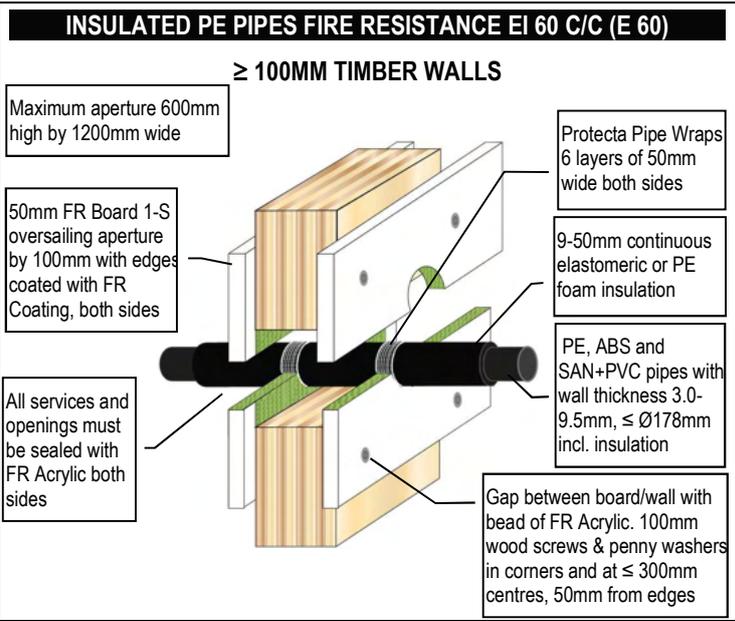
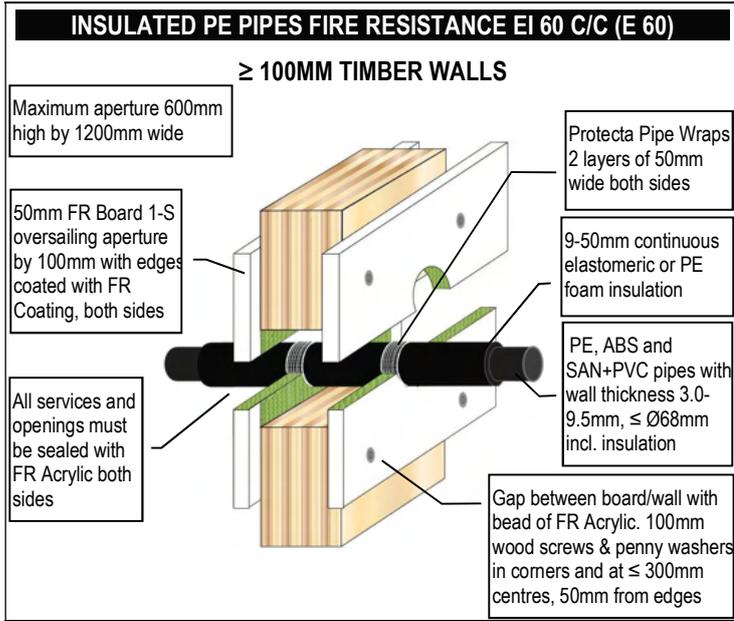
Protecta Pipe Wraps to both sides

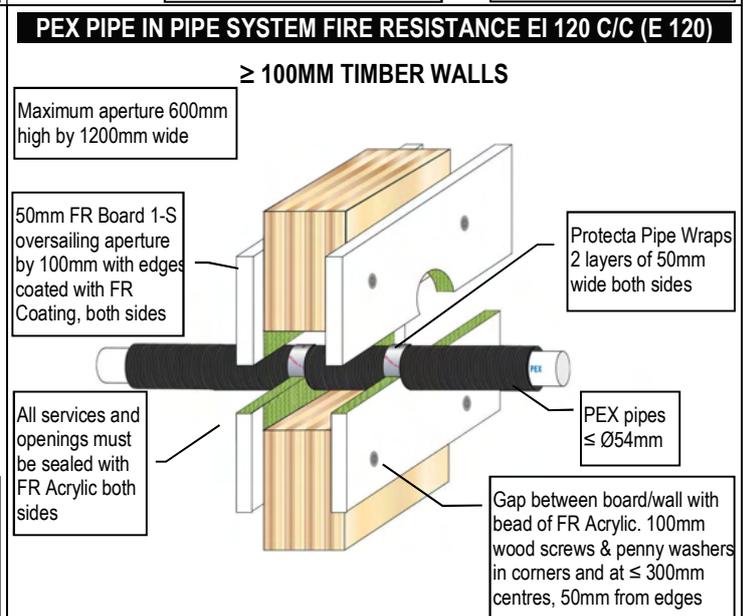
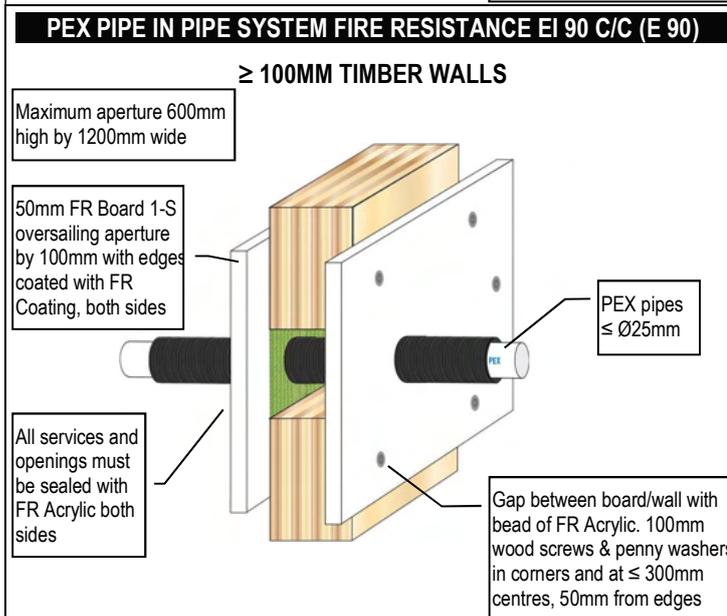
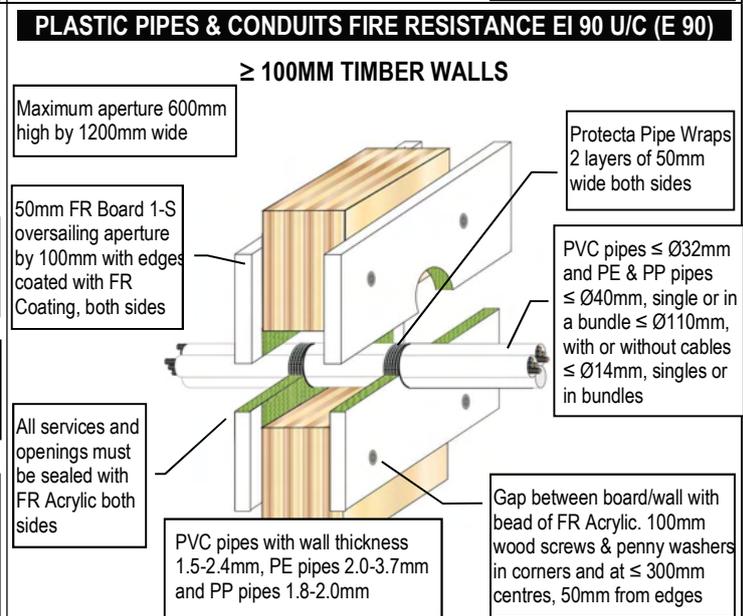
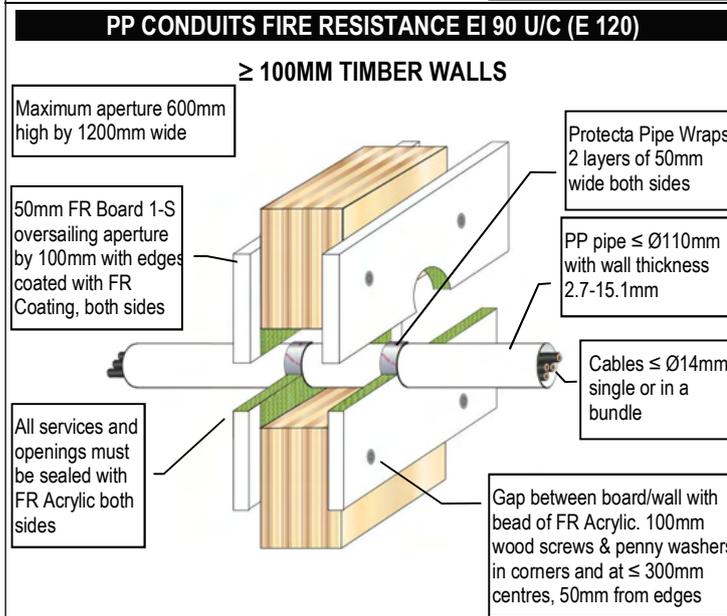
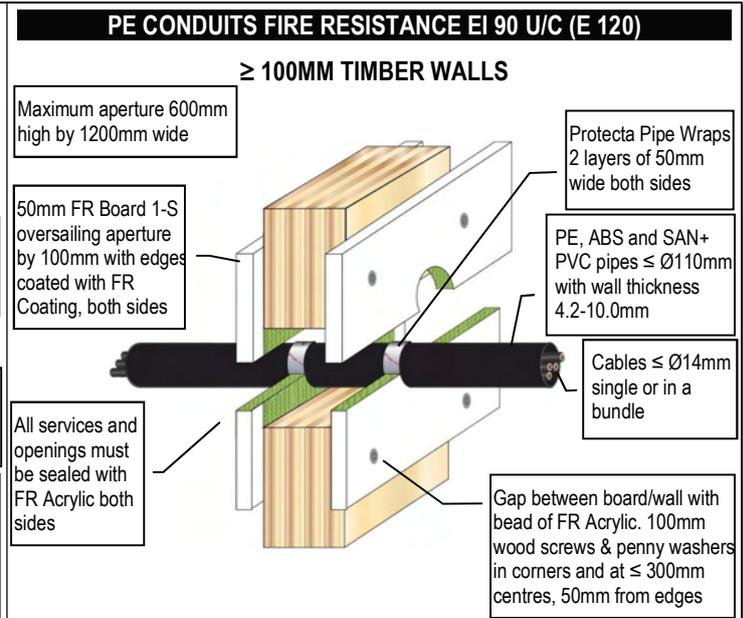
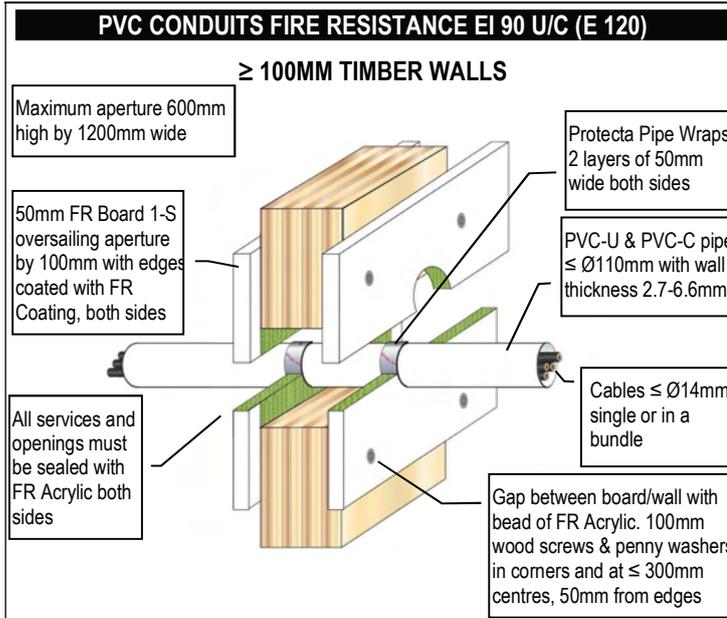
Plastic pipes

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

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at $\leq 300\text{mm}$ centres, 50mm from edges

Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
$\leq \text{Ø} 40\text{mm}$ PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
$\leq \text{Ø} 40\text{mm}$ PE, ABS & SAN+PVC	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
$\leq \text{Ø} 40\text{mm}$ PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 120 U/U (E 120 U/U)
$\leq \text{Ø} 110\text{mm}$ PVC-U & PVC-C	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
$\leq \text{Ø} 110\text{mm}$ PE, ABS & SAN+PVC	4.2 – 10.0mm	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
$\leq \text{Ø} 110\text{mm}$ PP	2.7 – 15.1mm	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
$\leq \text{Ø} 125\text{mm}$ PVC-U & PVC-C	3.7 – 7.4mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
$\leq \text{Ø} 125\text{mm}$ PE, ABS & SAN+PVC	4.8 – 12.0mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
$\leq \text{Ø} 125\text{mm}$ PP	3.1 – 17.1mm	50 x 5.4mm (3 layers)	EI 90 U/C (E 120 U/C)
$\leq \text{Ø} 160\text{mm}$ PVC-U & PVC-C	4.0 – 9.5mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 90 U/C)
$\leq \text{Ø} 160\text{mm}$ PE, ABS & SAN+PVC	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 90 U/C)
$\leq \text{Ø} 160\text{mm}$ PP	4.9 – 21.9mm	50 x 10.8mm (6 layers)	EI 60 U/C (E 60 U/C)
$\leq \text{Ø} 200\text{mm}$ PVC-U & PVC-C	4.9 – 11.9mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
$\leq \text{Ø} 200\text{mm}$ PE, ABS & SAN+PVC	6.2 – 18.2mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
$\leq \text{Ø} 200\text{mm}$ PP	4.9 – 18.2mm	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
$\leq \text{Ø} 315\text{mm}$ PVC-U & PVC-C	7.7 – 12.1mm	50 x 18.0mm (10 layers)	EI 90 C/C (E 90 C/C)
$\leq \text{Ø} 315\text{mm}$ PE, ABS & SAN+PVC	18.7mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
$\leq \text{Ø} 315\text{mm}$ PP	28.6mm	50 x 18.0mm (10 layers)	EI 60 C/C (E 60 C/C)
$\leq \text{Ø} 400\text{mm}$ PVC-U & PVC-C	9.8 – 15.3mm	50 x 28.8mm (16 layers)	EI 90 C/C (E 90 C/C)
$\leq \text{Ø} 400\text{mm}$ PE, ABS & SAN+PVC	23.7mm	50 x 28.8mm (16 layers)	EI 60 C/C (E 60 C/C)





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

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

Protecta Pipe Wraps 2 layers of 50mm wide both sides

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

PEX pipes ≤ Ø25mm in bundles ≤ Ø50mm

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

COMPOSITE AQUATHERM GREEN SDR9 PLASTIC PIPES FIRE RESISTANCE EI 90

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

Services	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 TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

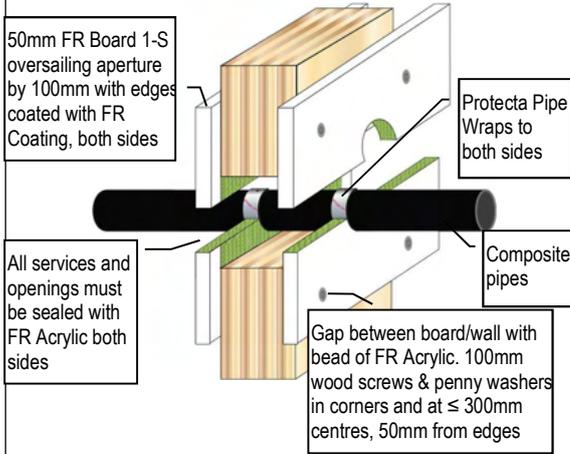
Services	FR Pipe Wrap	Classification
Ø 32mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 40mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 50mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 75mm BluePower pipes	50 x 3.6mm (2 layers)	EI 90 C/U (E 90 C/U)
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)
Ø 125mm BluePower pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø 160mm BluePower pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)

COMPOSITE GEBERIT SILENT-PP PIPES FIRE RESISTANCE EI 90-120

≥ 100MM TIMBER WALLS

Services	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)
Ø 125mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)
Ø 160mm Geberit Silent-PP pipes	50 x 10.8mm (6 layers)	EI 90 U/C (E 90 U/C)

Maximum aperture 600mm high by 1200mm wide

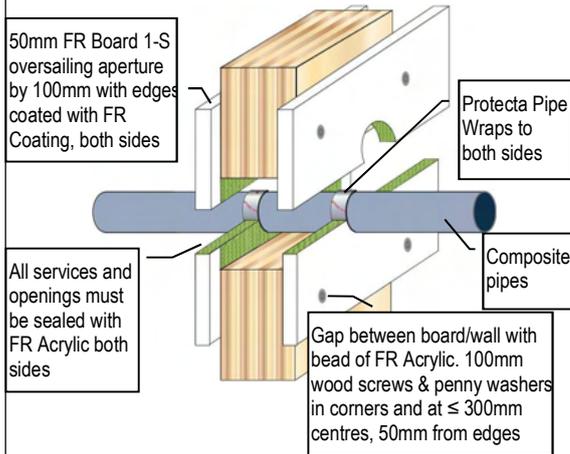


COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 120

≥ 100MM TIMBER WALLS

Services	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)

Maximum aperture 600mm high by 1200mm wide

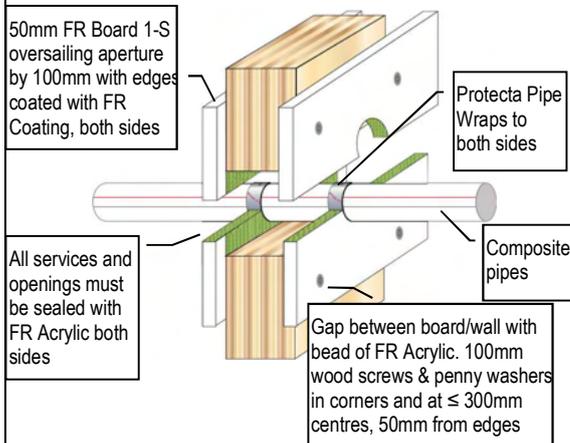


COMPOSITE REHAU RAUPIANO PLUS PLASTIC PIPES FIRE RESISTANCE EI 120

≥ 100MM TIMBER WALLS

Services	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)

Maximum aperture 600mm high by 1200mm wide

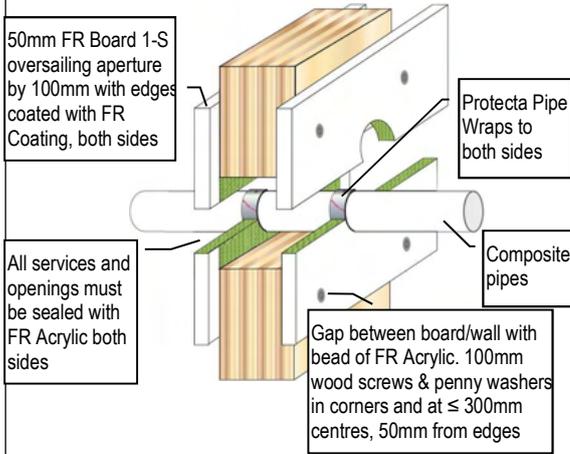


COMPOSITE UPONOR DECIBEL PIPES FIRE RESISTANCE EI 90

Maximum aperture 600mm high by 1200mm wide

≥ 100MM TIMBER WALLS

Services	FR Pipe Wrap	Classification
Ø 50mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 90 U/U)
Ø 75mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 90 U/C)
Ø 110mm Uponor Decibel pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 90 U/C)

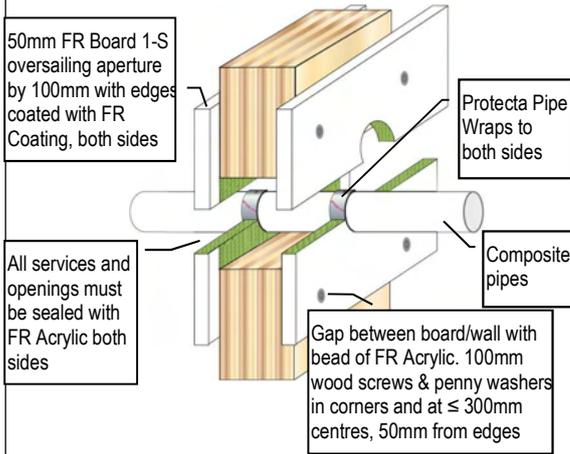


COMPOSITE WAVIN AS+ PLASTIC PIPES FIRE RESISTANCE EI 90

Maximum aperture 600mm high by 1200mm wide

≥ 100MM TIMBER WALLS

Services	FR Pipe Wrap	Classification
Ø 50mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 75mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 90mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 110mm Wavin AS+ pipes	50 x 3.6mm (2 layers)	EI 90 U/C (E 120 U/C)
Ø 125mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø 160mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)
Ø 200mm Wavin AS+ pipes	50 x 10.8mm (6 layers)	EI 90 C/C (E 90 C/C)

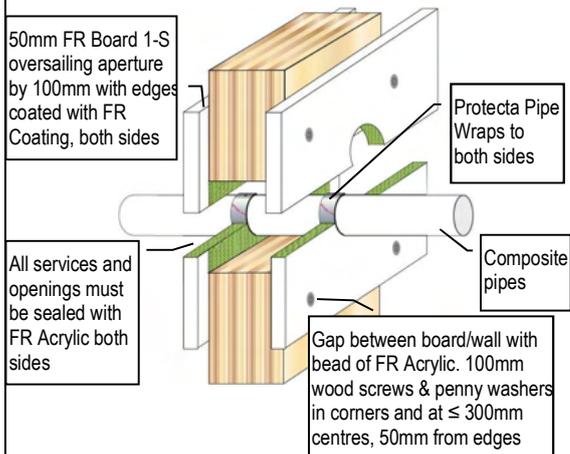


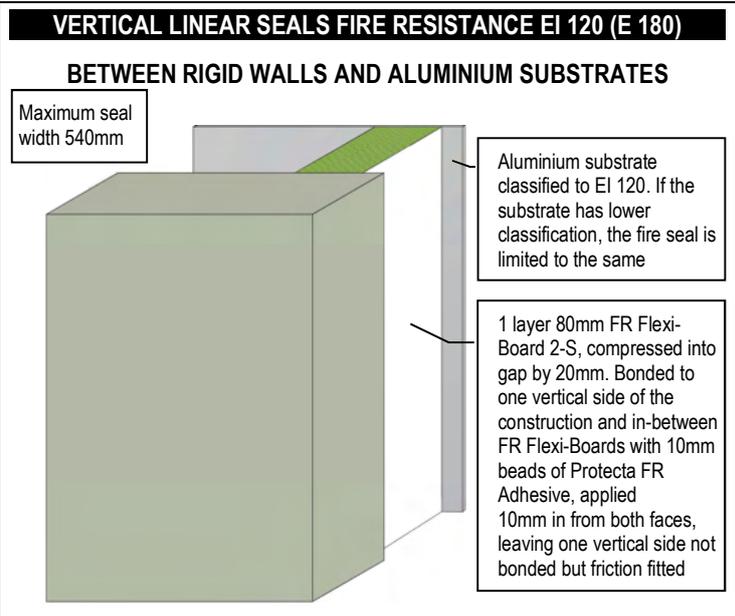
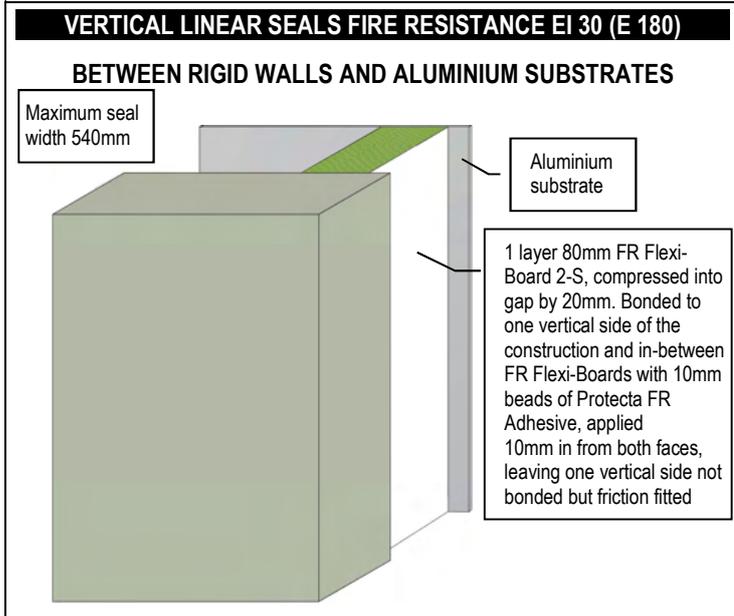
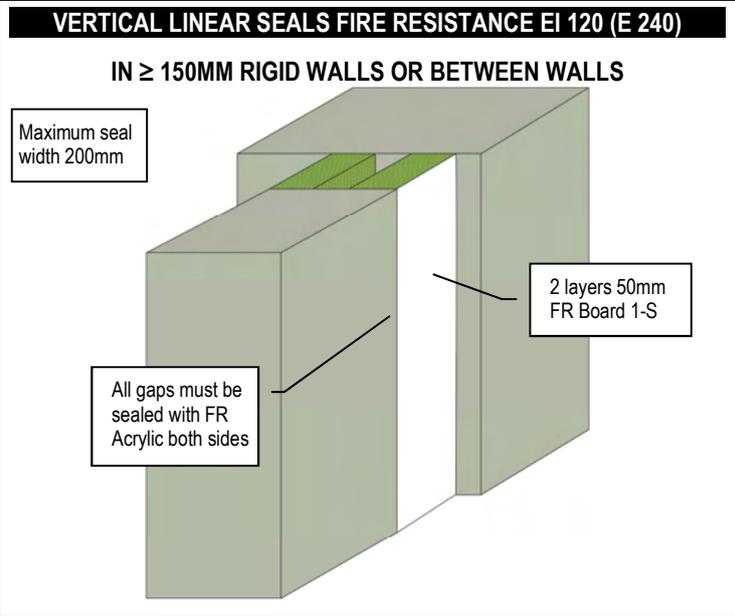
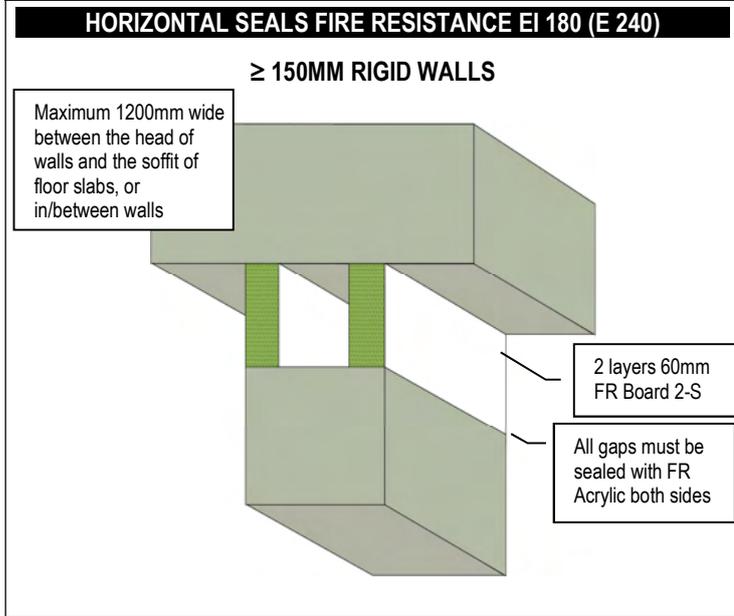
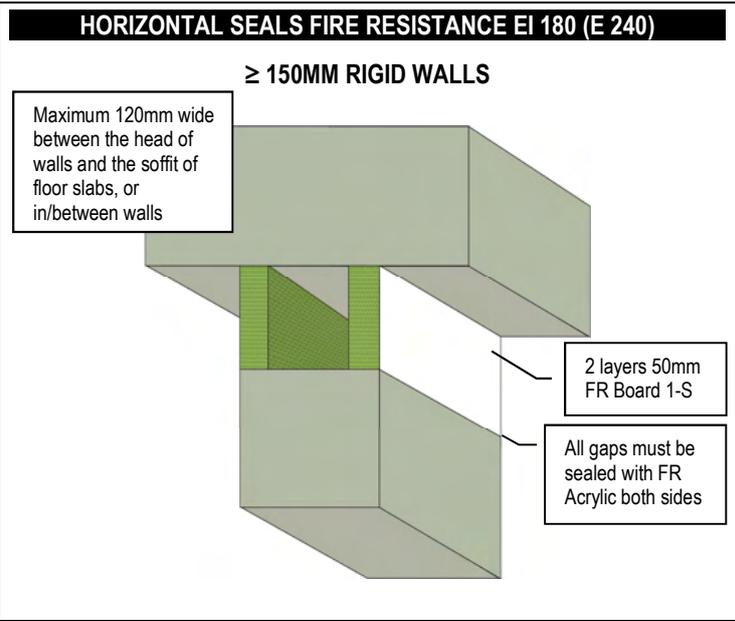
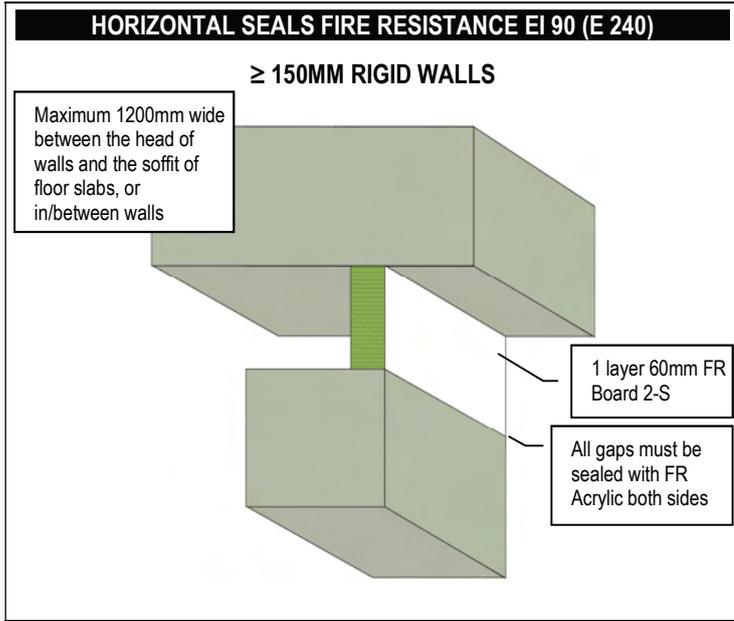
COMPOSITE WAVIN SITECH PLASTIC PIPES FIRE RESISTANCE EI 60-90

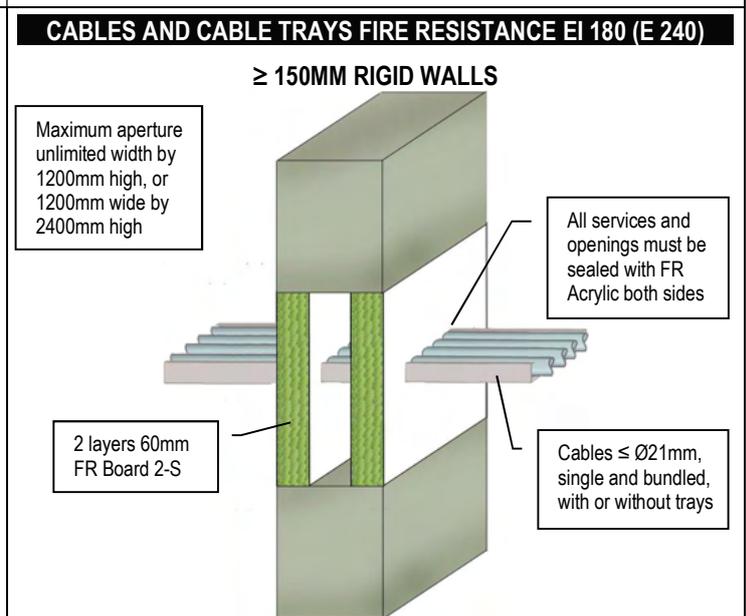
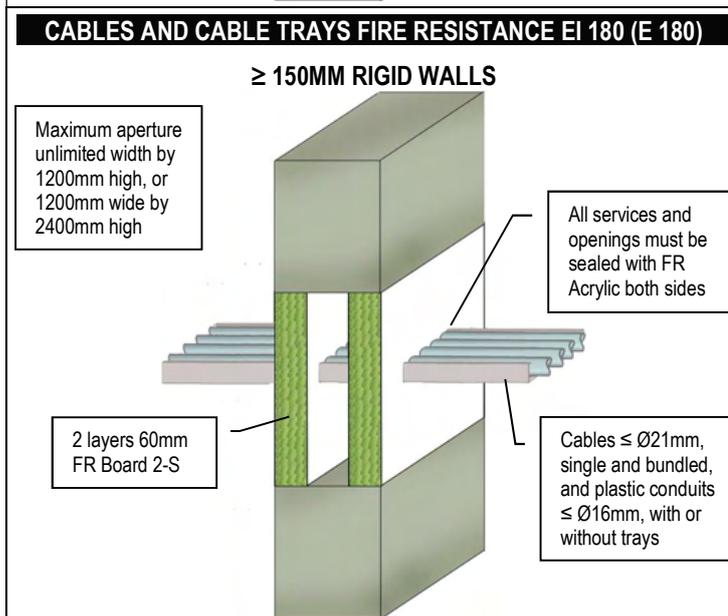
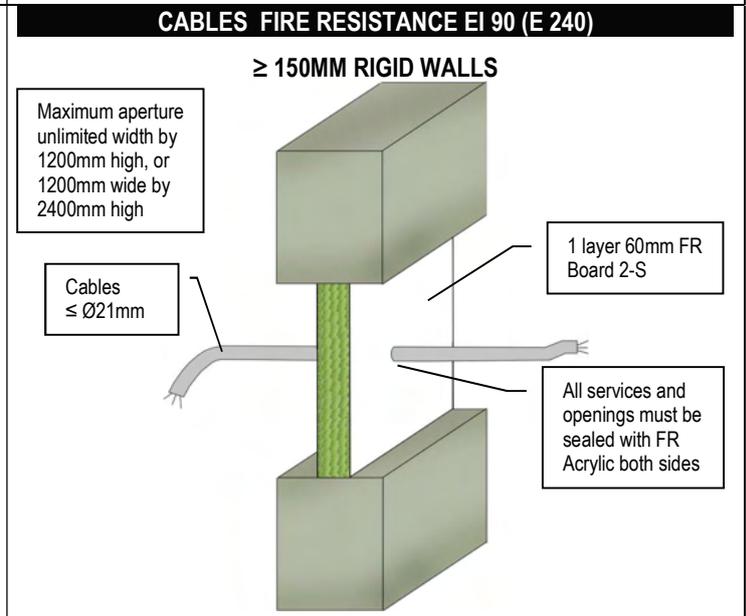
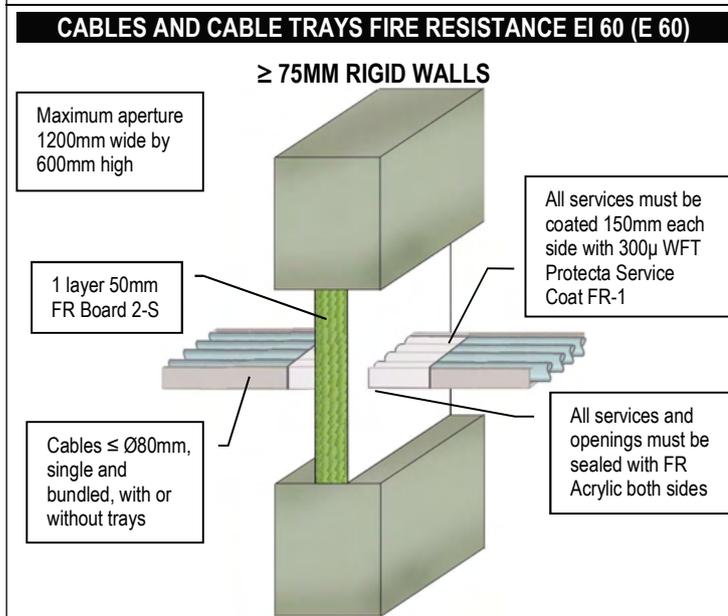
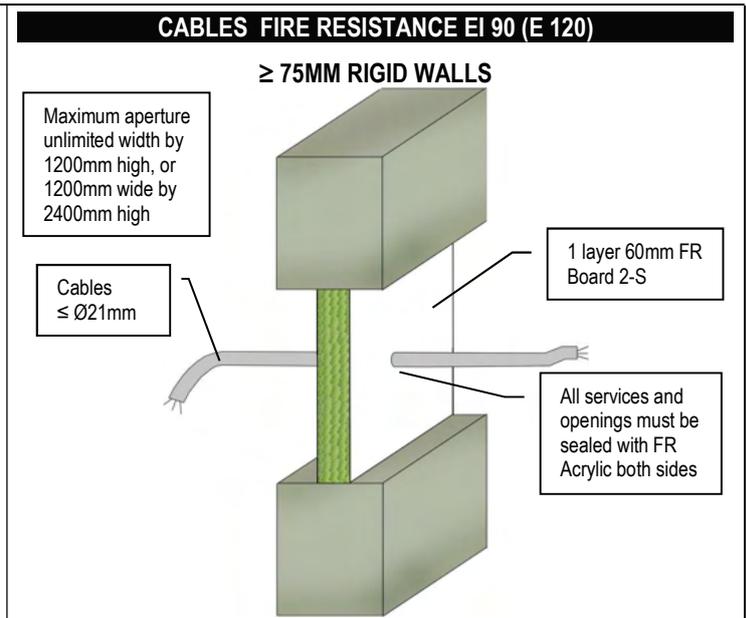
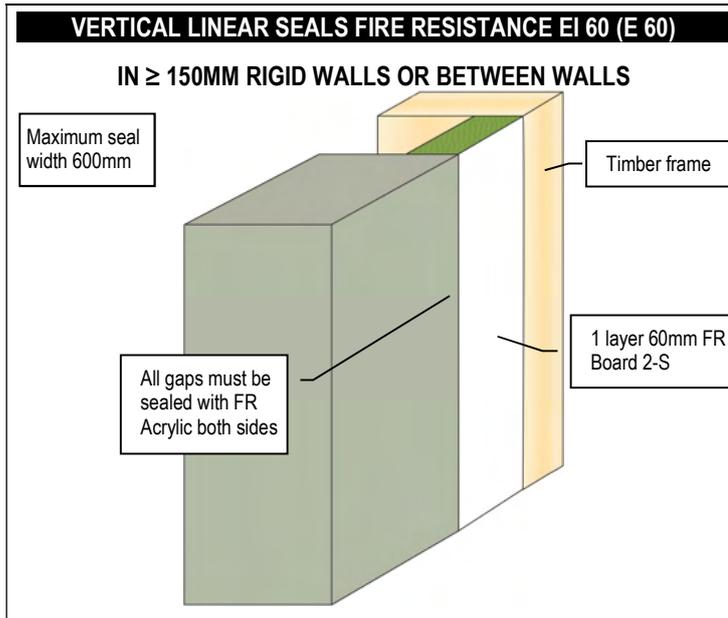
Maximum aperture 600mm high by 1200mm wide

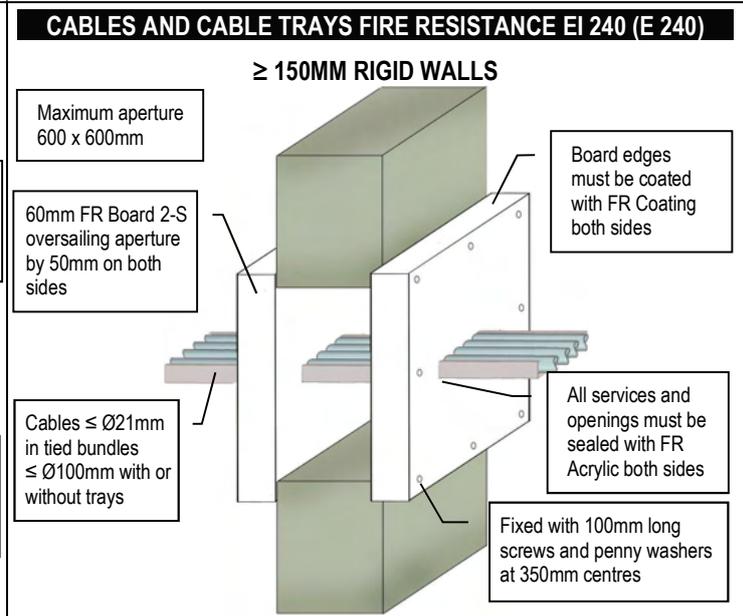
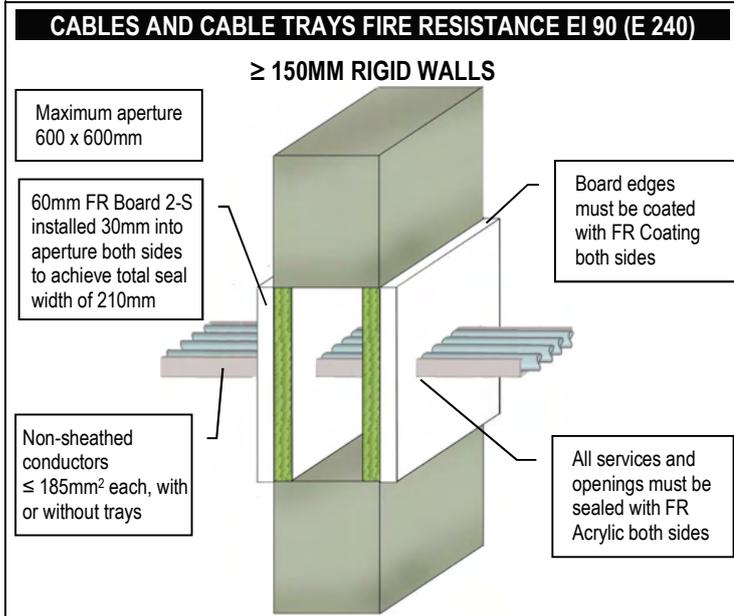
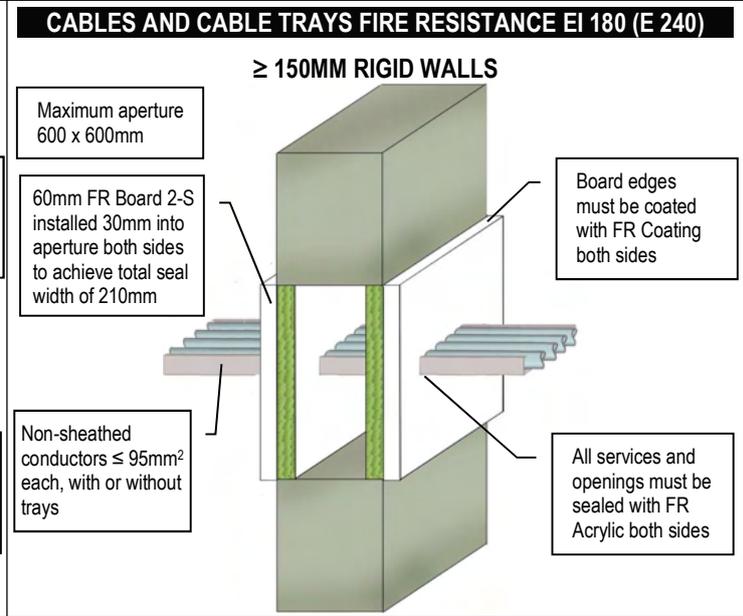
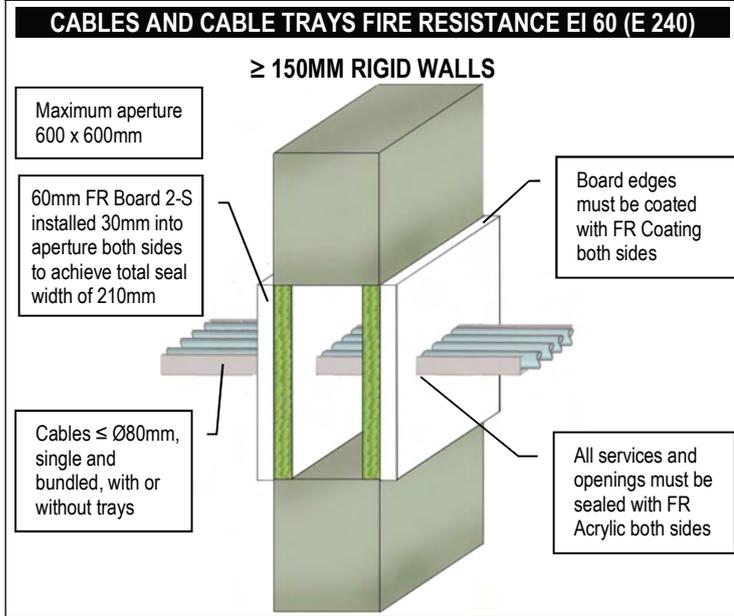
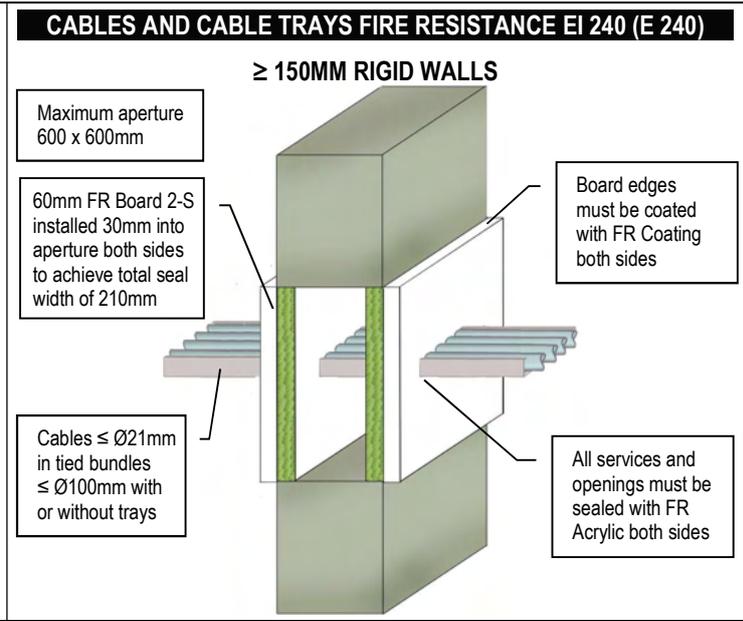
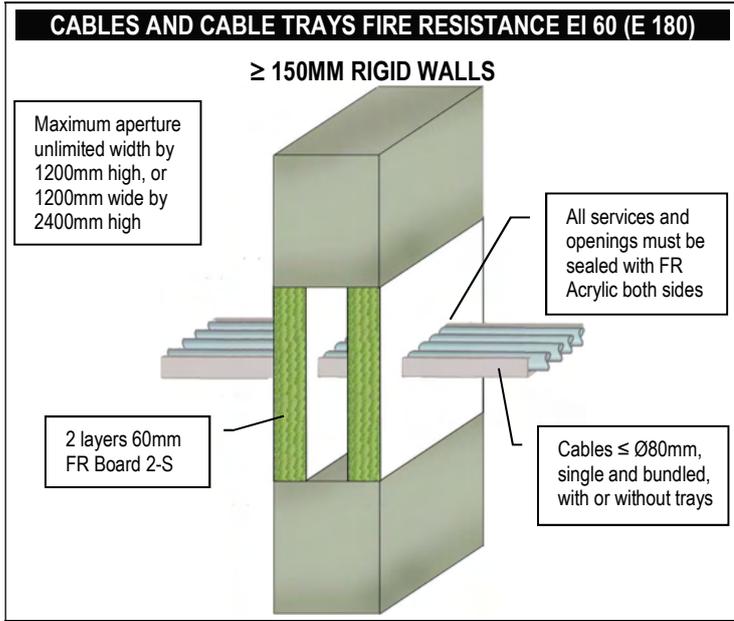
≥ 100MM TIMBER WALLS

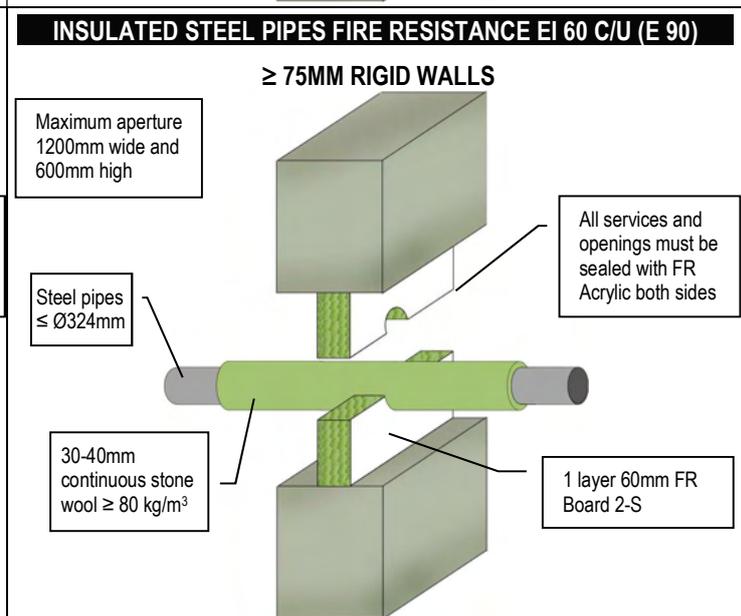
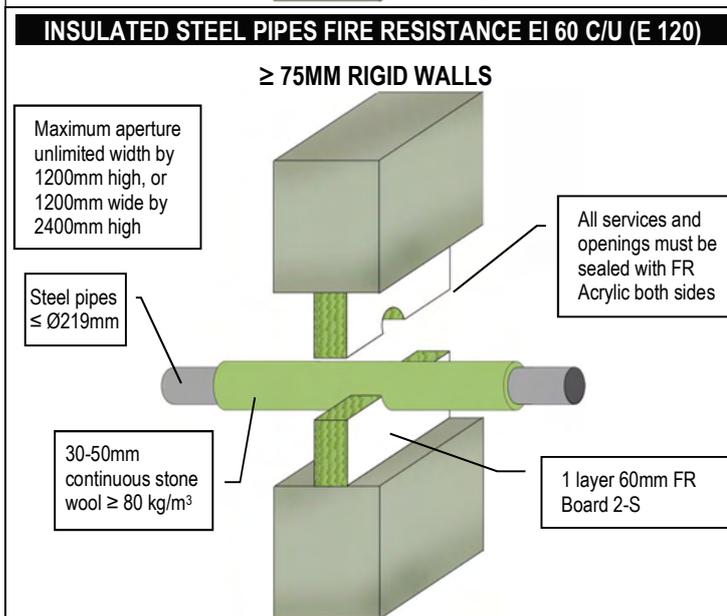
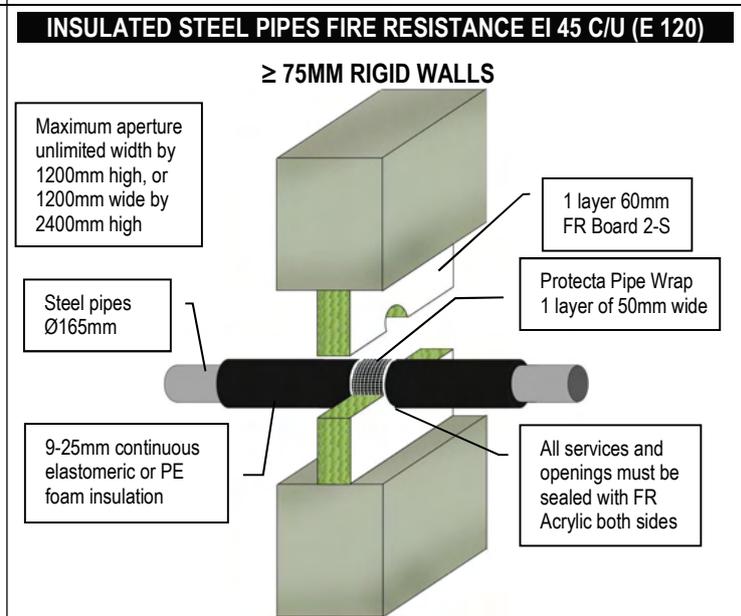
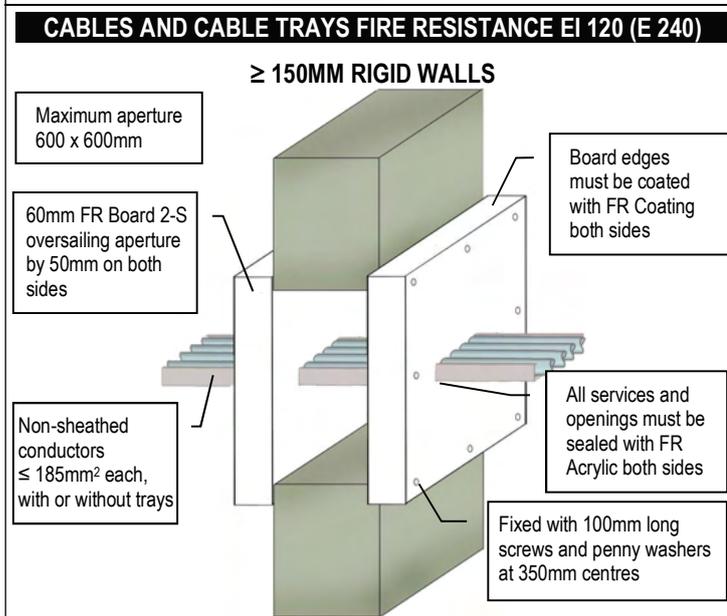
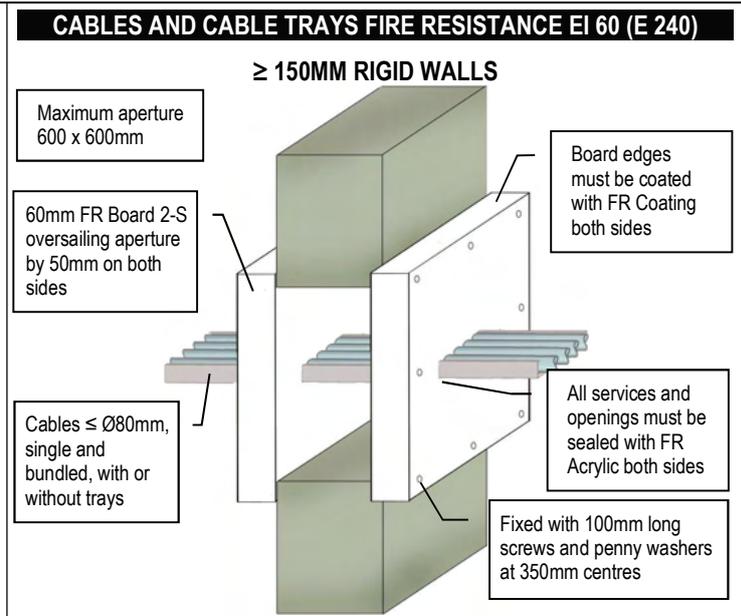
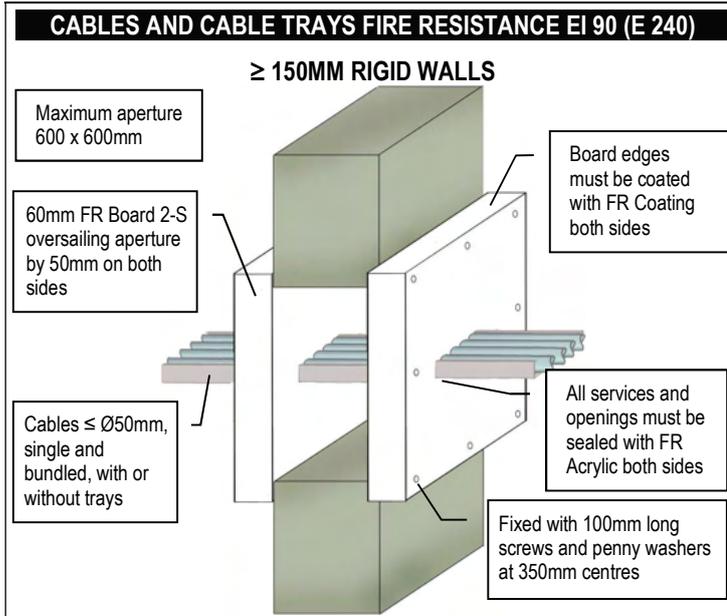
Services	FR Pipe Wrap	Classification
Ø 32mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
Ø 40mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
Ø 50mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 90 U/U (E 120 U/U)
Ø 75mm Wavin SiTech pipes	50 x 3.6mm (2 layers)	EI 60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

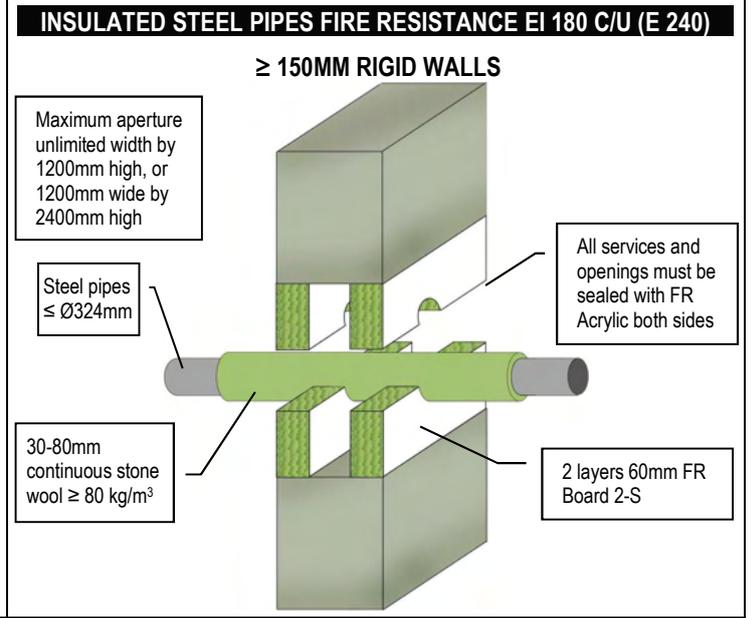
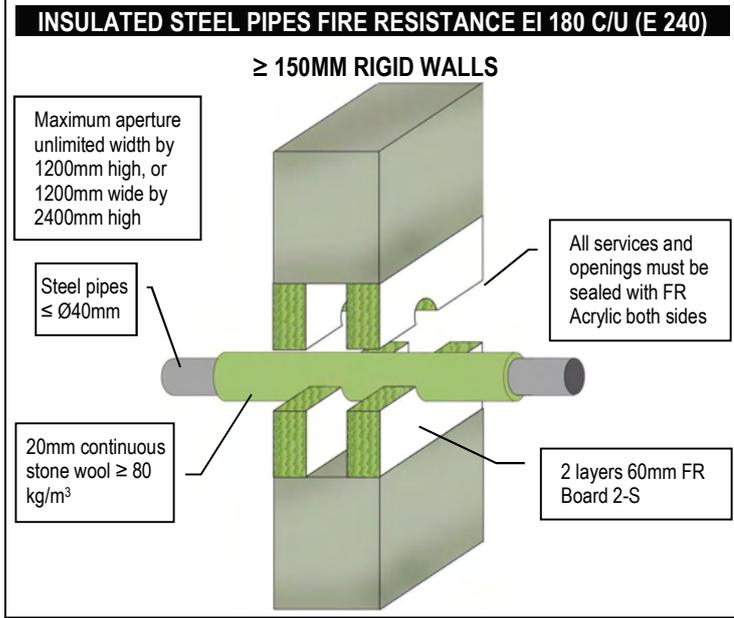
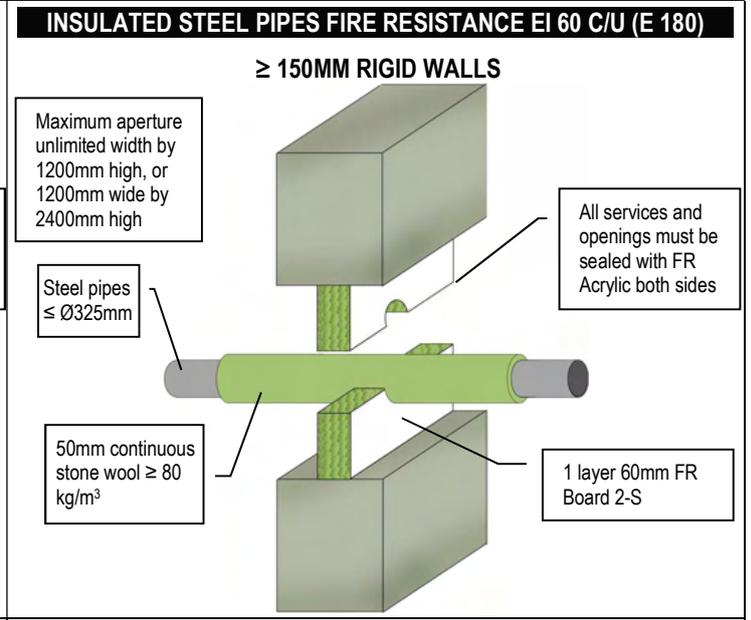
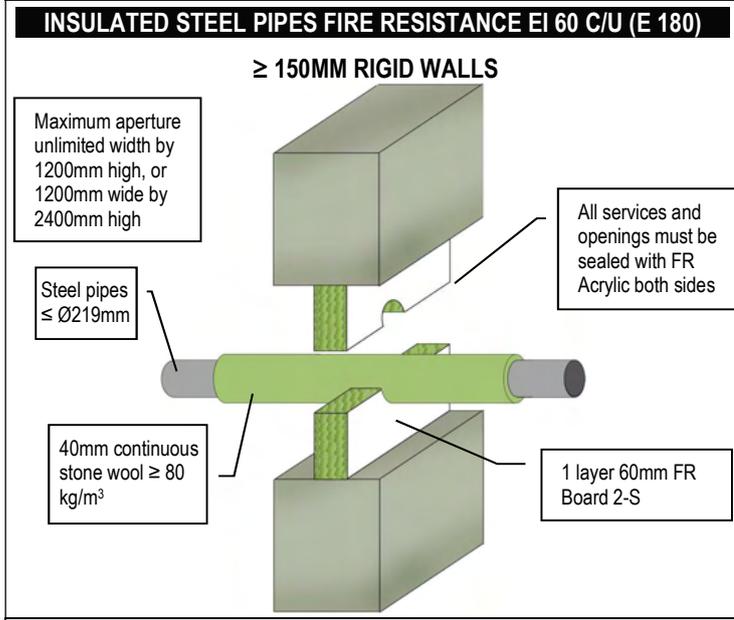
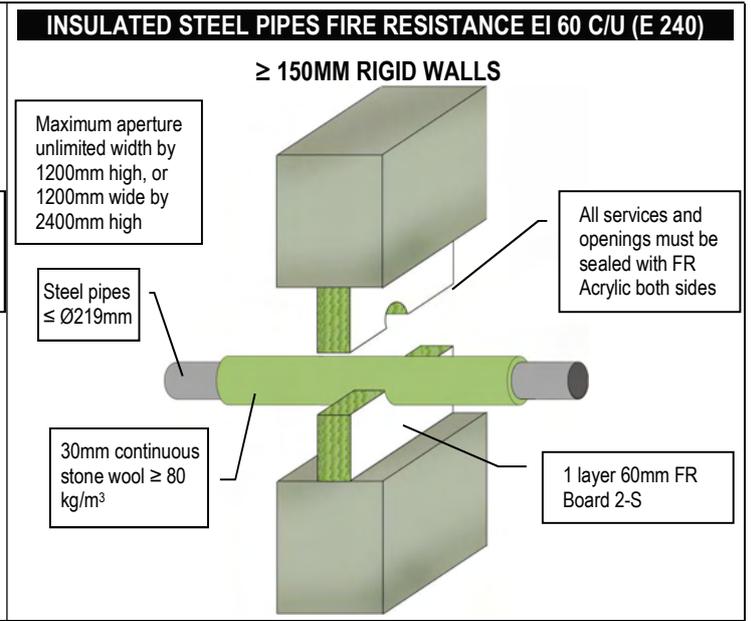
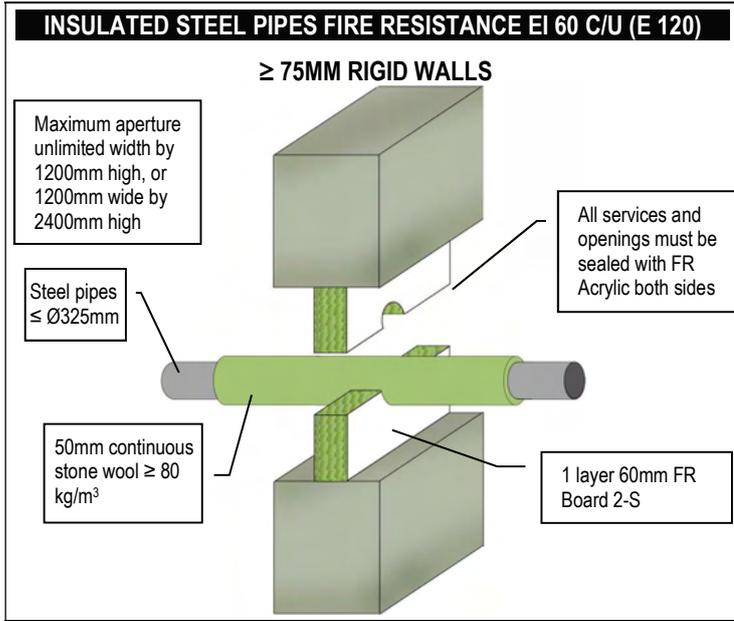


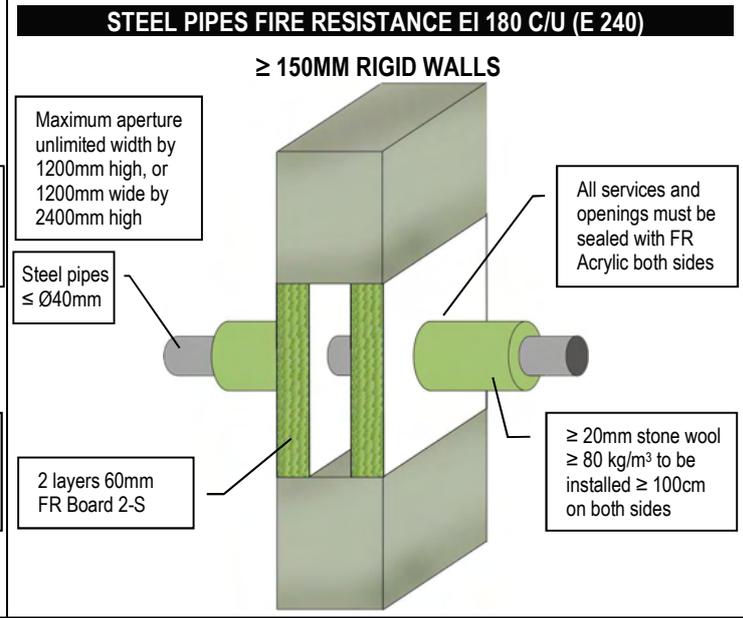
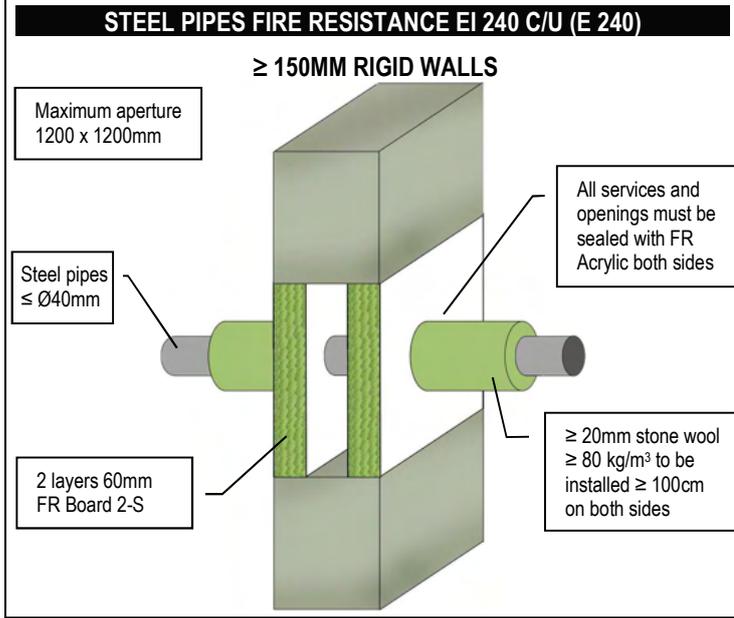
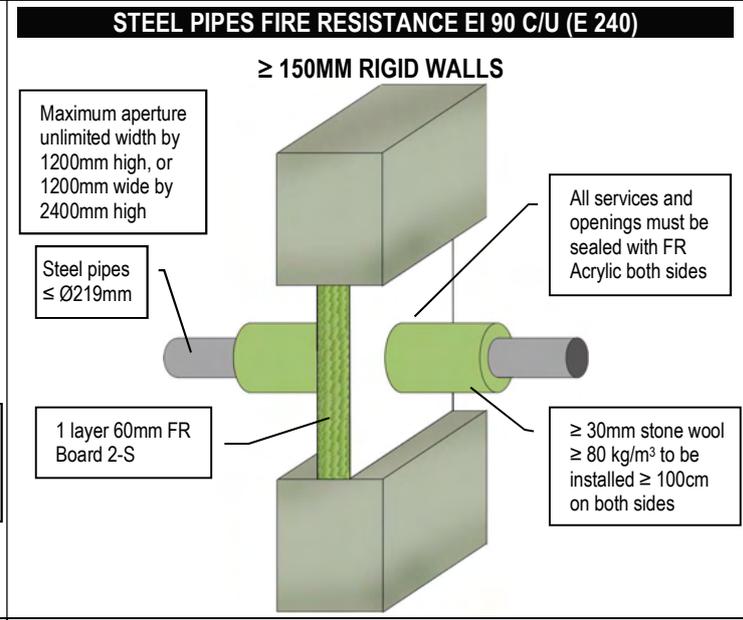
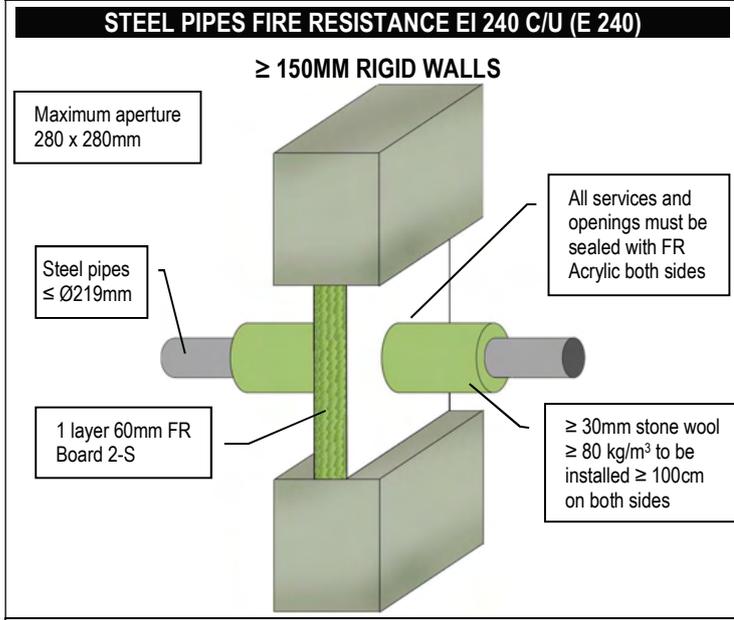
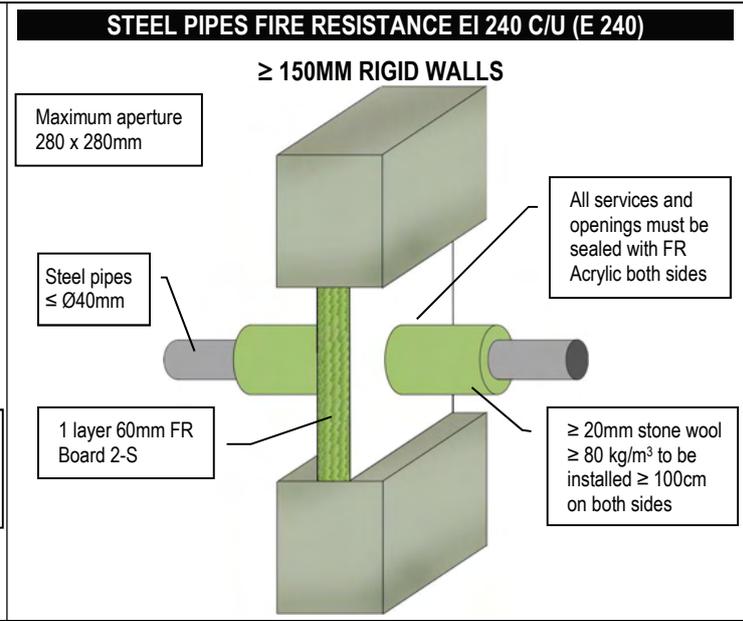
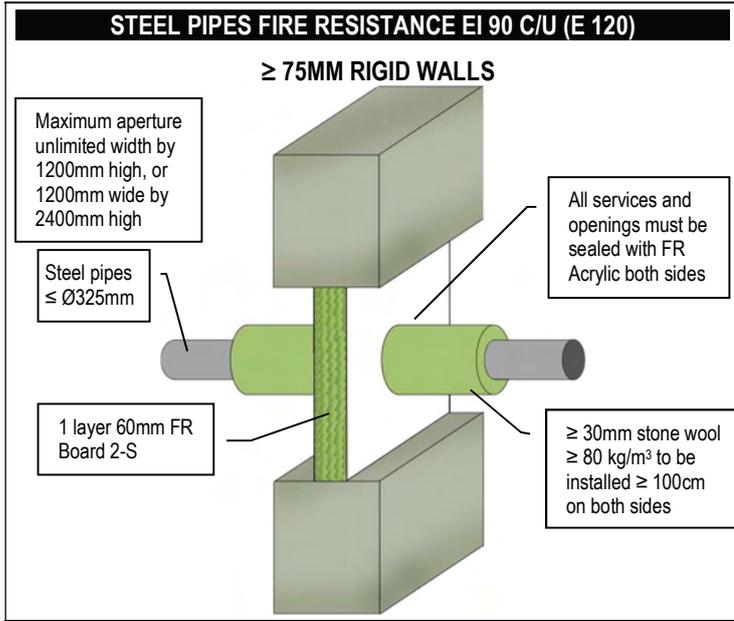


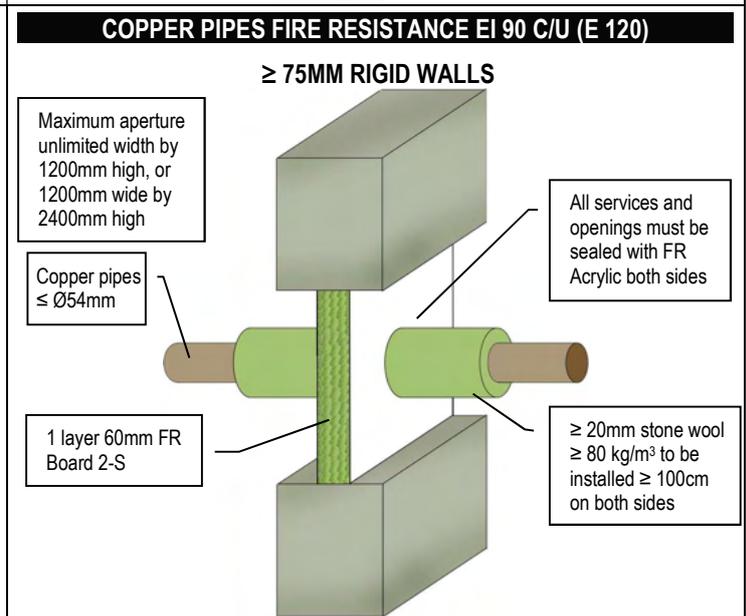
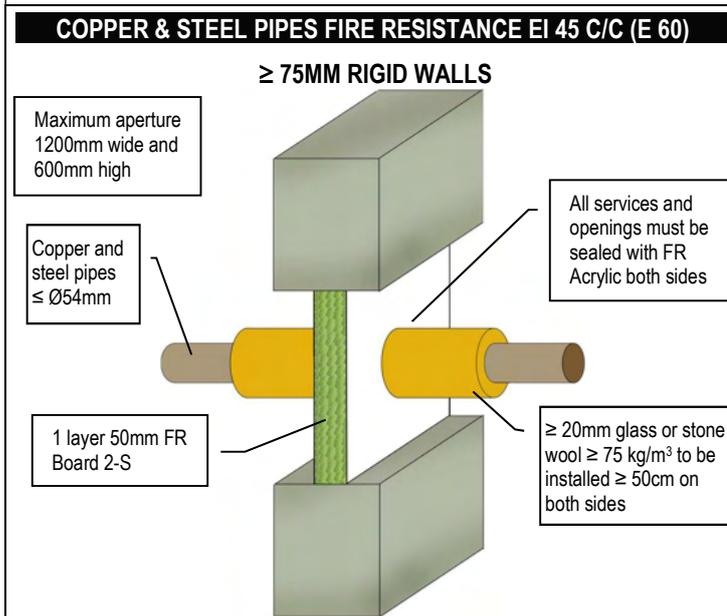
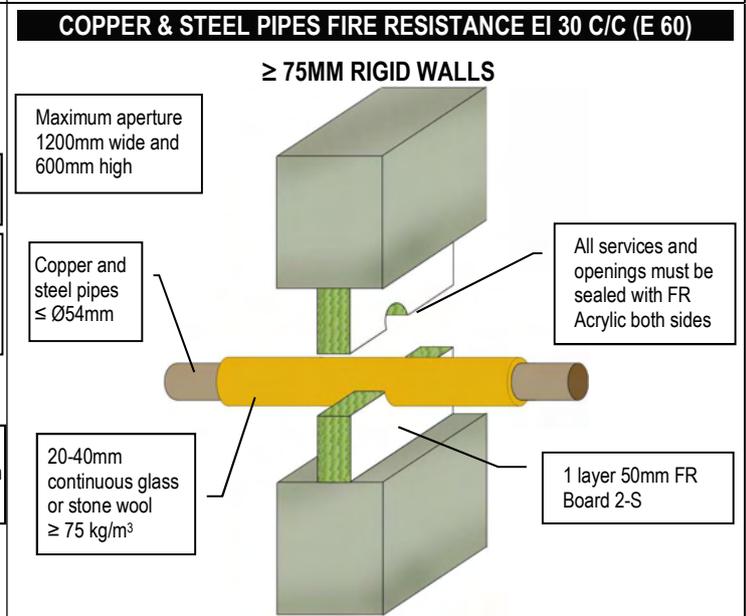
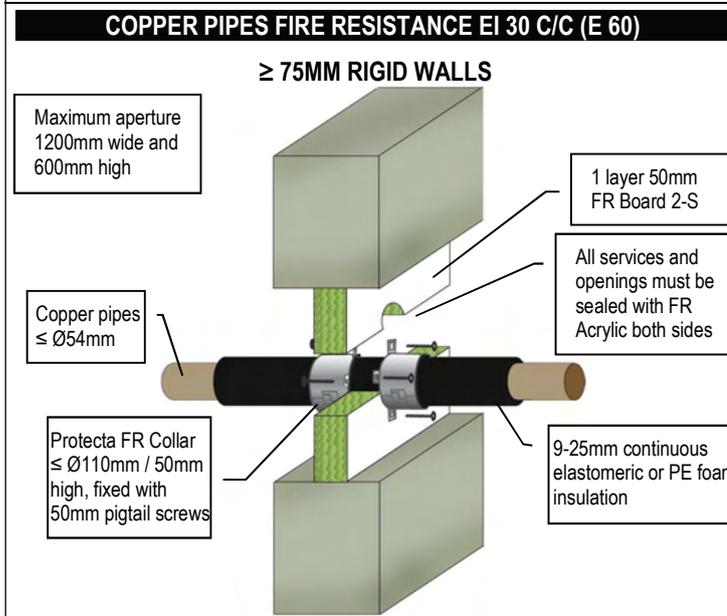
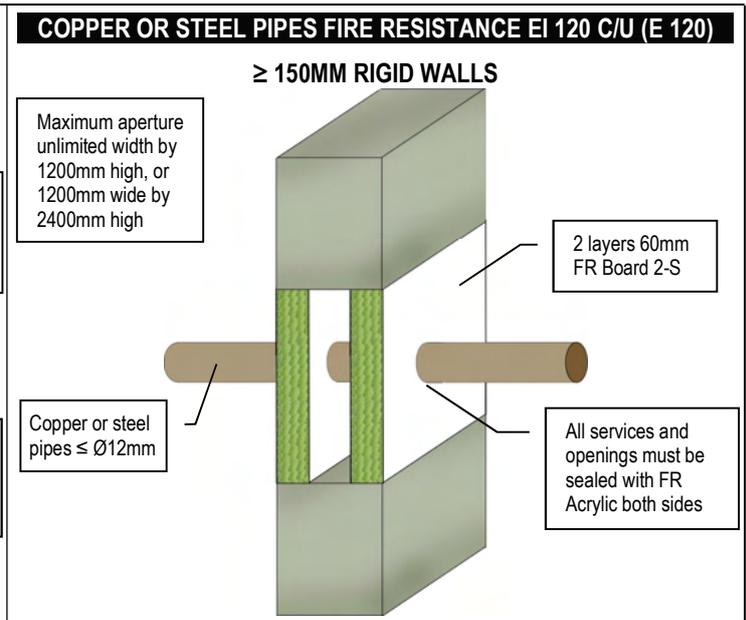
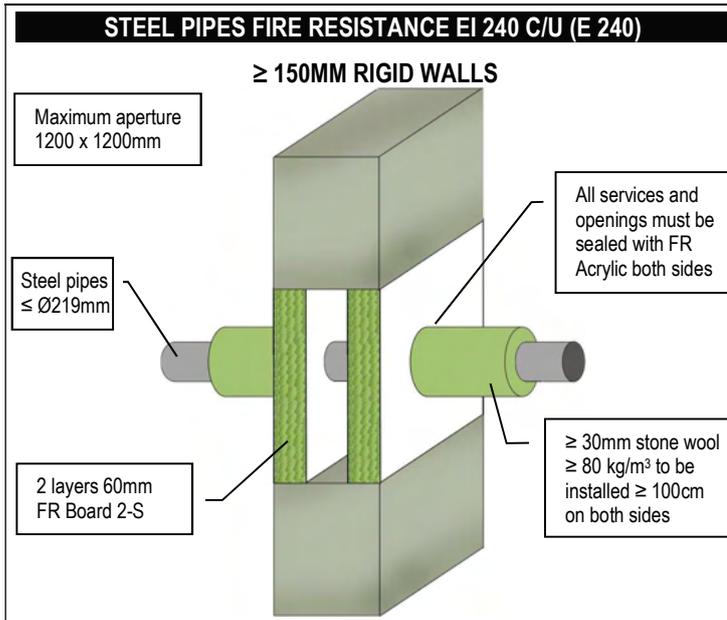


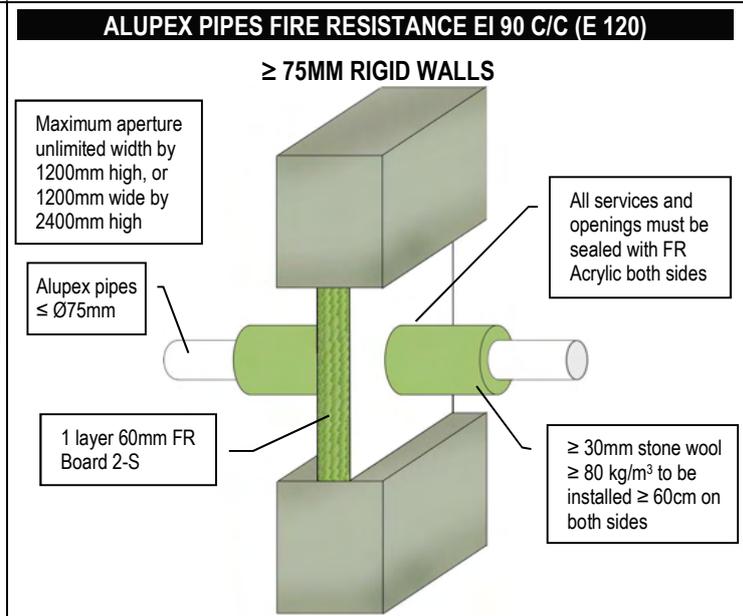
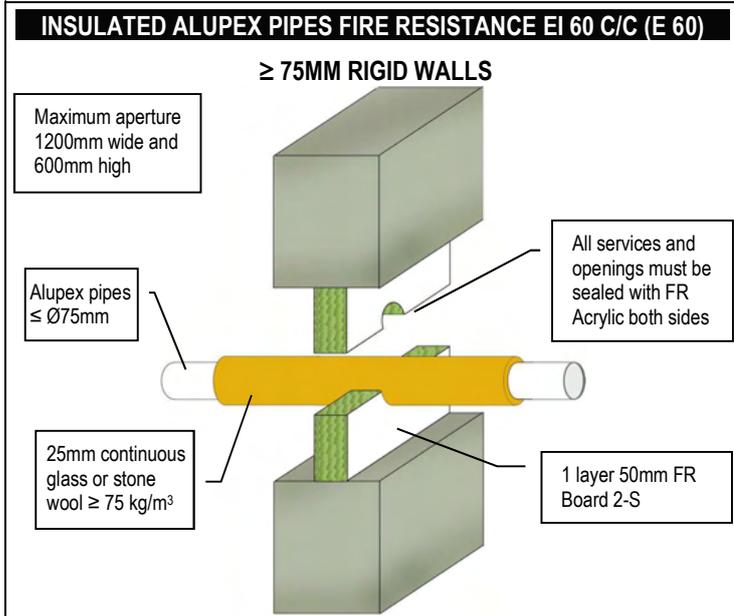
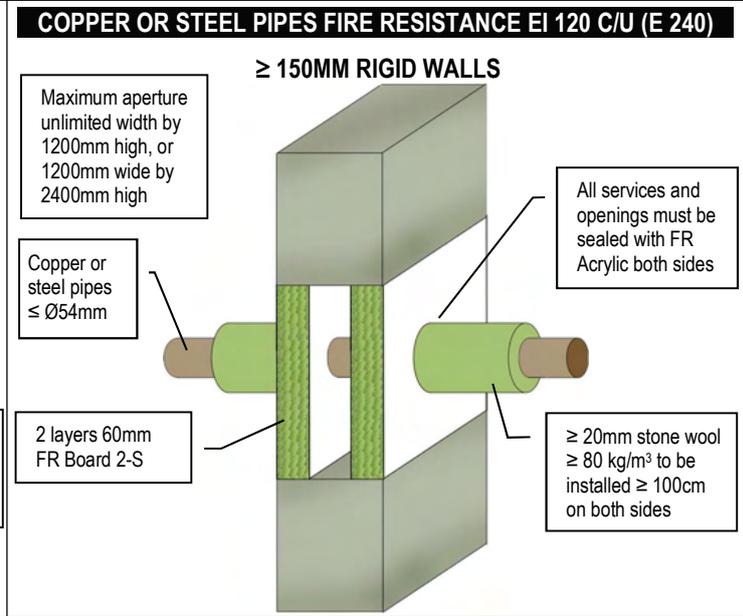
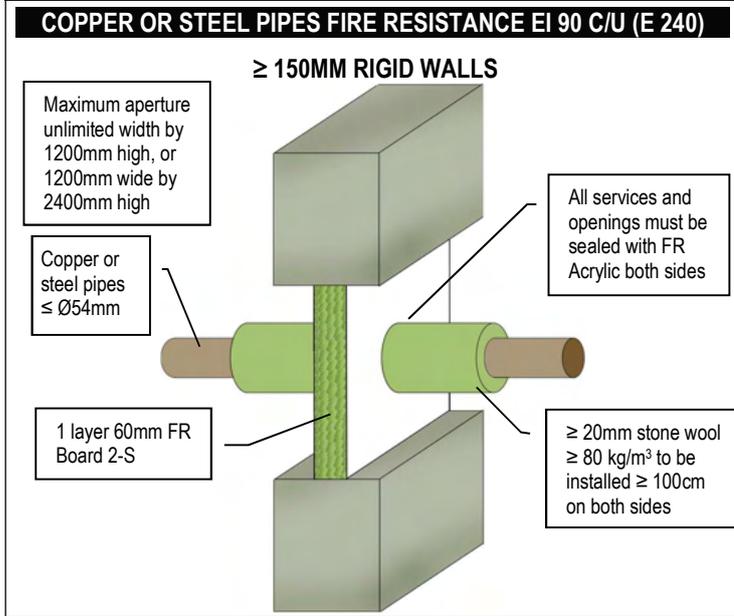
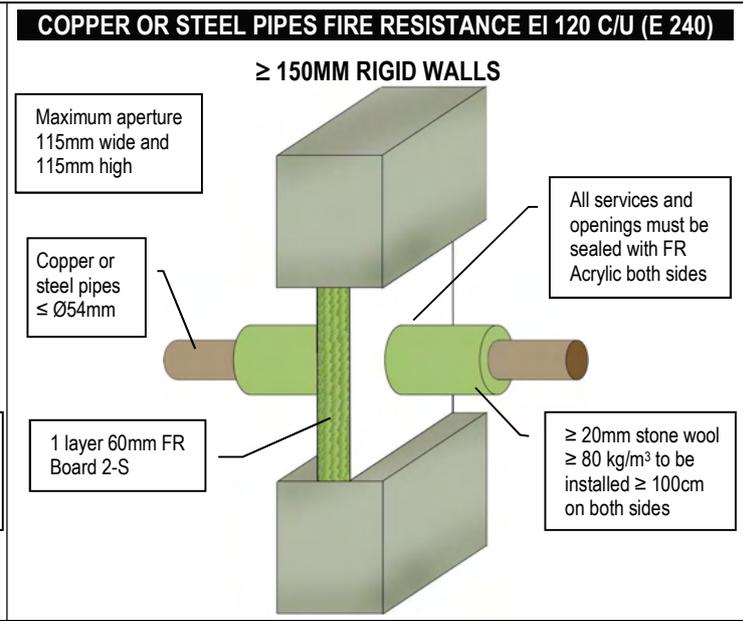
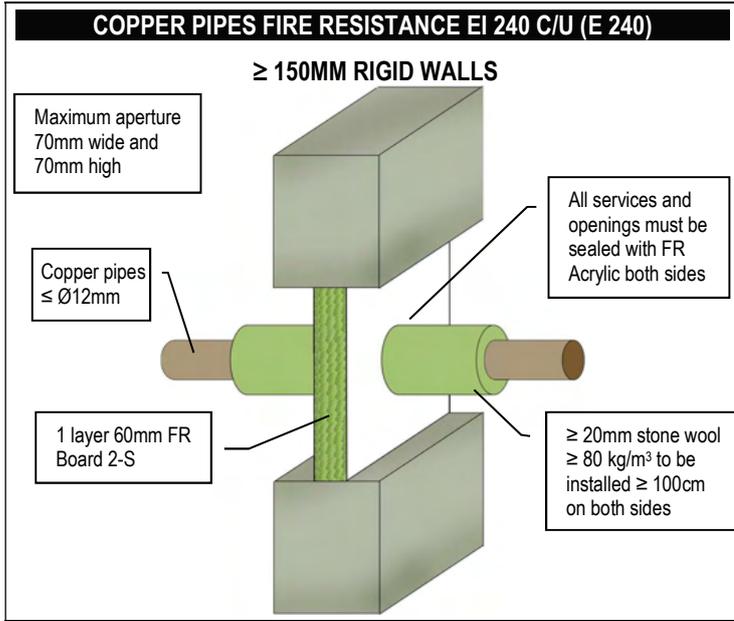


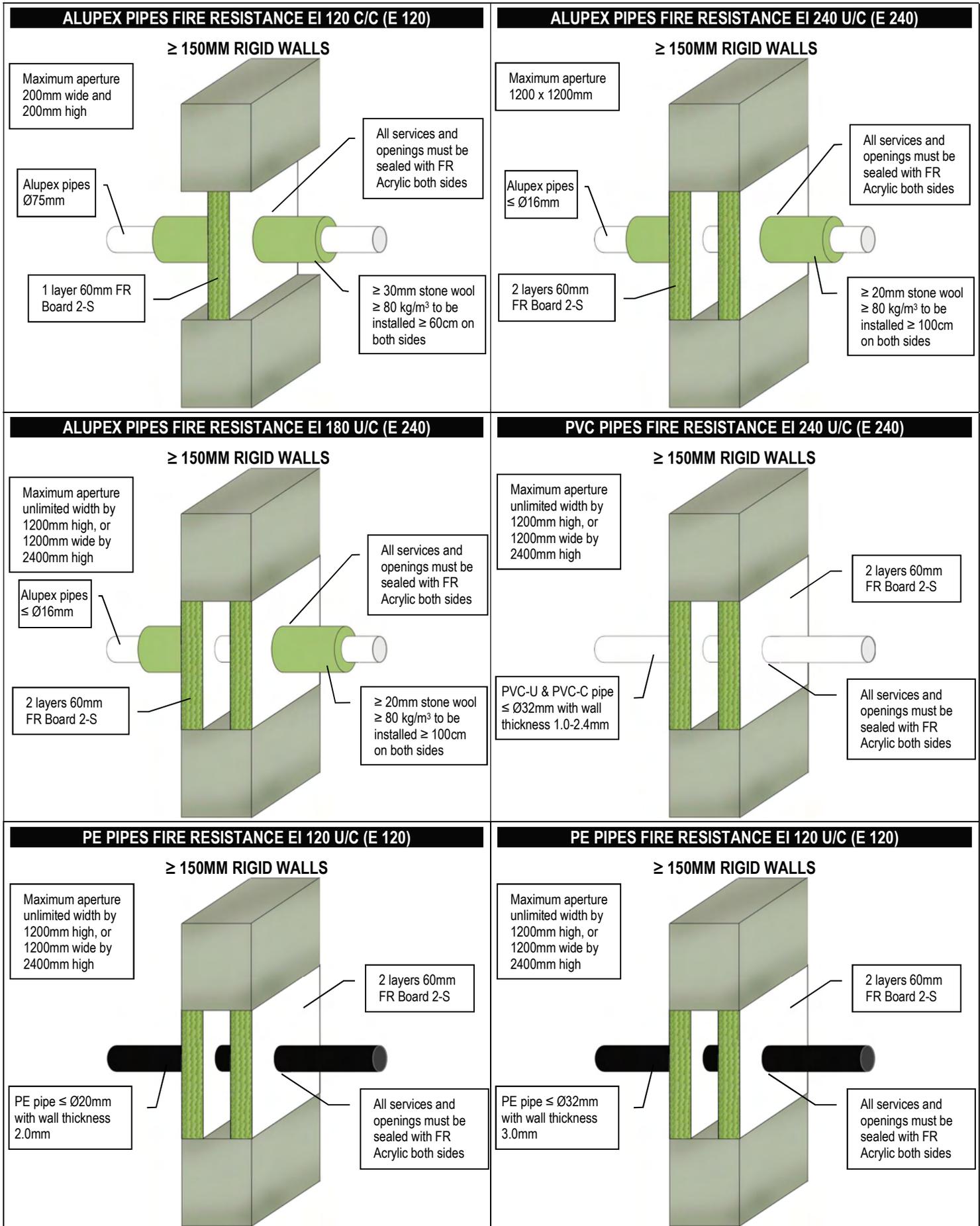












PP PIPES FIRE RESISTANCE EI 60 U/C (E 60)

≥ 150MM RIGID WALLS

Maximum aperture unlimited width by 1200mm high, or 1200mm wide by 2400mm high

PP pipe ≤ Ø32mm with wall thickness 1.9-4.4mm

2 layers 60mm FR Board 2-S

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

PLASTIC PIPE BUNDLES FIRE RESISTANCE EI 240 U/C (E 240)

≥ 150MM RIGID WALLS

Maximum aperture unlimited width by 1200mm high, or 1200mm wide by 2400mm high

PVC pipes with wall thickness 1.0-2.4mm, PE pipes 2.0-4.4mm and PP pipes 1.8-4.4mm

2 layers 60mm FR Board 2-S

Protecta Pipe Wraps 2 layers of 50mm wide both sides

PVC, PE & PP pipes ≤ Ø32mm, single or in a bundle ≤ Ø107mm

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

PLASTIC PIPES FIRE RESISTANCE EI 30-60

≥ 75MM RIGID WALLS

Maximum aperture 1200mm wide by 600mm high

Plastic pipes

1 layer 50mm FR Board 2-S

Protecta FR Collar fixed with 50mm pigtail screws

All services or openings must be sealed with FR Acrylic both sides

Pipe & Collar Descriptions	Pipe Wall Thickness	Min. Collar Height	Classification
≤ Ø 110mm PVC-U & PVC-C	1.9 – 6.6mm	30mm	EI 30 U/C (E 90 U/C)
≤ Ø 50mm PVC-U & PVC-C	1.9 – 3.7mm	50mm	EI 60 U/C (E 120 U/C)
≤ Ø 110mm PVC-U & PVC-C	2.1 – 6.6mm	50mm	EI 60 U/C (E 90 U/C)
≤ Ø 160mm PVC-U & PVC-C	3.1 – 9.5mm	60mm	EI 60 C/C (E 60 C/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.4 – 10.0mm	30mm	EI 45 U/C (E 60 U/C)
≤ Ø 50mm PE, ABS & SAN+PVC	3.0 – 4.6mm	50mm	EI 60 U/C (E 120 U/C)
≤ Ø 110mm PE, ABS & SAN+PVC	3.0 – 10.0mm	50mm	EI 60 C/C (E 90 C/C)
≤ Ø 160mm PE, ABS & SAN+PVC	3.9 – 9.5mm	60mm	EI 60 C/C (E 60 C/C)
≤ Ø 90mm PP	1.8 – 4.6mm	50mm	EI 60 C/C (E 60 C/C)
≤ Ø 110mm PP	2.7mm	50mm	EI 60 C/C (E 60 C/C)
≤ Ø 160mm PP	3.4 – 9.1mm	60mm	EI 60 C/C (E 60 C/C)

PLASTIC PIPES FIRE RESISTANCE EI 120-240

≥ 150MM RIGID WALLS

Maximum aperture unlimited width by 1200mm high, or 1200mm wide by 2400mm high

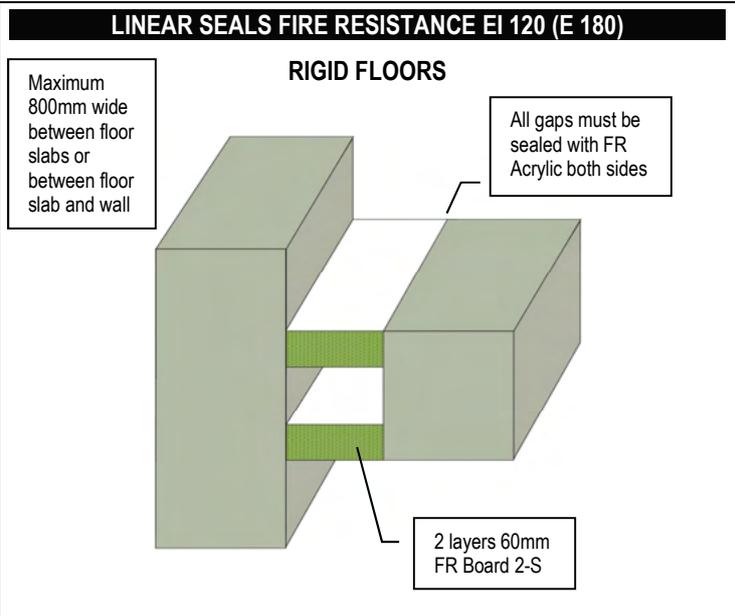
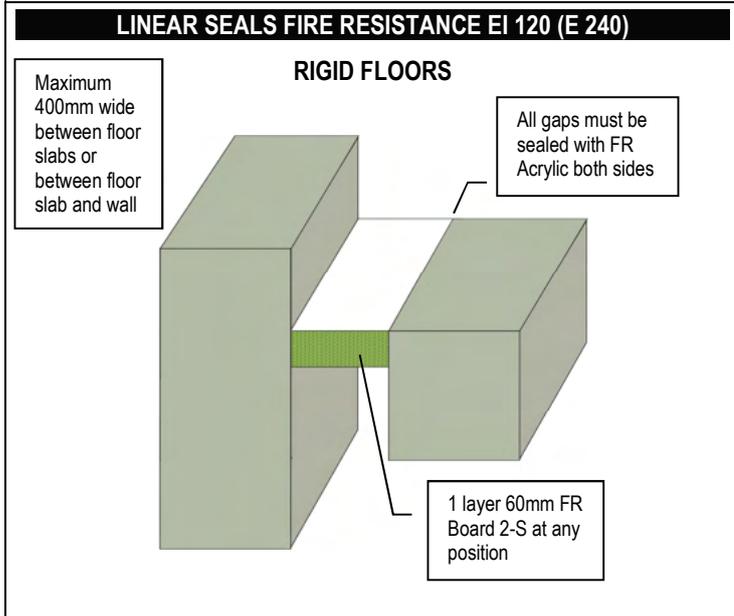
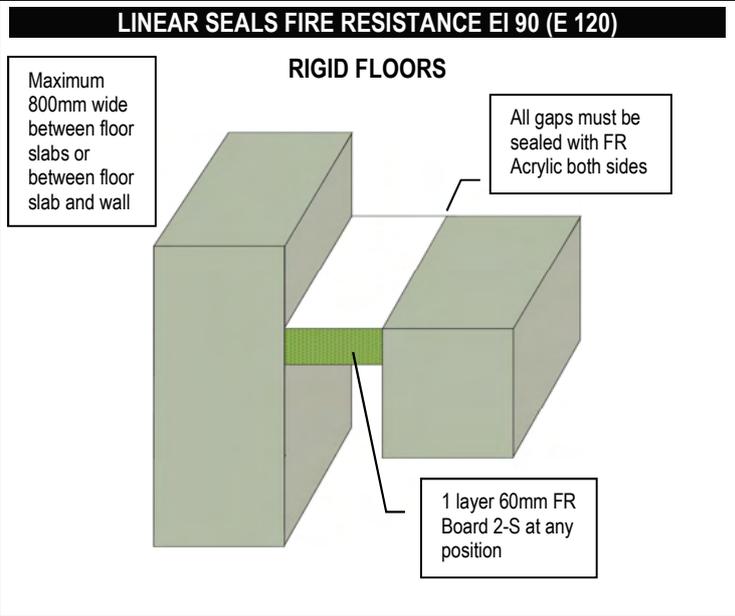
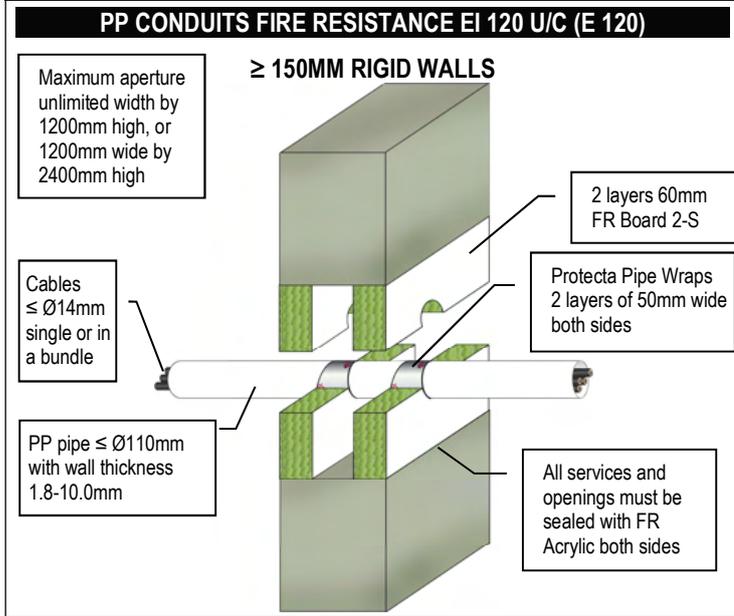
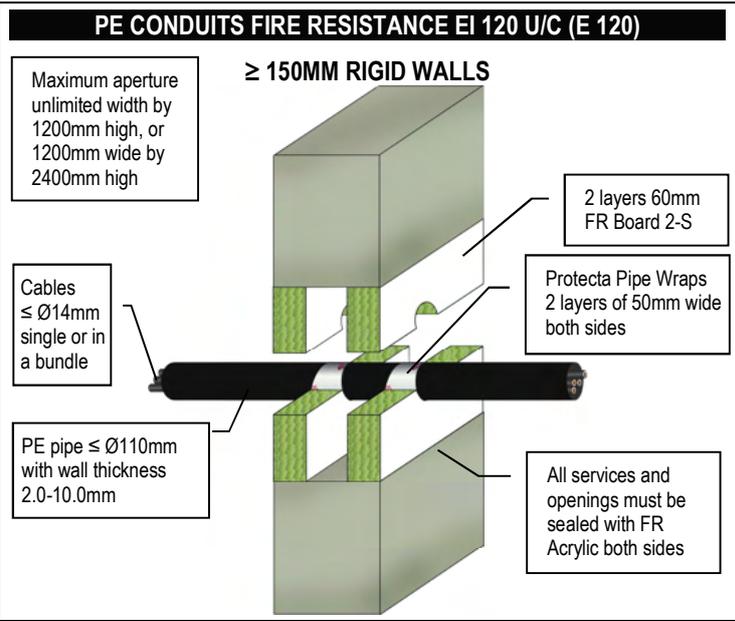
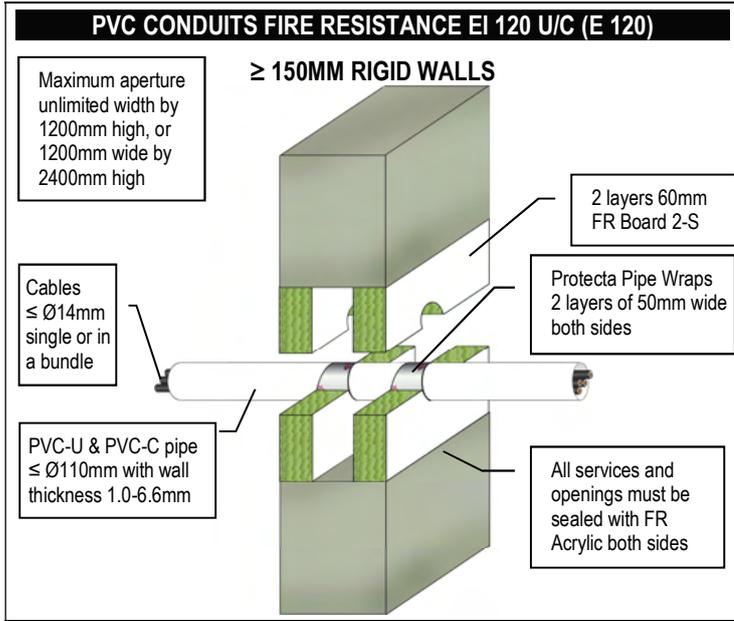
Plastic pipes

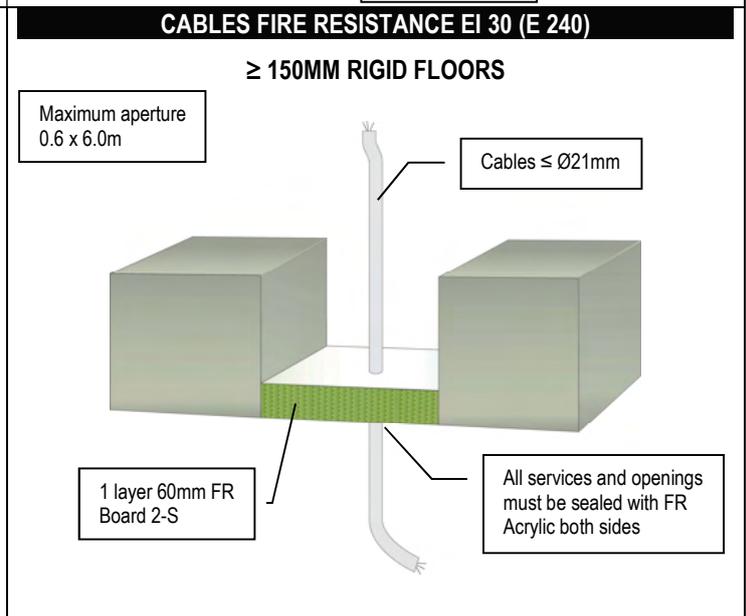
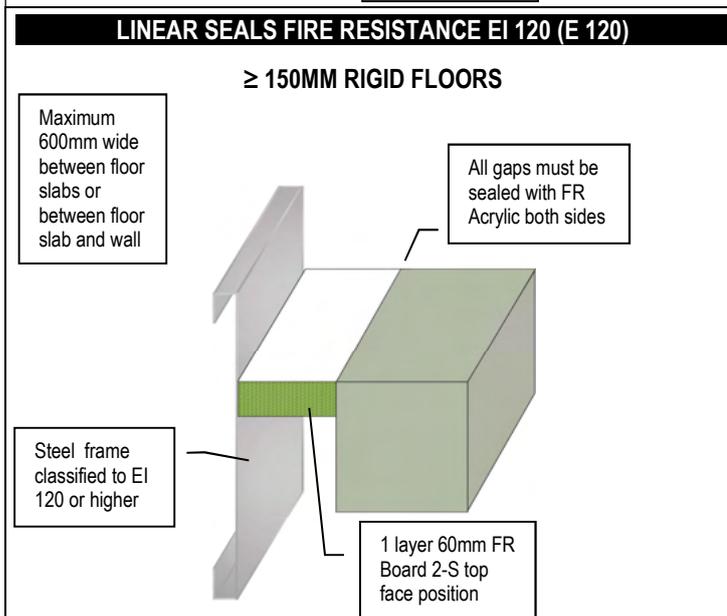
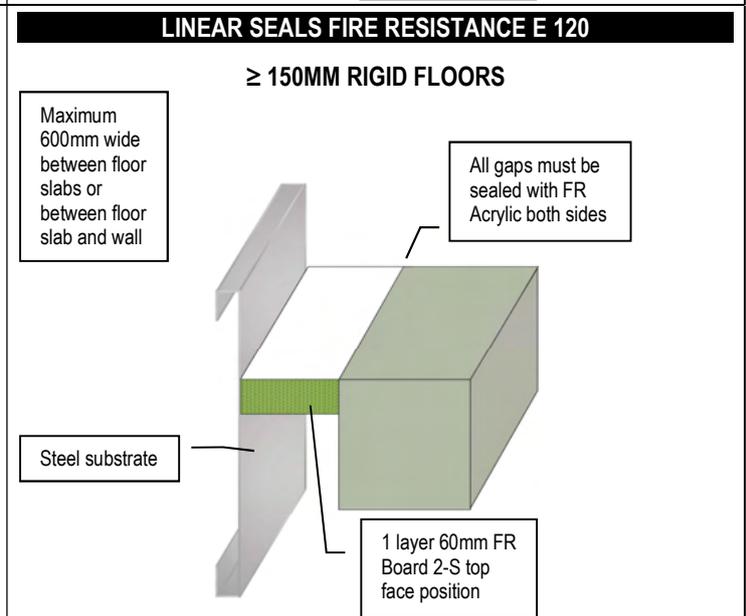
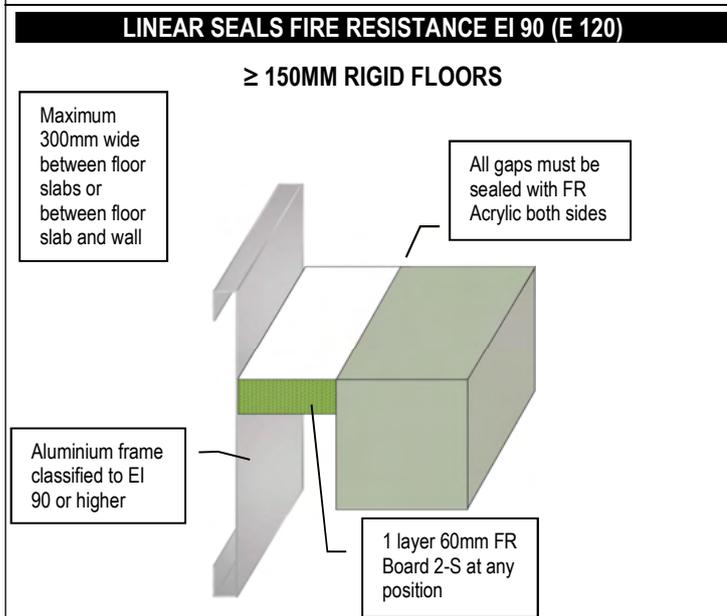
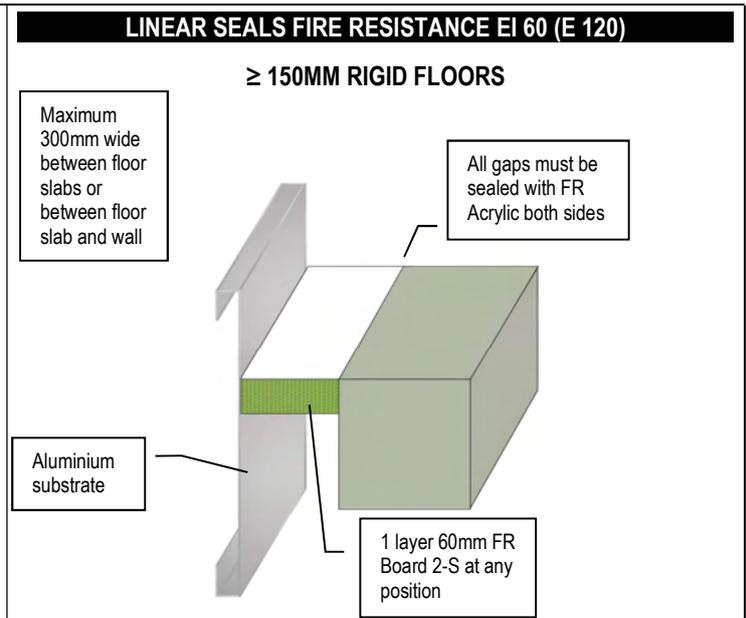
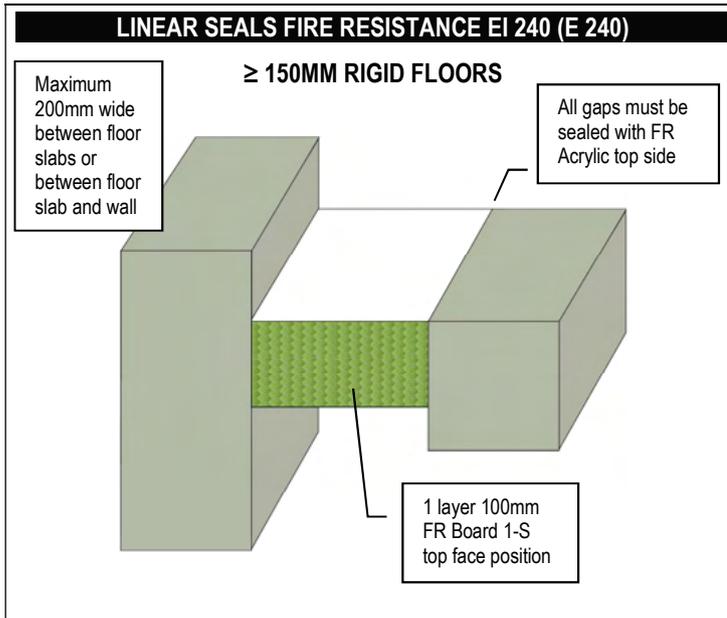
2 layers 60mm FR Board 2-S

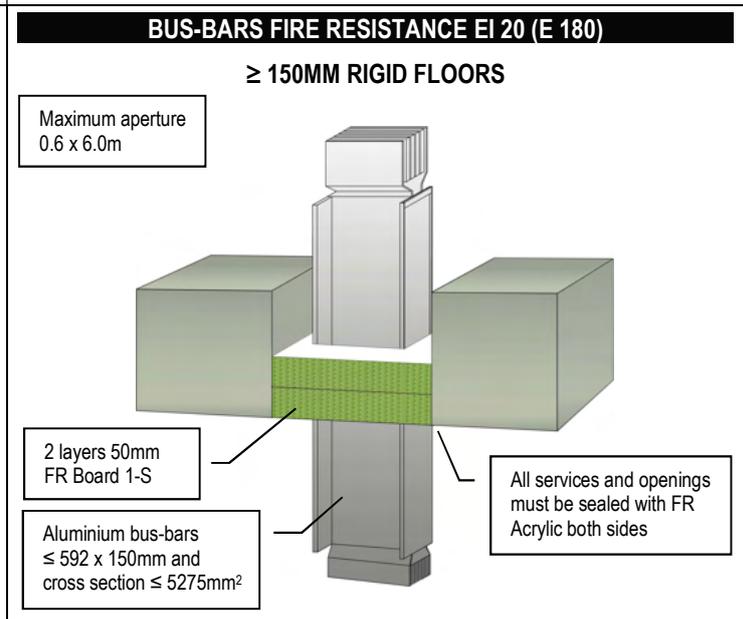
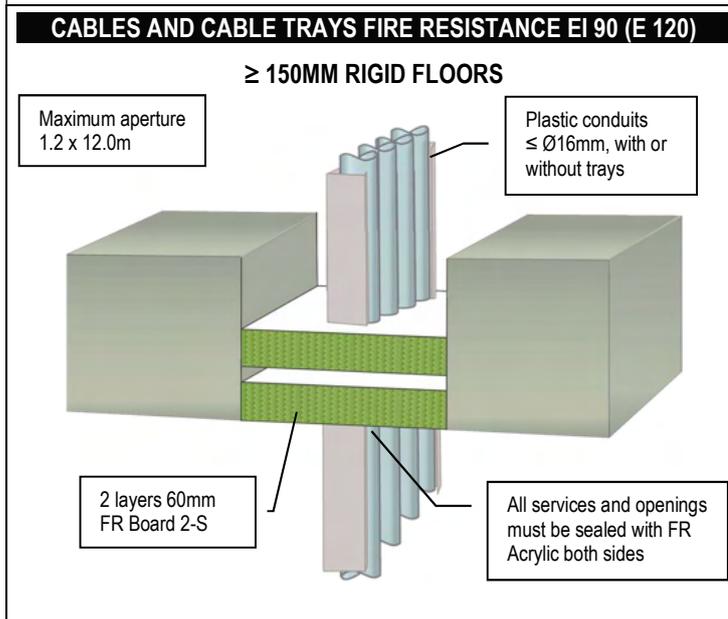
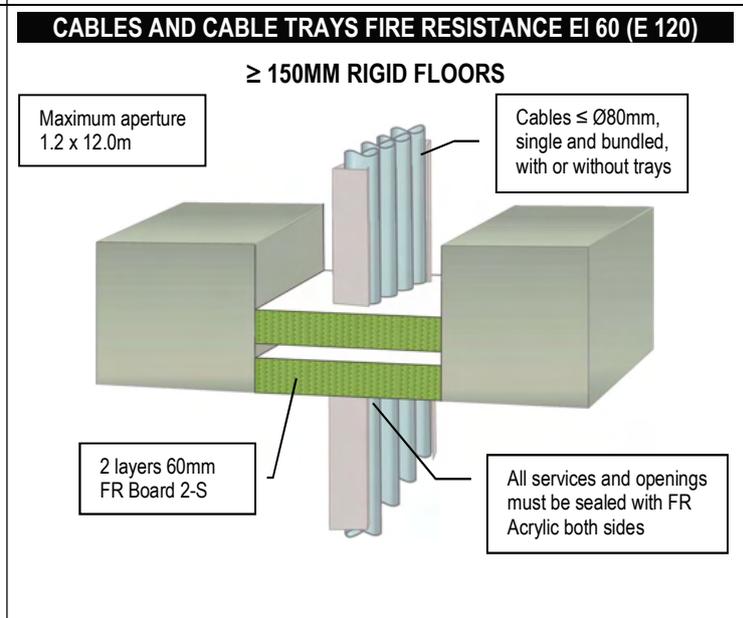
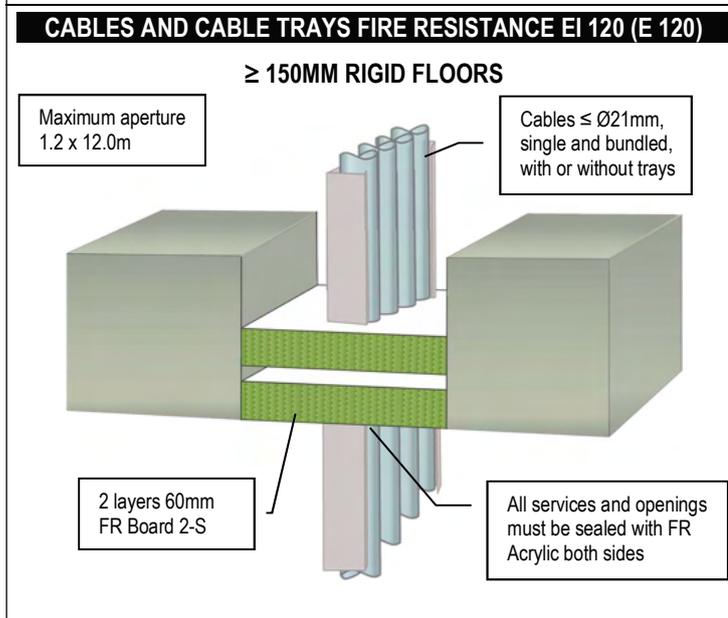
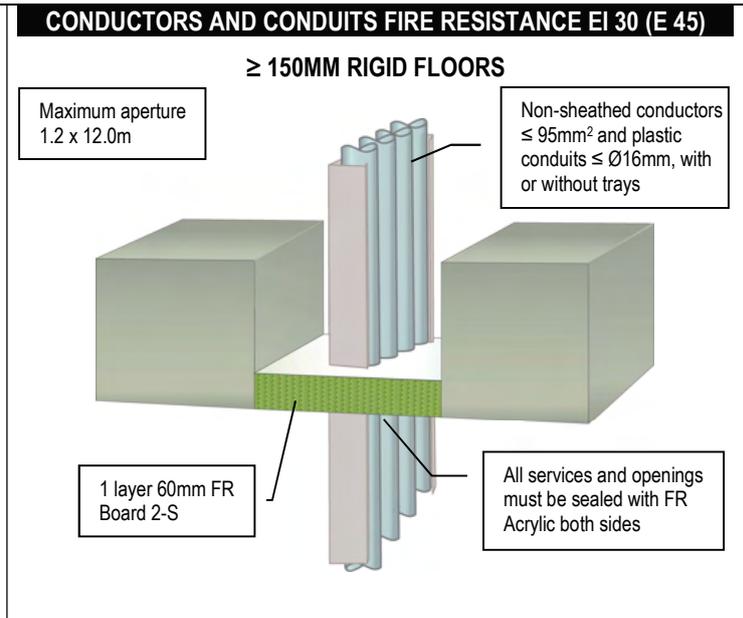
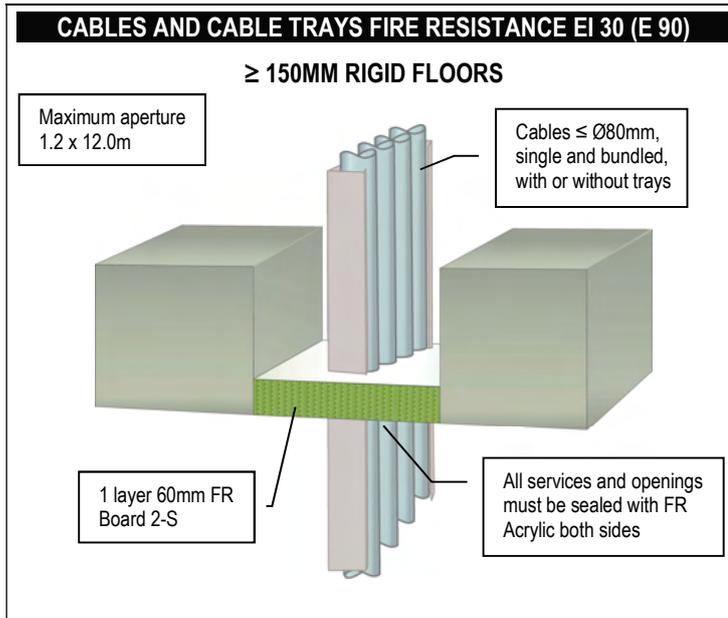
Protecta Pipe Wraps to both sides

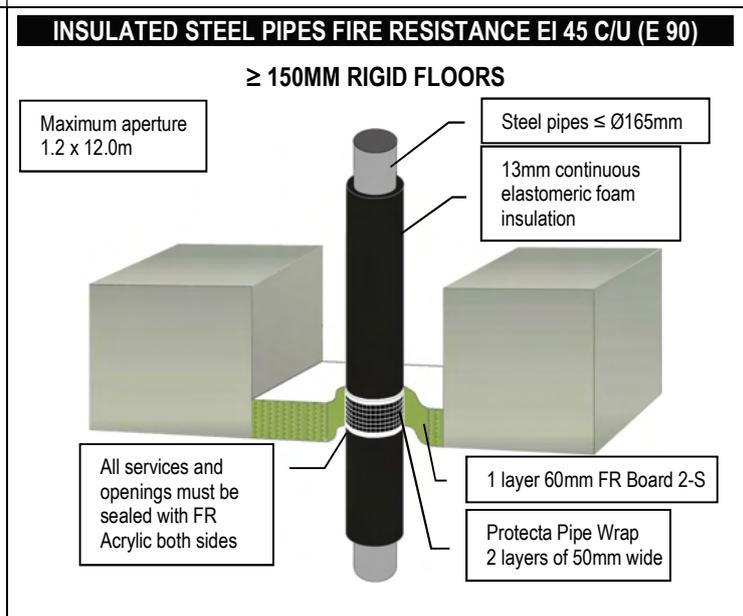
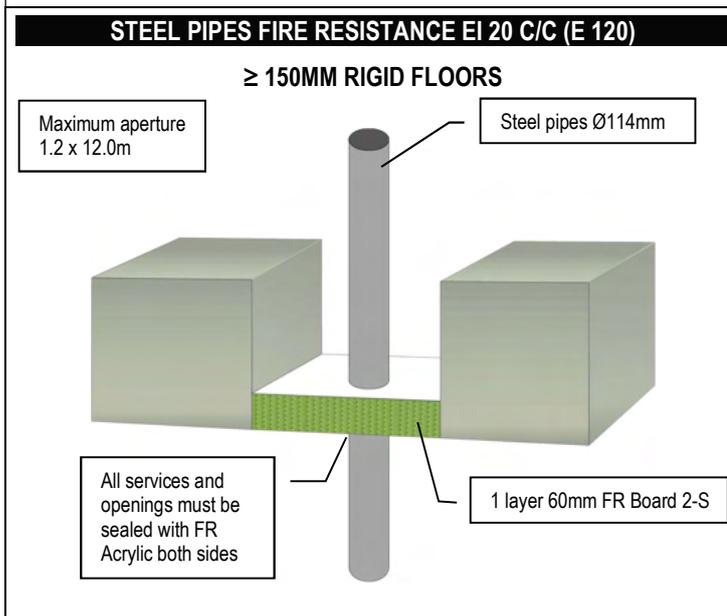
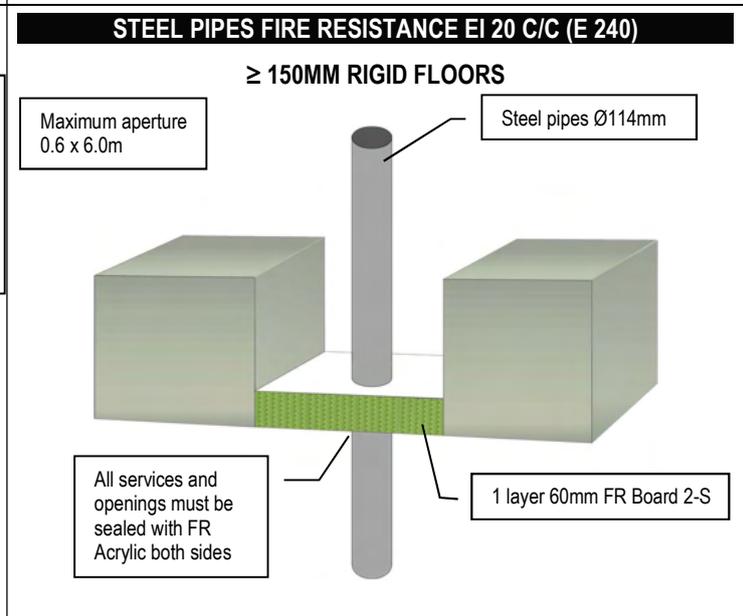
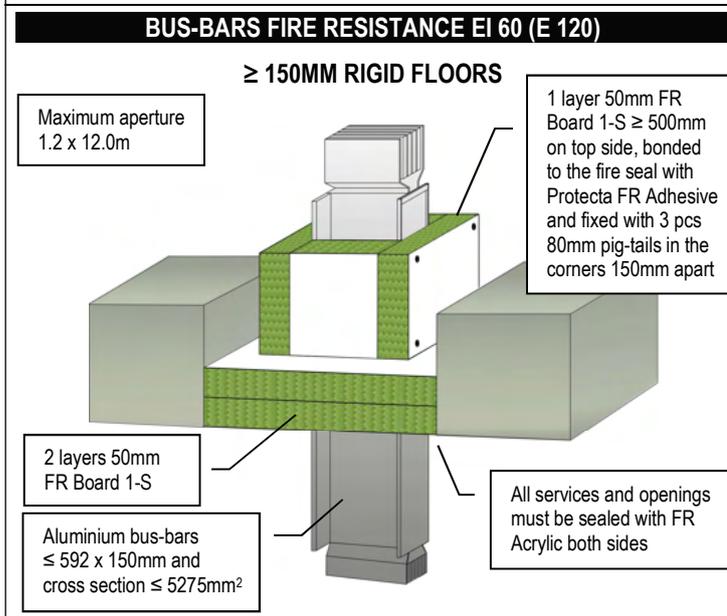
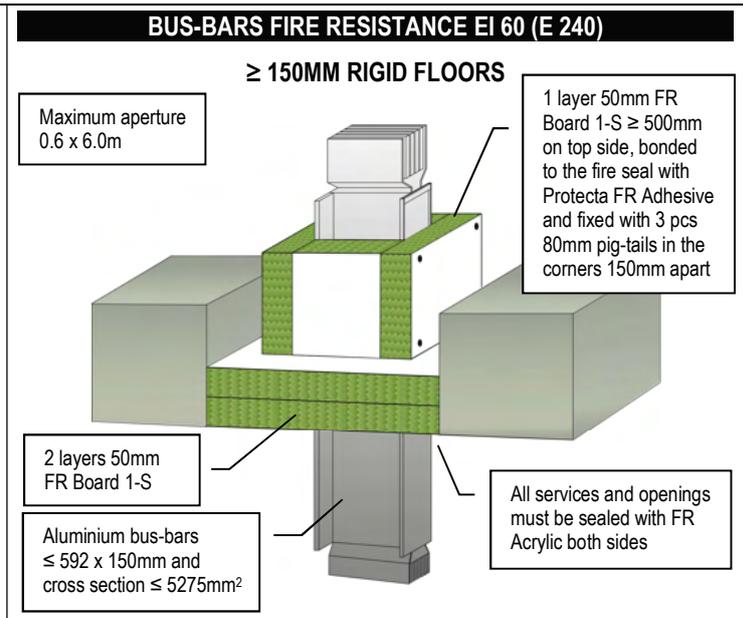
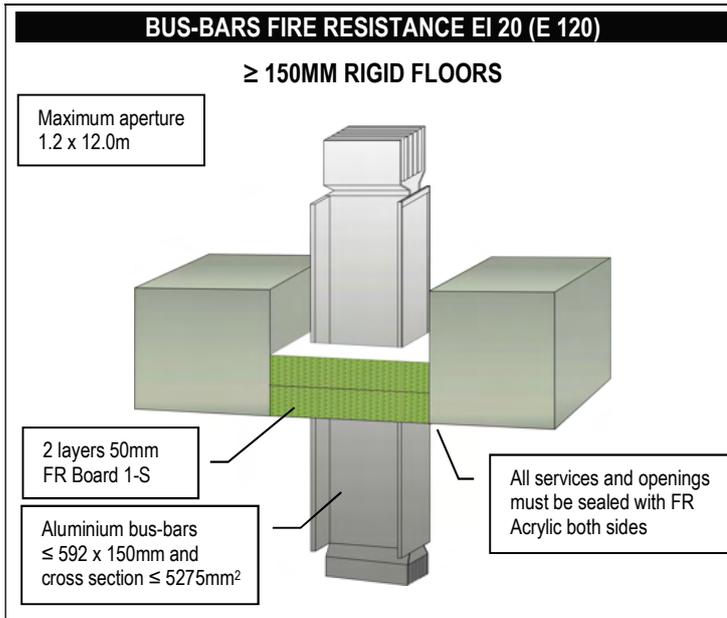
All services or openings must be sealed with FR Acrylic both sides

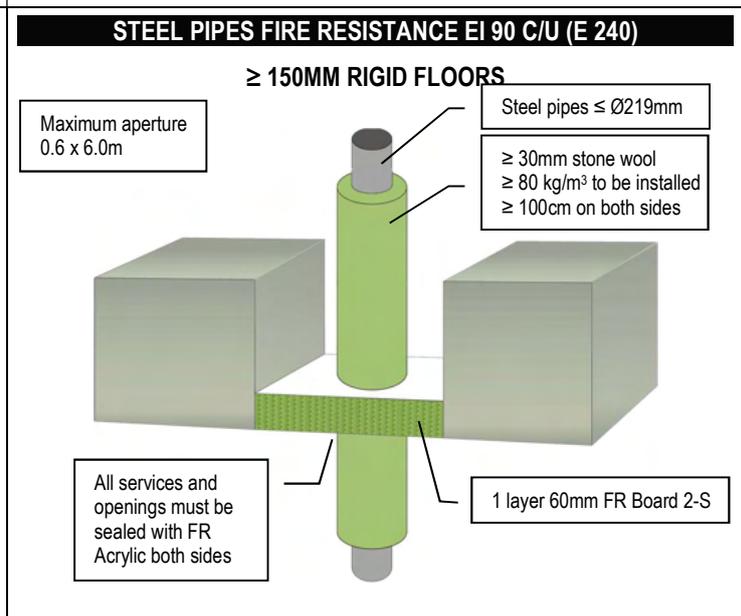
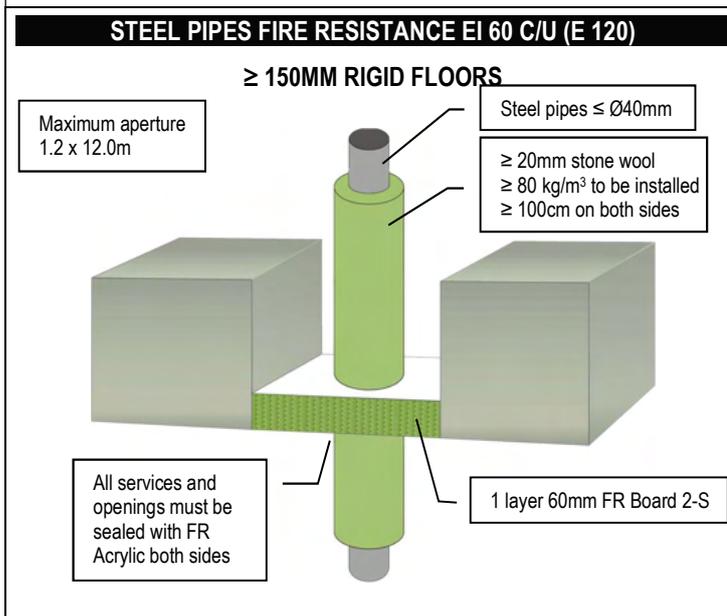
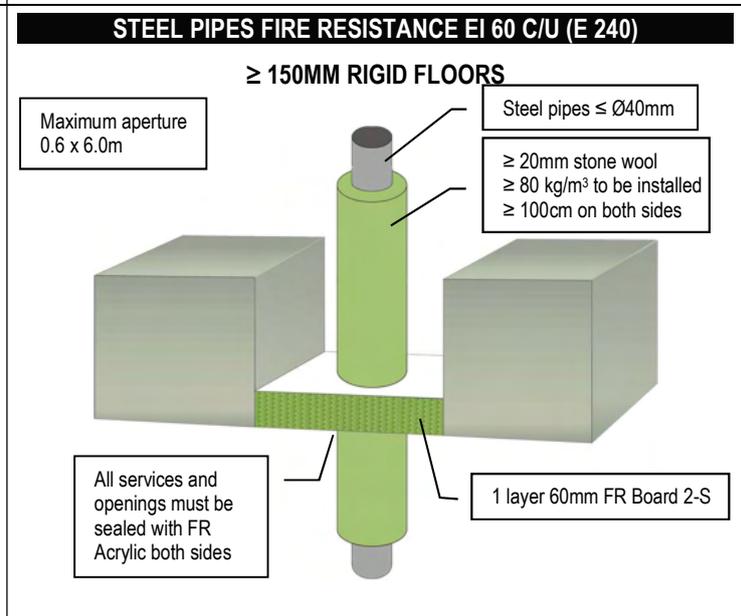
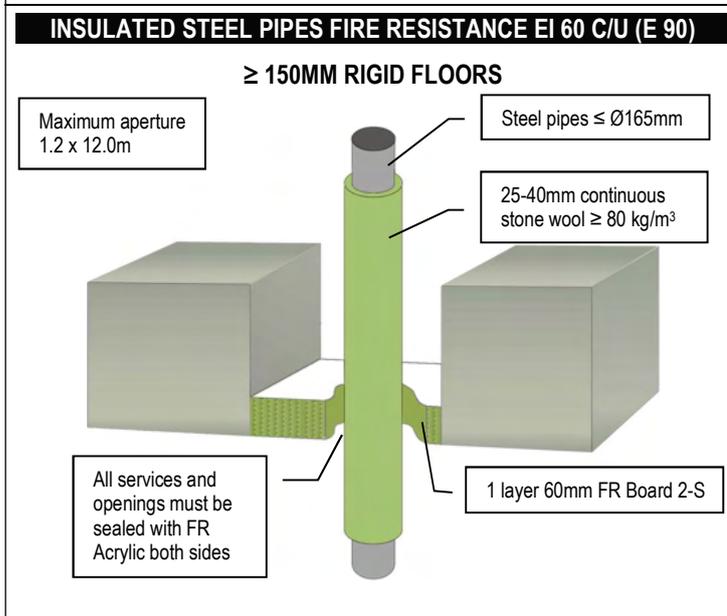
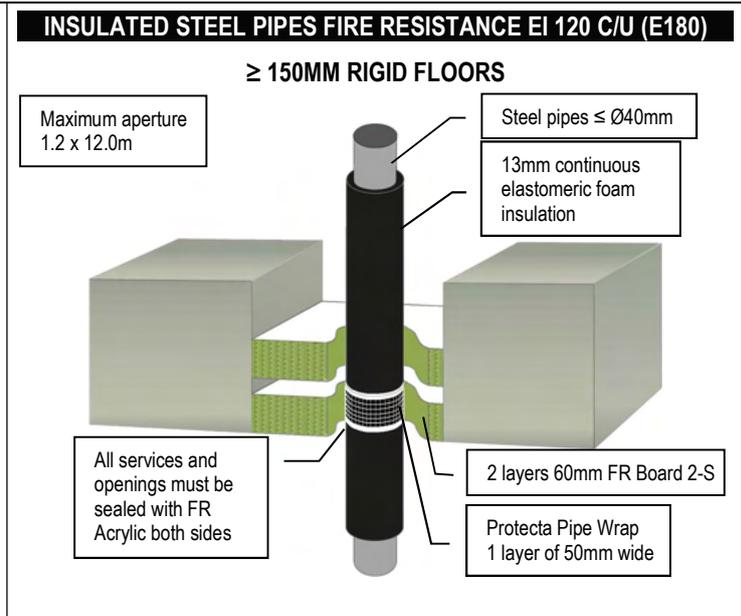
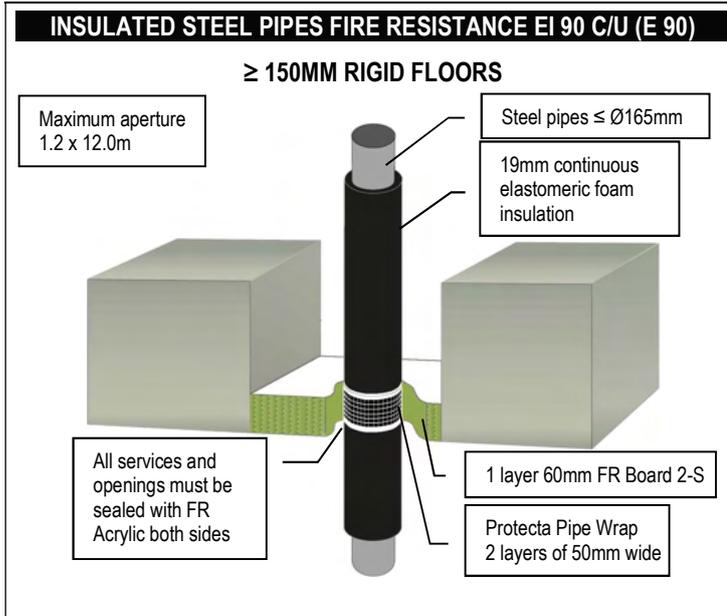
Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC-U & PVC-C	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 40mm PE, ABS & SAN+PVC	2.4 – 4.6mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 240 U/C (E 240 U/C)
≤ Ø 110mm PVC-U & 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	4.9 – 11.9mm	75 x 10.8mm (6 layers)	EI 180 C/C (E 180 C/C)
≤ Ø 200mm PE, ABS & SAN+PVC	4.9 – 18.2mm	75 x 10.8mm (6 layers)	EI 180 C/C (E 180 C/C)
≤ Ø 200mm PP	4.9 – 18.2mm	75 x 10.8mm (6 layers)	EI 180 C/C (E 180 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 315mm PE, ABS & SAN+PVC	28.6mm	75 x 18.0mm (10 layers)	EI 120 C/C (E 180 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)
≤ Ø 400mm PE, ABS & SAN+PVC	36.3mm	75 x 28.8mm (16 layers)	EI 120 C/C (E 120 C/C)

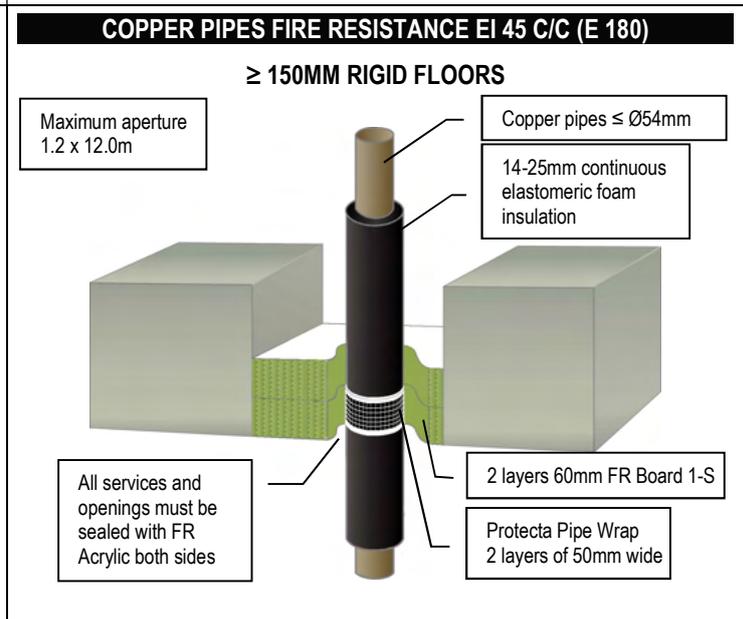
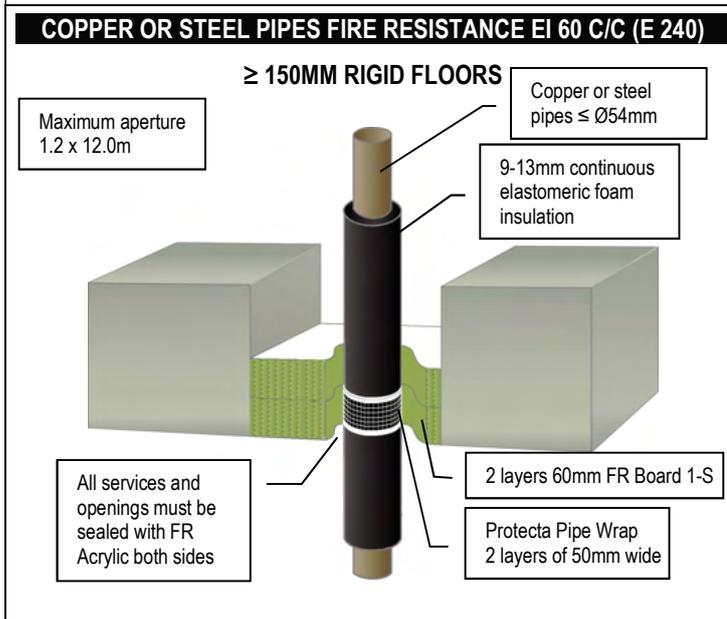
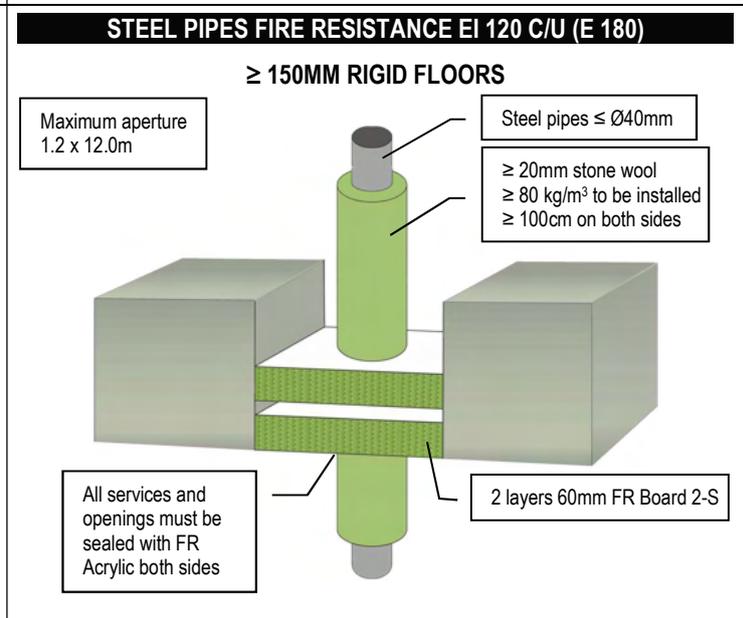
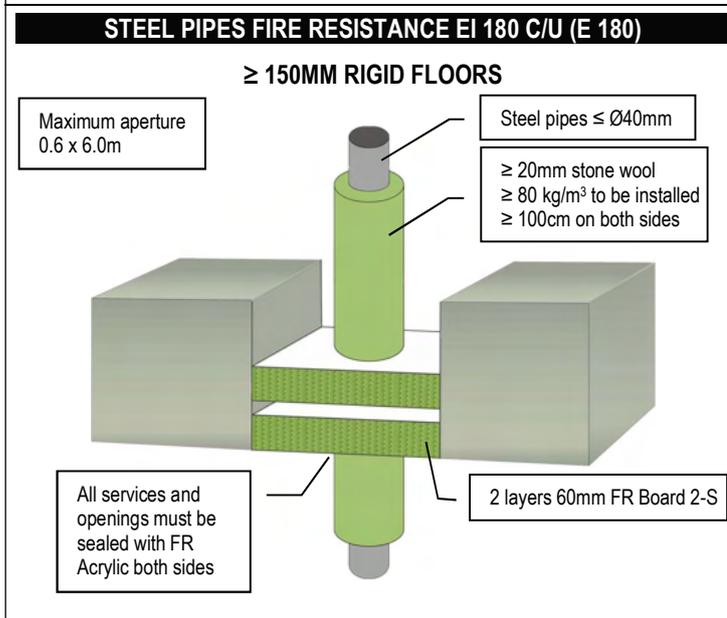
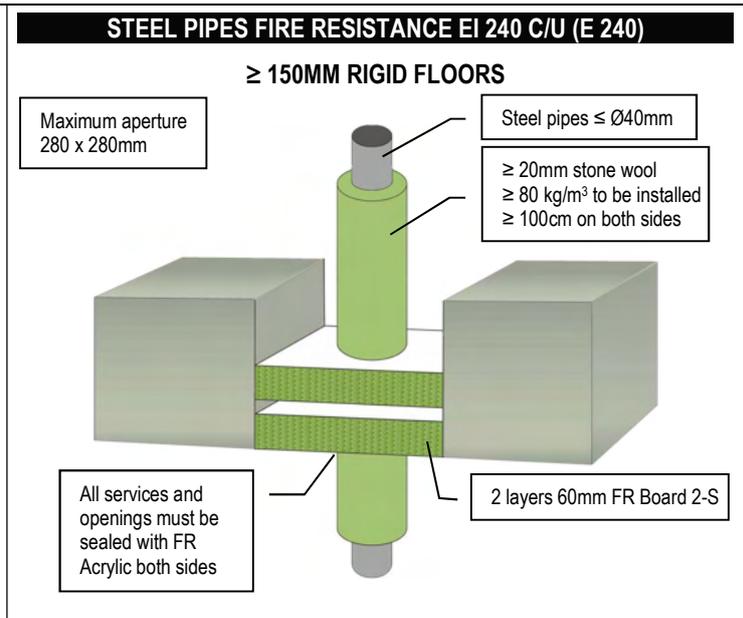
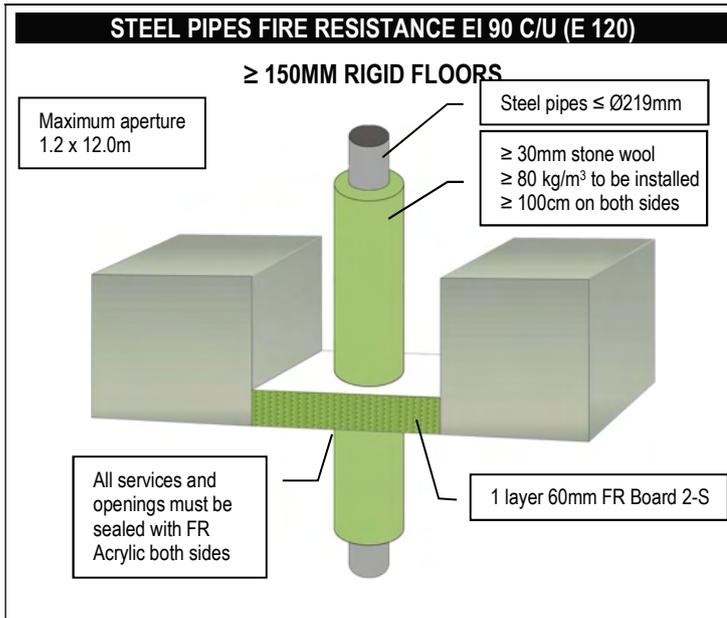


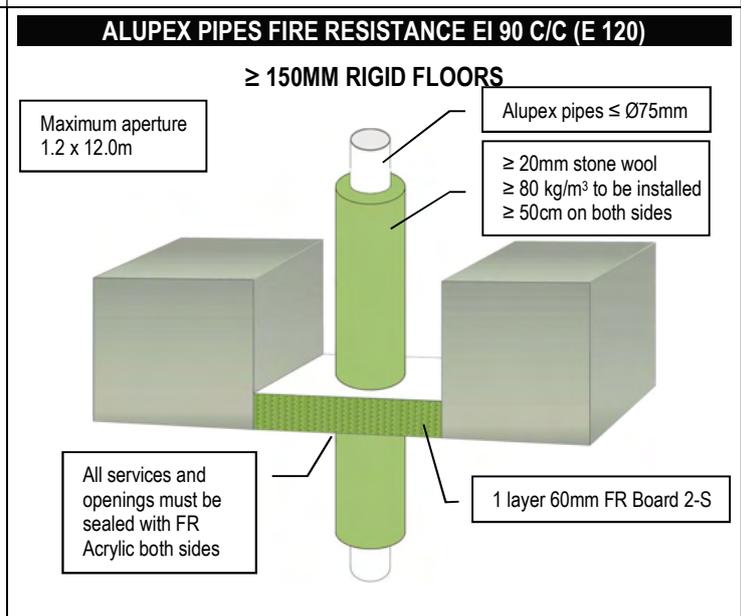
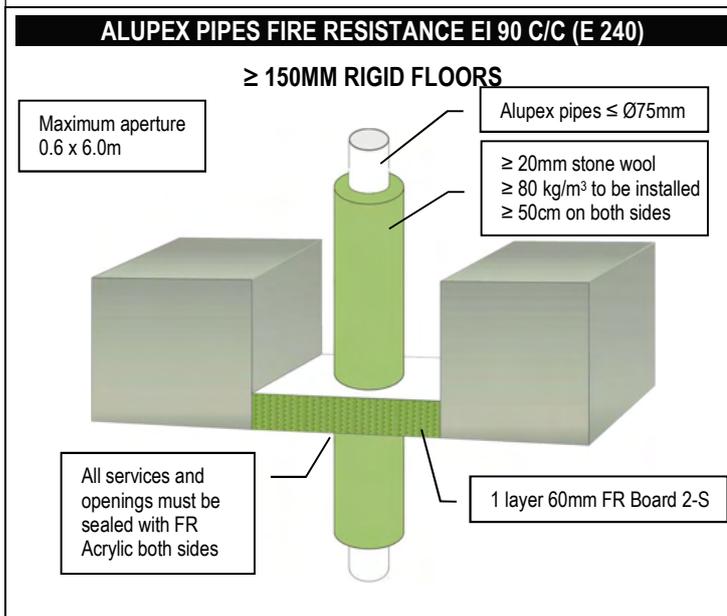
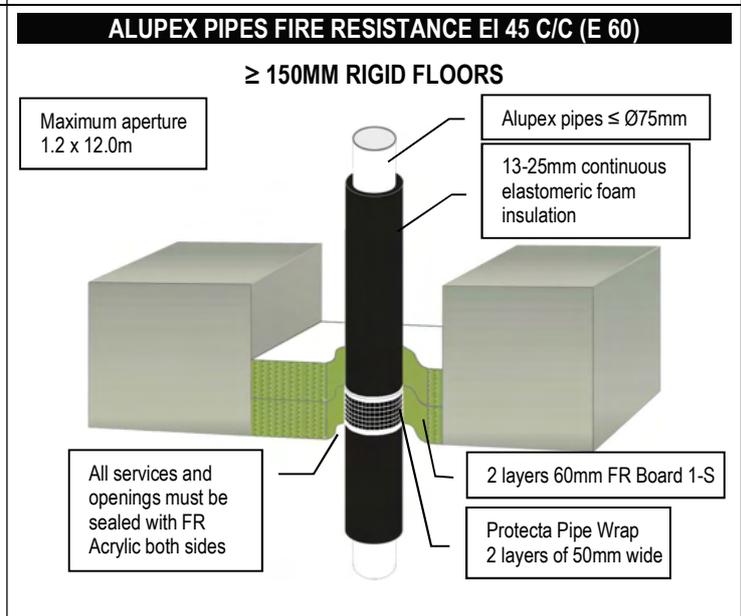
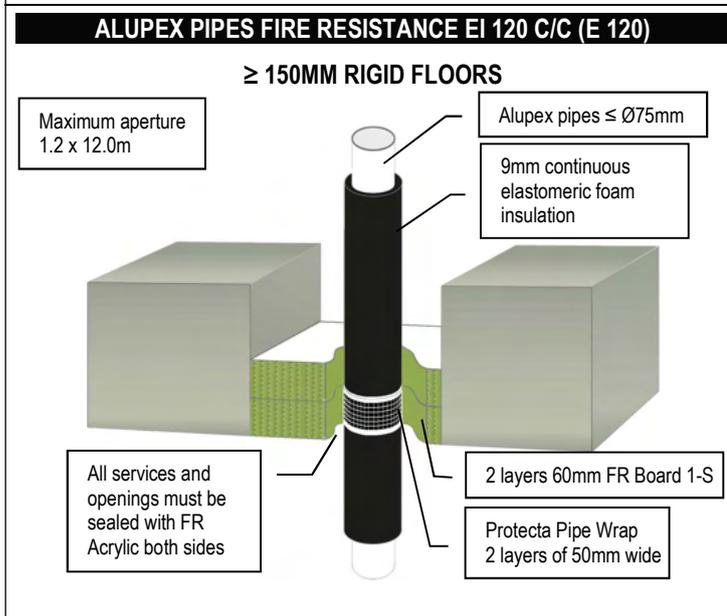
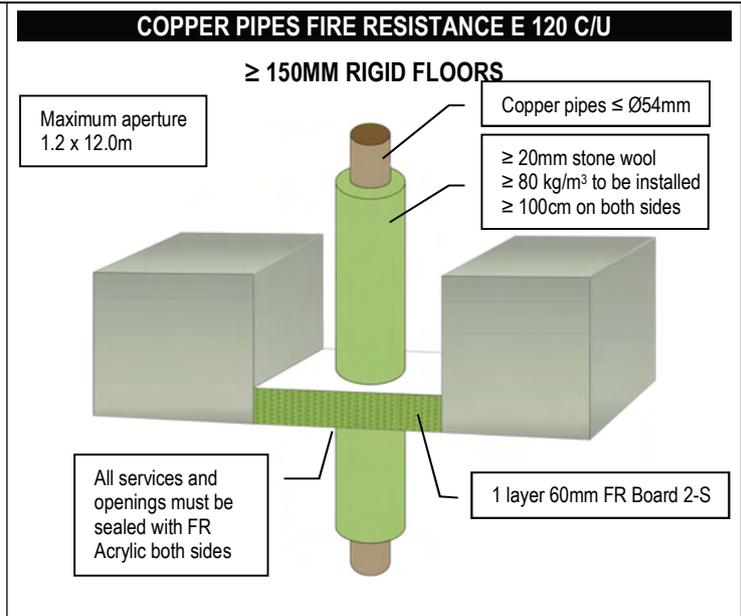
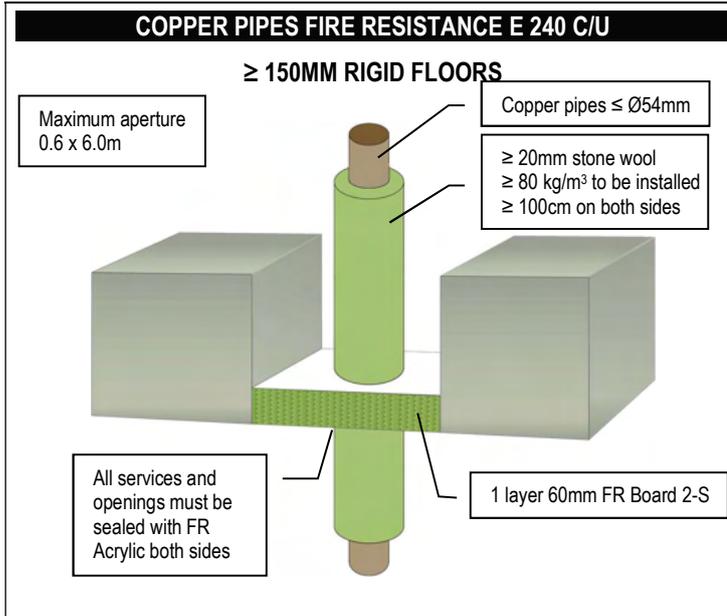












ALUPEX PIPES FIRE RESISTANCE EI 180 C/C (E 240)

≥ 150MM RIGID FLOORS

Maximum aperture 0.6 x 6.0m

Alupex pipes ≤ Ø16mm

≥ 20mm stone wool ≥ 80 kg/m³ to be installed ≥ 100cm on both sides

2 layers 60mm FR Board 2-S

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

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

≥ 150MM RIGID FLOORS

Maximum aperture 1.2 x 12.0m

PVC-U & PVC-C pipe Ø110mm with wall thickness 3.4mm

1 layer 50mm FR Board 2-S

Protecta Pipe Wrap 2 layers of 50mm wide

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

PLASTIC PIPES FIRE RESISTANCE EI 60

≥ 125MM RIGID FLOORS

Maximum aperture 1.2 x 12.0m

Plastic pipe

1 layer 60mm FR Board 2-S

Protecta Pipe Wrap towards soffit side

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

Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 120)
≤ Ø 110mm PVC	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60)
≤ Ø 40mm PE	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 60)
≤ Ø 110mm PE	3.4 – 10.0mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 60)
≤ Ø 110mm PP	2.7 – 10.0mm	50 x 3.6mm (2 layers)	EI 60 C/C (E 60)

PLASTIC PIPES FIRE RESISTANCE EI 60

≥ 125MM RIGID FLOORS

Maximum aperture 1.2 x 12.0m

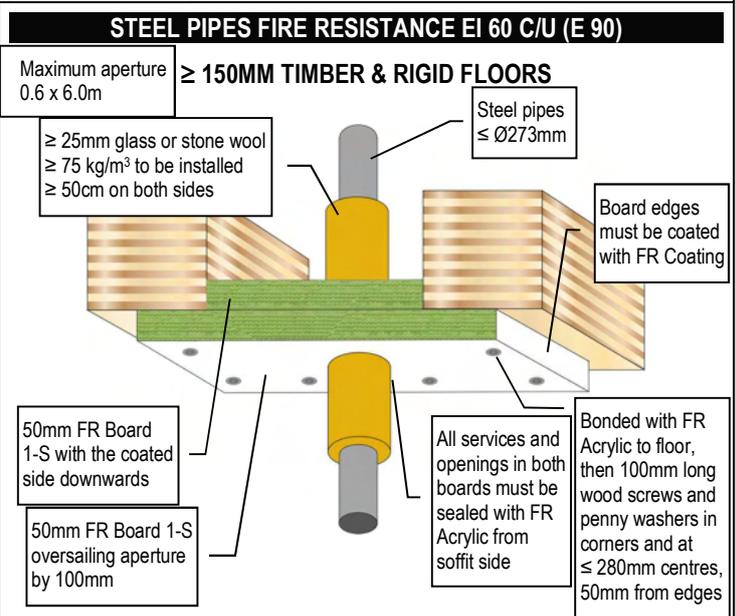
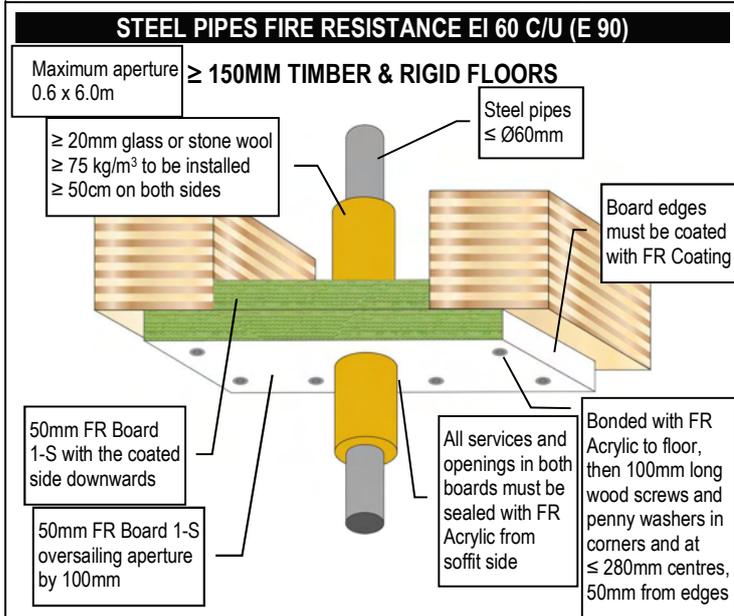
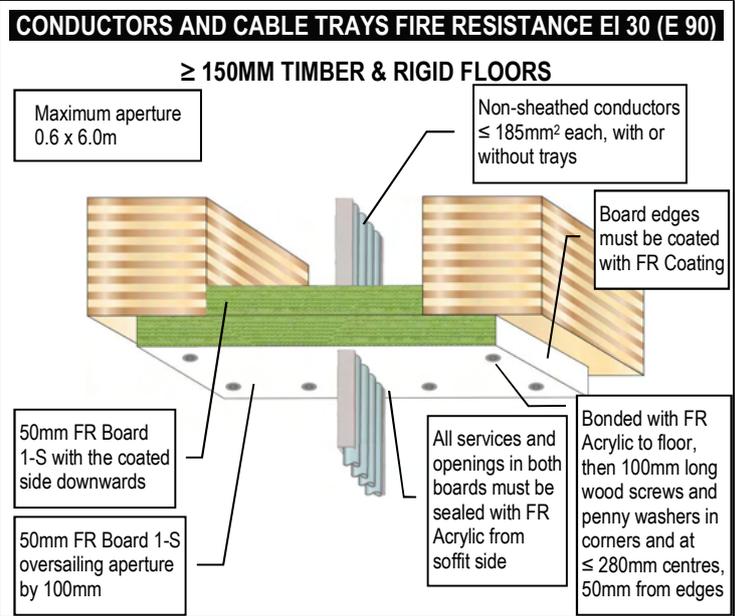
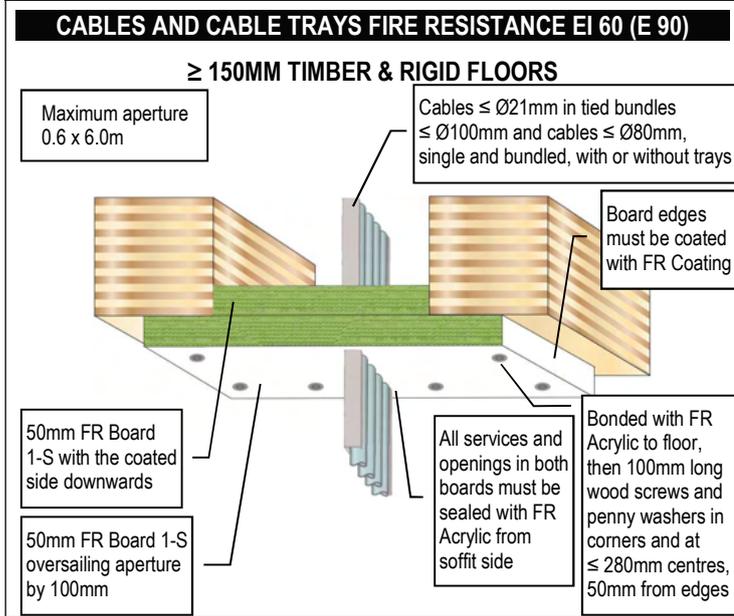
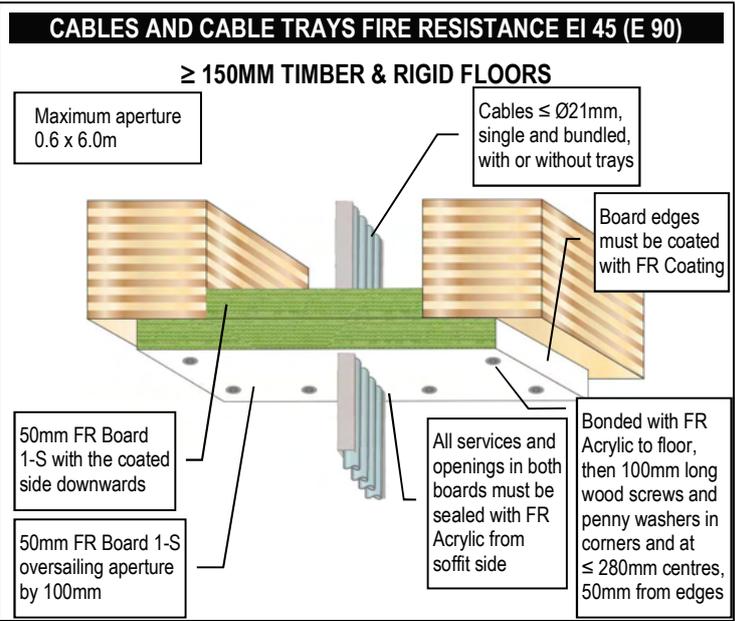
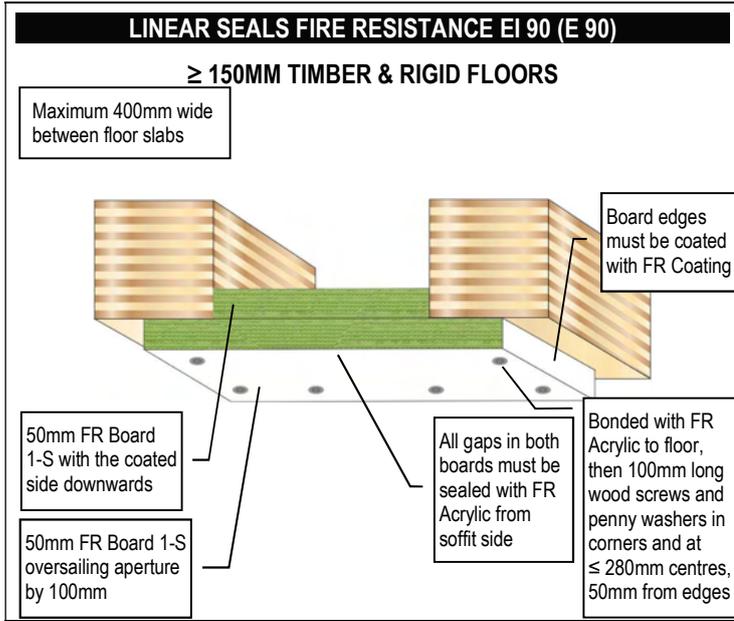
Plastic pipe

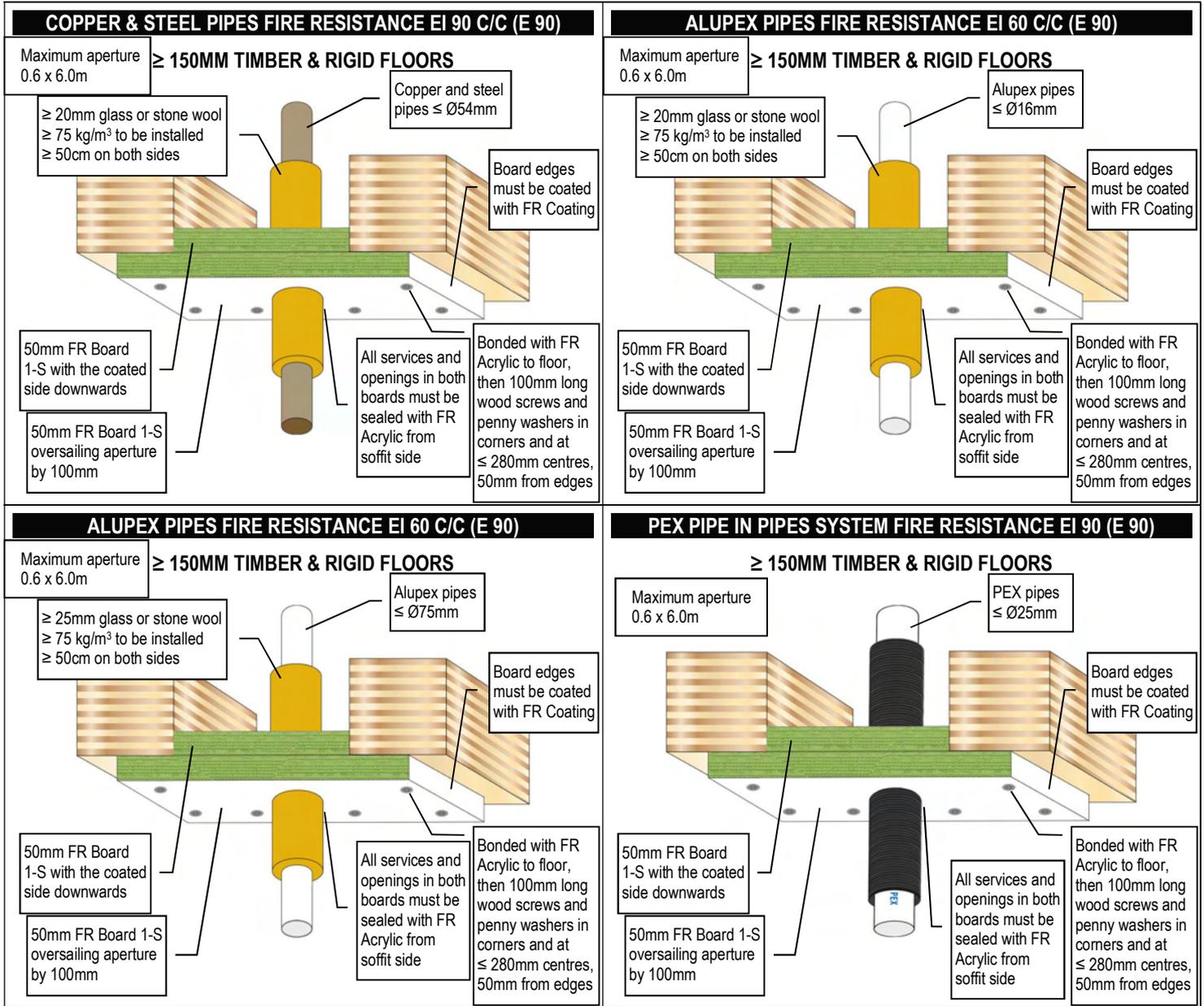
2 layers 50mm FR Board 1-S

Protecta Pipe Wrap towards soffit side

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

Services	Pipe Wall Thickness	FR Pipe Wrap	Classification
≤ Ø 40mm PVC	1.9 – 3.0mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 120)
≤ Ø 110mm PVC	2.7 – 6.6mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60)
≤ Ø 40mm PE	2.4 – 3.7mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 60)
≤ Ø 110mm PE	3.4 – 10.0mm	50 x 3.6mm (2 layers)	EI 60 U/C (E 60)
≤ Ø 40mm PP	1.8 – 5.5mm	50 x 1.8mm (1 layer)	EI 60 U/C (E 60)
≤ Ø 110mm PP	2.7 – 10.0mm	50 x 3.6mm (2 layers)	EI 60 C/C (E 60)
≤ Ø 160mm PP	4.9 – 14.6mm	50 x 10.8mm (6 layers)	EI 60 C/C (E 60)





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