

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. Where cable trays are discontinued on both sides of the penetration seal, the maximum distance to the trays should be 150 mm. There is no minimum distance required for the fixings of the cable trays, but it is suggested such fixings and the cable trays are constructed so they provide support for the duration of the required fire classification.

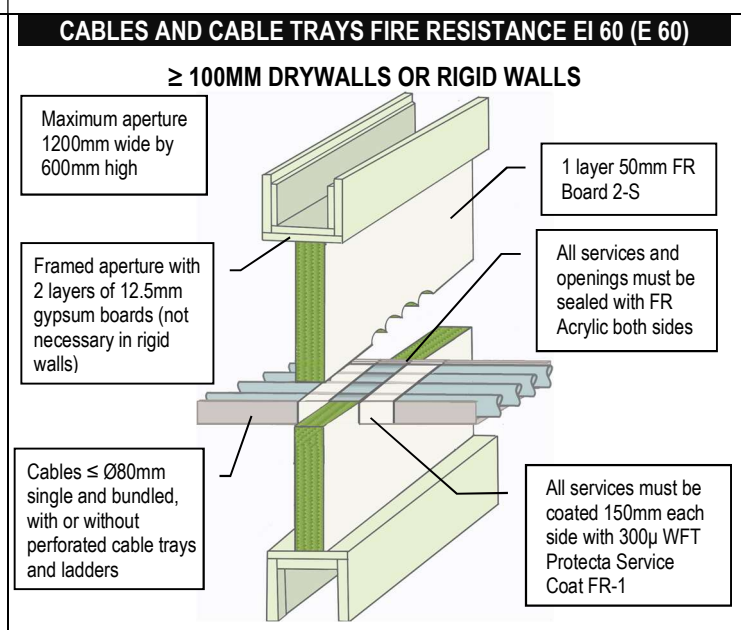
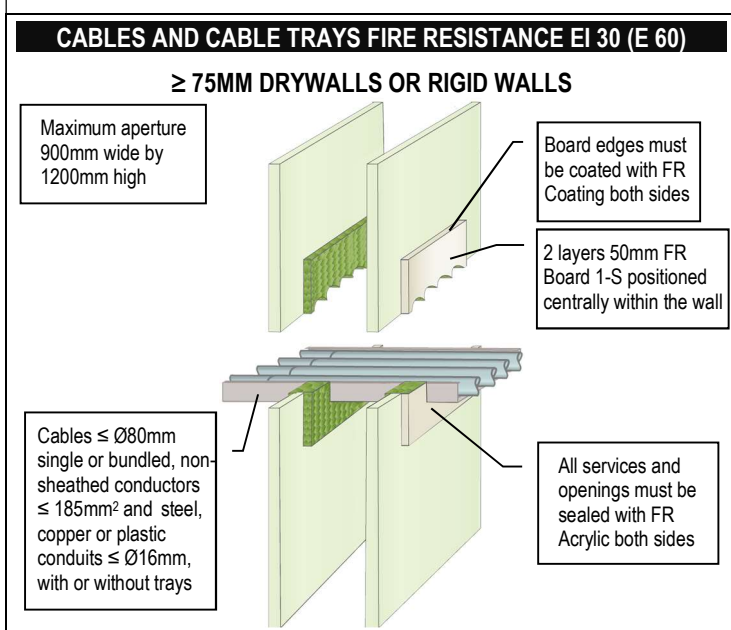
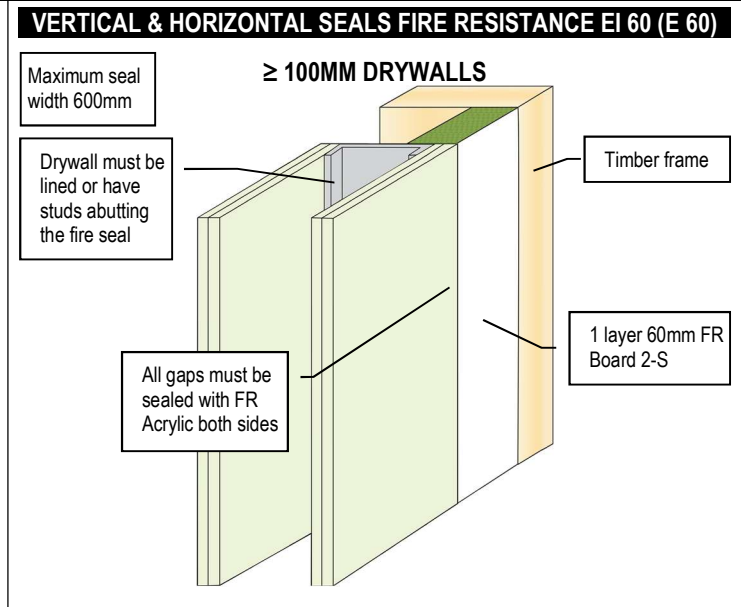
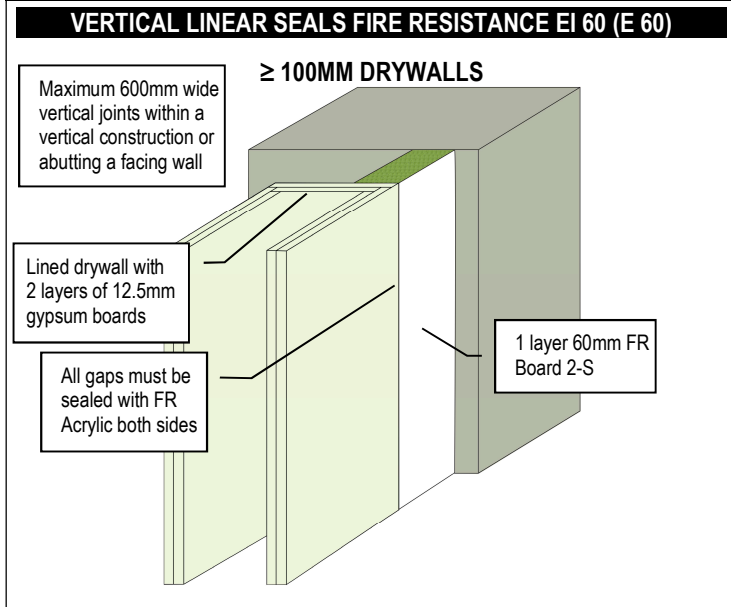
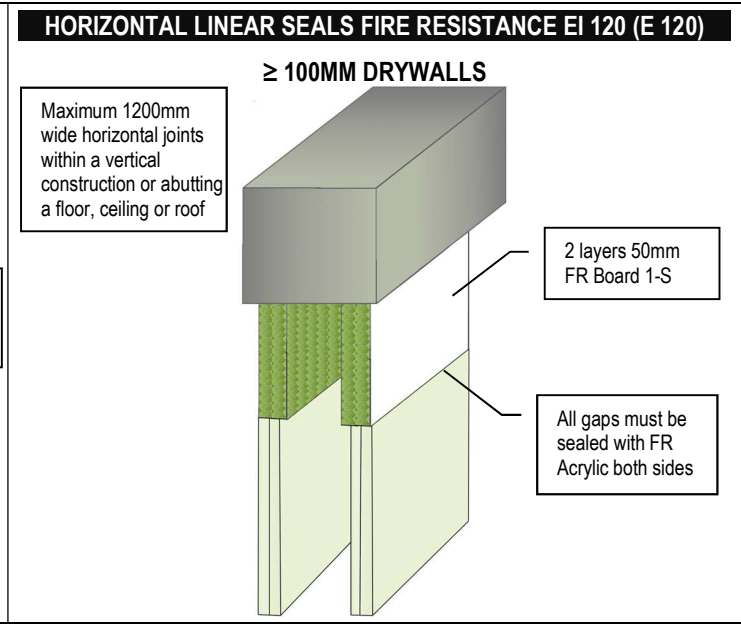
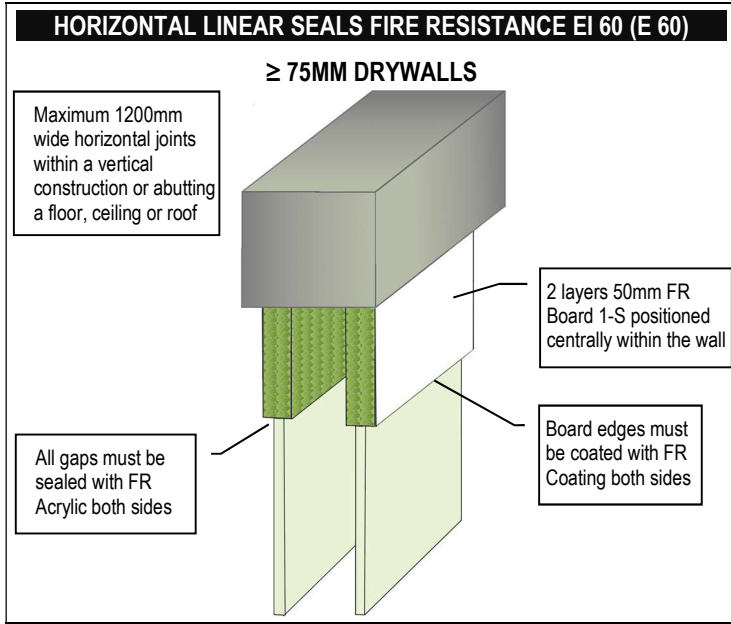
Services: Metallic pipes through the system Protecta® FR Board may be used in all angles between 90° and 45° in all directions.

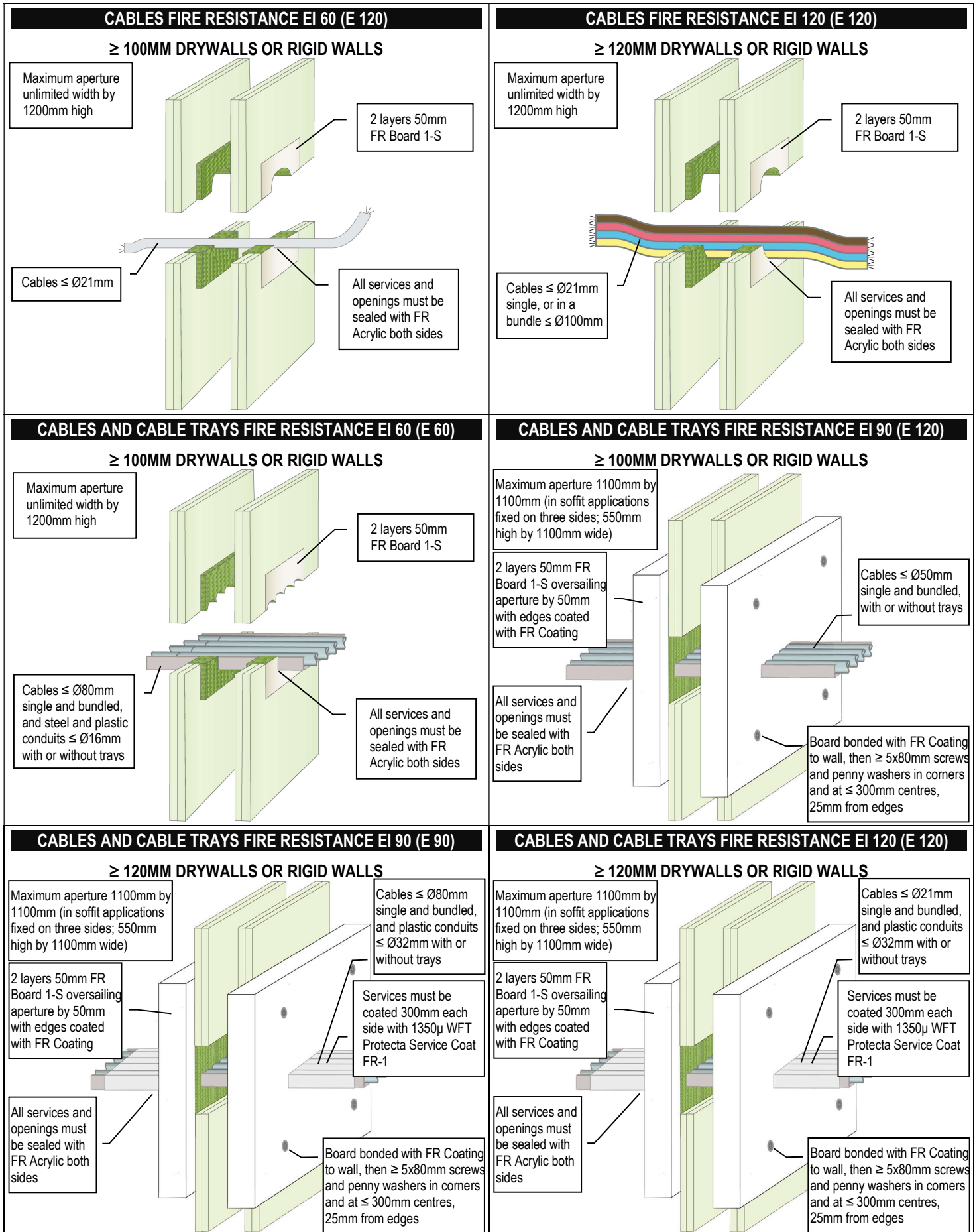
Where steel pipes are mentioned, this includes iron pipes. Where PVC pipes are mentioned, this includes PVC-U, PVC-C and similar if the pipe is according to EN 1329-1, EN 1452-2, EN 1453-1 and EN 1566-1. Where PP pipes are mentioned, this includes PP-MV, PP-H, PP-R and similar if the pipe is according 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.

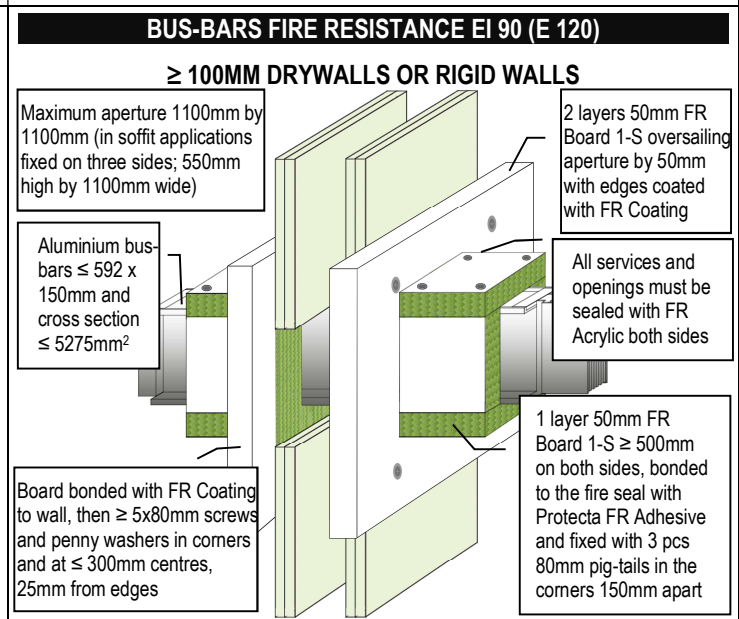
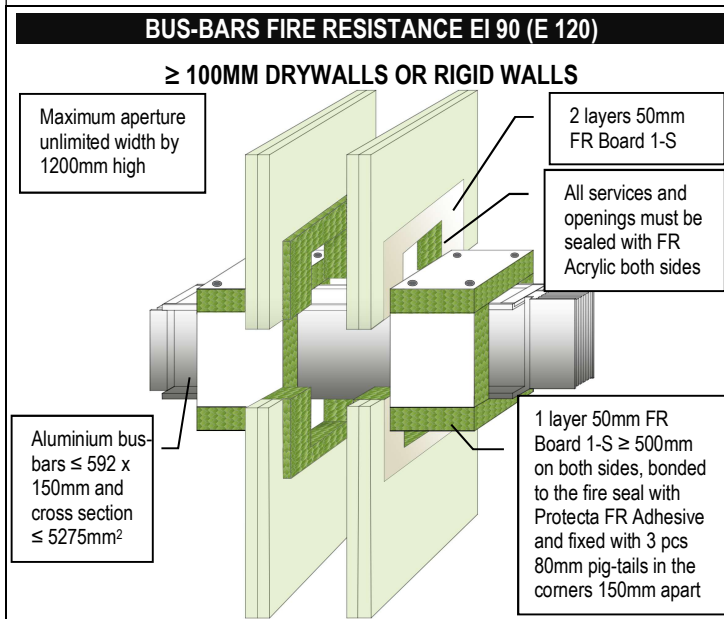
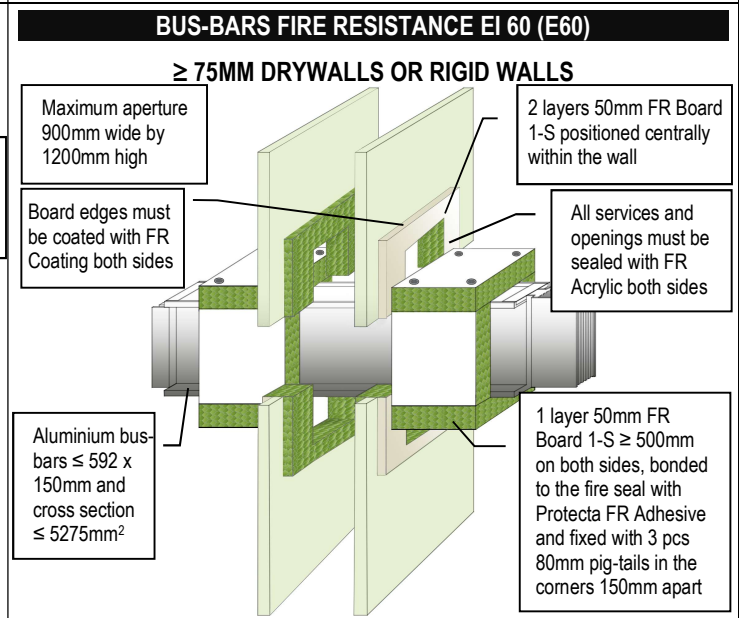
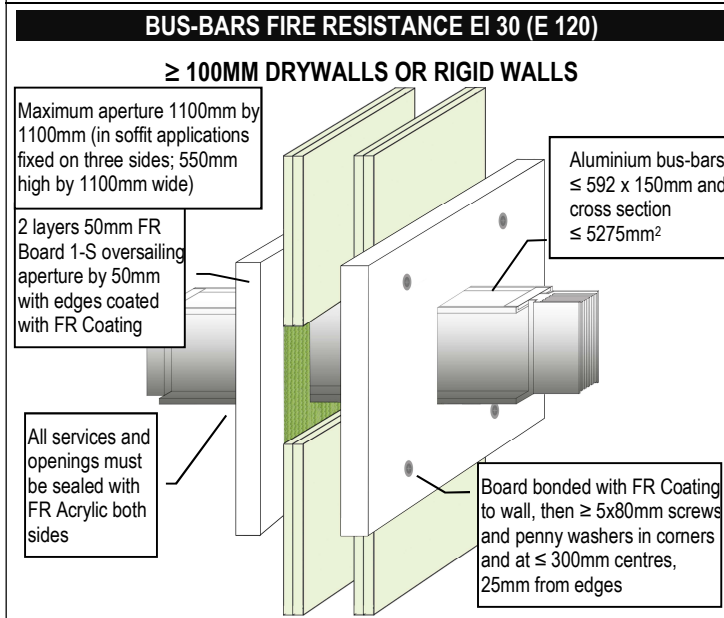
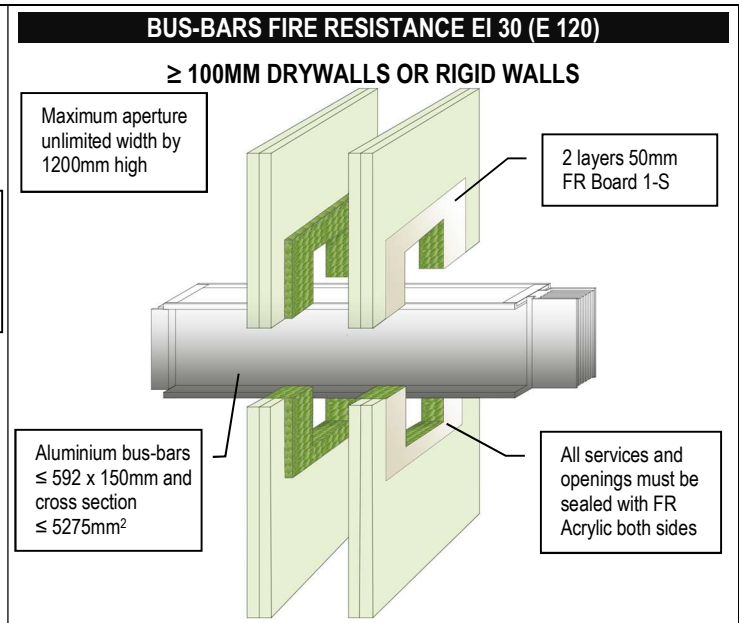
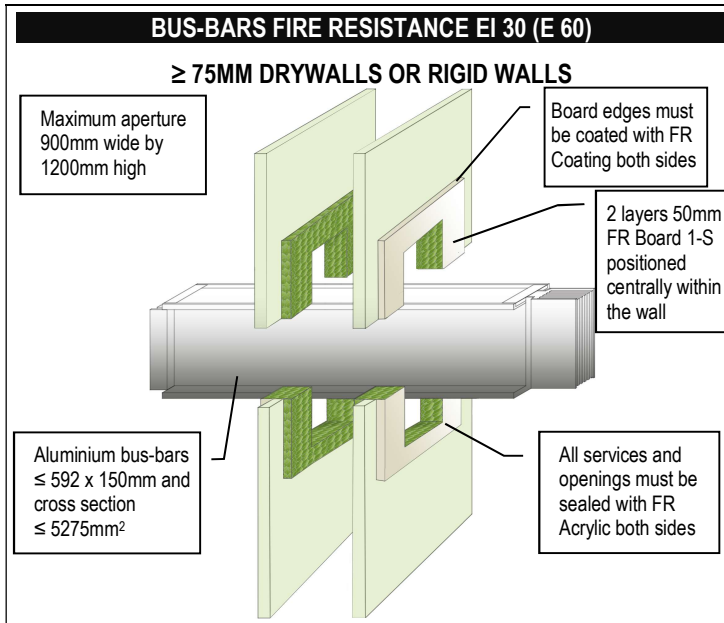


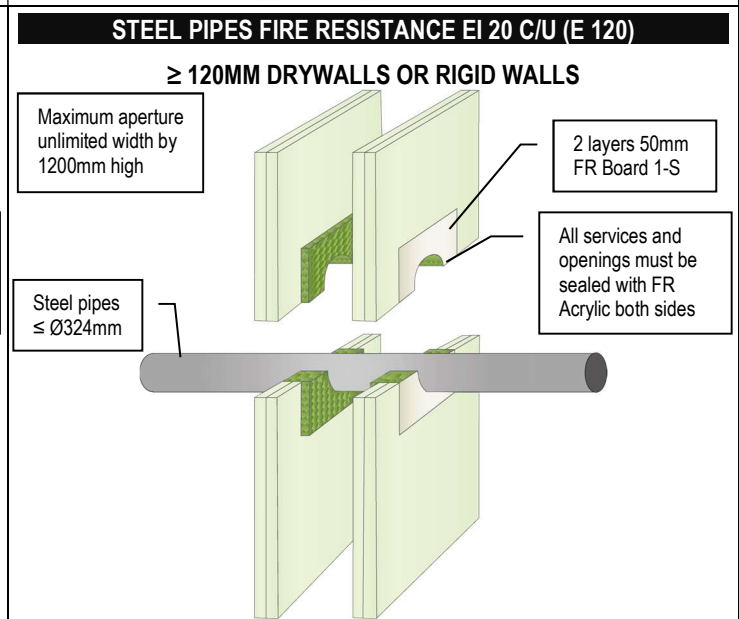
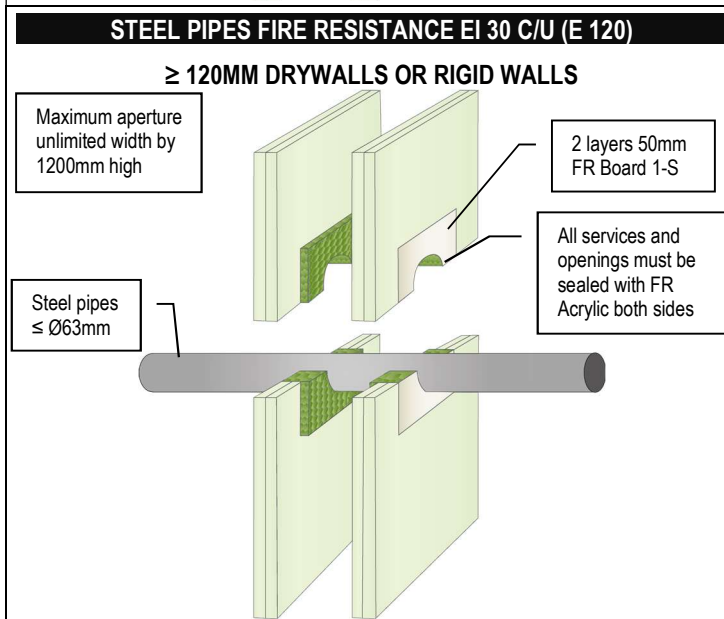
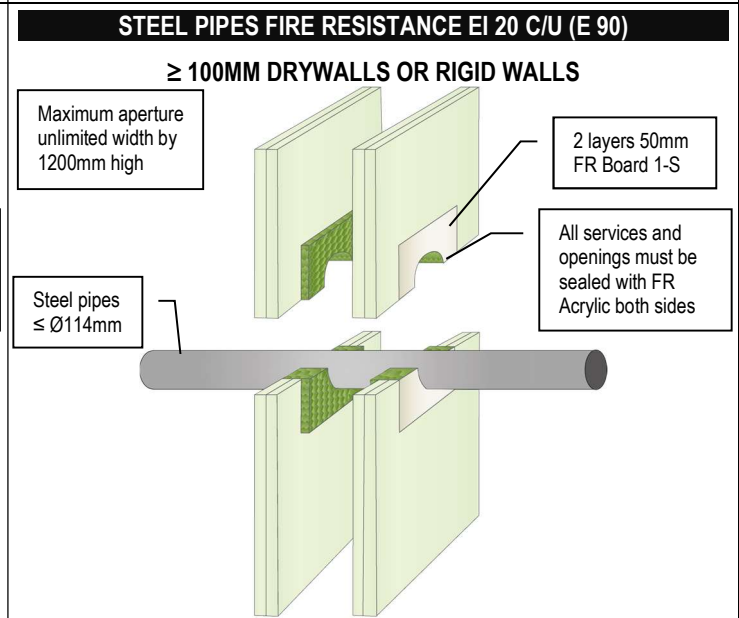
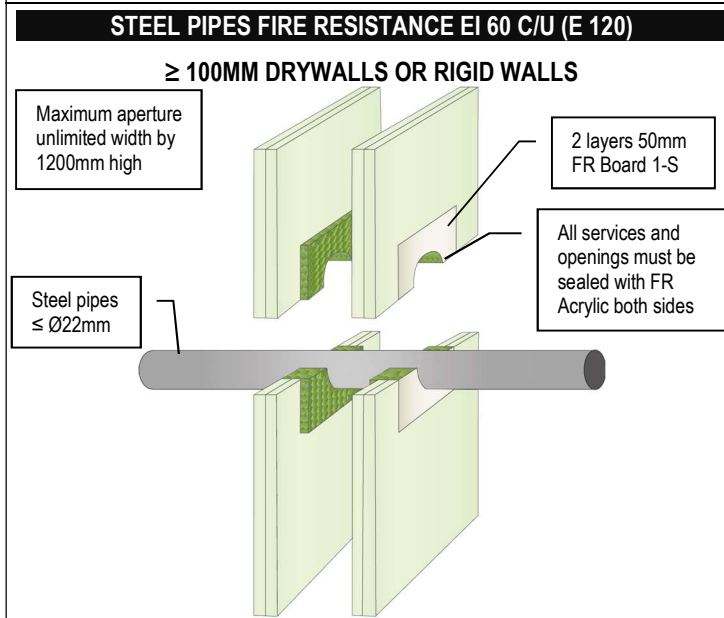
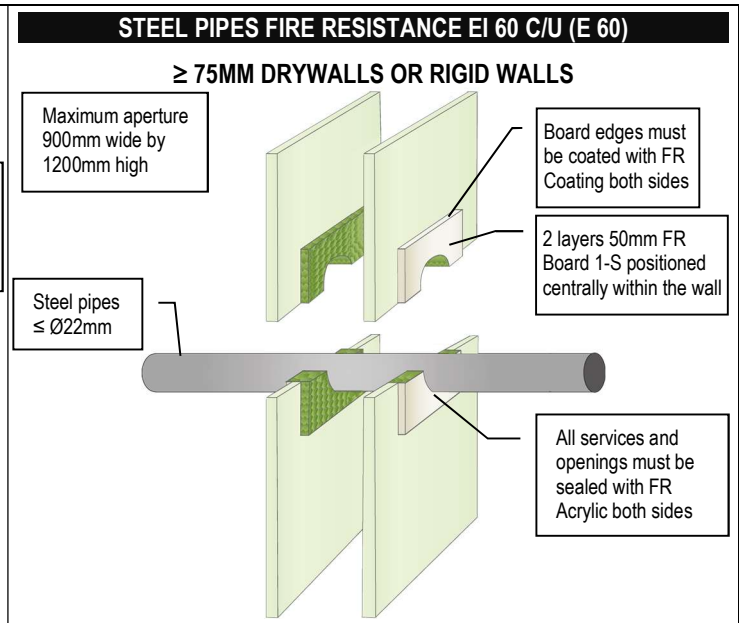
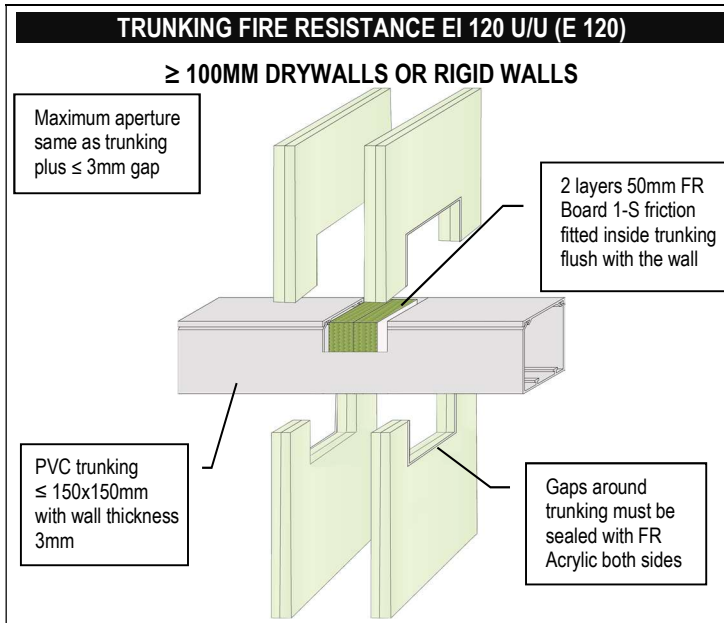
INSTALLATION

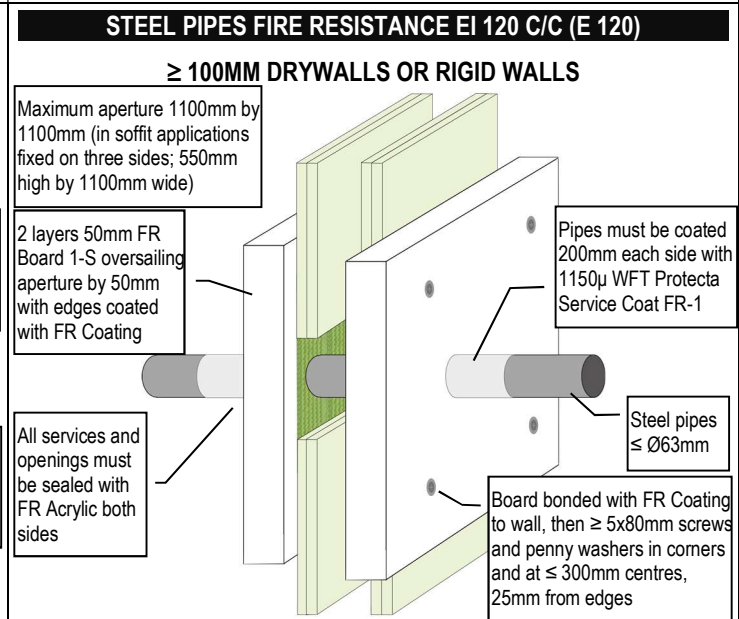
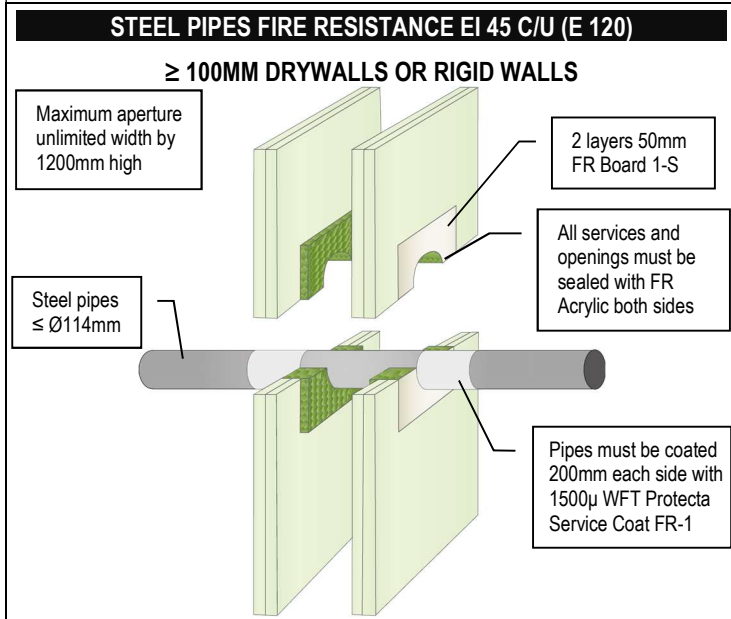
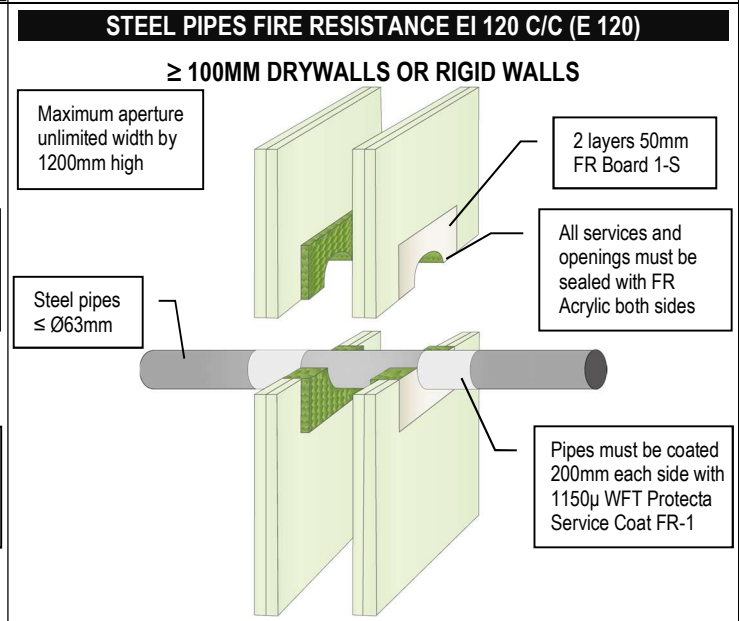
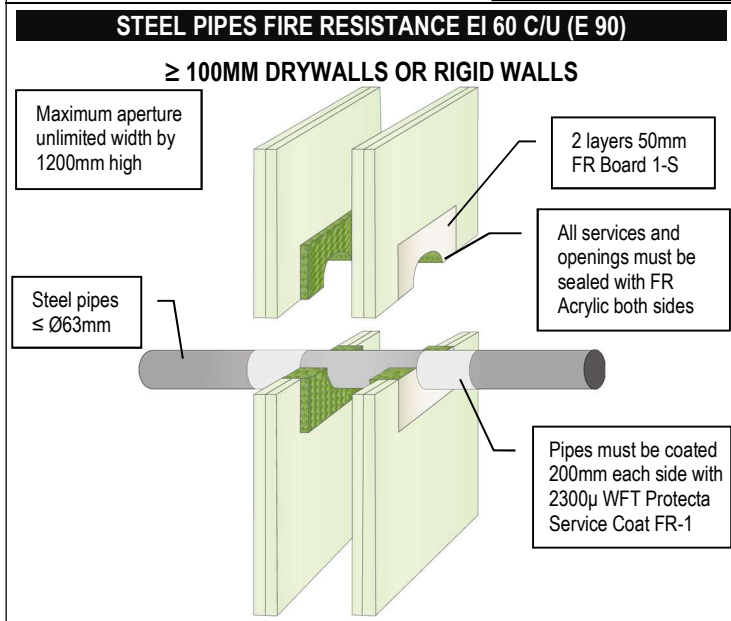
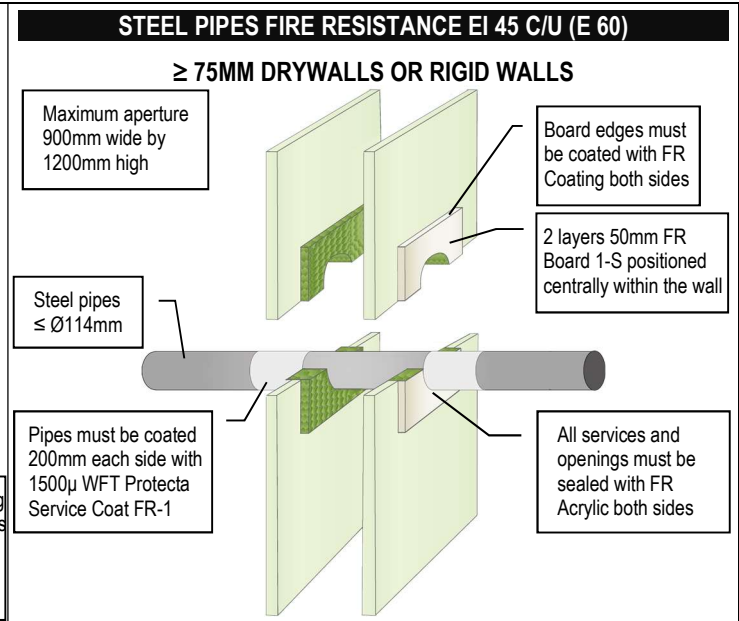
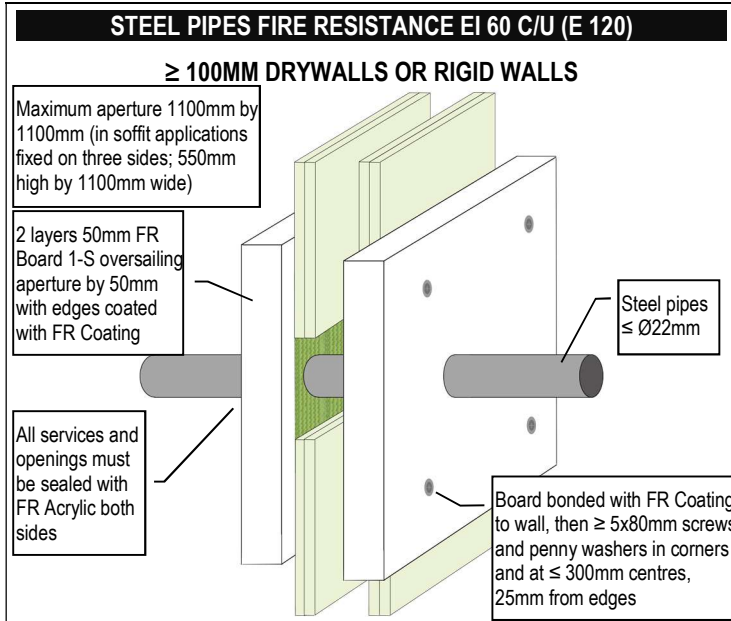
1. Before installing Protecta® FR Board ensure that the surface of all service penetrations and surrounding construction is free from all loose contaminants, dust and grease.
2. Protecta® FR Coating, FR Acrylic, FR Graphite and Service Coat FR-1 are water based, so in cases where corrosion protection 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, the fire seal should be level with the soffit side. There must be sufficient thickness of concrete below the void for the depth of the fire seal. Where this is not the case, or where double layer boards are required, tubular voids should be plugged with FR Board before sealing the aperture.
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 must be sealed with Protecta® FR Acrylic prior to fitting which will act as an adhesive (optional in rigid constructions). 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.

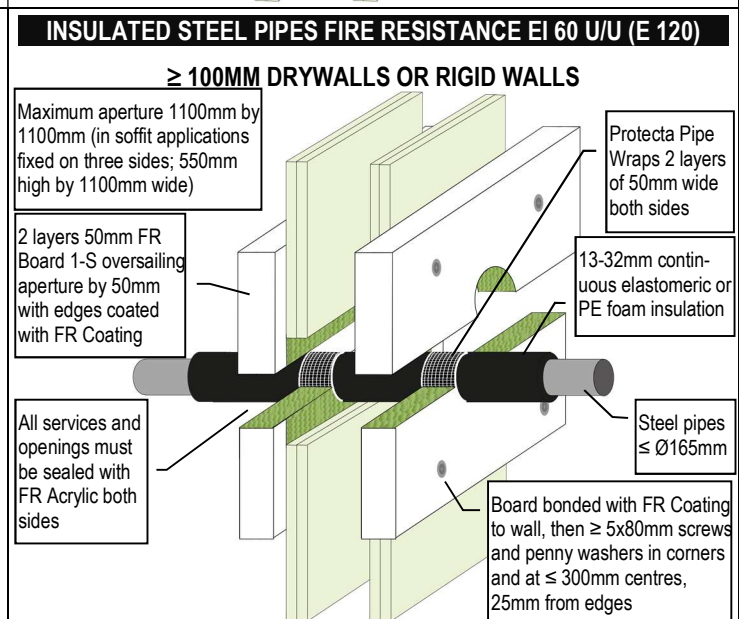
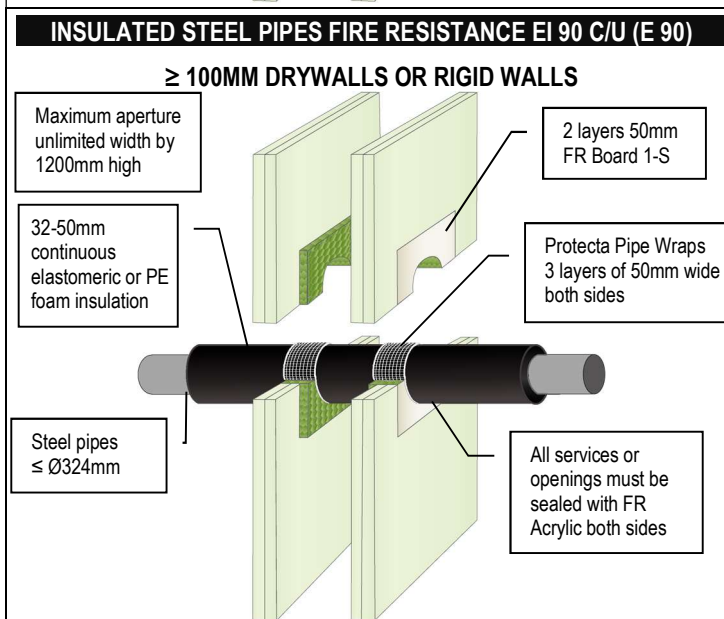
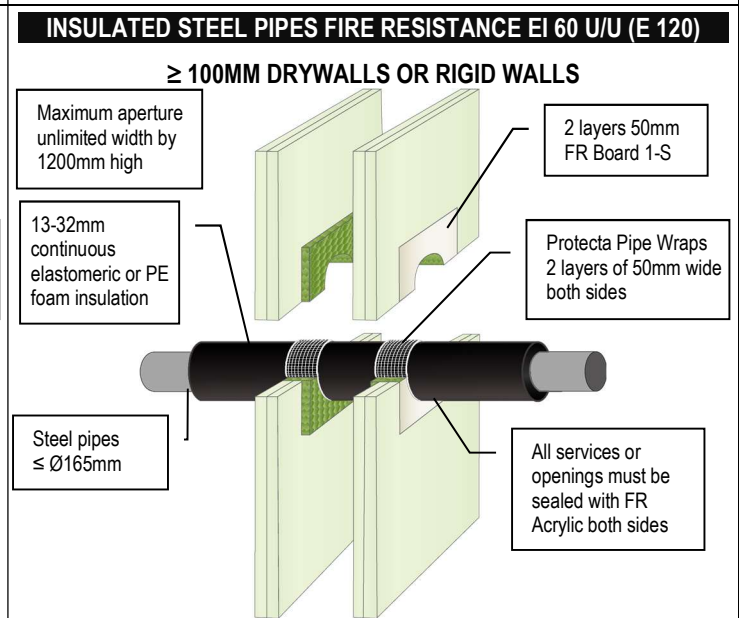
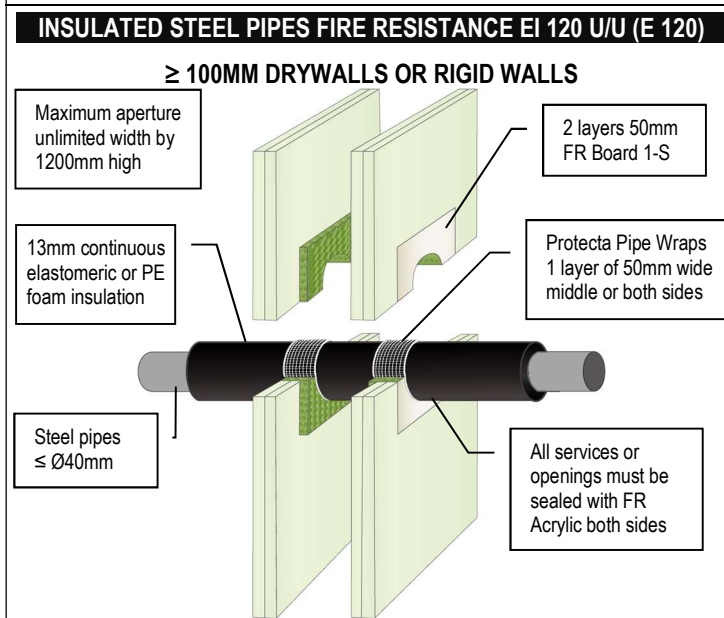
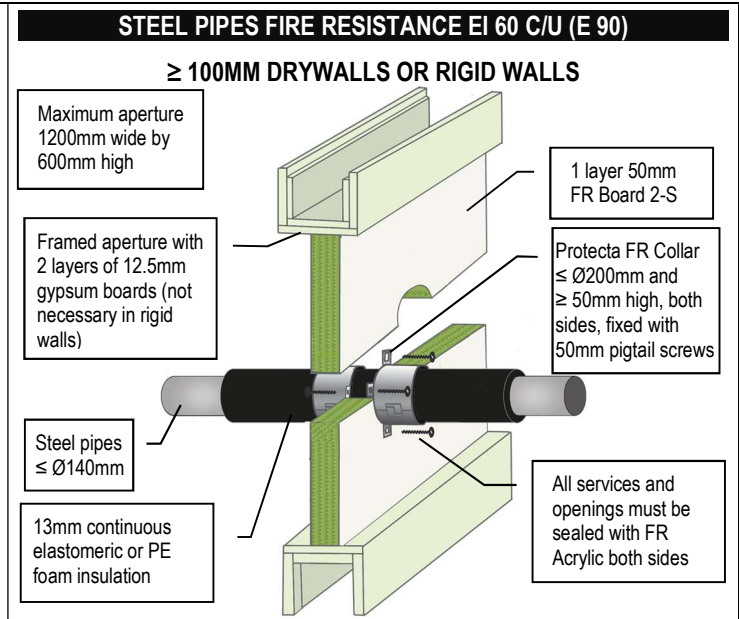
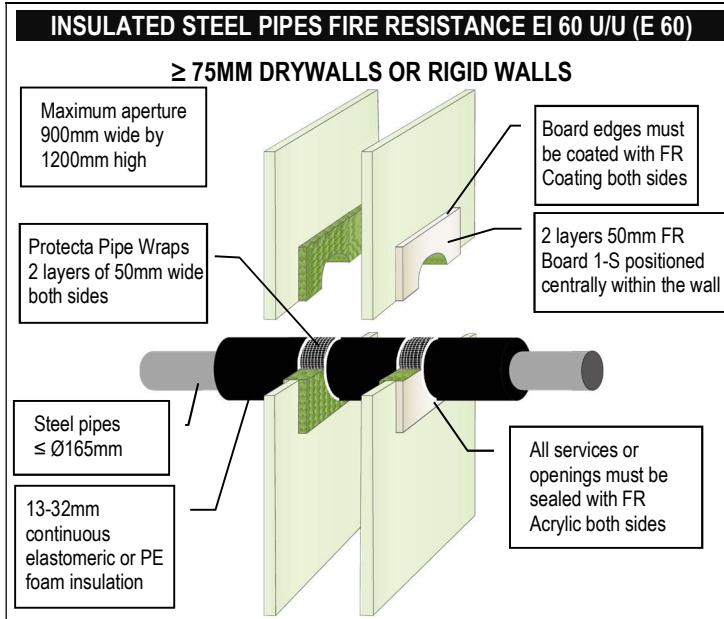


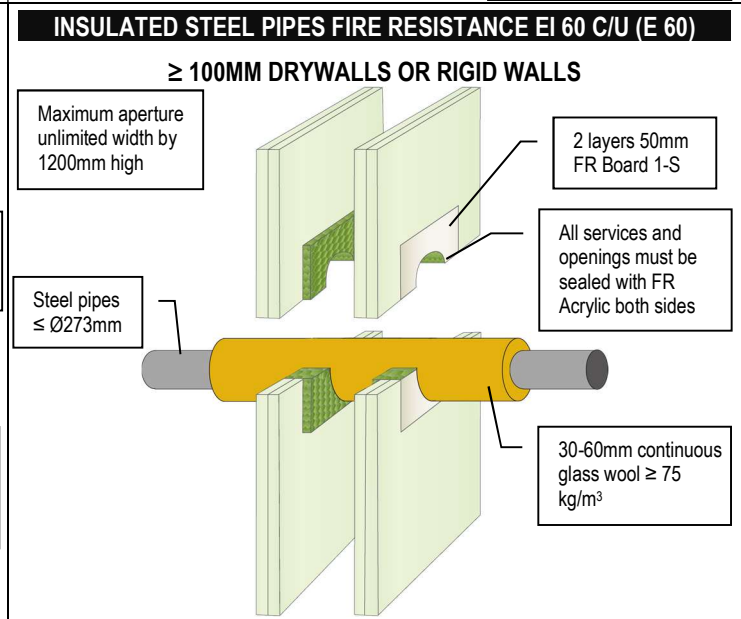
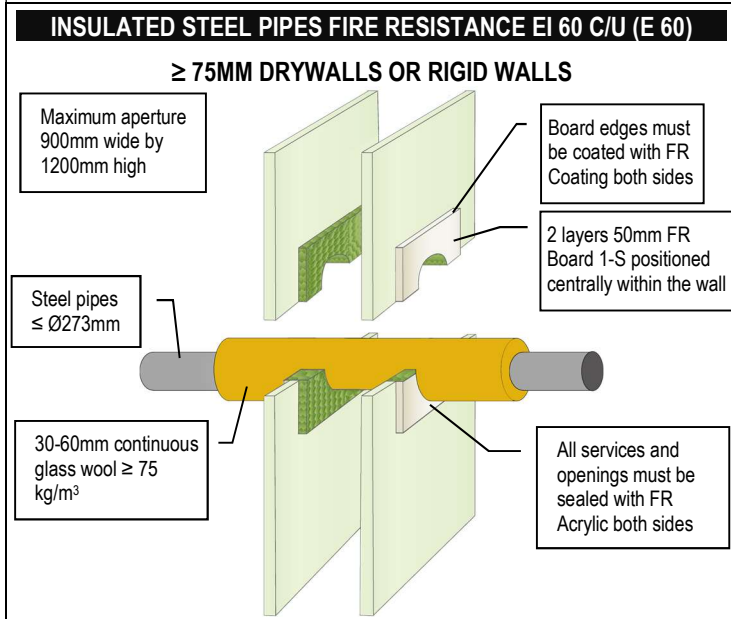
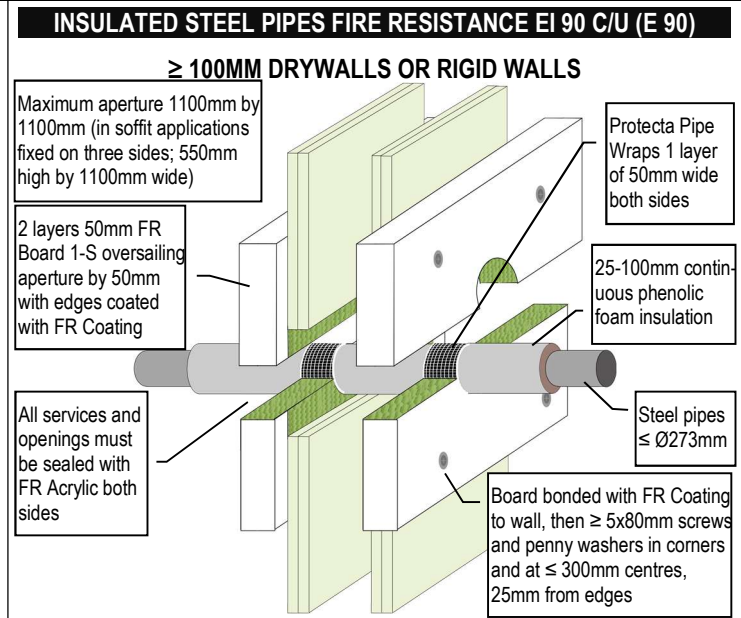
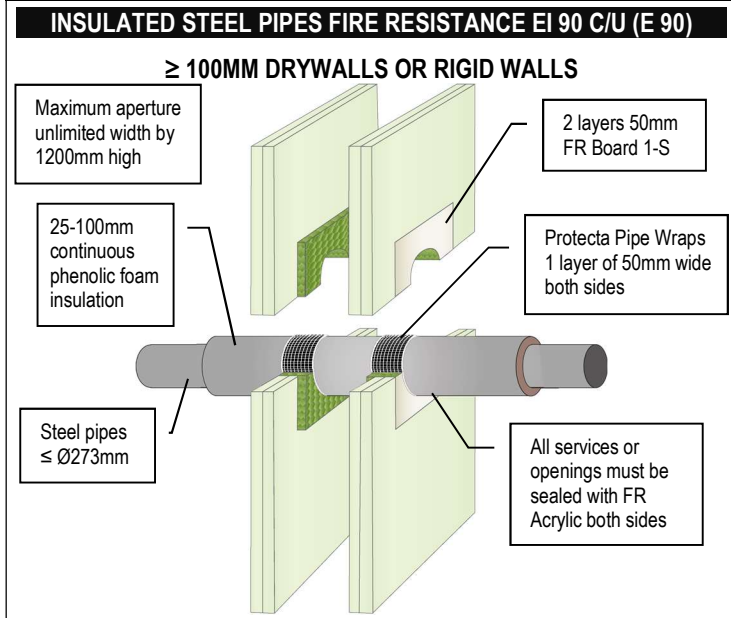
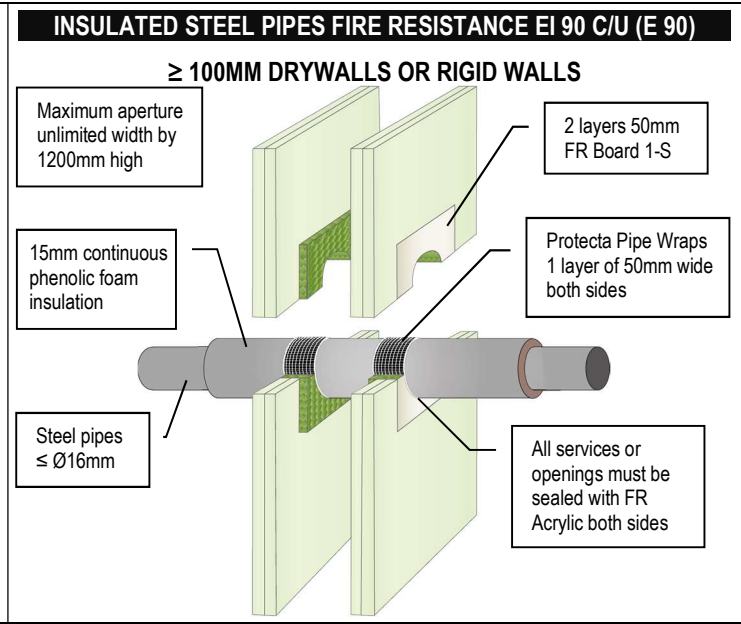
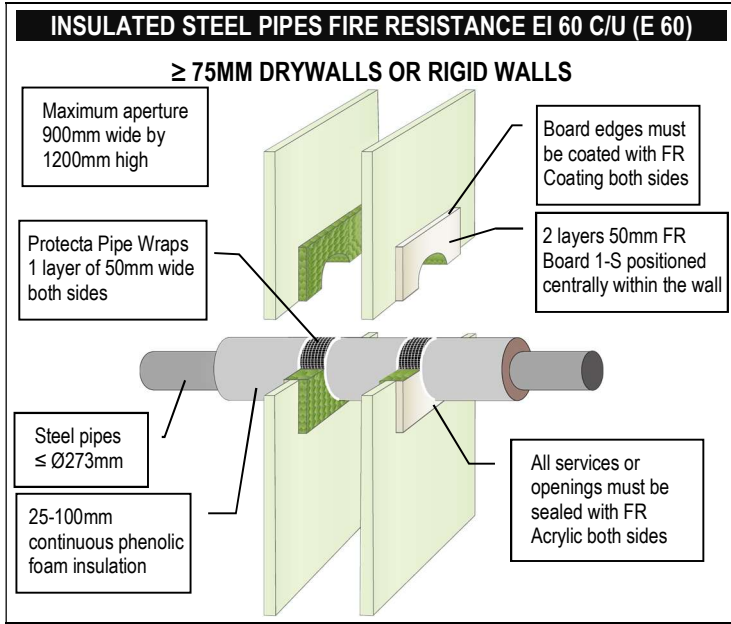


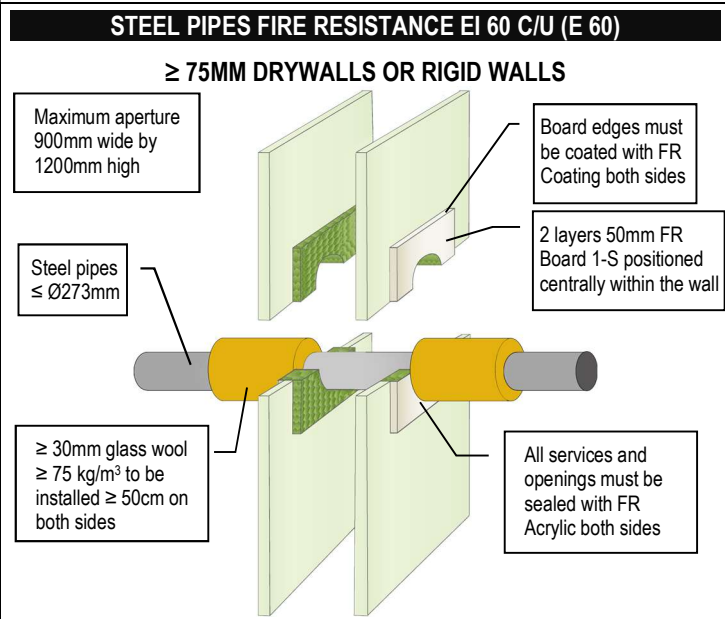
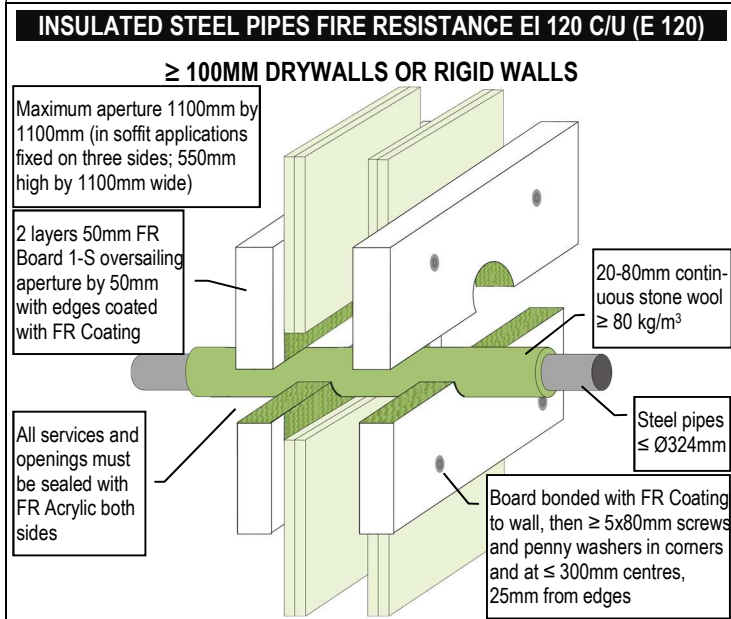
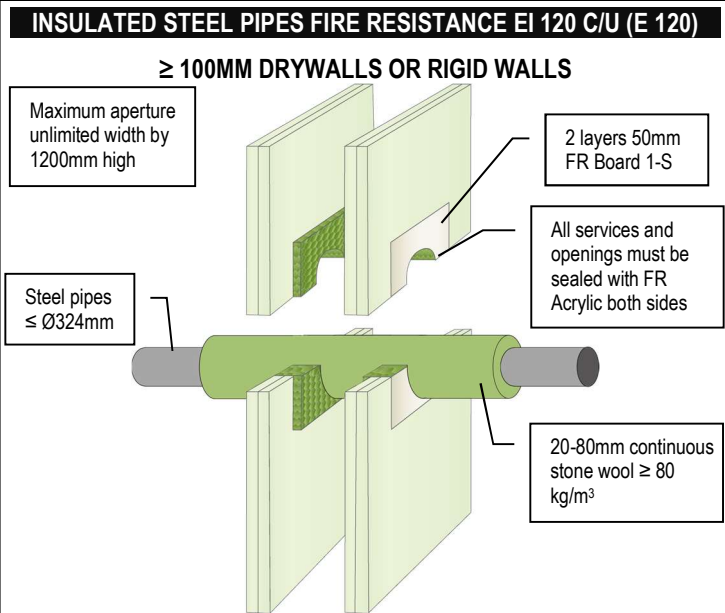
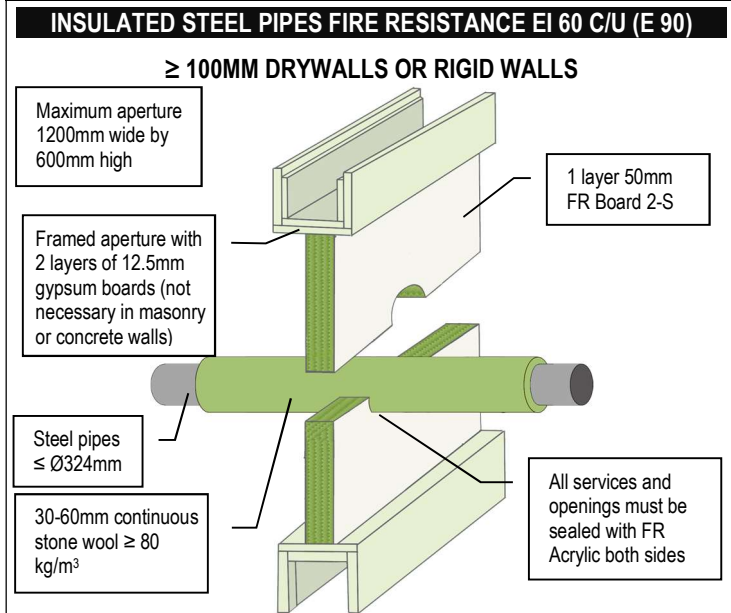
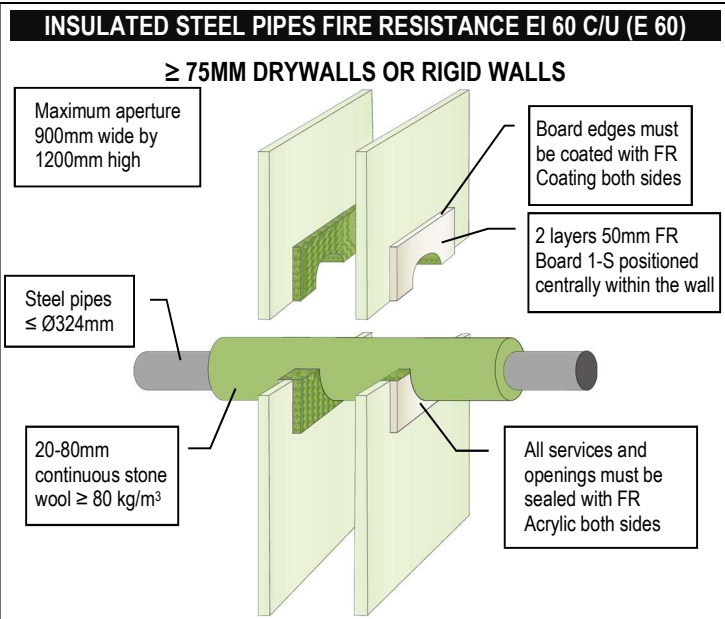
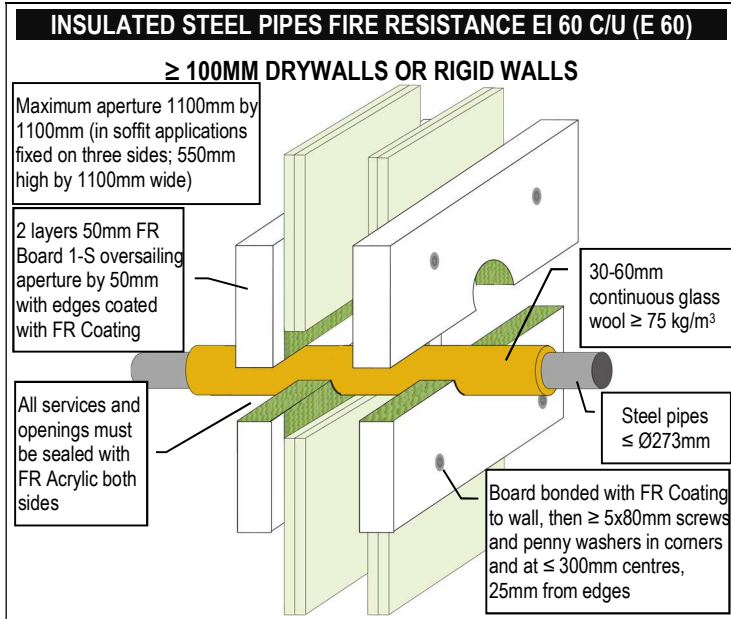


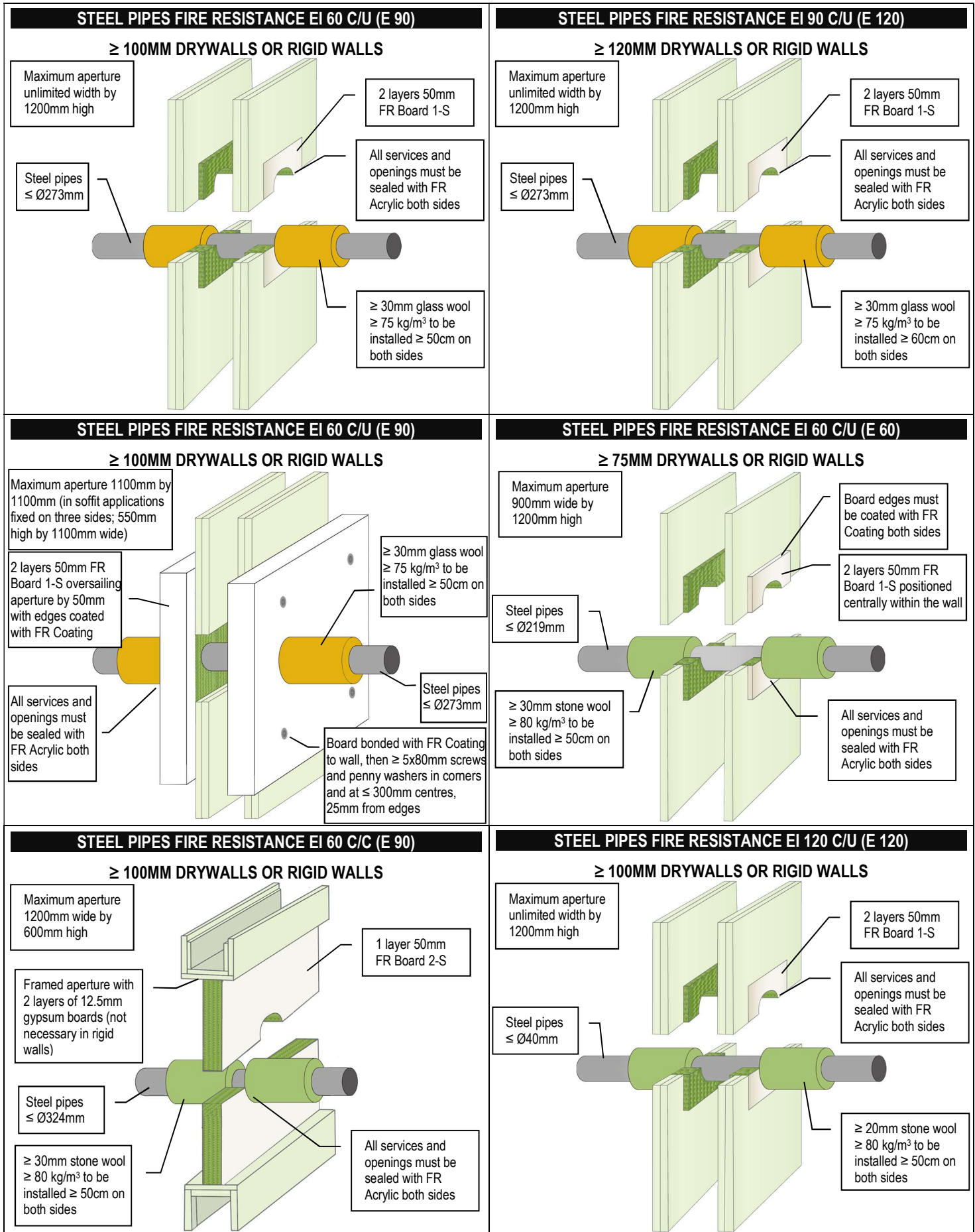


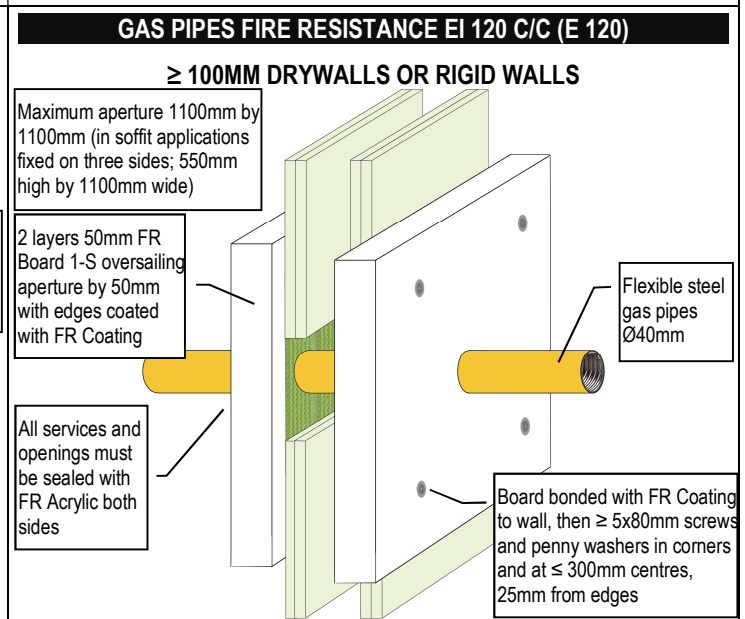
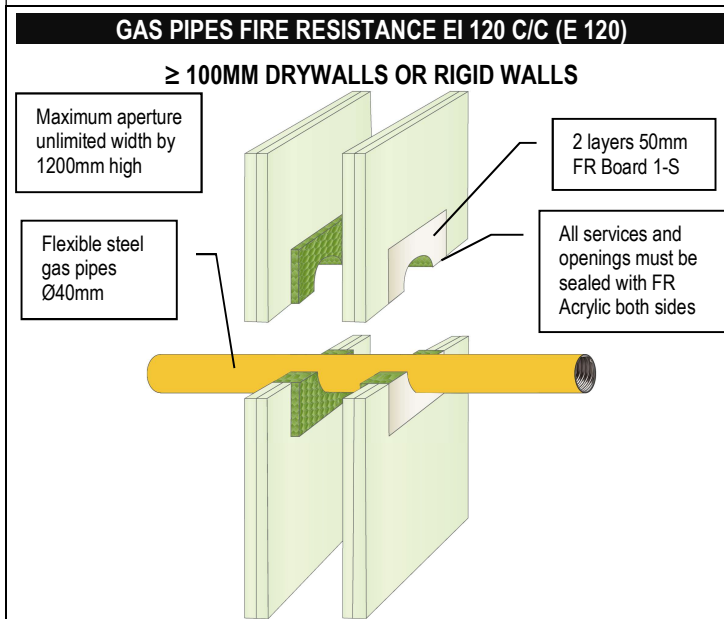
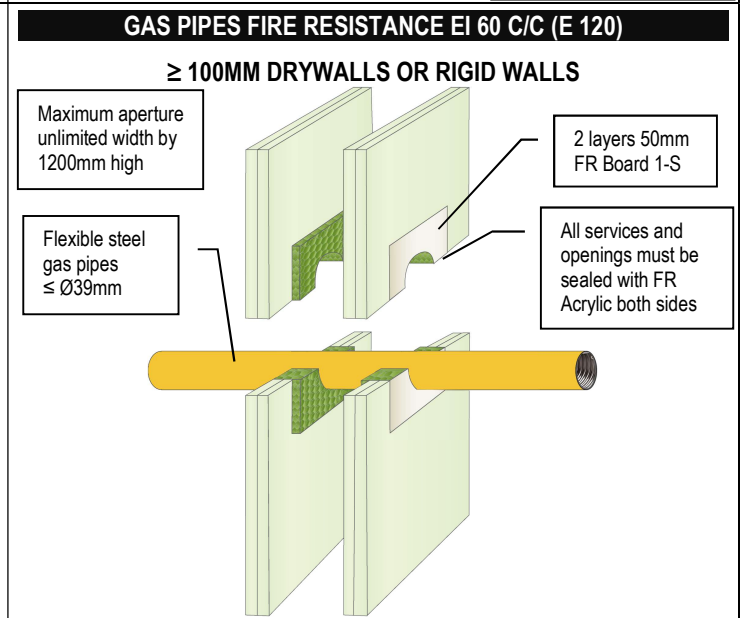
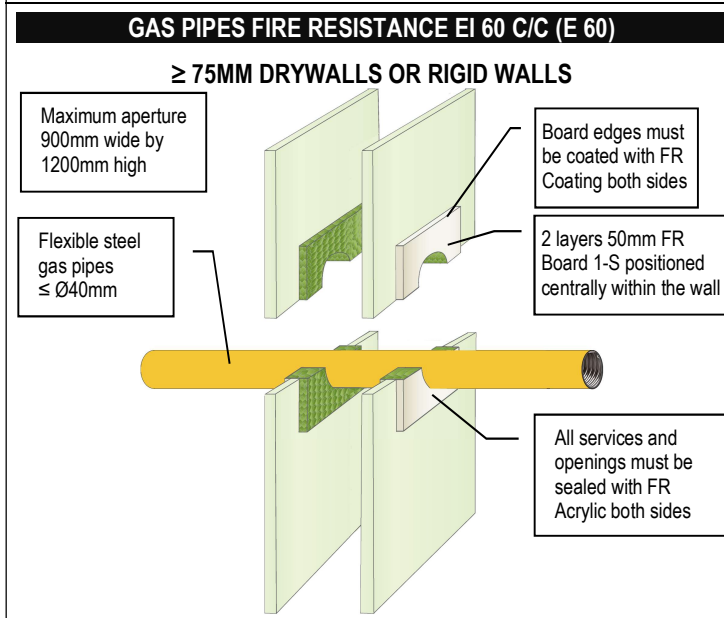
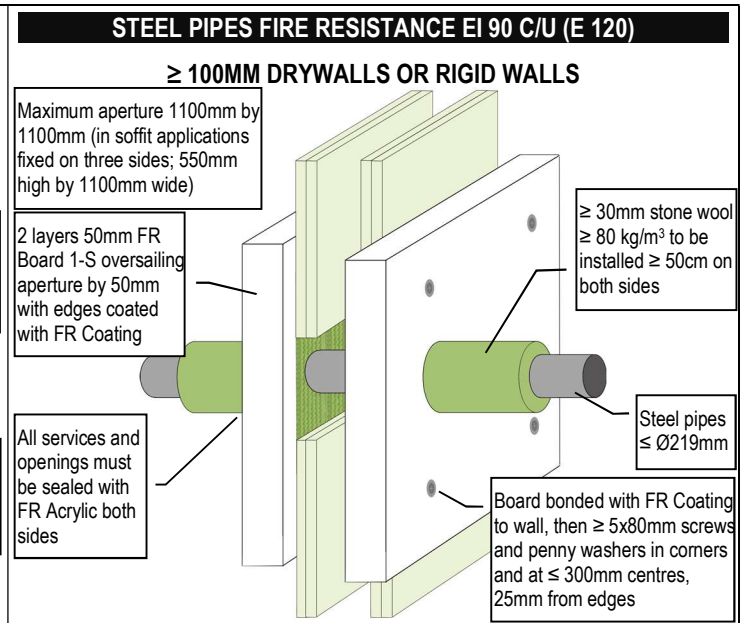
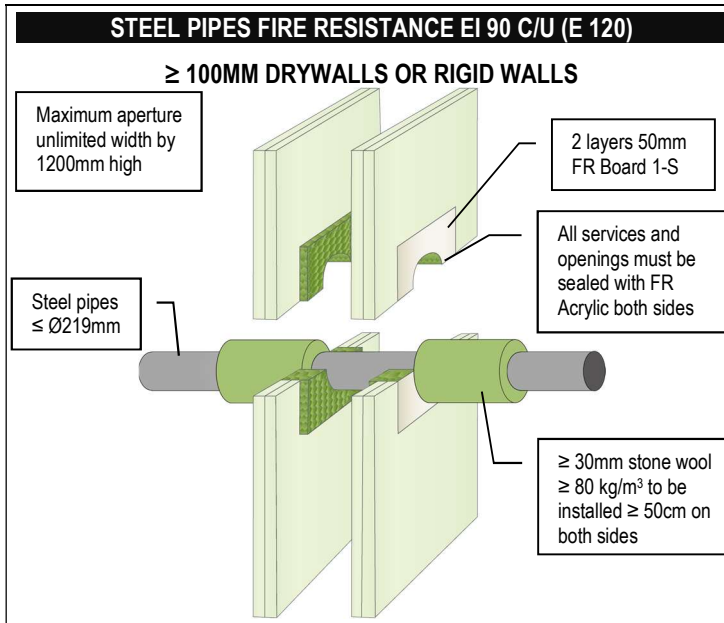


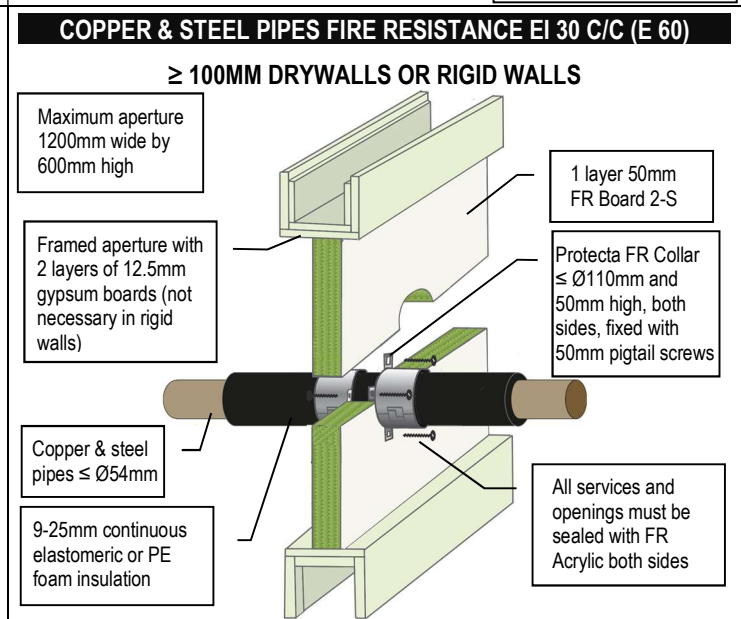
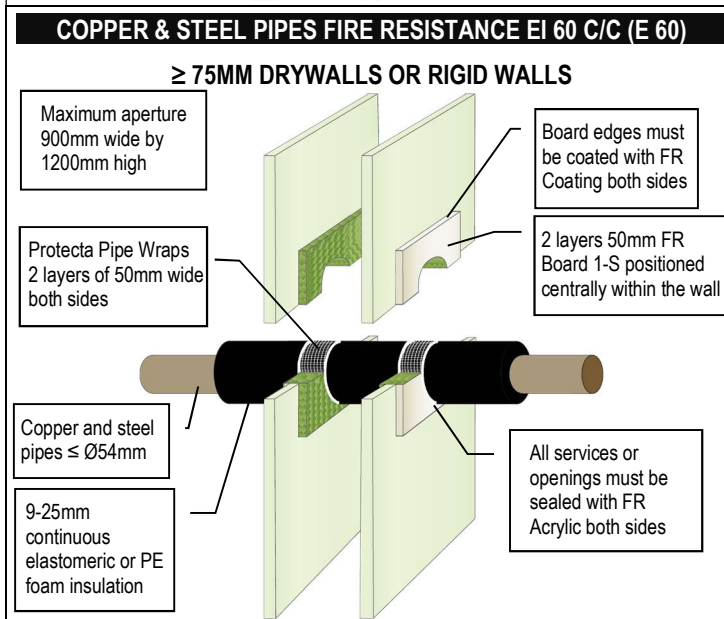
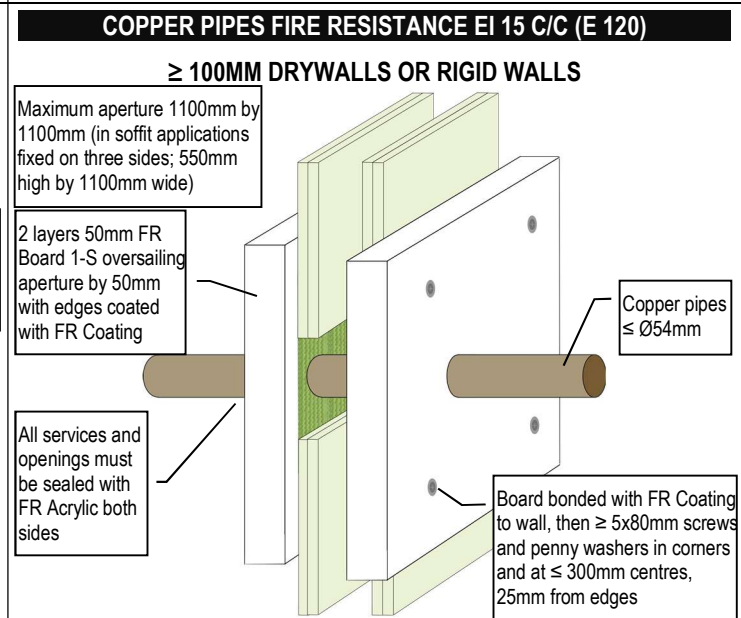
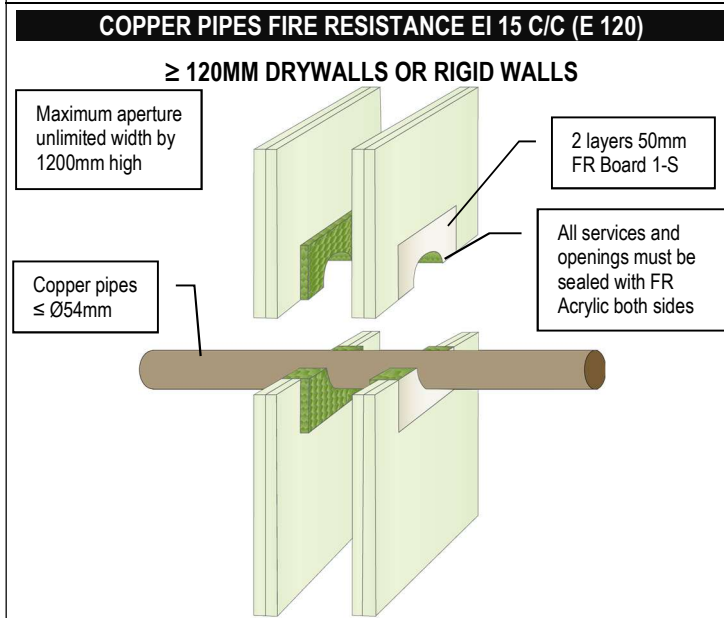
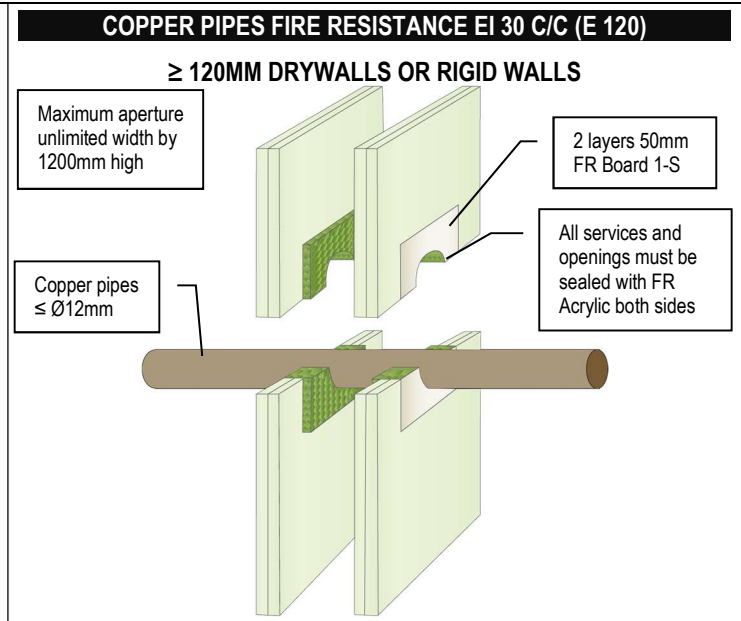
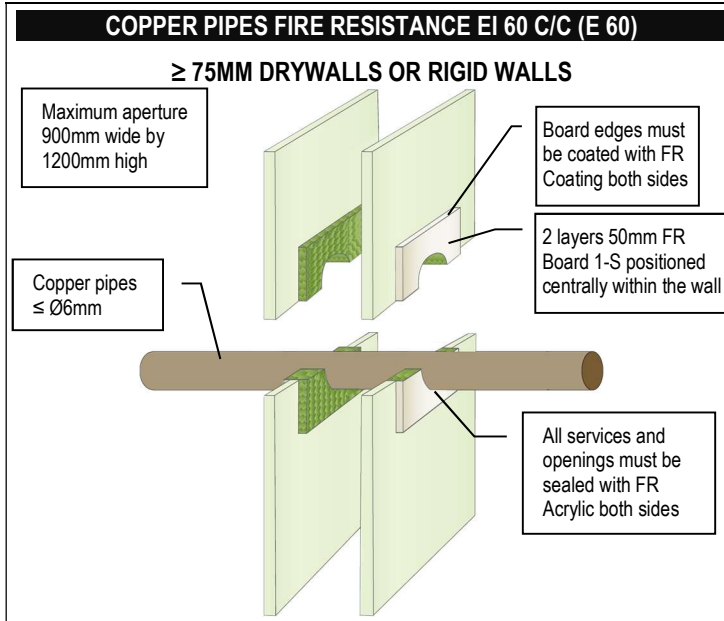


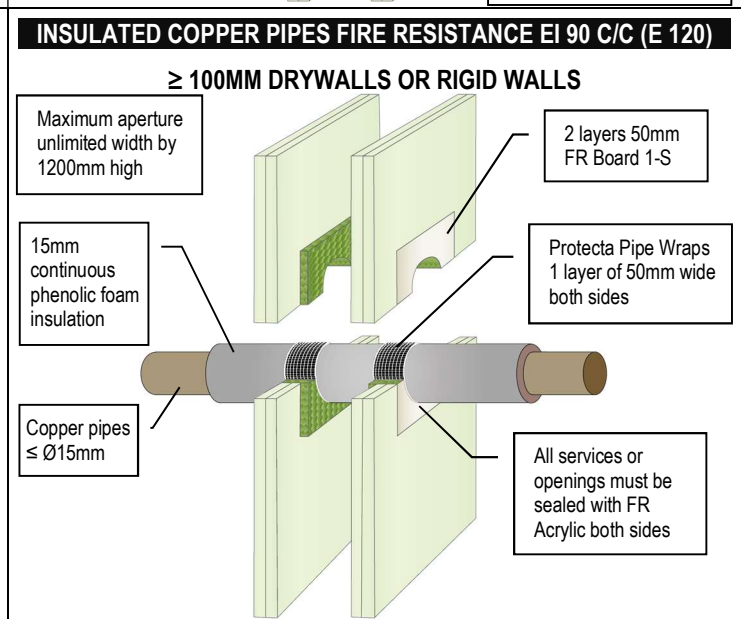
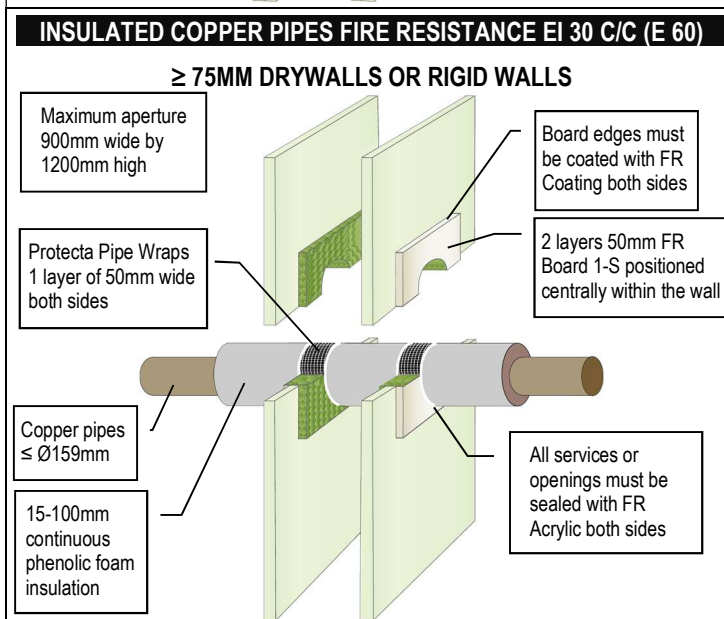
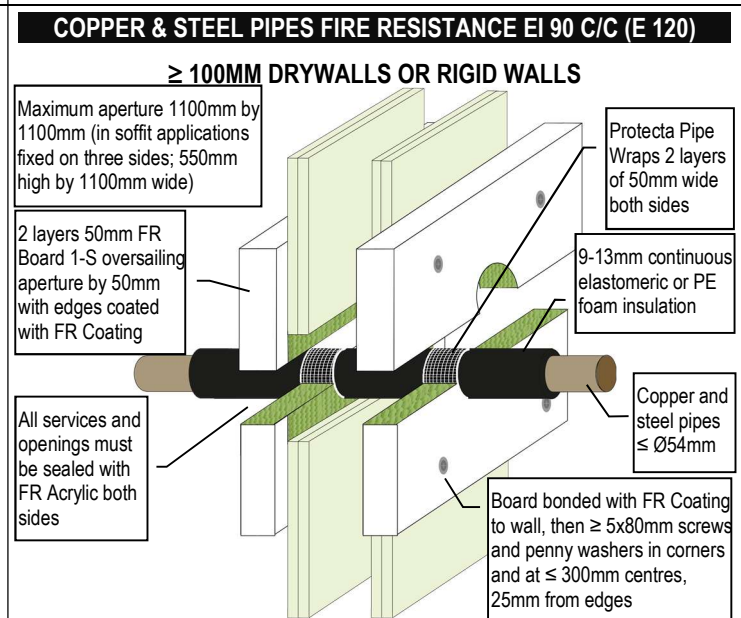
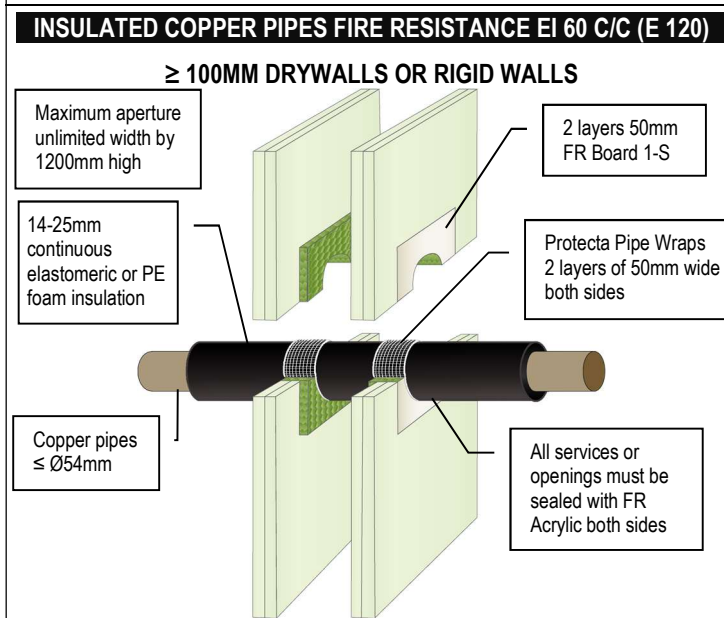
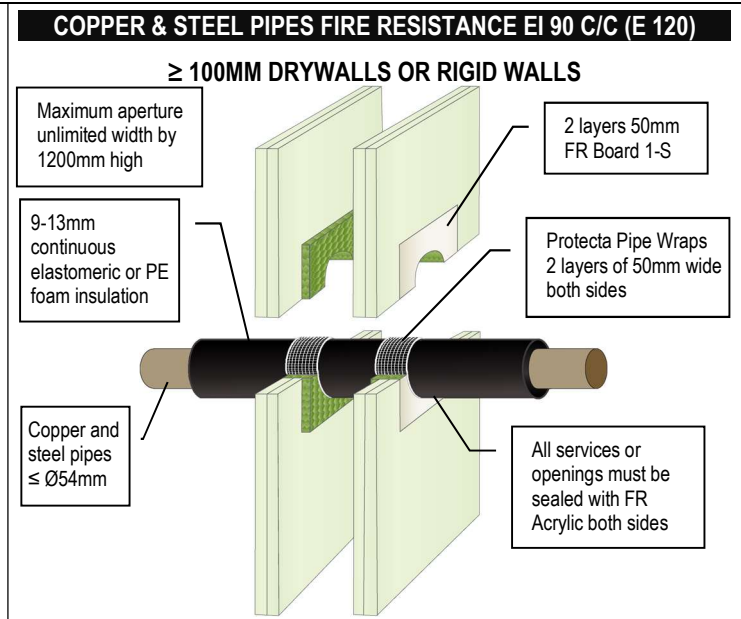
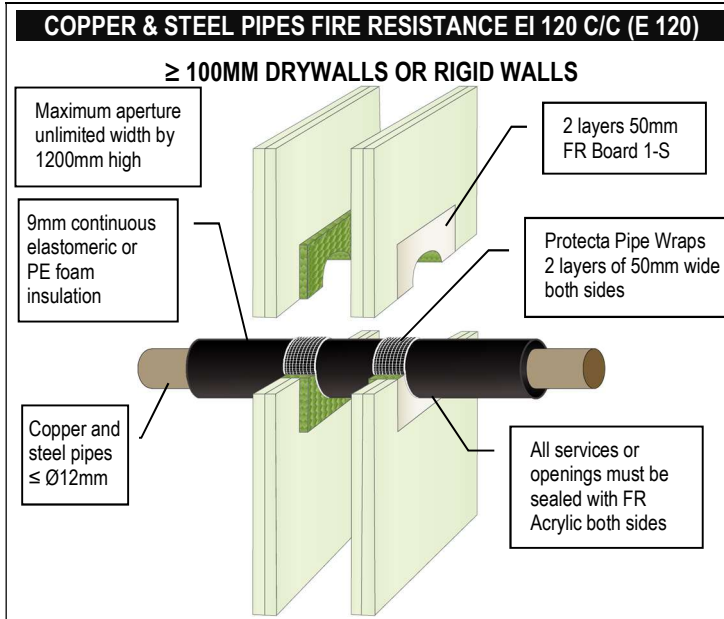


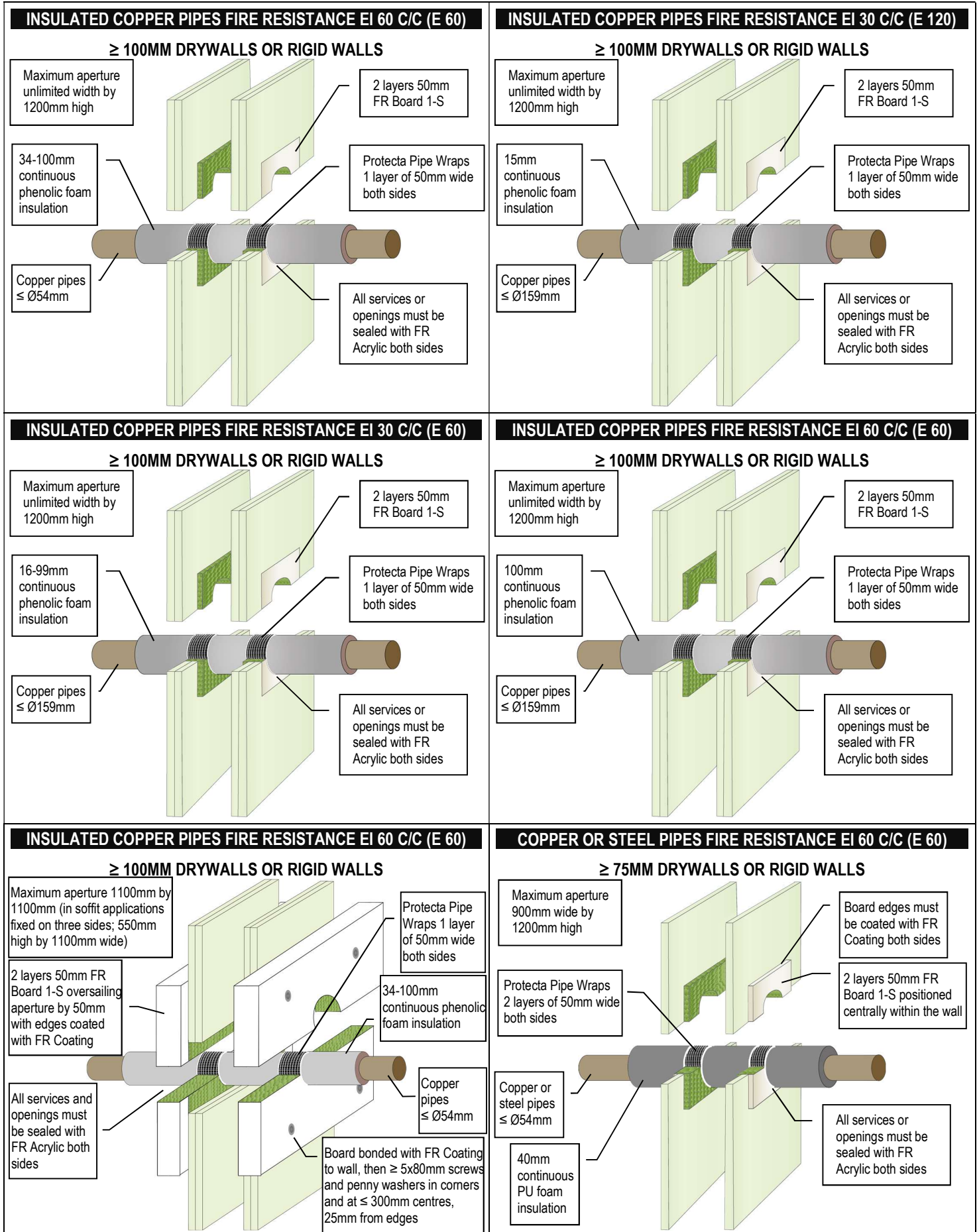


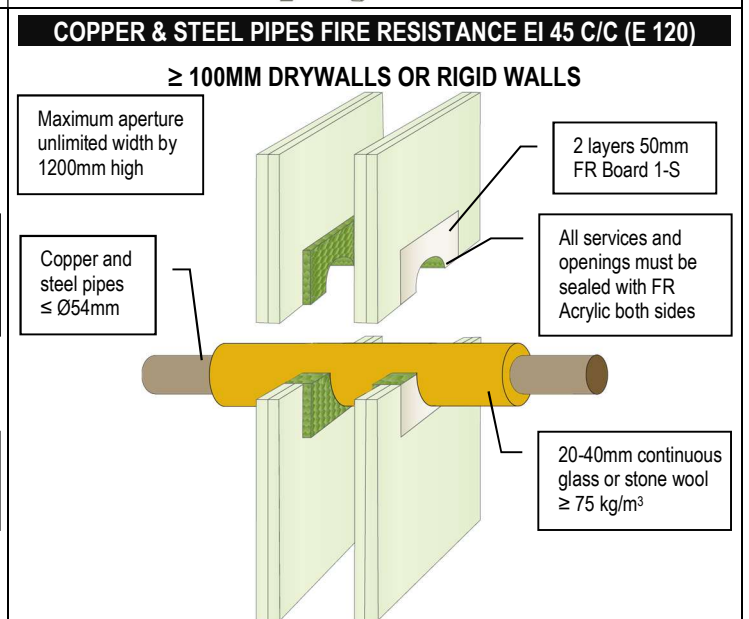
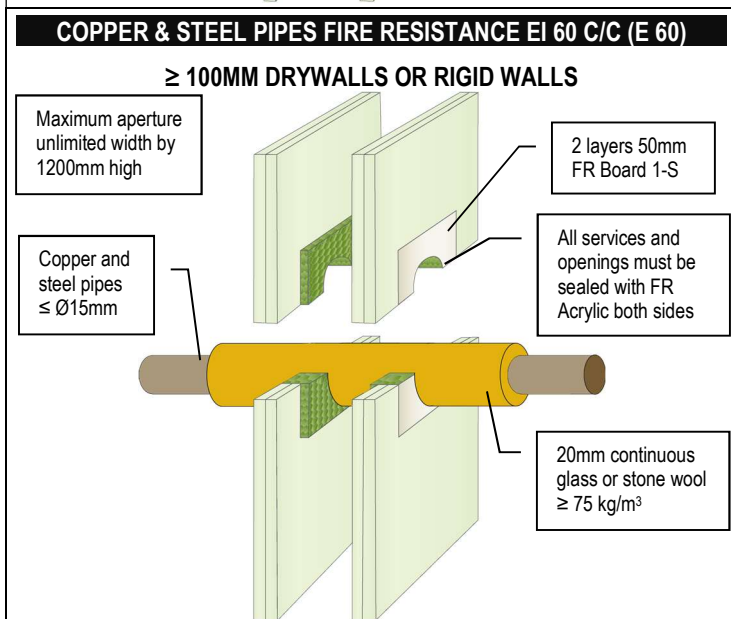
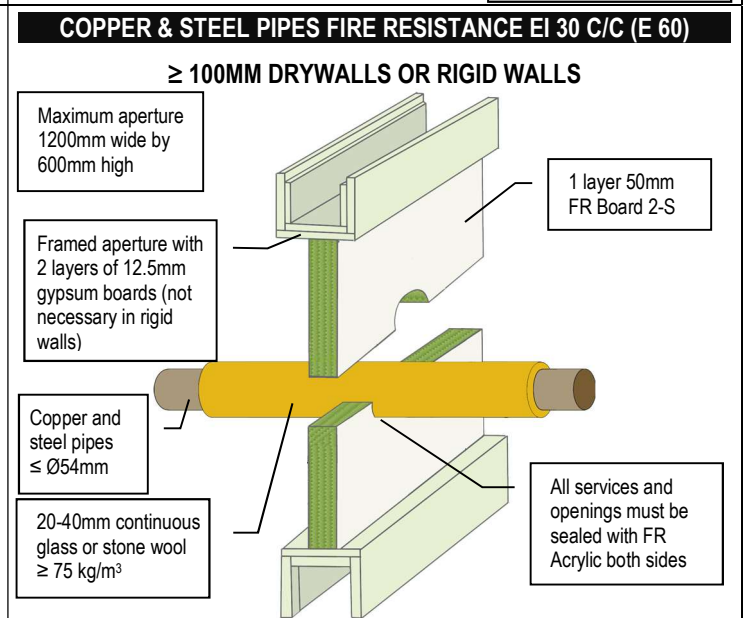
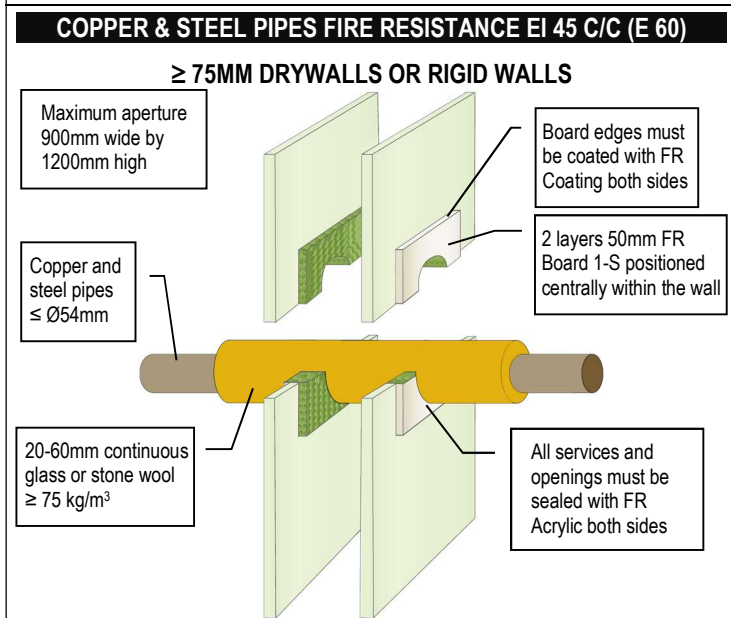
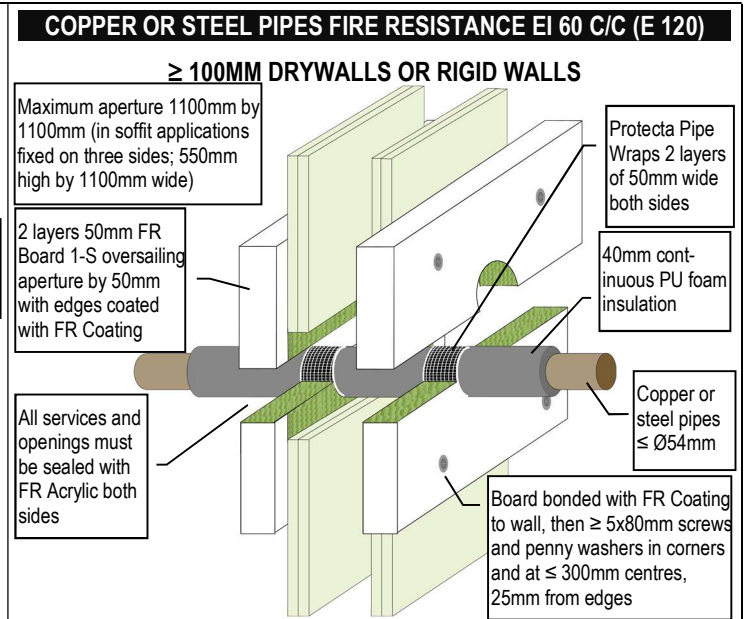
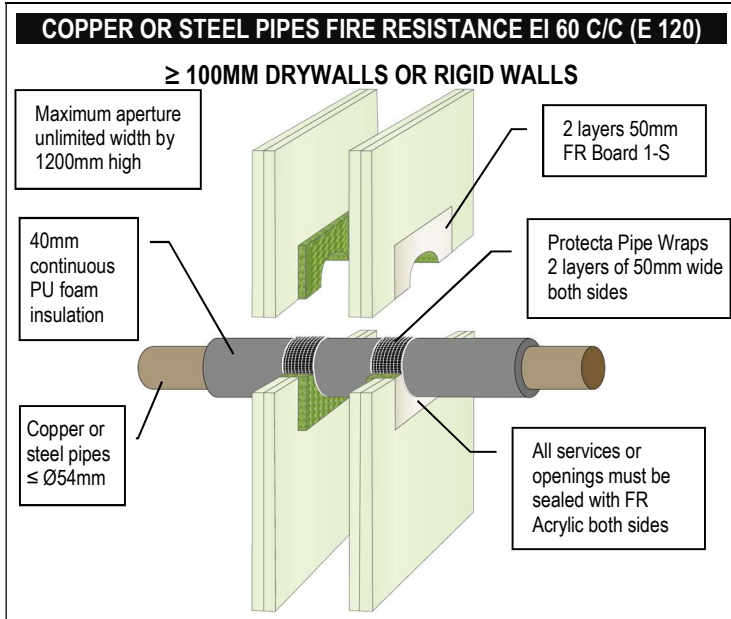


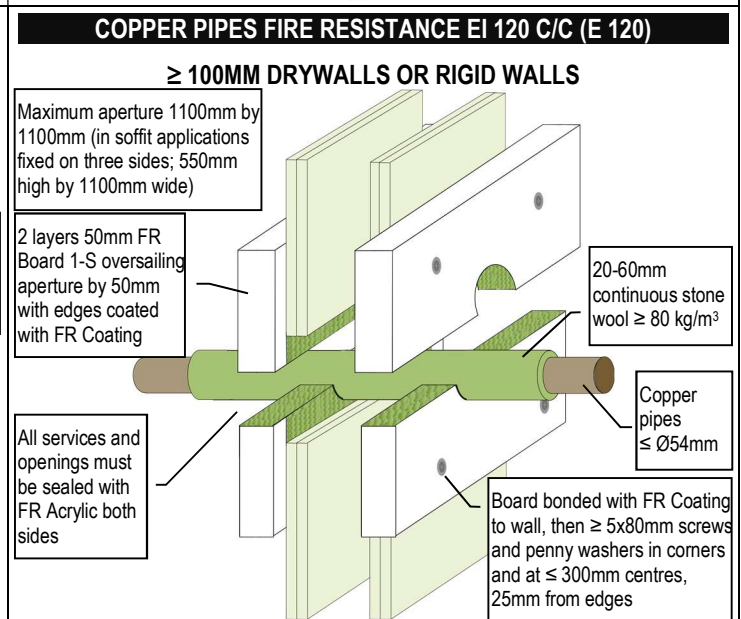
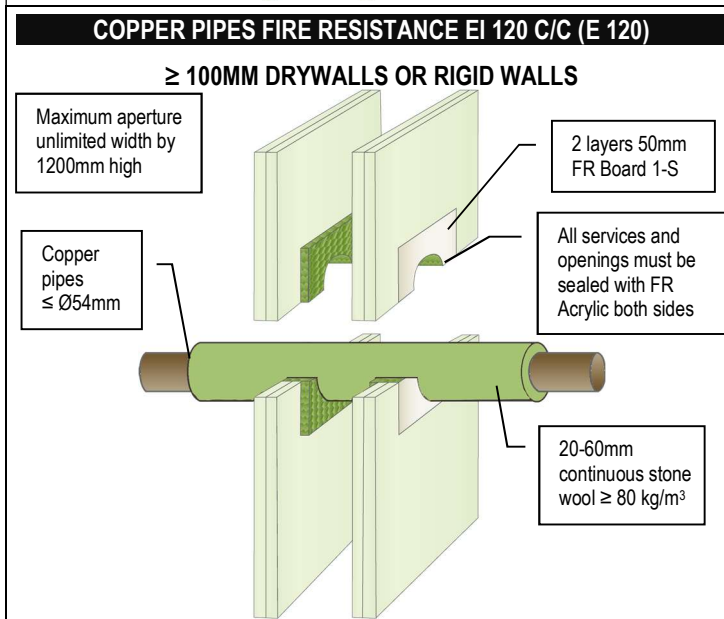
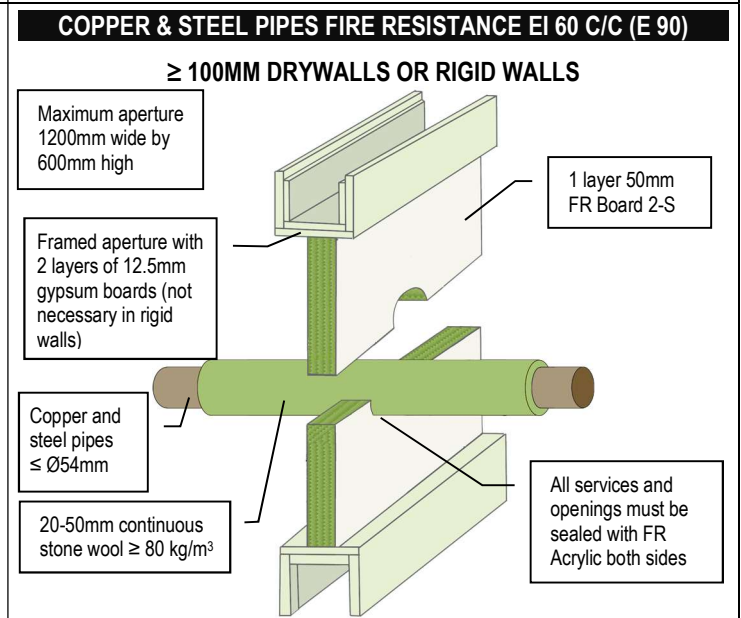
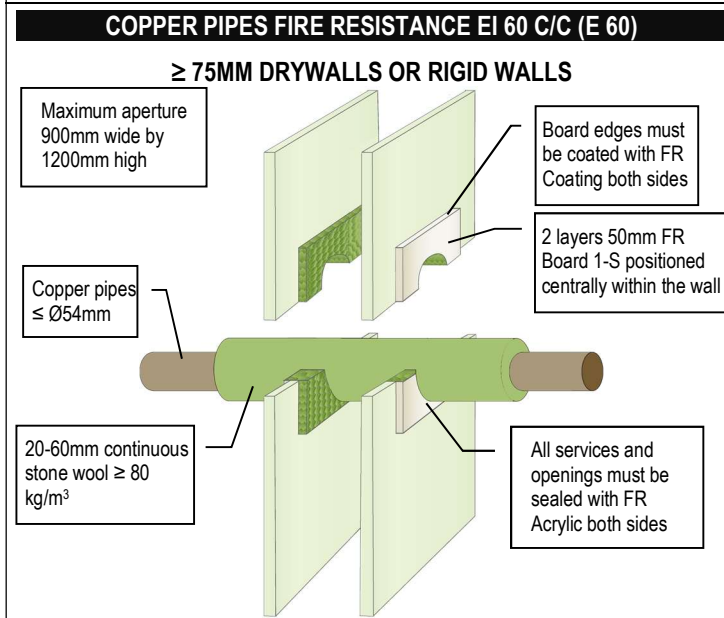
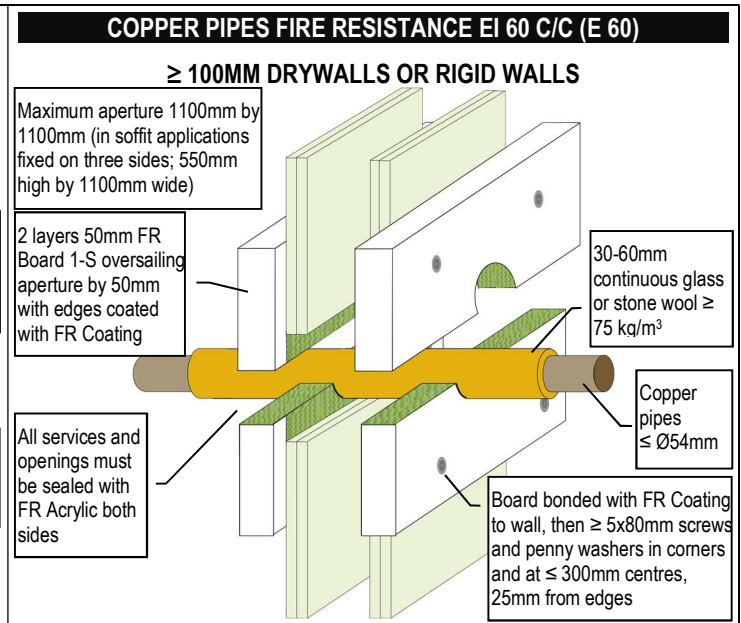
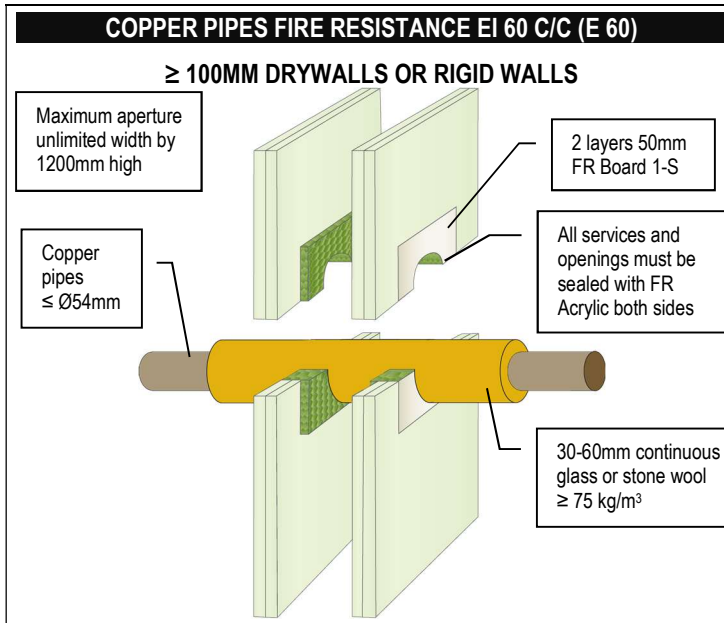


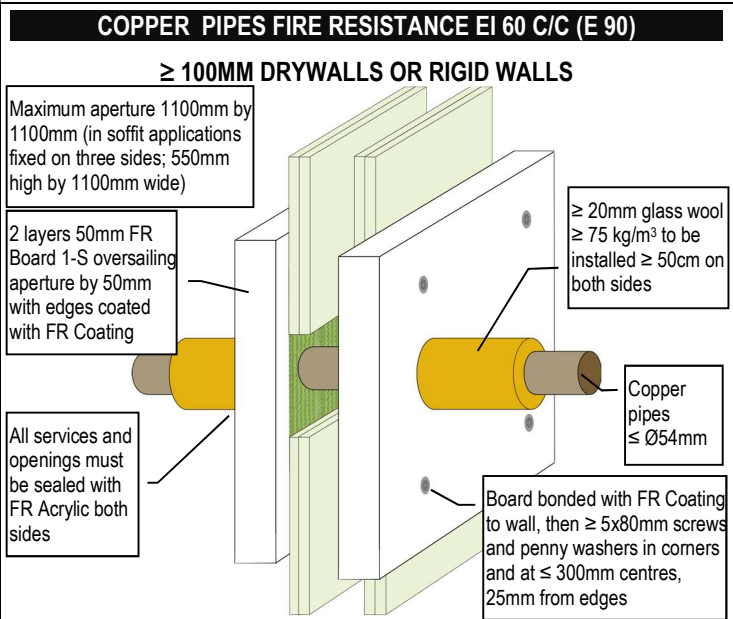
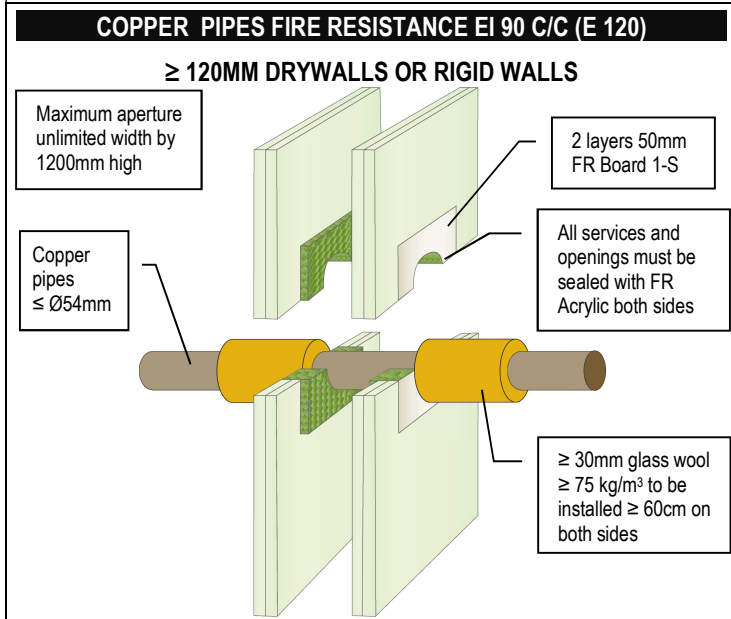
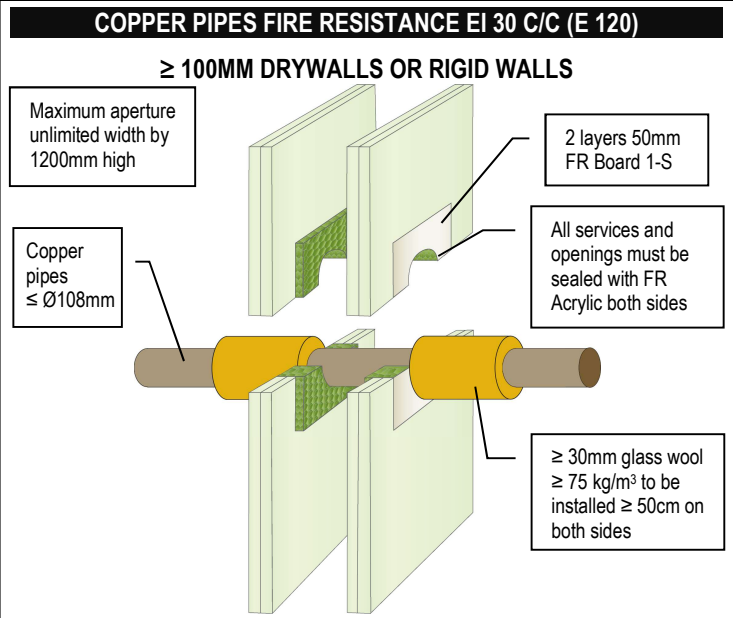
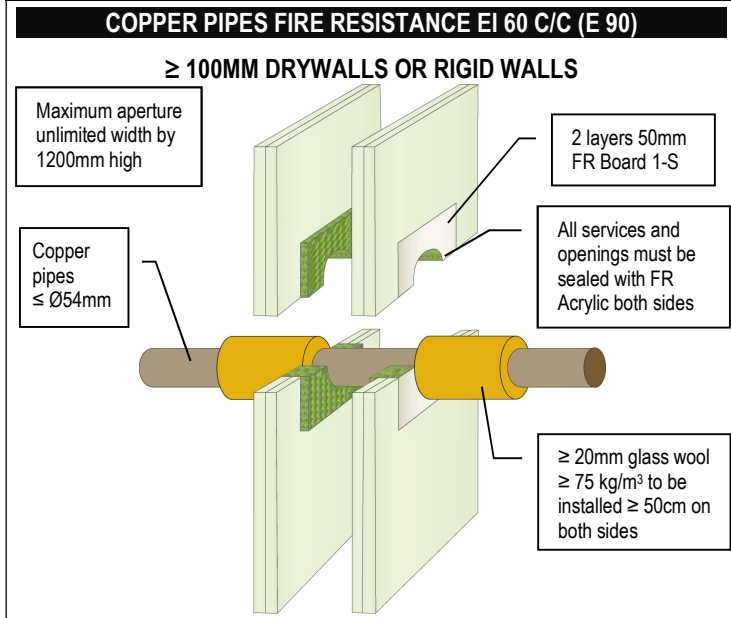
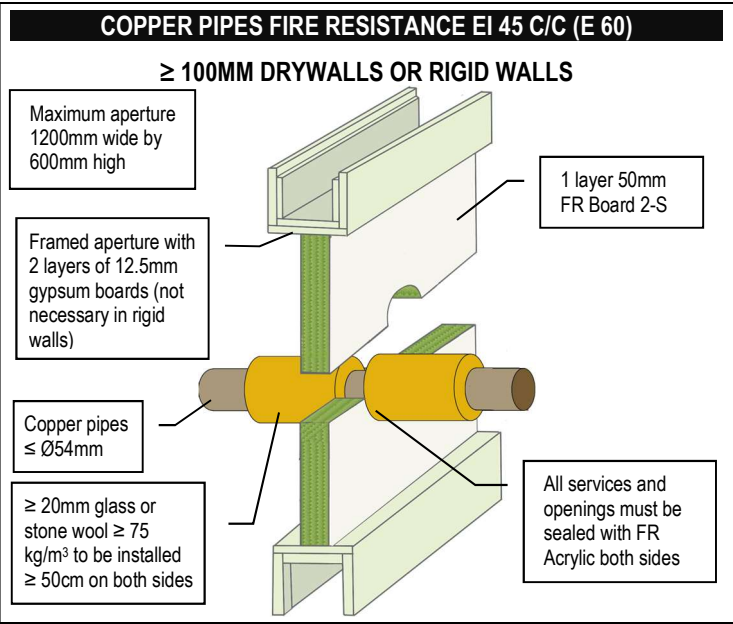
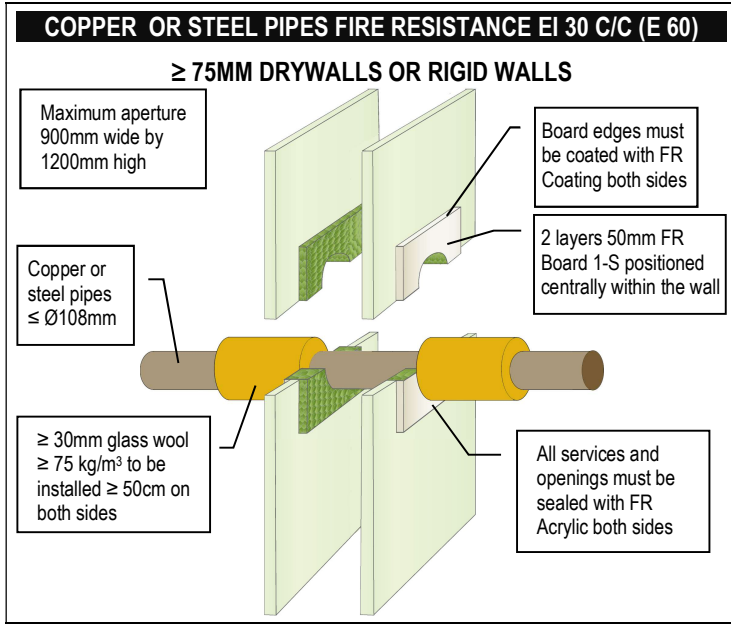


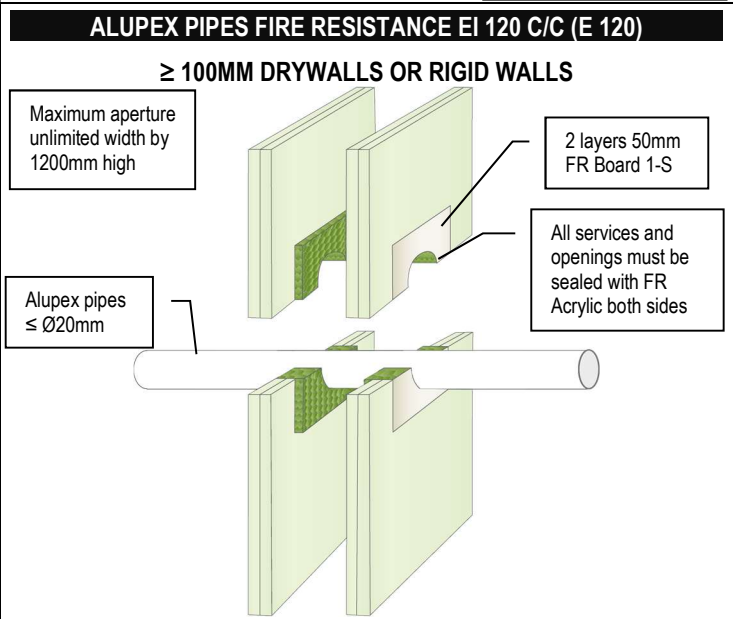
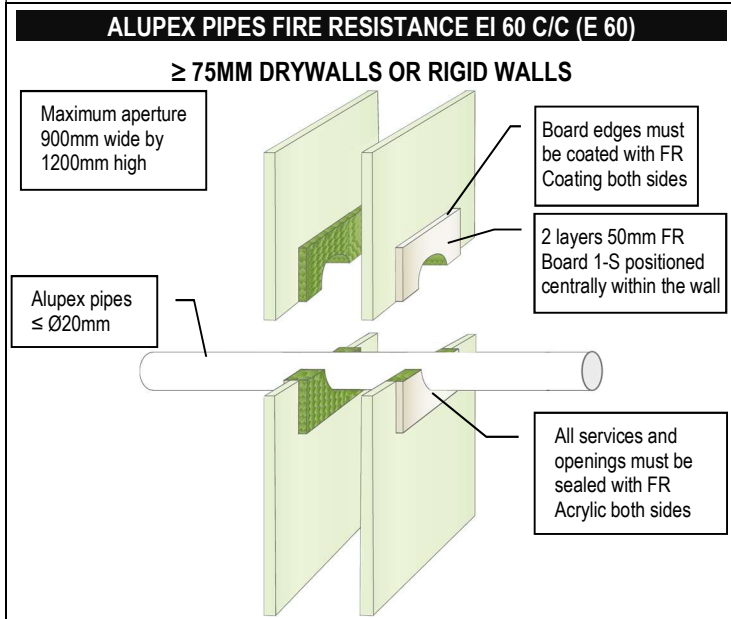
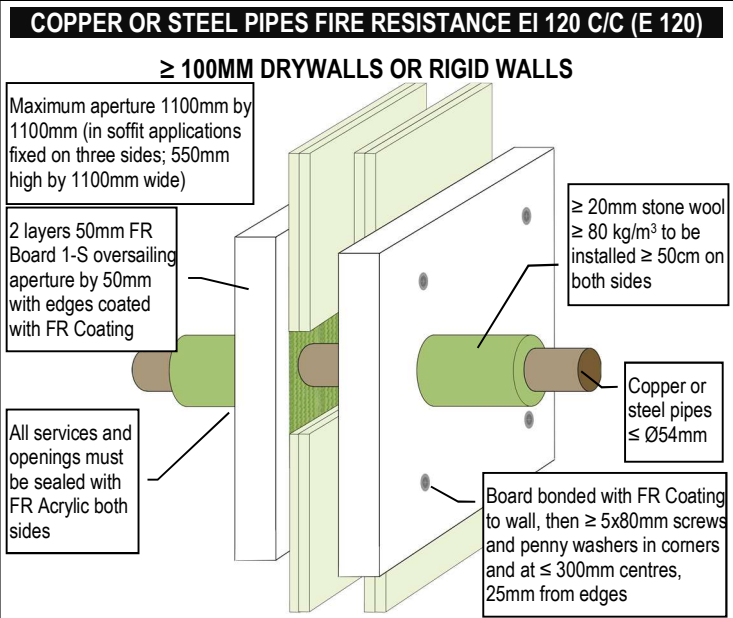
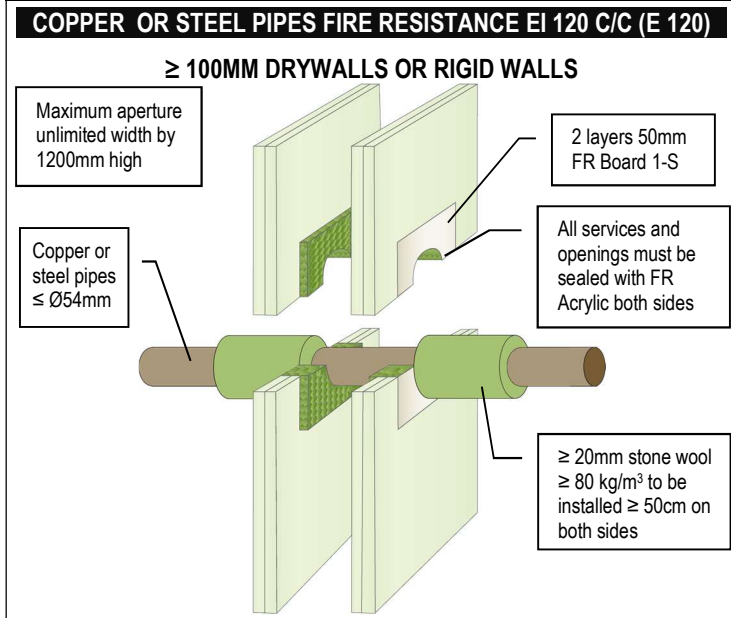
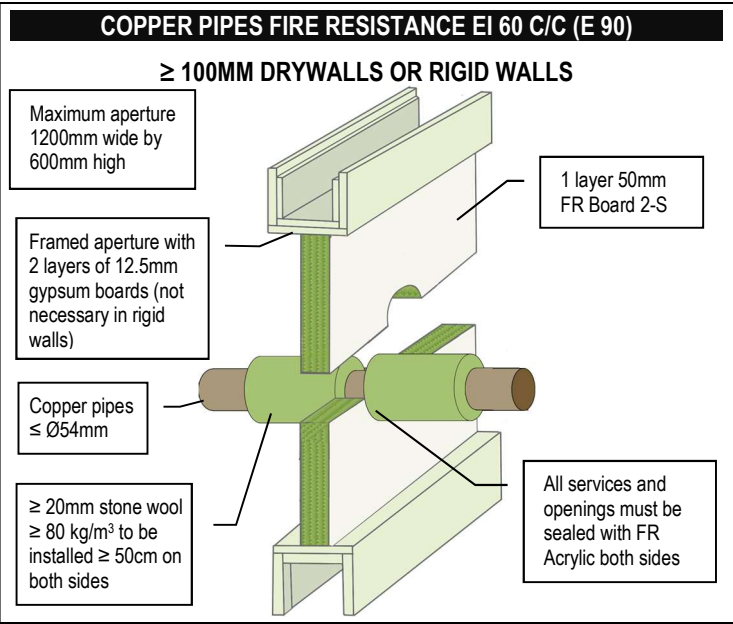
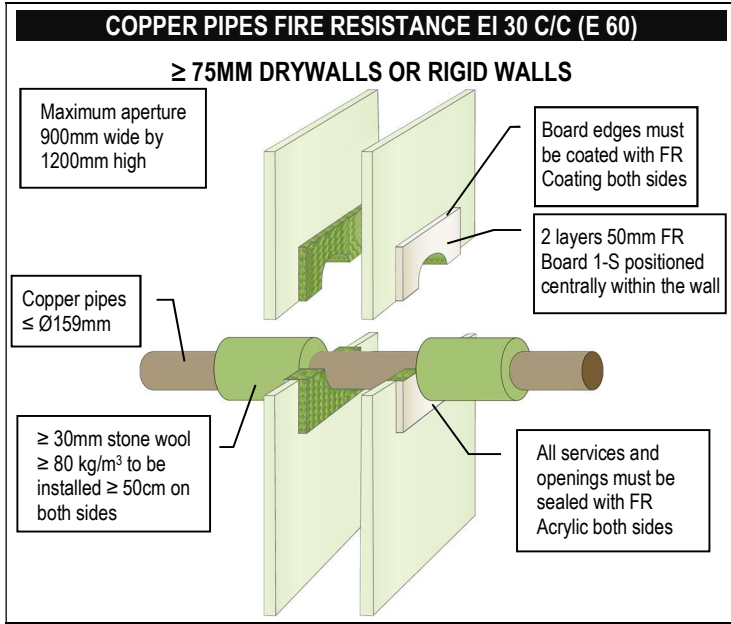


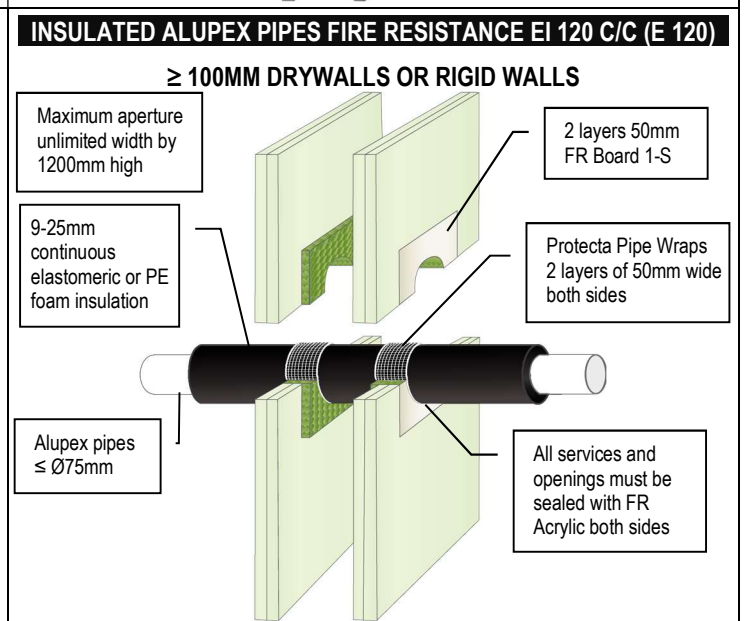
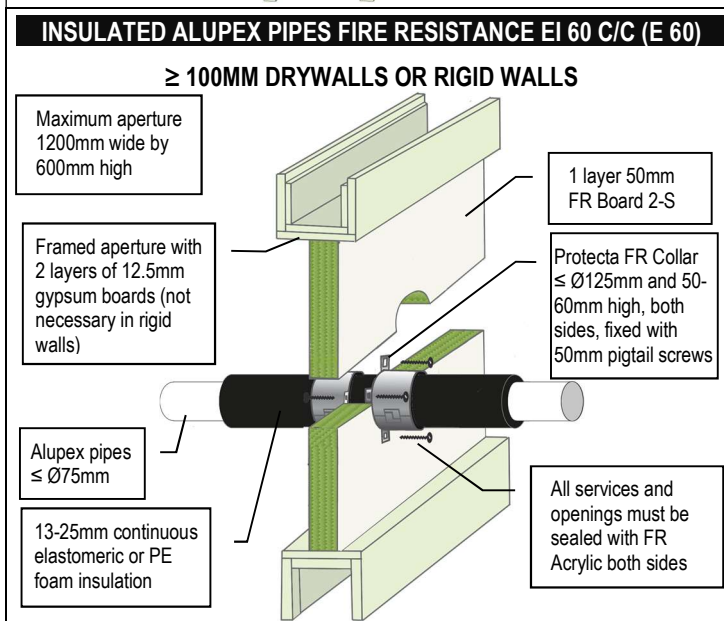
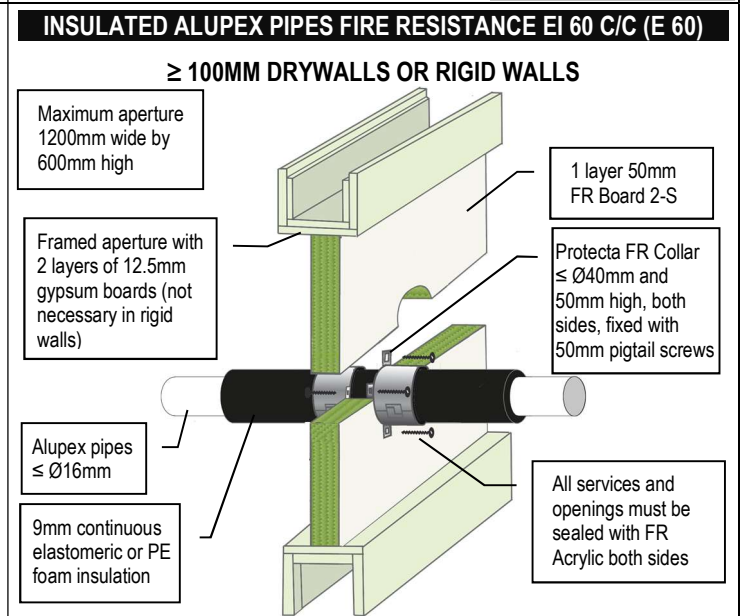
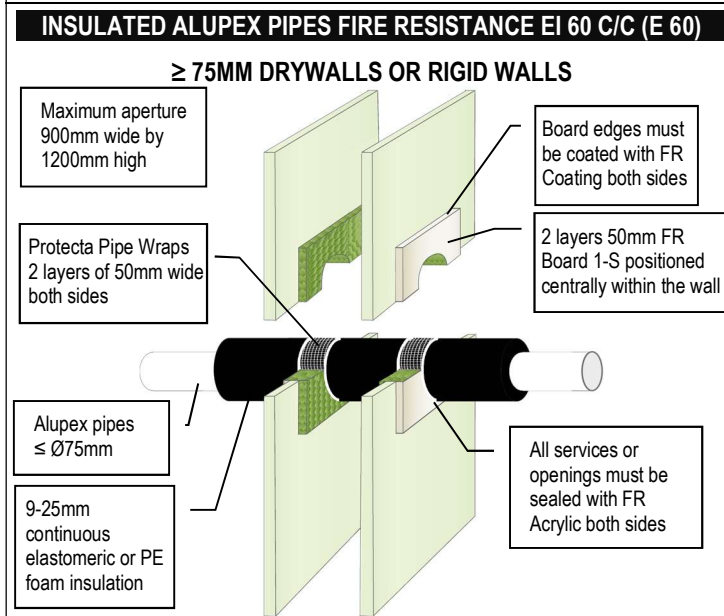
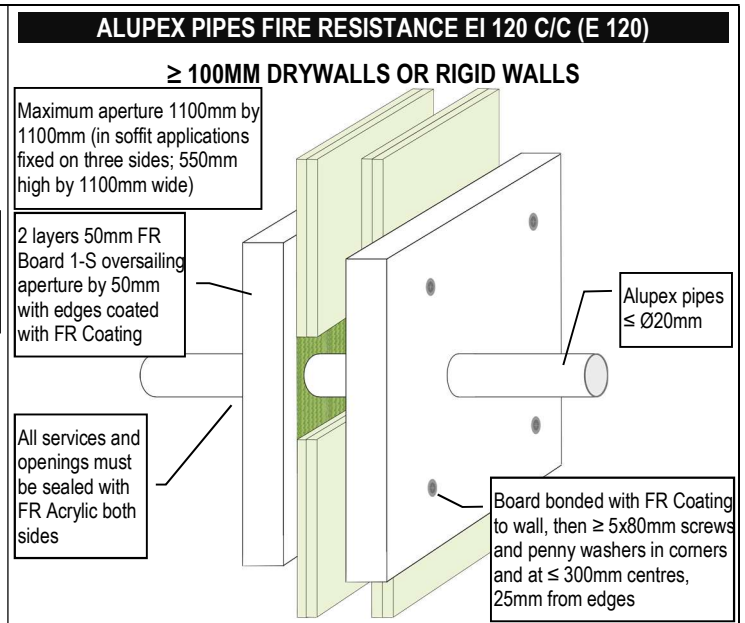
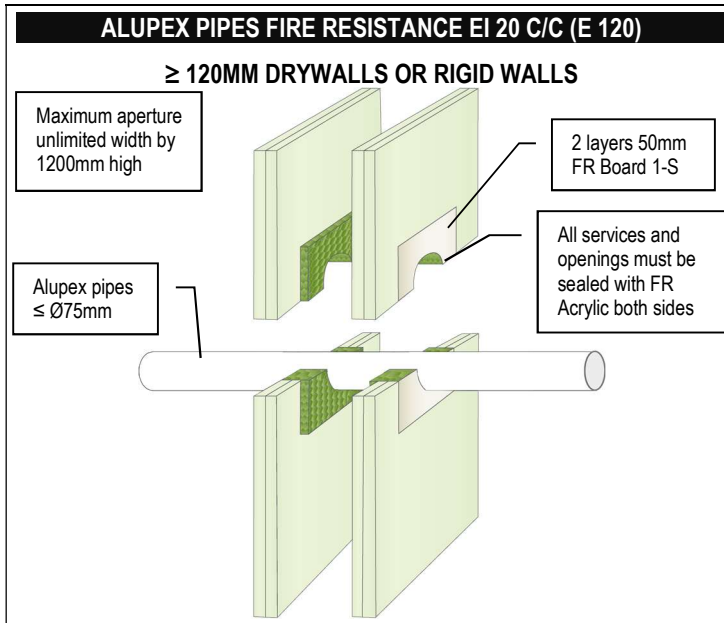


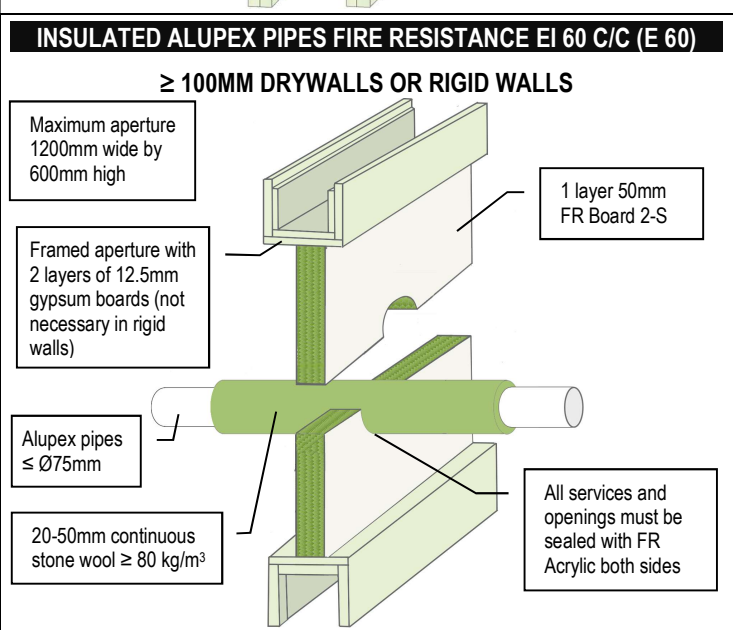
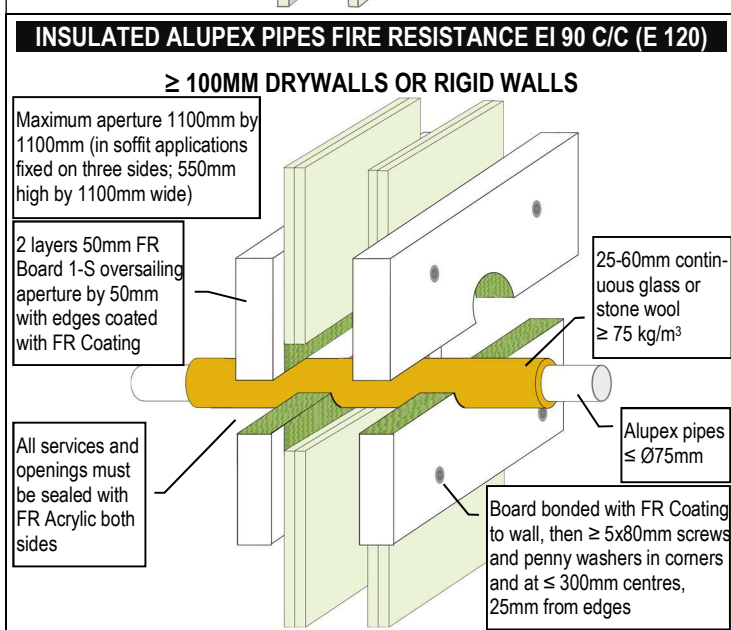
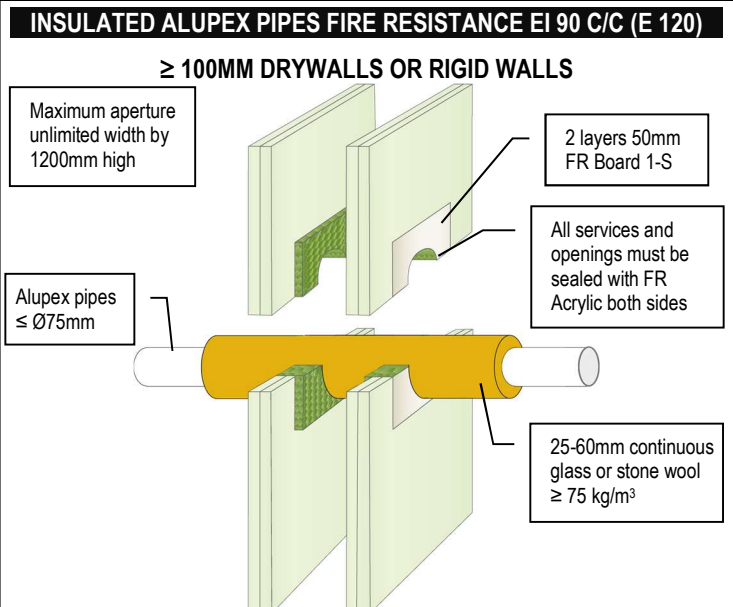
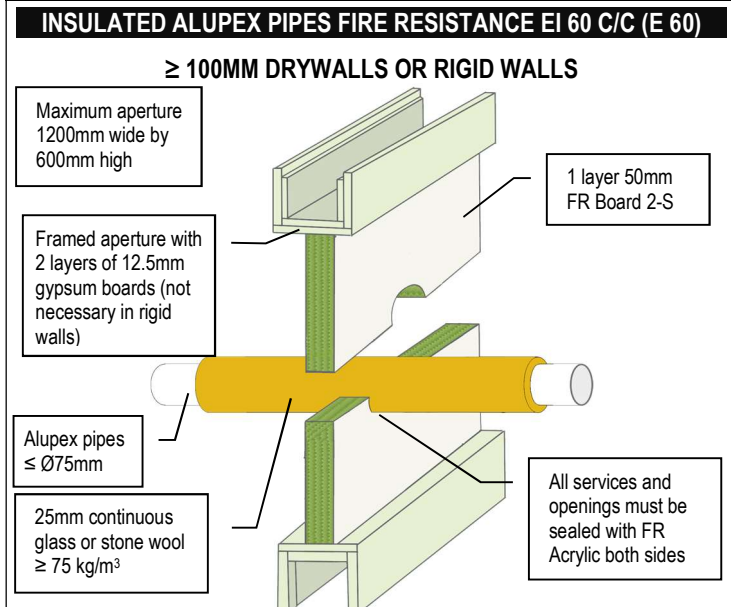
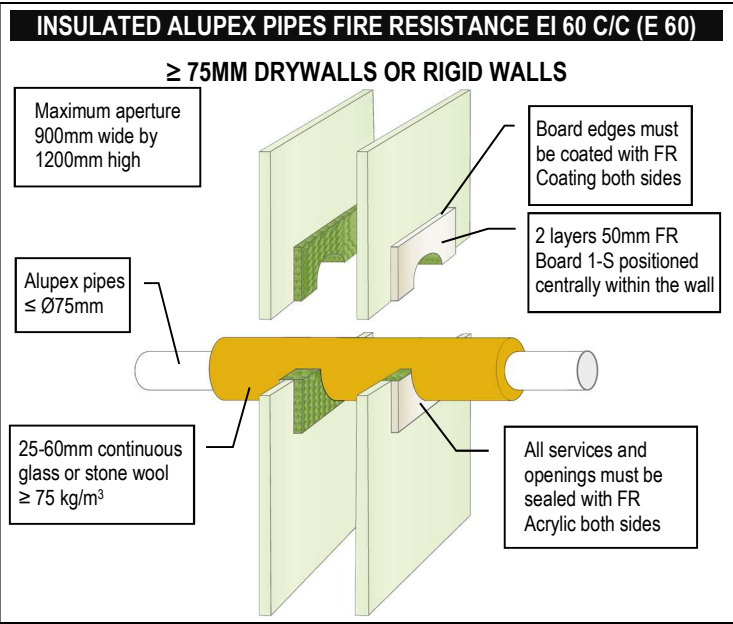
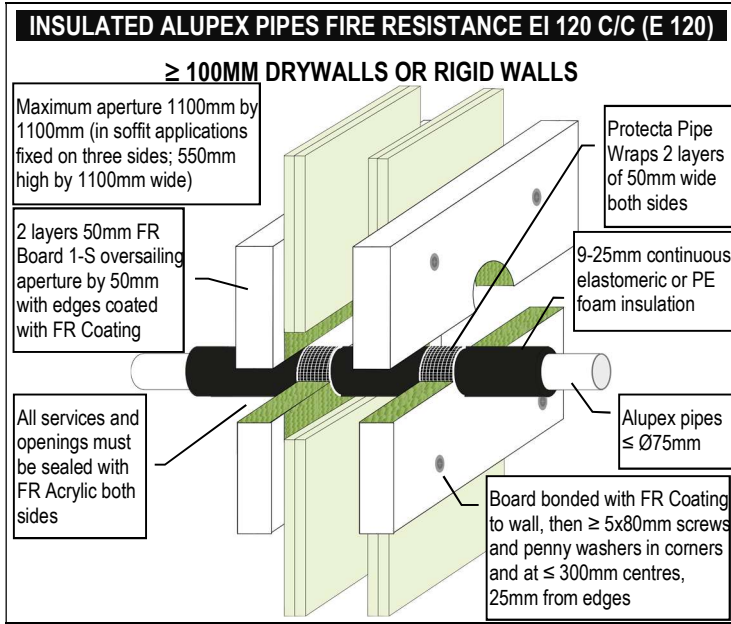


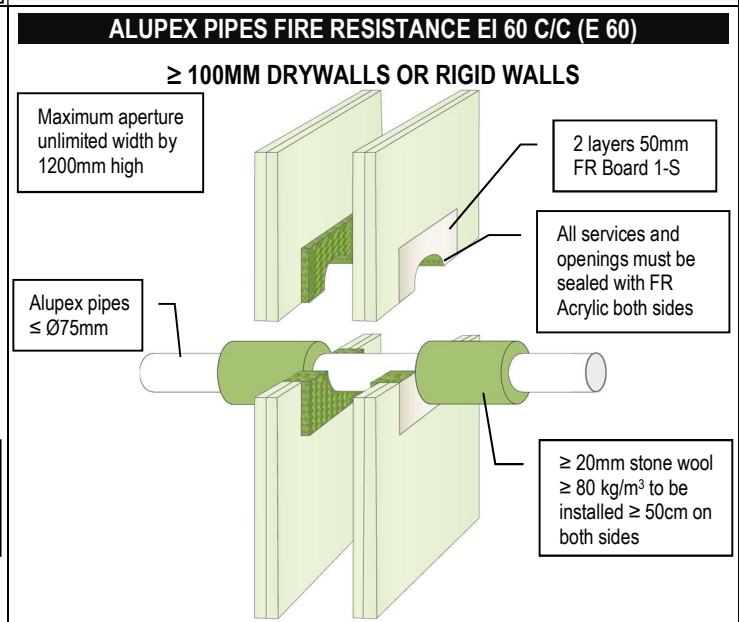
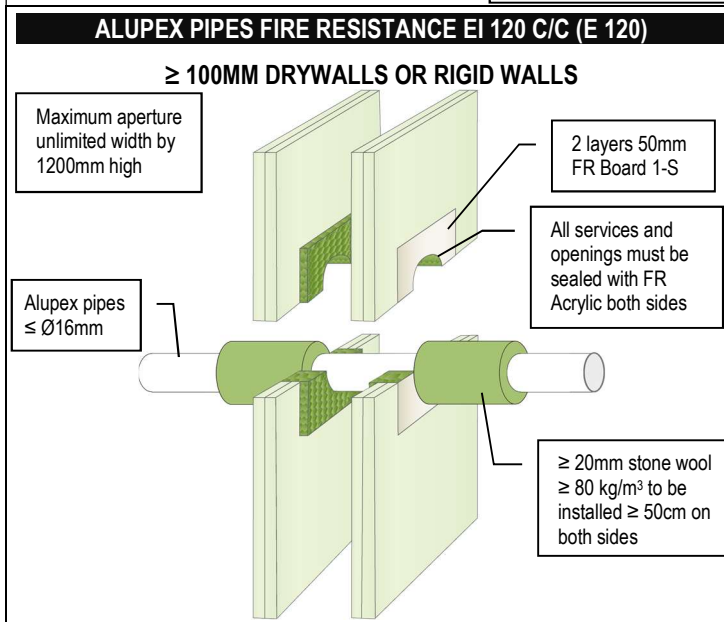
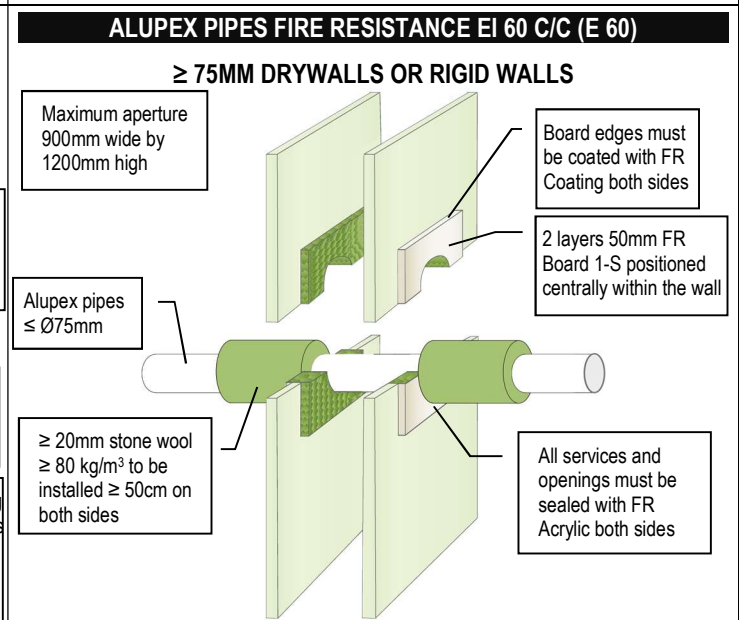
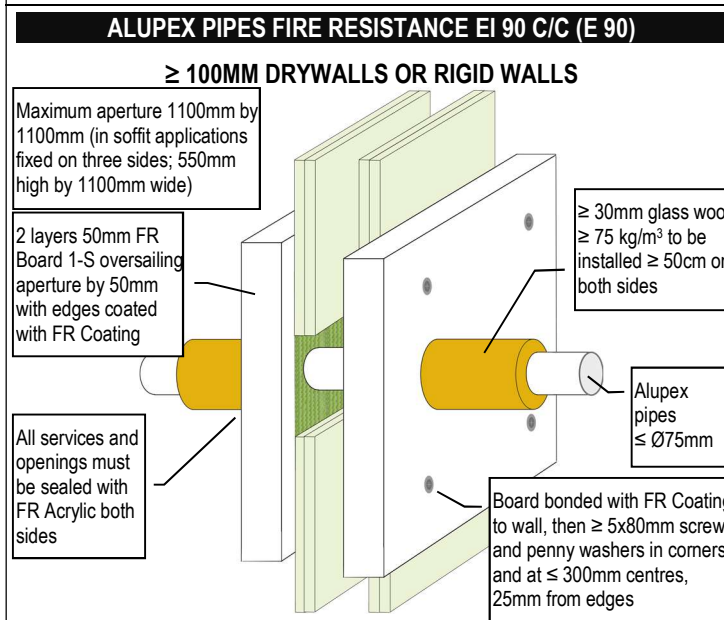
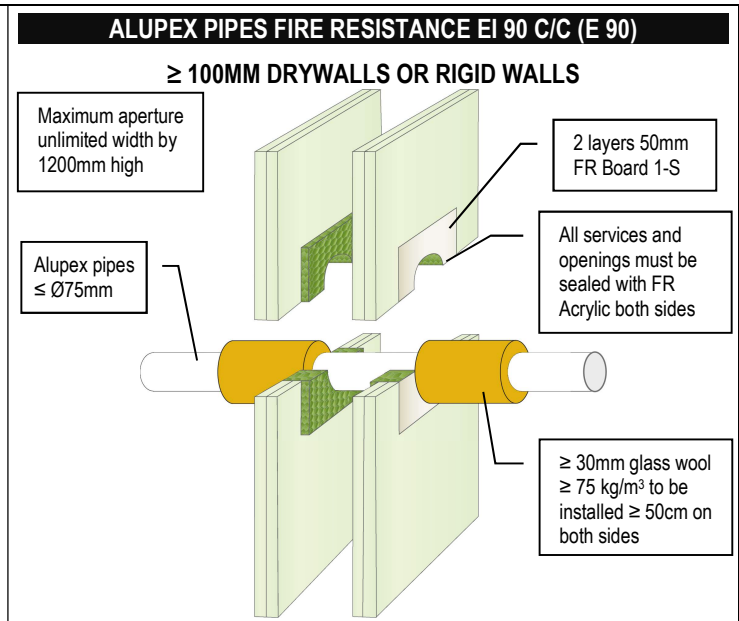
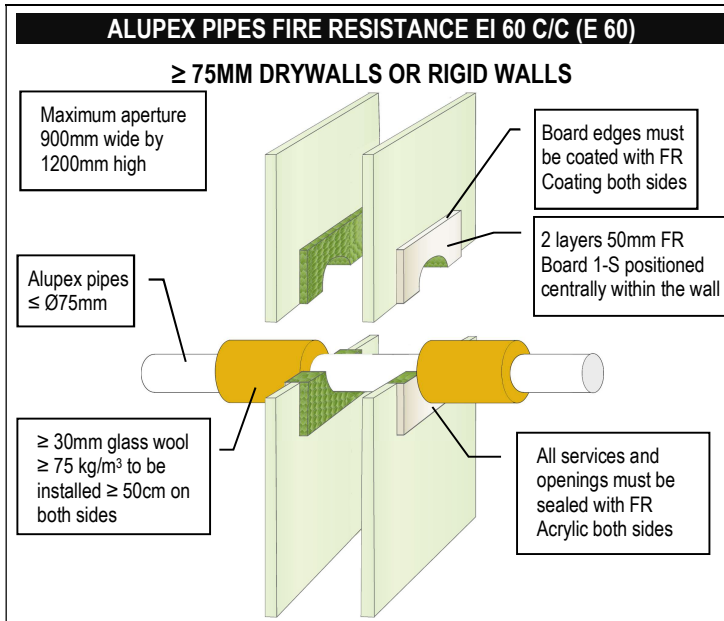












ALUPEX PIPES FIRE RESISTANCE EI 60 C/C (E 60)

≥ 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

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

Alupex pipes ≤ Ø75mm

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

INSULATED METAL PIPES WITH FR GRAPHITE FIRE RESISTANCE EI 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

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

Metal pipes with no minimum distance in-between

Board edges must be coated with FR Coating both sides

| 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

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

Metal pipes with no minimum distance in-between

| 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) |

PVC PIPES FIRE RESISTANCE EI 60 U/C (E 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

PVC-U & PVC-C pipe ≤ Ø32mm with wall thickness 1.0-2.4mm

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

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

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high

2 layers 50mm FR Board 1-S

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

PVC-U & PVC-C pipe ≤ Ø32mm with wall thickness 1.0-2.4mm

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

≥ 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

PVC-U & PVC-C pipe ≤ Ø32mm with wall thickness 1.0-2.4mm

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

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

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

≥ 75MM DRYWALLS OR RIGID WALLS

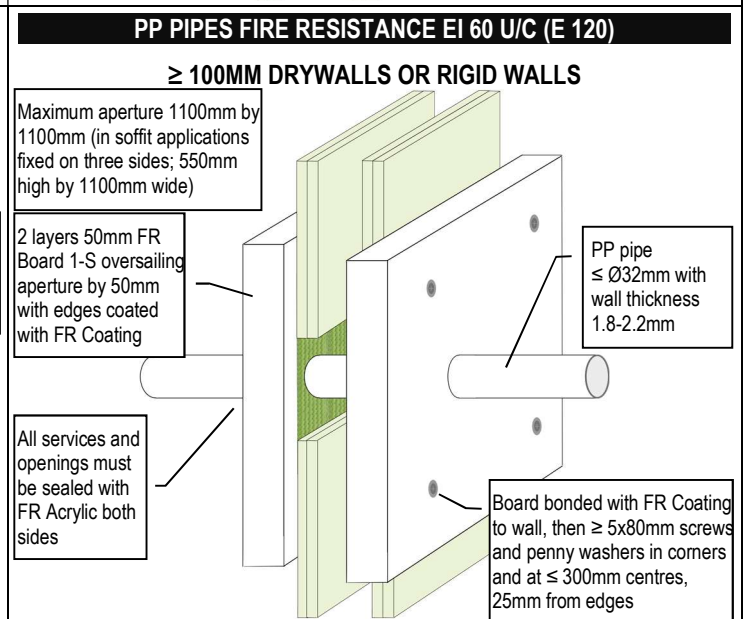
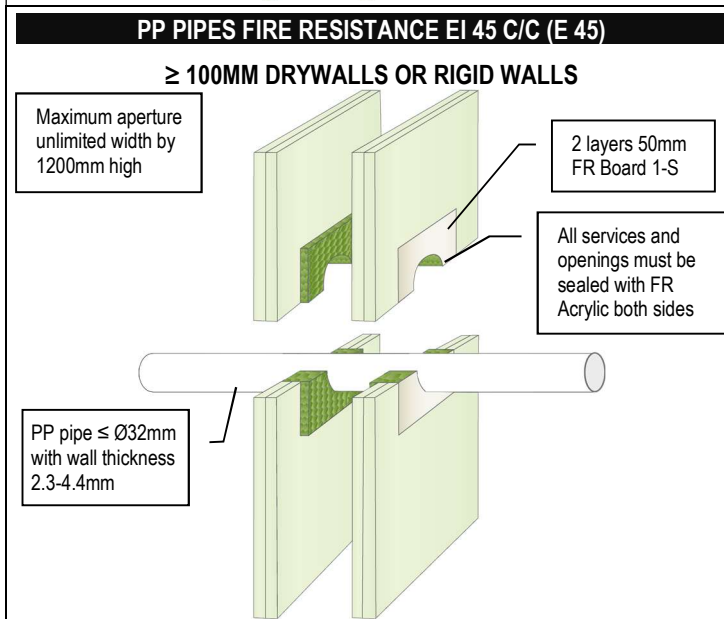
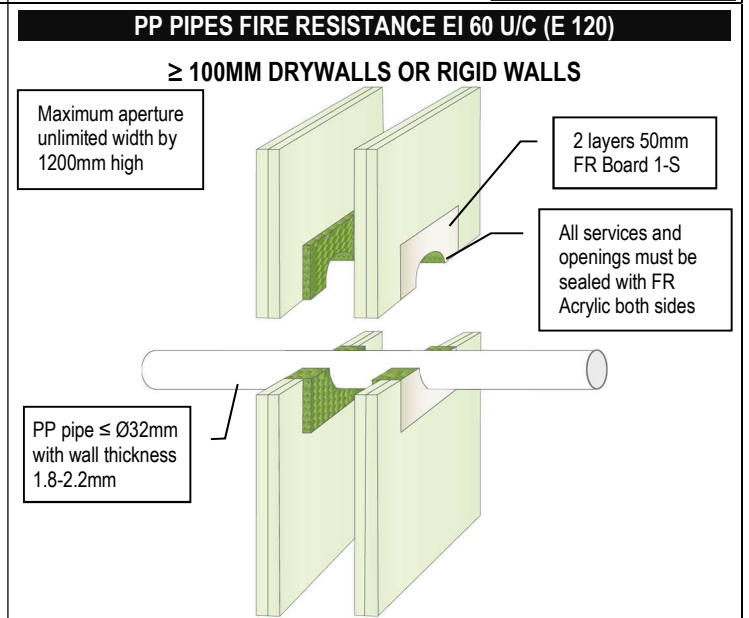
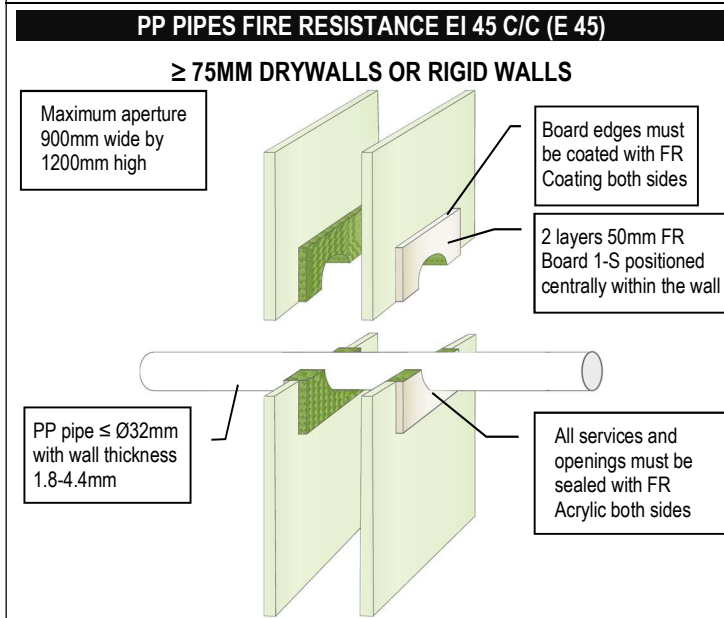
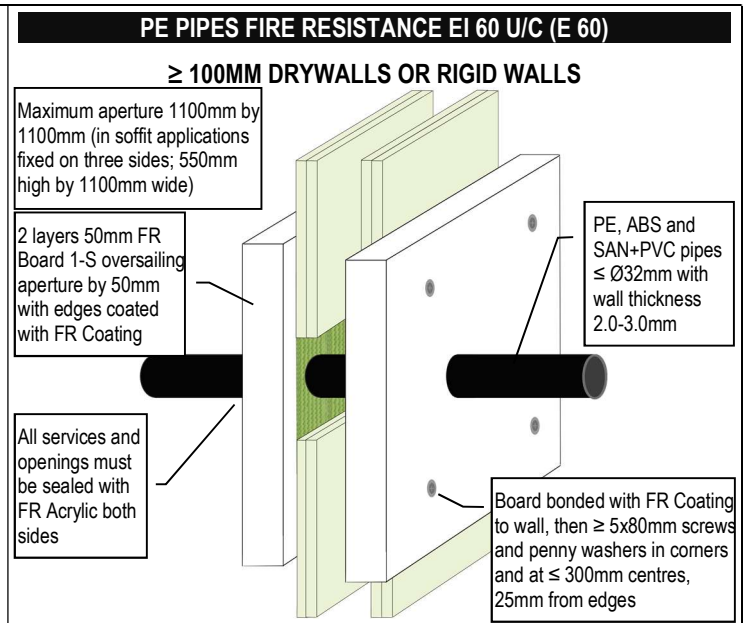
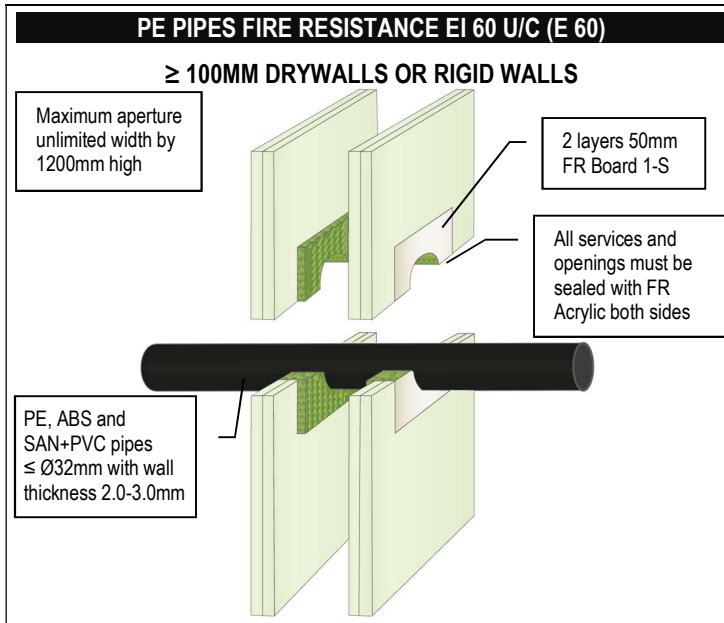
Maximum aperture 900mm wide by 1200mm high

Board edges must be coated with FR Coating both sides

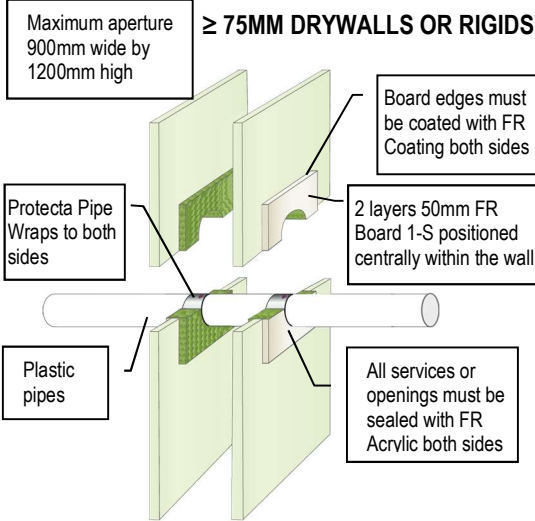
2 layers 50mm FR Board 1-S positioned centrally within the wall

PE, ABS and SAN+PVC pipes ≤ Ø32mm with wall thickness 2.0-3.0mm

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

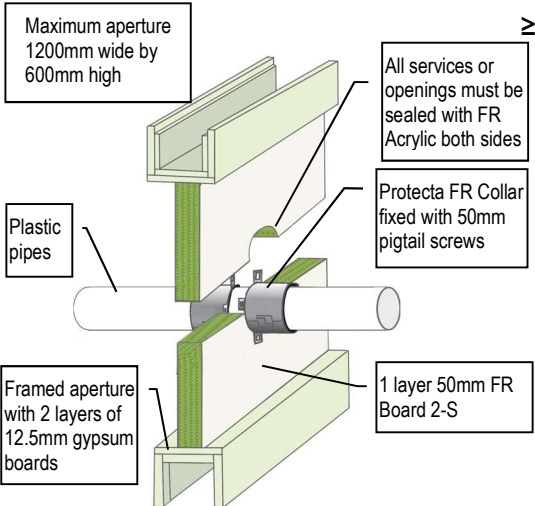


PLASTIC PIPES FIRE RESISTANCE EI 30-60



| Services | Pipe Wall Thickness | FR Pipe Wrap | Classification |
|-----------------------------|---------------------|-------------------------|----------------------|
| ≤ Ø 40mm PVC-U & PVC-C | 1.0 – 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 | 12.1 – 18.7mm | 50 x 18.0mm (10 layers) | EI 30 C/C (E 30 C/C) |
| ≤ Ø 315mm PP | 12.1 – 28.6mm | 50 x 18.0mm (10 layers) | EI 30 C/C (E 30 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) |
| ≤ Ø 400mm PP | 22.7mm | 50 x 28.8mm (16 layers) | EI 45 C/C (E 45 C/C) |

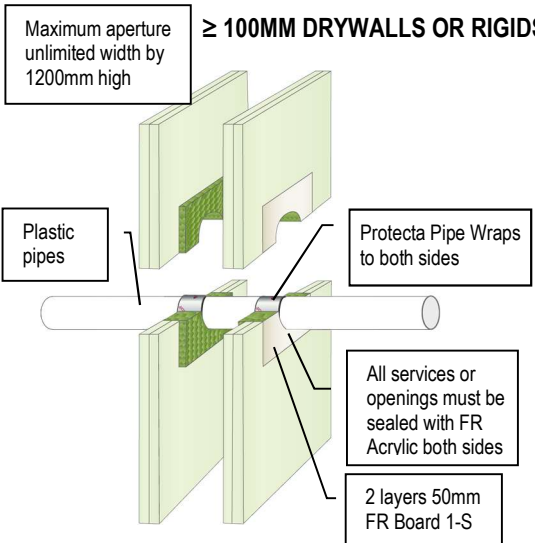
PLASTIC PIPES FIRE RESISTANCE EI 30-60



≥ 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 | 2.7 – 4.2mm | 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

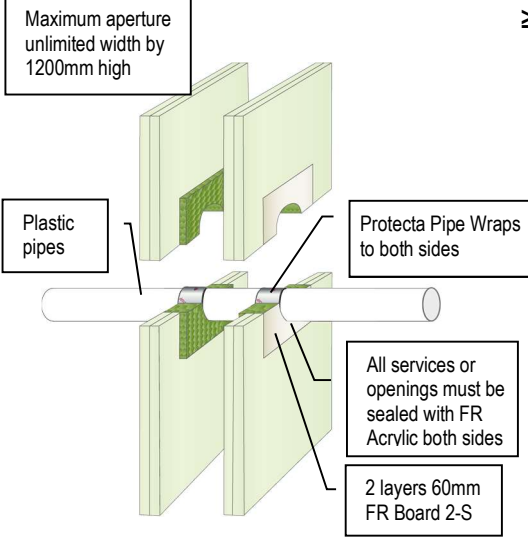


≥ 100MM DRYWALLS OR RIGIDS

| 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 50mm PVC-U & PVC-C | 1.0 – 1.8mm | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| ≤ 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

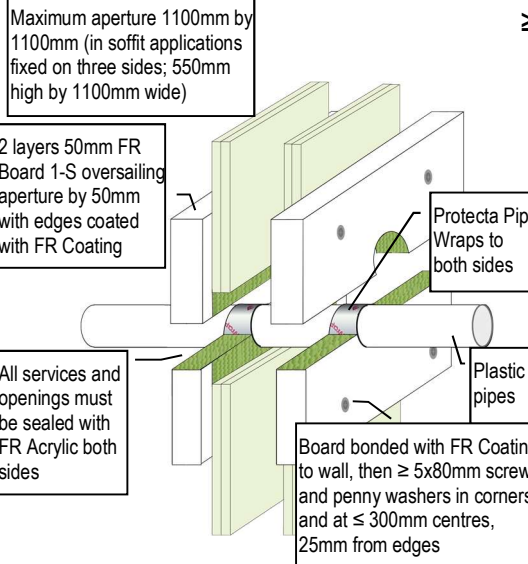
≥ 120MM DRYWALLS OR RIGID WALLS



| 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 50mm PVC-U & PVC-C | 1.0 – 1.8mm | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| ≤ 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

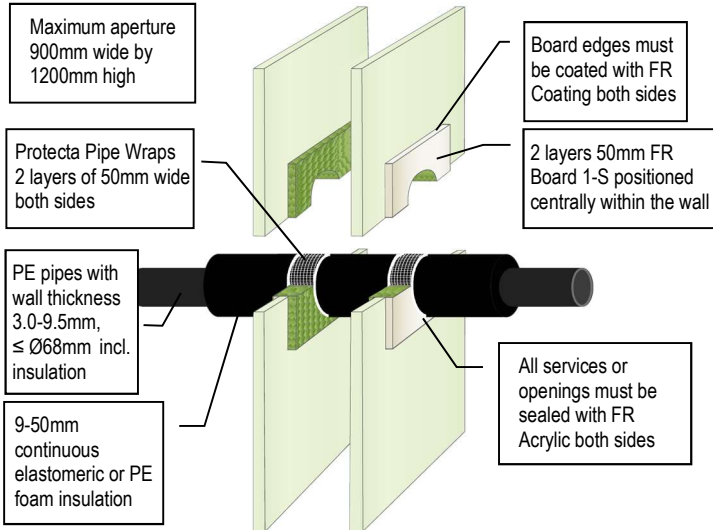
≥ 120MM DRYWALLS OR RIGID WALLS



| 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 50mm PVC-U & PVC-C | 1.0 – 1.8mm | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| ≤ 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) |

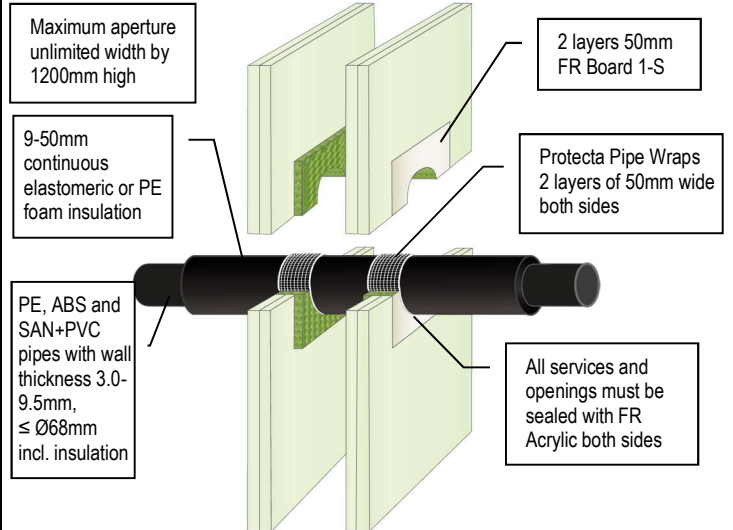
INSULATED PE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

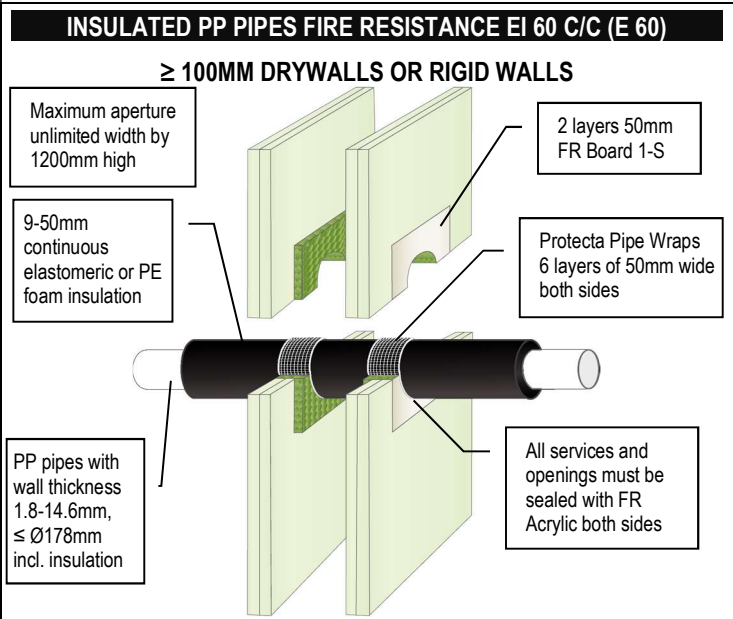
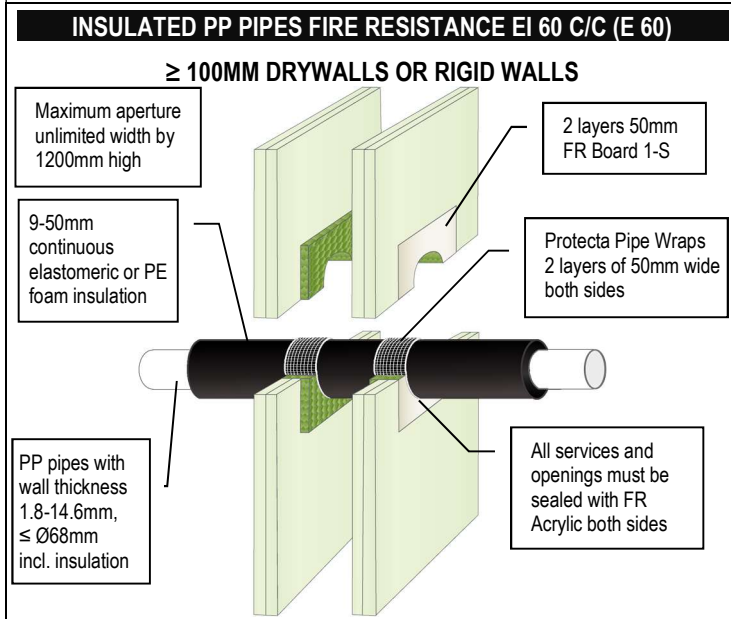
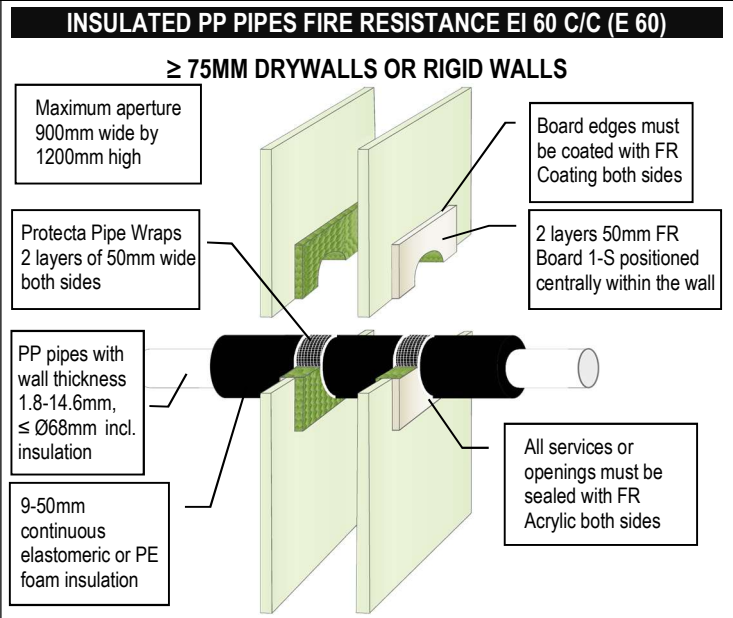
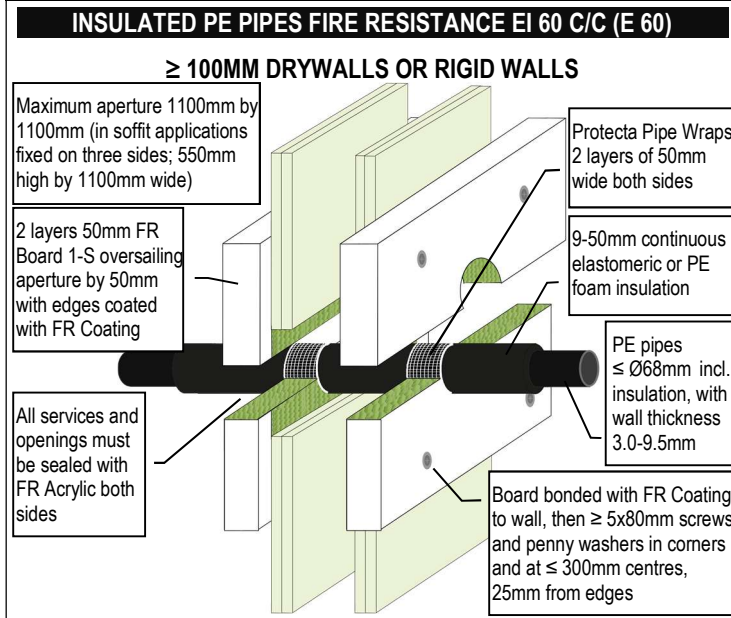
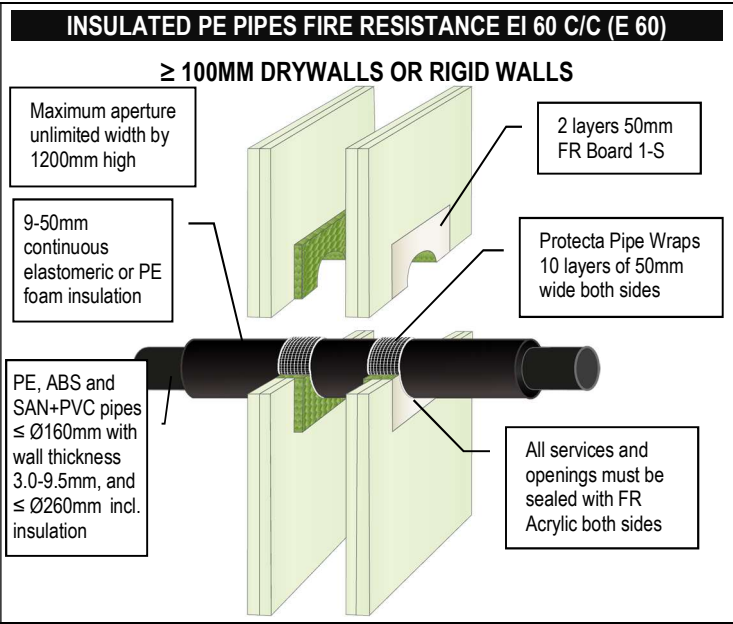
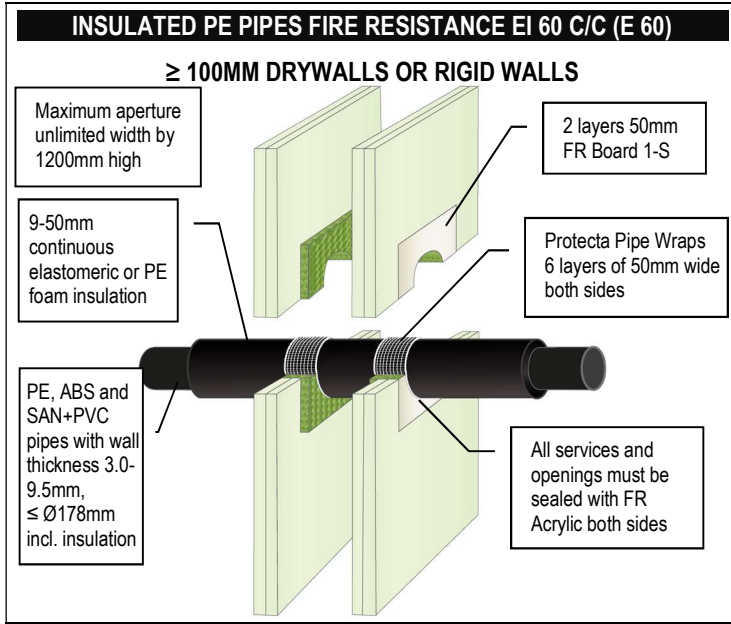
≥ 75MM DRYWALLS OR RIGID WALLS

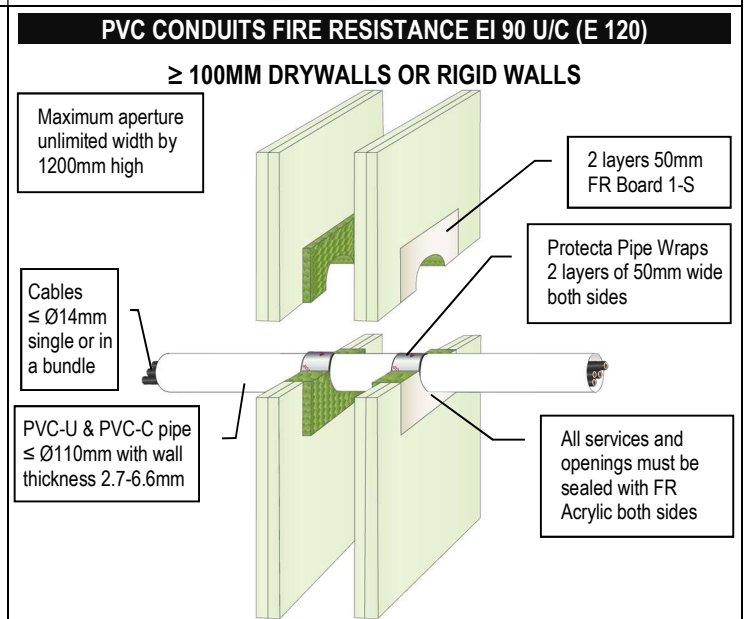
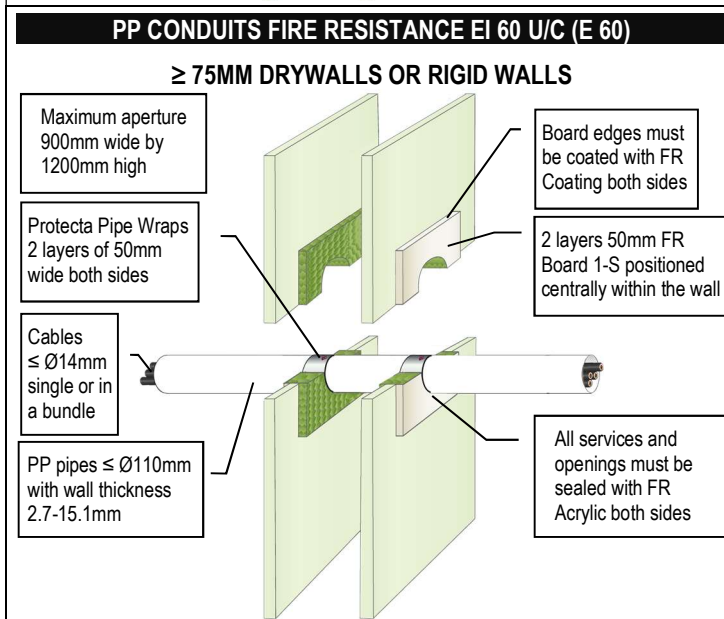
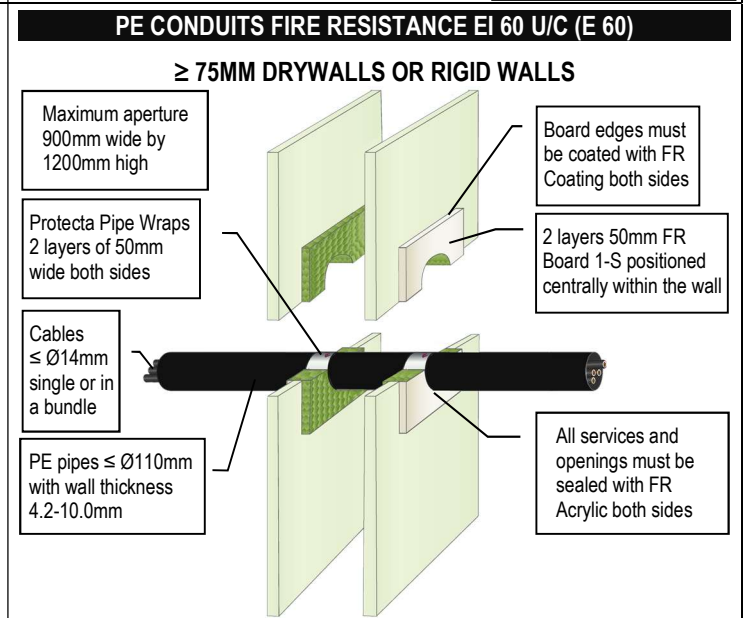
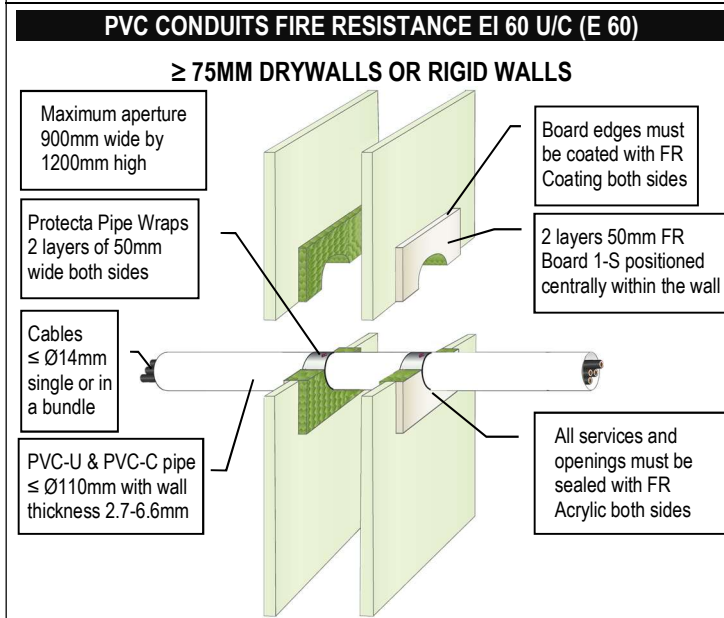
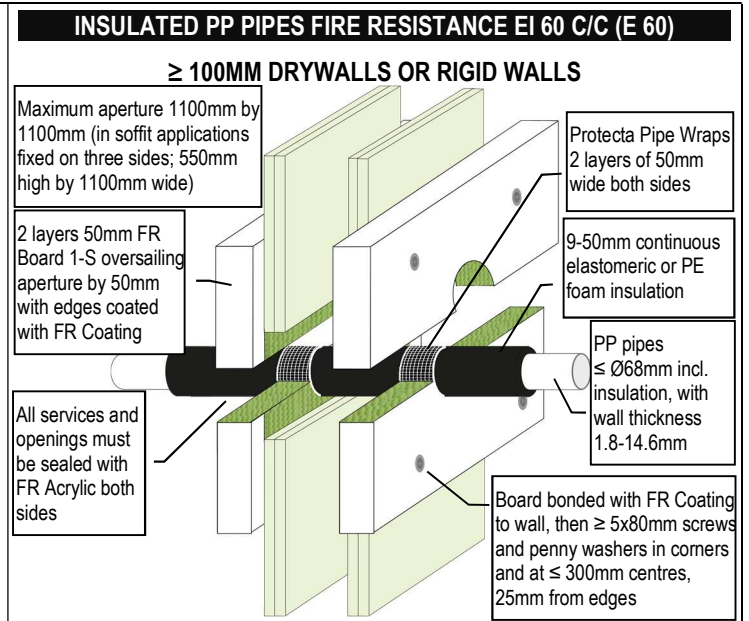
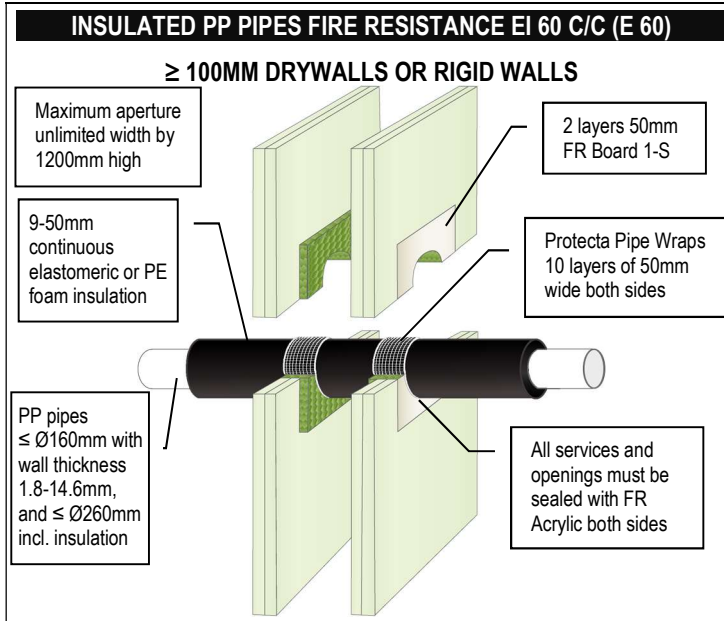


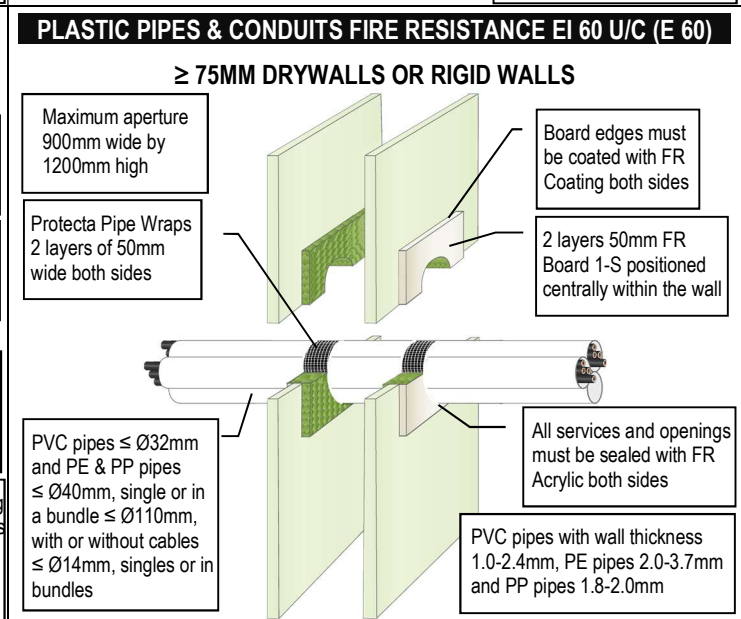
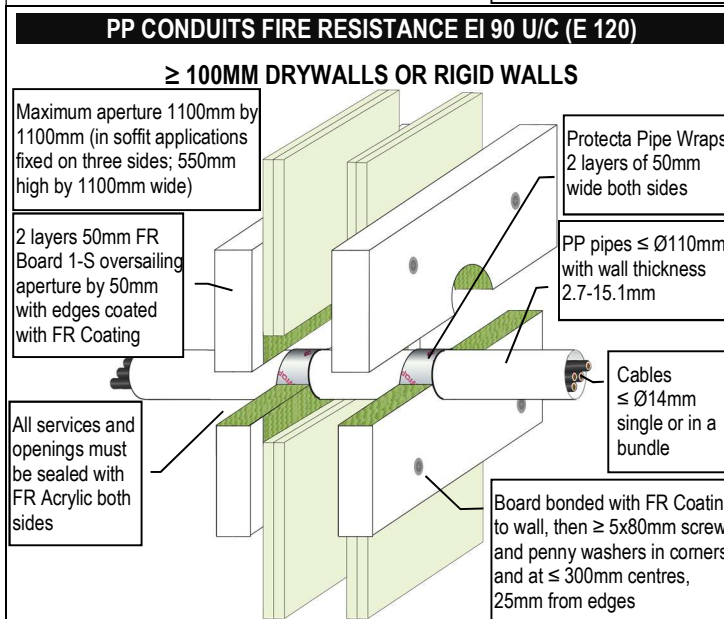
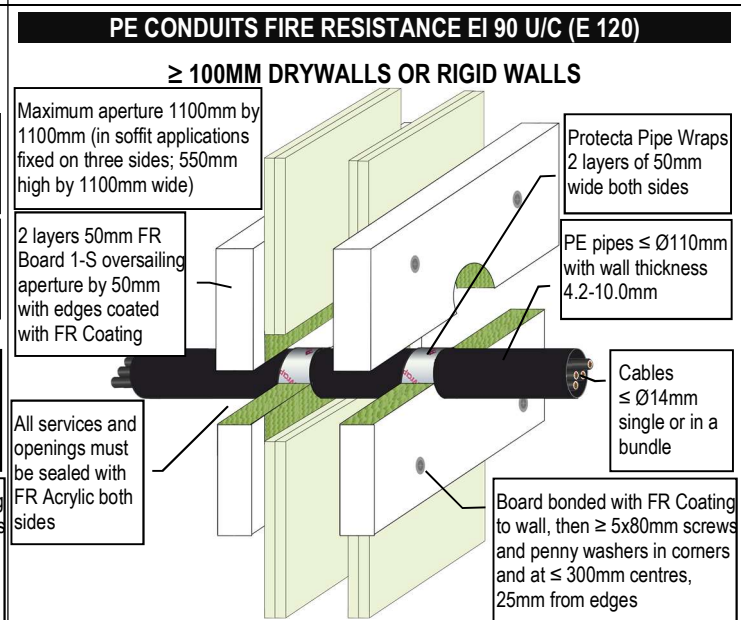
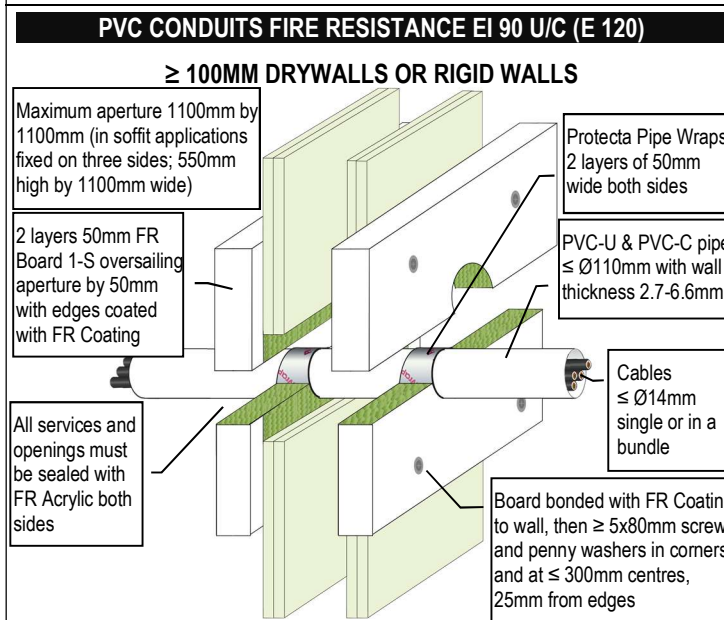
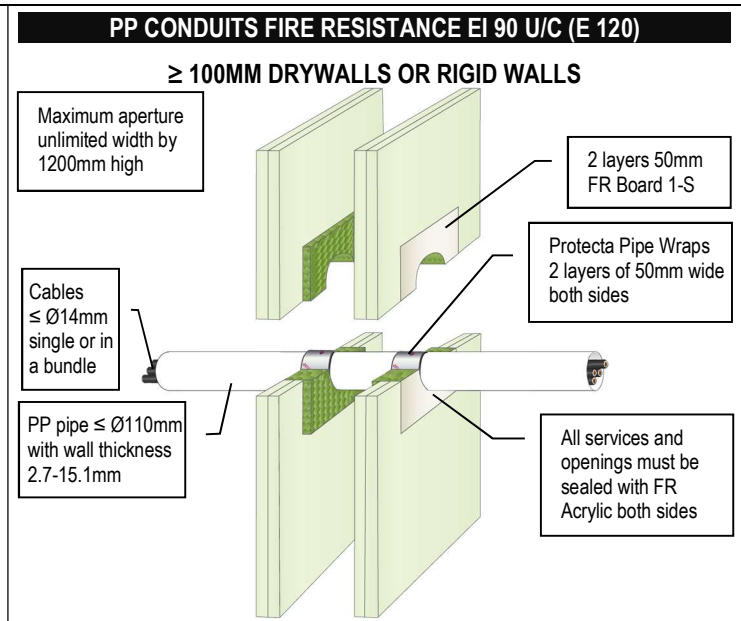
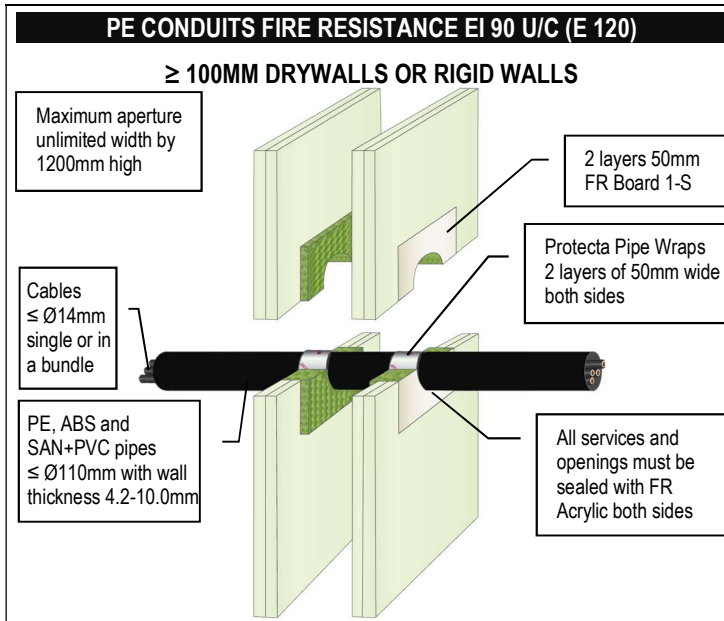
INSULATED PE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

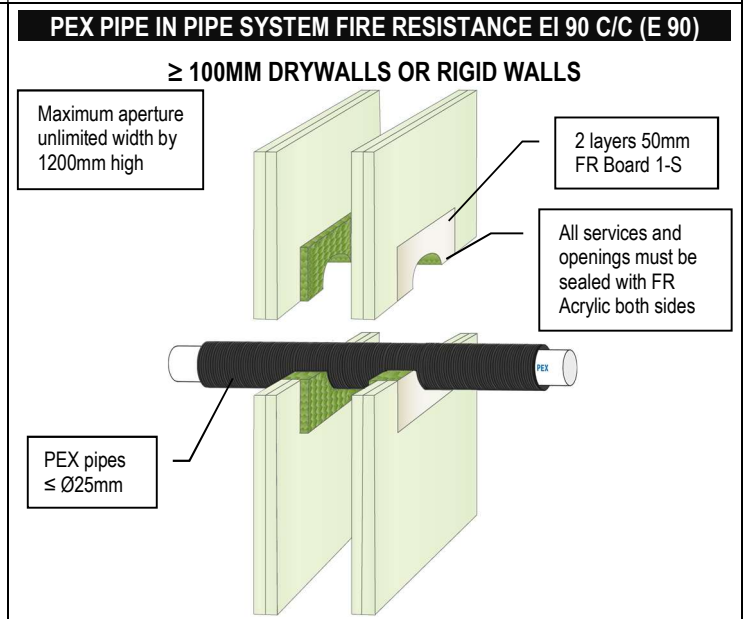
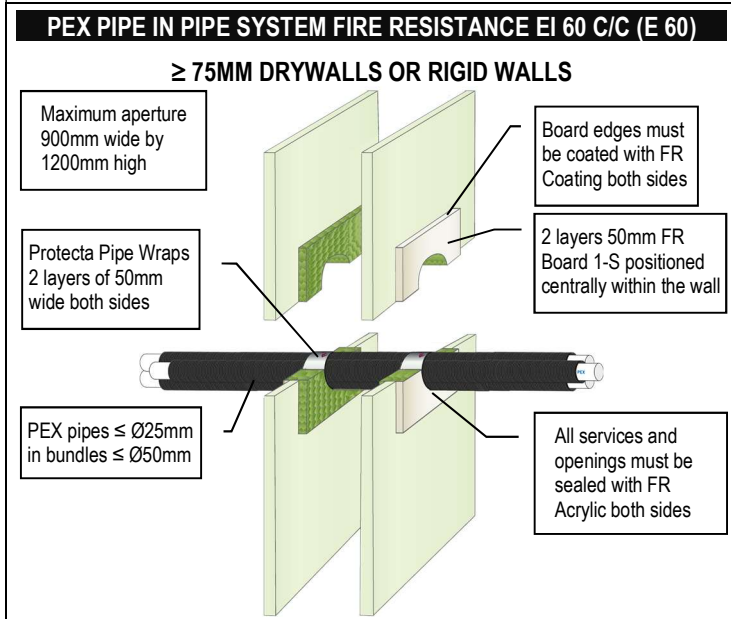
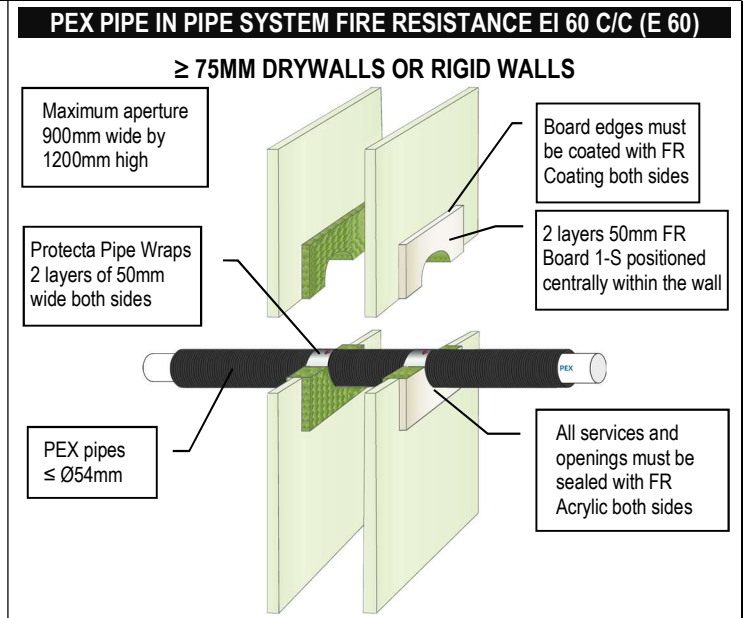
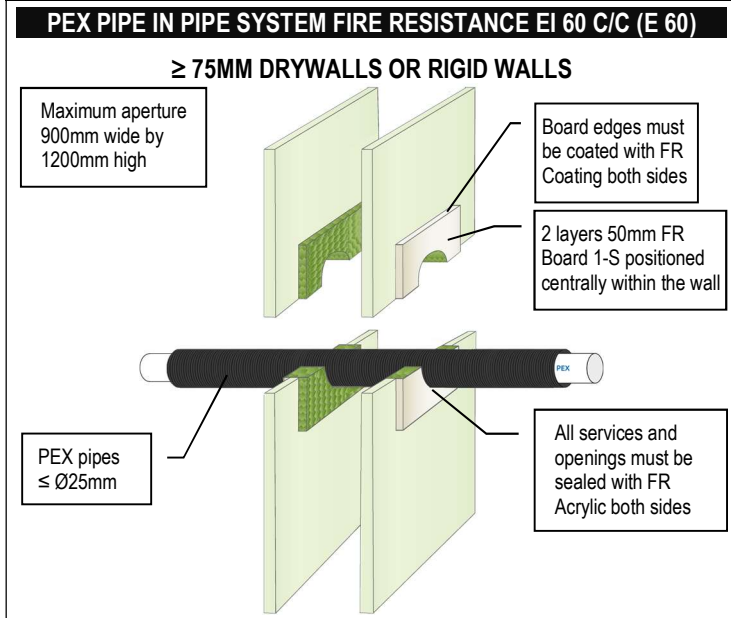
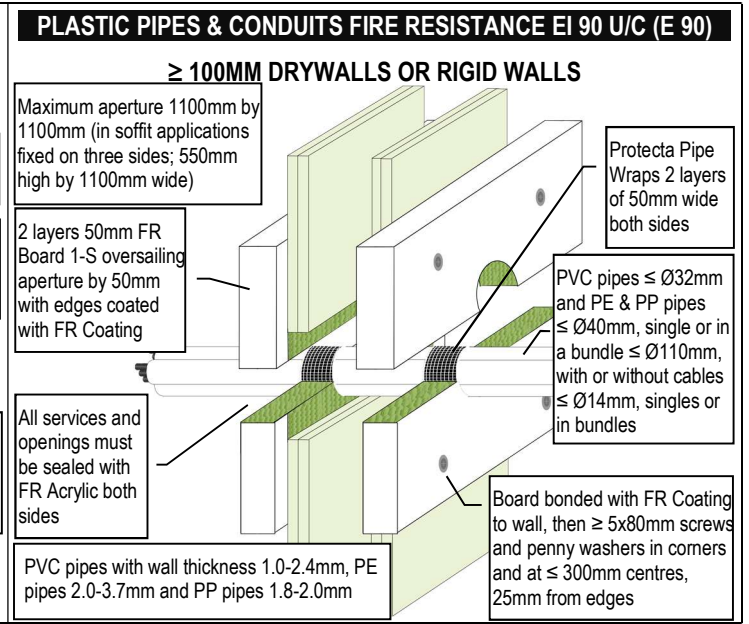
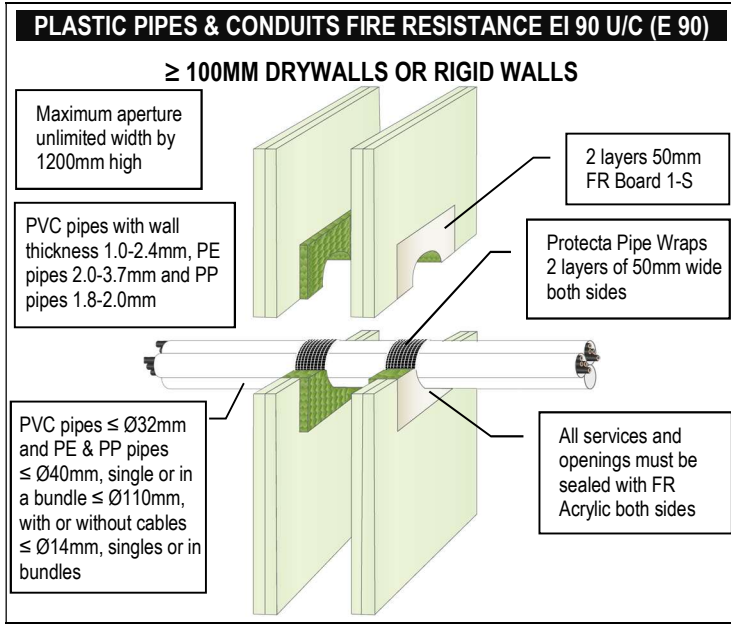
≥ 100MM DRYWALLS OR RIGID WALLS

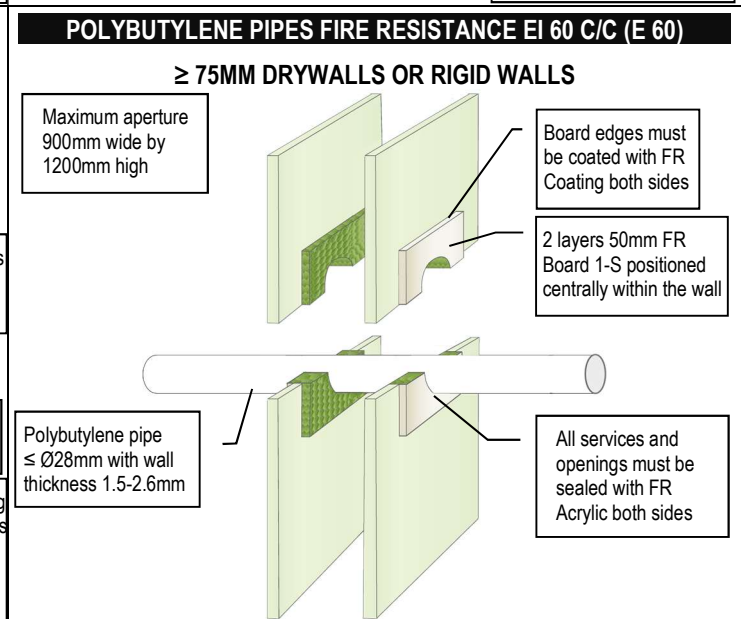
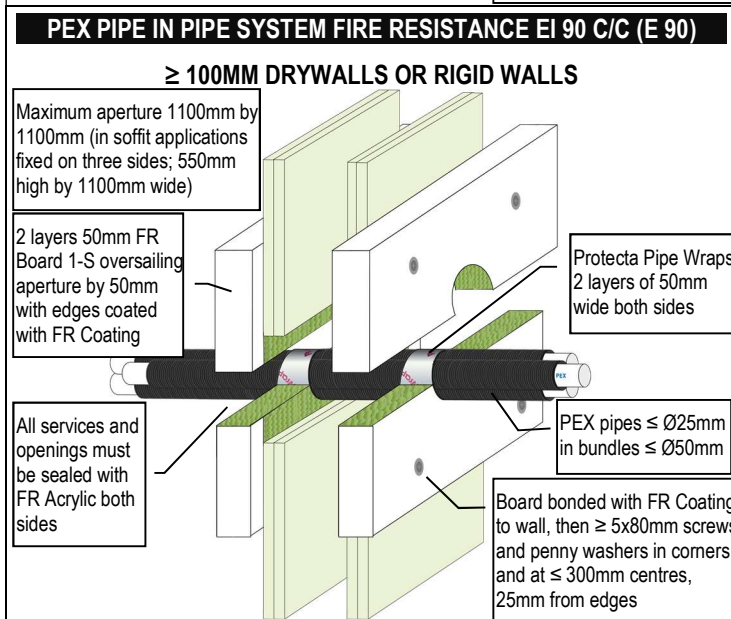
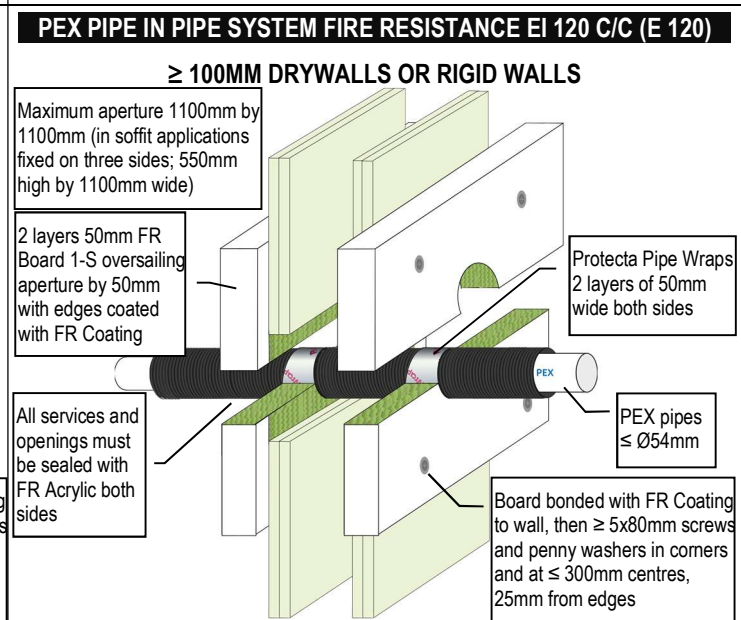
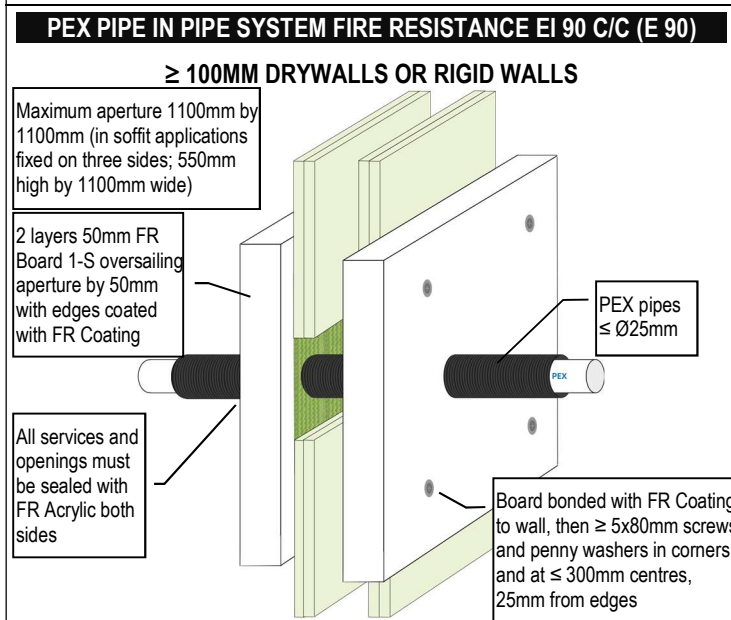
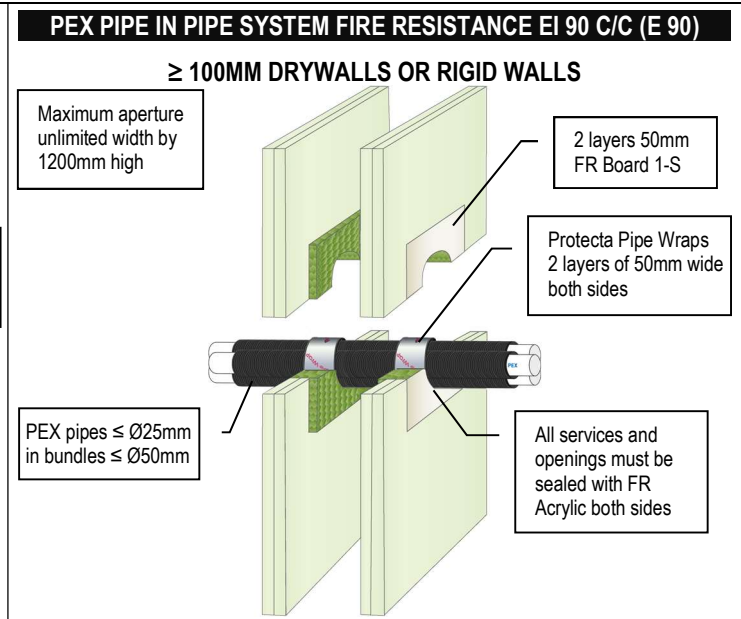
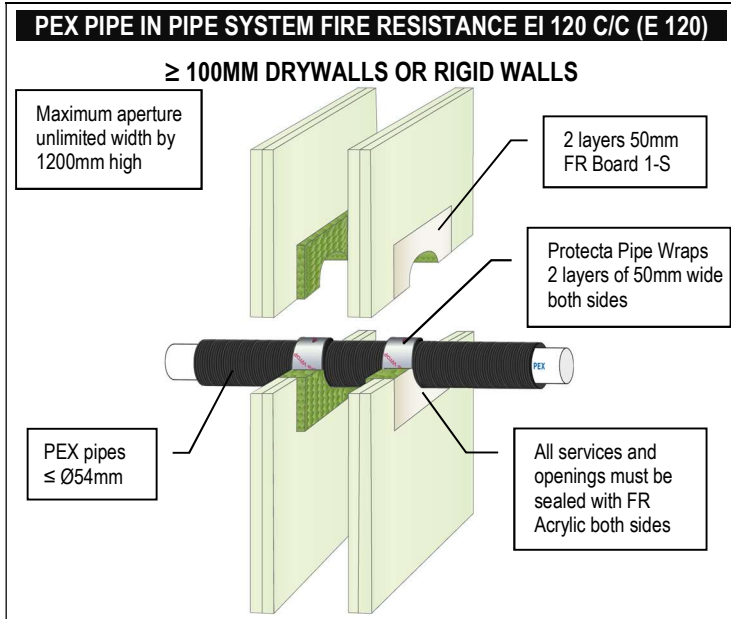












POLYBUTYLENE PIPES FIRE RESISTANCE EI 60 C/C (E 60)

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high

2 layers 50mm FR Board 1-S

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

Polybutylene pipe ≤ Ø28mm with wall thickness 1.5-2.6mm

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

Polybutylene pipe ≤ Ø28mm with wall thickness 1.5-2.6mm

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

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

COMPOSITE AQUATHERM GREEN SDR9 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

Protecta Pipe Wraps to both sides

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

Composite pipes

All services or 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 60 C/C (E 60 C/C) |
| Ø 40mm Aquatherm Green SDR9 pipes | 50 x 3.6mm (2 layers) | EI 60 C/C (E 60 C/C) |
| Ø 50mm Aquatherm Green SDR9 pipes | 50 x 3.6mm (2 layers) | EI 60 C/C (E 60 C/C) |
| Ø 63mm Aquatherm Green SDR9 pipes | 50 x 3.6mm (2 layers) | EI 60 C/C (E 60 C/C) |
| Ø 75mm Aquatherm Green SDR9 pipes | 50 x 3.6mm (2 layers) | EI 60 C/C (E 60 C/C) |
| Ø 90mm Aquatherm Green SDR9 pipes | 50 x 3.6mm (2 layers) | EI 60 C/C (E 60 C/C) |
| Ø 110mm 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

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S

| 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

Protecta Pipe Wraps to both sides

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

Board bonded with FR Coating to wall, then ≥ 5x80mm screws and penny washers in corners and at ≤ 300mm centres, 25mm 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 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

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

Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S

| 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

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

Protecta Pipe Wraps to both sides

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

Board bonded with FR Coating to wall, then ≥ 5x80mm screws and penny washers in corners and at ≤ 300mm centres, 25mm 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 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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

| 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

Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S

| 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

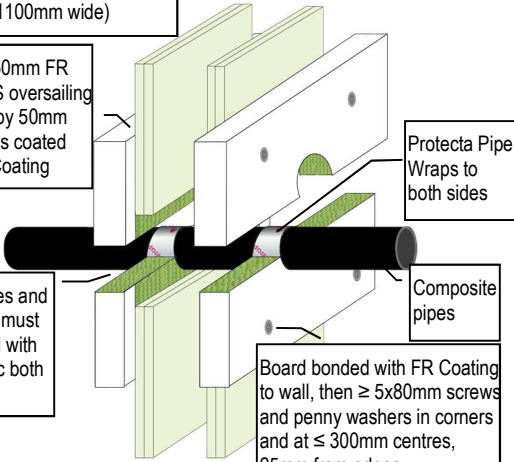
Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

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

Protecta Pipe Wraps to both sides

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

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



| 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 HULIOT ULTRA SILENT PIPES FIRE RESISTANCE EI 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

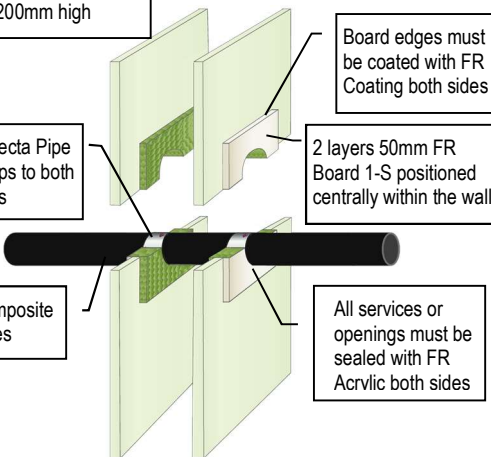
Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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



| Services | FR Pipe Wrap | Classification |
|-----------------------------------|------------------------|----------------------|
| Ø 32mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 60 U/U (E 60 U/U) |
| Ø 40mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 60 U/U (E 60 U/U) |
| Ø 50mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 60 U/U (E 60 U/U) |
| Ø 75mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 60 U/C (E 60 U/C) |
| Ø 90mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 60 U/C (E 60 U/C) |
| Ø 110mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 60 U/C (E 60 U/C) |
| Ø 125mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 60 U/C (E 60 U/C) |
| Ø 160mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 60 U/C (E 60 C/C) |
| Ø 200mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 60 C/C (E 60 C/C) |

COMPOSITE HULIOT ULTRA SILENT PIPES FIRE RESISTANCE EI 90

≥ 100MM DRYWALLS OR RIGID WALLS

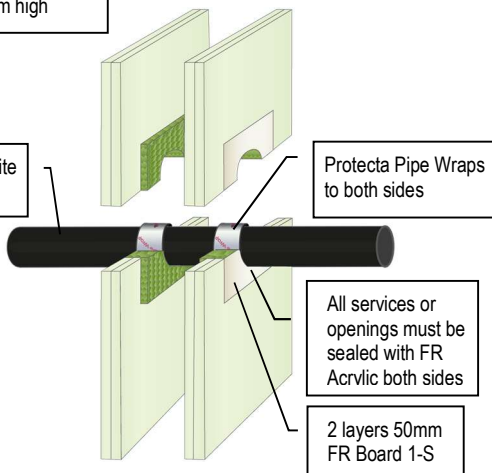
Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S



| Services | FR Pipe Wrap | Classification |
|-----------------------------------|------------------------|-----------------------|
| Ø 32mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 40mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 50mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 75mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 90mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 110mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 125mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 90 U/C) |
| Ø 160mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 120 C/C) |
| Ø 200mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 C/C (E 120 C/C) |

COMPOSITE HULIOT ULTRA SILENT PIPES FIRE RESISTANCE EI 90

≥ 100MM DRYWALLS OR RIGID WALLS

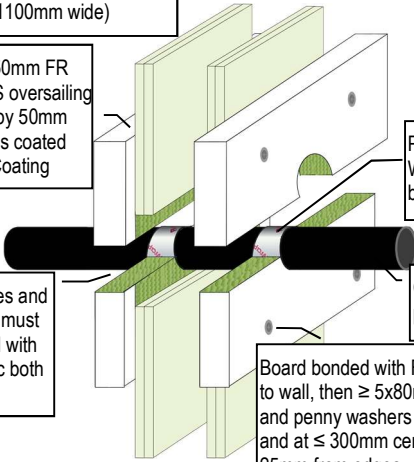
Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

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

Protecta Pipe Wraps to both sides

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

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



| Services | FR Pipe Wrap | Classification |
|-----------------------------------|------------------------|-----------------------|
| Ø 32mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 40mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 50mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 75mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 90mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 110mm Huliot Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 125mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 90 U/C) |
| Ø 160mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 120 C/C) |
| Ø 200mm Huliot Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 C/C (E 120 C/C) |

COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

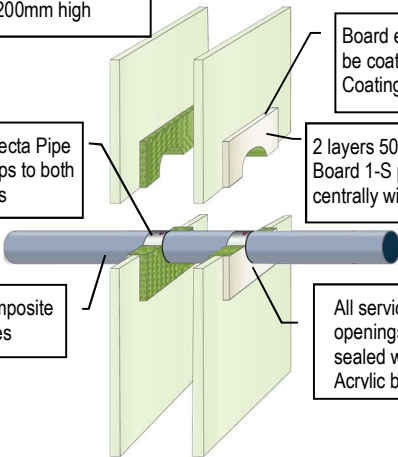
Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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



| 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

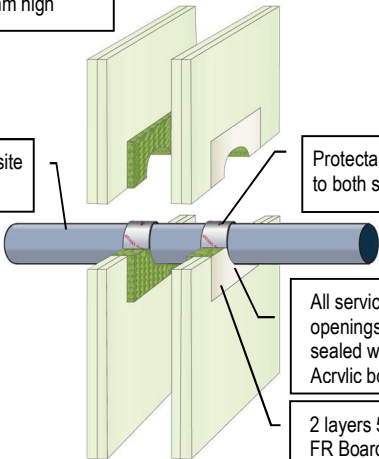
Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S



| 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

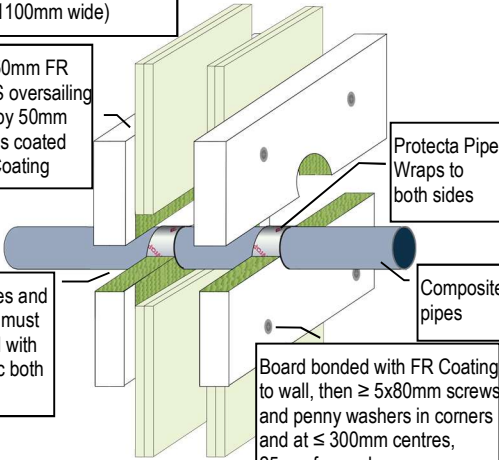
Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

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

Protecta Pipe Wraps to both sides

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

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



| 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

Maximum aperture 900mm wide by 1200mm high

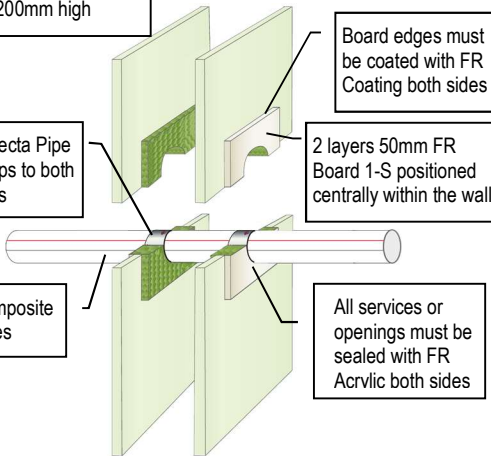
Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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



| 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

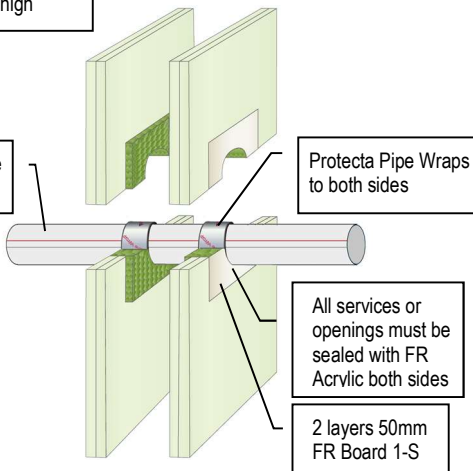
Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S



| 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

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

Protecta Pipe Wraps to both sides

Composite pipes

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

| 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) |

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

COMPOSITE UPONOR DECIBEL 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

Protecta Pipe Wraps to both sides

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

Composite pipes

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

| 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

Maximum aperture unlimited width by 1200mm high

| 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 pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S

COMPOSITE UPONOR DECIBEL 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

Protecta Pipe Wraps to both sides

Composite pipes

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

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

| 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 VALSIR BLACKFIRE PIPES FIRE RESISTANCE EI 0-60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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

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

COMPOSITE VALSIR BLACKFIRE PIPES FIRE RESISTANCE EI 0-120

≥ 100MM DRYWALLS OR RIGID WALLS

Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S

| Services | FR Pipe Wrap | Classification |
|--------------------------------|------------------------|------------------------|
| Ø 32mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 40mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 50mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 75mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 90mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 110mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 125mm Valsir Blackfire pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |
| Ø 160mm Valsir Blackfire pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

COMPOSITE VALSIR BLACKFIRE PIPES FIRE RESISTANCE EI 0-120

≥ 100MM DRYWALLS OR RIGID WALLS

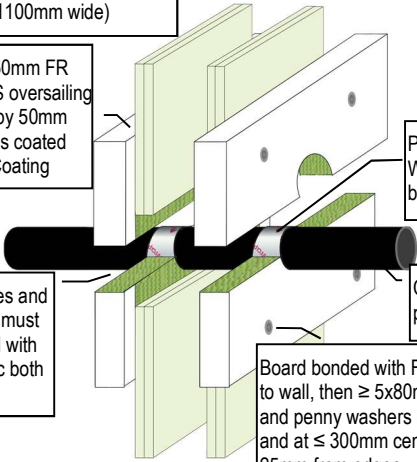
Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

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

Protecta Pipe Wraps to both sides

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

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



| Services | FR Pipe Wrap | Classification |
|--------------------------------|------------------------|------------------------|
| Ø 32mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 40mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 50mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 75mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 90mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 110mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 125mm Valsir Blackfire pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |
| Ø 160mm Valsir Blackfire pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

COMPOSITE VALSIR PP3 PIPES FIRE RESISTANCE EI 20-60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

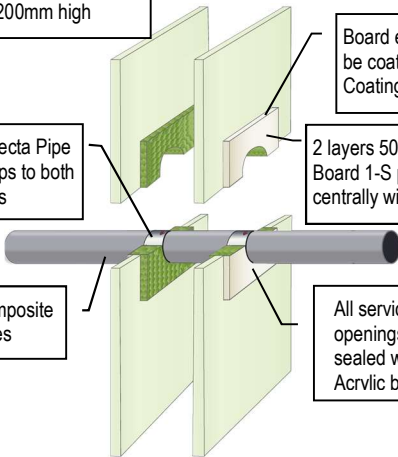
Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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



| Services | FR Pipe Wrap | Classification |
|--------------------------|------------------------|----------------------|
| Ø 32mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 60 U/U) |
| Ø 40mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 60 U/U) |
| Ø 50mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 60 U/U) |
| Ø 75mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 60 U/C (E 60 U/C) |
| Ø 90mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 60 U/C (E 60 U/C) |
| Ø 110mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 60 U/C (E 60 U/C) |
| Ø 125mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 60 U/C (E 60 U/C) |
| Ø 160mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 60 U/C (E 60 U/C) |

COMPOSITE VALSIR PP3 PIPES FIRE RESISTANCE EI 20-120

≥ 100MM DRYWALLS OR RIGID WALLS

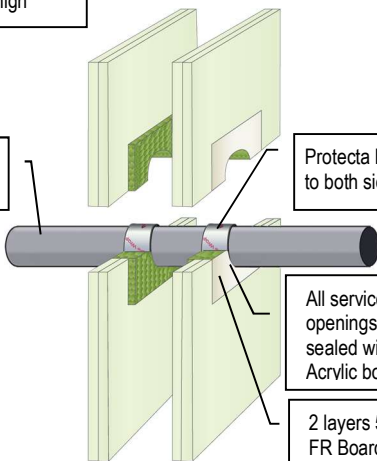
Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S



| Services | FR Pipe Wrap | Classification |
|--------------------------|------------------------|------------------------|
| Ø 32mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 40mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 50mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 75mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 90mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 110mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 125mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |
| Ø 160mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

COMPOSITE VALSIR PP3 PIPES FIRE RESISTANCE EI 20-120

≥ 100MM DRYWALLS OR RIGID WALLS

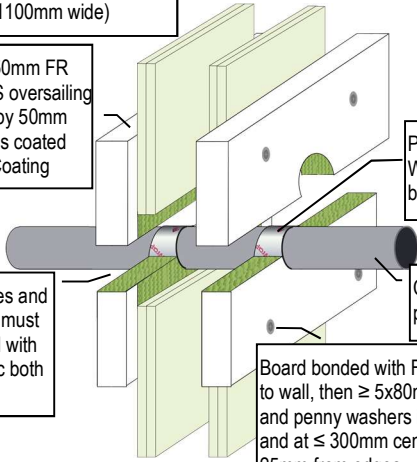
Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

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

Protecta Pipe Wraps to both sides

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

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



| Services | FR Pipe Wrap | Classification |
|--------------------------|------------------------|------------------------|
| Ø 32mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 40mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 50mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 75mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 90mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 110mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 125mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |
| Ø 160mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

COMPOSITE VALSIR TRIPLUS PLASTIC PIPES FIRE RESISTANCE EI 0-60

≥ 75MM DRYWALLS OR RIGID WALLS

Maximum aperture 900mm wide by 1200mm high

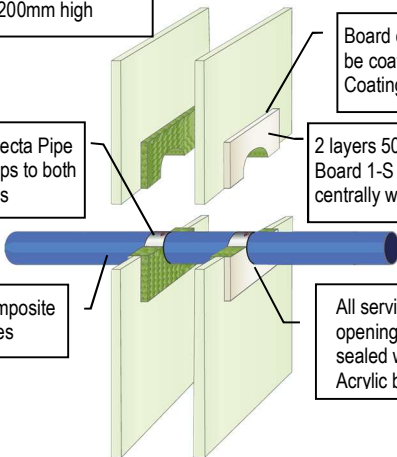
Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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



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

COMPOSITE VALSIR TRIPLUS PLASTIC PIPES FIRE RESISTANCE EI 0-120

≥ 100MM DRYWALLS OR RIGID WALLS

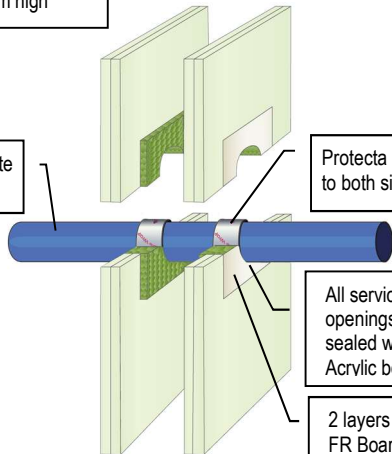
Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S



| Services | FR Pipe Wrap | Classification |
|------------------------------|------------------------|------------------------|
| Ø 32mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 40mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 50mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 75mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 90mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 110mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 125mm Valsir Triplus pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 120 U/C) |
| Ø 160mm Valsir Triplus pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

COMPOSITE VALSIR TRIPLUS PLASTIC PIPES FIRE RESISTANCE EI 0-120

≥ 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

Protecta Pipe Wraps to both sides

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

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

| Services | FR Pipe Wrap | Classification |
|------------------------------|------------------------|------------------------|
| Ø 32mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 40mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 50mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 75mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 90mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 110mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 125mm Valsir Triplus pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 120 U/C) |
| Ø 160mm Valsir Triplus pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

COMPOSITE WAVIN AS+ 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

Protecta Pipe Wraps to both sides

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

Composite pipes

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

| 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

Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S

| 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

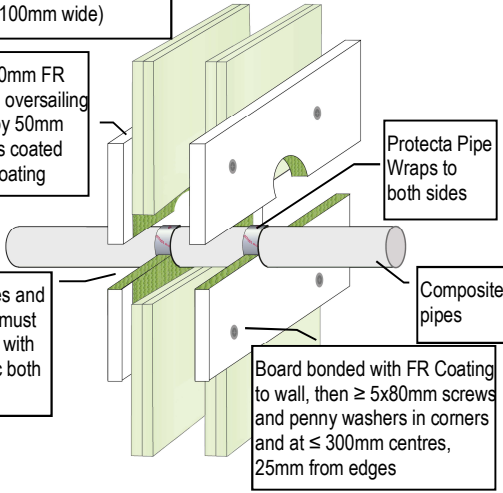
Maximum aperture 1100mm by 1100mm (in soffit applications fixed on three sides; 550mm high by 1100mm wide)

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

Protecta Pipe Wraps to both sides

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

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



| 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

Maximum aperture 900mm wide by 1200mm high

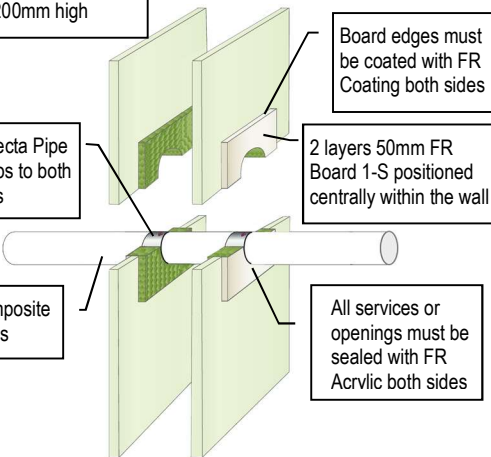
Board edges must be coated with FR Coating both sides

Protecta Pipe Wraps to both sides

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

Composite pipes

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



| 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

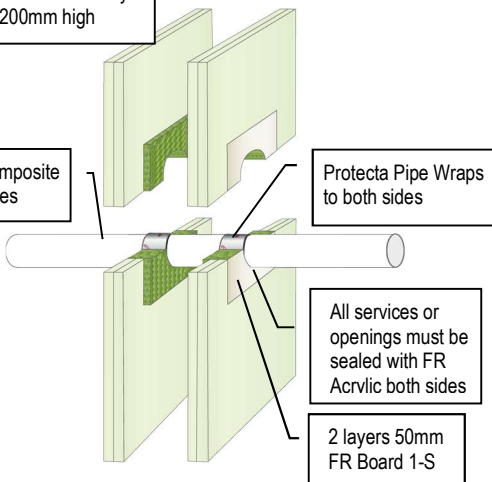
Maximum aperture unlimited width by 1200mm high

Composite pipes

Protecta Pipe Wraps to both sides

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

2 layers 50mm FR Board 1-S



| 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

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

Protecta Pipe Wraps to both sides

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

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

| 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

Maximum 600mm wide horizontal joints within a vertical construction or abutting a floor, ceiling or roof

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

All gaps 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

VERTICAL LINEAR SEALS FIRE RESISTANCE EI 60 (E 60)

≥ 100MM TIMBER WALLS

Maximum 600mm wide vertical joints within a vertical construction or abutting a facing wall

All gaps 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

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

CABLES AND CABLE TRAYS FIRE RESISTANCE EI 90 (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

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

Cables ≤ Ø50mm single and bundled, with or without trays

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

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

≥ 100MM TIMBER WALLS

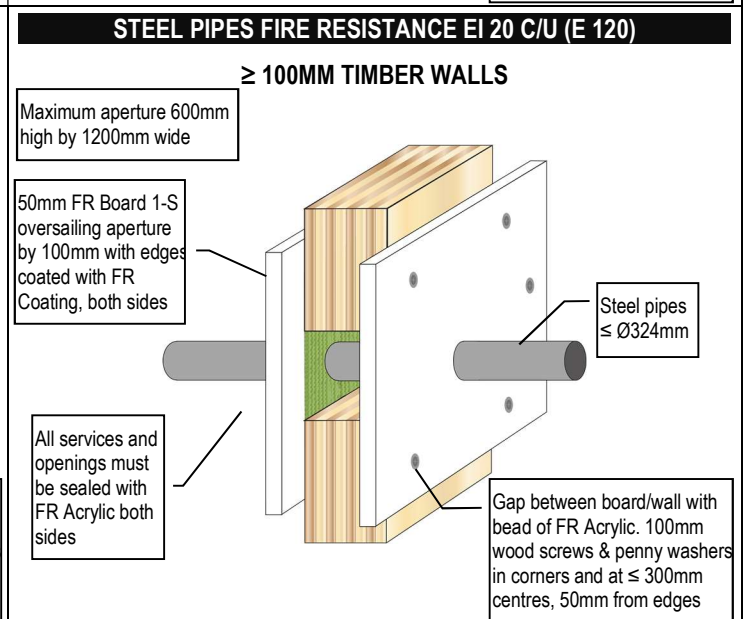
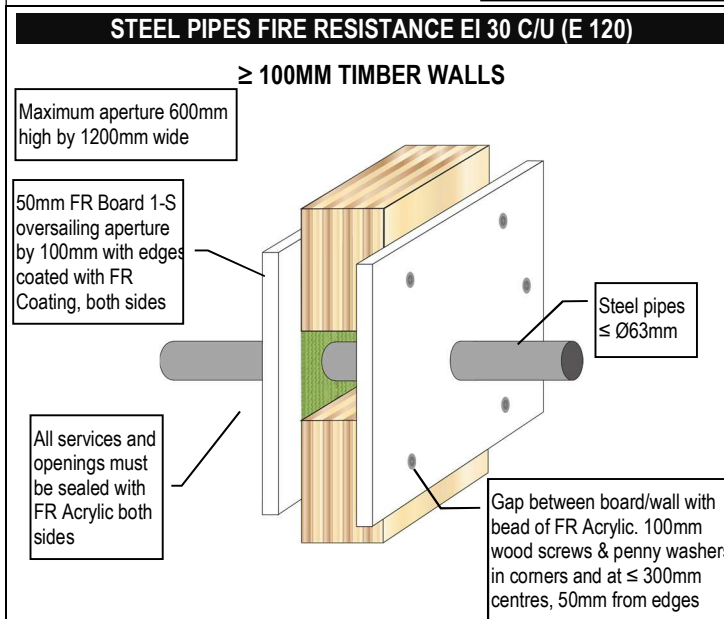
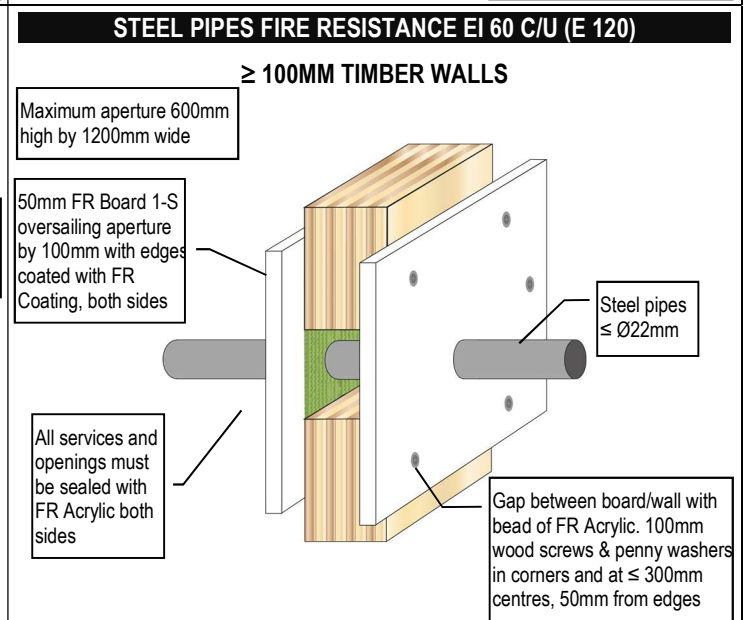
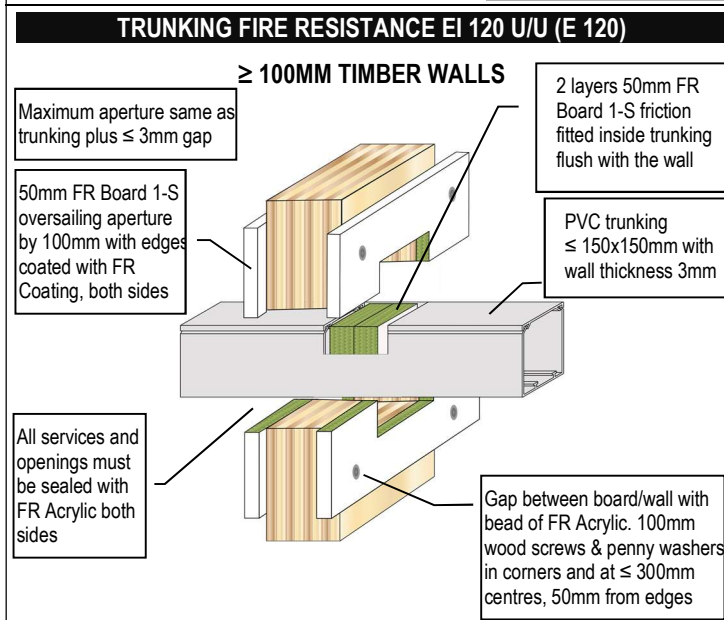
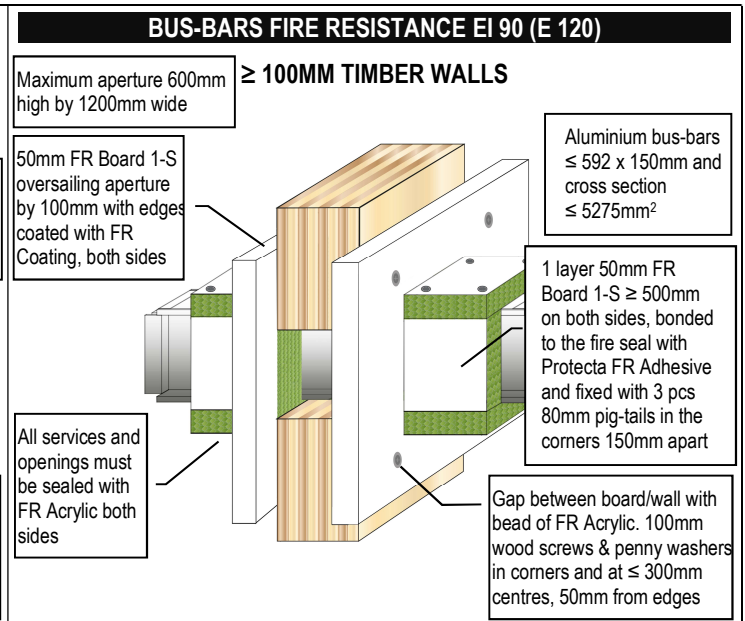
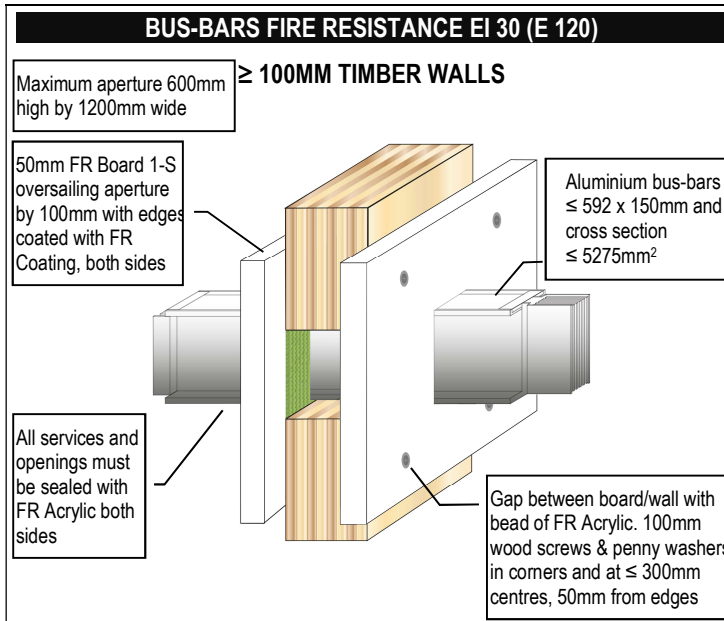
Maximum aperture 600mm high by 1200mm wide

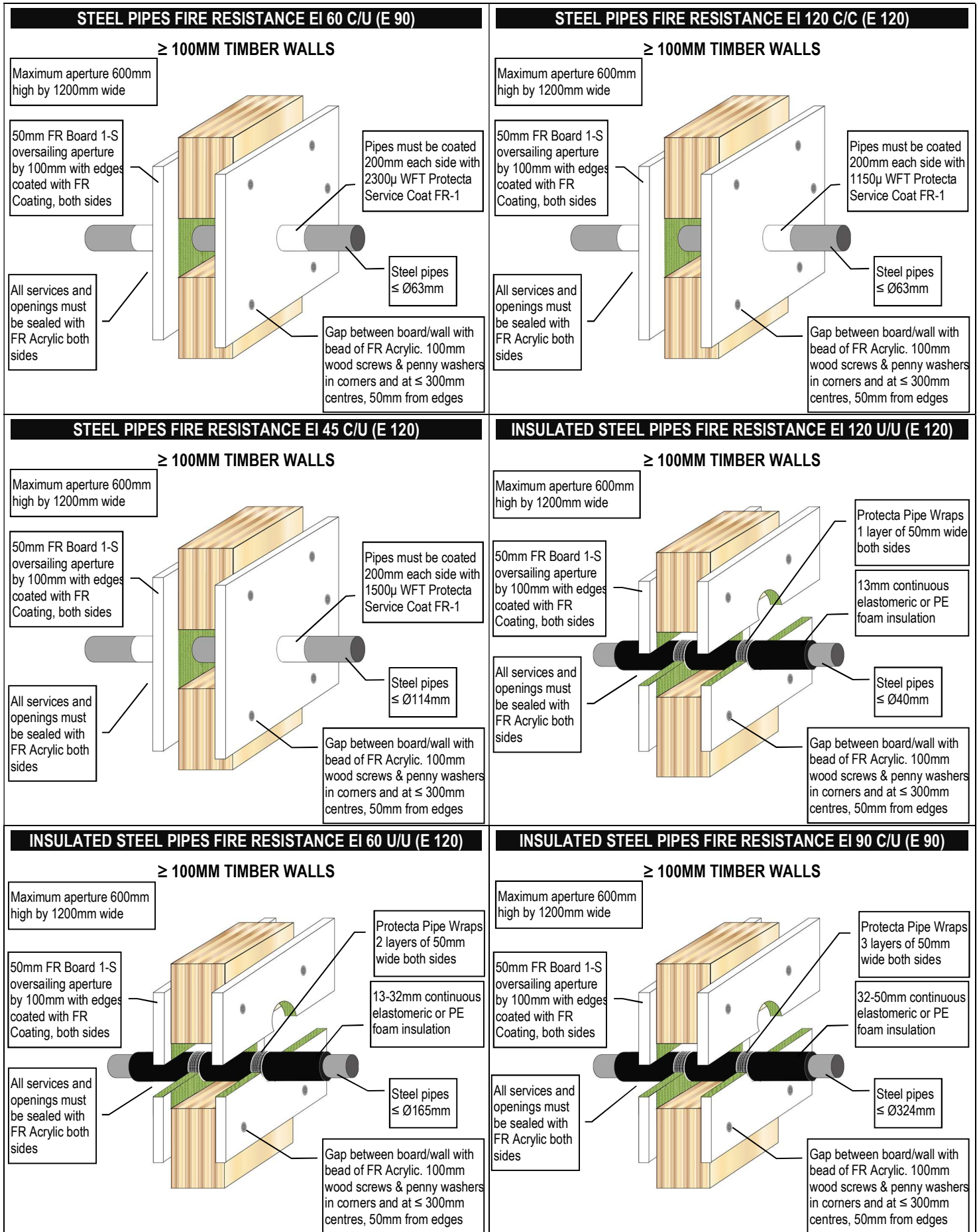
50mm FR Board 1-S oversailing aperture by 100mm with edges coated with FR Coating, both sides

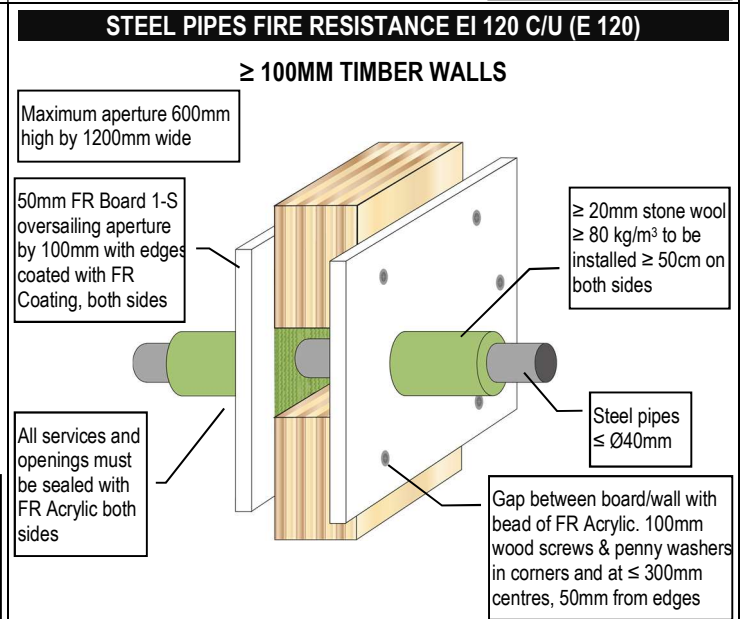
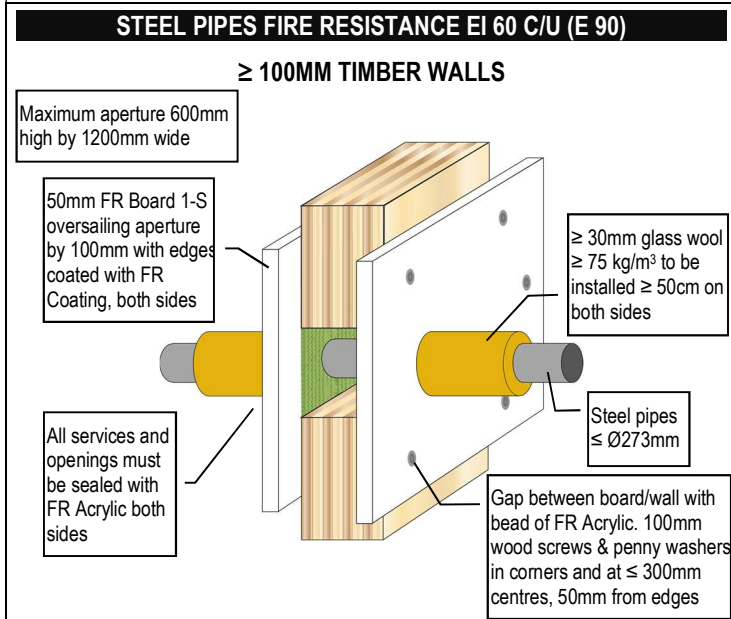
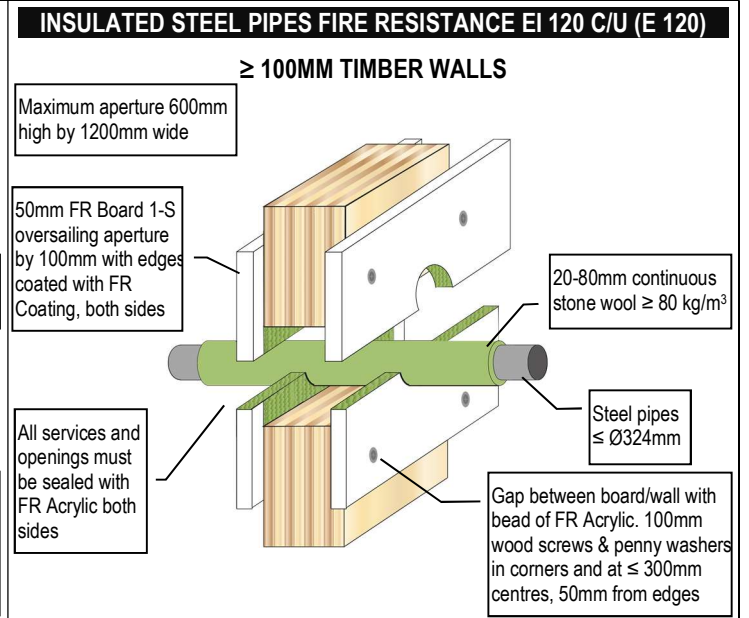
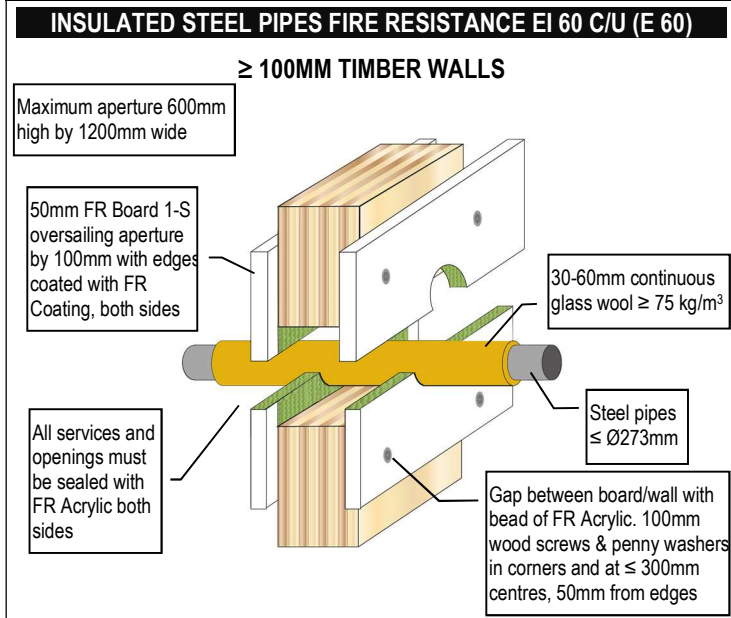
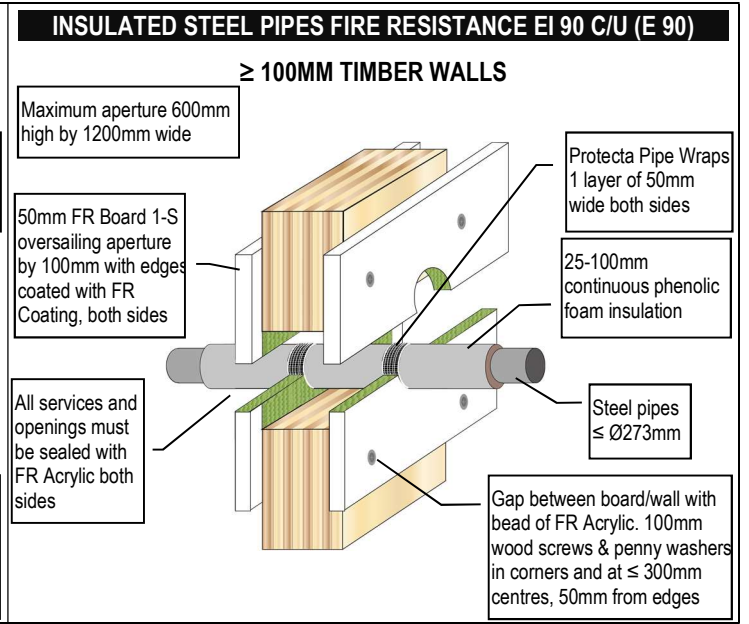
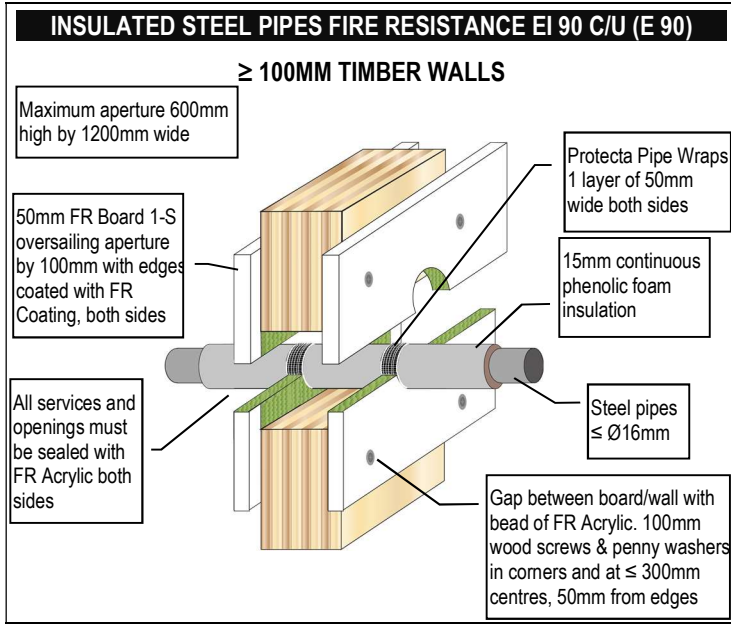
All services and openings must be sealed with FR Acrylic both sides

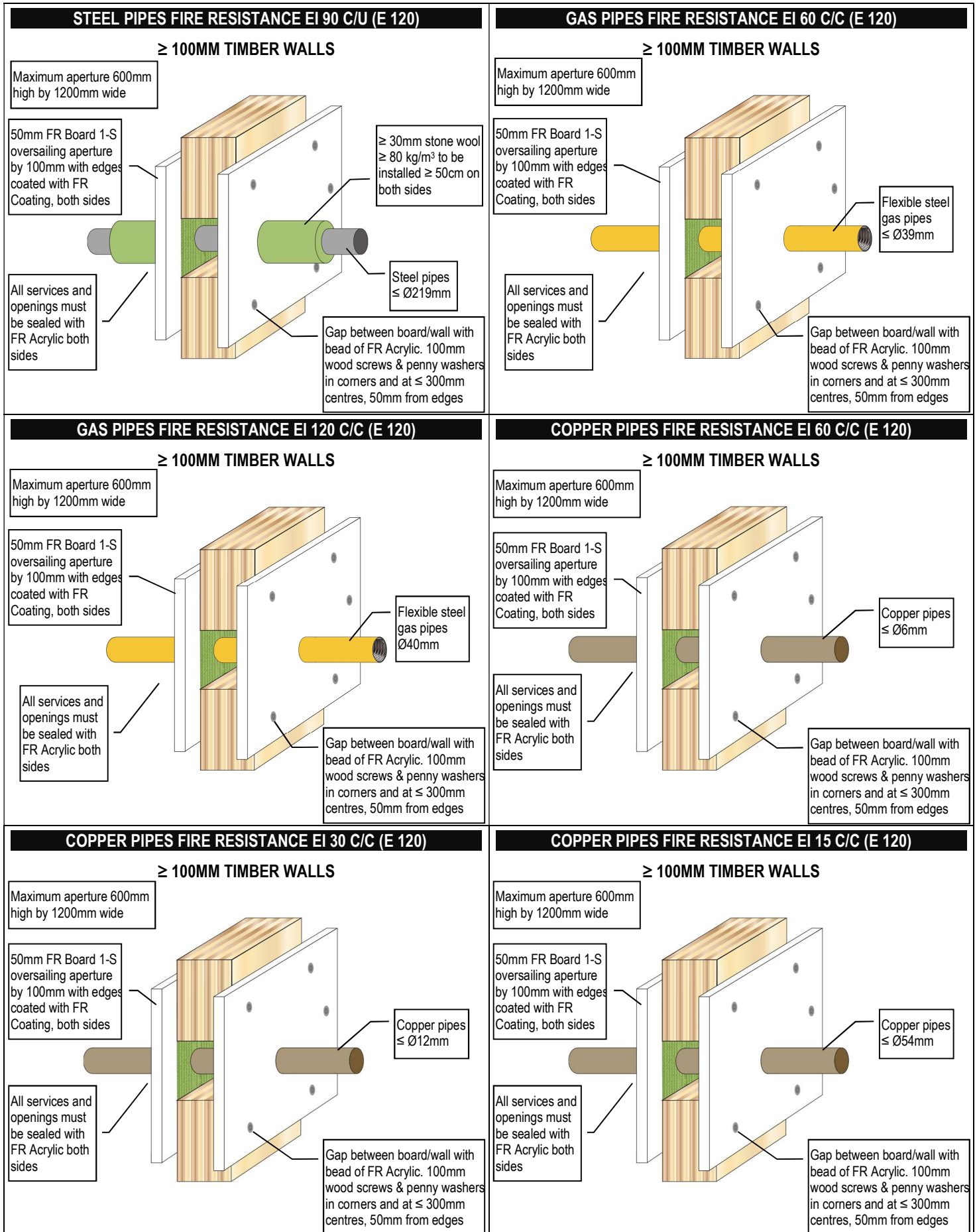
Cables ≤ Ø80mm single and bundled, and steel and plastic conduits ≤ Ø16mm with or without trays

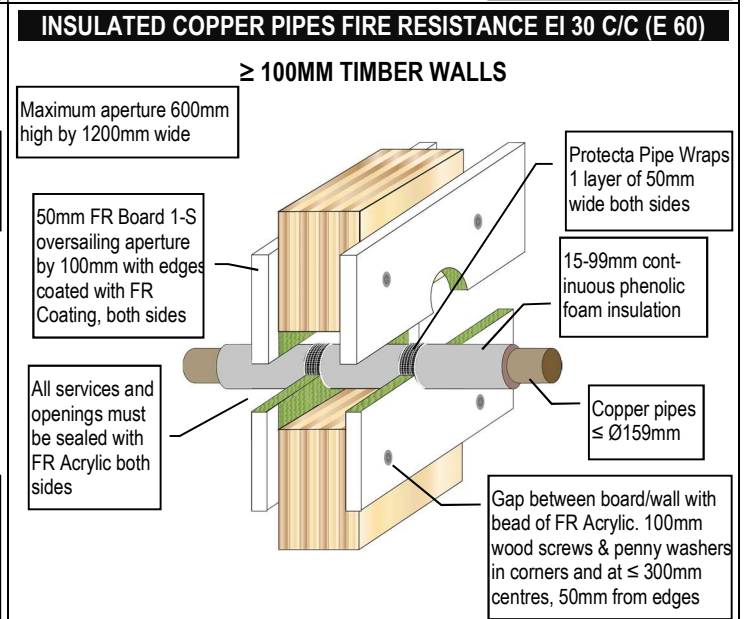
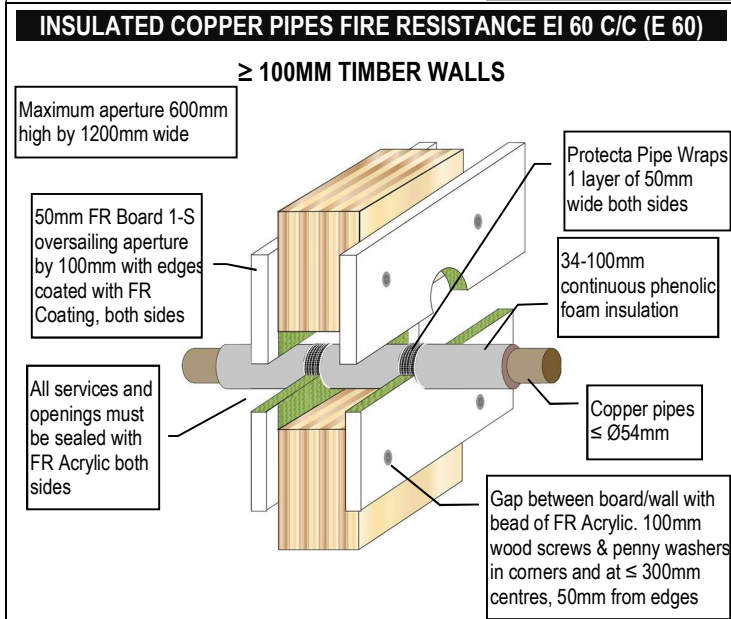
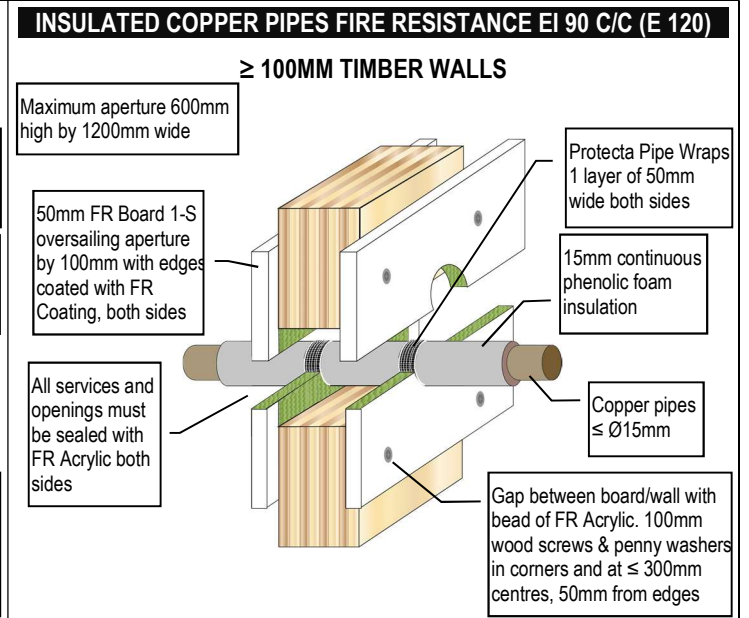
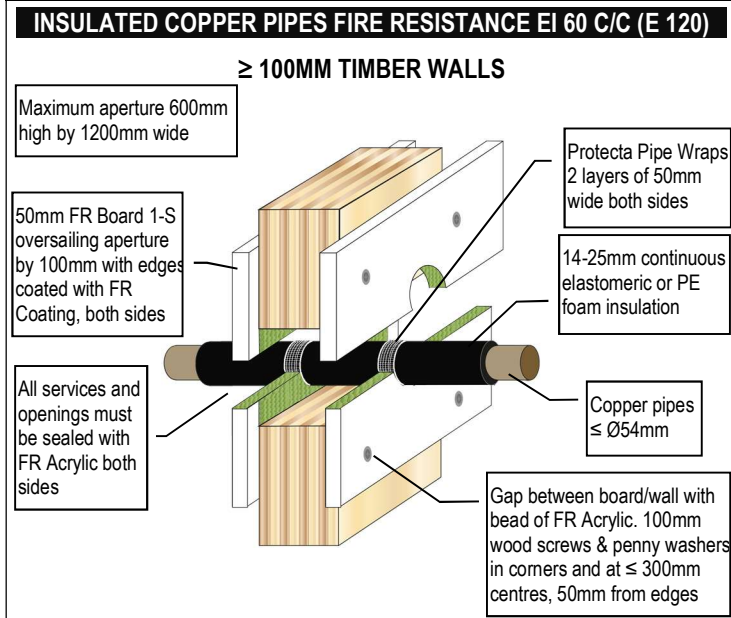
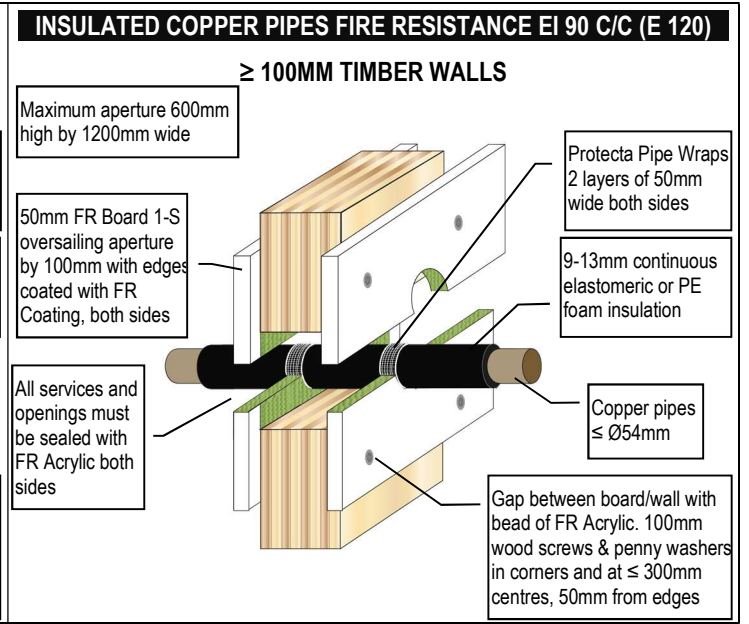
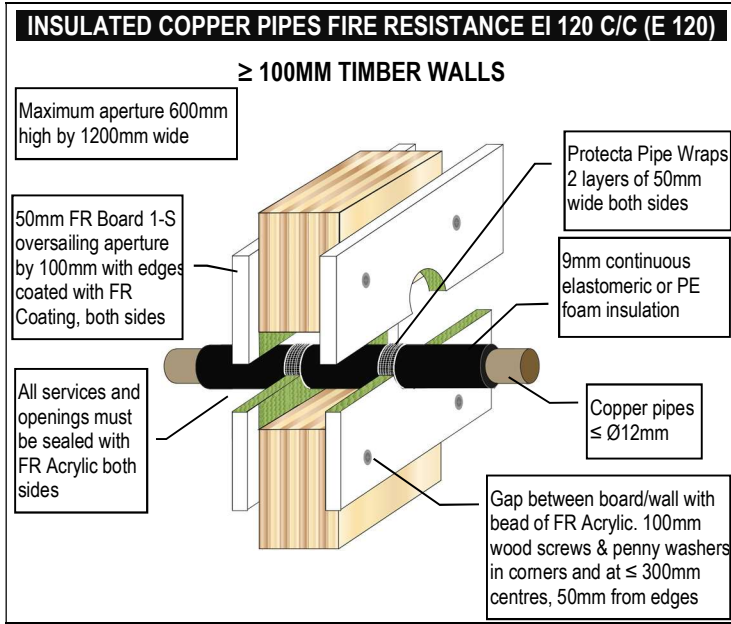
Gap between board/wall with bead of FR Acrylic. 100mm wood screws & penny washers in corners and at ≤ 300mm centres, 50mm from edges

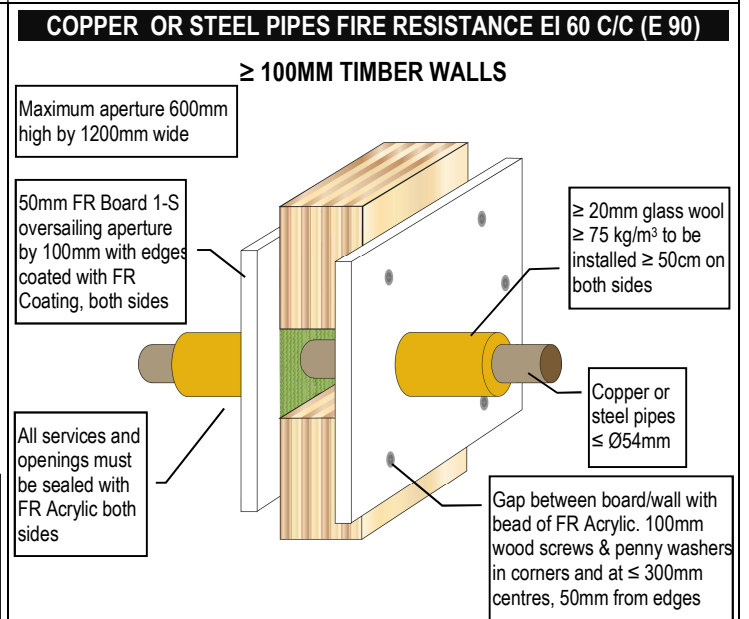
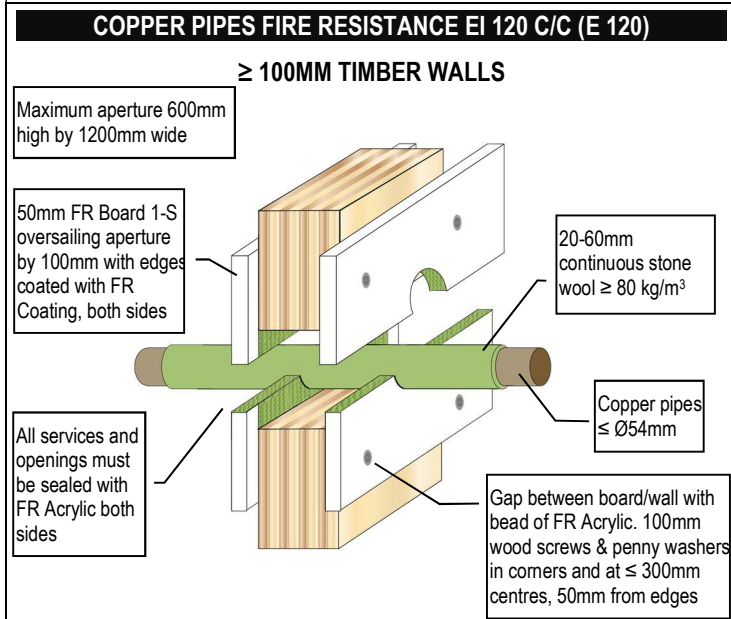
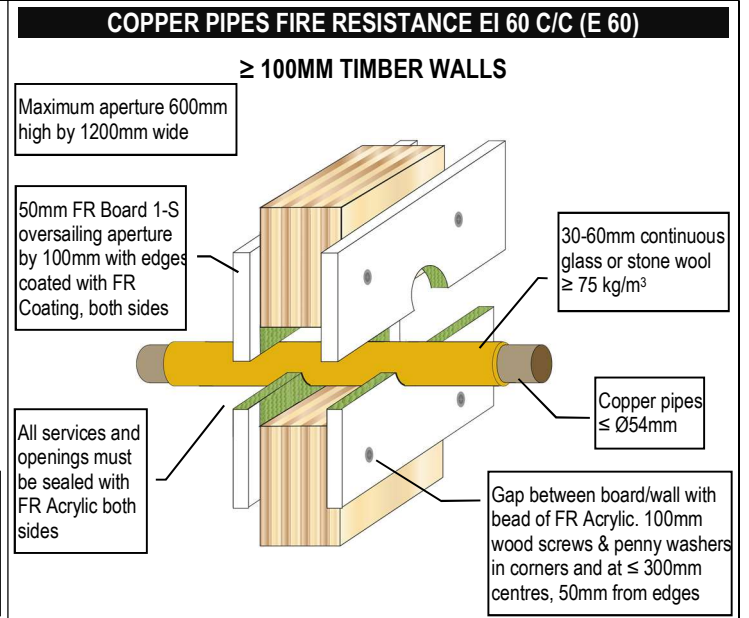
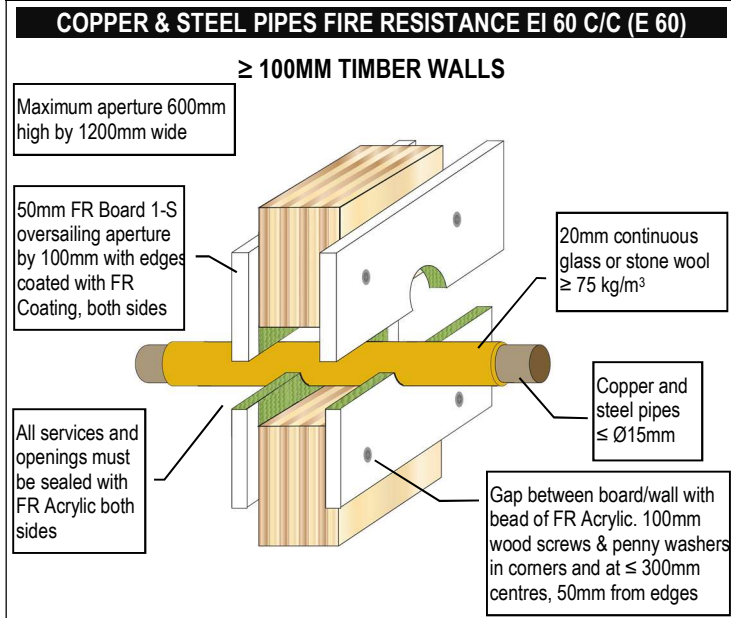
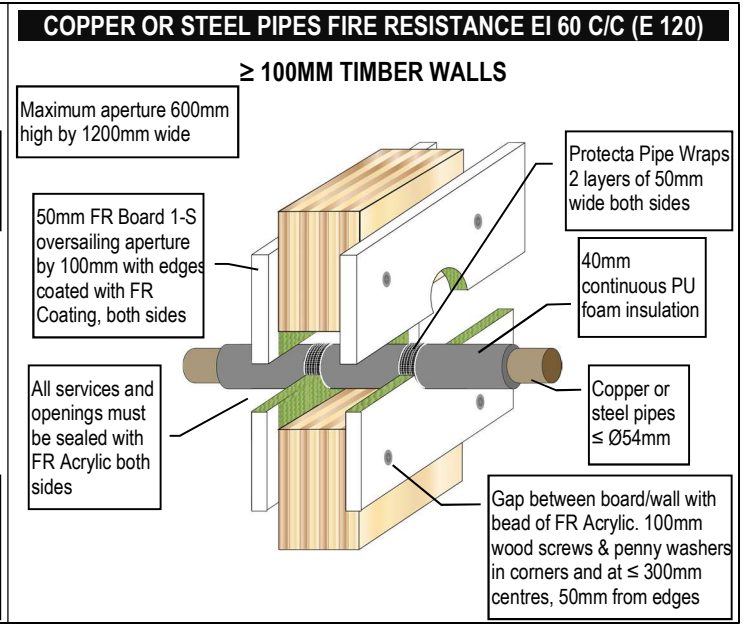
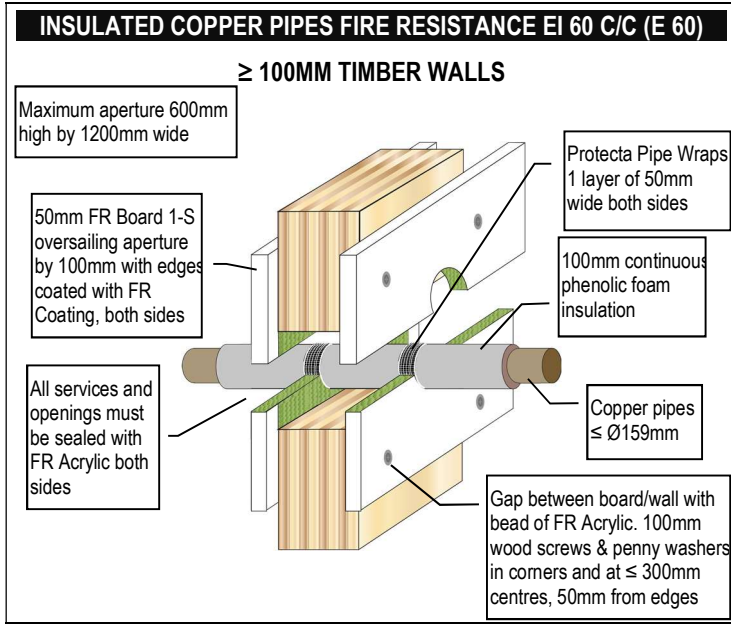


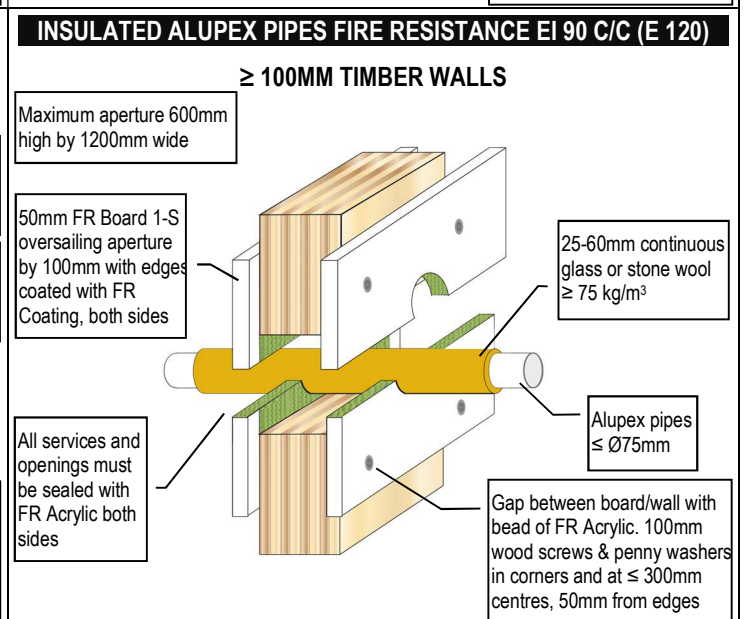
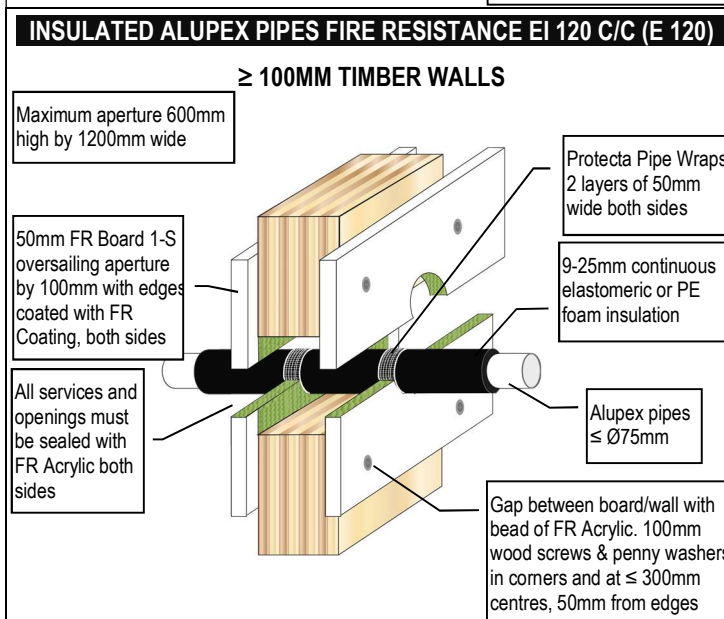
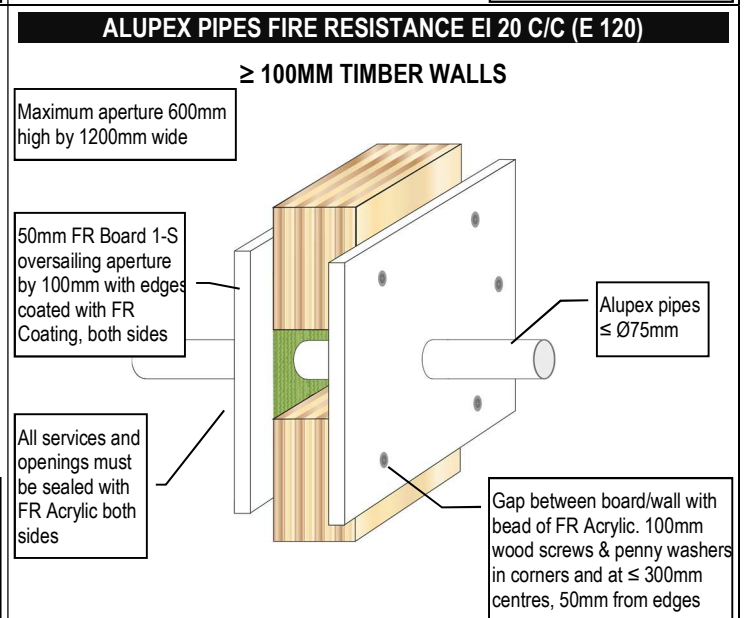
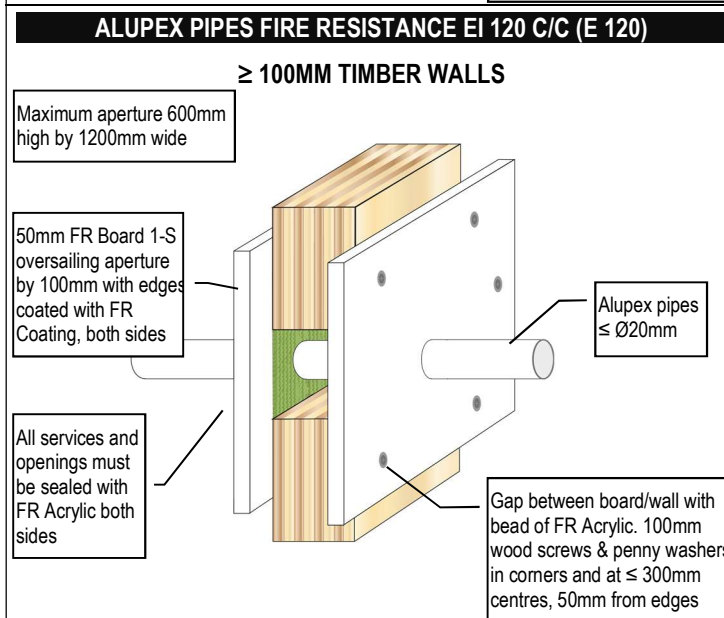
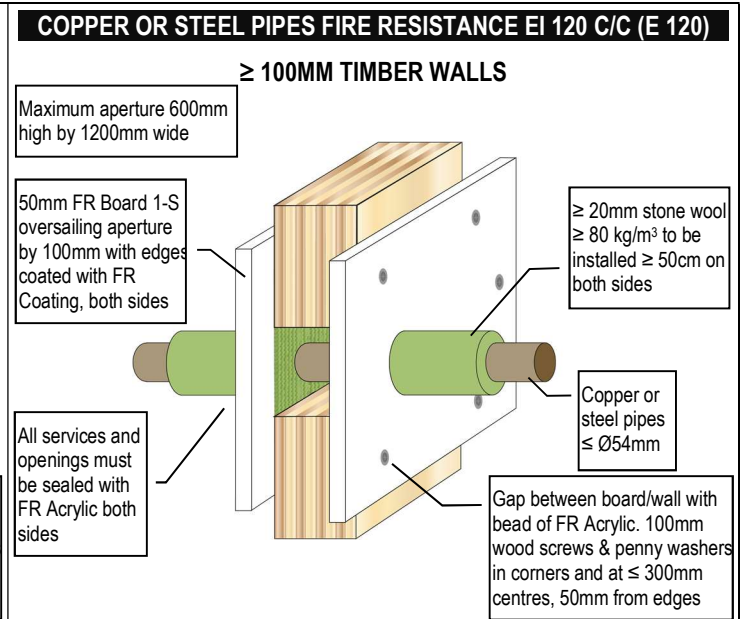
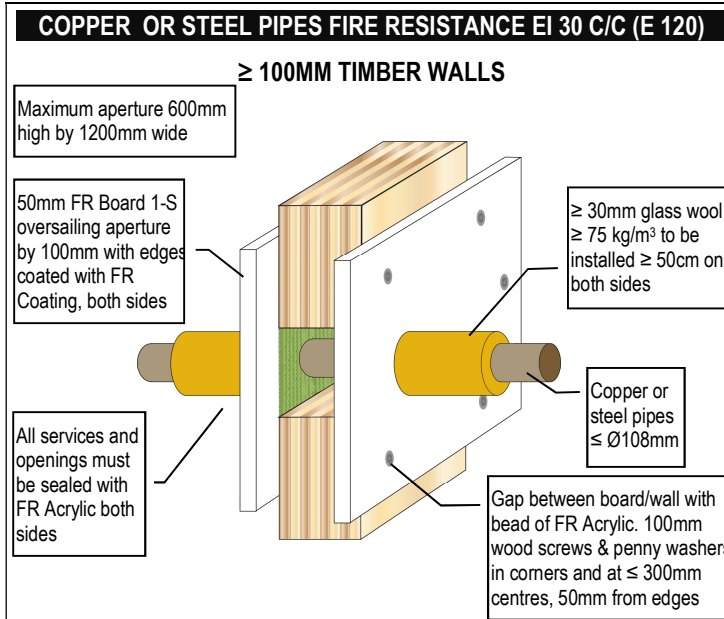


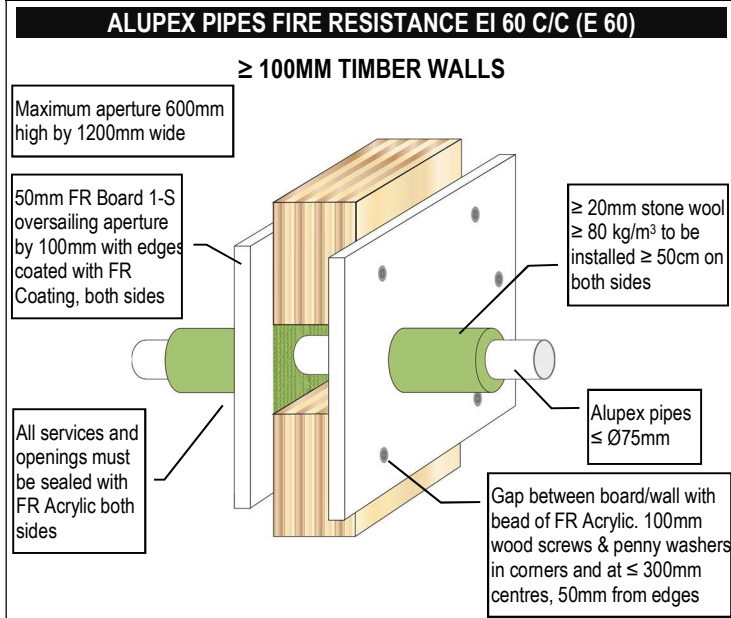
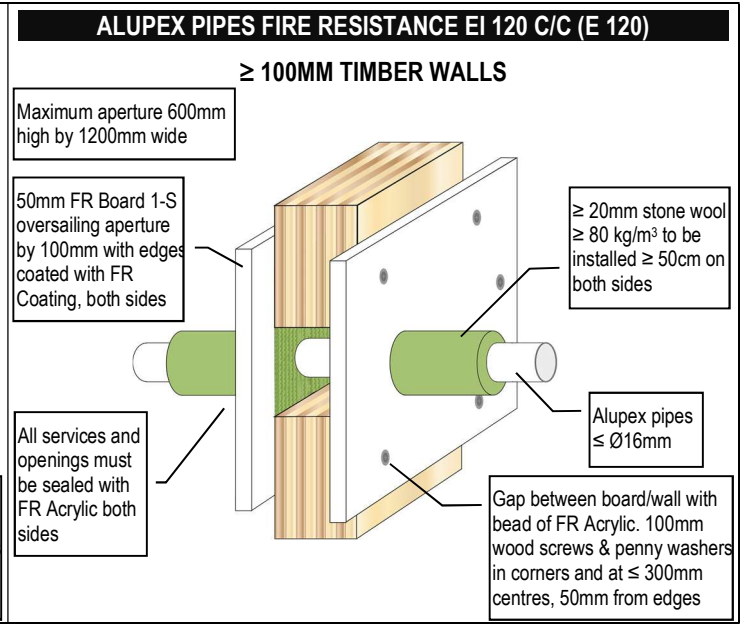
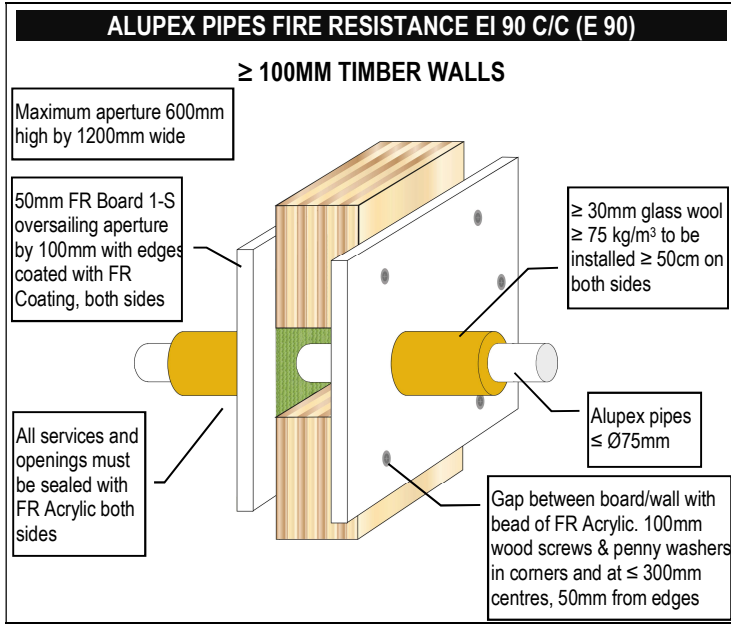












INSULATED METAL PIPES WITH FR GRAPHITE FIRE RESISTANCE EI 60-120

≥ 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 alupex pipes | 6mm PE foam insulation | EI 60 C/C (E 90 C/C) |

PVC PIPES FIRE RESISTANCE EI 60 U/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

PVC-U & PVC-C pipe ≤ Ø32mm with wall thickness 1.0-2.4mm

PE, ABS and SAN+PVC pipes ≤ Ø32mm with wall thickness 2.0-3.0mm

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

PE PIPES FIRE RESISTANCE EI 60 U/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

PE, ABS and SAN+PVC pipes ≤ Ø32mm with wall thickness 2.0-3.0mm

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

PP PIPES FIRE RESISTANCE EI 60 U/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

PP pipe ≤ Ø32mm with wall thickness 1.8-2.2mm

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

PP PIPES FIRE RESISTANCE EI 45 C/C (E 45)

≥ 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

PP pipe ≤ Ø32mm with wall thickness 2.3-4.4mm

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

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

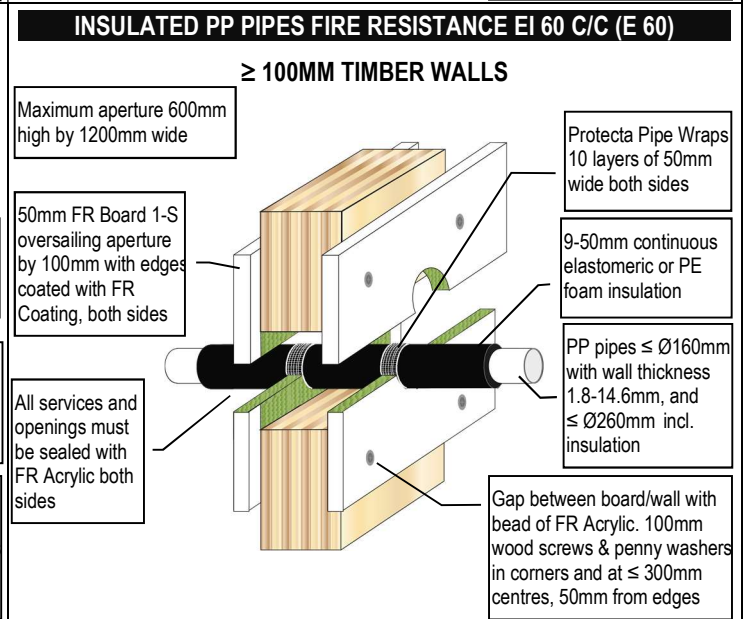
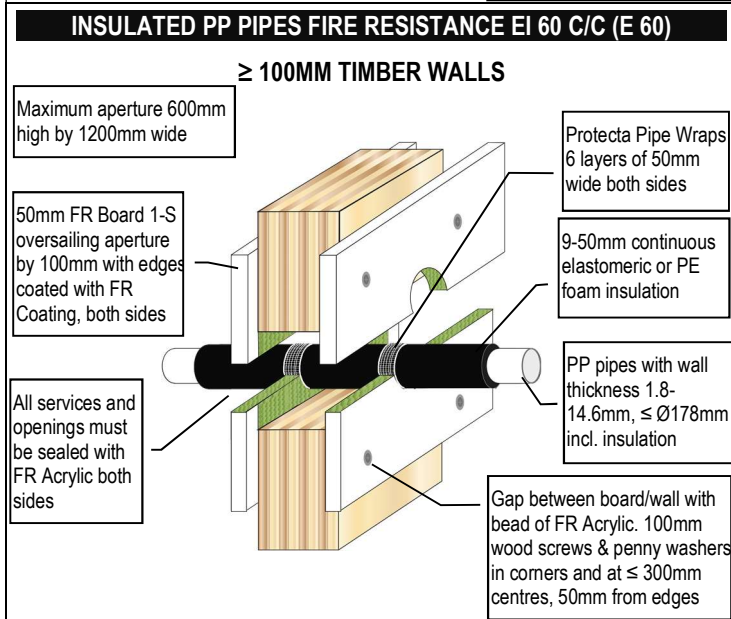
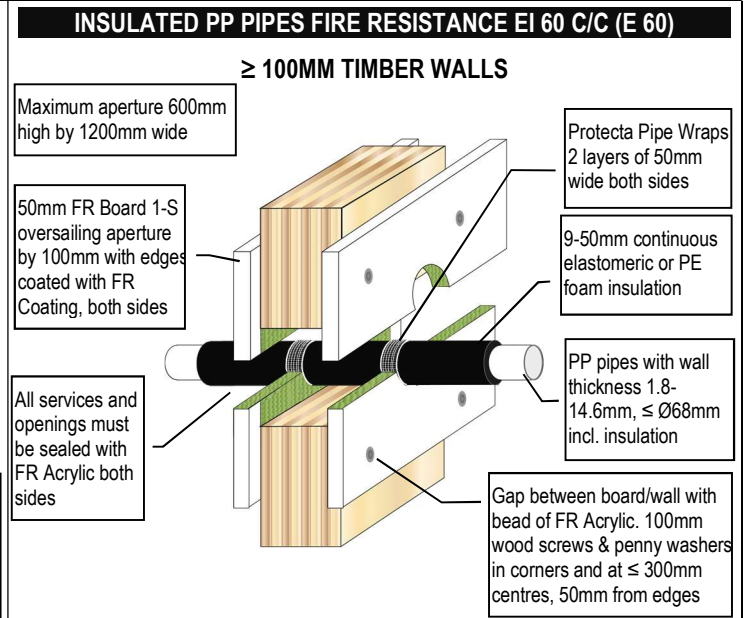
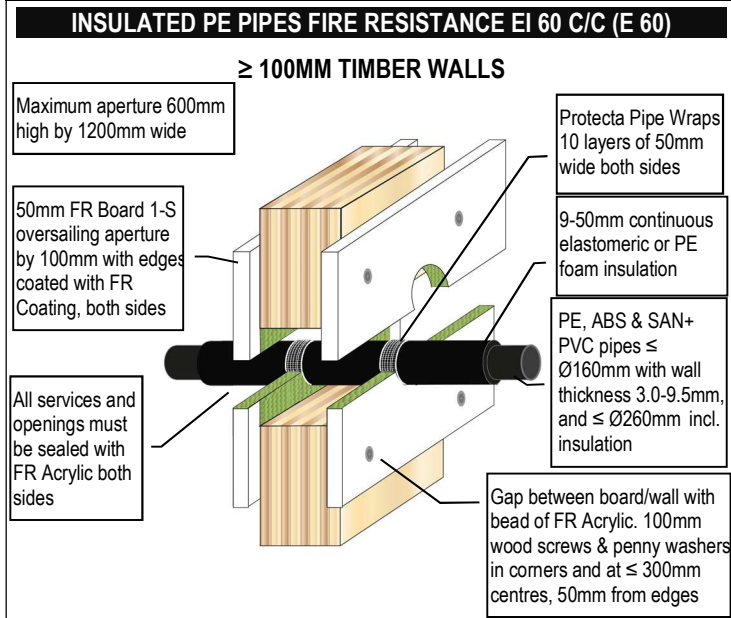
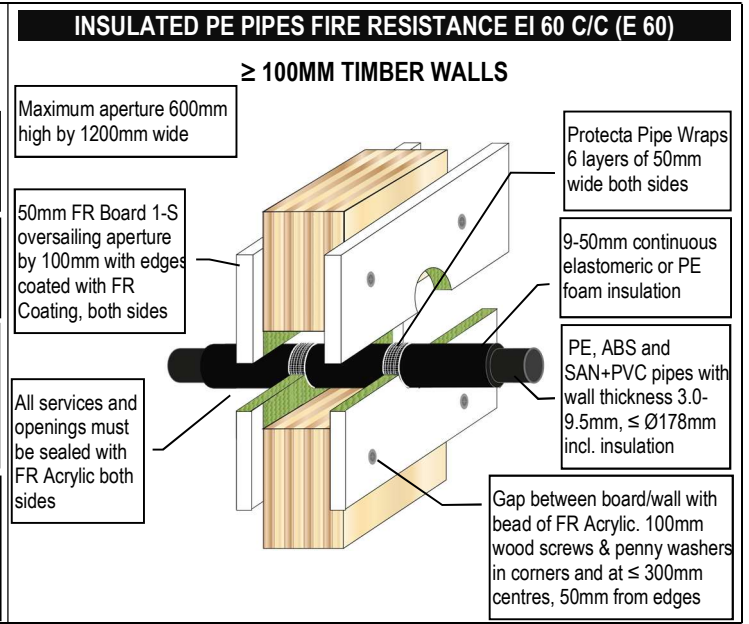
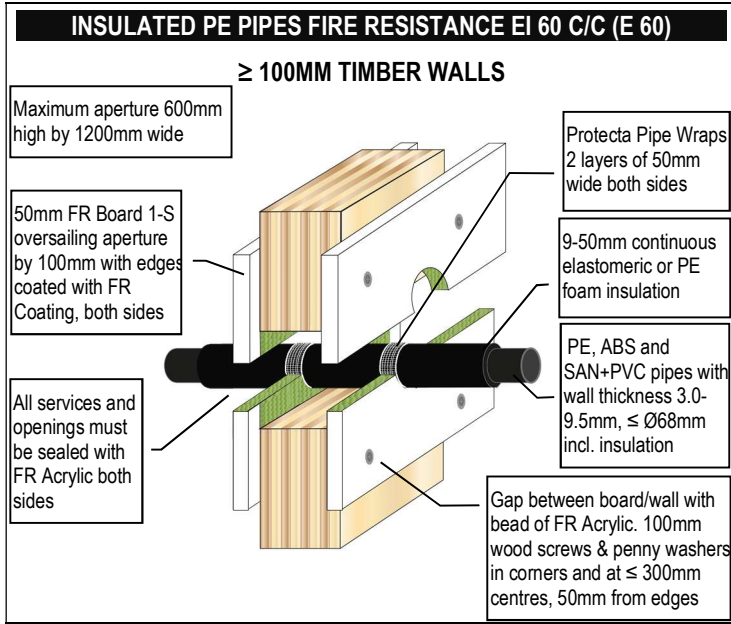
Protecta Pipe Wraps to both sides

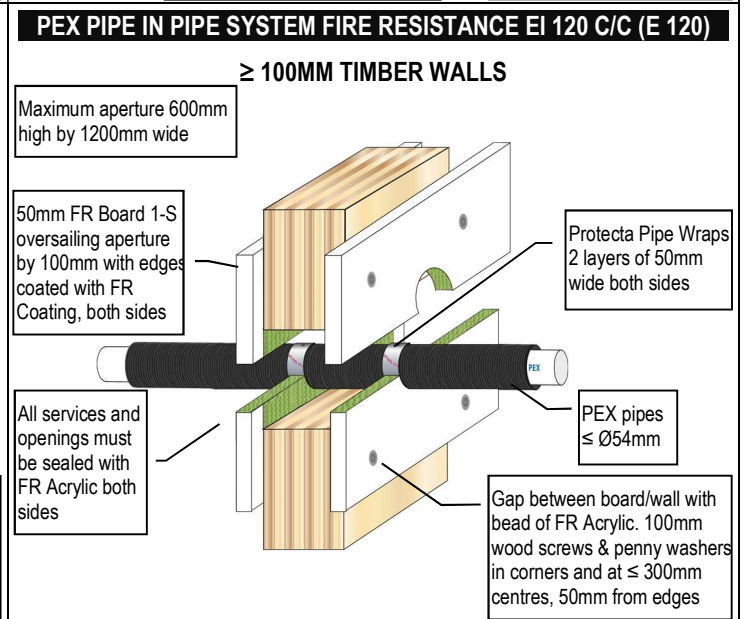
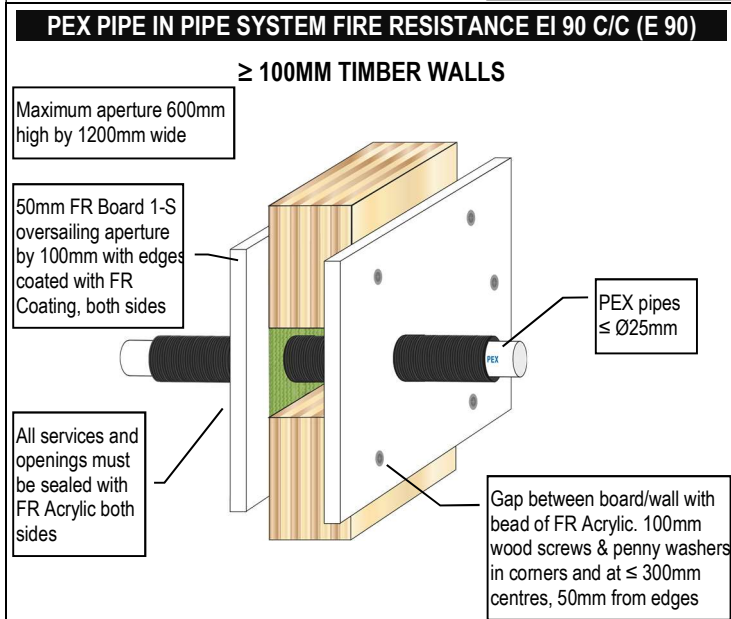
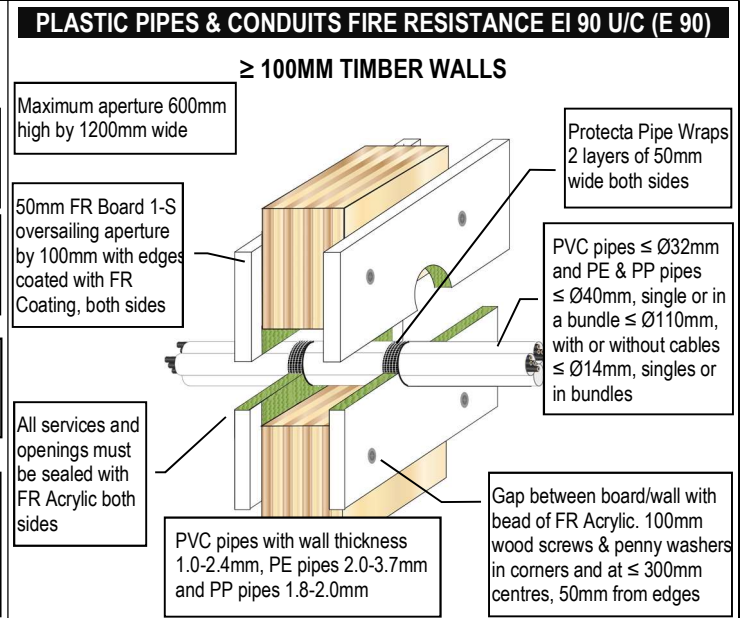
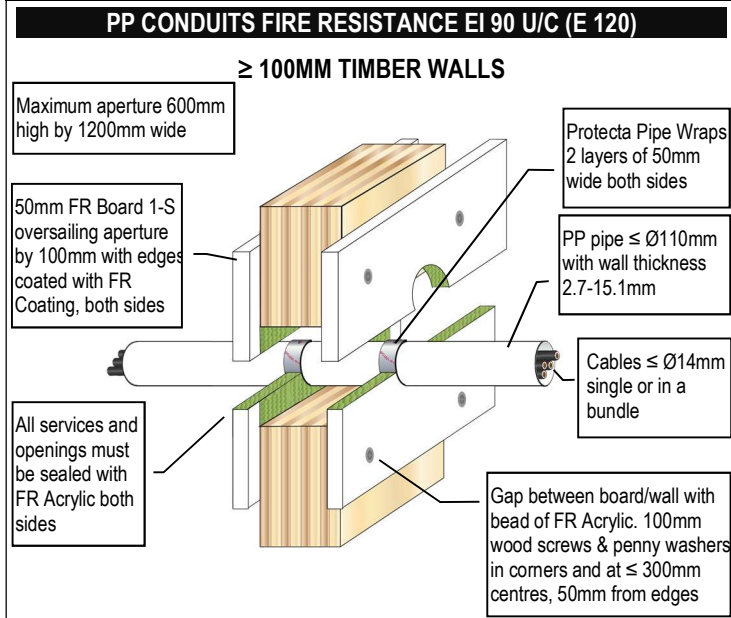
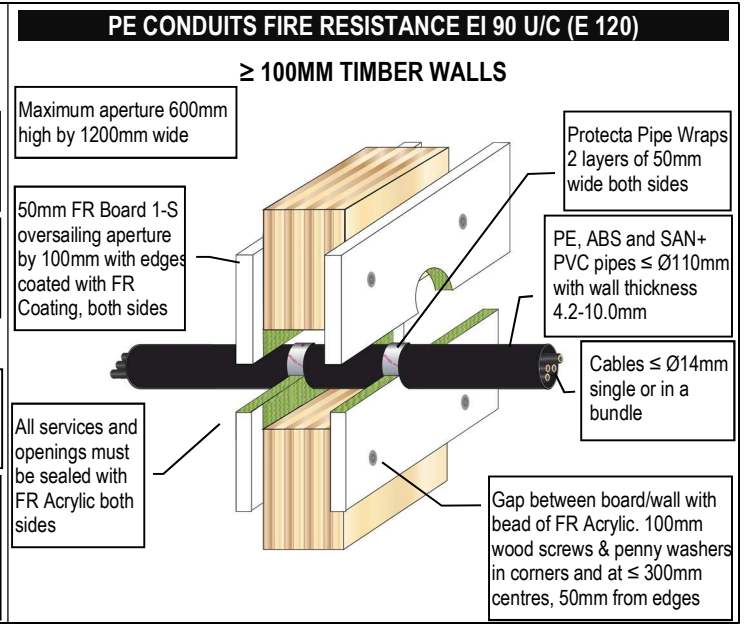
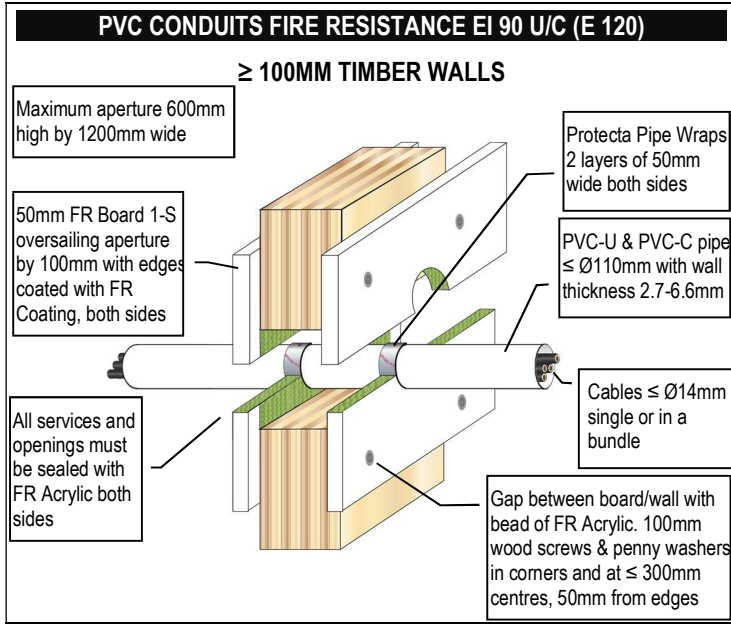
Plastic pipes

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 ≤ 300mm centres, 50mm from edges

| Services | Pipe Wall Thickness | FR Pipe Wrap | Classification |
|-----------------------------|---------------------|-------------------------|------------------------|
| ≤ Ø 40mm PVC-U & PVC-C | 1.0 – 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) |





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

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

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

POLYBUTYLENE 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

Polybutylene pipe ≤ Ø28mm with wall thickness 1.5-2.6mm

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

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

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

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

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 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

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

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

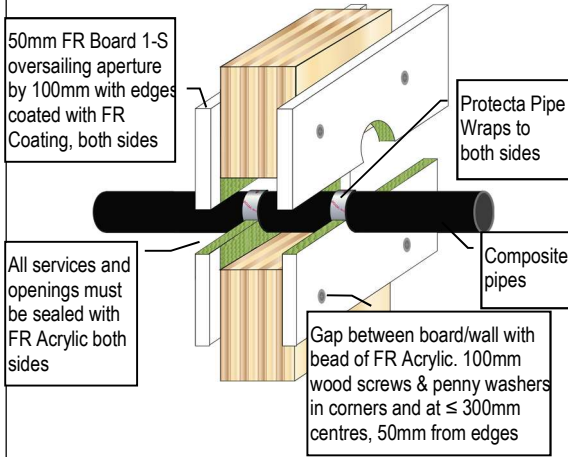
| Services | FR Pipe Wrap | Classification |
|-------------------------|------------------------|----------------------|
| Ø 32mm BluePower pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 90 U/U) |
| Ø 40mm BluePower pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 90 U/U) |
| Ø 50mm BluePower pipes | 50 x 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

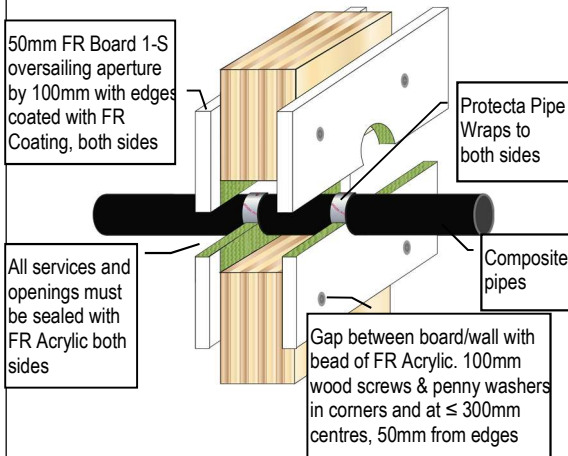


COMPOSITE HULIOT ULTRA SILENT PIPES FIRE RESISTANCE EI 90

≥ 100MM TIMBER WALLS

| Services | FR Pipe Wrap | Classification |
|------------------------------------|------------------------|-----------------------|
| Ø 32mm Huliote Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 40mm Huliote Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 50mm Huliote Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 75mm Huliote Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 90mm Huliote Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 110mm Huliote Ultra Silent pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 90 U/C) |
| Ø 125mm Huliote Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 90 U/C) |
| Ø 160mm Huliote Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 120 C/C) |
| Ø 200mm Huliote Ultra Silent pipes | 50 x 10.8mm (6 layers) | EI 90 C/C (E 120 C/C) |

Maximum aperture 600mm high by 1200mm wide

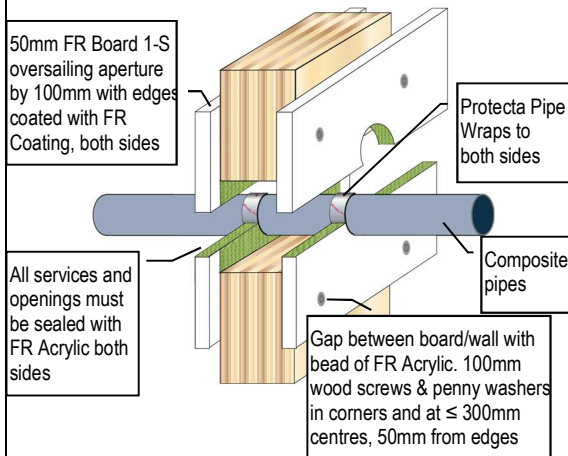


COMPOSITE POLO-KAL NG PLASTIC PIPES FIRE RESISTANCE EI 120

≥ 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

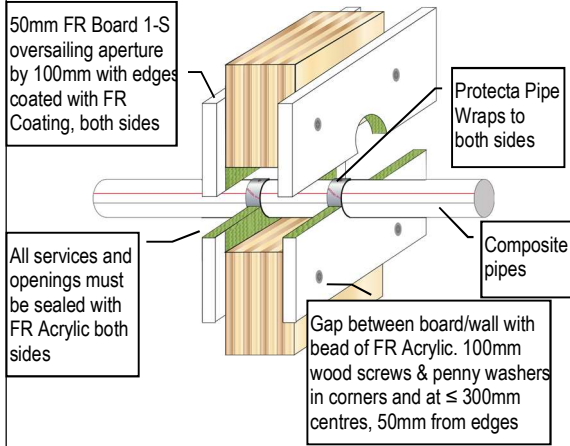


COMPOSITE REHAU RAUPIANO PLUS PLASTIC PIPES FIRE RESISTANCE EI 120

Maximum aperture 600mm high by 1200mm wide

≥ 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) |

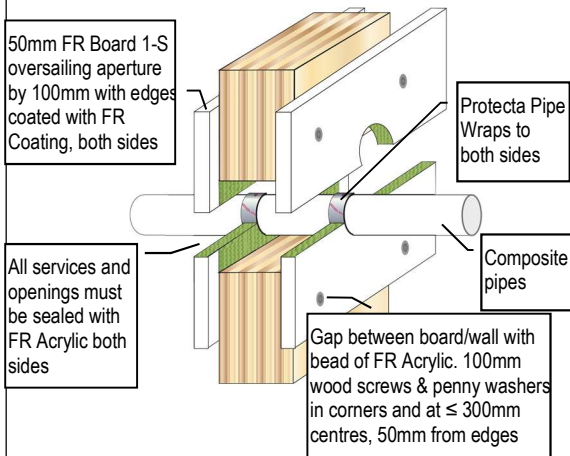


COMPOSITE UPONOR DECIBEL PIPES FIRE RESISTANCE EI 90

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) |

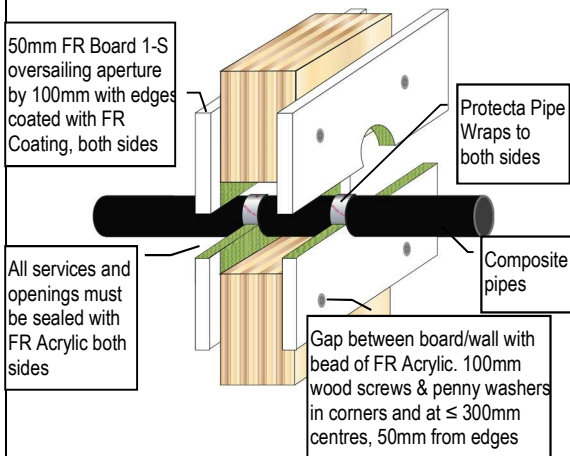


COMPOSITE VALSIR BLACKFIRE PIPES FIRE RESISTANCE EI 0-120

Maximum aperture 600mm high by 1200mm wide

≥ 100MM TIMBER WALLS

| Services | FR Pipe Wrap | Classification |
|--------------------------------|------------------------|------------------------|
| Ø 32mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 40mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 50mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 75mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 90mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 110mm Valsir Blackfire pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 125mm Valsir Blackfire pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |
| Ø 160mm Valsir Blackfire pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |



COMPOSITE VALSIR PP3 PIPES FIRE RESISTANCE EI 20-120

≥ 100MM TIMBER WALLS

| Services | FR Pipe Wrap | Classification |
|--------------------------|------------------------|------------------------|
| Ø 32mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 40mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 50mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 20 U/U (E 120 U/U) |
| Ø 75mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 90mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 110mm Valsir PP3 pipes | 50 x 3.6mm (2 layers) | EI 120 U/C (E 120 U/C) |
| Ø 125mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |
| Ø 160mm Valsir PP3 pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

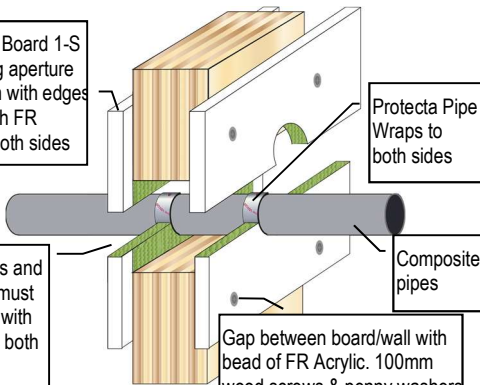
Maximum aperture 600mm high by 1200mm wide

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

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



COMPOSITE VALSIR TRIPLUS PLASTIC PIPES FIRE RESISTANCE EI 0-120

≥ 100MM TIMBER WALLS

| Services | FR Pipe Wrap | Classification |
|------------------------------|------------------------|------------------------|
| Ø 32mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 40mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 50mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | (E 120 U/U) |
| Ø 75mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 90mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 110mm Valsir Triplus pipes | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120 U/C) |
| Ø 125mm Valsir Triplus pipes | 50 x 10.8mm (6 layers) | EI 90 U/C (E 120 U/C) |
| Ø 160mm Valsir Triplus pipes | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120 U/C) |

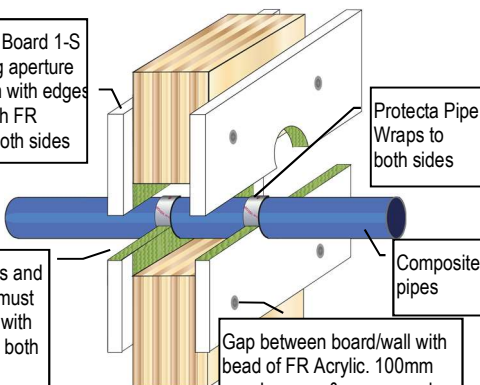
Maximum aperture 600mm high by 1200mm wide

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

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



COMPOSITE WAVIN AS+ PLASTIC PIPES FIRE RESISTANCE EI 90

≥ 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) |

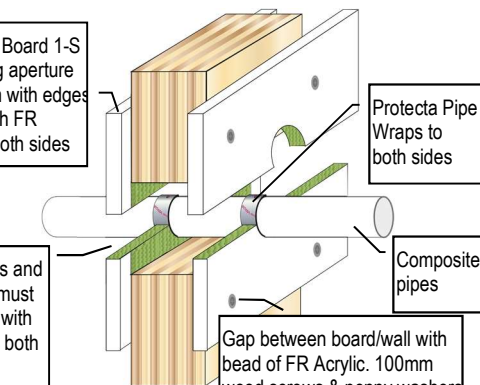
Maximum aperture 600mm high by 1200mm wide

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

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

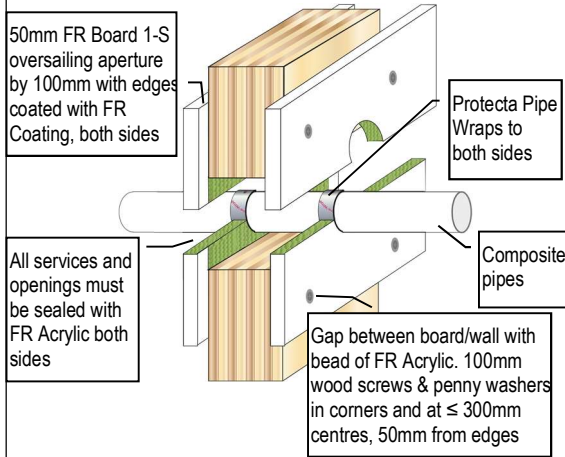


COMPOSITE WAVIN SITECH PLASTIC PIPES FIRE RESISTANCE EI 60-90

≥ 100MM TIMBER WALLS

Maximum aperture 600mm high by 1200mm wide

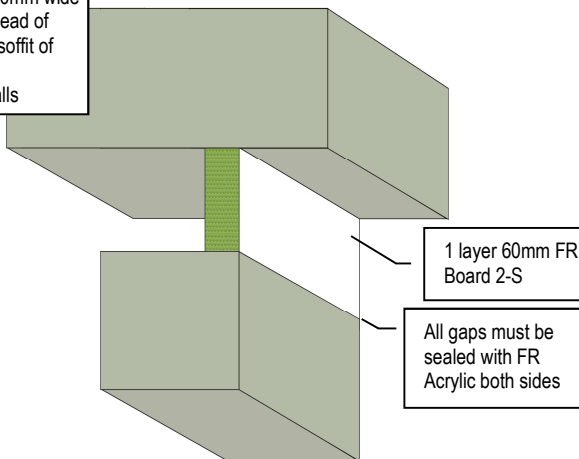
| Services | FR Pipe Wrap | Classification |
|----------------------------|-----------------------|-----------------------|
| Ø 32mm Wavin SiTech pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 40mm Wavin SiTech pipes | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120 U/U) |
| Ø 50mm Wavin SiTech 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 SEALS FIRE RESISTANCE EI 90 (E 240)

≥ 150MM RIGID WALLS

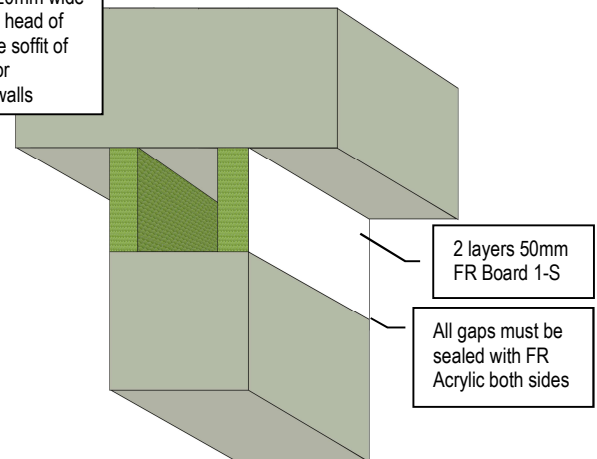
Maximum 1200mm wide between the head of walls and the soffit of floor slabs, or in/between walls



HORIZONTAL SEALS FIRE RESISTANCE EI 180 (E 240)

≥ 150MM RIGID WALLS

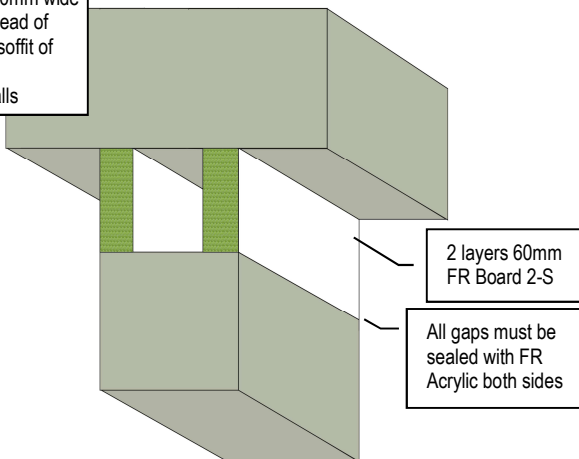
Maximum 1200mm wide between the head of walls and the soffit of floor slabs, or in/between walls



HORIZONTAL SEALS FIRE RESISTANCE EI 180 (E 240)

≥ 150MM RIGID WALLS

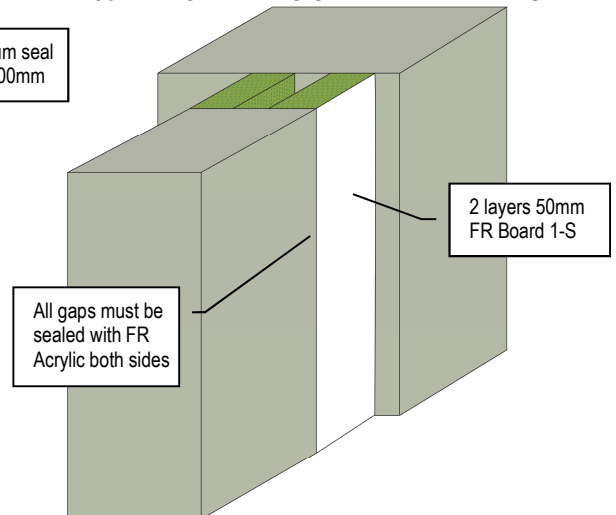
Maximum 1200mm wide between the head of walls and the soffit of floor slabs, or in/between walls

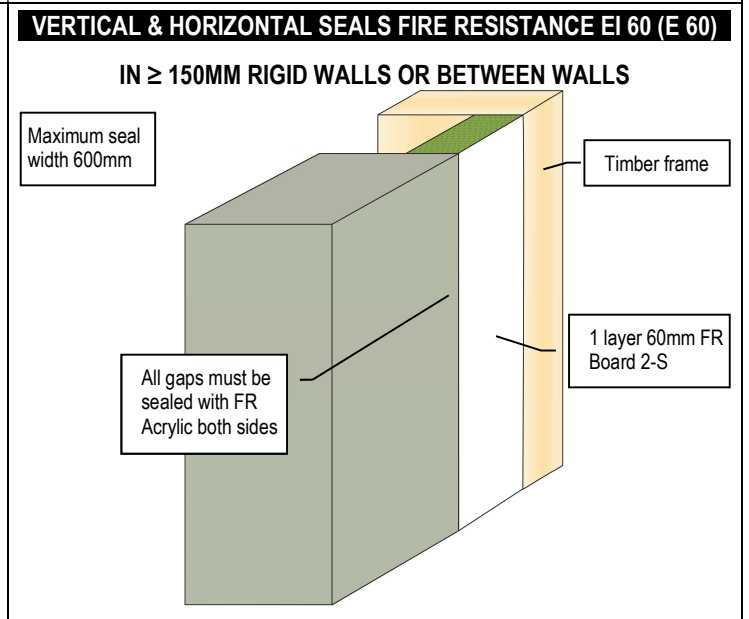
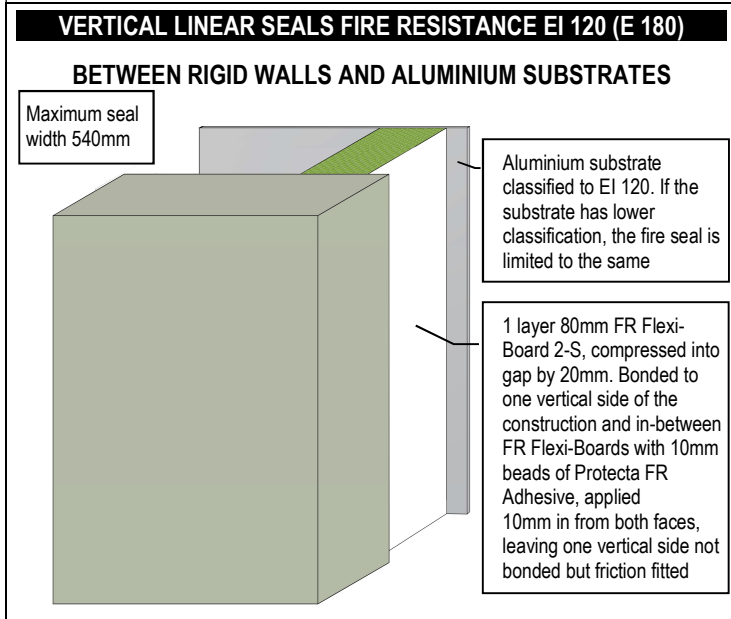
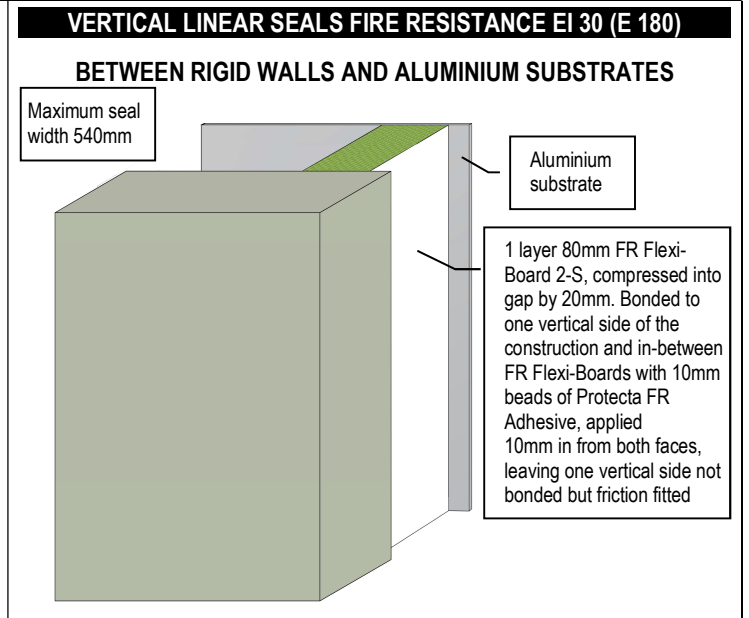
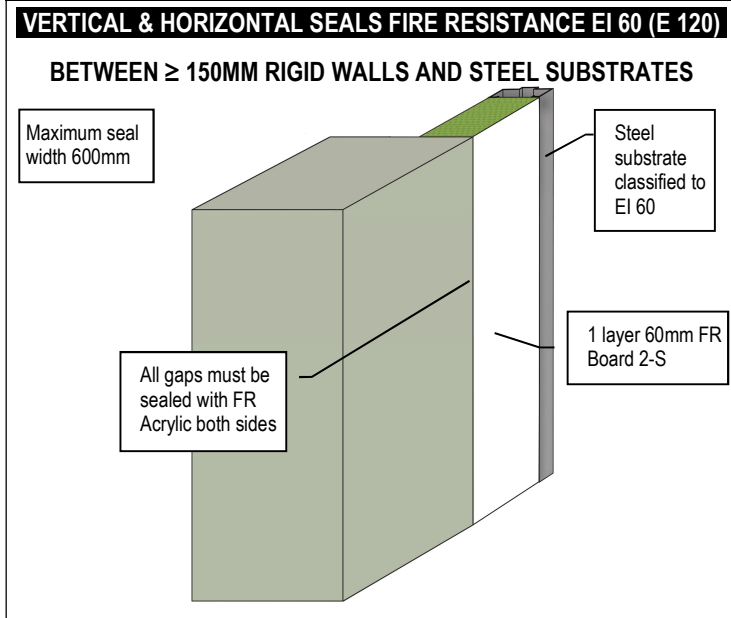
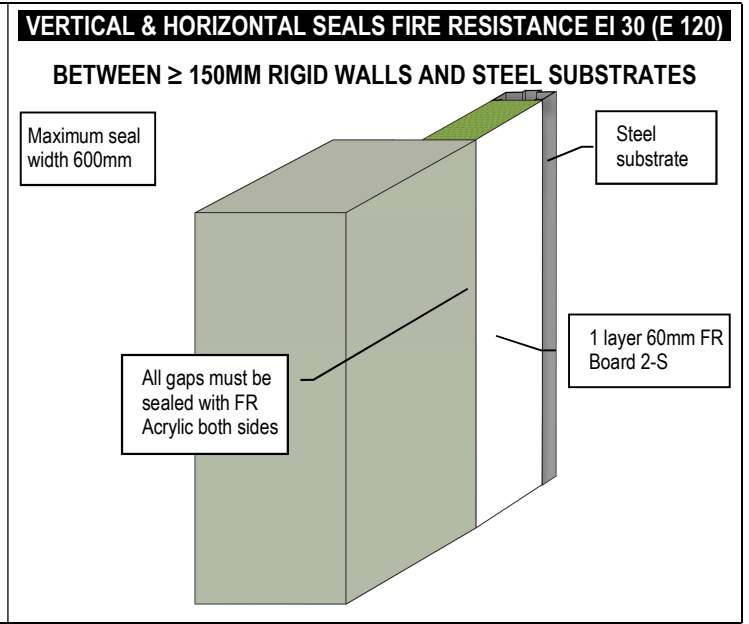
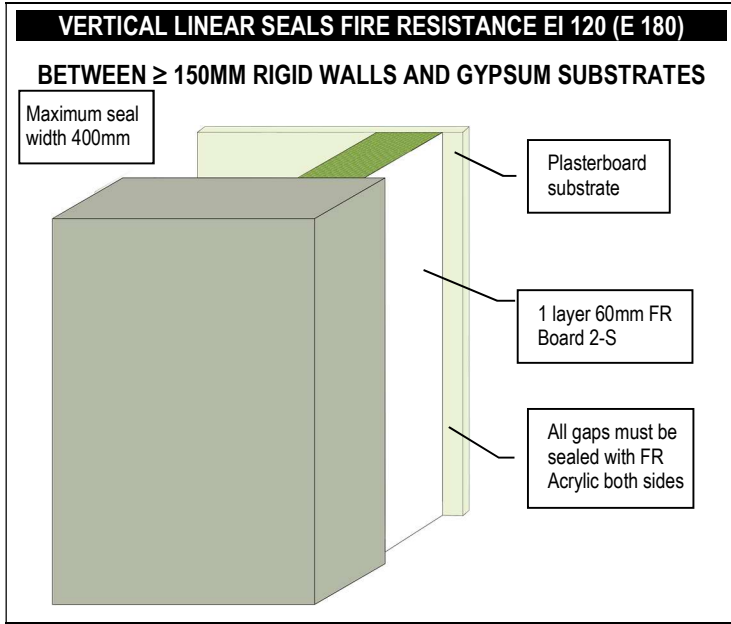


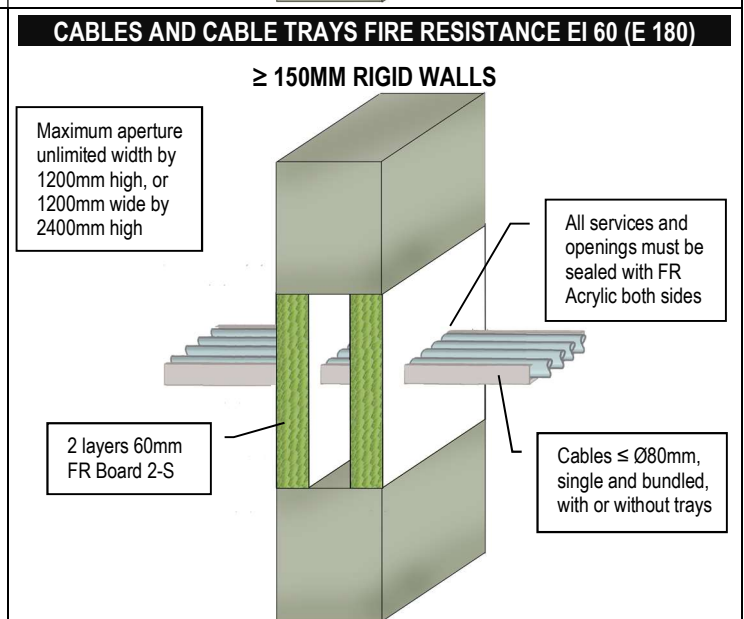
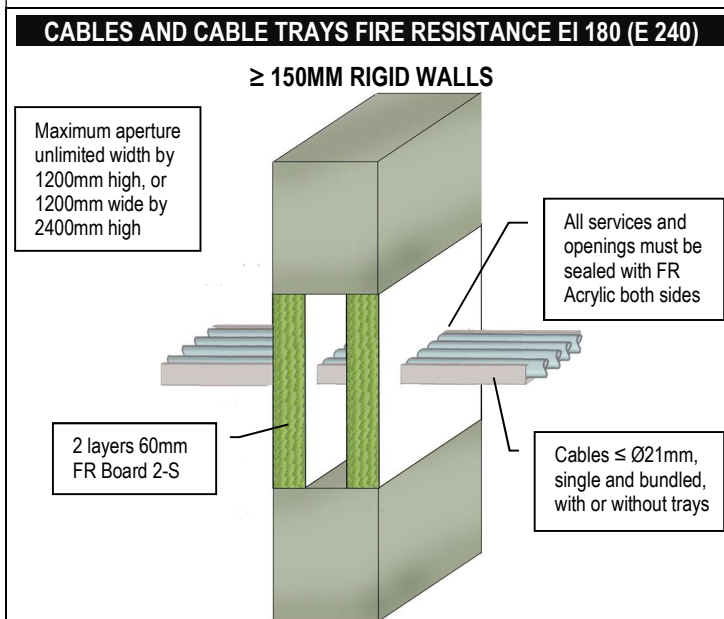
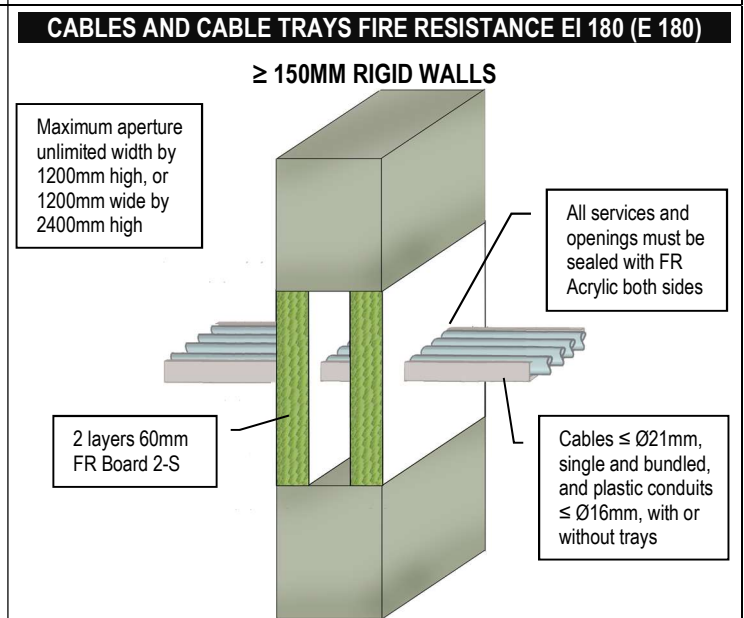
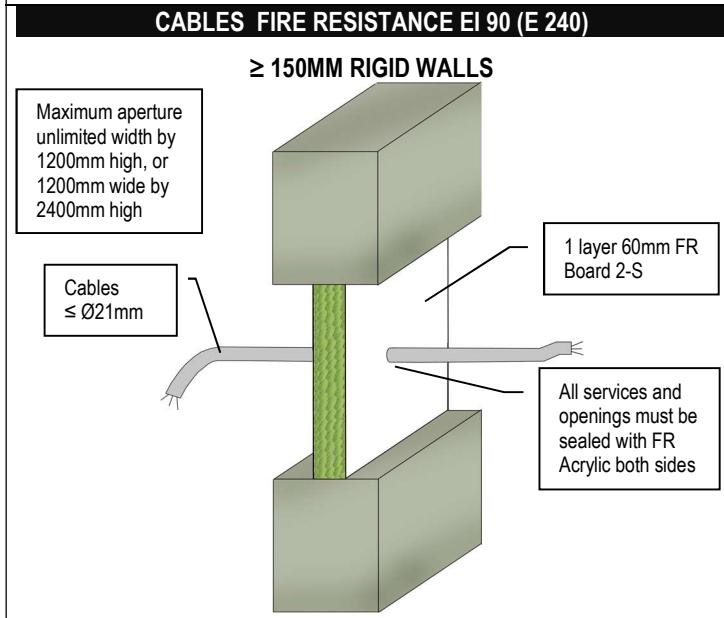
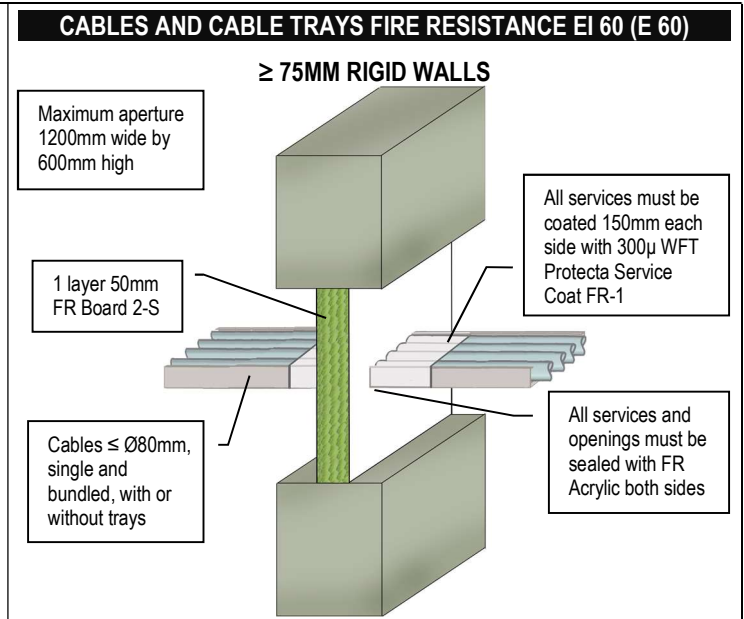
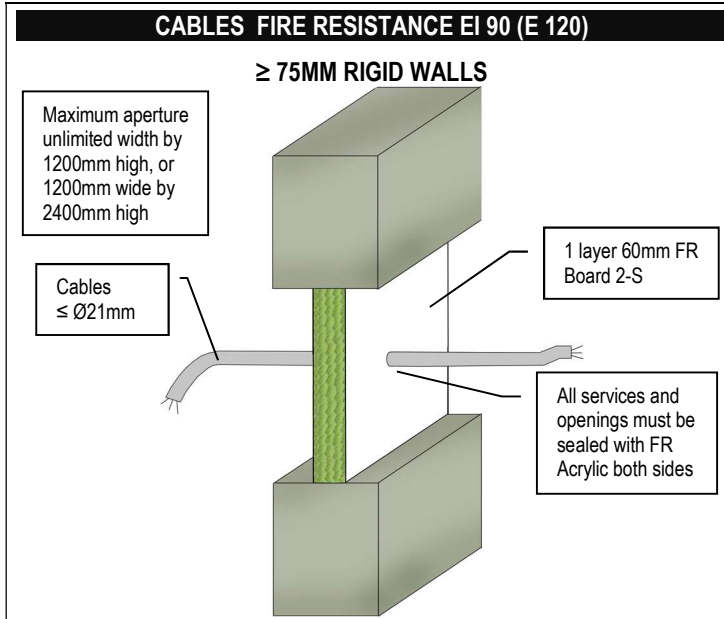
VERTICAL LINEAR SEALS FIRE RESISTANCE EI 120 (E 240)

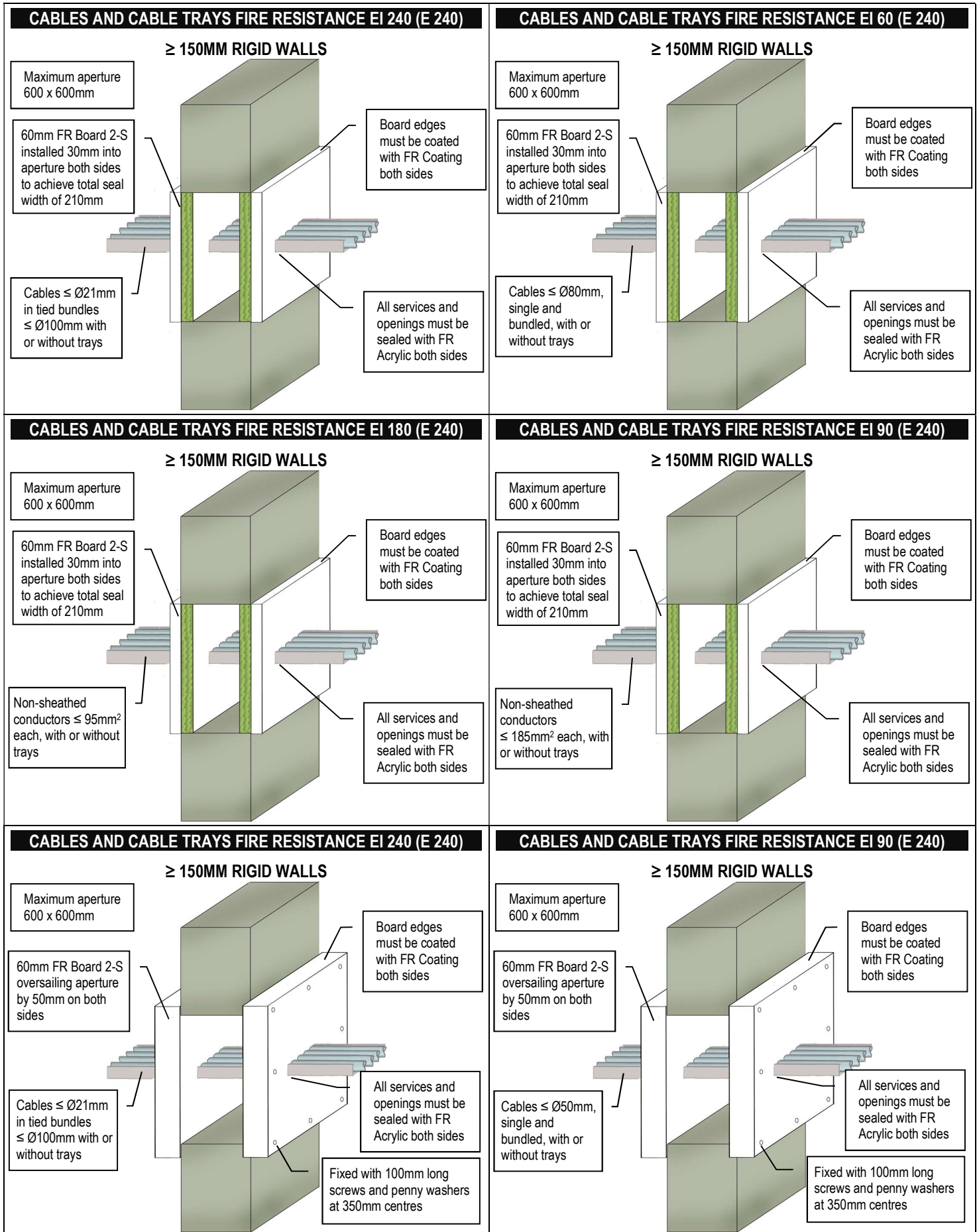
IN ≥ 150MM RIGID WALLS OR BETWEEN WALLS

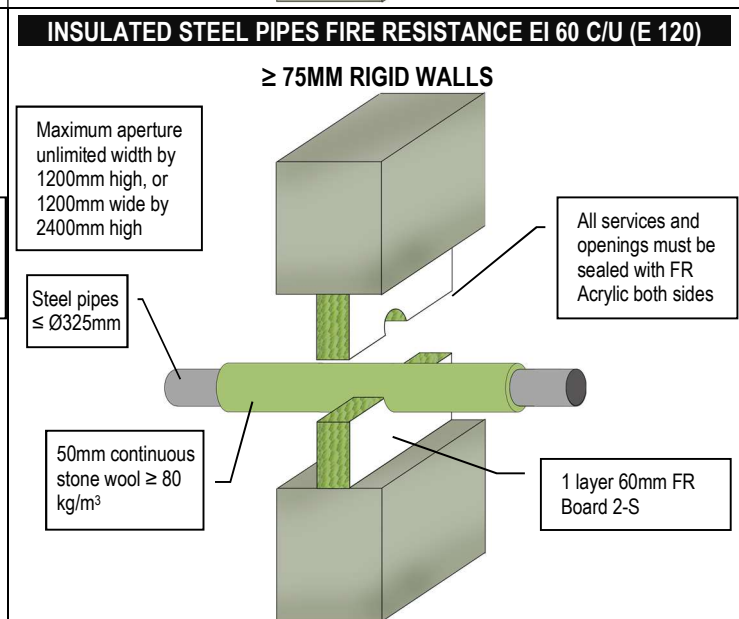
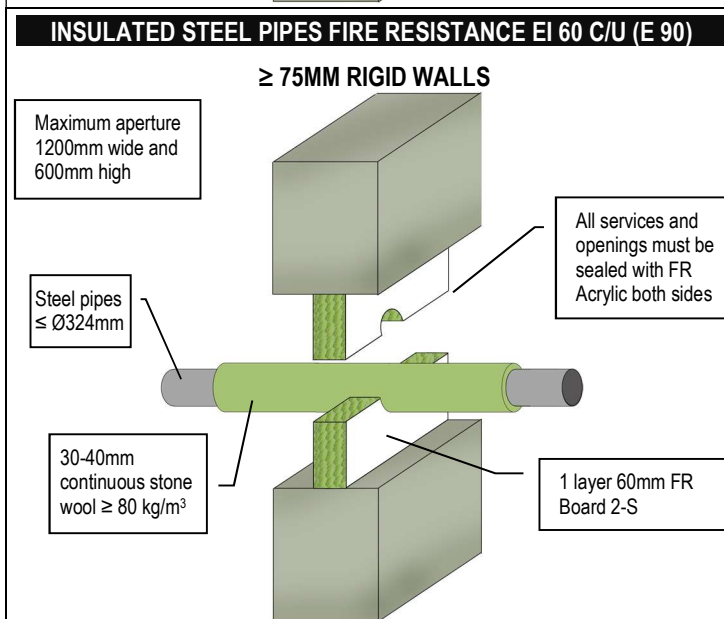
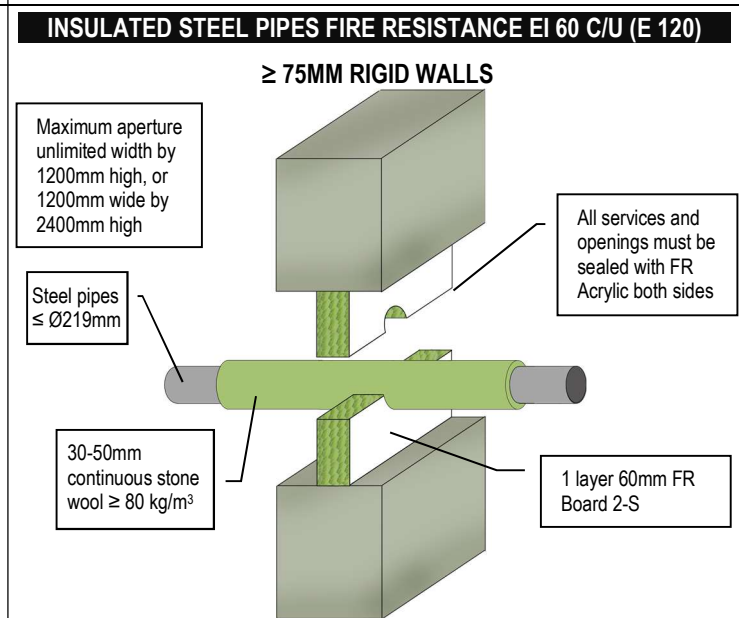
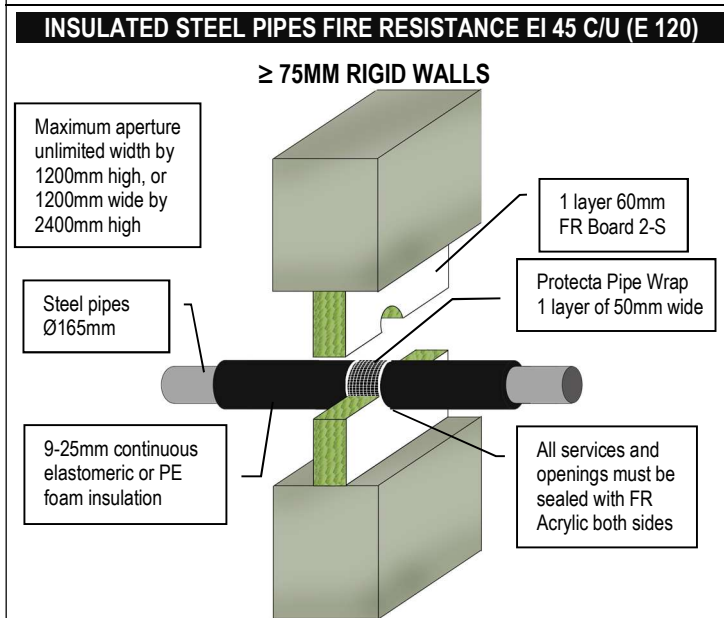
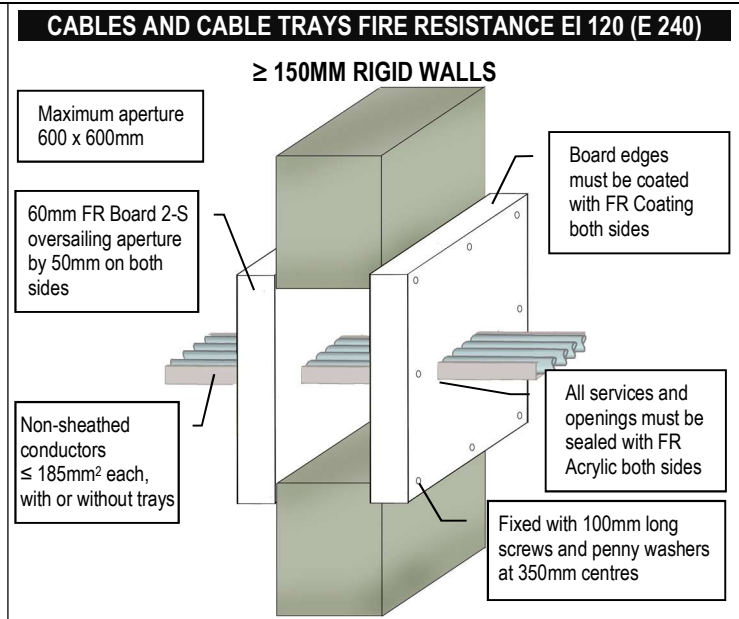
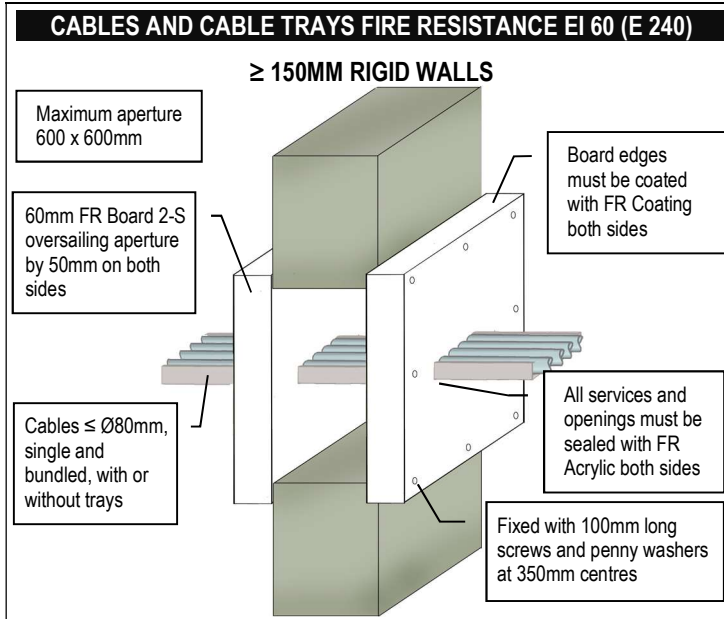
Maximum seal width 200mm

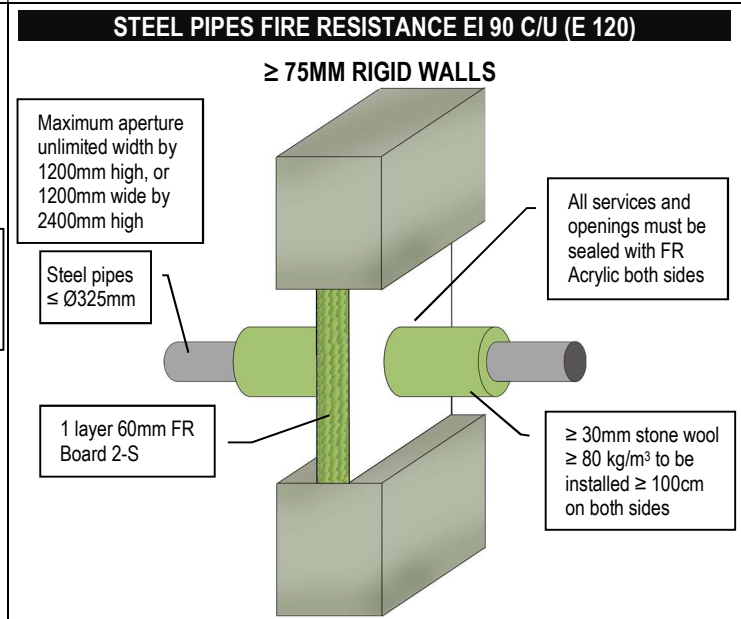
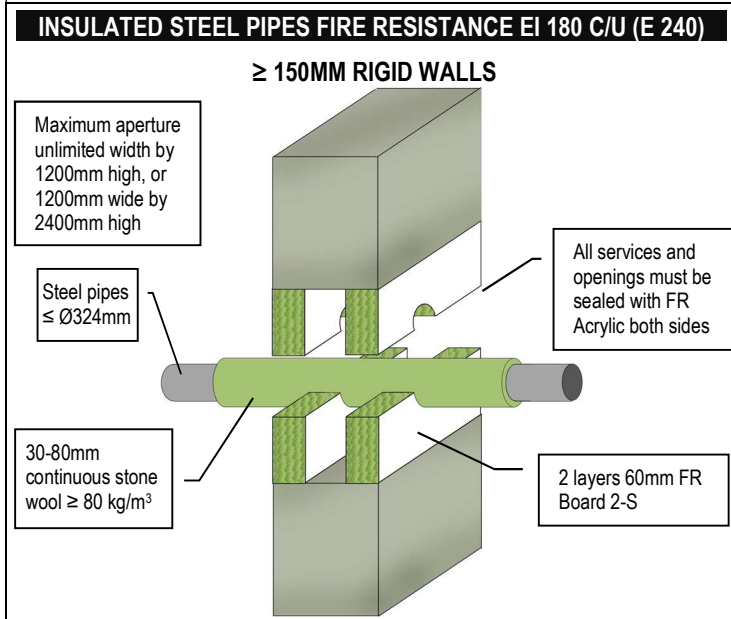
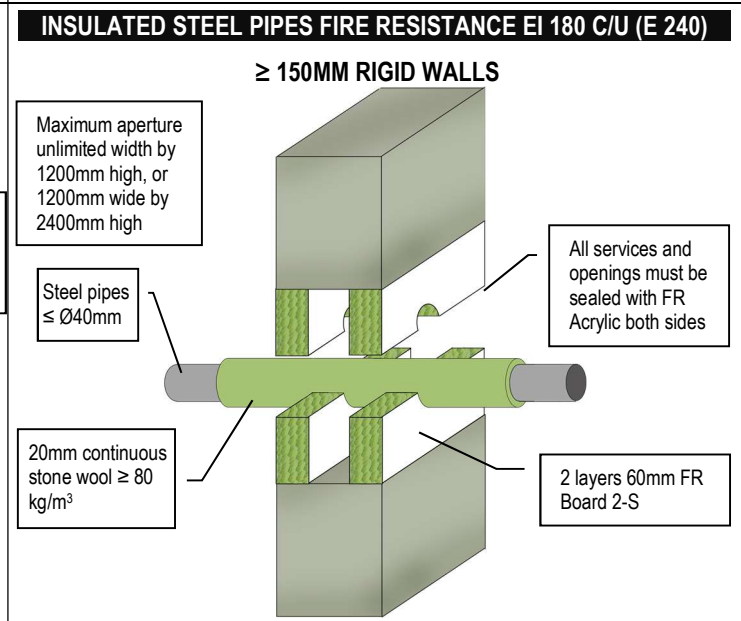
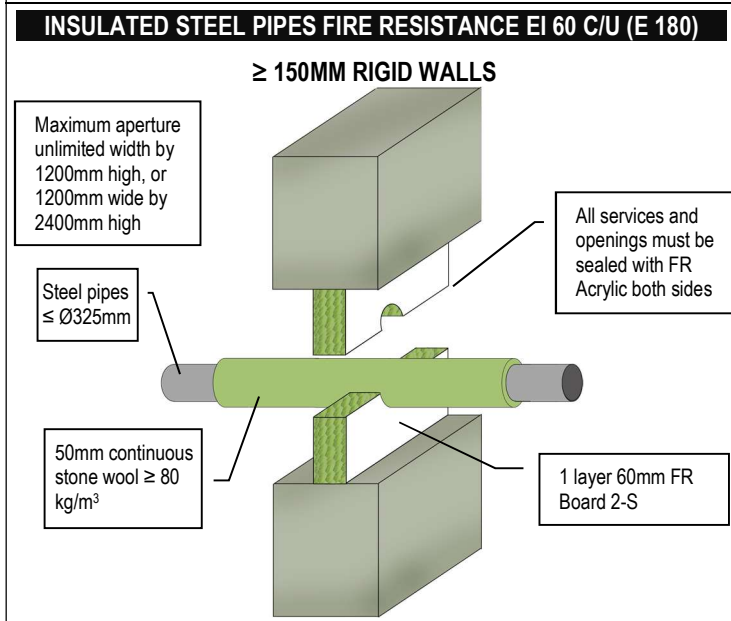
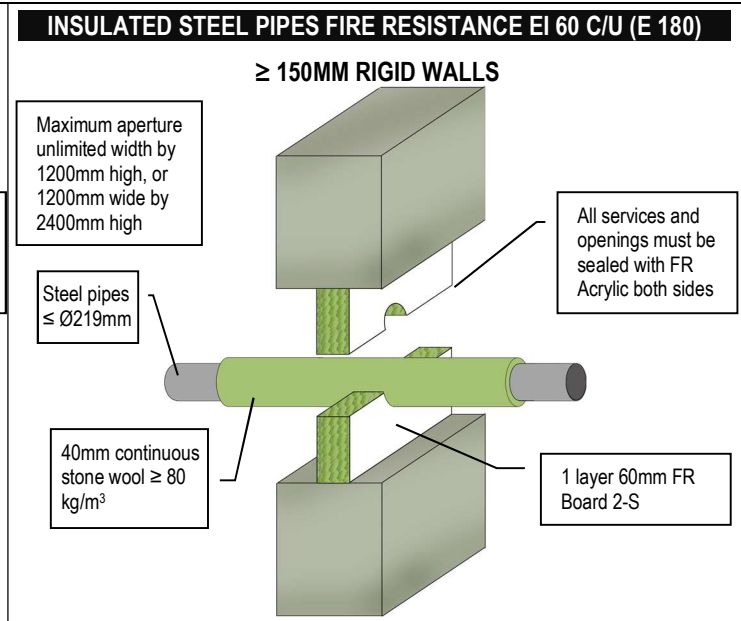
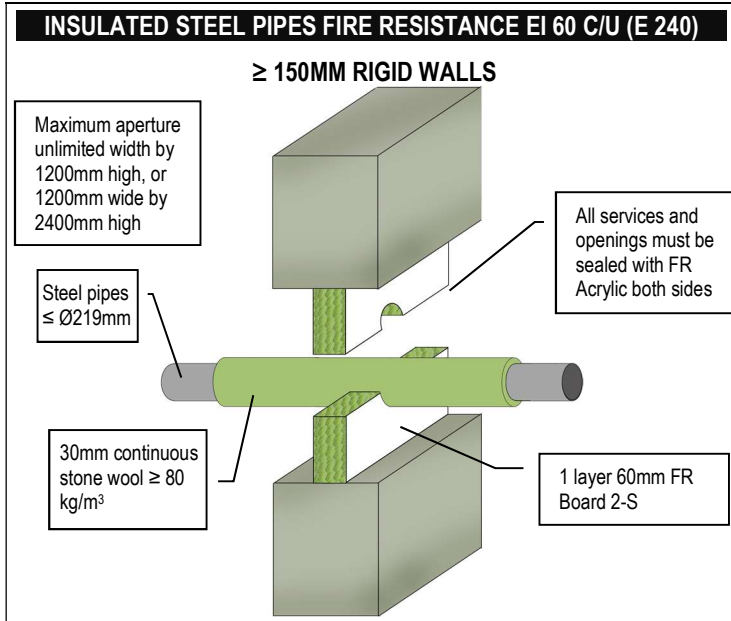


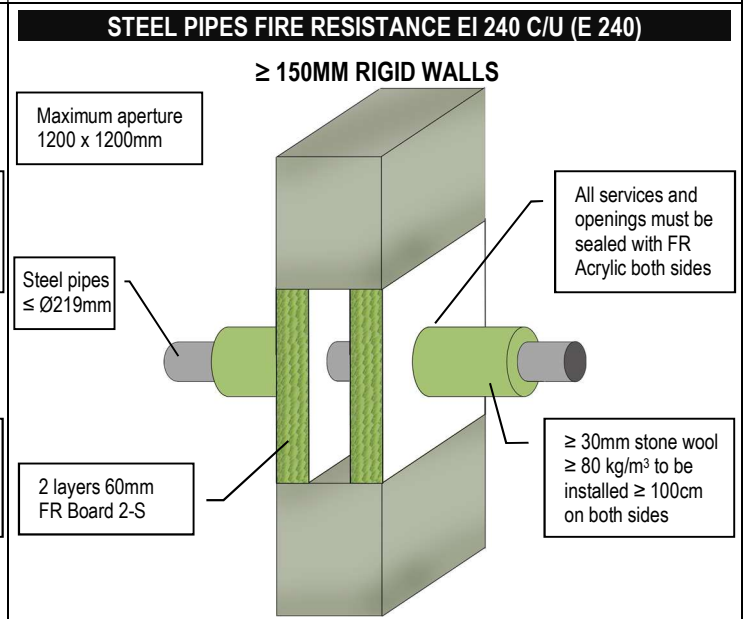
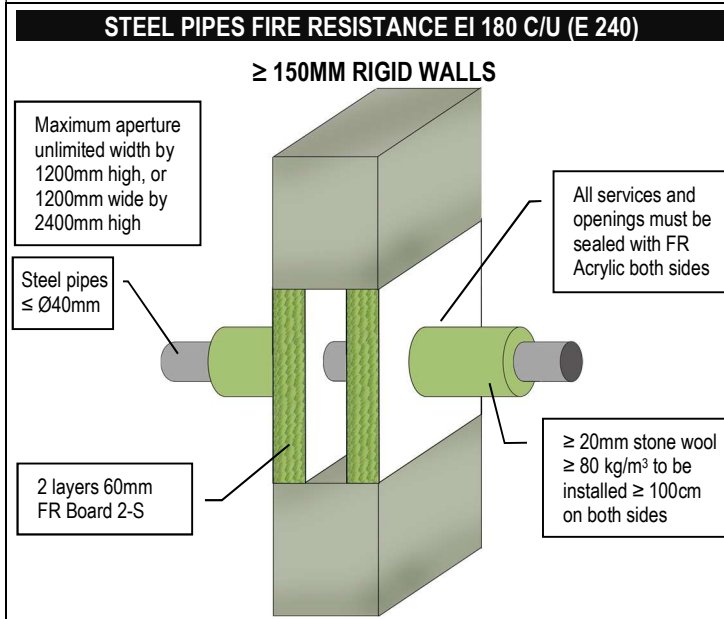
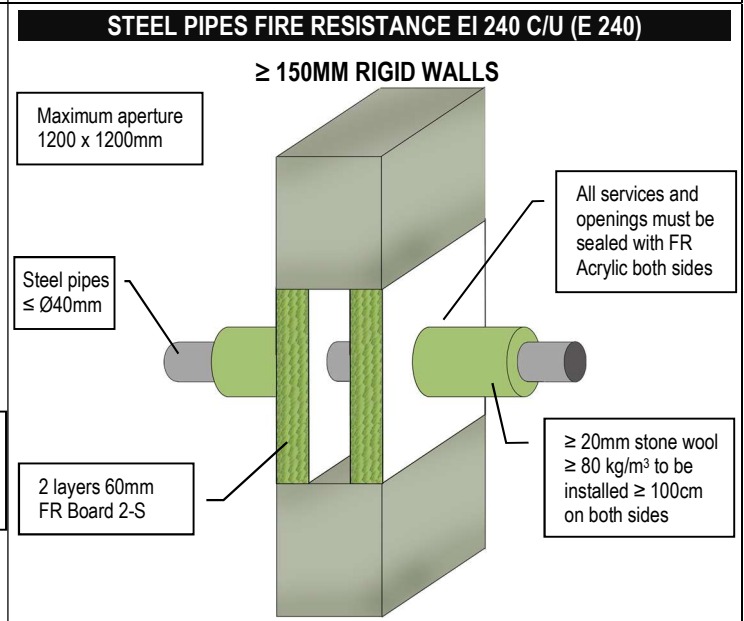
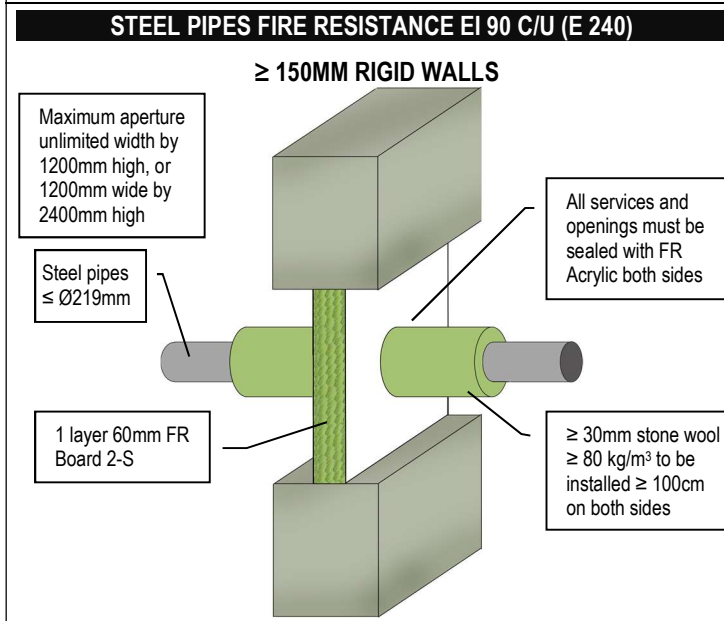
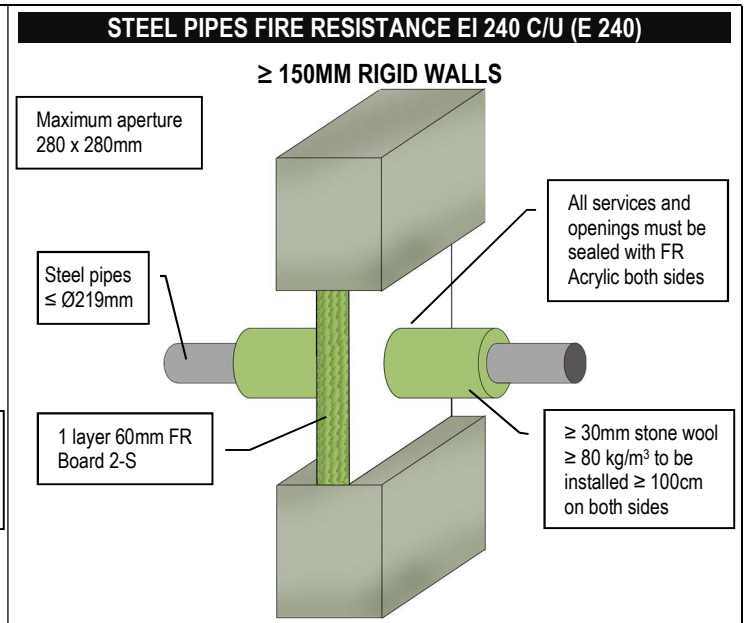
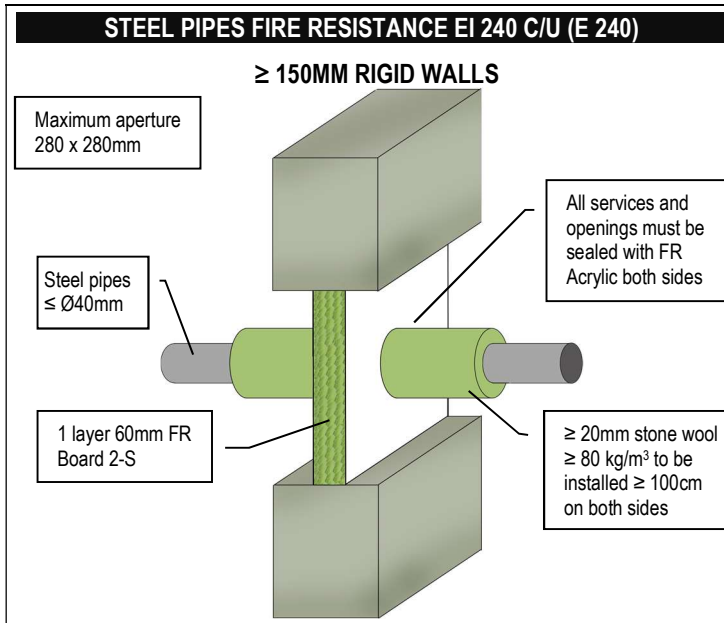


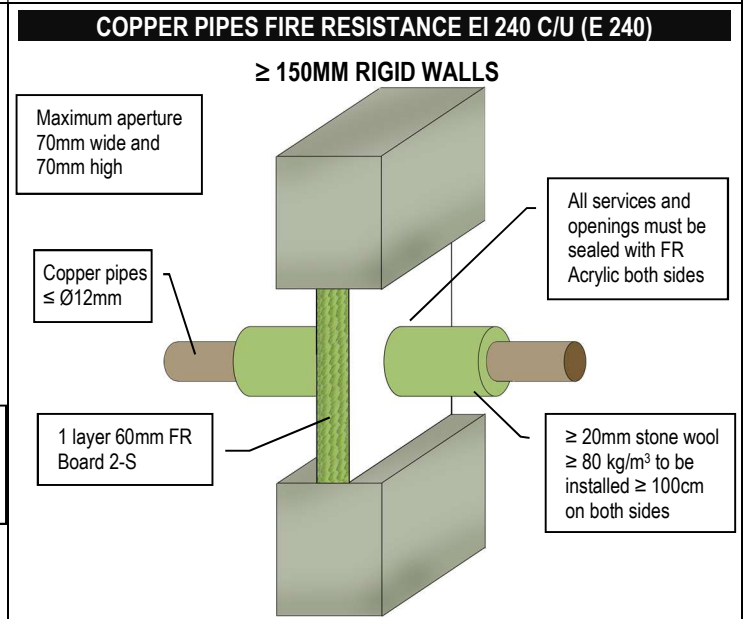
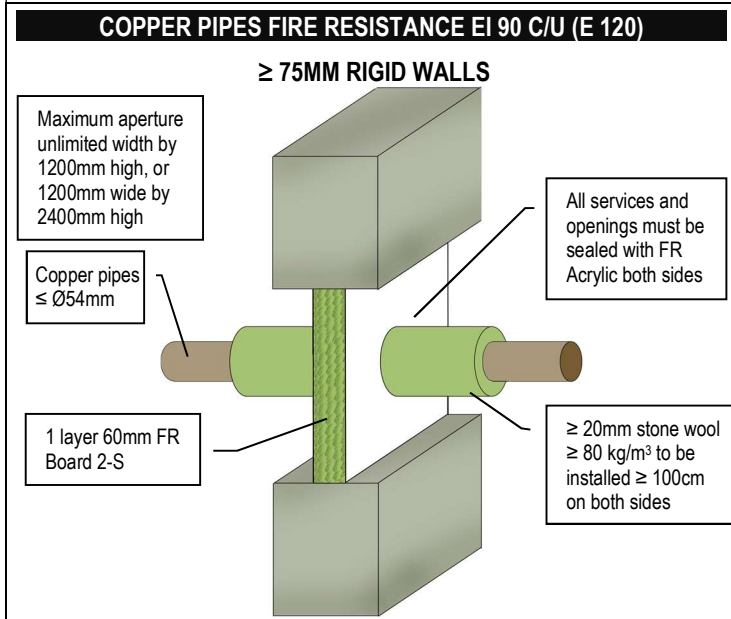
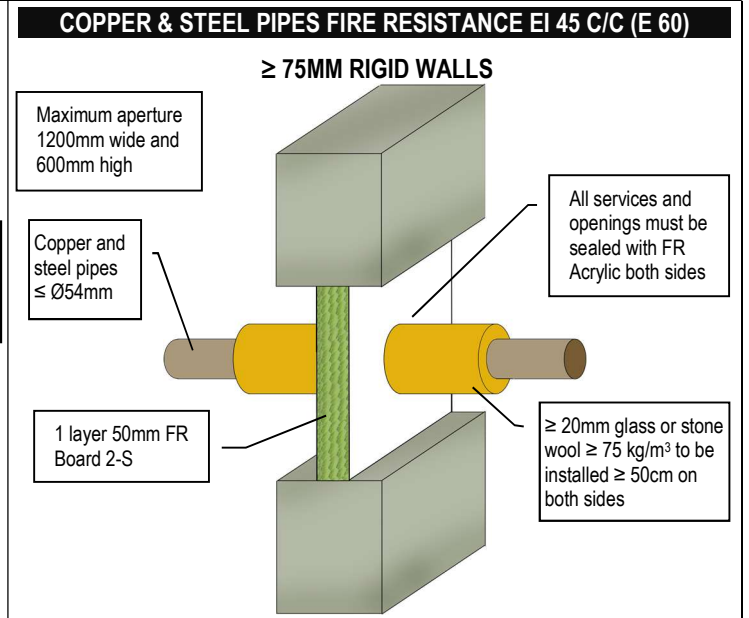
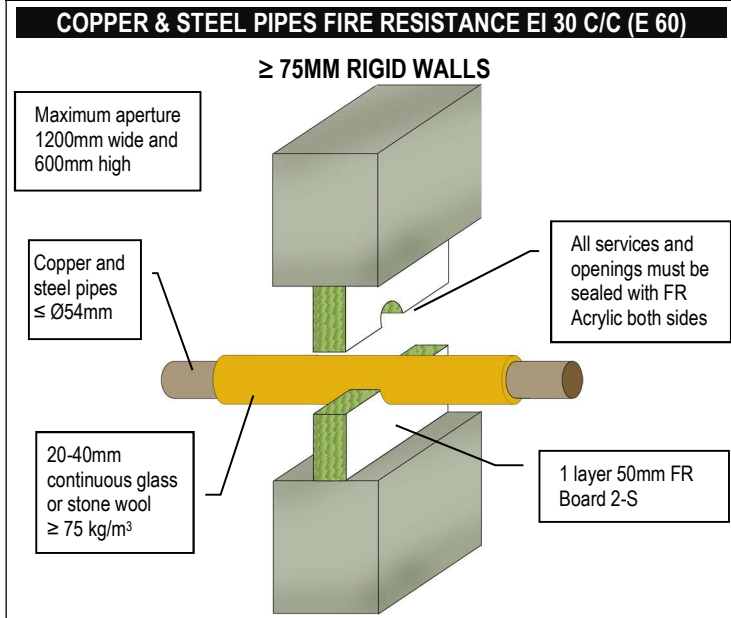
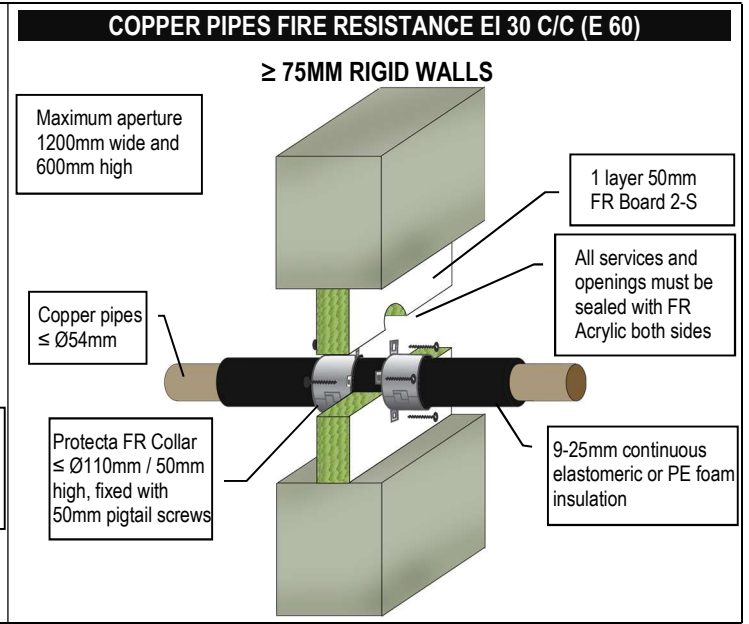
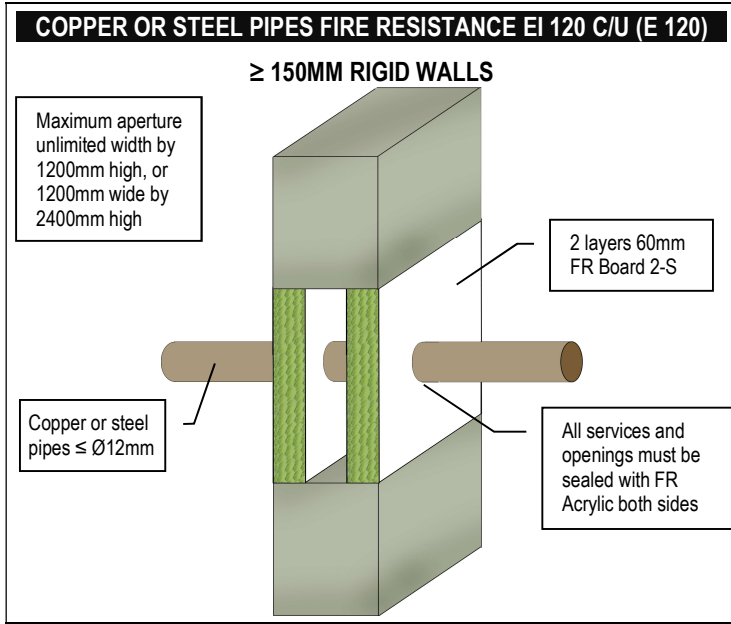


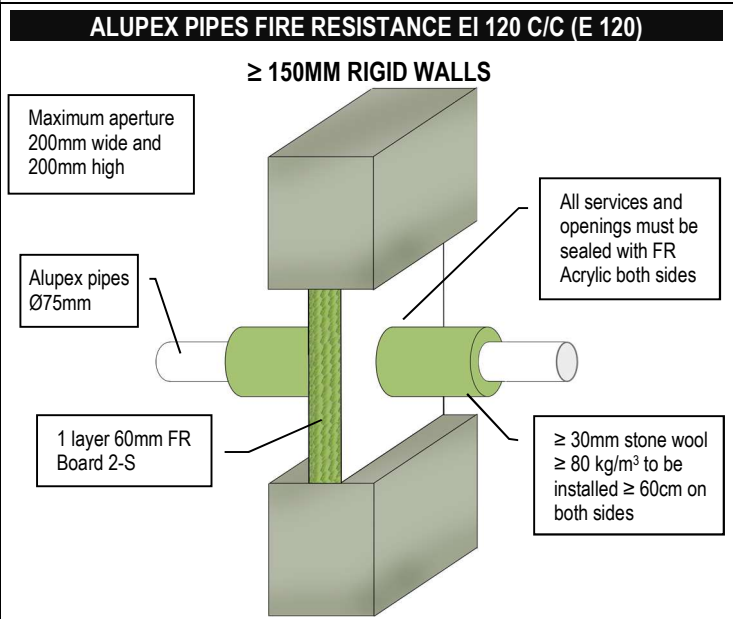
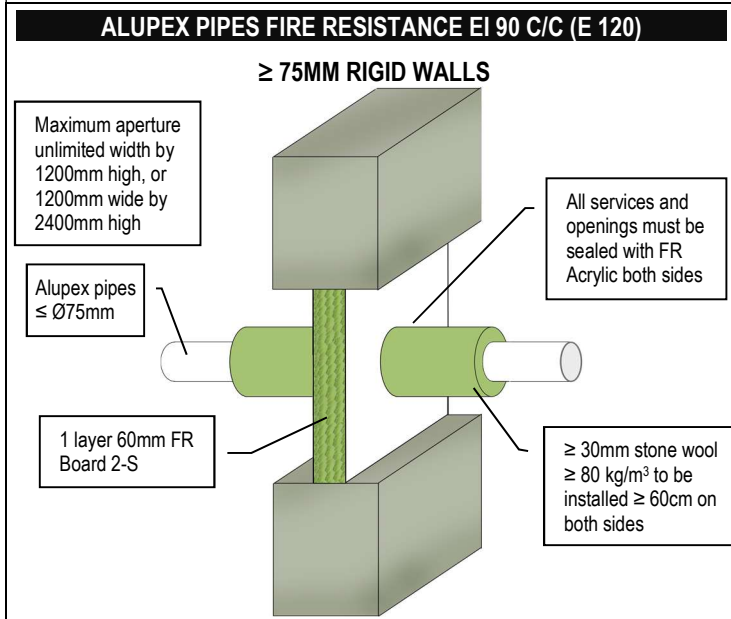
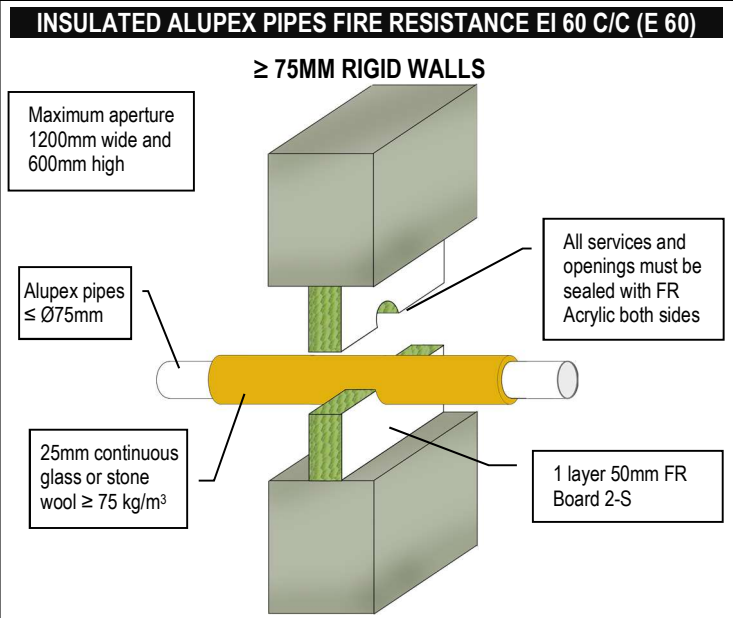
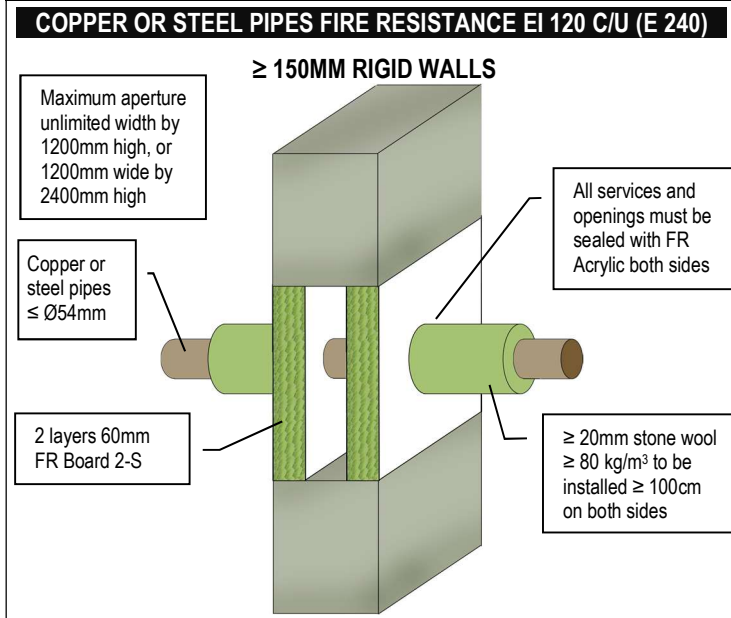
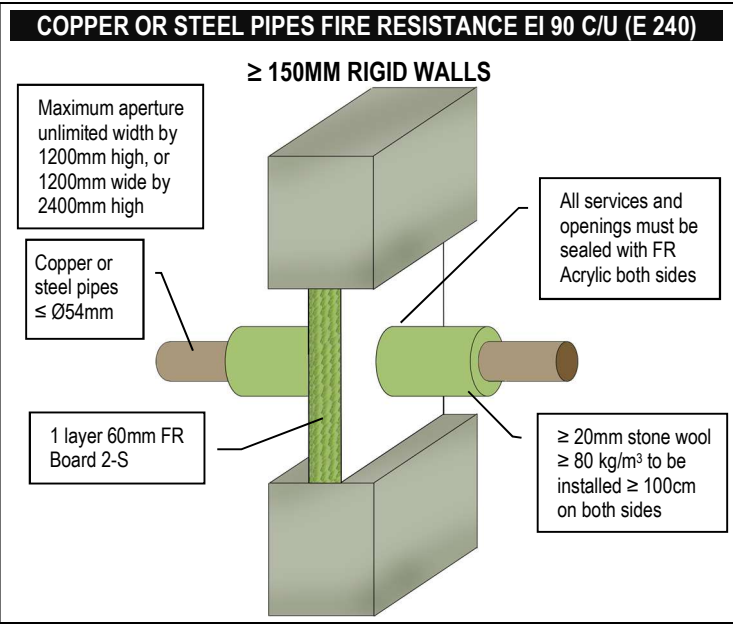
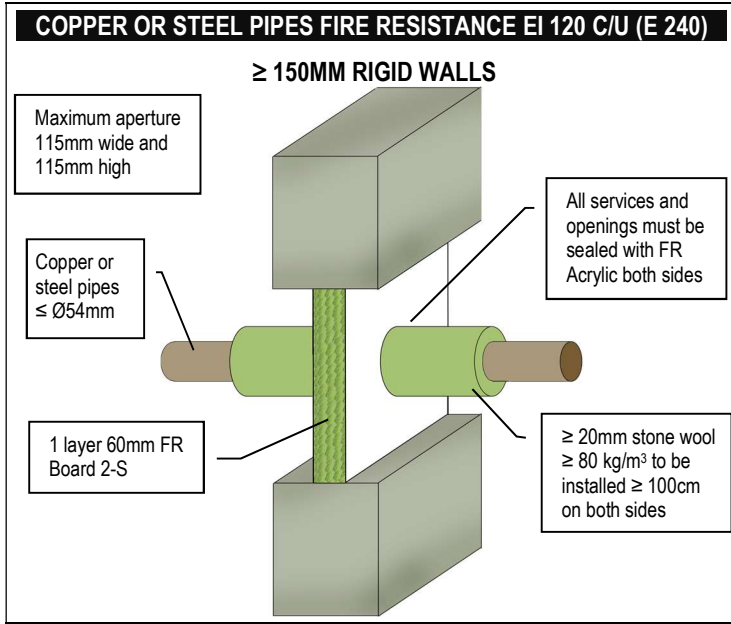


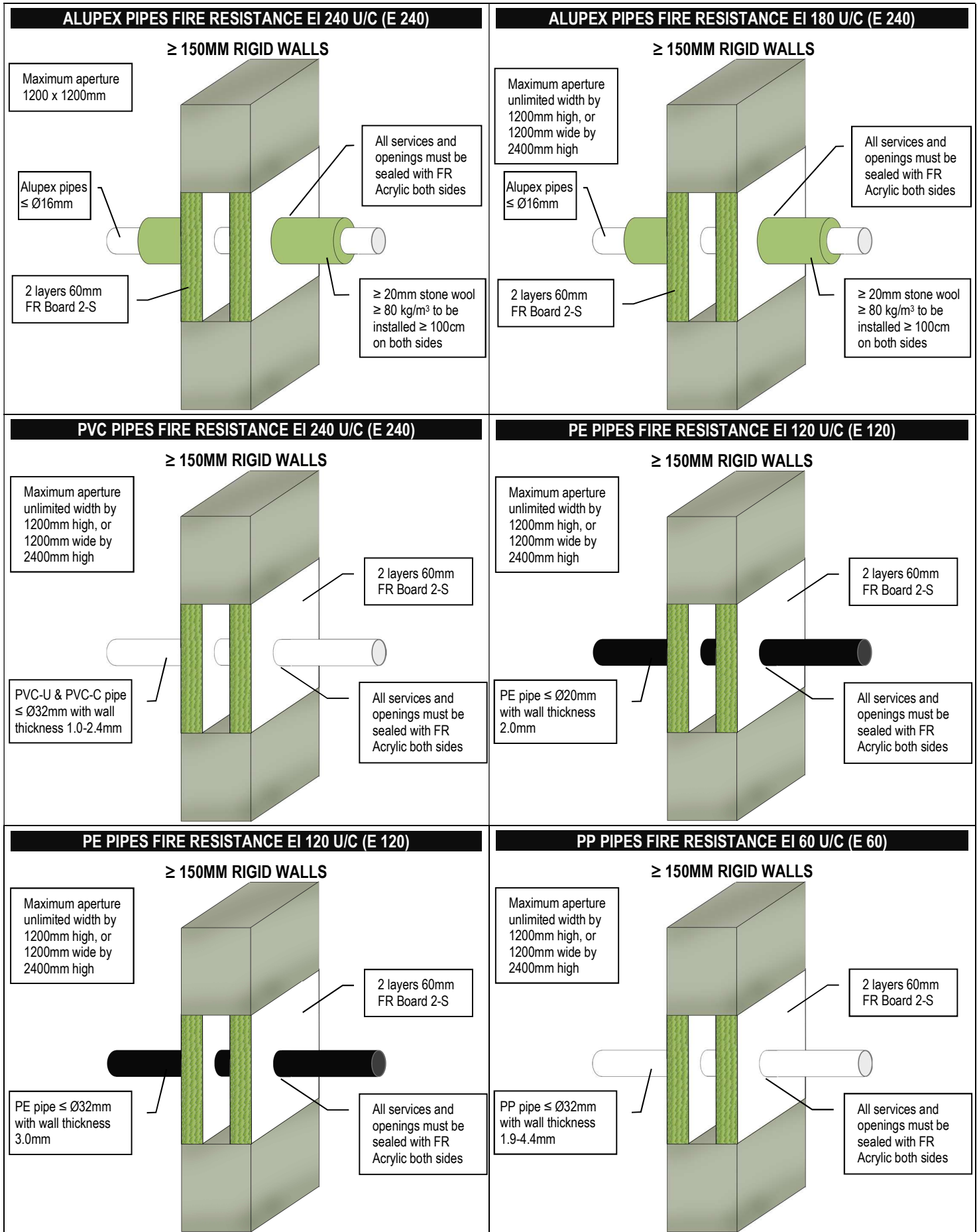












PLASTIC PIPE BUNDLES FIRE RESISTANCE EI 240 U/C (E 240)

≥ 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

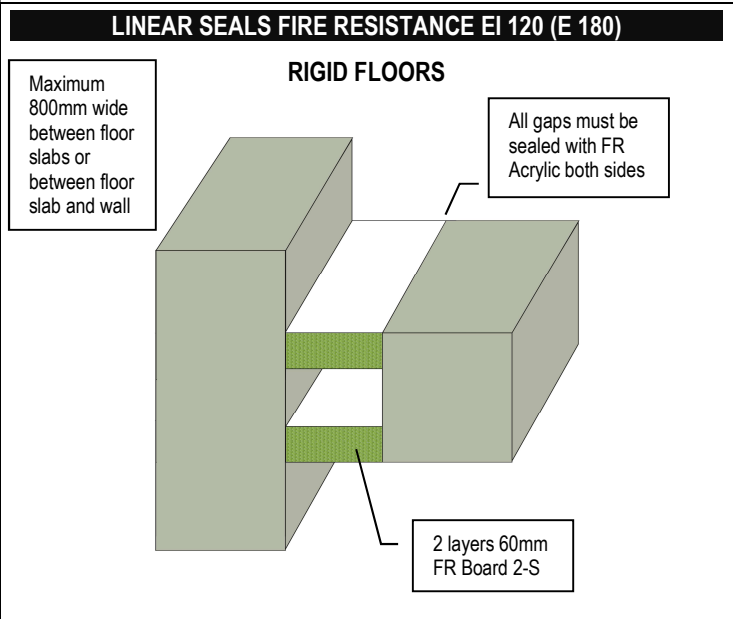
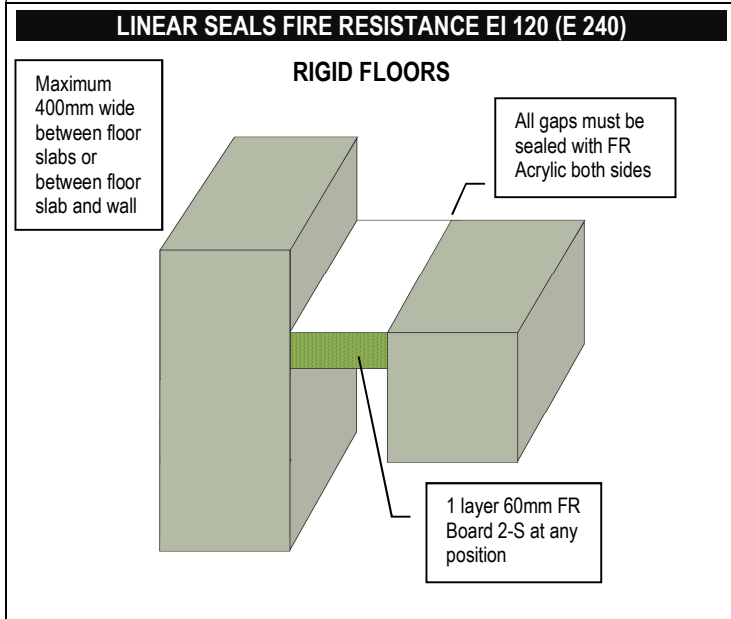
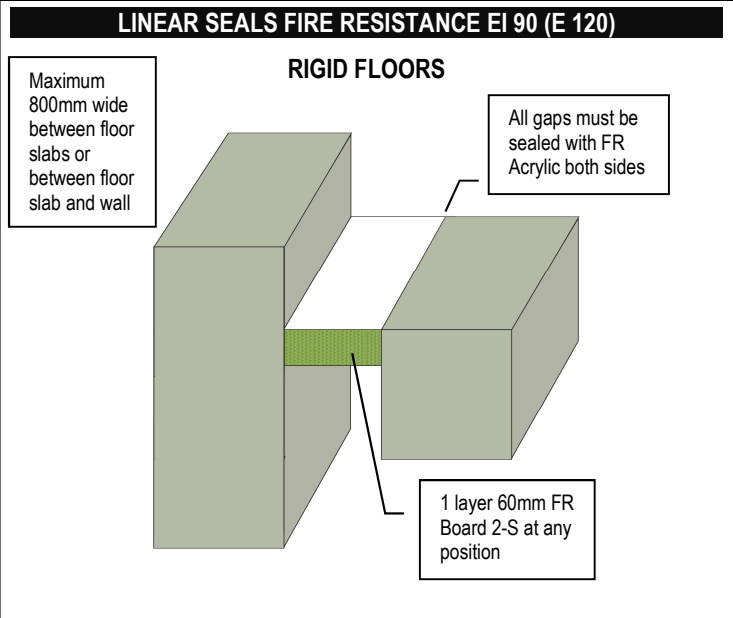
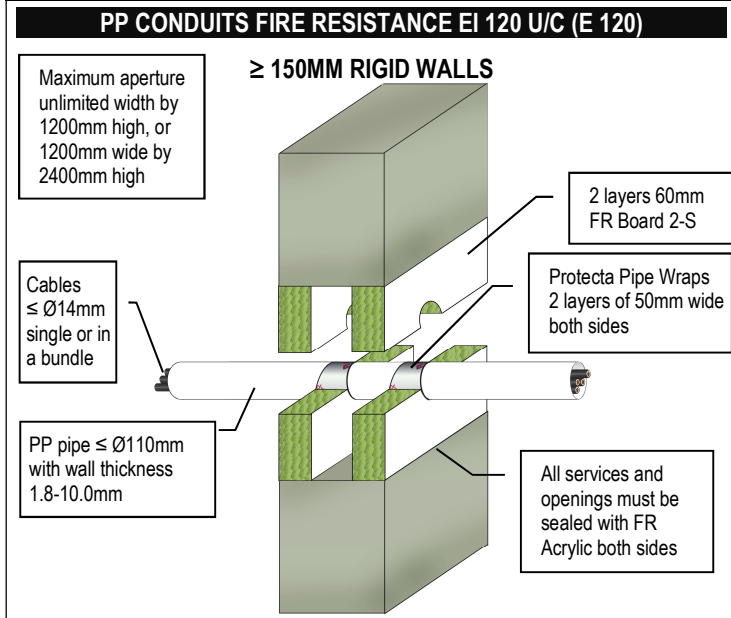
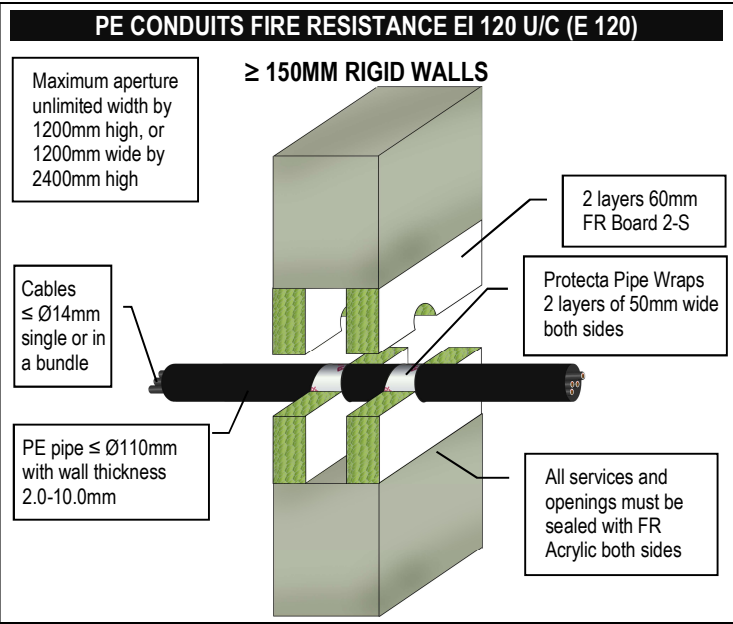
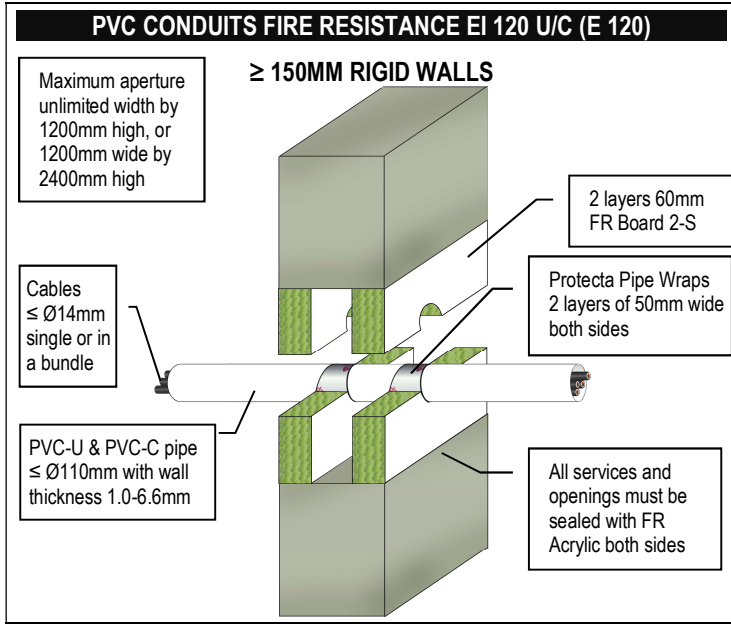
Plastic pipes

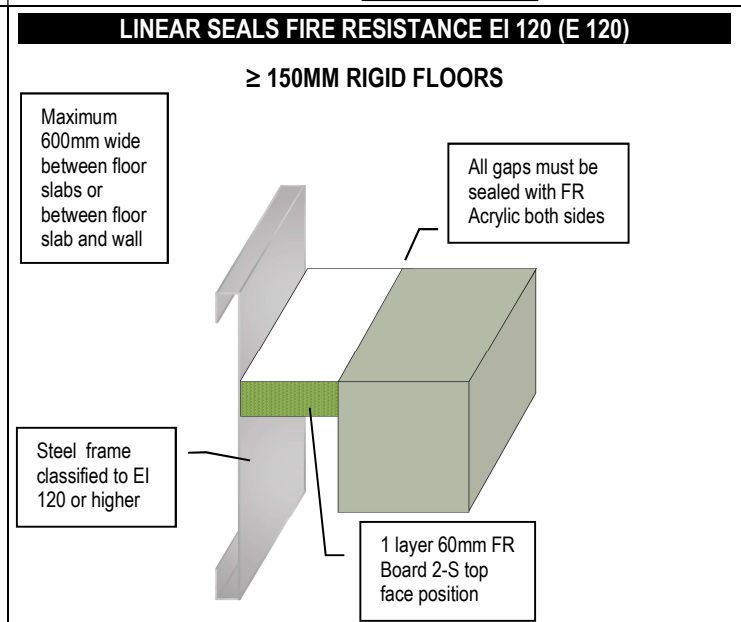
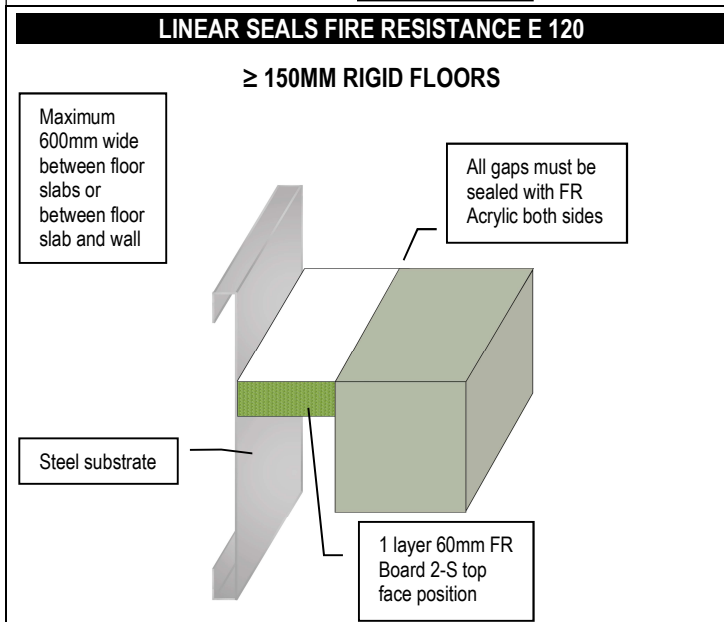
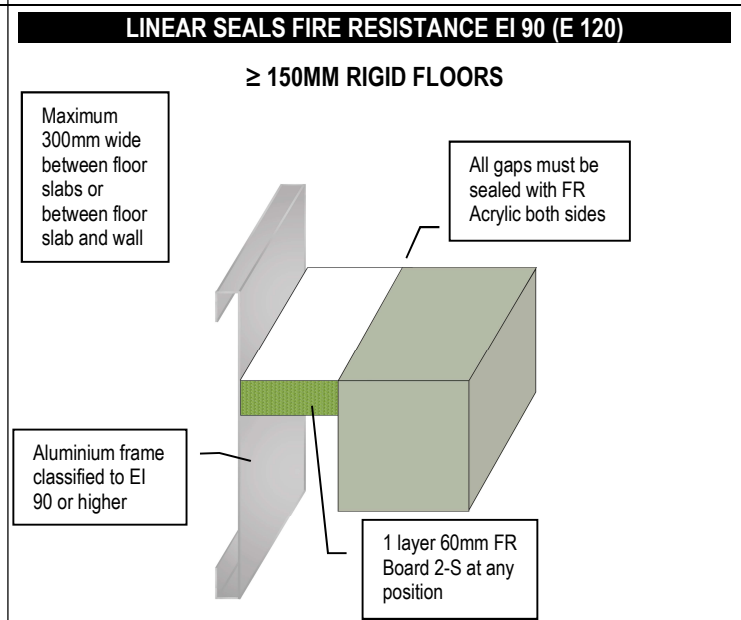
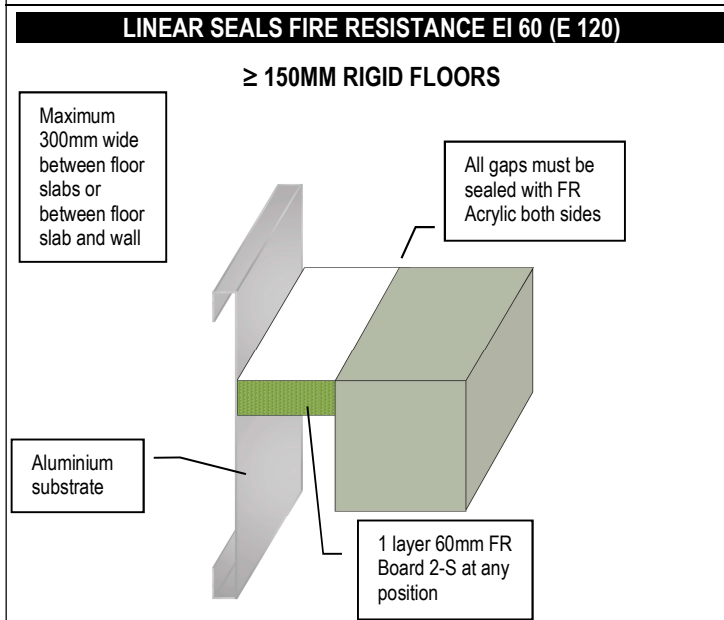
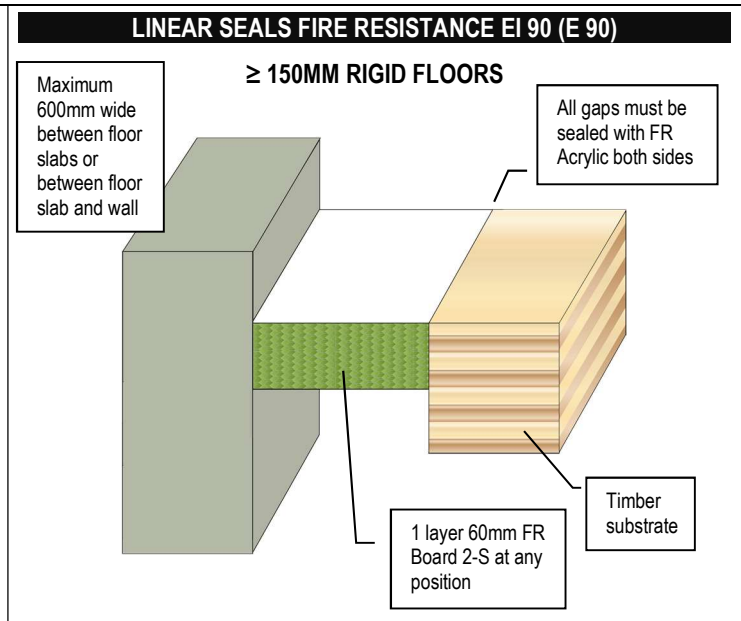
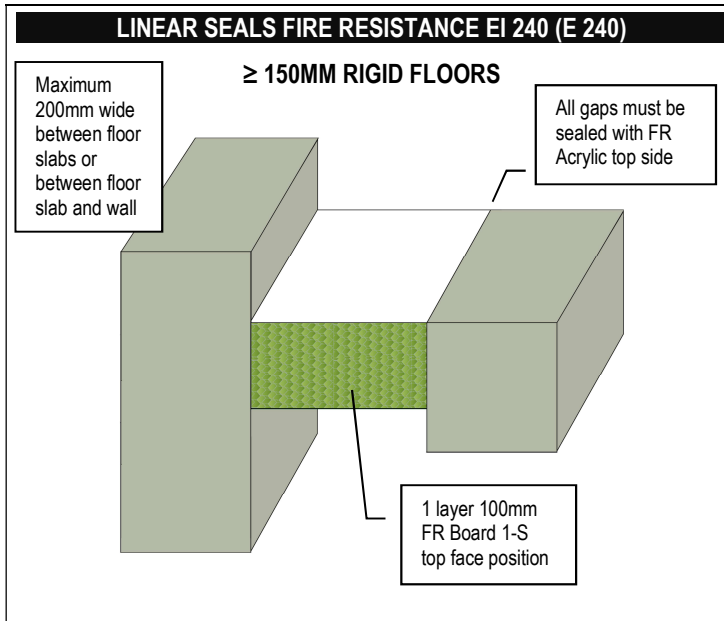
2 layers 60mm FR Board 2-S

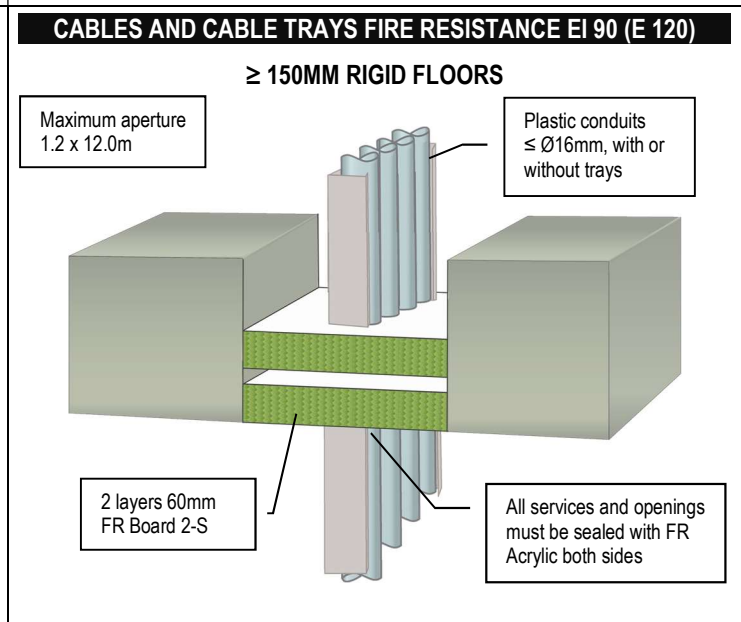
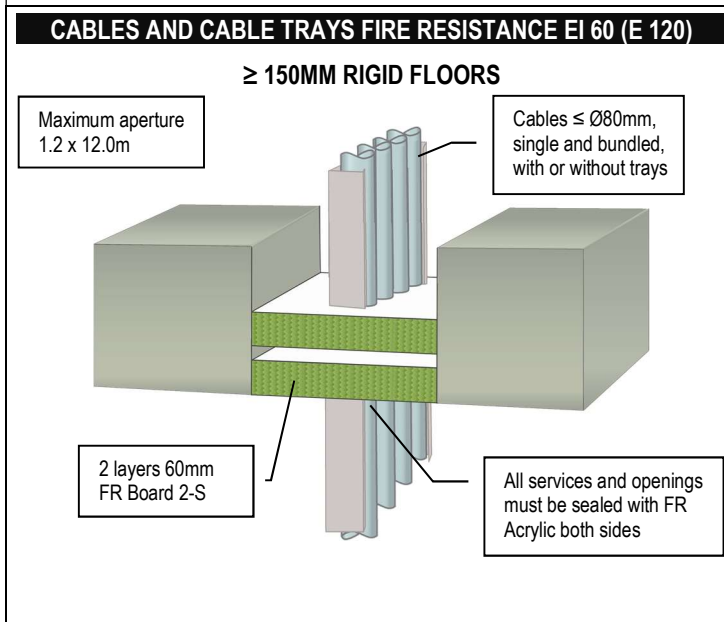
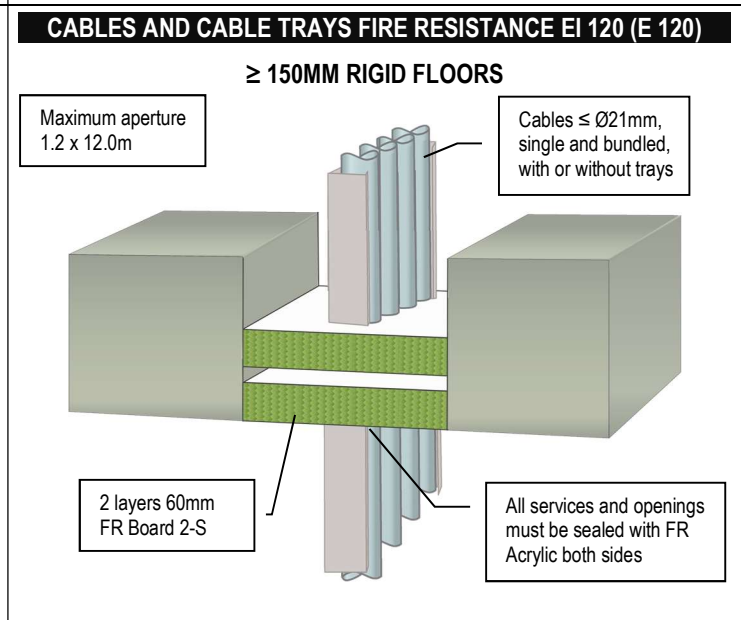
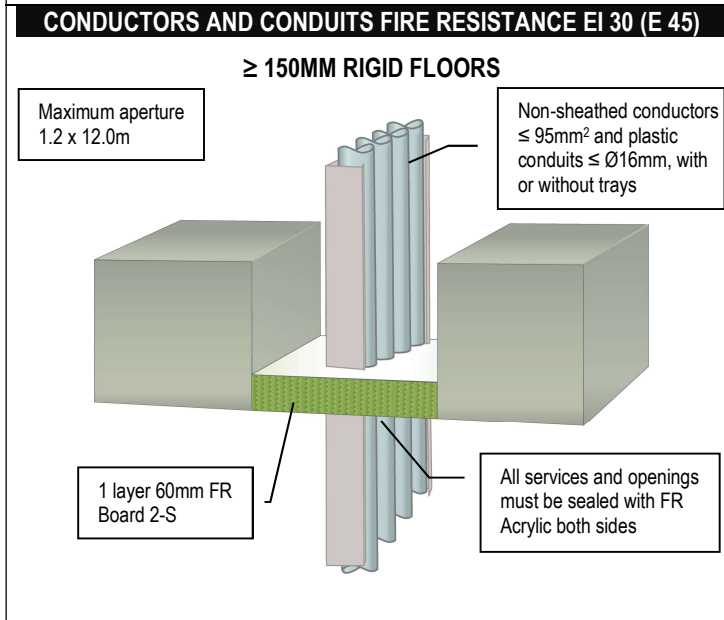
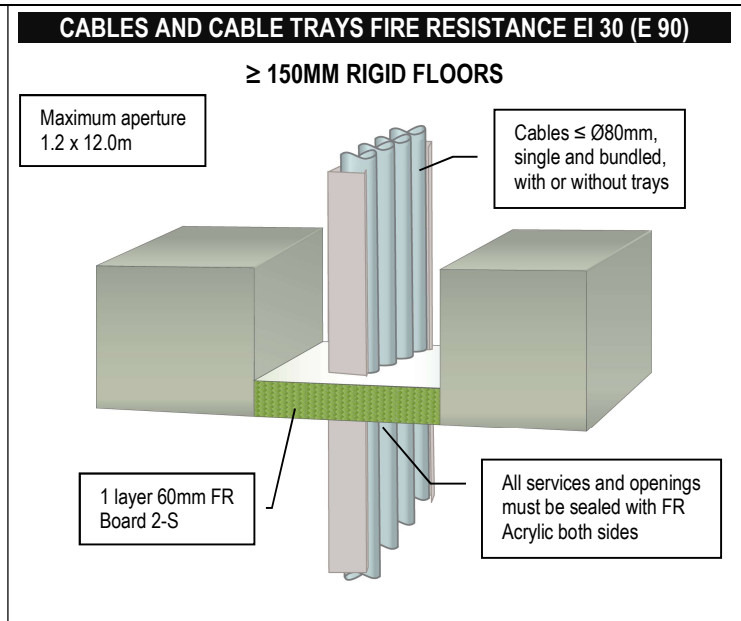
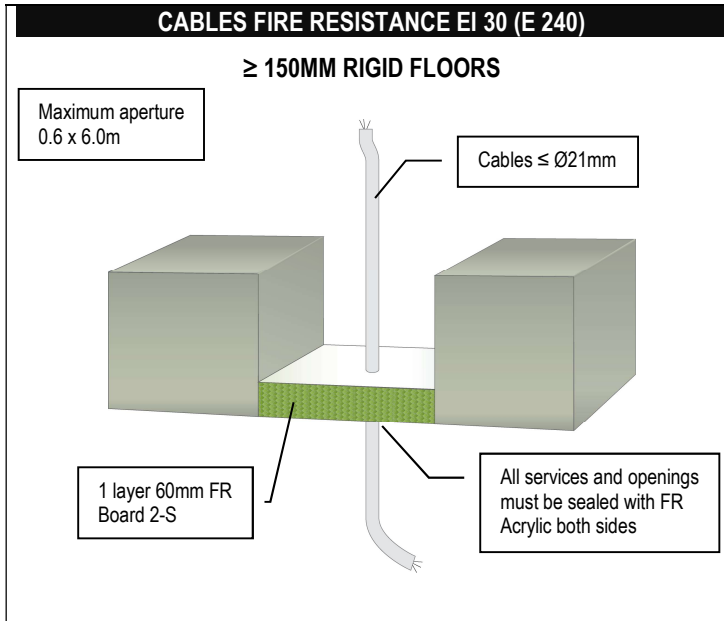
Protecta Pipe Wraps to both sides

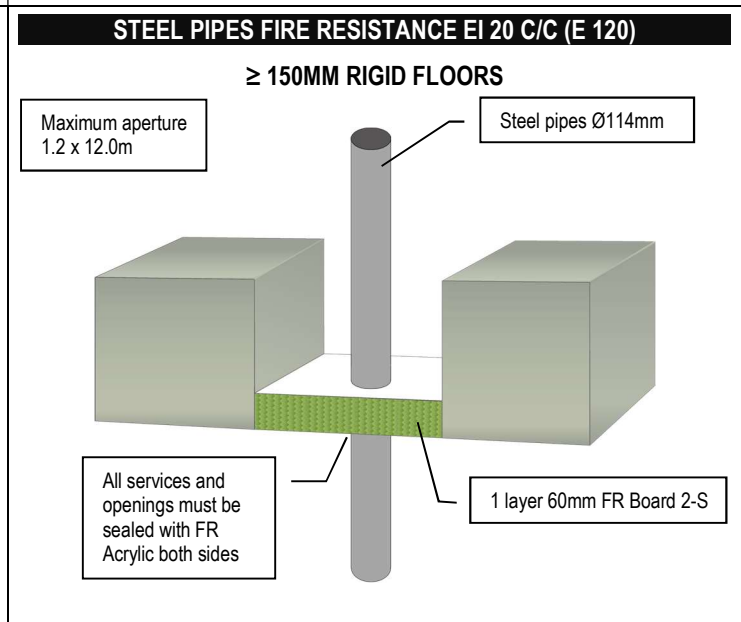
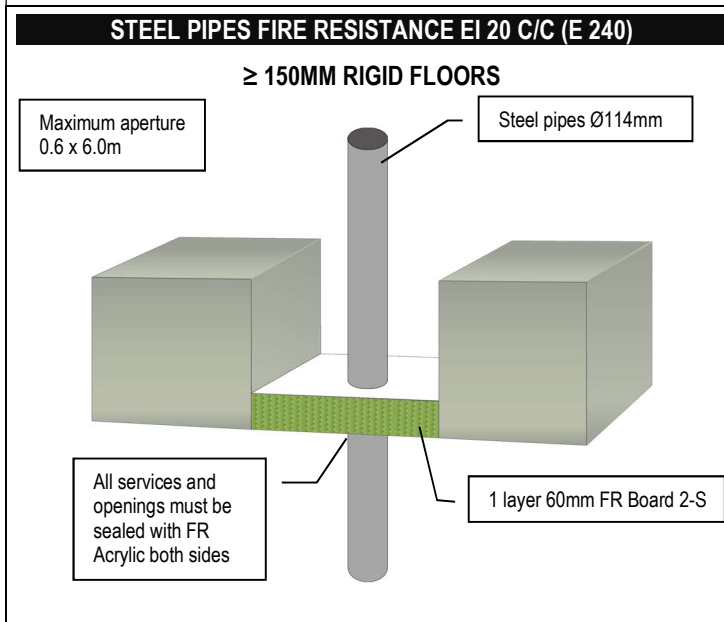
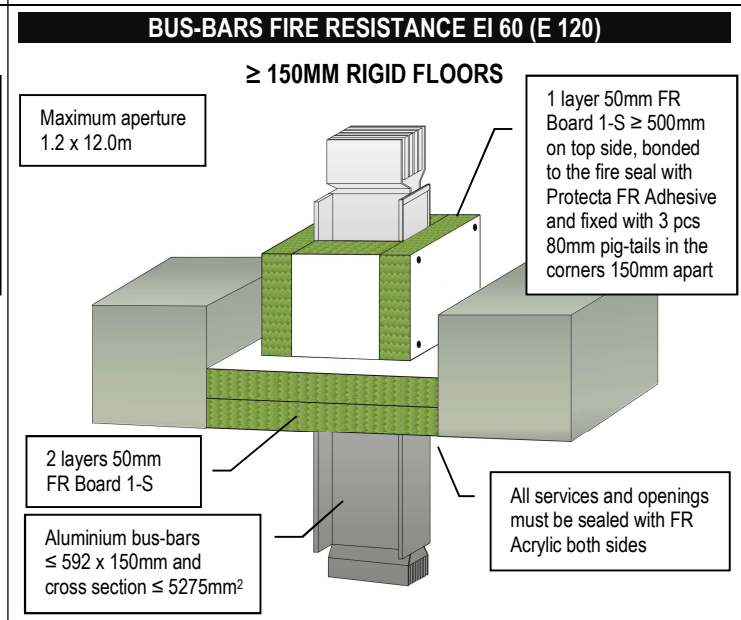
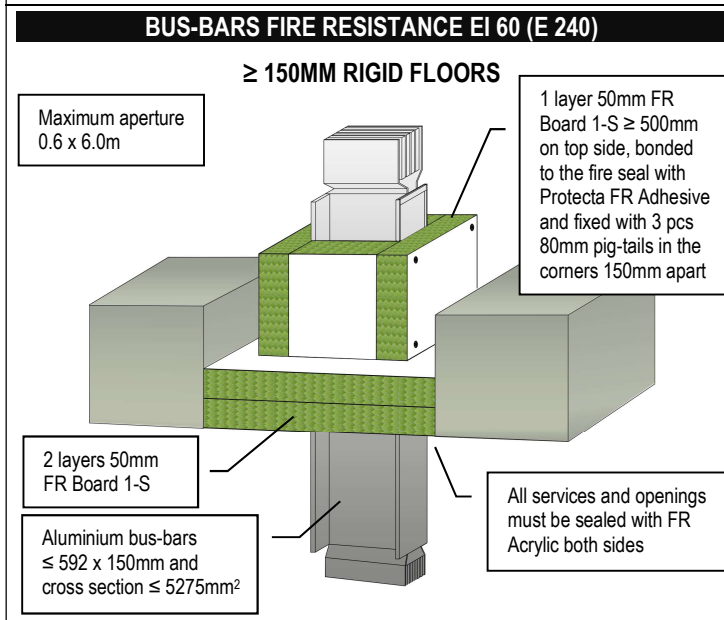
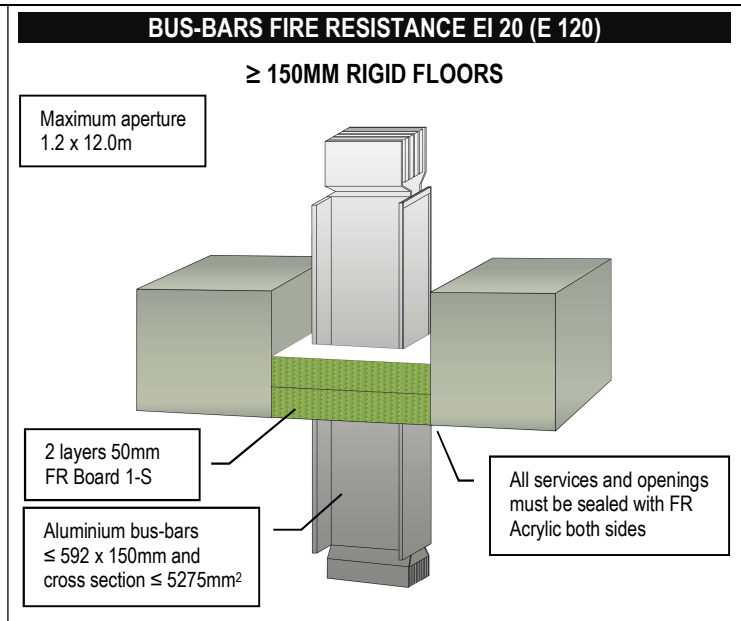
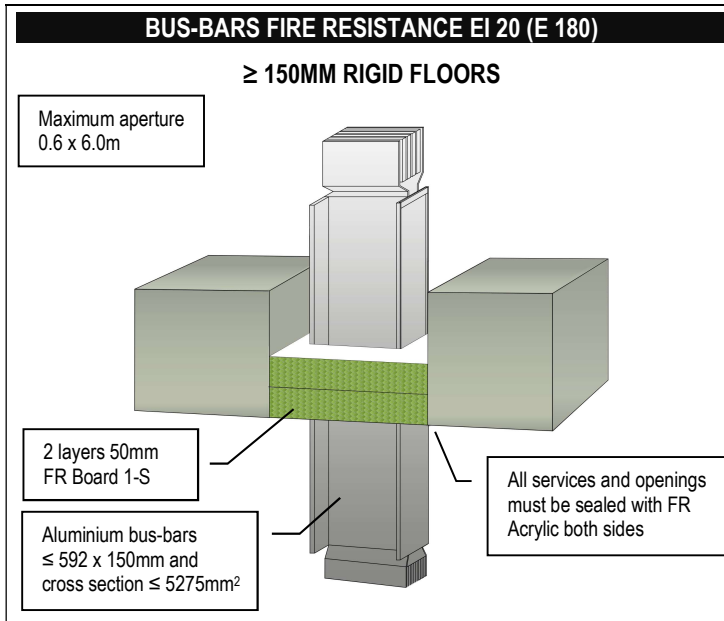
All services or openings must be sealed with FR Acrylic both sides

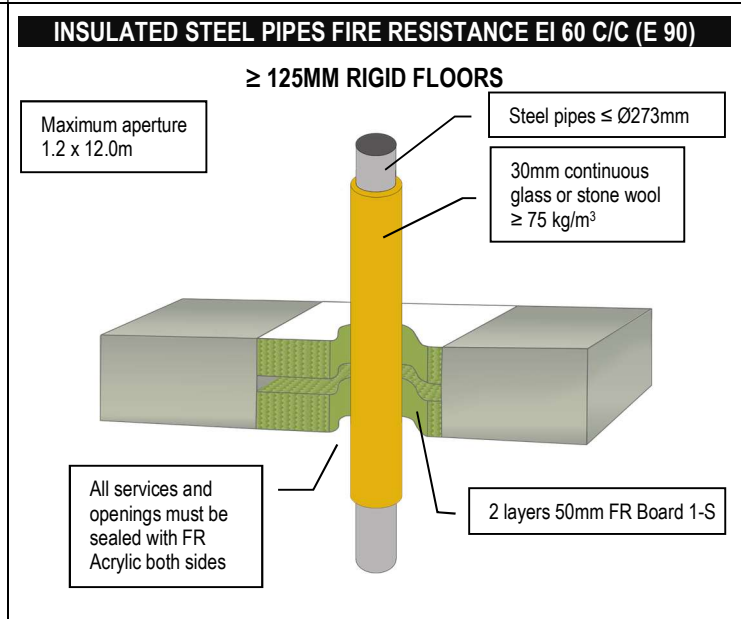
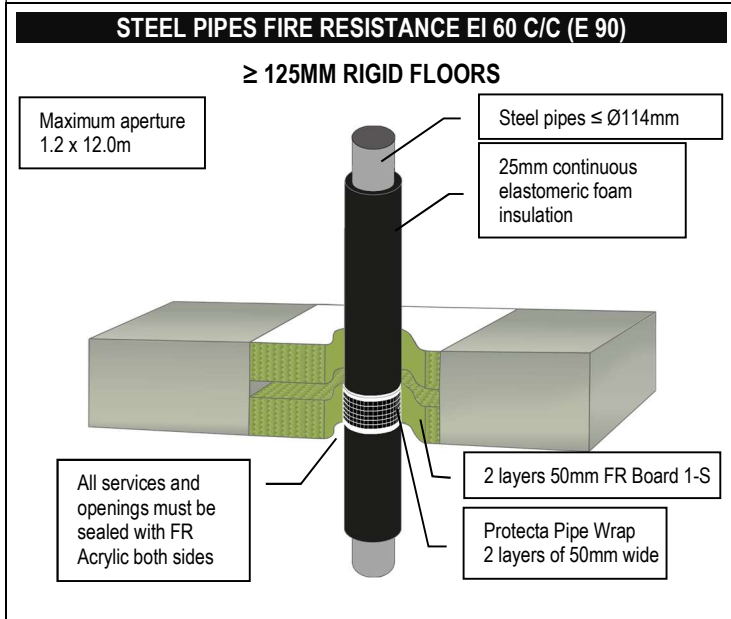
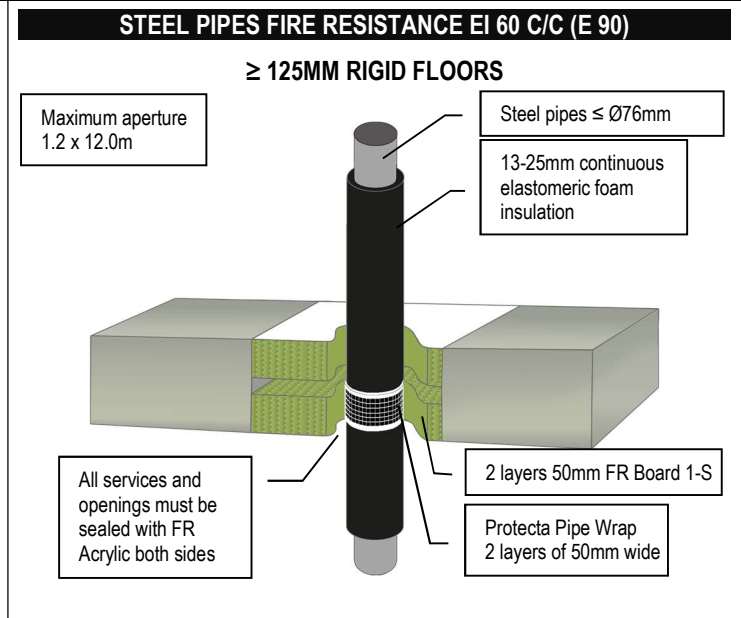
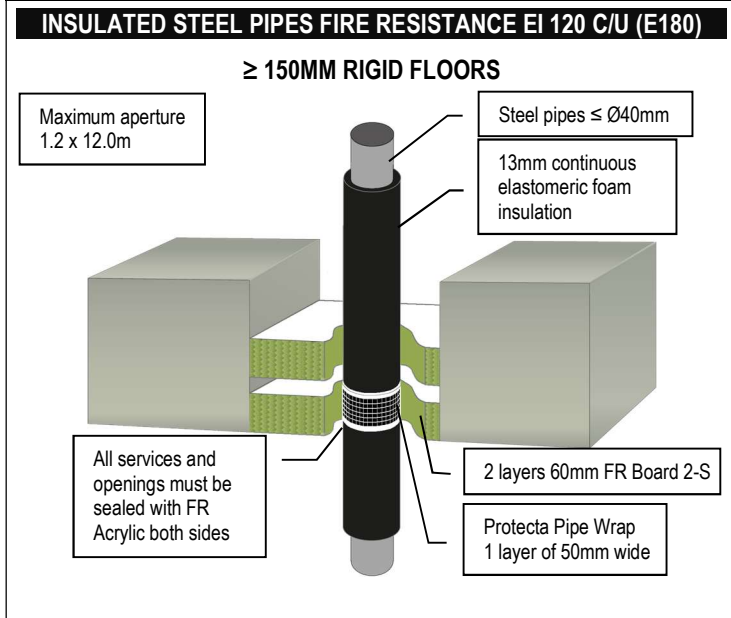
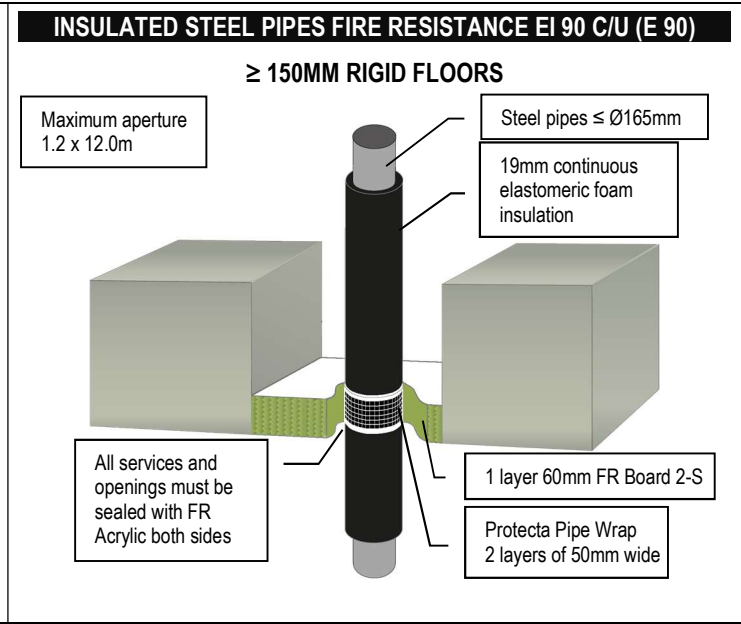
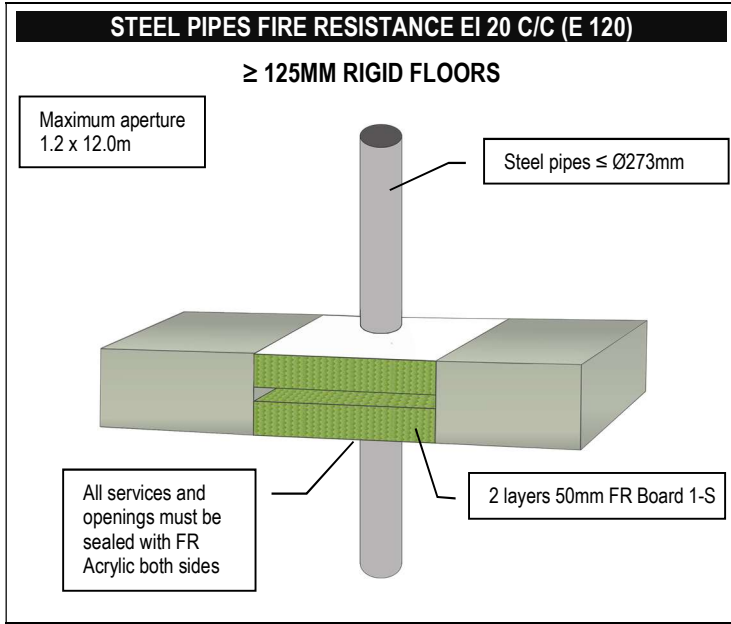
| Services | Pipe Wall Thickness | FR Pipe Wrap | Classification |
|-----------------------------|---------------------|-------------------------|------------------------|
| ≤ Ø 40mm PVC-U & PVC-C | 1.9 – 3.0mm | 50 x 1.8mm (1 layer) | EI 240 U/C (E 240 U/C) |
| ≤ Ø 40mm PE, ABS & SAN+PVC | 2.4 – 4.6mm | 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 | 18.7 – 28.5mm | 75 x 18.0mm (10 layers) | EI 60 C/C (E 180 C/C) |
| ≤ Ø 315mm PP | 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 | 9.8 – 36.2mm | 75 x 28.8mm (16 layers) | EI 30 C/C (E 30 C/C) |
| ≤ Ø 400mm PP | 36.3mm | 75 x 28.8mm (16 layers) | EI 120 C/C (E 120 C/C) |

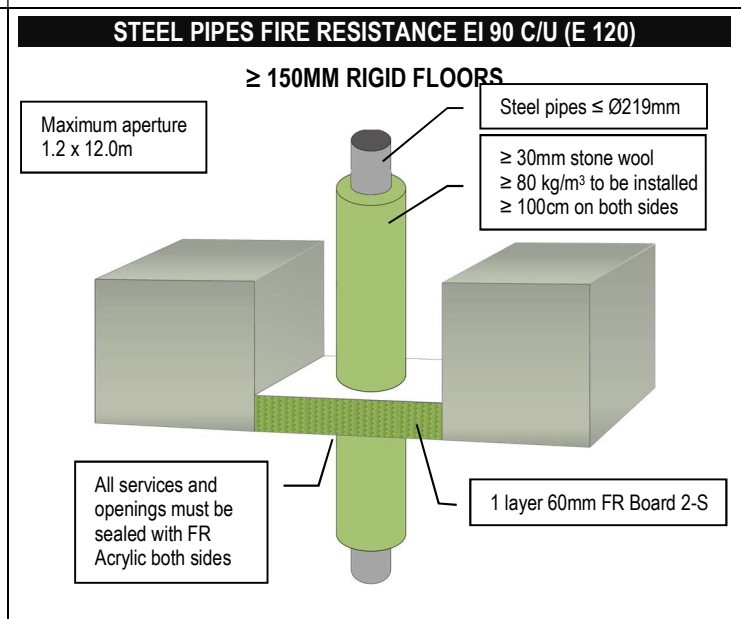
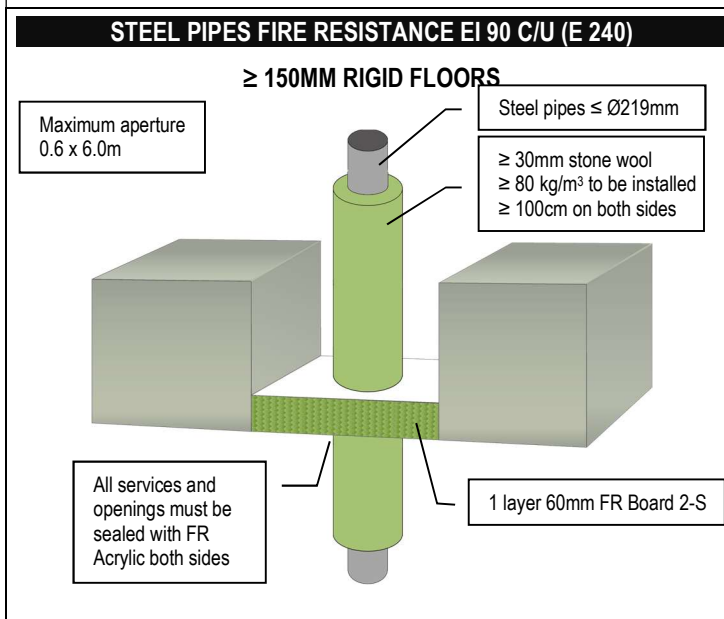
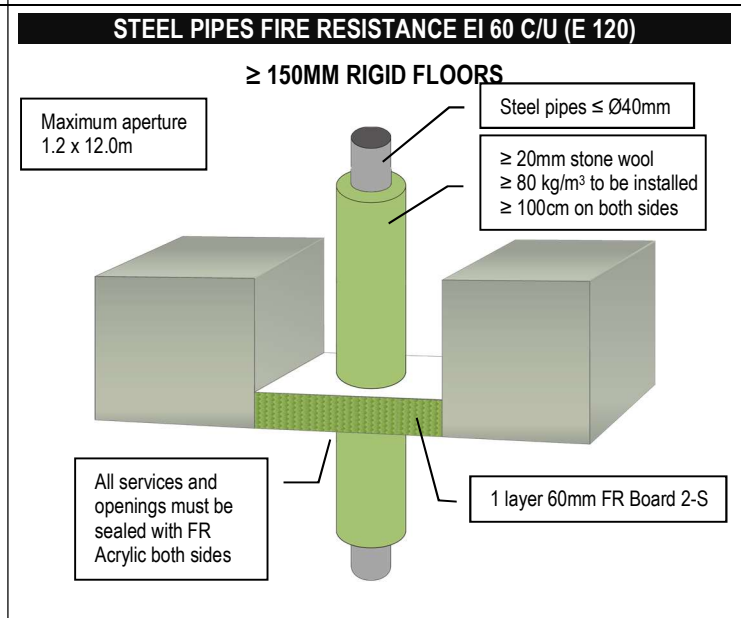
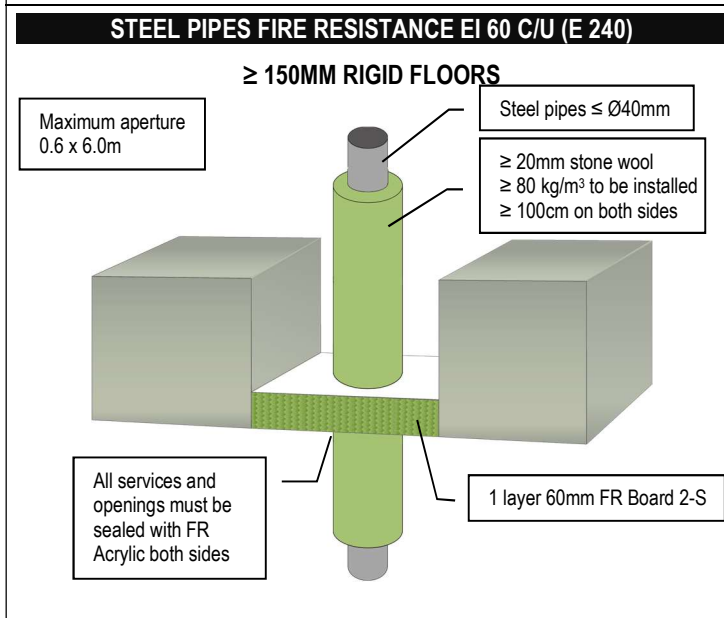
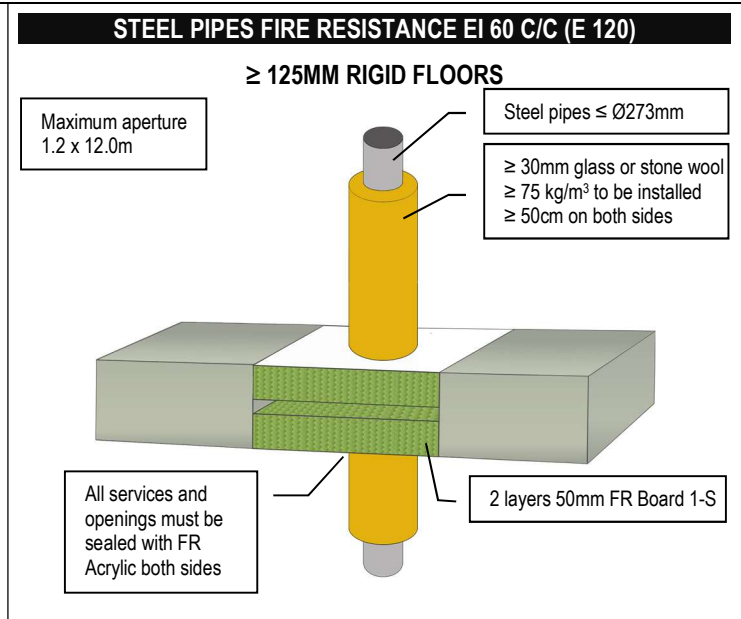
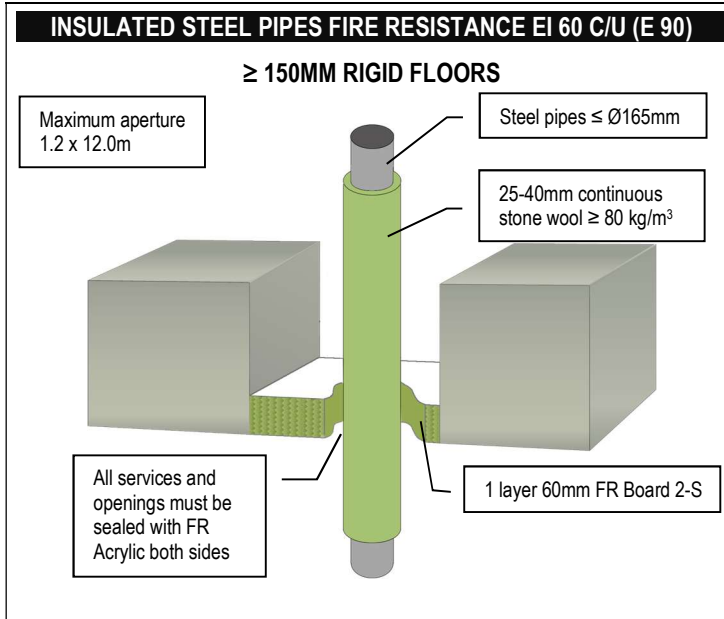


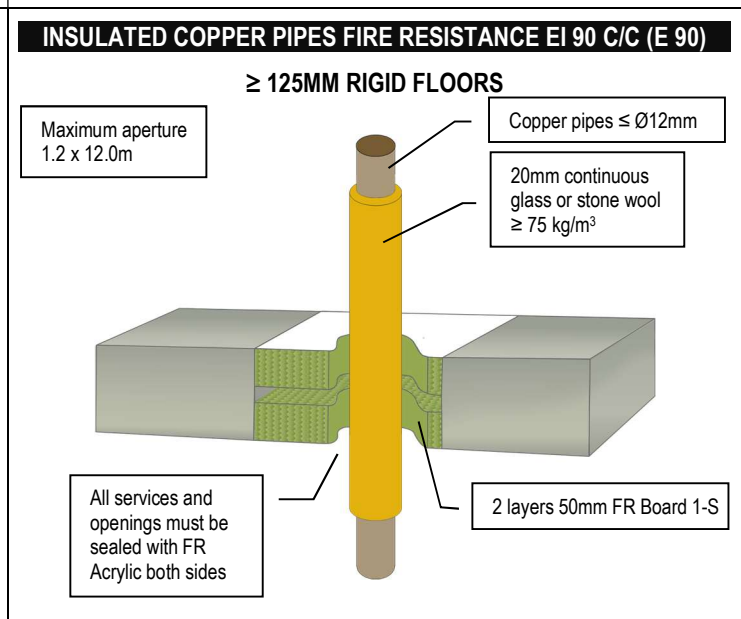
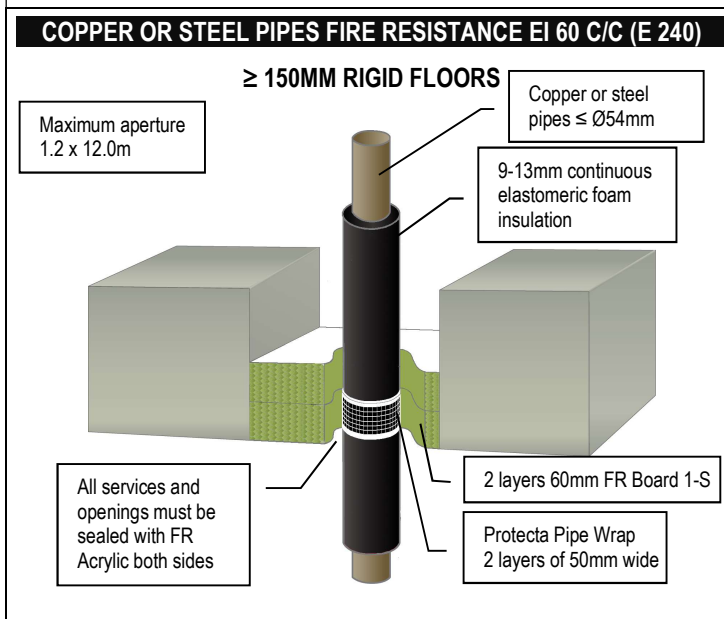
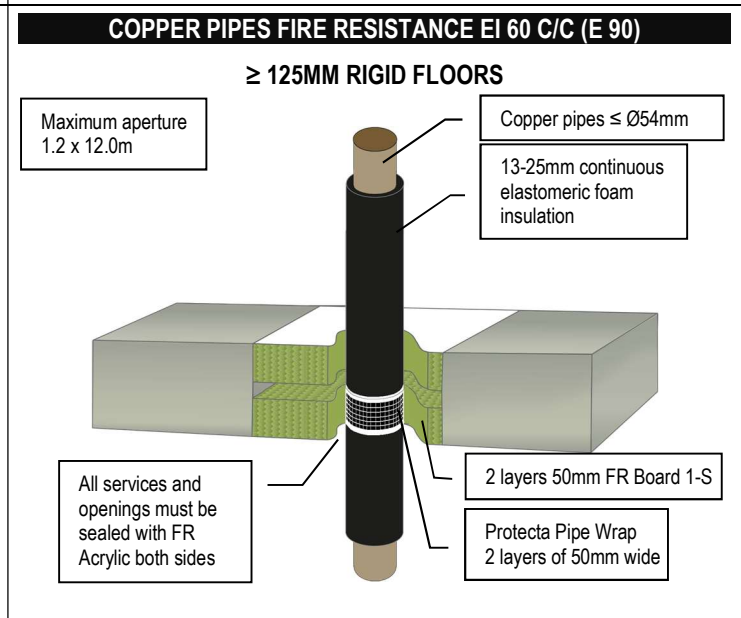
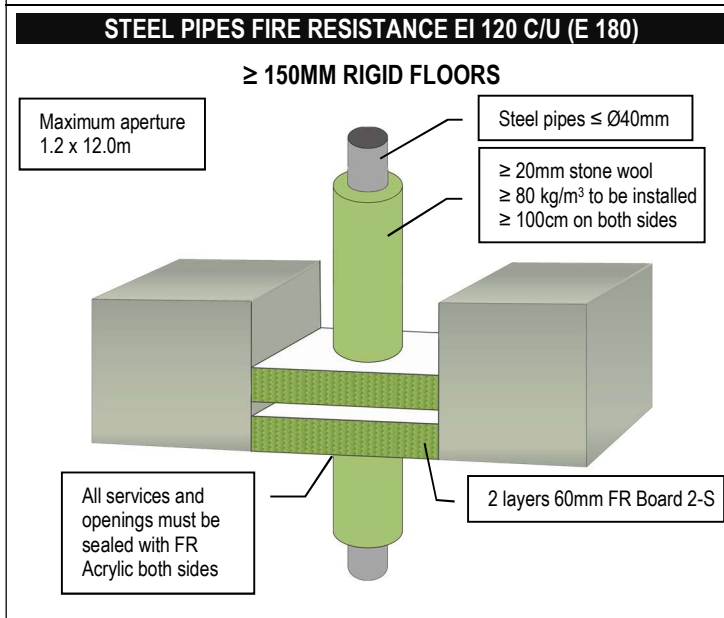
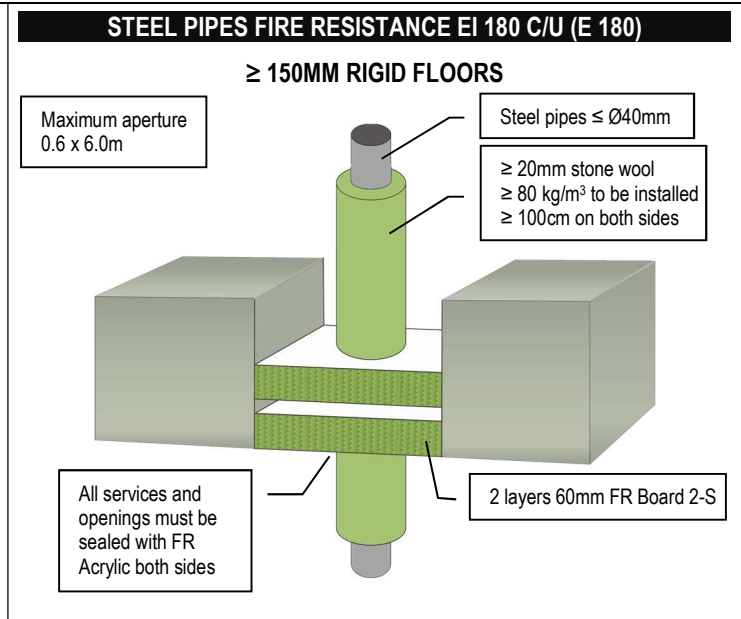
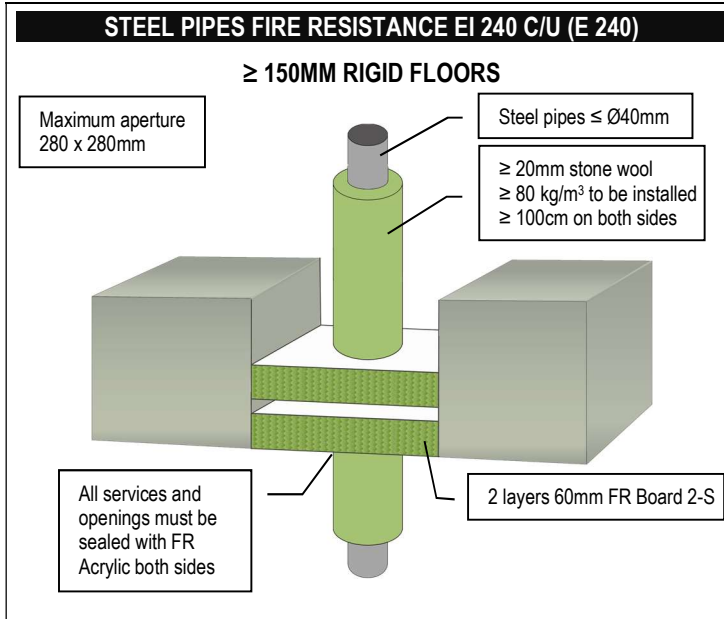


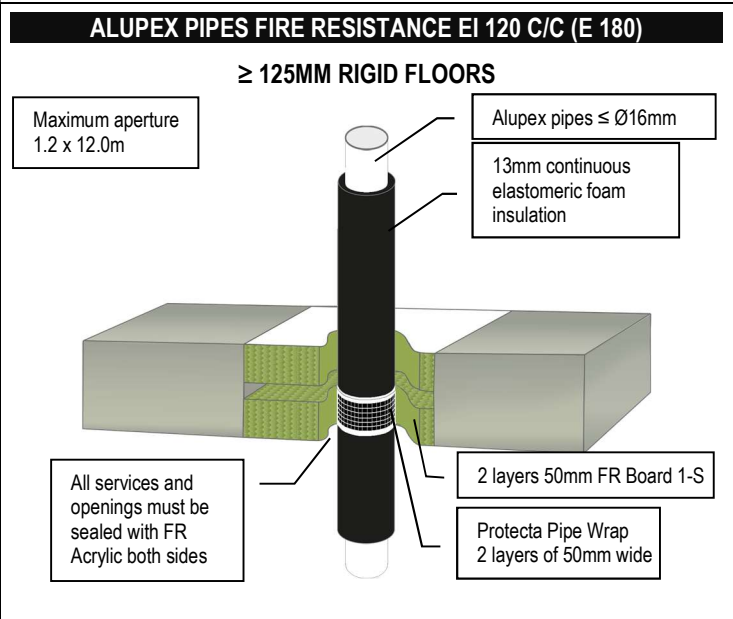
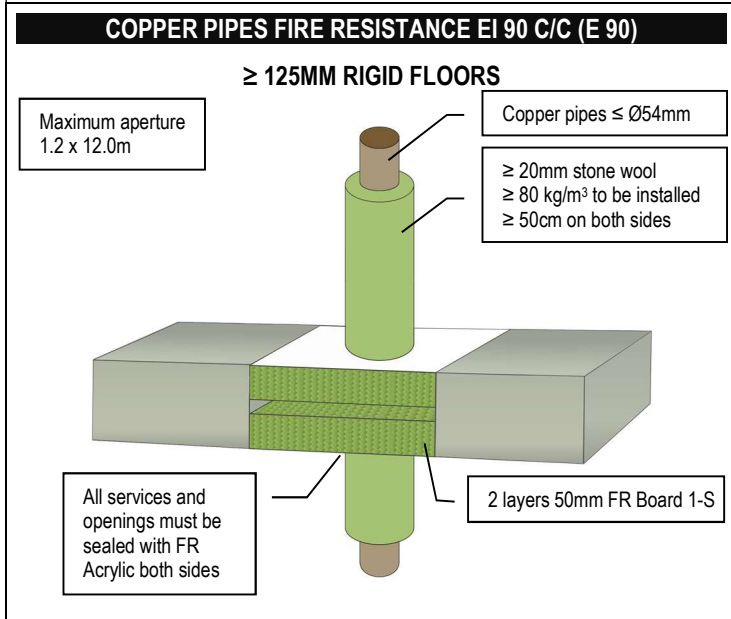
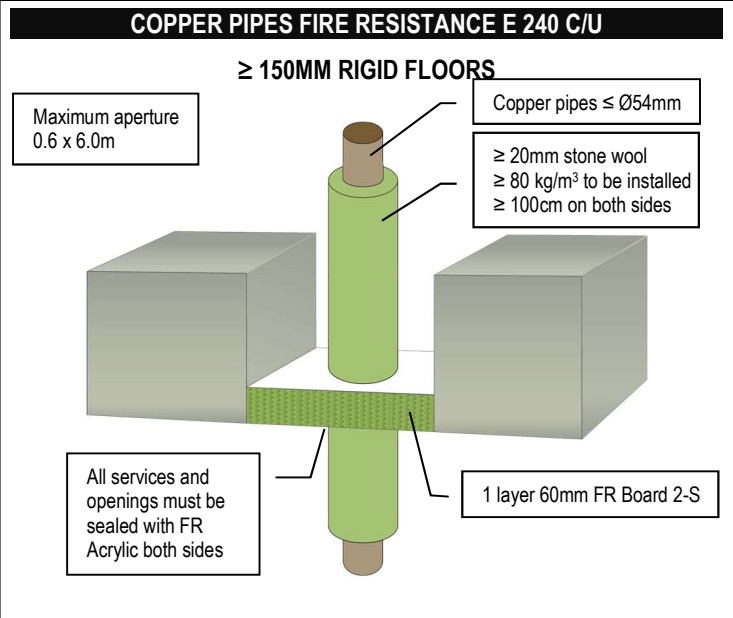
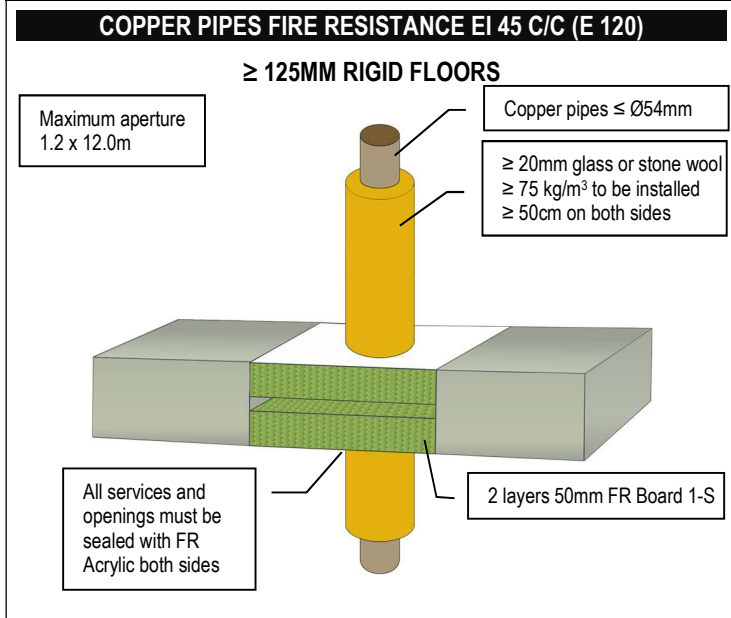
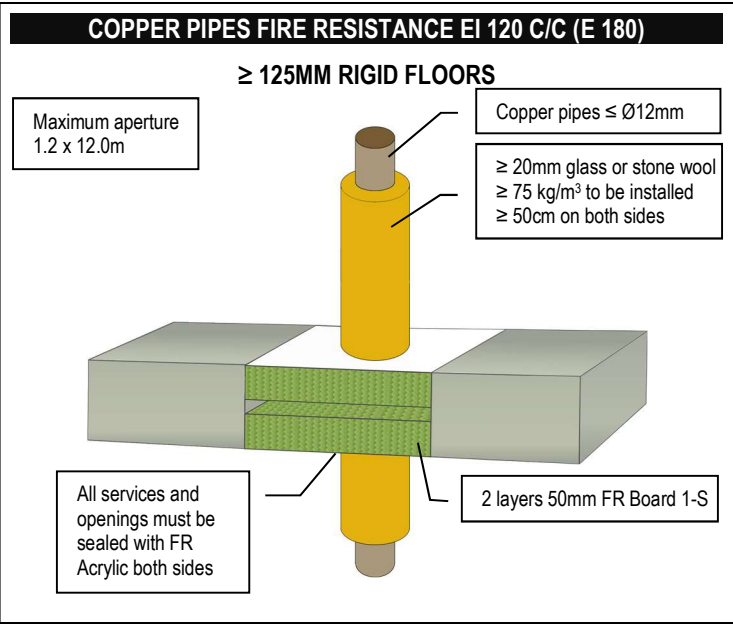
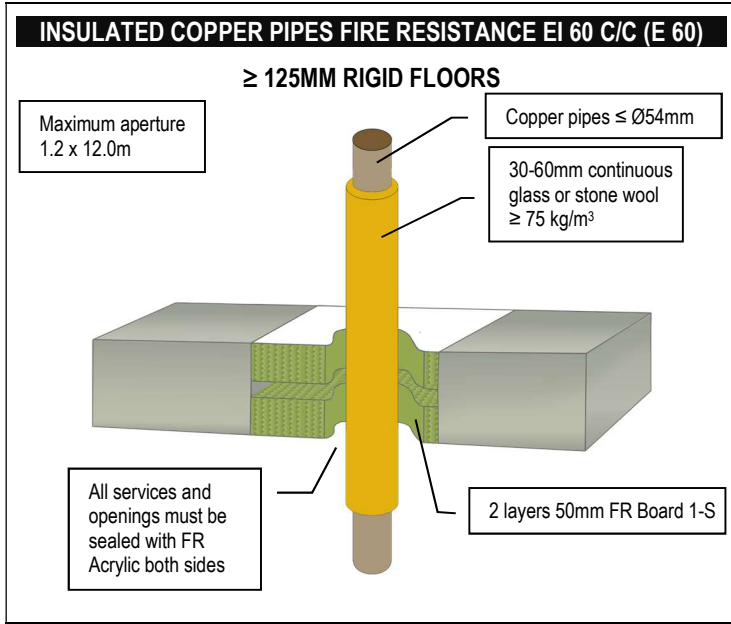


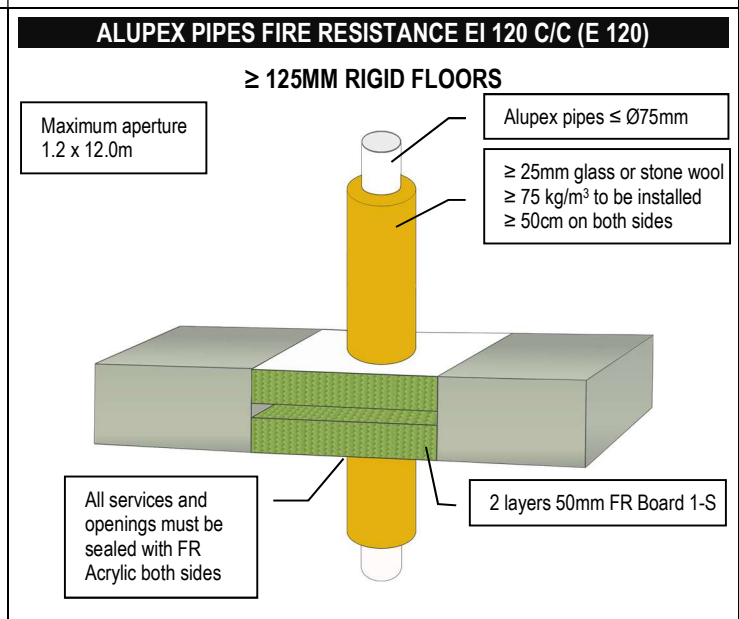
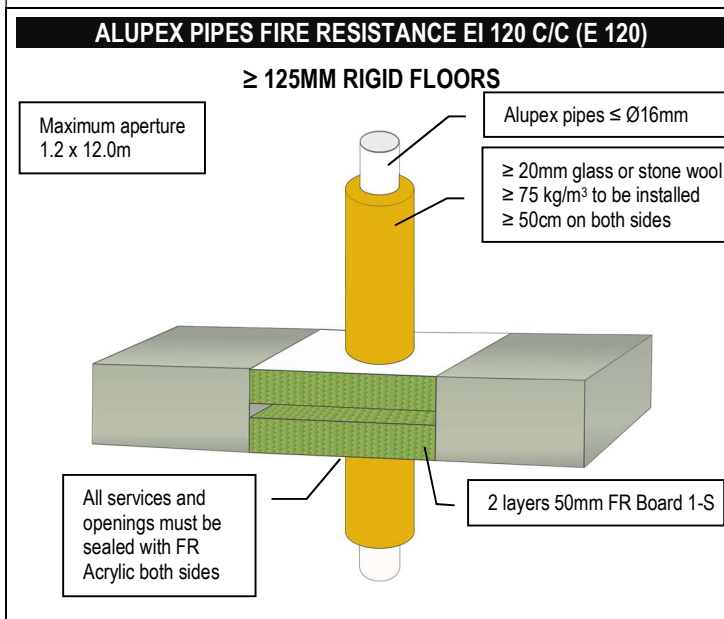
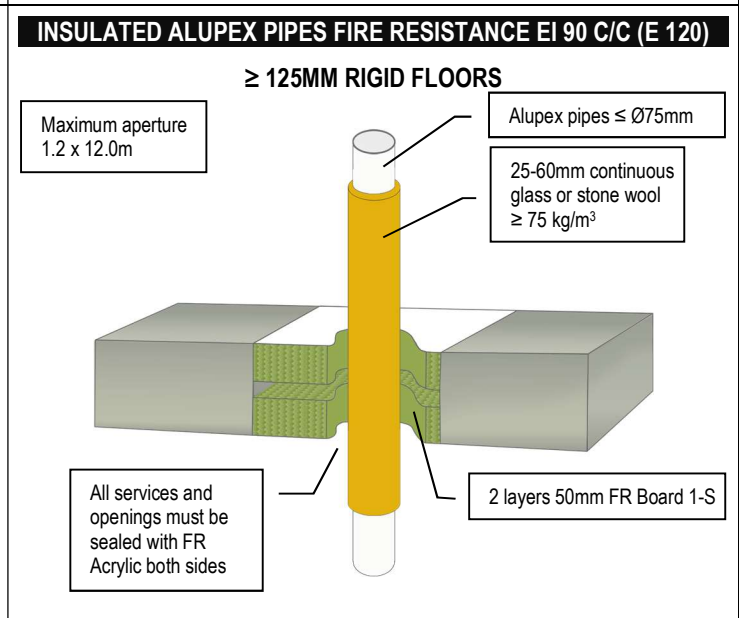
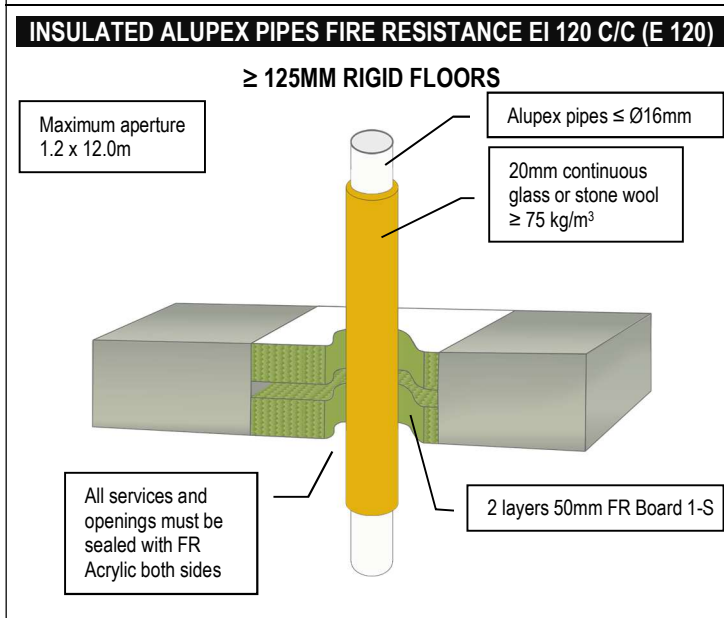
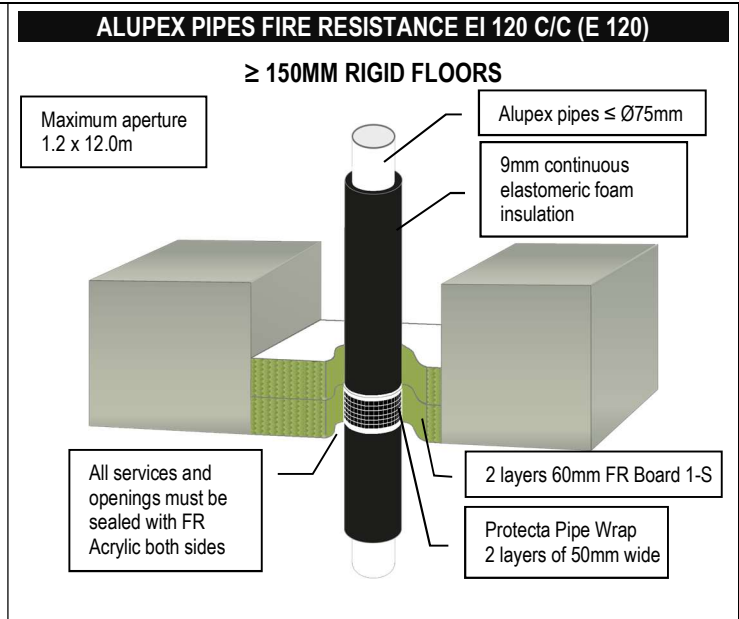
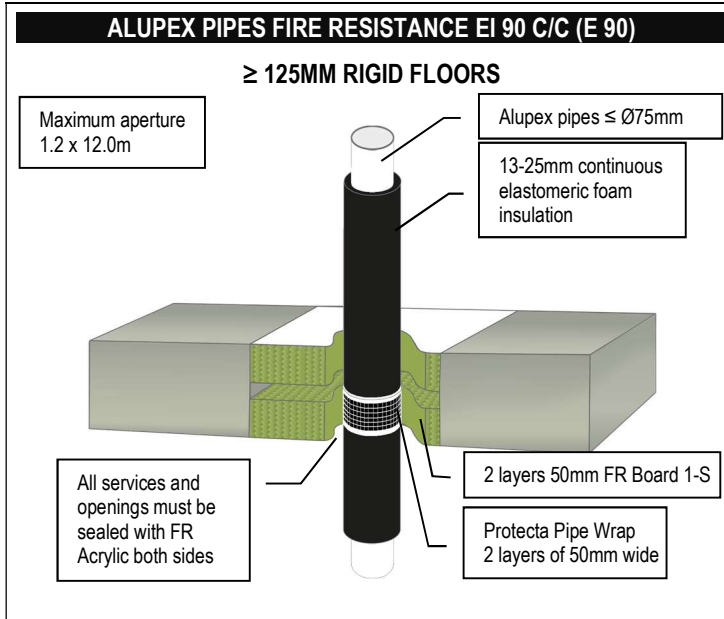


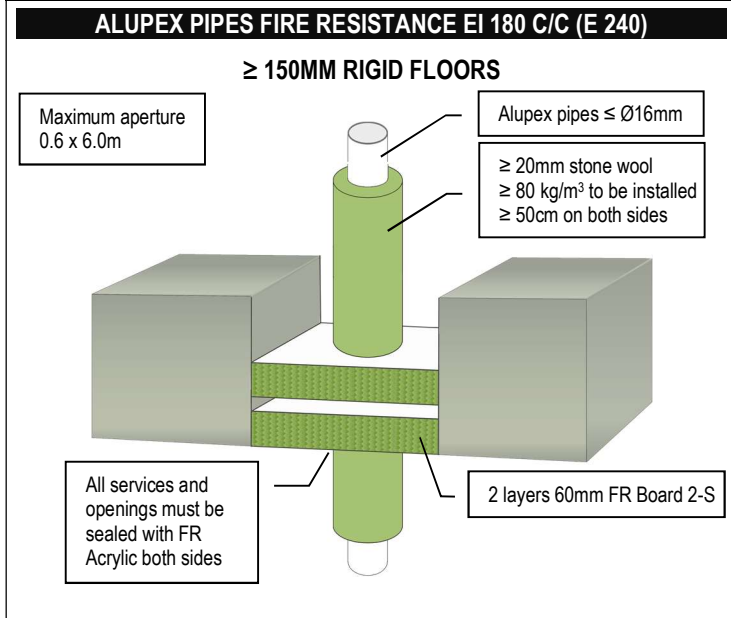
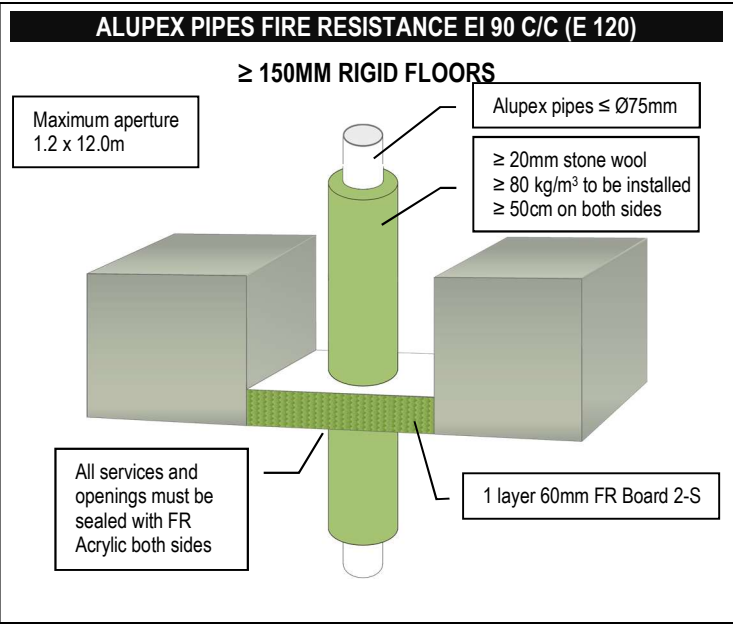
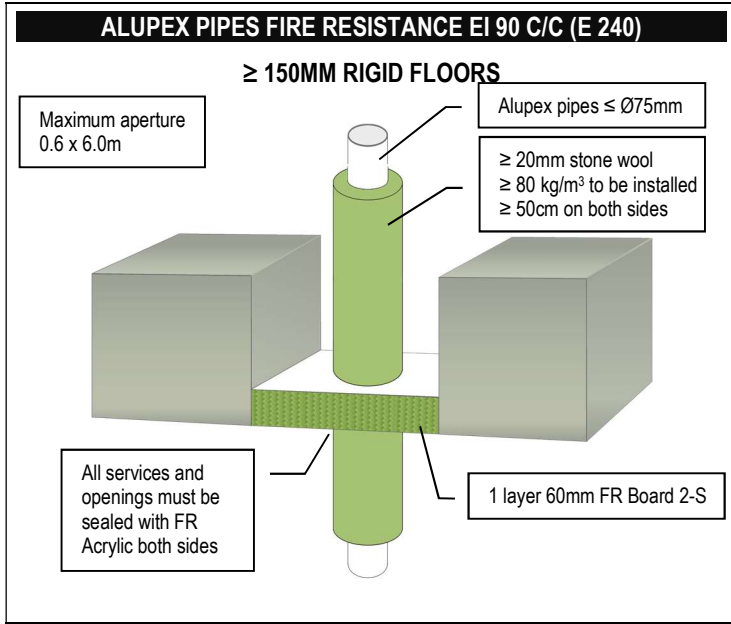












PLASTIC PIPES FIRE RESISTANCE EI 60

≥ 125MM RIGID FLOORS

Maximum aperture 1.2 x 12.0m

Plastic pipe

1 layer 60mm FR Board 2-S

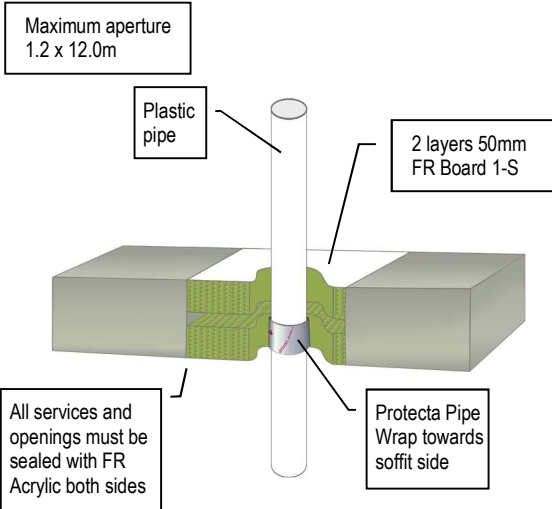
Protecta Pipe Wrap towards soffit side

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

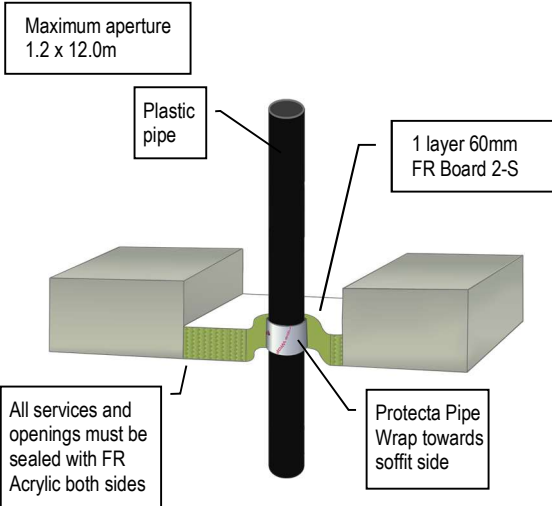
≥ 125MM RIGID FLOORS



| 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 160mm PVC | 4.0 – 9.5mm | 50 x 10.8mm (6 layers) | EI 60 C/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 160mm PE | 4.9 – 14.6mm | 50 x 10.8mm (6 layers) | EI 60 C/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) |

COMPOSITE PLASTIC PIPES FIRE RESISTANCE EI 60-90

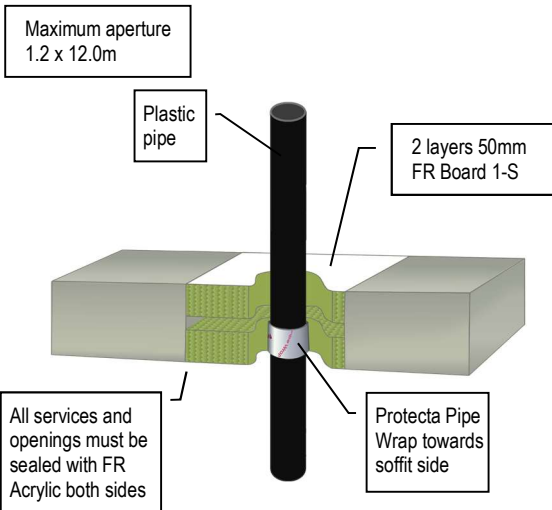
≥ 125MM RIGID FLOORS



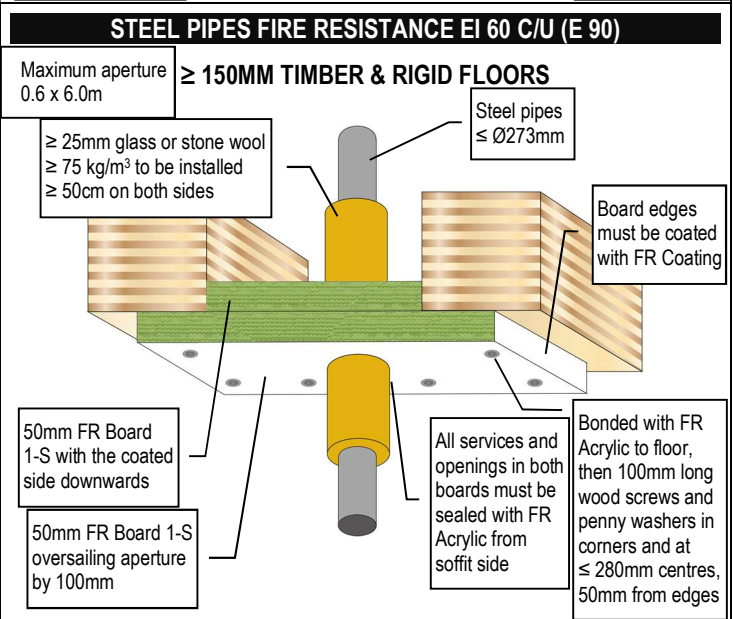
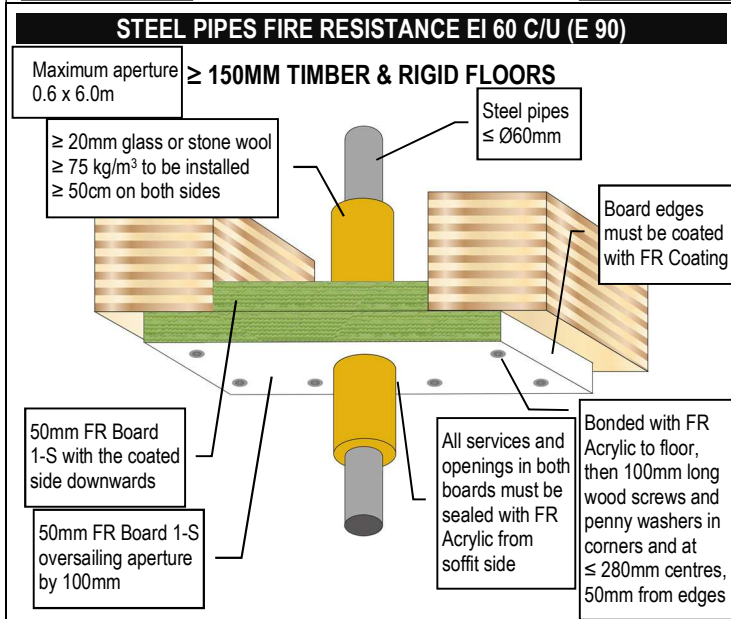
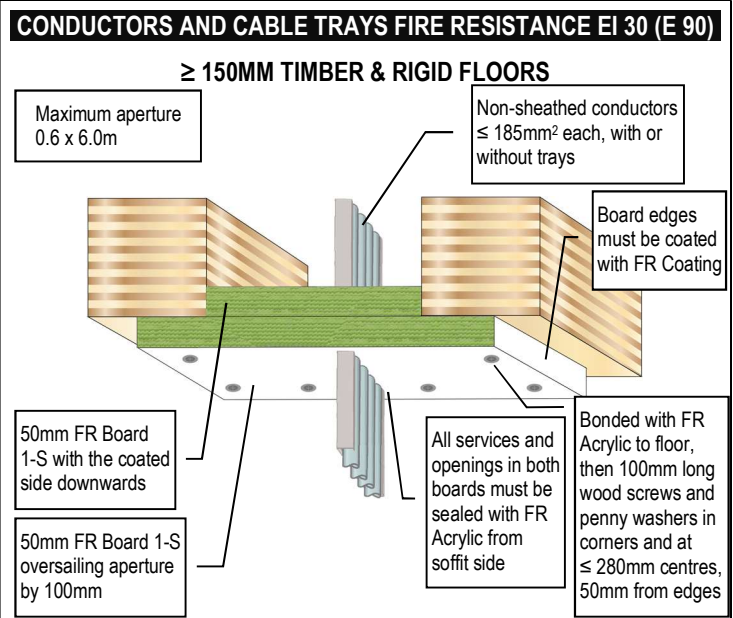
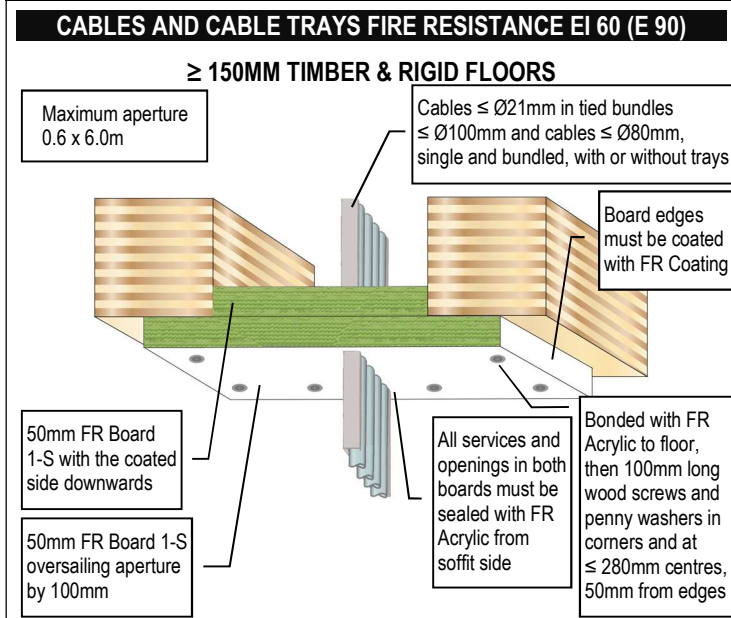
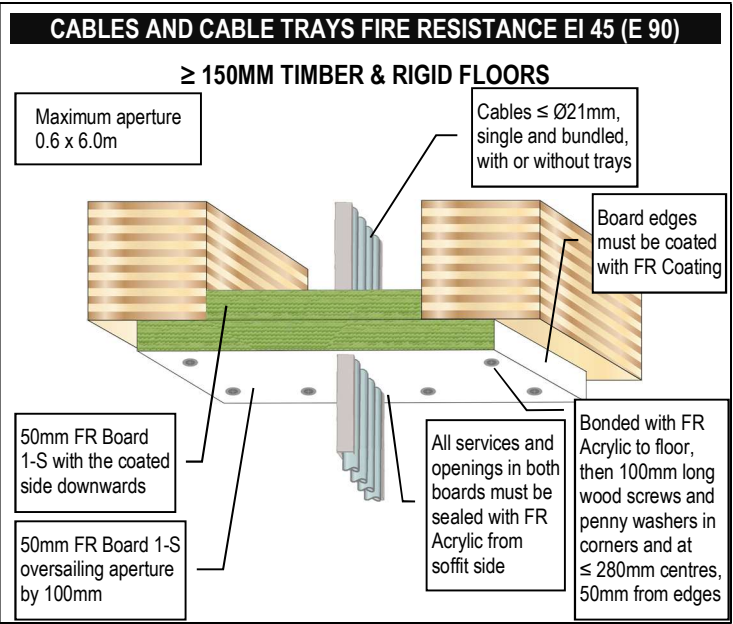
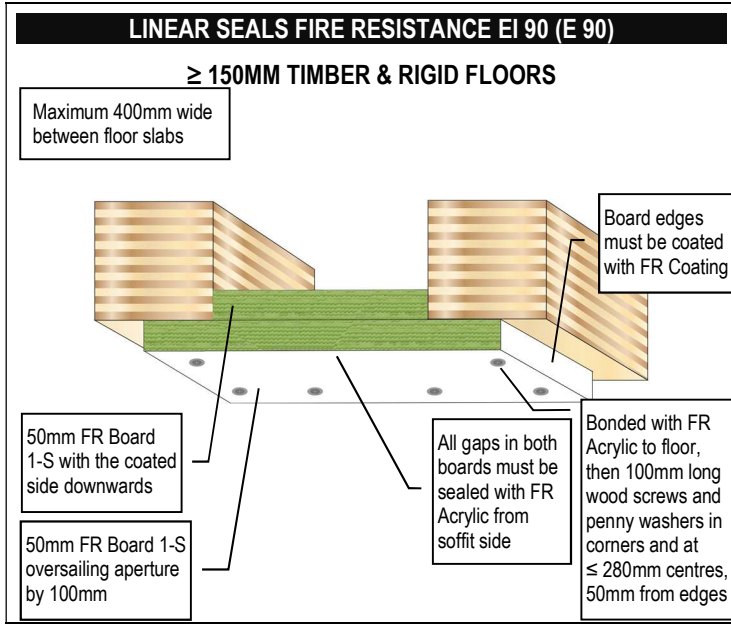
| Services | FR Pipe Wrap | Classification |
|--------------------------------|-----------------------|-------------------|
| ≤ Ø 20mm Aquatherm green MF | 50 x 1.8mm (1 layer) | EI 60 C/C (E 120) |
| < Ø 110mm Aquatherm green MF | 50 x 3.6mm (2 layers) | EI 60 C/C (E 120) |
| Ø 110mm Aquatherm green MF | 50 x 3.6mm (2 layers) | EI 90 C/C (E 120) |
| ≤ Ø 50mm Geberit Silent PP | 50 x 3.6mm (2 layers) | EI 60 U/U (E 120) |
| ≤ Ø 110mm Geberit Silent PP | 50 x 3.6mm (2 layers) | EI 60 U/C (E 120) |
| ≤ Ø 50mm Hulioli Ultra Silent | 50 x 3.6mm (2 layers) | EI 60 U/U (E 120) |
| < Ø 110mm Hulioli Ultra Silent | 50 x 3.6mm (2 layers) | EI 60 U/C (E 120) |
| Ø 110mm Hulioli Ultra Silent | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120) |
| Ø 110mm POLO-KAL NG | 50 x 3.6mm (2 layers) | EI 60 U/C (E 90) |
| ≤ Ø 50mm Rehau Raupiano Plus | 50 x 3.6mm (2 layers) | EI 60 U/U (E 120) |
| < Ø 110mm Rehau Raupiano Plus | 50 x 3.6mm (2 layers) | EI 60 U/C (E 120) |
| Ø 110mm Rehau Raupiano Plus | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120) |
| ≤ Ø 50mm Uponor Decibel | 50 x 3.6mm (2 layers) | EI 90 U/U (E 120) |
| ≤ Ø 110mm Uponor Decibel | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120) |
| ≤ Ø 50mm Wavin AS+ | 50 x 3.6mm (2 layers) | EI 60 U/U (E 120) |
| < Ø 110mm Wavin AS+ | 50 x 3.6mm (2 layers) | EI 60 U/C (E 120) |
| Ø 110mm Wavin AS+ | 50 x 3.6mm (2 layers) | EI 90 U/C (E 120) |

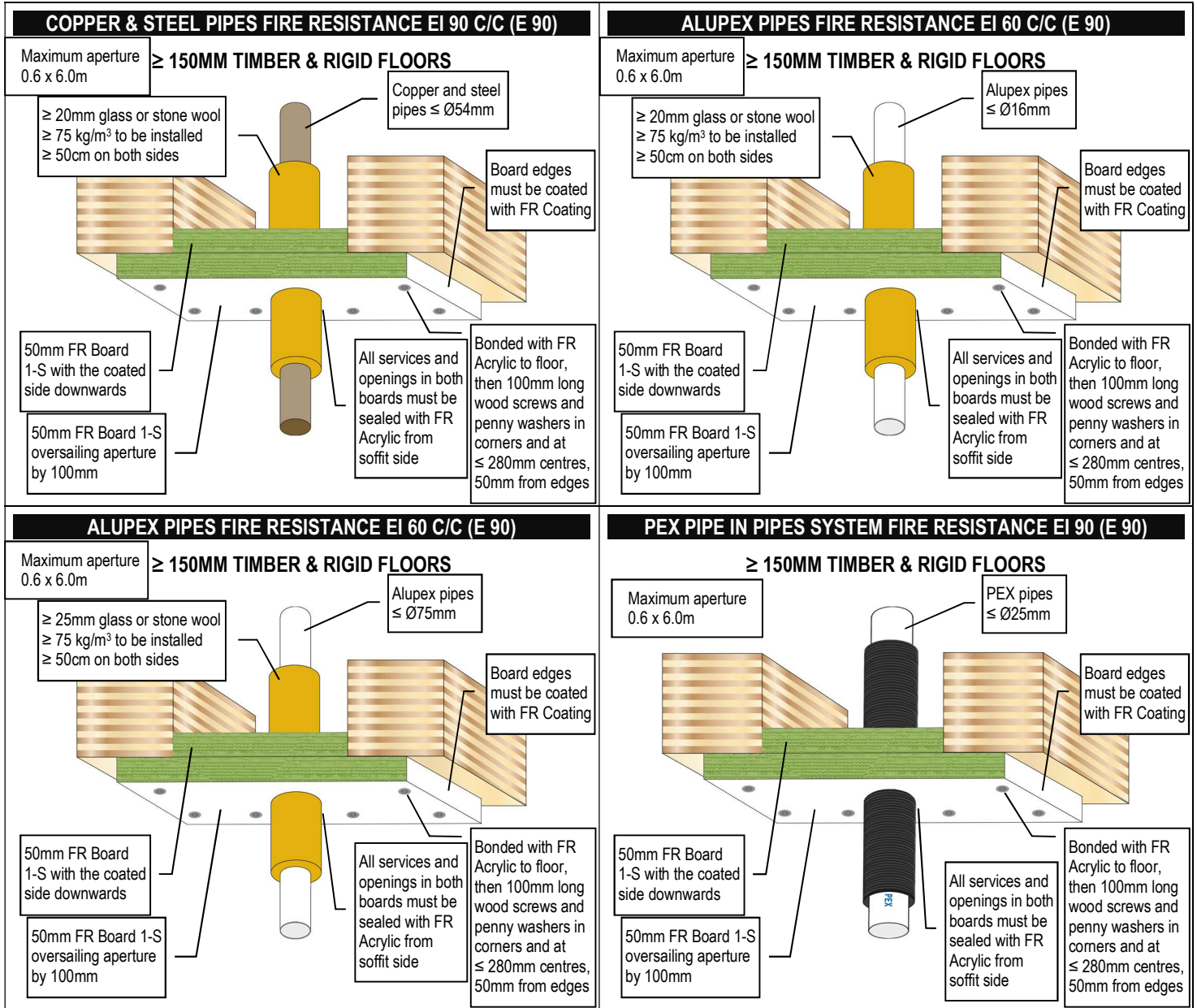
COMPOSITE PLASTIC PIPES FIRE RESISTANCE EI 60-120

≥ 125MM RIGID FLOORS



| Services | FR Pipe Wrap | Classification |
|-----------------------------|------------------------|--------------------|
| < Ø 160mm Geberit Silent PP | 50 x 10.8mm (6 layers) | EI 60 U/C (E 120) |
| Ø 160mm Geberit Silent PP | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120) |
| Ø 125mm POLO-KAL NG | 50 x 7.2mm (4 layers) | EI 120 U/C (E 120) |
| Ø 160mm POLO-KAL NG | 50 x 10.8mm (6 layers) | EI 120 U/C (E 120) |





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