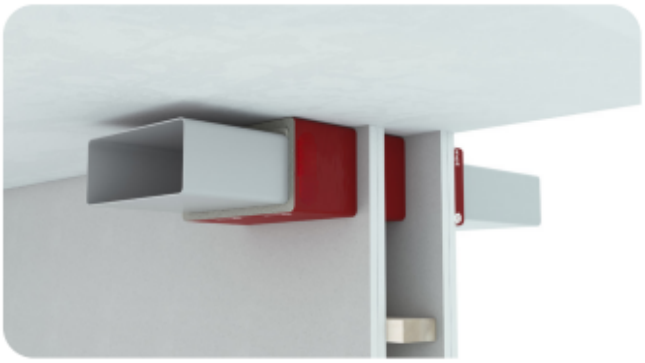
Intumescent Fire Sleeve

FRWS



Description

FRWS

The unique vacuum formed intumescent material design ensures that the expansion direction of the material crushes and seals the ducting in a fire situation without the need for any additional support or metal sleeving.

The lack of metal sleeving, not only makes installation easy, it also limits the risk of heat transfer through the structure as well as allowing compression to ensure a tight seal against fire and smoke or tight fitting against the ceiling soffit where needed.

The Fire Sleeves provide fire resistance ratings for Integrity (E) and Insulation (I) for up to EI120 minutes depending on the construction.

Fire Tested for both internal and external wall constructions. The Fire Sleeves are CE Marked with a European Technical Approval (ETA) based on extensive fire testing to BS EN 1366-3.

Dimensions (mm)

Duct size	Nom. Thickness	Nom. Ext. W / D	Nom. Ext. H	Length
110 x 54	10 - 15	134	83	180
204 x 60	10 - 15	228	89	180
204 x 60	10 - 15	228	89	360
220 x 90	10 - 15	224	124	180
220 x 90	10 - 15	224	124	360
100 (103)	15	224	-	180
125 (127)	15	160	-	280

Technical Data

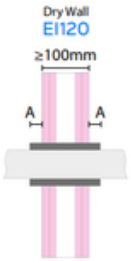
- Fire rated product up to EI 120 minutes
- Tested for masonry, concrete and plasterboard walls
- Tested in external wall / SFS constructions
- Can be installed within Ablative Coated Fire Batts
- CE Marked
- U/U - Uncapped/Uncapped tested as required for ventilated
- systems
- Can be retro fitted
- Low profile design
- Available preformed and ready to install in both circular or
- rectangular shapes
- Compressible material, offers accommodation for deflection
- No metal sleeving or boxing out required

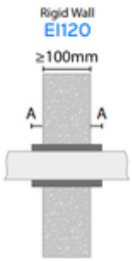
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Intumescent Fire Sleeve FRWS

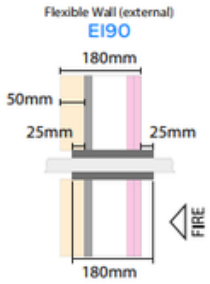
Installation variations





Test standard	Duct size ref.	Duct size (mm)	Duct size range (mm)	Wall thickness (mm)	Material	Min. sleeve length (mm)	Min. protrusion (A) (mm)	Fire rating	End cap configuration	Report No.
EN 1366-3	100	103	15 - 103	1.5	PVC	150	25	E1120	U/U	ETA 20-1164
EN 1366-3	125	127	15 -127	1.8	PVC	250	75	E1120	U/U	ETA 20-1164
EN 1366-3	110 x 54	110 x 54	110 x 54	1.5 - 1.8	PVC	150	25	E1120	U/U	ETA 20-1164
EN 1366-3	204 x 60	204 x 60	204 x 60	1.5 - 1.8	PVC	150	25	E1120	U/U	ETA 20-1164
EN 1366-3	220 x 90	220 x 90	220 x 90	1.5 - 1.8	PVC	150	25	E1120	U/U	ETA 20-1164

Service Support must be max. 300mm from the surface of the wall.
Seals must be minimum 200mm apart.
Rigid Walls must comprise concrete, aerated concrete or masonry with a minimum density of 650 kg/m3 (wall type A, see ETA) or concrete or masonry with a minimum density of 1100 kg/m3 (wall type B).



Construction Build-Up

Celotex PIR Foil Faced Insulation 50mm thick / 31kg/m3
Siniat GTEC Weather Defence Board SE 1x12.5mm
Rockwool ProRox SL920 Rock Fibre Insulation 100mm thick / 45kg/m3 Metsec
Steel Stud 90mm wide
Siniat GTEC Fire Board SE Plasterboard 2x12.5mm

Test standard	Duct size ref.	Duct size (mm)	Duct size range (mm)	Wall thickness (mm)	Material	Min. sleeve length (mm)	Min. protrusion (mm)	Fire rating	End cap configuration	Report No.
EN 1366-3	100	103	15 - 103	1.5	PVC	180	25	E190	U/U	WF 411551
EN 1366-3	125	127	15 - 127	1.8	PVC	180	25	E190	U/U	WF 411551
EN 1366-3	110 x 54	110 x 54	110 x 54	2.25 (+ / - 0/15mm)	PVC	180	25	E190	U/U	WF 411551
EN 1366-3	204 x 60	204 x 60	204 x 60	2.25 (+ / - 0/15mm)	PVC	180	25	E190	U/U	WF 411551
EN 1366-3	220 x 90	220 x 90	220 x 90	2.25 (+ / - 0/15mm)	PVC	180	25	E190	U/U	WF 411551

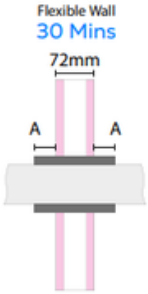
Service Support must be max. 300mm from the surface of the wall
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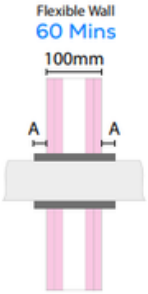
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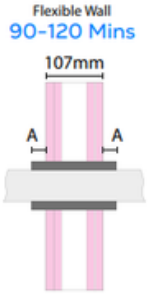
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Intumescent Fire Sleeve FRWS

Installation variations







Test standard	Duct size ref.	Duct size (mm)	Wall thickness (mm)	Material	Standard sleeve length (mm)	Min. protrusion in 72-99mm tick walls	Min. protrusion in >100mm tick walls	Soffit fix allowed	Side by side installation	Fire rating	End cap configuration	Report No.
BS 476 Pt.22	100	103	1.5	PVC	180	39	25	N	N	30, 60, 90, 120	U/U	PAR/14600/01
BS 476 Pt.22	125	127	1.8	PVC	280	89	75	N	N	30, 60, 90, 120	U/U	PAR/14600/01
BS 476 Pt.22	110 x 54	110 x 54	1.5	PVC	180	39	25	Y	Y	30, 60, 90, 120	U/U	PAR/14600/01
BS 476 Pt.22	204 x 60	204 x 60	1.5 - 1.8	PVC	180	39	25	Y	Y	30, 60, 90, 120	U/U	PAR/14600/01
BS 476 Pt.22	220 x 90	220 x 90	1.8	PVC	180	39	25	Y	Y	30, 60, 90, 120	U/U	PAR/14600/01

When rectangular ducts fixed underside the soffit, top edge of Fire Sleeve must be tight to the soffit, max. 5mm gaps allowable if sealed with intumescent acrylic sealant.

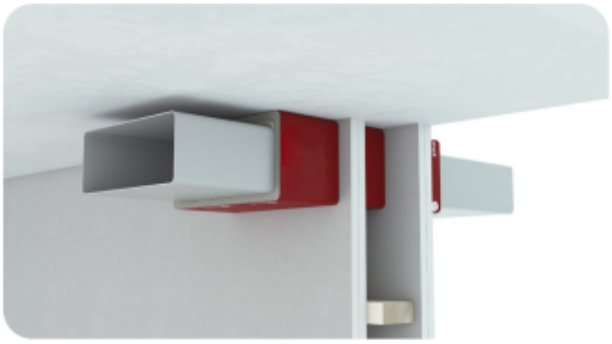
When rectangular ducts fixed side by side, limited to maximum 3No., adjacent Fire Sleeves must be in close and constant contact.

When rectangular ducts fixed side by side, ducts must be of the same size.

Please refer to PAR/14600/01 for more limitations on multiple duct installations.

Service Supports must be max. 300mm from the surface of the wall.

Individual seal openings must be minimum 200mm apart.



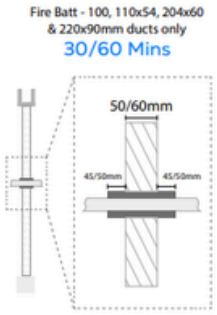


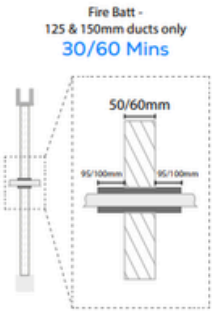
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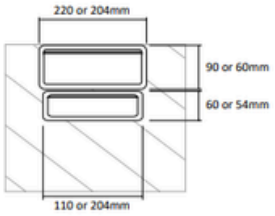
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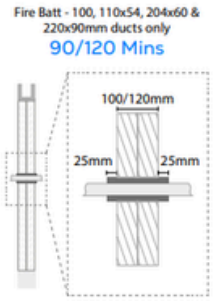
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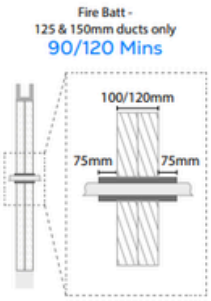
Installation variations

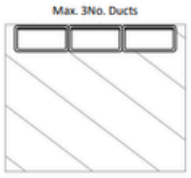












Test standard	Duct size ref.	Duct size (mm)	Wall thickness (mm)	Material	Standard sleeve length (mm)	Min. protrusion (mm)	Soffit fix allowed	Side by side installation	Fire rating	End cap configuration	Report No.
BS 476 Pt.22	100	103	1.5	PVC	180	45/50 or 25mm	N	N	30, 60, 90, 120	U/U	PAR/15162/01
BS 476 Pt.22	125	127	1.8	PVC	280	95/100 or 75mm	N	N	30, 60, 90, 120	U/U	PAR/15162/01
BS 476 Pt.22	110 x 54	110 x 54	1.5	PVC	180	45/50 or 25mm	Y	Y	30, 60, 90, 120	U/U	PAR/15162/01
BS 476 Pt.22	204 x 60	204 x 60	1.5 - 1.8	PVC	180	45/50 or 25mm	Y	Y	30, 60, 90, 120	U/U	PAR/15162/01
BS 476 Pt.22	220 x 90	220 x 90	1.8	PVC	180	45/50 or 25mm	Y	Y	30, 60, 90, 120	U/U	PAR/15162/01

Ablative Coated Batts, 50 or 60mm thick, must have suitable supporting documentation to demonstrate to the fire ratings required in accordance with BS476: Part 22
Min. spacing to seal edge or between penetrations must be 50mm
When rectangular ducts fixed underside the soffit, top edge of Fire Sleeve must be tight to the soffit, max. 5mm gaps allowable if sealed with intumescent acrylic sealant
When rectangular ducts fixed side by side, limited to maximum 3No., adjacent Fire Sleeves must be in close and constant contact When rectangular ducts fixed side by side, ducts must be of the same size
When stacked ducts are installed, max. 2no. Stacked ducts of the same or similar size, e.g. 220x90 and 204x60 or 204x60 and 110x54. Please refer to PAR/15162/01 for more limitations on multiple duct installations
Service Supports must be max. 300mm from the surface of the wall
Individual seal openings must be minimum 200mm apart

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Intumescent Fire Sleeve FRWS

Physical properties

Property	Units	Value
Free expansion	Radio:`	FF109 Sleeve = 6:1 / FF107 Pad = 30:1

Properties

Colour	Red
Finish	Glossy label on reinforced aluminium foil
Cuttability	Can be cut lengthways to retrofit
Compressability	Does compress
Working life	48 years
Storage	Dry, ambient
Transportation storage temprature	-20°C to +70°C
Durability	Type X intended for use in conditions exposed to weather (UV, rain, frost)
Smoke/Halogen content	Low Smoke / Zero Halogen

Tested duct sizes

Rectangular all in mm 110 x 54
110 x 54
204 x 60
220 x 90

Circular Ø all in mm 100 (103)
100 (103)
125 (127)

Tools / fixings

- Knife
- Aluminium foil repair tape
- Hole cutting tools as required for substrate

Maintenance

No active maintenance required, where alterations are made around the product it should be checked visually to ensure that the product is still installed as per fitting instructions and tested systems.

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