



**GIB® Shaftwall – Two Way FRR**

SPECIFICATION NUMBER	FIRE RESISTANCE RATING	FIRE SIDE	SHAFT SIDE LINING	LANDING SIDE LINING
GBSH 30	-/30/30	Either Side	2 x 13mm GIB Fyreline®	1 x 13mm GIB Fyreline®
GBSH 60a	-/60/60	Shaft Side	2 x 13mm GIB Fyreline®	1 x 13mm GIB Fyreline®
GBSH 60b	-/60/60	Either Side	2 x 13mm GIB Fyreline®	2 x 13mm GIB Fyreline®
GBSH 90a	-/90/90	Shaft Side	2 x 13mm GIB Fyreline®	2 x 13mm GIB Fyreline®
GBSH 90b	-/90/90	Either Side	2 x 13mm GIB Fyreline®	INNER LAYER: 1 x 16mm GIB Fyreline® OUTER LAYER: 1 x 13mm GIB Fyreline®
GBSH 120a	-/120/120	Shaft Side	2 x 13mm GIB Fyreline®	INNER LAYER: 1 x 16mm GIB Fyreline® OUTER LAYER: 1 x 13mm GIB Fyreline®
GBSH 120b	-/120/120	Either Side	2 x 13mm GIB Fyreline®	2 x 19mm GIB Fyreline®

GIB® Shaftwall is constructed from the Landing Side of the shaft. All systems are non-load bearing.

**FRAMING & WALL HEIGHT**

GIB® Shaftwall Framing comprising CH stud, E stud and J-Track.

The J-Track is installed at the top and bottom of the wall. Installation starts at one end of the wall using an E stud. CH studs are spaced at 600mm centres maximum and friction fitted into the top and bottom tracks, there is to be no mechanical fixing. Installation is completed at the other end using a J-Track. A 15mm expansion gap is left between the studs and the track at the top of the frame. Maximum wall height is 3 metres.

**LINING**

2 layers of 13mm GIB Fyreline® on the shaft side and the appropriate number of layers and type of GIB® Plasterboard as detailed in the above table on the landing side.

On the shaft side a single sheet of 13mm GIB Fyreline® is cut lengthwise and placed as a 26mm thick 600mm wide plank vertically in the CH stud as shown. Position the board 'taper to a cut-end' to facilitate easy installation in the CH stud. The board is fixed hard to floor and a 15mm gap is left at the top of the frame which is filled with an appropriate fire rated mastic sealant of equivalent fire rating (consult the sealant supplier or manufacturer) prior to lining the floor side of the wall.

Floor side linings are fixed vertically, using full height sheets where possible. Where sheet end butt joints are unavoidable they shall be formed over nogs. All sheet joints must be formed over framing. Linings are fixed hard to the floor. Any gaps that are left at the top of the linings are to be filled with an appropriate fire rated mastic sealant of equivalent fire rating (consult the sealant supplier or manufacturer).

**FASTENING THE LINING**

**Shaft Side**

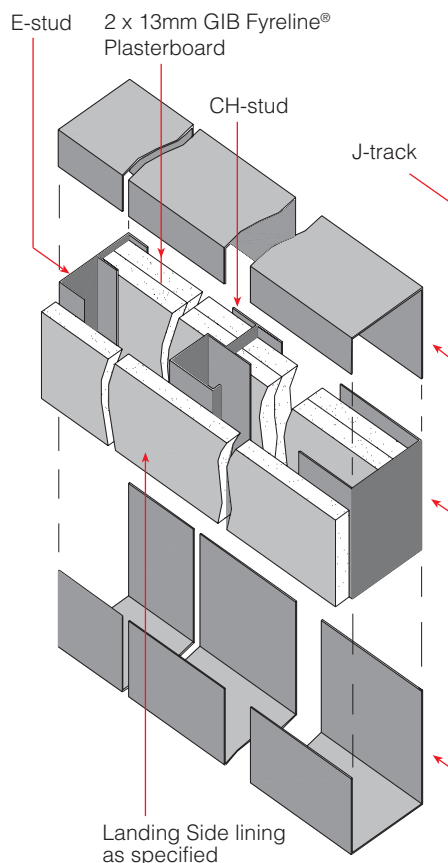
Linings are friction fitted into the CH or E stud. At the end of the wall, linings are fixed to the J track using 40mm x 6g GIB® Grabber® Self Tapping Drywall Screws at 300mm centres.

**Landing Side**

Fix to each stud with 6g GIB® Grabber® Self Tapping Drywall Screws at 300mm centres with the following lengths:

- SINGLE OR INNER LAYER (13mm or 16mm GIB® Plasterboard): 32mm
- OUTER LAYER (13mm or 16mm GIB® Plasterboard): 41mm
- 19mm GIB Fyreline®: INNER LAYER: 32mm; OUTER LAYER: 51mm x 7g screws as above.

**Note:** Do not fix to the top and bottom J tracks.



In order for GIB® systems to perform as tested, all components must be installed exactly as prescribed. Substituting components produces an entirely different system and may seriously compromise performance. Follow system specifications.



JOINTING

Shaft Side: Unstopped

Floor Side

INNER LAYER: Unstopped

OUTER LAYER: all screw heads stopped and all sheet joints tape reinforced and stopped in accordance with the "GIB® Site Guide".

INSTALLATION

Top and Bottom Tracks

J-Tracks are cut to length and mechanically fixed at each end, and at a maximum of 600mm centres to the floor and upper beam or structural support. Place the long leg of the J-Track toward the shaft. For steel frame construction, install J-Track prior to any fireproofing spray application.

End Studs

E-Stud is cut to full height and mechanically fixed at a maximum of 600mm centres to columns or support structures prior to any fireproofing spray application. A J-Track is cut and fixed at the opposite end of the wall in the same manner placing the long leg towards the shaft.

GIB® Plasterboard Linings

Using full height sheets where possible, cut tapered edged 13mm GIB Fyrelite® lengthwise in half leaving two 600mm wide panels. In all cases the panels should be cut to length to leave a 15mm clearance between the top of the panel and the J-Track. Place the lining back to back with a taper at each side of the 600mm width and starting at the E-Stud the two layers are friction fitted into the E-Stud on side nearest the shaft.

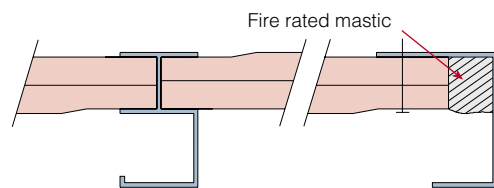
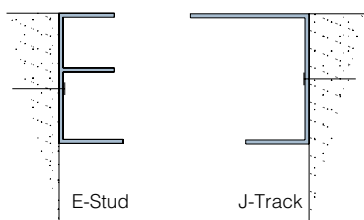
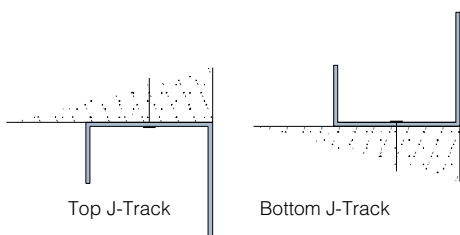
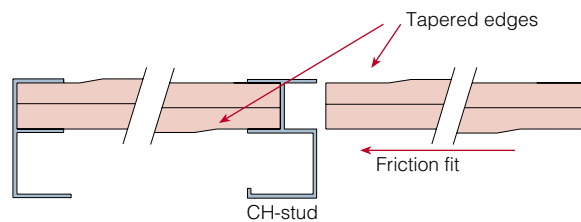
Studs

CH-Studs are cut 15mm short of the full height between the top and bottom J-Tracks and placed vertically into the J-Tracks with the H side of the stud towards the Shaft. The stud is then located so that the GIB® lining slips into the H of the CH-Stud. Cutting further 600mm wide panels and locating them into the H section this procedure is repeated until the final gap is 600mm or less.

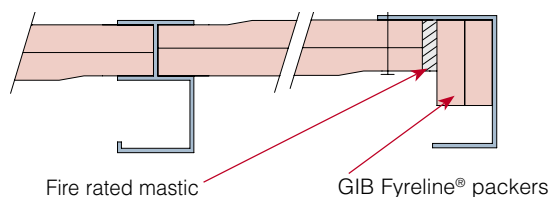
End Lining Panel

The final lining panel is cut to such a size that it can be angled into the last stud and located into the J-Stud already fixed to the structure. This is screw fixed to the long leg of the J-Stud using 41mm x 6g GIB® Grabber® Self Tapping Drywall Screws at 300mm centres. To allow entry of the final lining panel, the bottom J-Track floor side upstand will require cutting at the last E-Stud and bent down until the liner is in place and then returned to the vertical.

Before lining the floor side of the wall the 15mm gap between board and top J-Track and the gap between board and J-Stud should be completely filled with an appropriate fire rated mastic sealant of equivalent fire rating (consult the sealant supplier or manufacturer). Alternatively the gap can be filled with a GIB Fyrelite® packer as shown in the bottom detail below.



or



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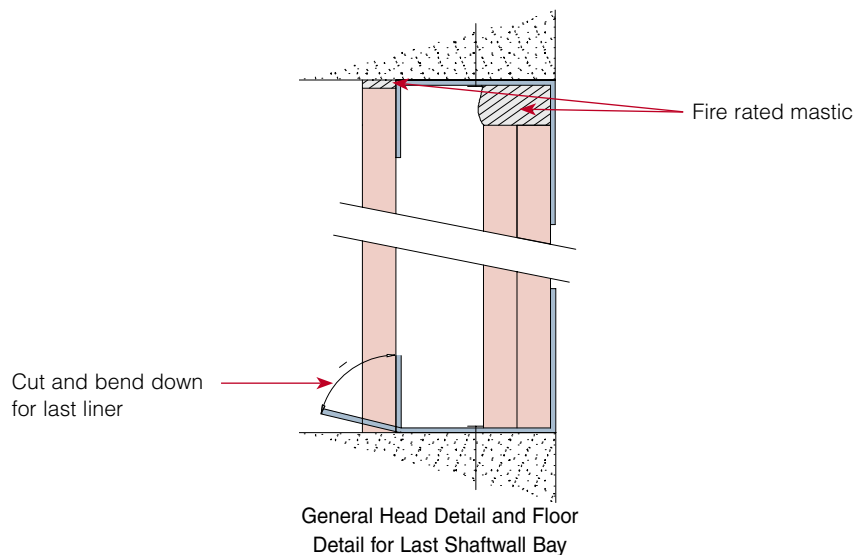
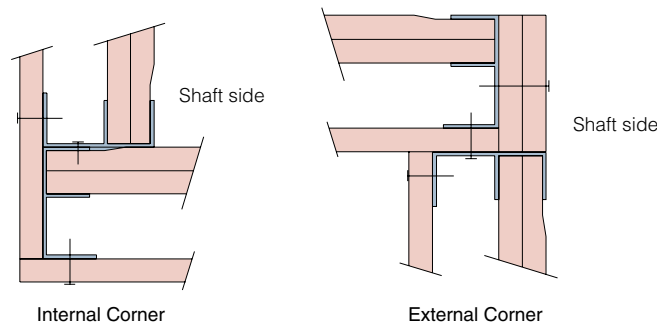
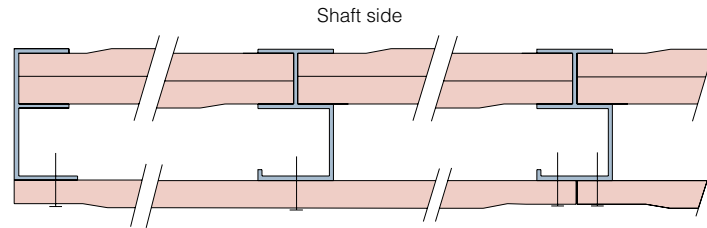


**Landing Side Lining**

Using full height sheets where possible, tapered edge GIB® Plasterboard is fixed vertically to each stud with GIB® Grabber® Self Tapping Drywall Screws at 300mm centres. In all cases the sheets are to be cut to length. All sheets should be bearing on to the floor and not fixed to

either the top or bottom J-Tracks. Systems with more than one layer of lining must have staggered joints at alternate studs. Any gaps are to be filled with an appropriate fire rated mastic sealant of equivalent fire rating (consult the sealant supplier or manufacturer).

**Details**



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**GIB® Fyreduct™ 900 – Two Way FRR**

SPECIFICATION NUMBER	LOADBEARING CAPABILITY	FIRE RESISTANCE RATING	LINING REQUIREMENTS
GBFD 900	NLB	-/120/120	2 layers 19mm GIB Fyreline®
		-/90/90	2 layers 16mm GIB Fyreline®
		-/60/60	2 layers 13mm GIB Fyreline®
		-/30/30	2 layers 10mm GIB Fyreline®

**DUCT COMPONENTS**

**GIB Fyreline®**

63 x 34 x 0.55mm C-section galvanised steel stud.

32 x 32 x 0.55mm galvanised steel angle.

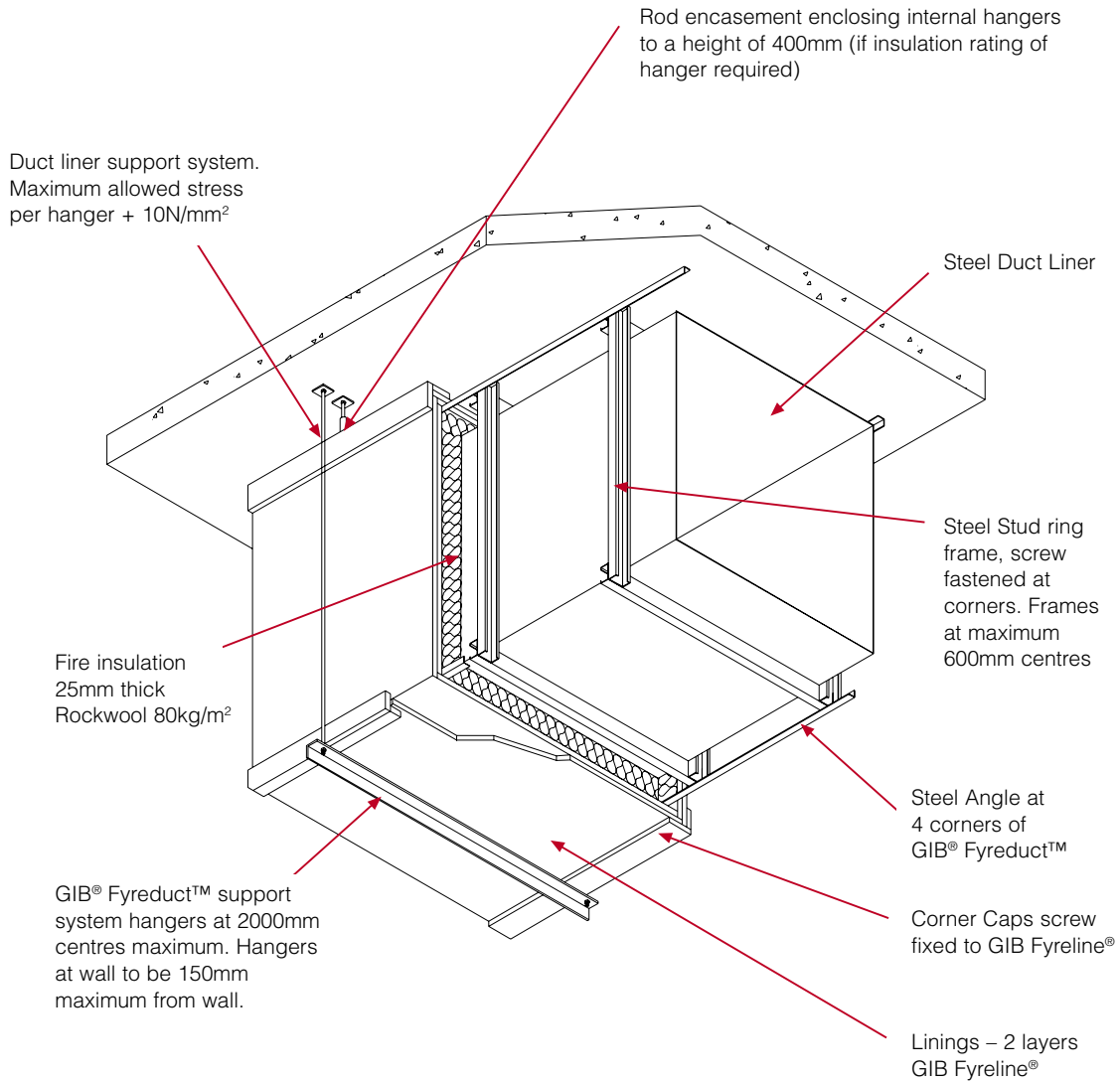
GIB® Grabber® Drywall Self Tapping Screws.

38mm x 10g GIB® Grabber® Laminator Screws.

Rockwool 80kg/m<sup>2</sup>

Steel duct liner.

Duct support system.

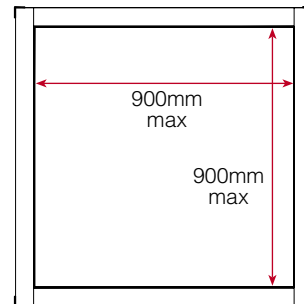


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**BUILDING THE DUCT**

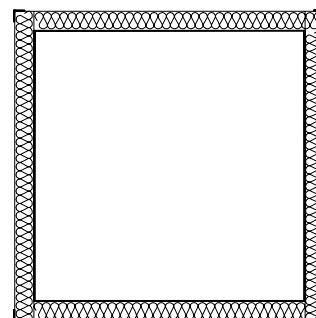
**Step 1**

Cut C-section studs and screw together at the corners to form ring frames around the steel duct liner.  
Fit angles to all corners of the steel frames.  
Space frames at 900mm centres maximum.



**Step 2**

Insert the Rockwool insulation in between the ring frames around all four sides of the duct.



**Step 3**

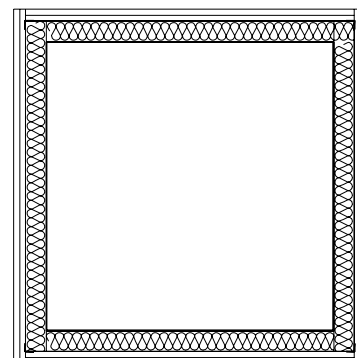
Sheets shall be touch fitted.  
Offset joints between layers by 600mm.  
All sheet joints must be formed over framing.

**INNER LAYER**

GIB® Grabber® Drywall Self Tapping Screws at 300mm centres to sheet perimeter and intermediate studs. The screw length must ensure 12mm penetration into the steel frame.

**OUTER LAYER**

GIB® Grabber® Drywall Self Tapping Screws at 300mm centres to sheet perimeter and intermediate studs. The screw length must ensure 12mm penetration into the steel frame.



**Step 4**

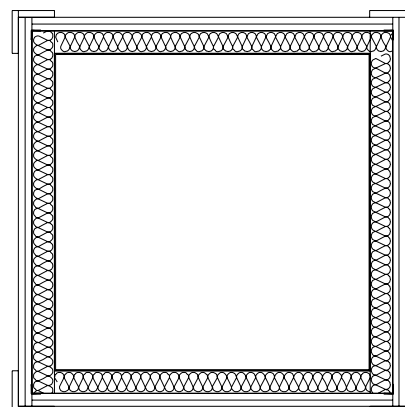
Fit GIB Fyreline® caps to all corners.  
Fix corner caps with 38mm x 10g GIB® Grabber® Laminator Screws.

**INNER LAYER**

Unstopped.

**OUTER LAYER**

All screw heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide".



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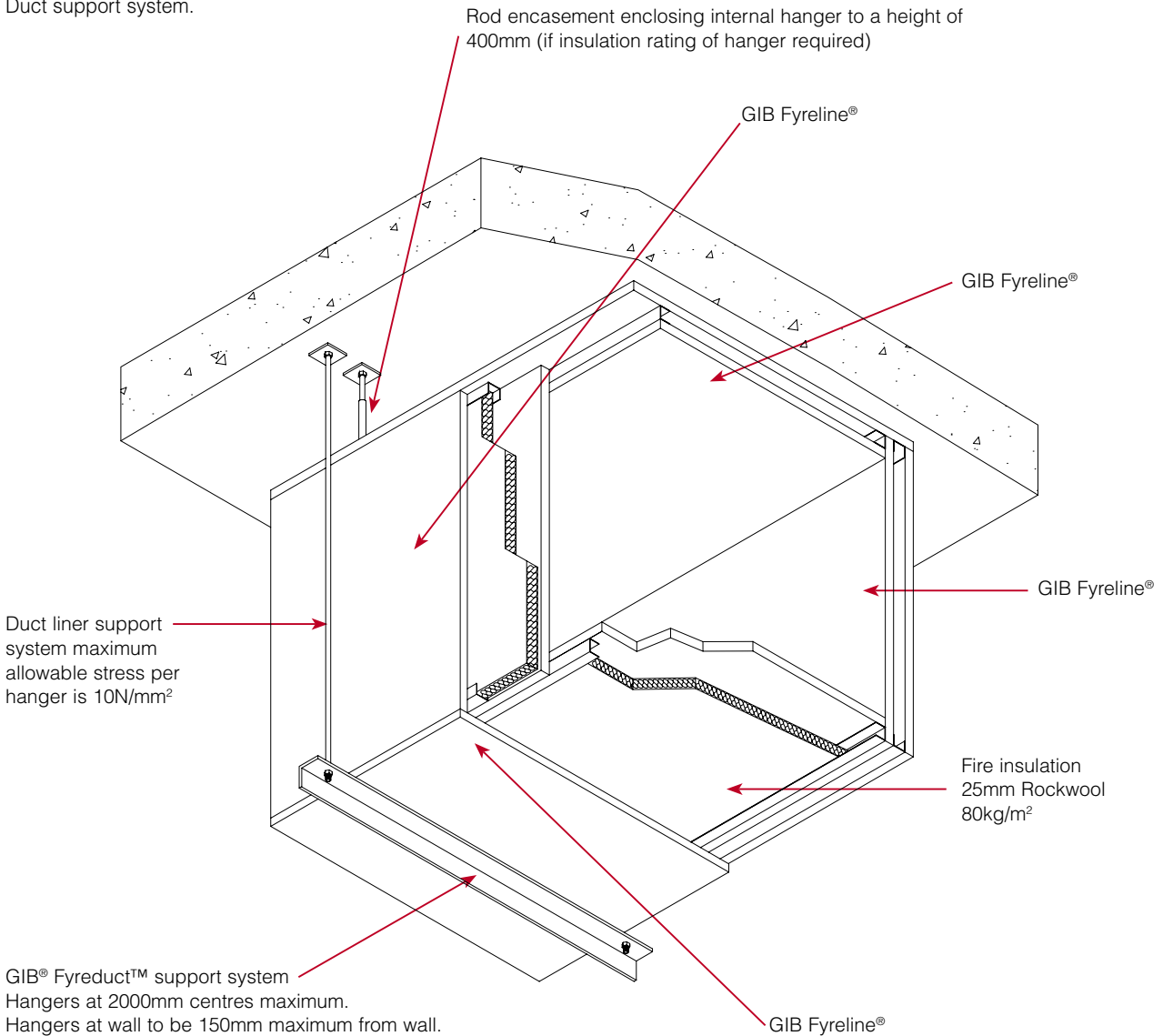
**GIB® Fyreduct™ 600 – Two Way FRR**

SPECIFICATION NUMBER	LOADBEARING CAPABILITY	FIRE RESISTANCE RATING	LINING REQUIREMENTS
GBFD 600	NLB	-/120/120	2 layers 19mm GIB Fyreline®
		-/90/90	2 layers 16mm GIB Fyreline®
		-/60/60	2 layers 13mm GIB Fyreline®
		-/30/30	2 layers 10mm GIB Fyreline®

**DUCT COMPONENTS**

**GIB Fyreline®**

- 63 x 34 x 0.55mm galvanised steel channel.
- 32mm x 6g GIB® Grabber® Drywall Self Tapping Screws.
- 38mm x 10g GIB® Grabber® Laminator Screws.
- Rockwool 80kg/m<sup>2</sup>
- Duct support system.



**Note:** All sheet end butt joints are to be back blocked with a 200mm wide strip of GIB Fyreline®

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**BUILDING THE DUCT**

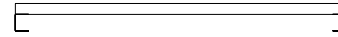
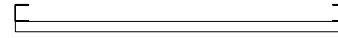
**Step 1**

Cut 600mm wide strips of GIB Fyreline® to form the bottom and top of the duct.

Attach 63 x 34 x 0.55mm galvanised steel channels to sheet edges with 32mm x 6g GIB® Grabber® Drywall Self Tapping Screws at 300mm centres.

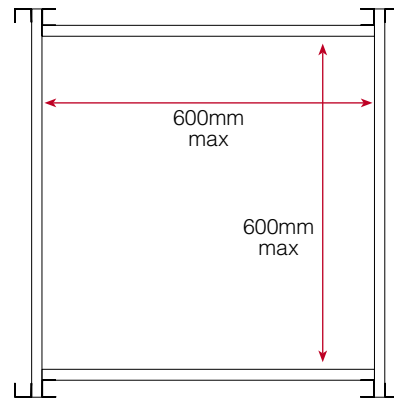
Cut strips of GIB Fyreline® to form the sides of the duct.

Attach 63 x 34 x 0.55mm galvanised steel channels to sheet edges with 32mm x 6g GIB® Grabber® Drywall Self Tapping Screws at 300mm centres.



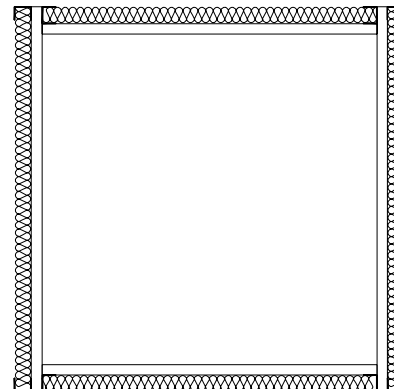
**Step 2**

Fabricate the duct by attaching 63 x 34 x 0.55mm galvanised steel channels at duct corners with 32mm x 6g GIB® Grabber® Drywall Self Tapping Screws at 300mm centres.



**Step 3**

Insert the Rockwool insulation around all four sides of the duct. Cut strips of GIB Fyreline® to form the outer layer of the duct.



**Step 4**

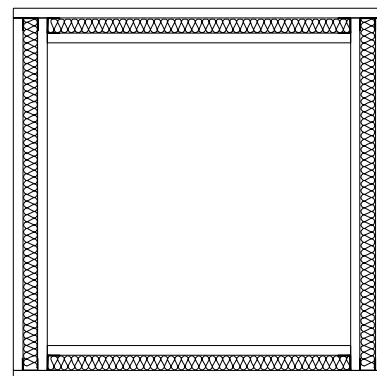
Sheets shall be touch fitted.

Offset joints between layers by 600mm.

All sheet joints must be back blocked with 200mm wide strips of GIB Fyreline® attached to outer lining with 38mm x 10g GIB® Grabber® Laminator Screws.

**OUTER LAYER**

32mm x 6g GIB® Grabber® Drywall Self Tapping Screws at 300mm centres to sheet edges.



**Step 5**

**INNER LAYER:** Unstopped.

**OUTER LAYER:** All screw heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide".

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**GIB® Ventshaft – Two Way FRR**

SPECIFICATION NUMBER	LOADBEARING CAPACITY	FIRE RESISTANCE RATING	LINING REQUIREMENTS	SYSTEM WEIGHT APPROX
GVS60	NLB	-/60/60	3 x 16mm GIB Fyreline®	45kg/m <sup>2</sup>

GIB® Ventshaft is constructed from the landing side of the shaft.

**FRAMING**

**Primary Horizontal Angles**

25mm x 50mm (0.75BMT) metal angles fixed to floor slab and slab soffit on all sides. Ensure a good fit of the angle at the corners. Fix with steel masonry anchors at 400mm centres. Mark the position of the anchors on the slab for future layout reference.

**Primary Vertical Angles**

25mm x 50mm (0.75BMT) metal angles to all corners full height in one continuous straight length ensuring good fit slab to slab. Fix with 16mm panhead self tapping screws.

**Secondary Angles**

After the first layer of 16mm GIB Fyreline® has been fixed, fix 25 x 50mm (0.75BMT) metal angles to the base and head positions on all sides ensuring a good fit at all corners. Fix with metal anchors at 400mm centres. Stagger anchors 200mm from primary anchors.

**WALL HEIGHT**

The wall height is limited to 3000mm.

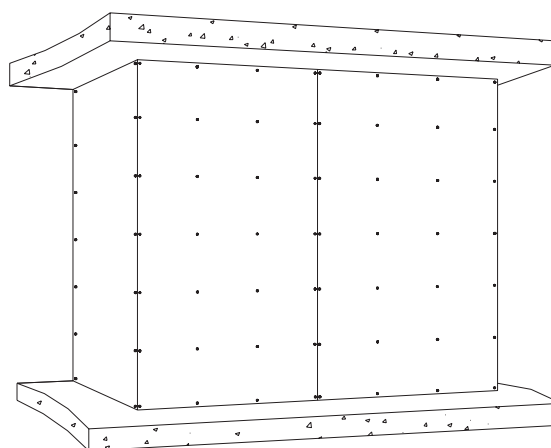
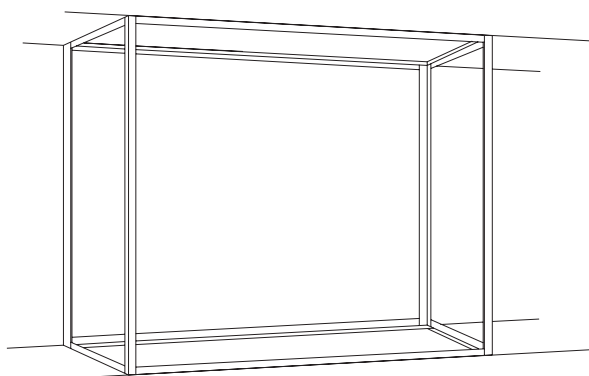
**LINING AND FASTENING**

**First Layer**

Fix the first layer of 16mm GIB Fyreline® to the metal angles at 600mm centres horizontally commencing from one end or corner progressively attaching around the shaft using 32mm x 6g GIB® Grabber® Screws. Fix the 16mm GIB Fyreline® to the metal angles at the corners and walls at 400mm centres commencing 200mm up from the base angle using 32mm x 6g GIB® Grabber® Screws. Plasterboard should be fixed hard to floor slab and slab soffit.

**Second Layer Lamination**

Cut sheet to provide a good fit slab to slab and/or intersecting walls. Mark up face of the 16mm GIB Fyreline® sheet at 400mm centres vertically, commencing from the recess to provide an even screw stagger. Note the recesses in the previous layer are supported by an additional double line of laminating screws. Mark up the face horizontally at 400mm centres commencing 200mm up from the base. Stagger/overlap sheets by 600mm. Fix second layer of 16mm GIB Fyreline® to the metal angles at 600mm centres commencing from one end or corner progressively attaching around the shaft using 41mm GIB® Grabber® Screws. Laminate to the first sheet using 38mm x 10g GIB® Grabber® Laminator Screws.





**Third Layer Lamination**

Cut sheet to provide a 10-13mm gap at the base and head where intersecting walls/structures of dissimilar materials occur. Mark up the face of the 16mm GIB Fyreline® at 400mm centres vertically commencing from the recess to provide an even screw stagger. Mark up the face horizontally at 400mm centres commencing from base. Note the recess in the previous layer is supported by an additional double line of laminating screws. Stagger/overlap sheets by 600mm. Screw fix at the perimeter to the metal angles using 63mm GIB® Grabber® Screws ensuring 10-13mm gap is provide for fire rated sealant. Laminate to second layer as first layer

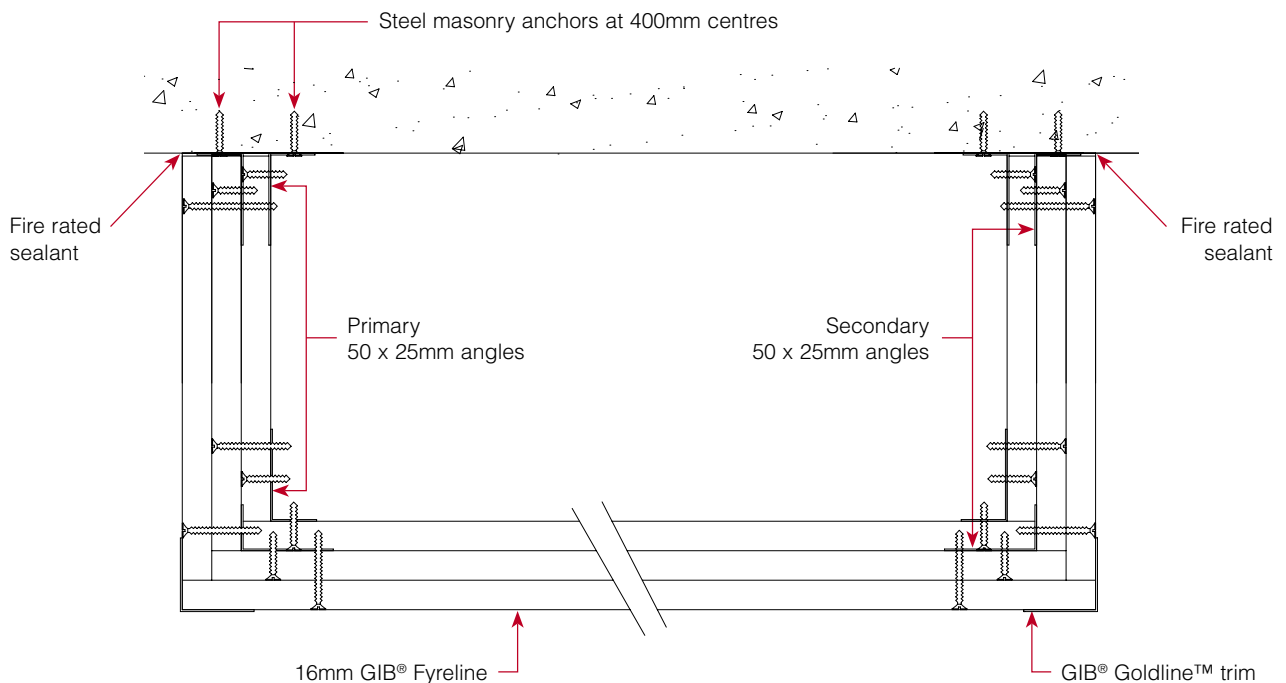
sheets using 38mm x 10g GIB® Grabber® Laminator Screws. Apply fire rated sealant to the perimeter. Ensure boards overlap at corners, fix external GIB® Goldline™ trims.

**JOINTING**

INNER LAYERS: Unstopped.

OUTER LAYER:

All screw heads stopped and all sheet joints tape reinforced and stopped in accordance with the publication entitled "GIB® Site Guide".



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