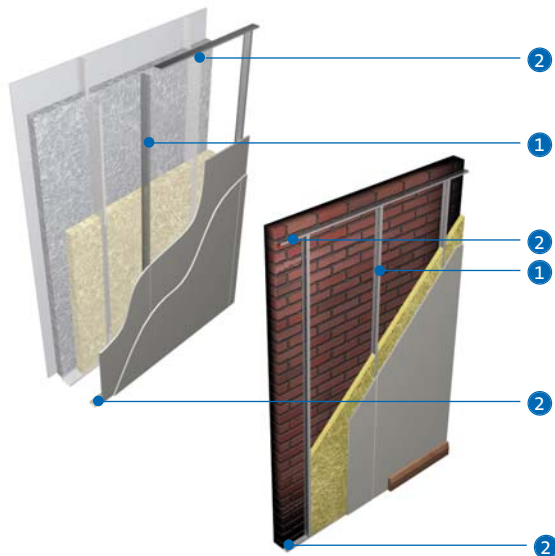


Independent wall lining system

Gyplyner™ IWL independent wall lining is a lightweight, non-loadbearing drylining which is erected independently of the external wall construction. The system is used in all types of building, but is particularly suitable for those with reinforced concrete or steel frames. The lining provides fire resistance to structural steel sections within the lining cavity and can be used to increase sound insulation and meet thermal performance requirements of new or existing masonry walls.





- 1 Gyframe 'I' Stud
- 2 Gyframe Floor & Ceiling Channel

Key facts

- Fully independent wall lining
- Compatible with external wall constructions including curtain walling, rain screen claddings, industrial claddings, brickwork and glazed atriums
- Satisfies BS 5234 strength and robustness requirements up to Severe Duty
- Provides fire protection to structural steelwork
- Provides fire resistance in association with external structure
- Can be used to upgrade the sound resistance and thermal insulation
- Provides service void

Components

Gyproc board products



Gyproc WallBoard^{1,2}

Thickness	12.5, 15mm
Width	1200mm



Gyproc FireLine^{1,2}

Thickness	12.5, 15mm
Width	1200mm



Gyproc SoundBloc¹

Thickness	12.5, 15mm
Width	1200mm



Gyproc DuraLine^{1,3}

Thickness	13.5, 15mm
Width	1200mm



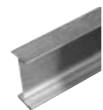
Gyproc Thermal Laminate

Width	1200mm
-------	--------

¹ Moisture resistant boards should be specified in intermittent wet use areas, e.g. showers areas, bathrooms and kitchens.

² Also used in DUPLEX grades where a vapour check is required.

Gypframe metal products



Gypframe 'I' Studs

Codes	48 I 50, 60 I 50, 60 I 70, 70 I 70, 92 I 90, 146 I 80
-------	--



Gypframe 'C' Studs

Codes	48 S 50, 60 S 50, 70 S 50, 70 S 60 92 S 50, 146 S 70
-------	---



Gypframe Standard Floor & Ceiling Channel⁴

Codes	50 C 50, 62 C 50, 72 C 50, 94 C 50 and 148 C 50
-------	--

³ Where single layer DuraLine is being fixed to Gypframe 'C' studs, these should be a minimum gauge of 0.6mm

⁴ Gypframe DC (Deep Flange) and EDC (Extra Deep Flange) Floor & Ceiling Channel are available in selected sizes for deflection head and increased height applications.

Gypframe metal products



Gypframe GFS1 Fixing Strap

or



GFT1 Fixing 'T'



Gypframe 99 FC 50 Fixing Channel



Gypframe GA5 Internal Fixing Angle



Gypframe GA6 Splayed Angle

Gypframe metal products



Gyproc Drywall Screws

For fixing boards to C stud framing up to 0.79mm thick.



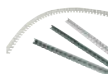
Gyproc Jack-Point Screws

For fixing boards to C stud framing 0.8mm thick or greater and 'T' studs greater than 0.5mm thick.



Gyproc Sealant

Sealing air paths for optimum sound insulation.



Gyproc edge beads

Protecting and enhancing board edges.

Components

Fixing and finishing products



Gyproc FireStrip

For fire-stopping deflection heads.



Gyproc Proflex Access Panels

Access to services for maintenance.



Gyproc jointing materials

For a seamless finish.



Gyproc Skimcoat, Gyproc Carlite Finish, Gyproc Board Finish

To provide a plaster skim finish.



MoyTherm Batts

For improved acoustic and thermal performance.



Gyproc Drywall Primer

Used to prepare for painting.

Tub contents 10 litre

OR



Gyproc Drywall Sealer

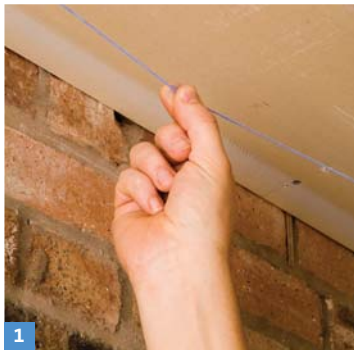
Used to provide vapour control.

Tub contents 10 litre

Construction tips

- Estimated construction time 3m² / man hour (single layer lining) or 2m² / man hour (double layer lining) ready for finishing
- All parts of the lining system (including thermal insulation) should remain independent of the external walling - position lining so a continuous **30mm minimum cavity** remains between the back of the insulation and the external walling
- Fire resistance is primarily to structural steel located between the lining and external cladding, but can also contribute to fire protection of the complete wall structure when the inside of the wall is exposed to fire (dependent on wall construction)
- Keep the dry lining cavity closed to prevent downgrading the thermal performance - where required, apply a continuous bead of Gyproc Sealant to the perimeter of external walls, around service penetrations, openings, junctions and around the perimeter of suspended timber floors

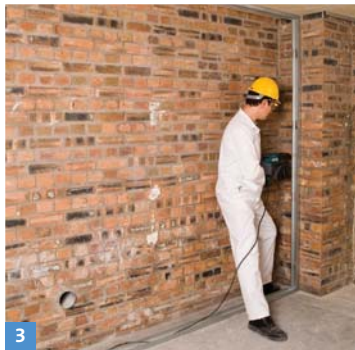
Installation



- Mark lines to indicate the position of the lining framework from the highest point on the background and make allowance for openings.
- Fix 50mm, 62mm, and 72mm Gyprframe Floor & Ceiling Channels along their centre line to the floor and ceiling at 600mm centres with suitable fixings (by others).
- 94mm and 148mm Gyprframe Floor & Ceiling Channels require two rows of staggered fixings, each at 600mm centres. Each row staggered by 300mm.



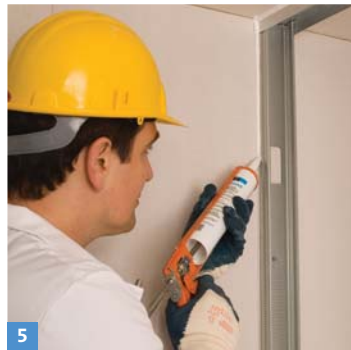
- For lining heights between 4200mm and 8000mm Gyprframe Deep Flange Floor & Ceiling Channel (DC) should be used at head and base.
 - For lining heights exceeding 8000mm Gyprframe Extra Deep Flange Floor & Ceiling Channel (EDC) should be used at head and base.
 - On uneven floors, a timber sole plate, 38mm deep x width of stud, may be required.
 - On new concrete or screeding, consider installing a damp proof membrane to the full lining width before locating the floor channel or sole plate.
- NB** Channel depths at the partition head may need increasing where deflection head detailing is required.



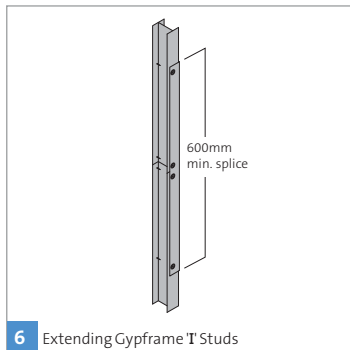
- Fix Gypframe 'C' Studs to abutments, junctions and openings only.
- Locate the first stud, twist into position and fix to the abutting wall with suitable fixings (by others).
- 48mm, 60mm, and 70mm studs require a single row of fixings along the centre line of the studs at 600mm centres.
- 92mm and 146mm studs require two rows of staggered fixings each at 600mm centres. Each row staggered by 300mm.



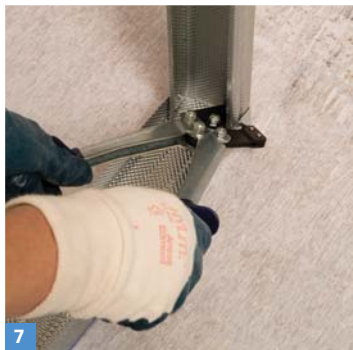
- Cut 'I' stud lengths to a neat fit (maximum possible entry into head channel), unless deflection head detailing is required.
- Cut studs using a chop saw or hacksaw.
- Locate 'I' studs at required centres (typically 600mm) to a friction fit within the channel sections - this allows for adjustment during boarding.
- **NB** Additional 'C' studs may be required to align with door and service openings.



- Apply Gyproc Sealant to both sides of the frame perimeters to provide optimum acoustic and thermal performance.



NB Where the wall height exceeds the available length of Gypframe 'I' Stud, fix sleeving channel to stud with Gyproc Wafer Head Screws or Wafer Head Jack-Point Screws. Provide two fixings in each flange of each stud (8 No. fixings in total).



Openings for Light and Medium Duty Linings

- Locate full height studs each side of the opening.
- Fix full height 'C' studs to the Gypframe Floor & Ceiling Channel at head and base using Gyproc Wafer Head Drywall Screws or Gyproc Wafer Head Jack-Point Screws, or crimping tool (dependant on the stud type and gauge).

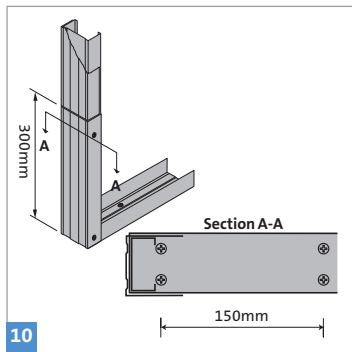
NB Only temporary fix the stud at the head if a deflection head detail is required.



- Form the head of the opening using a length of Gypframe Floor & Ceiling Channel.
- Stud centres must be maintained above the opening.



- At the head, cut and bend channel to extend 150mm down the face of the studs, and fix twice to each side of each stud.



Openings for Heavy and Severe Duty Linings

- Locate full height studs each side of the opening.
- Allow for extension of floor channel. This is then cut, bent, and interleaved as shown in section A-A.



- At the head, cut and bend channel to extend 150mm down the face of the studs, and fix twice to each side of each stud.
- Sleeve the studs either side of the opening with an additional cut length of Gyprframe Floor & Ceiling channel, stopping between upturned floor channel and downturned head channel.



Fixtures

- Install Gyframe 99 FC 50 Fixing Channel to accommodate light and medium weight fixtures.

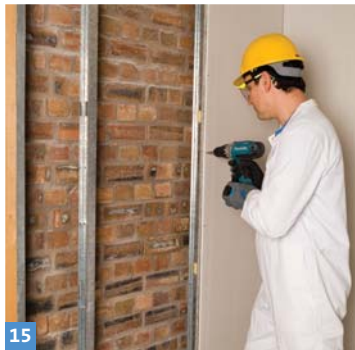


- Additional framing to provide suitable grounds for fixings and to transfer loadings, is required for heavier fixtures.
- Alternatively, Gyframe Service Support Plates may be used.



Services

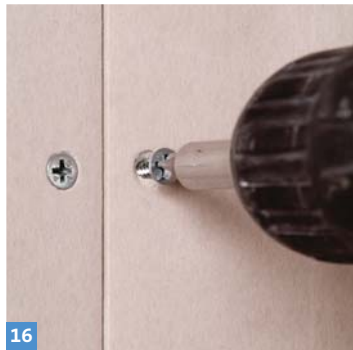
- Install services (by appropriate trades), normally after one side is boarded. Pass horizontal runs through cut-outs in the studs.
- Install Gyframe 99 FC 50 Fixing Channel or Gyframe Floor & Ceiling Channel between studs to provide support for recessed switch boxes, or use a high performance socket box detail.
- Additional detailing may be required subject to fire protection & sound performances.



Board fixing - single layer

- Fix boards to all framing members at 300mm centres using the appropriate length Gyproc screws.
- Reduce centres to 200mm at external angles.

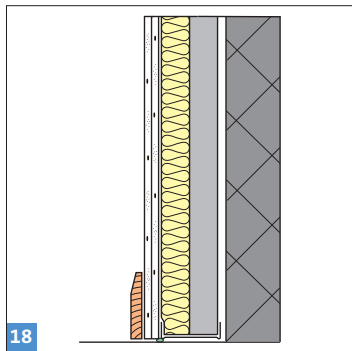
NB Select appropriate screw length to provide a nominal 10mm penetration into the Gyframe Steel framing.



- Lightly butt boards, inserting screws not closer than 10mm from bound edges and 13mm from cut edges.

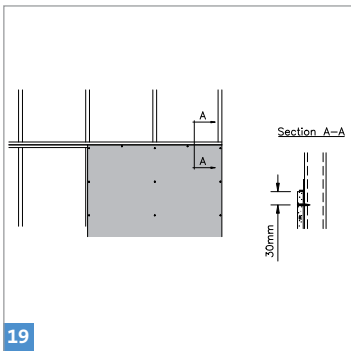


- Where openings occur, cut boards around the opening to avoid a joint directly in line with the edge of the opening.
- Install MoyTherm Batts (as required) progressively as boarding proceeds.



18

- Seal any gaps at the base of linings with Gyproc Sealant (in conjunction with Gyproc Joint Filler) where the lining is required to meet its optimum acoustic and/or thermal performance.



19

Horizontal joint support - single layer

- Where the lining height exceeds the board length, install Gyproframe GFS1 Fixing Strap or Gyproframe GFT1 Fixing 'T' progressively between studs, to coincide with board end joints.
- Fix boards progressively to supports using Gyproc Screws of appropriate length.

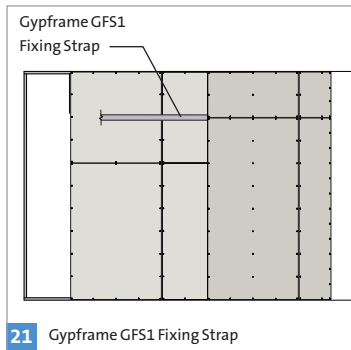
NB It is important that boards are levelled on their top edge. Position the top screw into the stud nominally 30mm down to allow the Gyproframe GFS1 Fixing Strap or Gyproframe GFT1 Fixing 'T' to be installed.



20

Board fixing - multi-layer

- Inner-layer boards do not require centre stud fixings.
 - Cut and fix the initial second layer board as appropriate so that subsequent vertical board joints are staggered by a minimum of one stud centre.
- NB** Select appropriate screw length to provide a nominal 10mm penetration into the Gypframe steel framing.



21 Gypframe GFS1 Fixing Strap

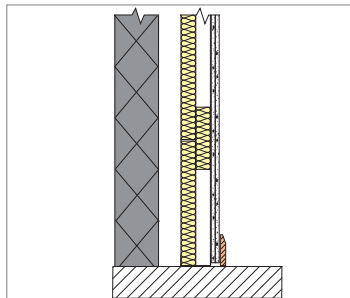
- Typical double layer board configuration is as above.



22

Horizontal joint support - multi-layer

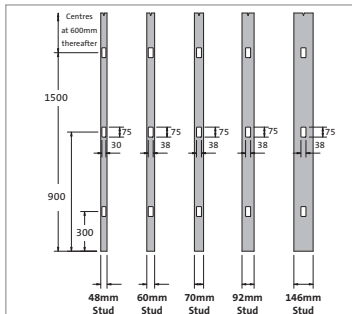
- Where the lining height exceeds the board length, install Gypframe GFS1 Fixing Strap progressively between board layers, to coincide with outer layer horizontal board end joints, to maintain board alignment.
- Fix boards progressively to supports using Gyproc Drywall Screws of appropriate length.



23 Retaining insulation in Gyproframe 92 I90 T Stud

Insulation

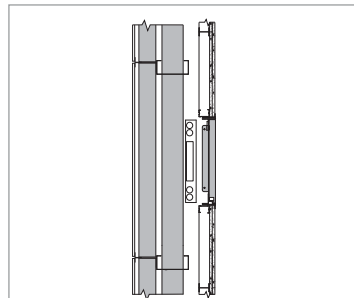
- Install MoyTherm Batts to a friction fit within the stud cavity. The slabs are self-supporting, receiving internal support from the stud flanges. Where 50mm insulation is fitted into Gyproframe 92 I90 T Studs. We recommend a 150mm x 50mm strip of MoyTherm Batt is inserted to retain the slab. With Gyproframe 146 I90 T Studs, two strips of Isover Batt will need to be inserted to retain the slab.



24 Service cut-outs (all dimensions in mm)

Services

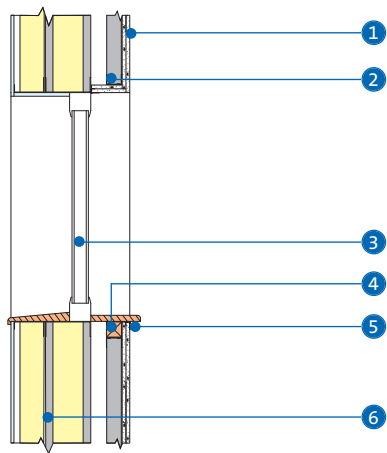
- The stud cut-outs can be used for services provided that there is no undue disturbance of the insulation.
- Locate surface mounted trunking against the plasterboard lining, and fix through the lining to the stud framework. Any penetration in the lining may downgrade its performance.



25 Typical access panel

- Horizontal and vertical services can be included behind the lining, accessed via a Gyproc Proflex Access Panel (fire-rated if specified).

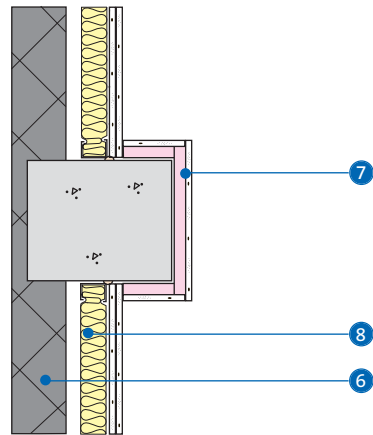
Junction details



26 Window opening (vertical section)

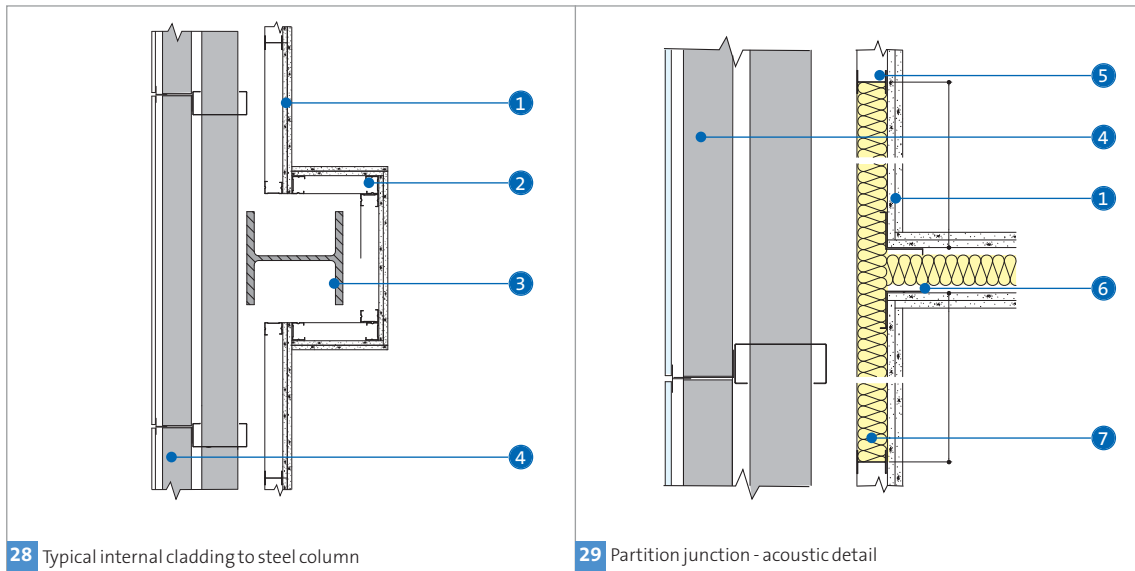
26 **NB** Ensure board joints are staggered

- 1 Gyproc plasterboard
- 2 Gypframe Floor & Ceiling Channel
- 3 Window unit
- 4 Timber head piece
- 5 Gyproc Edge Bead
- 6 External wall construction



27 Typical internal cladding to concrete column

- 7 Gyproc Thermal laminate
- 8 MoyTherm Batt



- 1 Gyproc plasterboard
- 2 Gypframe 'C' Studs
- 3 Steel column

- 4 External wall construction
- 5 Gypframe 'T' Stud
- 6 Gypframe GA5 Internal Fixing Angle

- 7 MoyTherm Batt

