

# INTERNAL PARTITIONS AND WALLS

Highly versatile lightweight, non-loadbearing partition systems. A full range of lightweight partition and wall systems for use in new and existing buildings. They cover all applications, from simple space division to high performance walls.

We offer a full range of lightweight partition and wall systems. Our systems are non-loadbearing and constructed using modern, drylining techniques. Our metal framed partitions and walls can be used in all types of new and existing buildings, including private and social housing, apartments, healthcare, educational facilities, recreational and industrial properties.

They cover all applications, from simple space division, through to high performance walls designed to meet the most demanding fire resistance, sound insulation, impact and height requirements.

Our partition systems are constructed using lightweight materials, which can offer significant savings in structural design compared to masonry alternatives. Benefits also include the speed of installation and reduction to overall build costs.



There are specifications within this system that qualify for our **SpecSure**® warranty. For more information, contact us through [british-gypsum.com](https://british-gypsum.com)

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For illustration purposes only



# Internal partitions and walls

When specifying partitions, a number of performance characteristics are normally used to determine the required solution.

Depending on the project or construction type, these performance parameters could be set by minimum regulatory standards, or a client or customer requirement for buildings that offer the highest standards of performance and comfort.

## Additional information

Try out The White Book Specification Selector, an online tool designed to help find the ideal solutions for your project needs. Additional information such as BIM data (Revit), Technical Specifications, CAD drawings and other associated items can be downloaded. Visit [british-gypsum.com](http://british-gypsum.com)



### GypWall Single Frame

Create all the rooms you need with the industry's original lightweight non-loadbearing drywall partition system.  
**See page 4.19.**



Fire resistance  
**30-240 mins**

Sound rating  
**34-63 R<sub>w</sub>dB**

Duty rating  
**medium to severe**

For illustrative purposes only.

### GypWall Single Frame Enhanced

Keep busy areas in great condition with robust partitions.  
**See page 4.27.**



Fire resistance  
**30-120 mins**

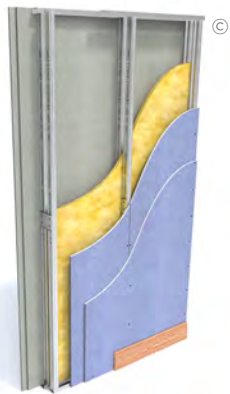
Sound rating  
**38-60 R<sub>w</sub>dB**

Duty rating  
**severe**

For illustrative purposes only.

### GypWall Twin Frame Braced

Keep the peace by reducing sound transmission through separating walls.  
**See page 4.63.**



Fire resistance  
**60-120 mins**

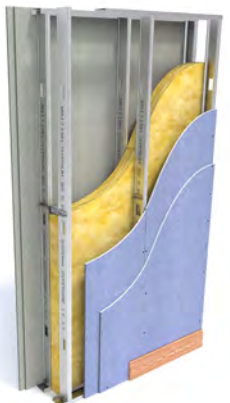
Sound rating  
**59-64 R<sub>w</sub>dB**

Duty rating  
**severe**

For illustrative purposes only.

### GypWall Twin Frame Audio

Build an acoustic sanctuary without losing floor space.  
**See page 4.75.**



Fire resistance  
**60-120 mins**

Sound rating  
**67-80 R<sub>w</sub>dB**

Duty rating  
**severe**

For illustrative purposes only.

### GypWall Resilient

Improve acoustic performance of your partitions and separating walls with minimal loss of floor space.  
**See page 4.39.**



Fire resistance  
**60-120 mins**

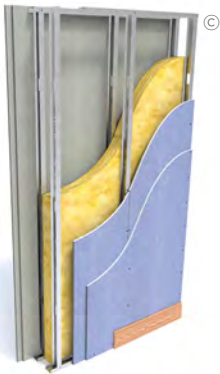
Sound rating  
**61-65 R<sub>w</sub>dB**

Duty rating  
**severe**

For illustrative purposes only.

### GypWall Twin Frame Independent

Reduce sound transmission without the need for pre-completion testing.  
**See page 4.51.**



Fire resistance  
**90-120 mins**

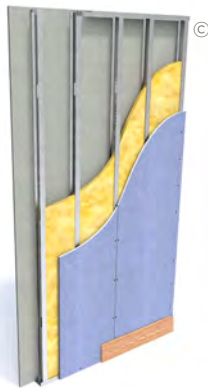
Sound rating  
**65-70 R<sub>w</sub>dB**

Duty rating  
**severe**

For illustrative purposes only.

### GypWall Staggered

Space-saving sound insulation.  
**See page 4.89.**



Fire resistance  
**30-90 mins**

Sound rating  
**49-63 R<sub>w</sub>dB**

Duty rating  
**heavy to severe**

For illustrative purposes only.

# Internal partitions and walls

## Good practice specification guidance

- To maximise the performance achieved on site, consider the following good practice specification guidance:
- Consider flanking transmission at the design stage and ensure construction detailing is specified to eliminate, or at least to minimise, any downgrading of the acoustic performance
  - Small openings such as gaps, cracks or holes will conduct airborne sounds and can significantly reduce the sound insulation of a construction. For optimum sound insulation a construction must be airtight
  - When designing the layout of rooms requiring separation by sound insulating walls abutting structural steelwork, consideration should be given to the potential loss of sound insulation performance through the steelwork
  - Deflection heads, by definition, must be able to move and, therefore, achieving an airtight seal is very difficult without incorporating sophisticated components and techniques. Air leakage at the partition heads will have a detrimental effect on acoustic performance of any partition. Where acoustic performance is a key consideration, steps must be taken to minimise this loss of performance
  - A common mistake made when designing a building is to specify a high performance element and then incorporate a lower performing element within it; for example, a door within a partition. Where the difference between insulation is relatively small (7dB or less), there needs to be a comparatively large area of the lower insulation element before the overall sound insulation is significantly affected. However, where there is a greater difference in sound insulation performance between the two elements, this would usually result in a greater reduction of overall sound insulation performance

Table 1 – Sound insulation performance for residential specification			
Approved Document E (England and Wales)	On-site	Laboratory**	
	$D_{nT,w} + C_{tr}$ dB	Minimum solution $(R_w + C_{tr})$ dB	Recommended solution $(R_w + C_{tr})$ dB
Separating walls between new homes	45	(49)	(54)
Separating walls between purpose-built rooms for residential purposes and rooms created by a change of use or conversion	43	(47)	(52)
Technical Standards Section 5 (Scotland)	On-site	Laboratory**	
	$D_{nT,w} + C_{tr}$ dB	Minimum solution $R_w$ dB	Recommended solution $R_w$ dB
Separating walls between new homes, purpose-built for residential purposes and conversions (not including traditional buildings*)	56	60	63
Separating walls between rooms created by a change of use or conversion (traditional buildings*)	53	57	60

\* Definition of traditional buildings – A building or part of a building of a type constructed before or around 1919:  
a) using construction techniques that were commonly in use before 1919; and  
b) with permeable components, in a way that promotes the dissipation of moisture from the building fabric.

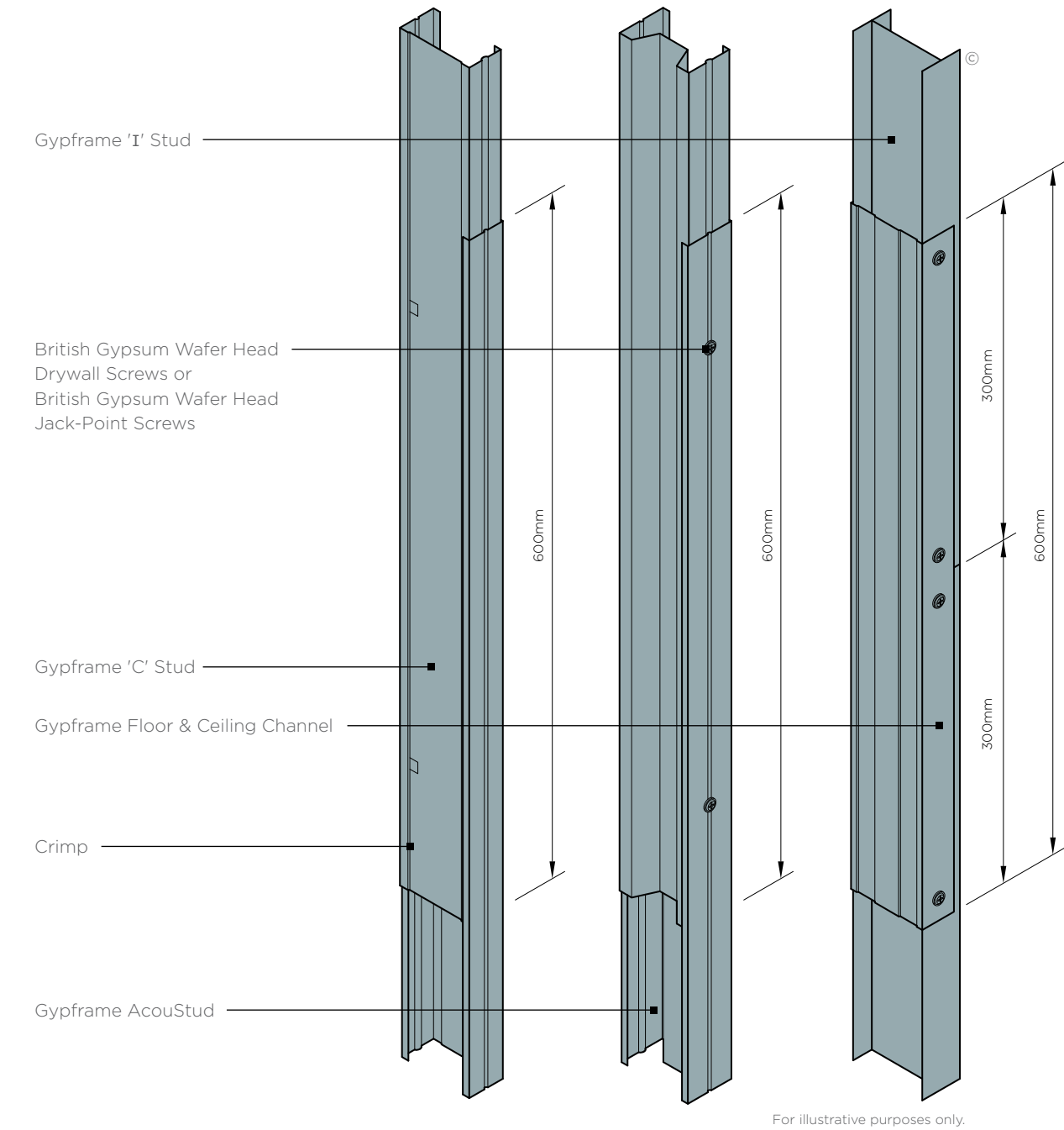
\*\* Minimum solutions provide little or no margin of safety to allow for reduction in performance due to flanking transmission. Recommended solutions have greater potential to satisfy the requirements of Building regulations.

# GypWall partitions

## Construction details

To be read in conjunction with system specific details. Refer to relevant system sections.

### 1. Stud splicing detail

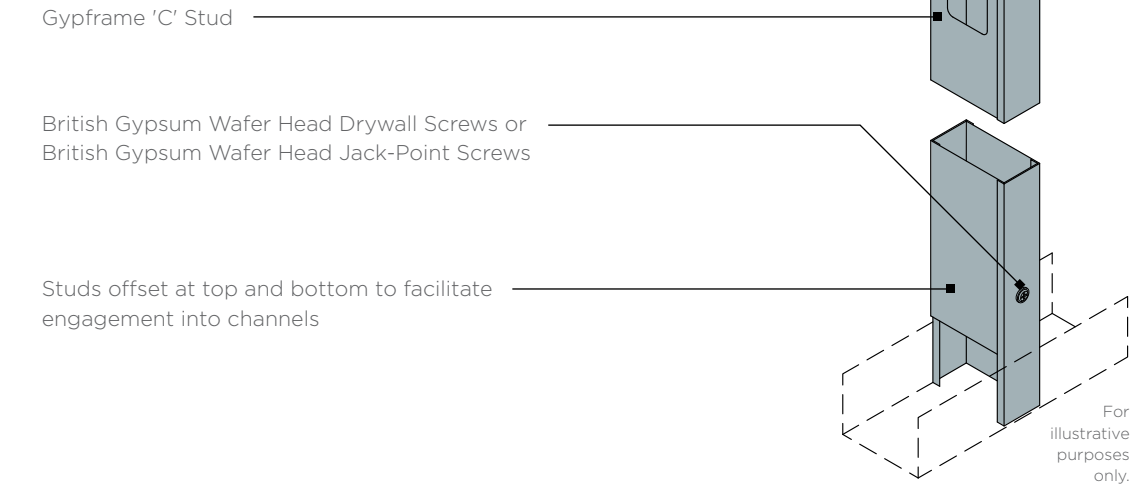


# GypWall partitions

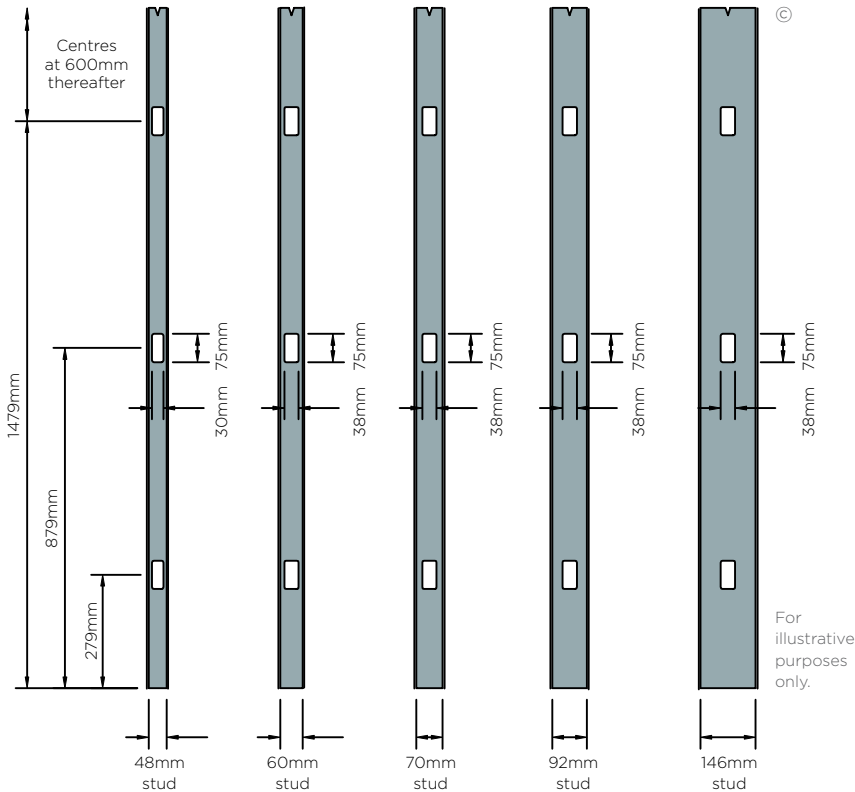
## Construction details

To be read in conjunction with system specific details. Refer to relevant system sections.

### 2. Fully boxed Gypframe 'C' Stud

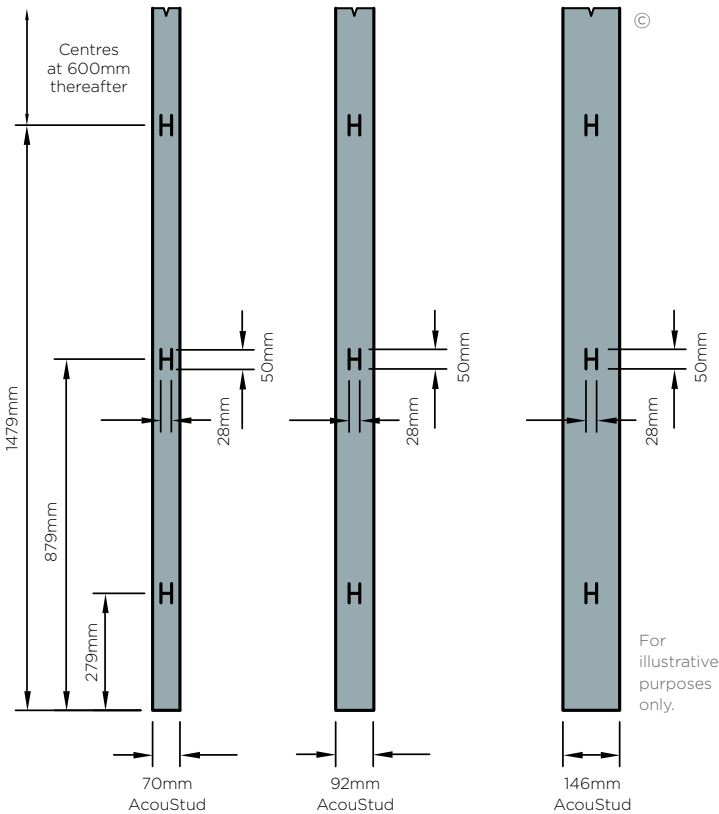


### 3a. Service cut-outs Gypframe 'C' and Gypframe 'I' Studs

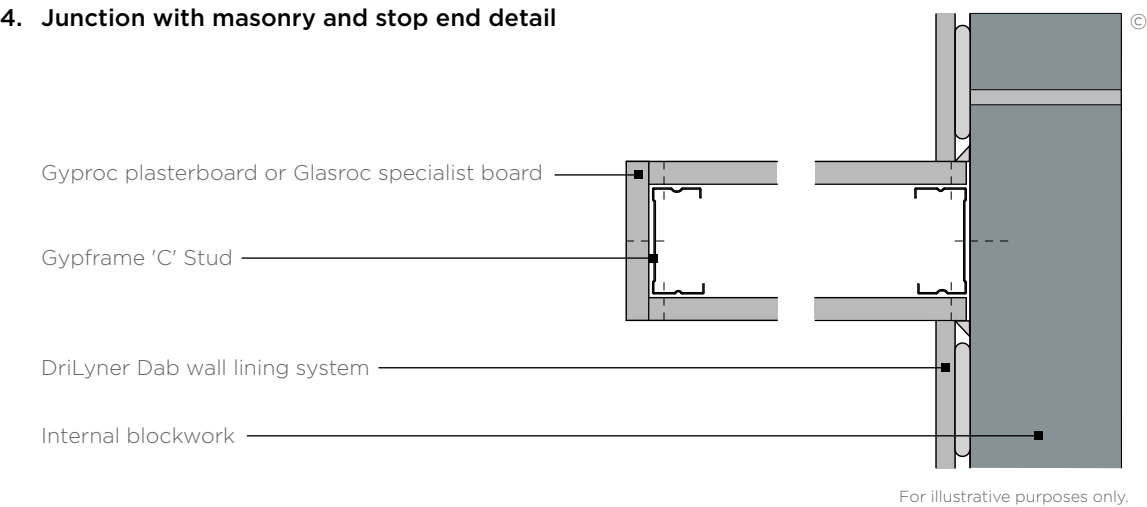


© British Gypsum, 2024.

### 3b. Service cut-outs Gypframe AcouStuds



### 4. Junction with masonry and stop end detail



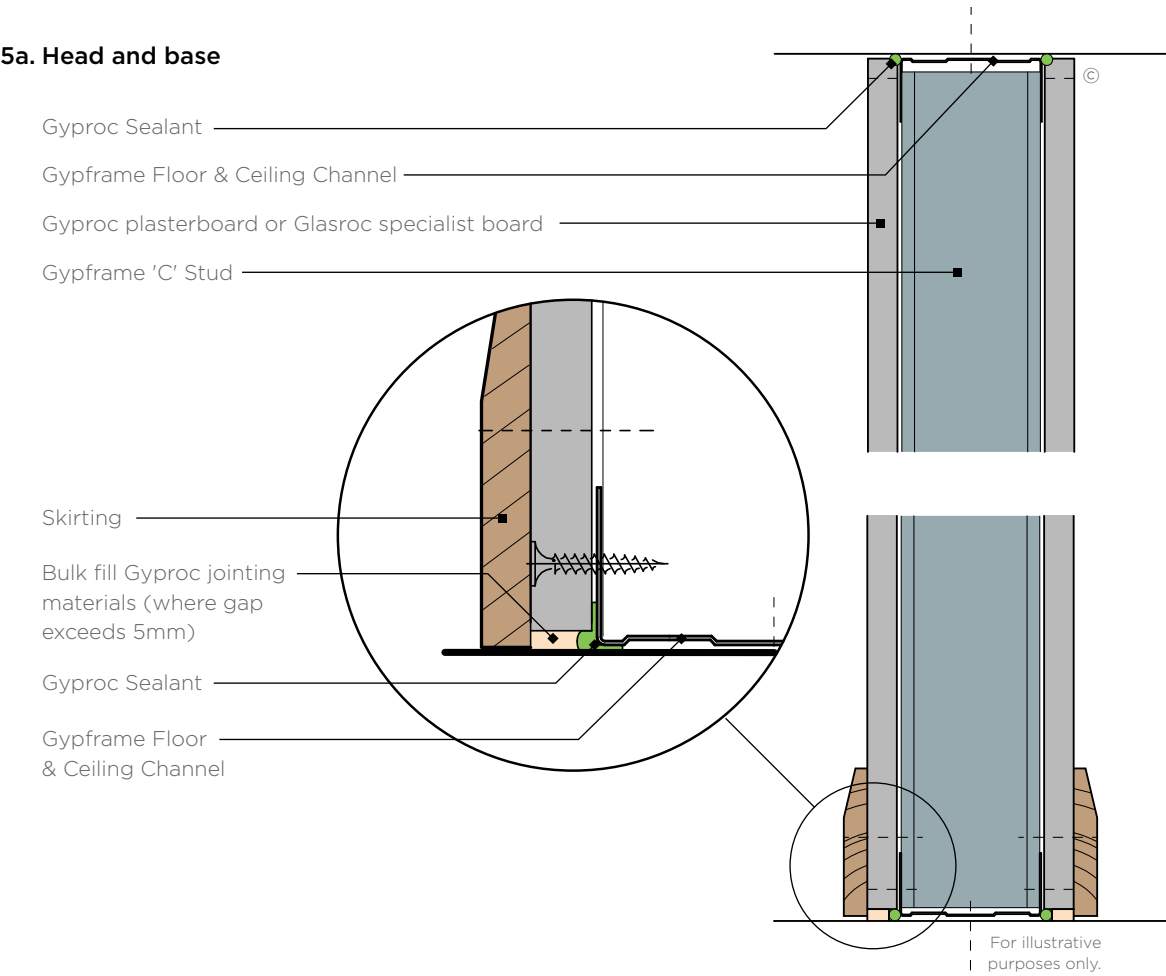
© British Gypsum, 2024.

# GypWall partitions

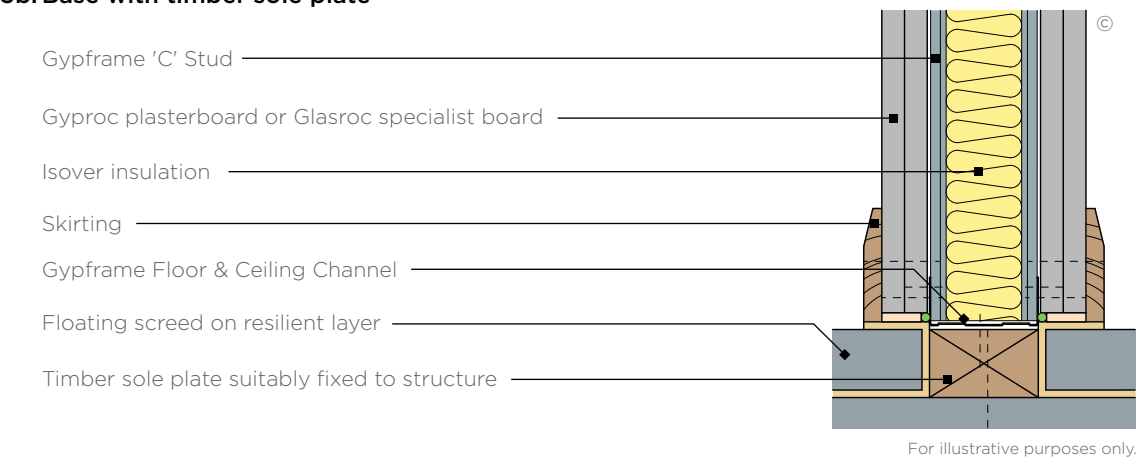
## Construction details

To be read in conjunction with system specific details. Refer to relevant system sections.

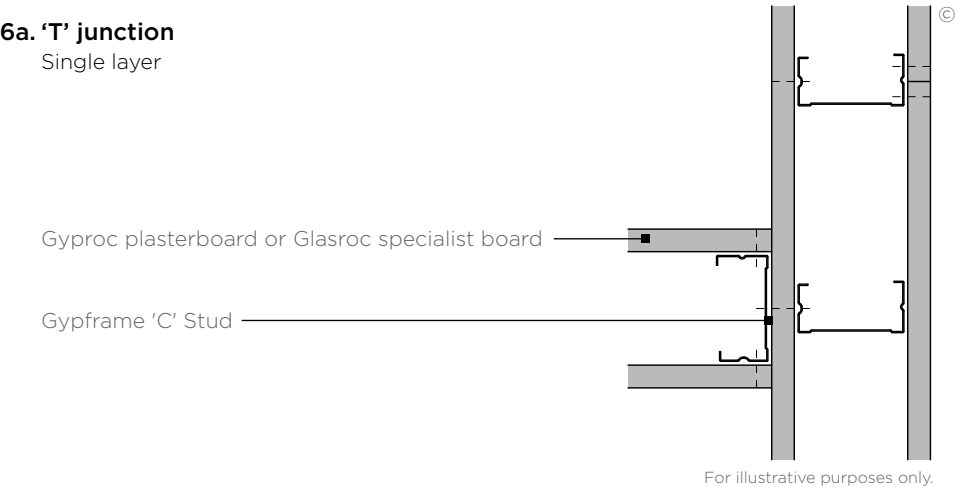
5a. Head and base



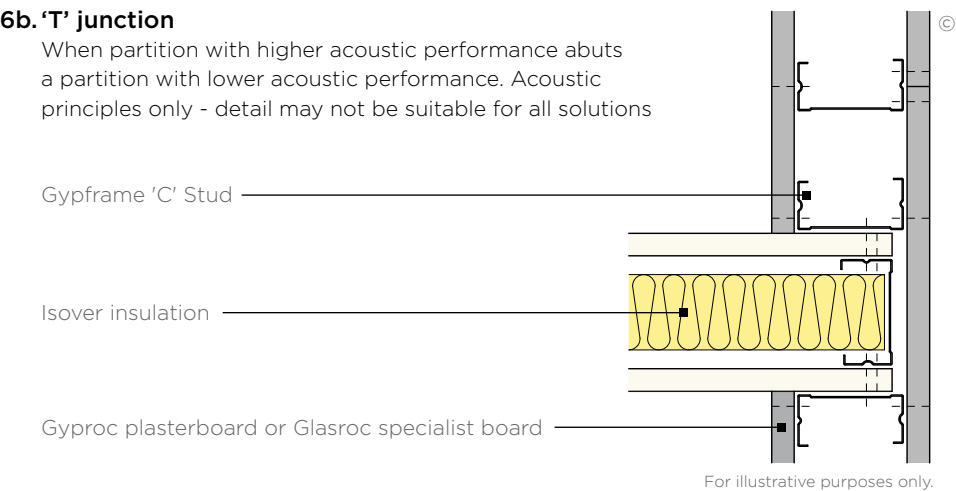
5b. Base with timber sole plate



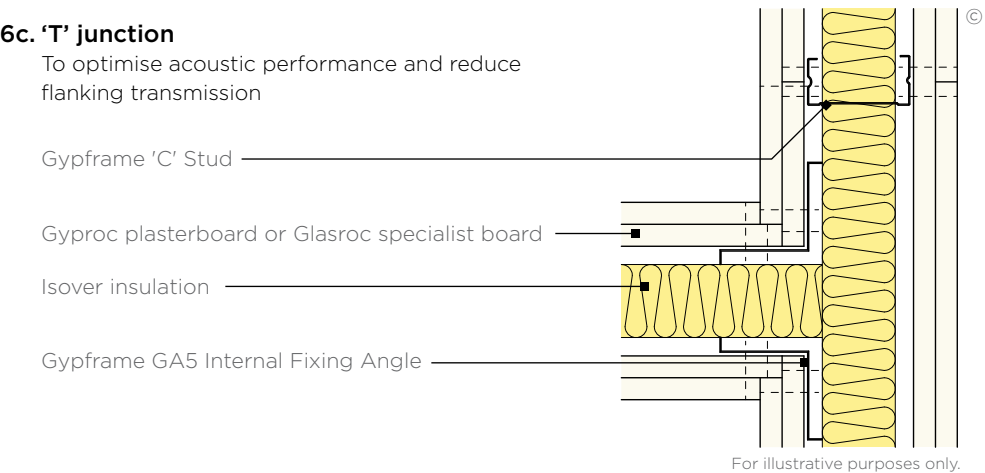
6a. 'T' junction  
Single layer



6b. 'T' junction  
When partition with higher acoustic performance abuts a partition with lower acoustic performance. Acoustic principles only - detail may not be suitable for all solutions



6c. 'T' junction  
To optimise acoustic performance and reduce flanking transmission



Guidance must be sought from the relevant approval authority e.g. Building Control to establish if a cavity barrier is required (Approved Document B)

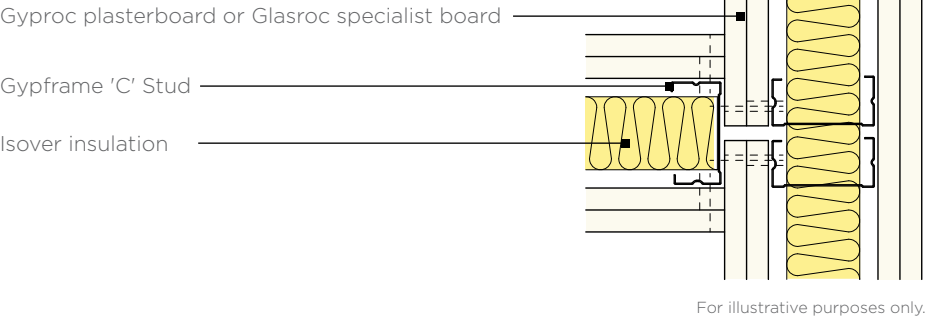
# GypWall partitions

## Construction details

To be read in conjunction with system specific details. Refer to relevant system sections.

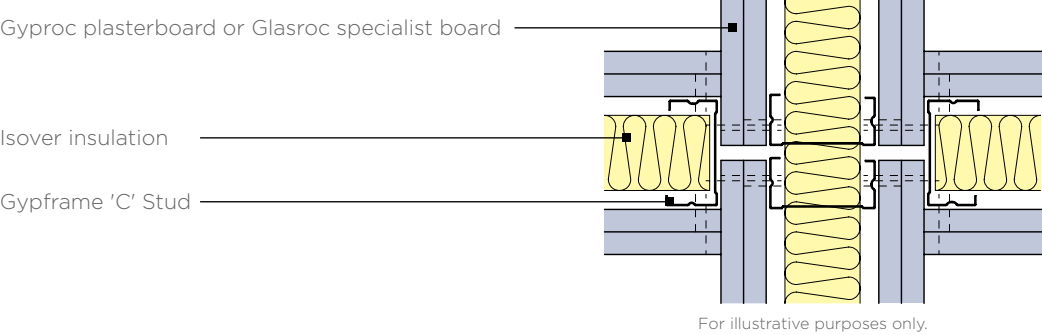
### 6d. 'T' junction

To optimise acoustic performance and reduce flanking transmission

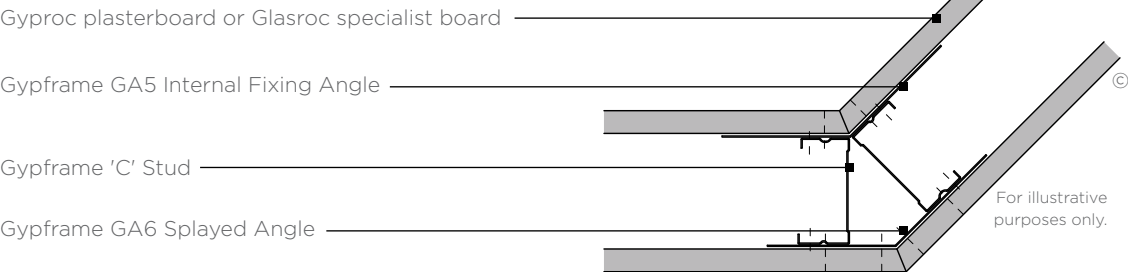


### 7. Four way junction

To optimise acoustic performance and reduce flanking transmission



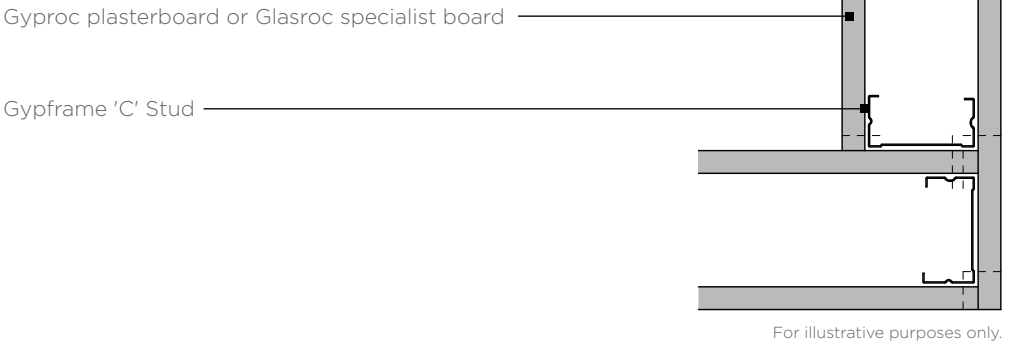
### 8. Splayed corner



Guidance must be sought from the relevant approval authority e.g. Building Control to establish if a cavity barrier is required (Approved Document B)

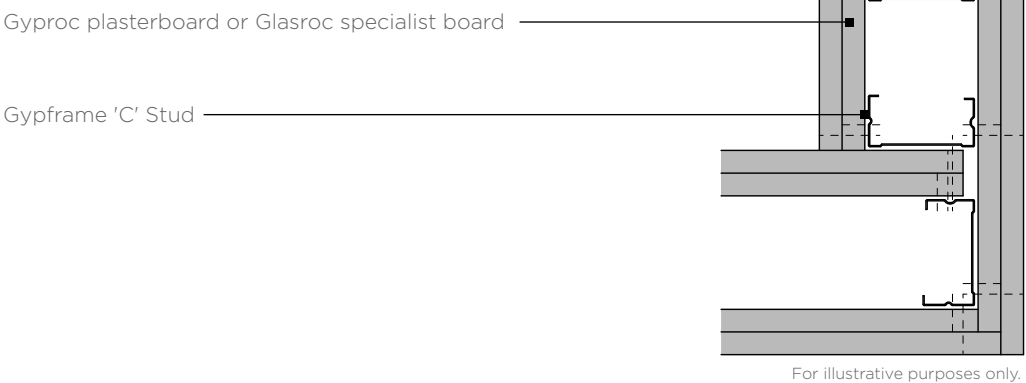
### 9. Corner detail

Single layer

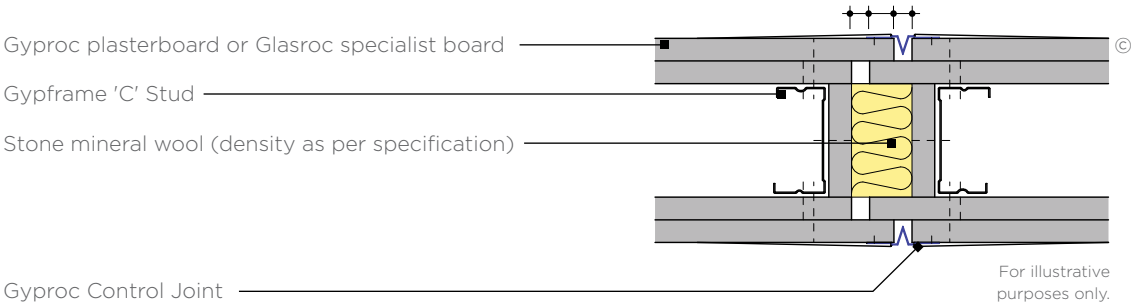


### 10. Corner detail

Double layer



### 11. Typical control joint



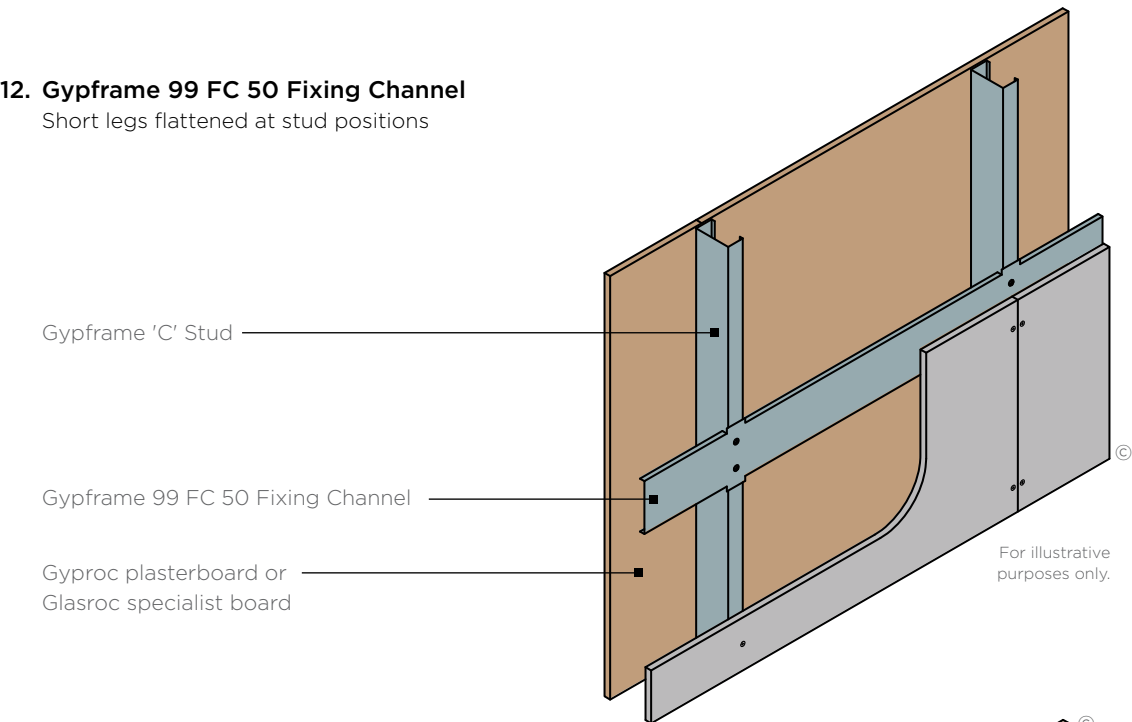
# GypWall partitions

## Construction details

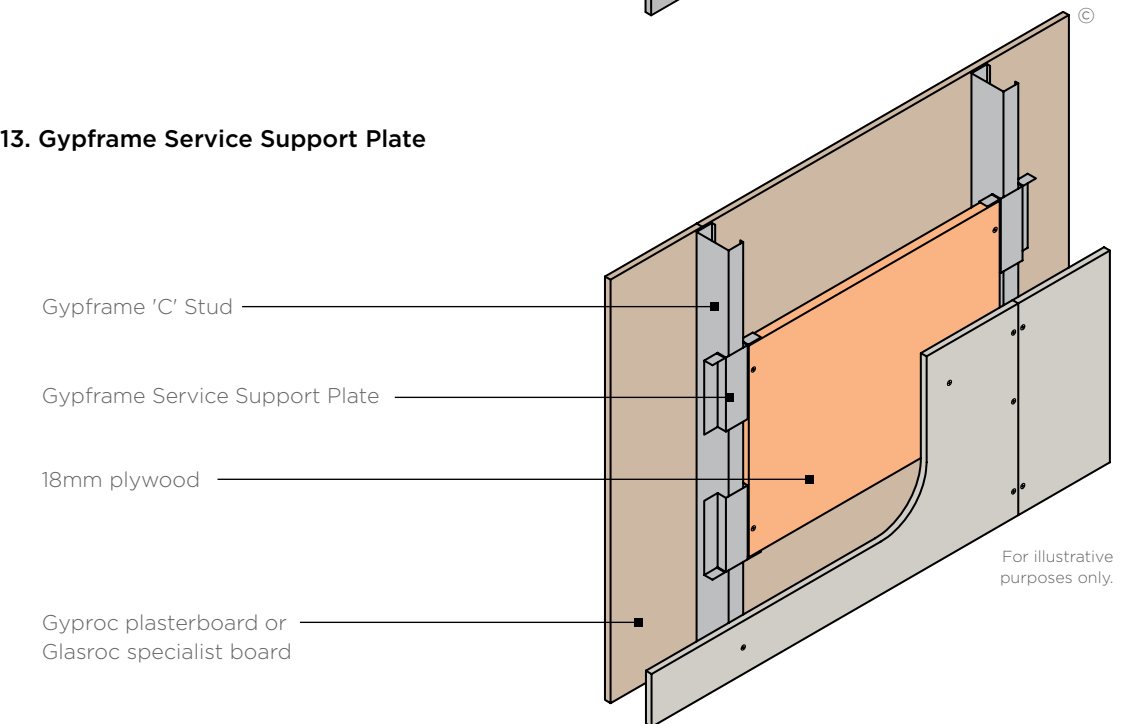
To be read in conjunction with system specific details. Refer to relevant system sections.

### 12. Gypframe 99 FC 50 Fixing Channel

Short legs flattened at stud positions



### 13. Gypframe Service Support Plate

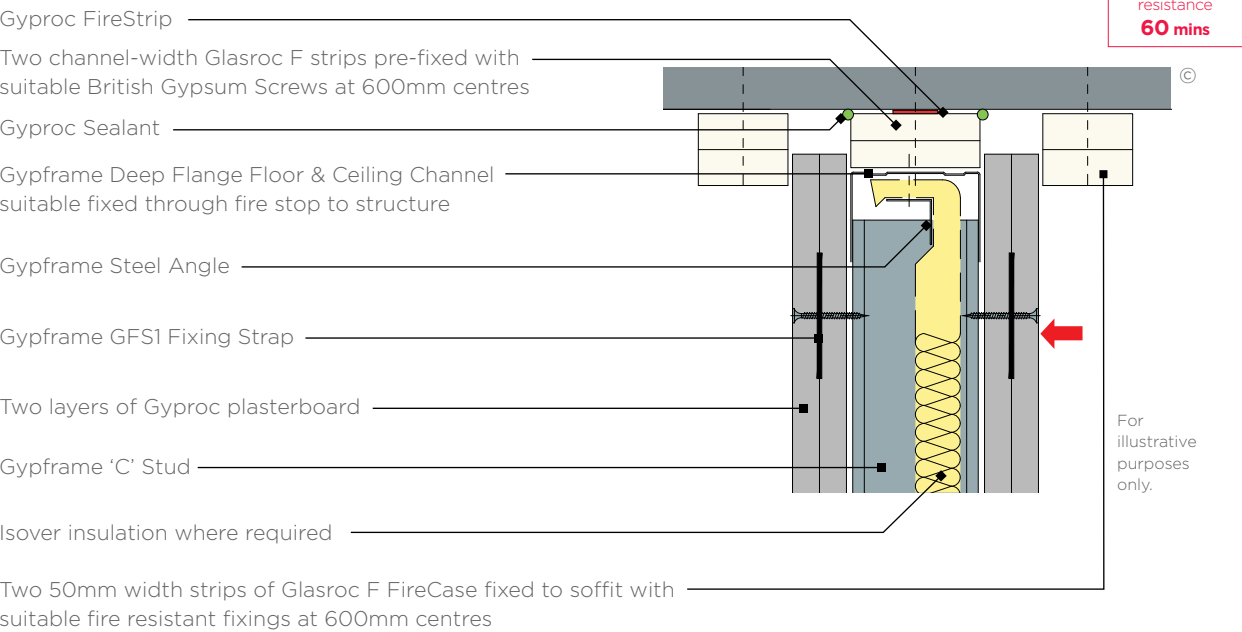


Installing the screw into the side of the Gypframe Service Support Plate and the web of the Gypframe 'C' Stud will avoid creating excessive distortion to the lining board.

© British Gypsum, 2024.

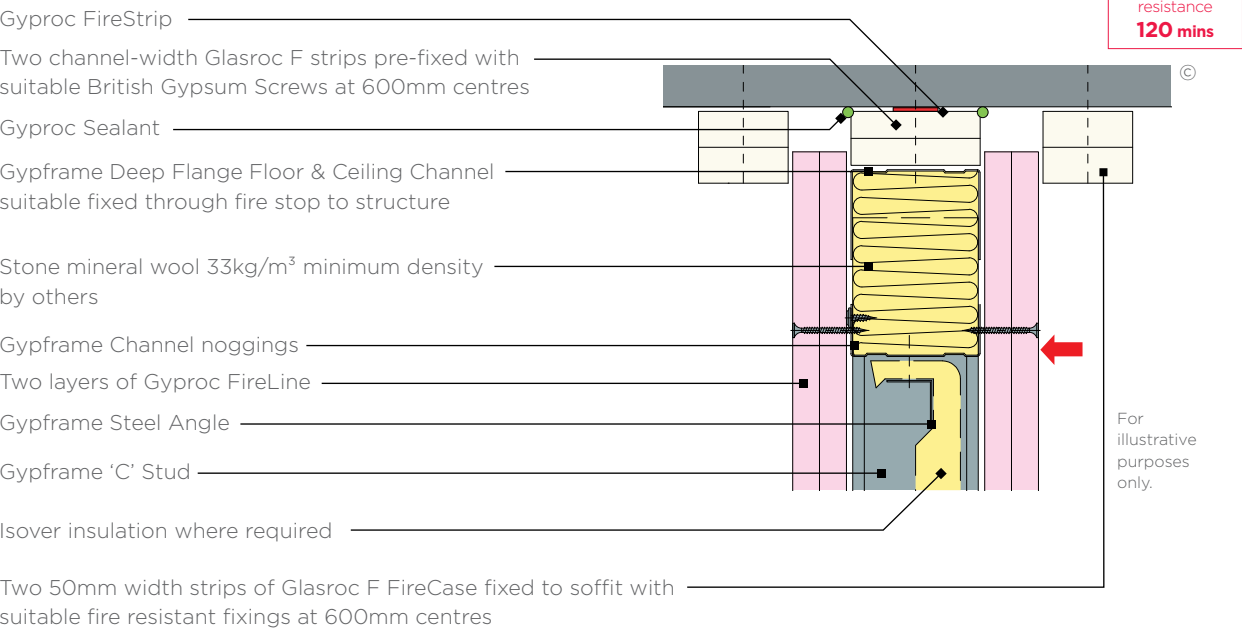
### 14. Deflection head

25mm downward movement and 60 minutes fire resistance to BS EN 1364-1



### 15. Deflection head

25mm downward movement and 120mins fire resistance to BS EN 1364-1



N.B. No fixings should be made through the boards into the flanges of the head channel. The arrow (→) denotes the position of the uppermost board fixing, which should be made into Gypframe GFS1 Fixing Strap. Continuous Gyproc FireStrip must be installed as shown to maintain fire performance.

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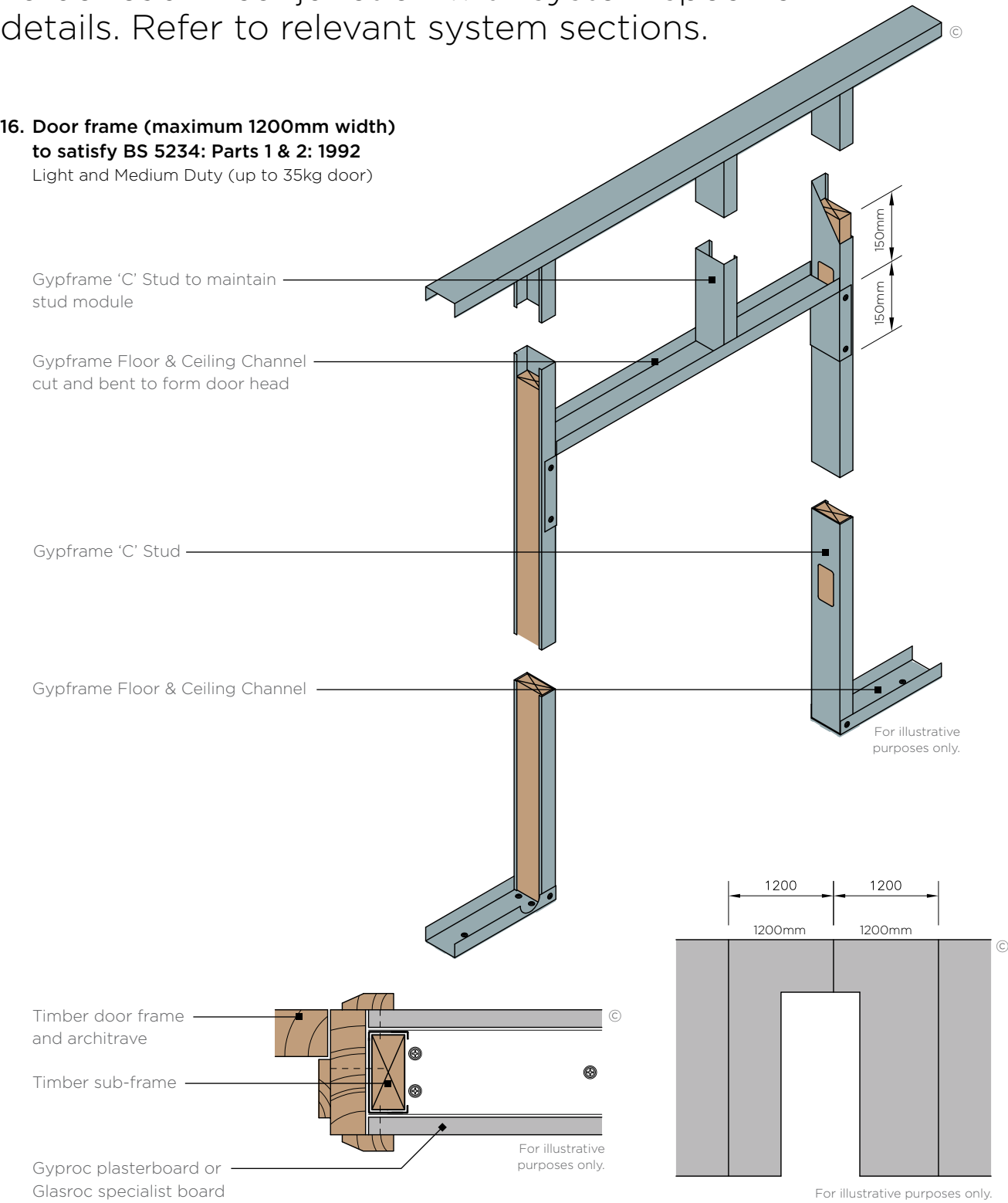


# GypWall partitions

## Construction details

To be read in conjunction with system specific details. Refer to relevant system sections.

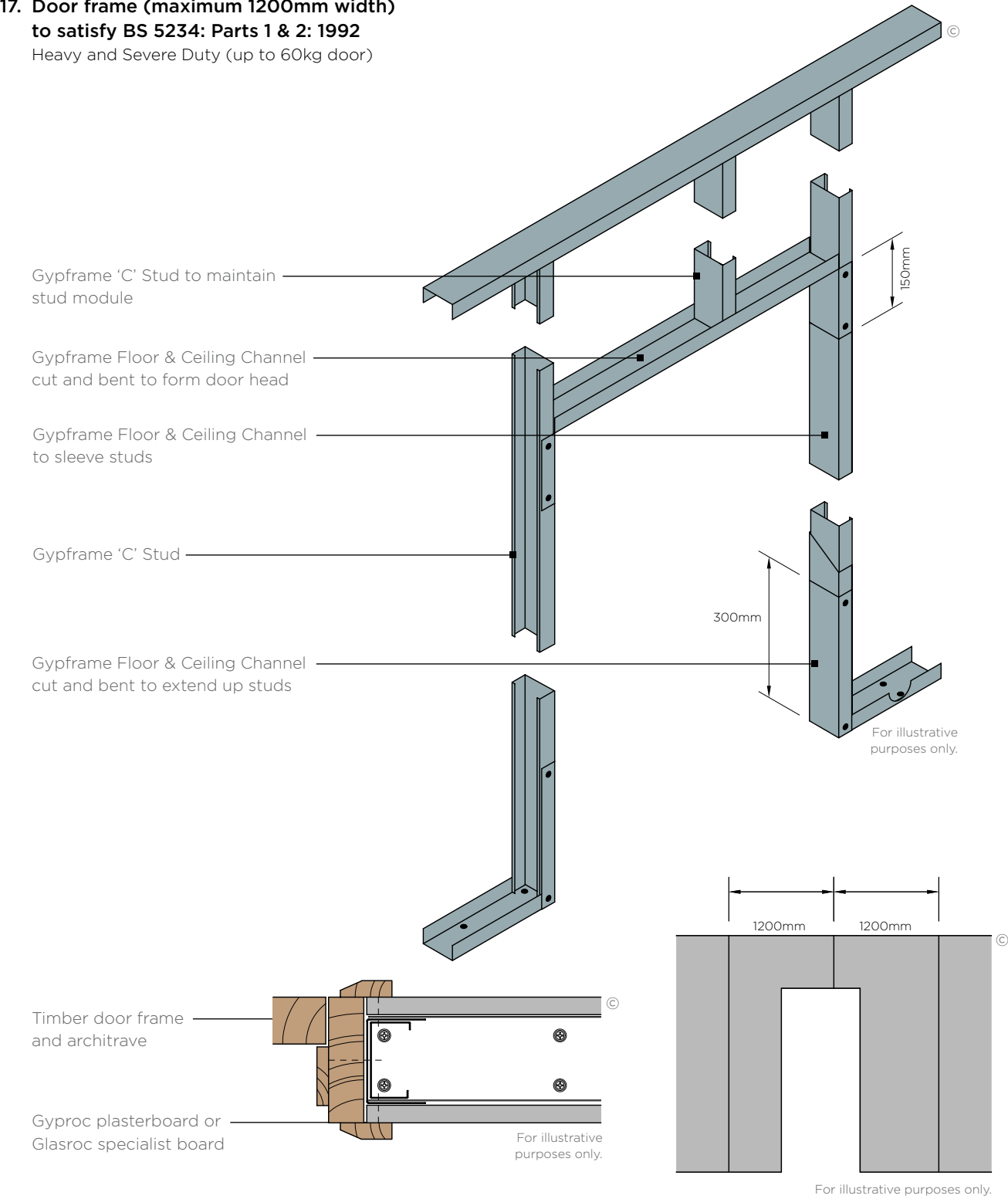
### 16. Door frame (maximum 1200mm width) to satisfy BS 5234: Parts 1 & 2: 1992 Light and Medium Duty (up to 35kg door)



Advice should be sought from the door manufacturer before the construction of these details.

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### 17. Door frame (maximum 1200mm width) to satisfy BS 5234: Parts 1 & 2: 1992 Heavy and Severe Duty (up to 60kg door)



Advice should be sought from the door manufacturer before the construction of these details. At the base, the channel is cut and bent to extend 300mm up the studs and fixed each side with two British Gypsum Wafer Head Drywall Screws. The studs each side of the opening are sleeved full height of opening with Gypframe Floor & Ceiling Channel.

© British Gypsum, 2024.



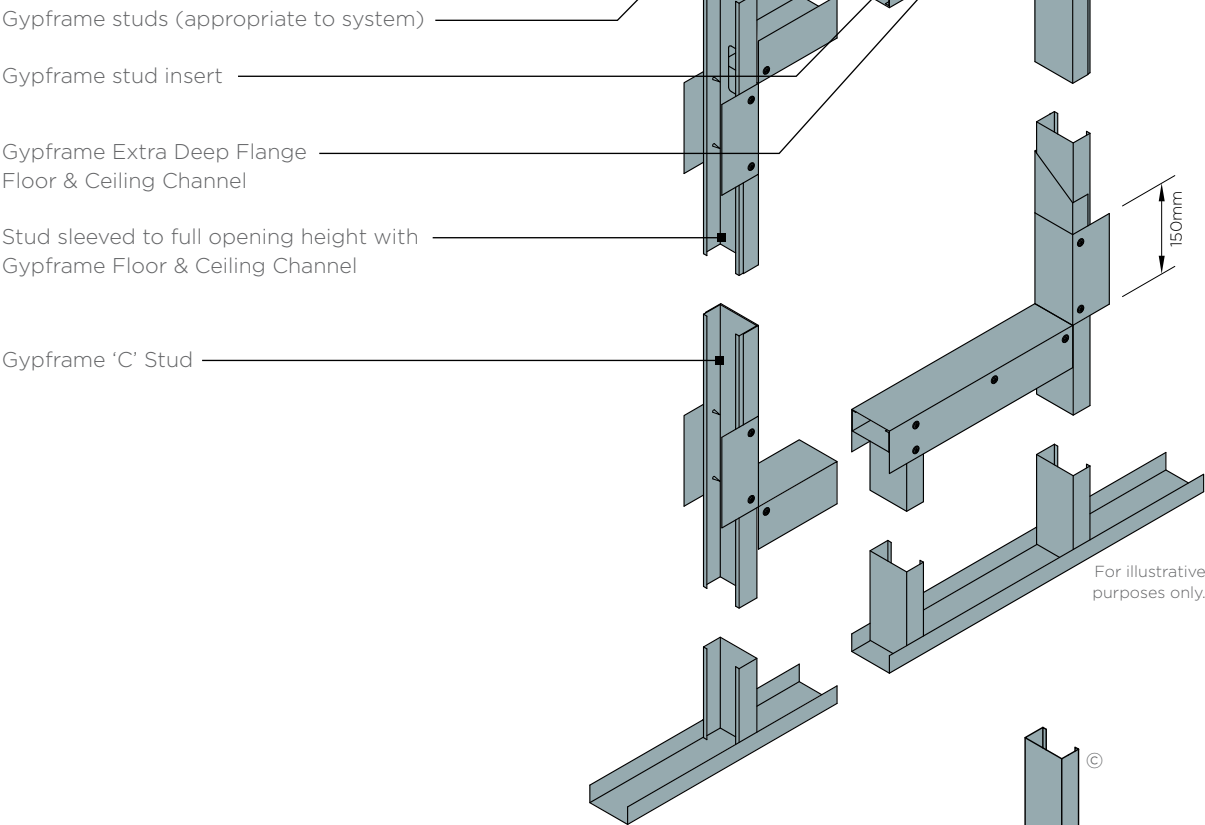
# GypWall partitions

## Construction details

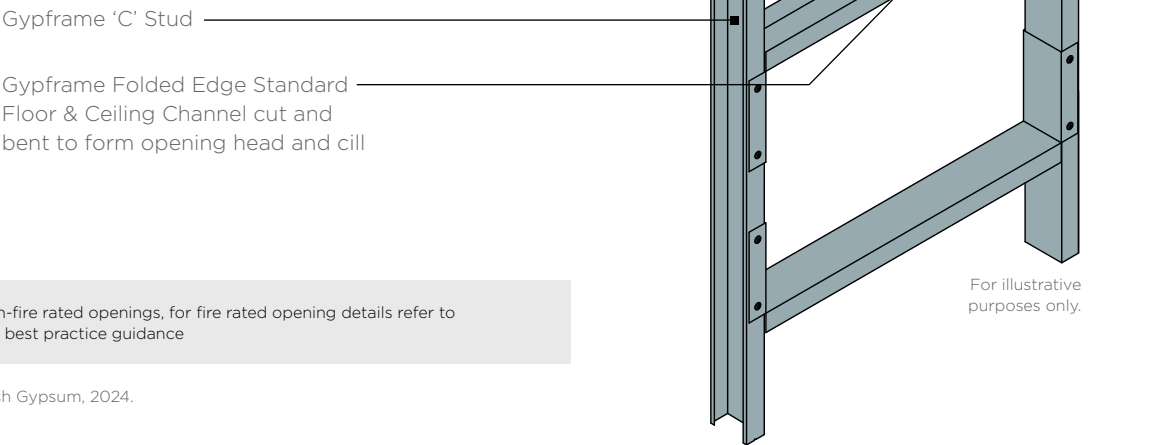
To be read in conjunction with system specific details. Refer to relevant system sections.

### 18a. Openings

1201-3300mm wide, for example double doors or large windows



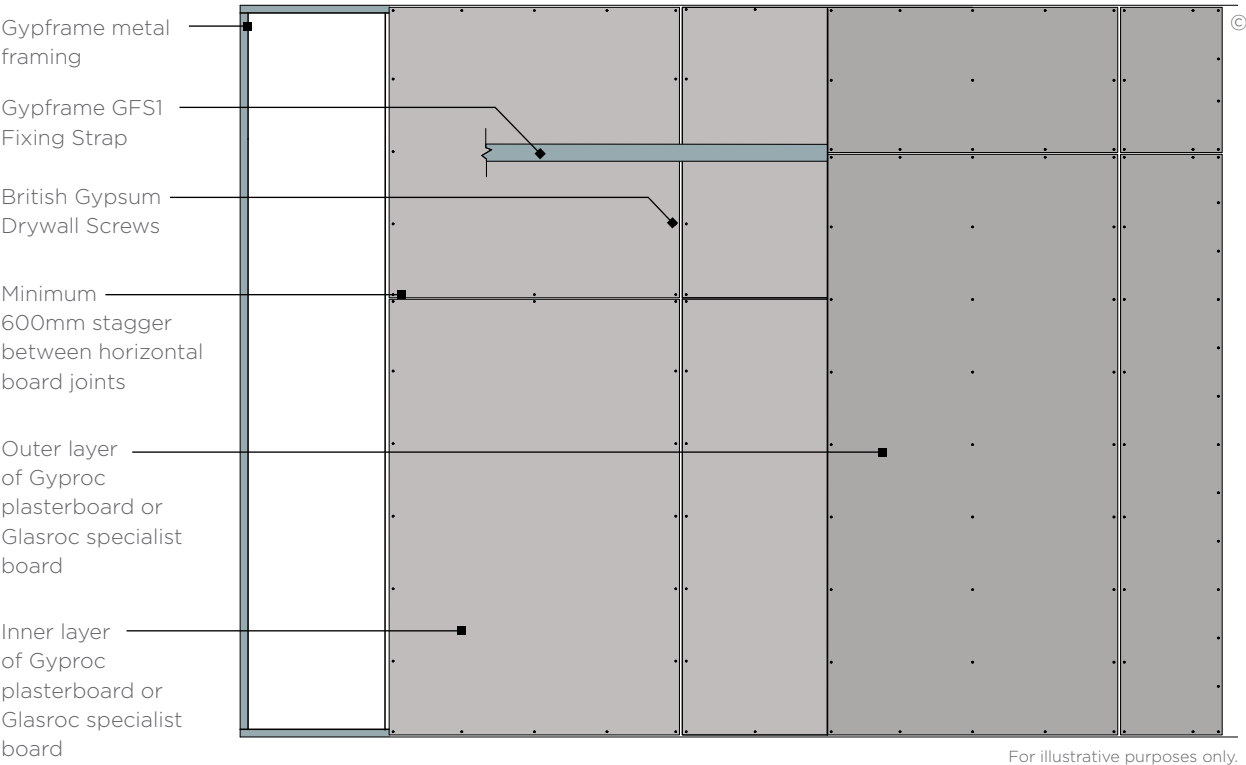
### 18b. Opening up to 600mm wide for services



Non-fire rated openings, for fire rated opening details refer to our best practice guidance

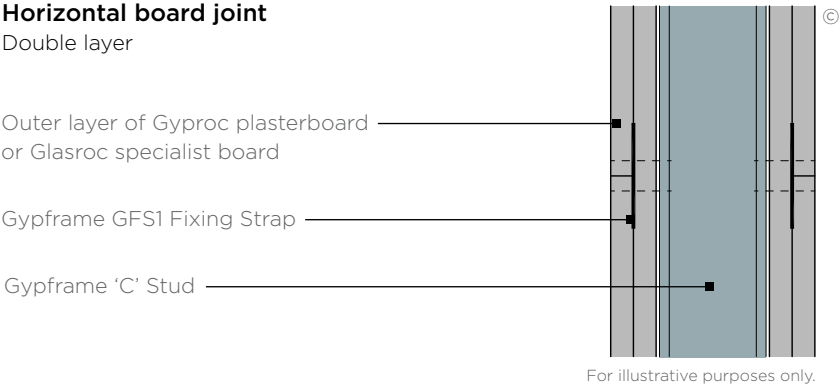
© British Gypsum, 2024.

### 19. Board layout – typical configuration



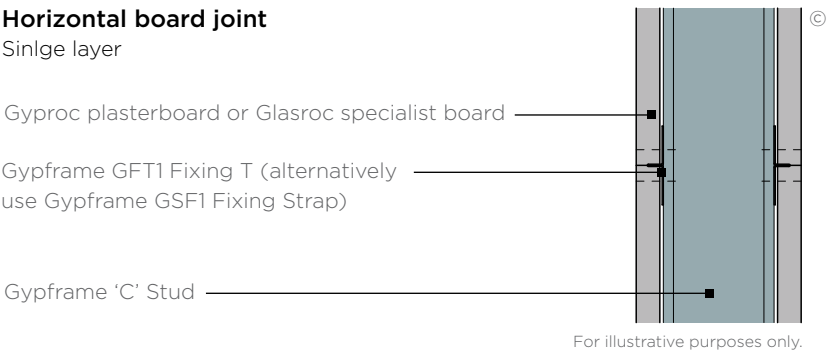
For illustrative purposes only.

### 20. Horizontal board joint Double layer



For illustrative purposes only.

### 23. Horizontal board joint Single layer



For illustrative purposes only.

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# GypWall Staggered Identification

## Space-saving sound insulation.

This non-loadbearing partition system offers excellent sound insulation without taking up too much room, making it ideal for projects from offices to student accommodation. GypWall Staggered staggers alternate studs within a single framework, partially decoupling the plasterboard linings on each side of the partition. This reduces sound transmission while freeing up floor space in adjoining rooms.

This system can be skim finished with ThistlePro® PureFinish which contains ACTIVair®. ACTIVair makes indoor air healthier by eliminating up to 70% of formaldehyde present in indoor air.



Fire resistance  
30-90 mins

Sound rating  
49-63 R<sub>w</sub>dB

Duty rating  
heavy to severe



## Why specify GypWall Staggered?

Reduces noise by staggering Gypframe 'I' studs within a single framework

Gives you twin frame performance in a narrow single frame partition

Comes with our **SpecSure®** lifetime warranty

Resists fire for between 30 and 90 minutes

Reduces sound transmission by 49 to 63 R<sub>w</sub>dB

Meets acoustic requirements for separating walls in residential conversion projects even when space is limited

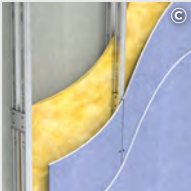
Offers Heavy and Severe Duty Rating options

Lets you add pattresses to each side of the system without compromising acoustic performance when using 92 / 148 combination



There are specifications within this system that qualify for our **SpecSure®** warranty. For more information, contact us through **british-gypsum.com**

## You may also be interested in...



© British Gypsum, 2024.

**GypWall Twin Frame Braced**  
Looking for high performance twin frame wall system to reduce sound transmission between adjoining spaces? **See page 4.63.**



**GypWall Twin Frame Independent**  
Looking for an unbraced twin frame system for separating walls where greater levels of acoustic insulation are needed. **See page 4.51.**



# GypWall Staggered

## Design considerations

Building design – GypWall Staggered comprises two rows of Gypframe 'I' Studs at 600mm centres (offset 300mm) installed within Gypframe Floor & Ceiling Channels. The studs are held in position by Gypframe SC1 or Gypframe SC2 Spacer Clips – Gypframe SC1 Spacer Clips for 60/72 combination, Gypframe SC2 Spacer Clips for 92/148 combination.

### Planning – key factors

Predetermine the positioning and installation of service penetrations and heavy fixtures before the frame erection stage.

### Fixing floor and ceiling channels

Gypframe Floor & Ceiling Channels must be securely fixed with fixings at 600mm maximum centres. For channels of 94mm and above, need two rows of staggered fixings: each row at 600mm centres and each fixing 25mm in from the flange. If the floor is uneven, use a 38mm thick timber sole plate equal to the channel width. Consider installing a damp-proof membrane for new concrete or screeded floors between the floor surface and the channel.

### Splicing

To extend the studs, overlap by a minimum of 600mm. Use British Gypsum Wafer Head Jack-Point Screws to fix together. Use four screws per flange for 'I' studs. To extend the 'I' studs, cloak the junction between studs with minimum 600mm long section of Gypframe Floor & Ceiling Channels ensuring a minimum overlap of 300mm and fix the channel to the stud with four British Gypsum Wafer Head Drywall/Jack-Point Screws through each side. Refer to the construction details in this system.

### Partition to structural steelwork junctions

When designing room layouts, separated by sound insulating walls abutting structural steelwork, consider fire protection requirements and potential loss of acoustic performance through the steelwork. If you need a wider partition to fully encompass the steelwork, refer to GypWall Twin Frame Independent or GypWall Twin Frame Braced. Also refer to Building acoustics in system design principles on [british-gypsum.com](#)

### Door openings

Openings need careful detailing to minimise the loss of acoustic performance through the wall. If in doubt, speak to an Acoustic Consultant. Specialist heavy acoustic doorsets may require additional support. Refer to Opening Guidance document: [british-gypsum.com](#). Consider thickness tolerances of the partition types in relation to the proposed door frame detail. Standard door frame detailing to satisfy BS 5234-2 requirements for Heavy and Severe Duty Ratings is shown in internal partitions and walls introduction. The door manufacturer should also be consulted in relation to door details.

#### Important information

For partition heights over 4200mm, use Gypframe Deep Flange Floor & Ceiling Channels.

### Framing surround for openings

Predetermine the positioning of services to provide a framed opening when penetrating walls e.g. horizontal ducts, fire dampers or access panels. Construct openings using established metal stud procedures. Refer to our best practice guide on service openings: [british-gypsum.com](#)

### Cavity barriers

Stone mineral wool (by others) cut neatly to fit across the cavity will form a suitable closure. Minimum 12.5mm Gyproc plasterboard, screw-fixed into the perimeter channels or vertical studs, will also provide a satisfactory closure to flame or smoke.

### Acoustic performance

The partition achieves high levels of sound insulation by separating the two rows of studs. It is important that this isolation is maintained, and that services, fixtures etc., do not form a bridge. Refer to Building acoustics in system design principles on [british-gypsum.com](#)

### Deflection heads

Deflection heads may be necessary to accommodate deflections between partitions and the supporting floor. Deflection heads may also be needed to the underside of roof structures, which are subject to positive and negative pressures. Partition design can incorporate deflection heads with only a slight reduction in sound insulation performance. Refer to this construction details in this system. To minimise the loss of acoustic performance, refer to Building acoustics in system design principles on [british-gypsum.com](#)

### Services

#### Penetrations

Service penetrations through fire resisting or sound insulating constructions need careful consideration to ensure no loss of performance. Consider the services themselves so they do not act as a mechanism for fire spread or sound transmission. Refer to our best practice guide on service openings: [british-gypsum.com](#)

#### Electrical

Install electrical services in accordance with BS 7671. Use cut-outs in the studs for routing electrical and other small services (refer to the construction details in this system). Support switch boxes and socket outlets by fixing Gypframe 99 FC 50 Fixing Channels horizontally between studs. Use high-performance socket boxes, where acoustic performance is important. Cables should be protected by conduit, or other suitable precautions taken to prevent abrasion when they pass through the metal frame. Service cut-outs should be aligned to allow easy installation of service. If studs require cutting, cut from the same end of each stud to ensure cut-out alignment.

#### Independent support

Consider the size and weight of services, such as fire dampers and ductwork, that will be installed through the partition. Determine whether they can be supported directly by the partition or require independent support, referencing specific manufacturer information /guidance. Refer to the construction details in this system

### Fixtures

Lightweight fixtures can be installed directly to the partitions. Medium weight fixtures can be fixed through to Gypframe 99 FC 50 Fixing Channel. Heavyweight fixtures to BS 5234, e.g. shelving, TV's and cupboards, can be fixed using plywood secured with Gypframe Service Support Plates. Refer to Service installations in system design principles on [british-gypsum.com](#)

### Looking for performance selection tables?

We're committed to providing technical information that is transparent, clear, accurate, and always up-to-date. So you can rely on it when making decisions at any stage of the design, specification, installation, use, maintenance and disposal process.

All performance data is now available to view and download on our website.

[british-gypsum.com/gypwall-staggered](#)



### Board finishing

Refer to [british-gypsum.com](#) for our full range and guidance on board finishing products.

### Tiling

Tiles can be fixed directly to the surface of lightweight partition systems. Refer to [british-gypsum.com](#) for our full range and guidance on tiling-related products.

#### Handy hint

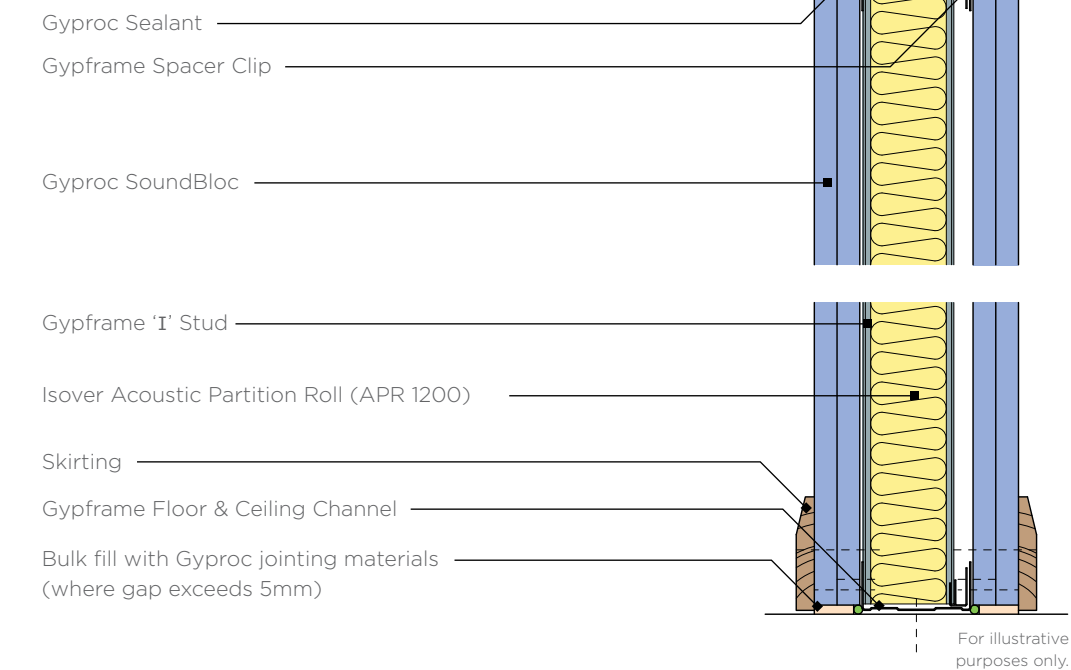
If horizontal board joints are necessary, stagger between layers by a minimum of 600mm, to avoid downgrading performance. For alternative stud types/sizes, to increase maximum partition height, further options are available. Refer to the White Book Specification Selector on the British Gypsum website.



# GypWall Staggered

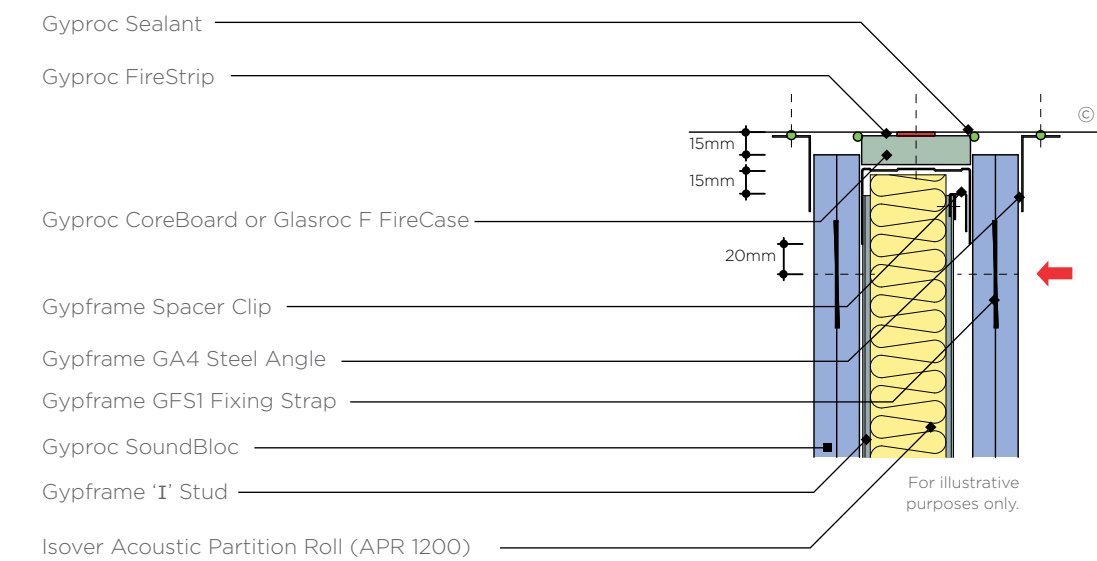
## Construction details

### 1. Head and base



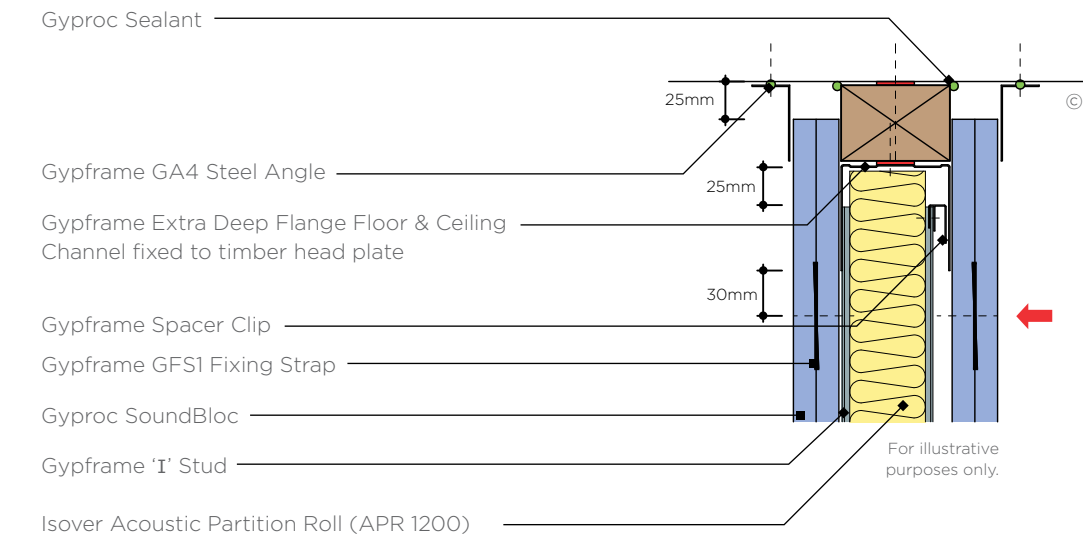
### 2. Deflection head

15mm downward movement and 60 minutes fire resistance

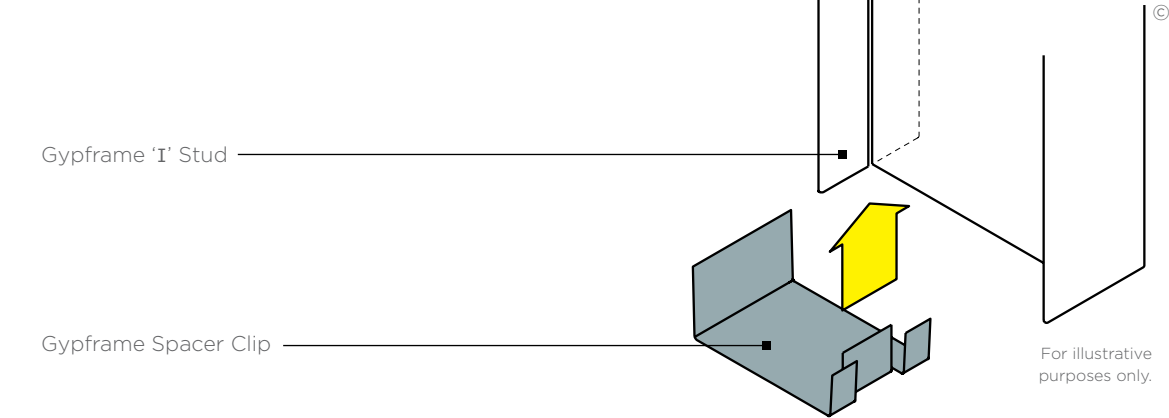


### 3. Deflection head

± 25mm movement and 60 minutes fire resistance



### 4. Clip attachment



Notes: No fixings should be made through the boards into the flanges of the head channel. The arrow (→) denotes the uppermost board fixing, which should be made into Gypframe GFS1 Fixing Strap. Continuous Gyproc FireStrip must be installed as shown in order to maintain fire performance. Gypframe Steel Angle or approved decorative trim (by others) should be fixed to the soffit either side of the partition as shown to maintain the acoustic performance. Where ± deflection is a requirement, Gypframe SC1 or SC2 Spacer Clips must be pre-fixed to the 'I' studs to avoid the risk of disengagement once deflection is taken up.

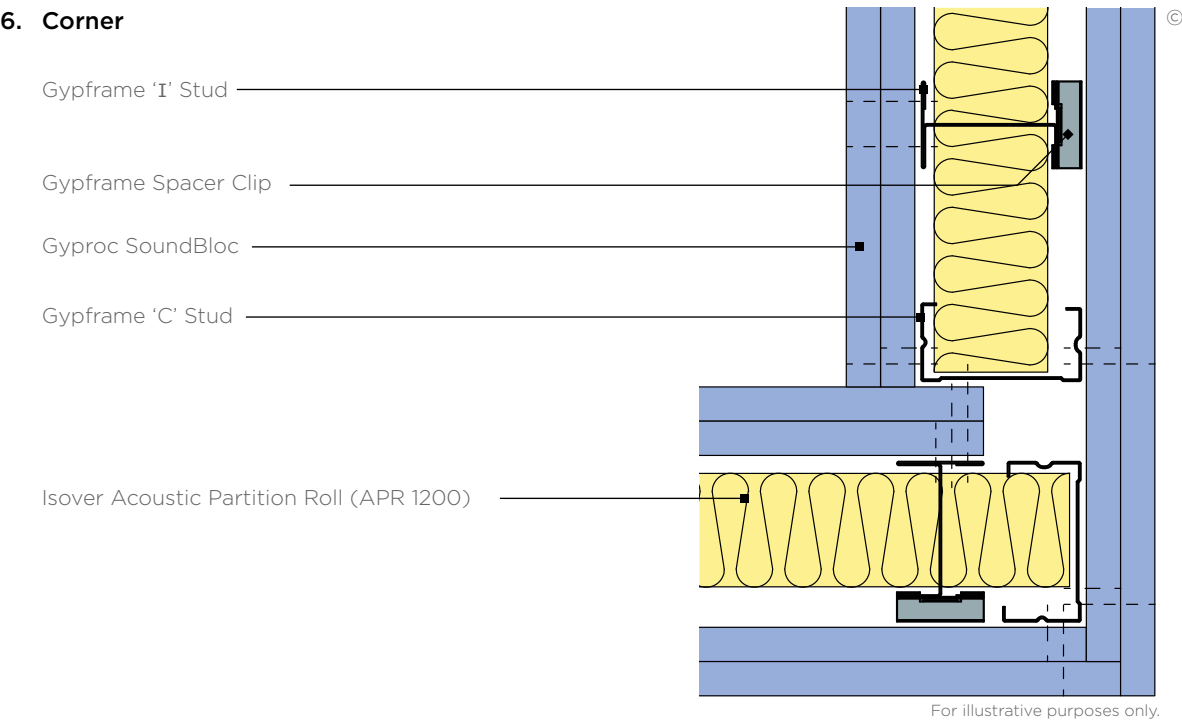
# GypWall Staggered

## Construction details

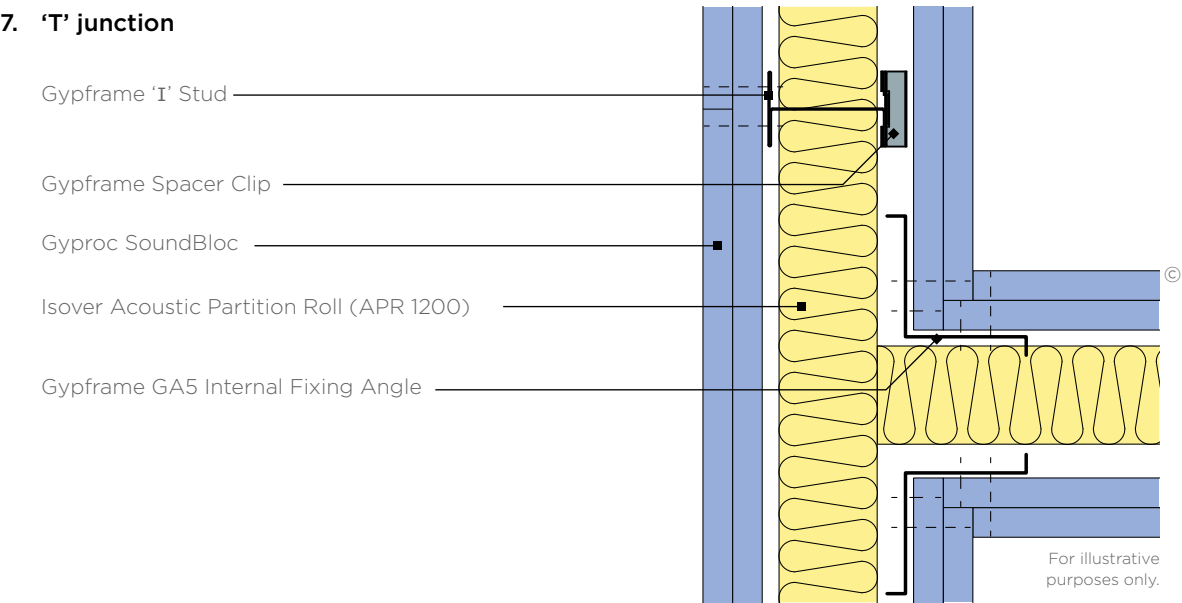
### 5. Junction with masonry



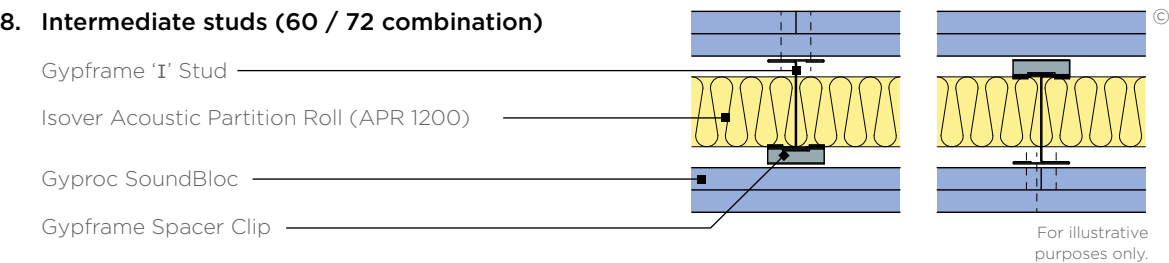
### 6. Corner



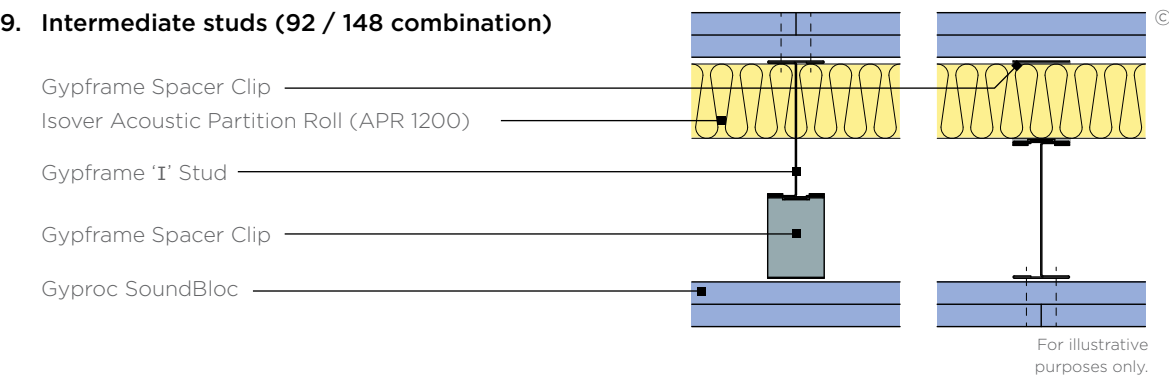
### 7. 'T' junction



### 8. Intermediate studs (60 / 72 combination)



### 9. Intermediate studs (92 / 148 combination)



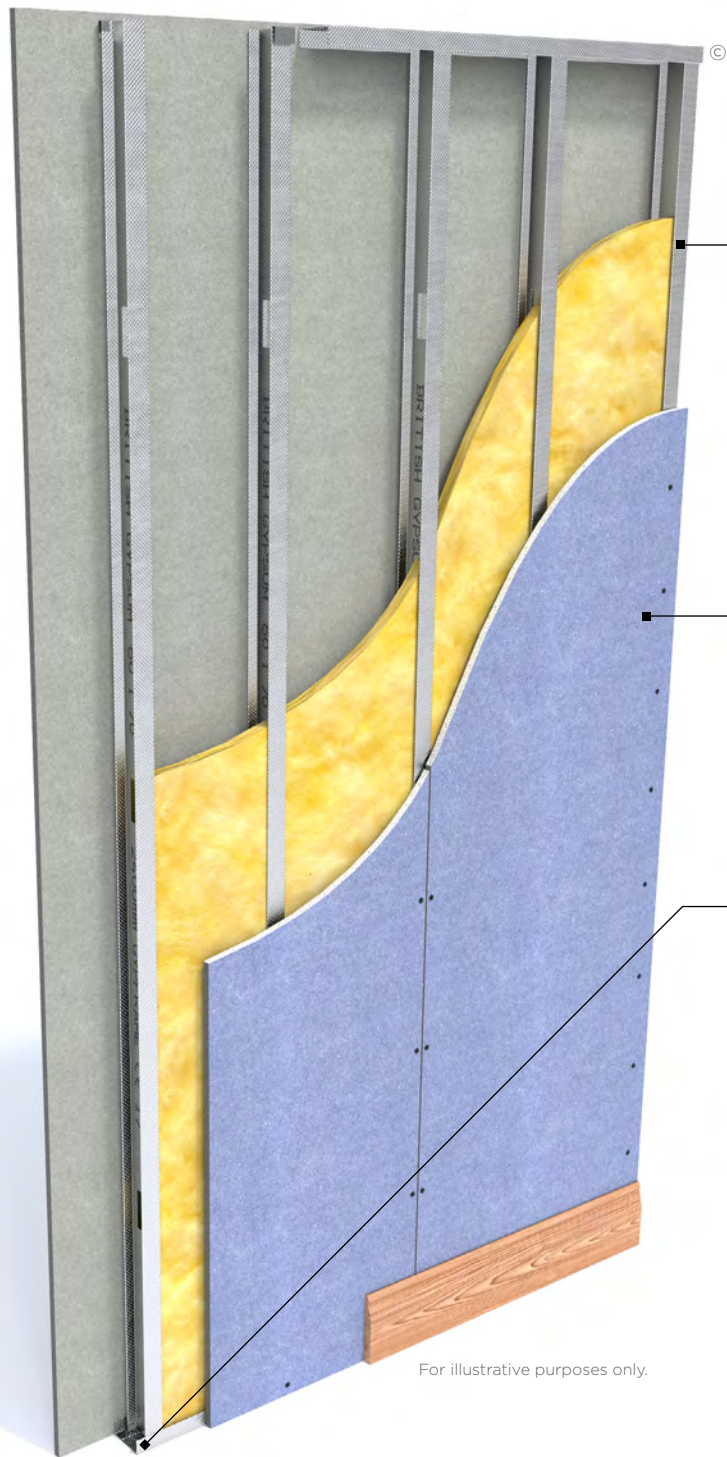
Note: Guidance must be sought from the relevant approval authority e.g. Building Control to establish if a cavity barrier is required (Approved Document B)

# GypWall Staggered

## System components

Space-saving sound insulation.

Internal partitions and walls



For illustrative purposes only.

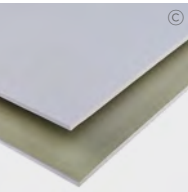


There are specifications within this system that qualify for our **SpecSure®** warranty. For more information, contact us through [british-gypsum.com](https://www.british-gypsum.com)

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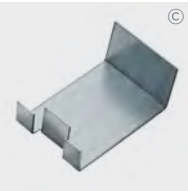
**Gypframe 'I' Studs**  
Gypframe 'I' studs are cold-rolled steel studs with an 'I' section profile. They include service cut-outs in the web. These studs provide vertical framing support in British Gypsum partitions and linings, as defined by the system design. They're available in a range of lengths depending on project requirements.



**Gyproc SoundBloc**  
Gyproc SoundBloc is a plasterboard with a high density core. Use it to achieve specified sound insulation levels through walls, ceilings and floors.



**Gypframe SC1 Spacer Clip**  
The spacer clip component is positioned at top and bottom of a Gypframe 60 I 70 'I' Stud to aid securing of stud in the channel when used in the GypWall Staggered system. Where a deflection head is required secure clip with a British Gypsum Wafer Head Jack-Point Screw.

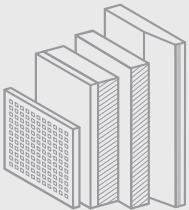


**Gypframe SC2 Spacer Clip**  
The spacer clip component is positioned at top and bottom of a Gypframe 92 I 90 'I' Stud to aid securing of stud in the channel when used in the GypWall Staggered system. Where a deflection head is required secure clip with a British Gypsum Wafer Head Jack-Point Screw.

Careful product choice is central to maintaining system integrity, performance requirements and eligibility for our **SpecSure®** warranty. **Ensure an optimum standard of build by considering...**

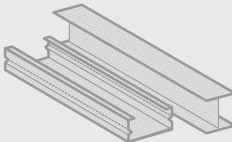
### What are you fixing?

Our market leading range of plasterboard linings for walls, ceilings, floors, partitions and encasements for any building type. See [british-gypsum.com](https://www.british-gypsum.com) for more details.



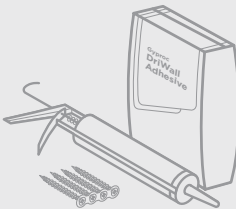
### What are you fixing to?

Our Gypframe metal profiles provide a strong and versatile structure for fixing our partition lining, floor and ceiling systems. See [british-gypsum.com](https://www.british-gypsum.com) for more details.



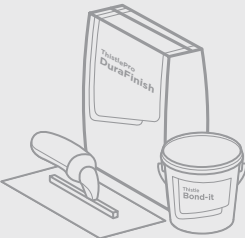
### What are you fixing with?

Our fixings offer guaranteed compatibility with our systems, and are rigorously tested to meet the highest quality standards. See [british-gypsum.com](https://www.british-gypsum.com) for more details.



### What are you finishing with?

**Plaster**  
Our wide range of Thistle plasters and Thistle accessories give you everything you need to finish a job to the highest possible standard. See [british-gypsum.com](https://www.british-gypsum.com) for more details.



**Finishing products**  
Our Gyproc jointing range gives you everything you need to complete a wall lining, partition or ceiling system, whatever the size and complexity of the project. See [british-gypsum.com](https://www.british-gypsum.com) for more details.

**Where defined performance requirements are required see our White Book Specification Selector on [british-gypsum.com](https://www.british-gypsum.com)**

Internal partitions and walls



# GypWall Staggered Installation

The information below is intended to be a basic description of how the system is built.

Internal partitions and walls



Suitably fix the appropriate Gypframe Floor & Ceiling Channels at the required centres to the floor and soffit.

Important note – for channels 72mm and below a single row of fixings are used. For anything above 72mm two rows of 600mm fixings staggered by 300mm are used.



Fix Gypframe 'C' Studs at maximum 600mm centres to abutments and openings using suitable fixings.



Insert Gypframe Spacer Clips to the top and bottom of the studs. Use Gypframe SC1 when using Gypframe 60 I 70 'I' Studs. Use Gypframe SC2 Spacer Clips when using Gypframe 92 I 90 'I' Studs.



Friction fit Gypframe 'I' Studs into the Gypframe Floor & Ceiling Channels. Alternating the direction of the clip at the top and bottom of the stud to create a staggered stud framework.



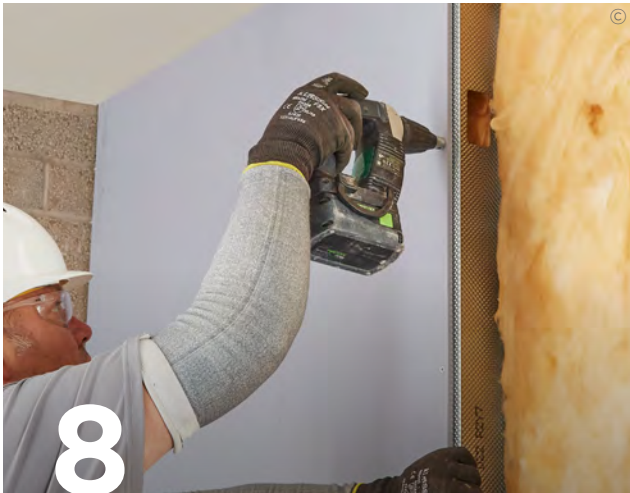
Construct door openings to the Heavy - Severe Duty rating door detail.



Add Isover Acoustic Partition Roll (APR 1200) insulation to the partition cavity for optimal acoustic and thermal performance.



Use Gyproc Sealant to seal the perimeter of the partition.



Use British Gypsum Jack-Point Screws to fix Gyproc SoundBloc plasterboards to alternate Gypframe 'I' Studs and other framing members.

Internal partitions and walls