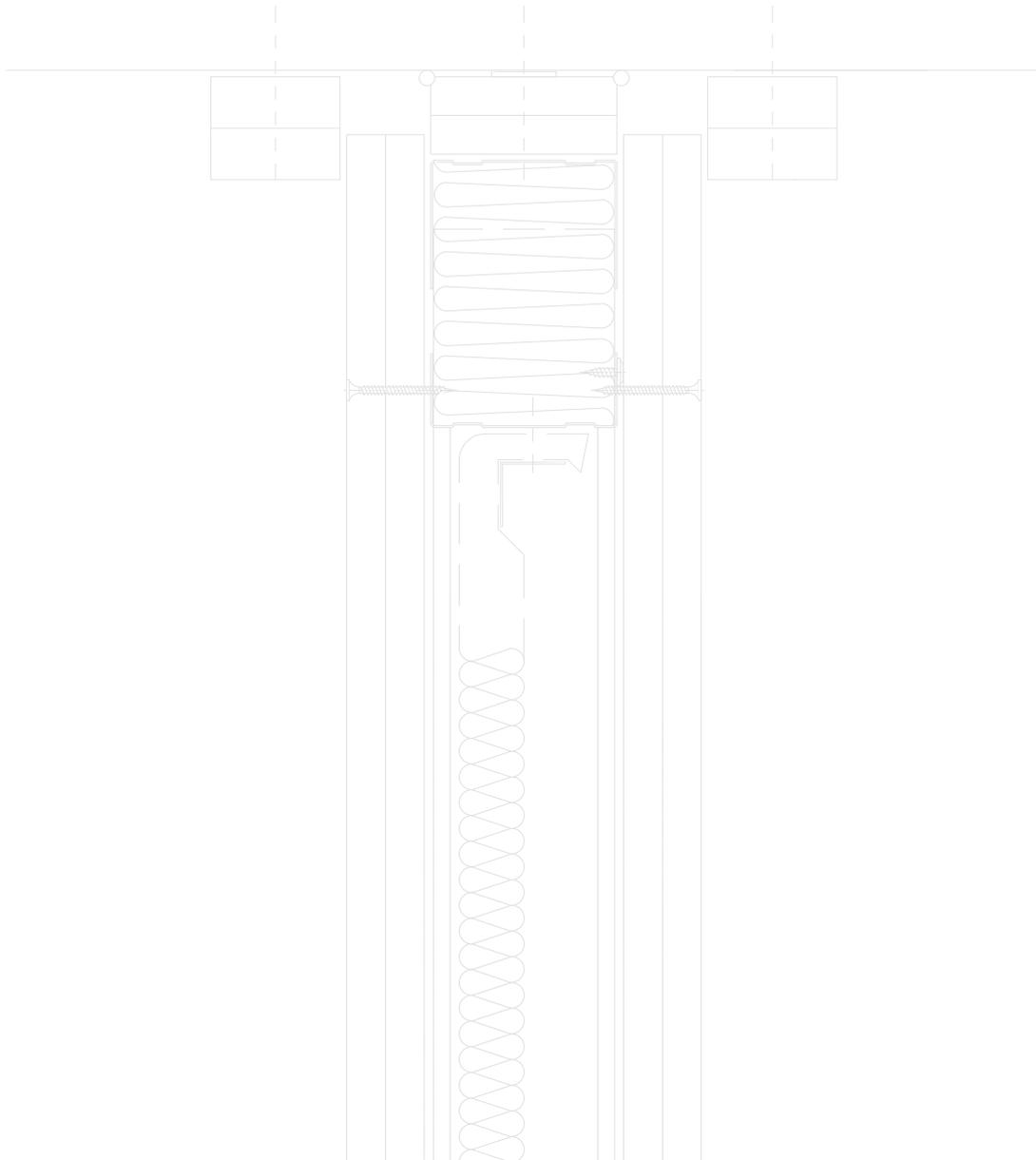


Best practice guidance

Deflection heads



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BPG002

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Deflection of floor and roof slabs can cause appreciable stress in partitions. Where such deflection is likely to occur, the partition to structural soffit junction detail must be designed to accommodate movement, whilst still complying with any fire or acoustic performance requirements.

Failure to make adequate allowance for the range of up and down movement of the floors above could have major implications to the installed construction, both aesthetically and more importantly to the system's performance.

The decision regarding deflection allowance typically is the responsibility of the structural engineer who will calculate the likely deflection of a floor or other loadbearing elements the head of the partition will be connected to, such as structural steel beams under the normal cold state service conditions. The structural engineer may also call upon the services of a fire engineer to determine the deflection of the floor under the influence of a building fire. There is also general guidance given in the Approved Document B, Part B3, Section 8 with regard to the need to make an allowance for the deflection of floor slabs and beams in relation to fire.

Once the structural engineer has determined the deflection allowance required, up to a maximum 50mm, British Gypsum can advise on the relevant components required to maintain the fire resistance performance between 30 and 240 minutes.

The aim of this document is to explain the design variations necessary to achieve a range of fire resistance performances from 30 minutes to 120 minutes for GypWall partition systems.

This includes the minimum system requirements common to all deflection heads together with a basic explanation of the differences between the two fire resistance testing Standards, BS 476-22 and BS EN 1364-1.

BS 476-22 and BS EN 1364-1. What is the same and what is different?

What is the same

Both fire testing Standards use the same rate of temperature rise over time that has been derived from numerous academic fire studies into how an uncontrolled fire grows. For non-loadbearing partition systems, the two criteria used to determine test failure are either, integrity or insulation. In the BS EN Standard, integrity failure is denoted by the letter 'E'. Insulation failure is denoted by the letter 'I'.

What is different

Meeting either of the fire test duration requirements, E or I to BS EN 1364-1 is more challenging than BS 476-22 due to the increased number of standard temperature recording points on the unexposed face, raised from a minimum five under BS 476-22 to a minimum of 12 under BS EN 1364-1 (see Figs. 1 and 2). Also, when testing to BS 476-22 there is a reliance on the tester finding hot spots using a roving thermocouple, leading to the potential to miss early failures.

Fire testing of partitions that incorporate a deflection head to BS 476-22 are required to be installed with the movement range set at mid-position (clause 5.2.3.2 refers) However, the more modern fire testing Standard BS EN 1364-1 makes no reference to the position of the deflection head. Following extensive fire testing of deflection heads, it is British Gypsum's view the most onerous condition, is to have the movement range set to the full extent. The solutions contained within this document reflect this as a worst case scenario.

Under BS EN 1364-1 the fire state height limit is determined by the recorded thermal bow of the partition. If the recorded bow in a standard 3m high specimen exceeds 100mm, the height is restricted to the tested height. If the lateral bow of the specimen is less than 100mm, the fire height can be extended by an additional metre above that tested.

Under the normal cold state condition the load carried by the partition frame is transmitted axially down the centre of the stud into the floor. When the studs bow in a fire the load shifts from the centreline of the stud to one side.

The bow moves the load condition from axial towards lateral loading. The ability of light gauge steel studs to support a given load laterally is significantly less than when presented as an axial load. This is reduced even further as the stud temperature increases.

The thermal bow and reduced stud stiffness due to heating increases the risk of system collapse as the load moves away from the stud centreline. The 100mm maximum bow under BS EN 1364-1 fire testing Standards ensures the load does not move far enough away from the centreline to present an elevated risk of collapse.

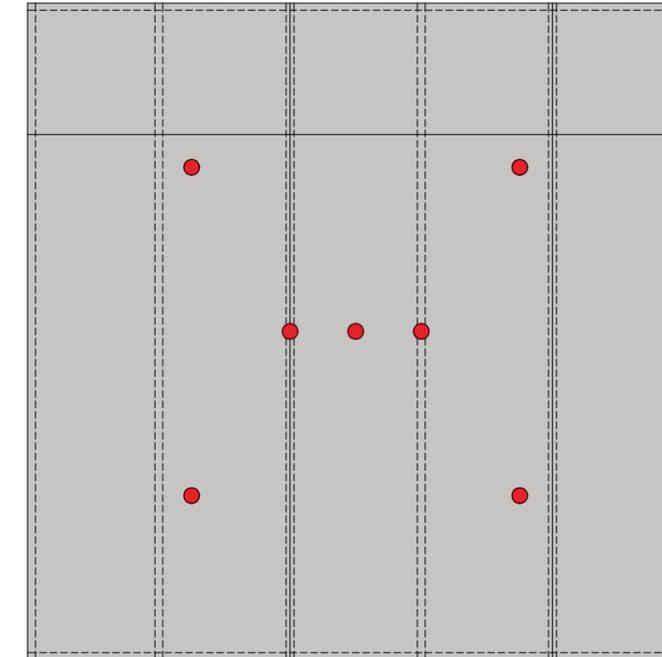
Due to the practical limitations of furnace design with regard to the ability to test heights above 5m or 6m, in the UK a fire engineering assessment can be undertaken by UKAS accredited laboratories to determine the BS EN 1364-1 fire state height of partitions above that which is testable based on information taken from additional thermocouples placed on the systems' studs. Under BS 476-22 there are no fire height restrictions on systems and so this additional fire engineering safety feature is not present.

Fig. 1

Typical thermocouple layout BS 476-22

Key

● Thermocouples



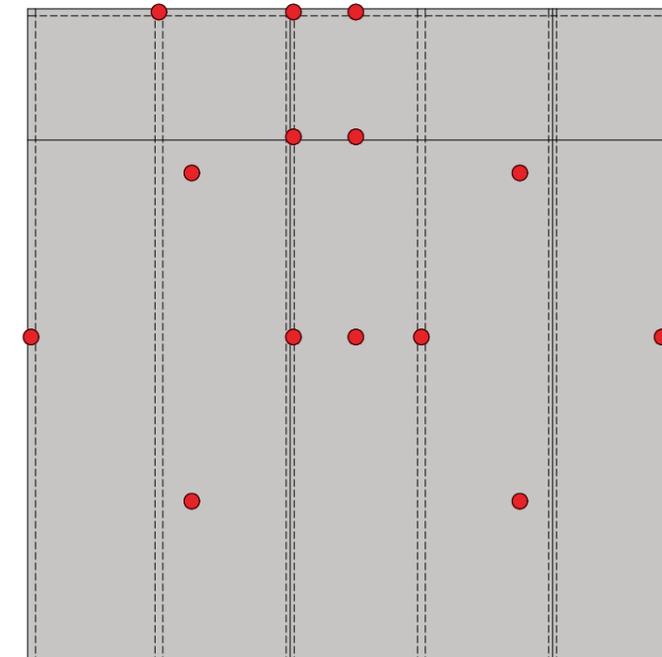
Elevation unexposed face

Fig. 2

Typical thermocouple layout BS EN 1364-1

Key

● Thermocouples



Elevation unexposed face

The following pages of this document will look in more detail at deflection heads, starting with the movement of a deflection head. This is followed by the basic anatomy common to most deflection heads, and specific requirements to maintain the fire resistance at the head of a partition to BS EN 1364-1, for fire durations of 30, 60, 90 and 120 minutes.

Movement

A partition deflection head can be designed to accommodate a range of vertical movement, to fulfil the building designer's requirements. The deflection head design will vary depending on the range of movement required and the soffit construction.

Movement can be one direction (i.e. downward) or two directions (i.e. upward and downward). The total deflection that can be accommodated using British Gypsum components is 50mm (e.g. 50mm downward or ± 25 mm). For greater amounts of deflection, a bespoke design incorporating components by others will be necessary, and are likely to require fire test substantiation. Contact Technical Support Team for further information.

In terms of a partition with British Gypsum components, when deflection occurs the head channel, dropped soffit and cloaking element will move with the soffit.

A deflection head for downward movement is installed in the open position, and will close fully at maximum downward movement, as shown in Fig. 3.

A deflection head for upward and downward movement is installed in the neutral position, and will close fully at maximum downward movement and open fully at maximum upward movement, as shown in Fig. 4.

The gaps or components that open and close when experiencing deflection, must not be filled or obstructed with other materials, as this may restrict the movement and result in damage to the partition.

When in the fully upward position a minimum 20mm of stud engagement must remain within the head channel. Additionally, for GypWall Shaft the firestop within the head channel must overlap the Gyproc CoreBoard by a minimum 7mm.

Fig. 3
Principle of deflection head with downward movement

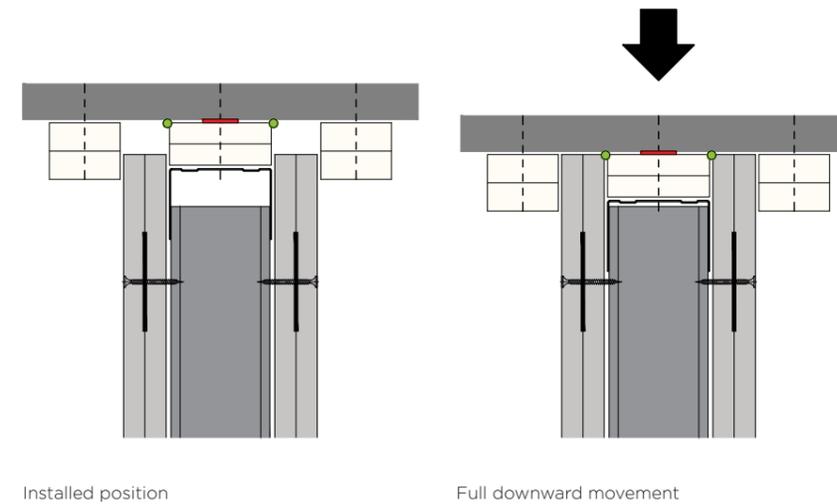


Fig. 4
Principle of deflection head with \pm movement

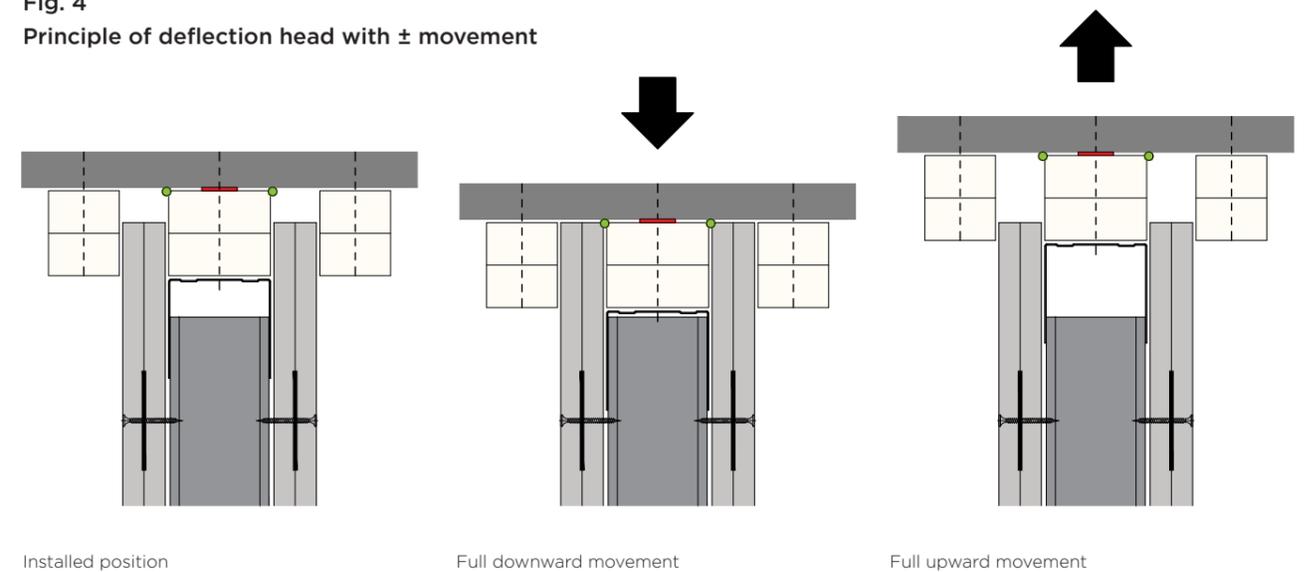
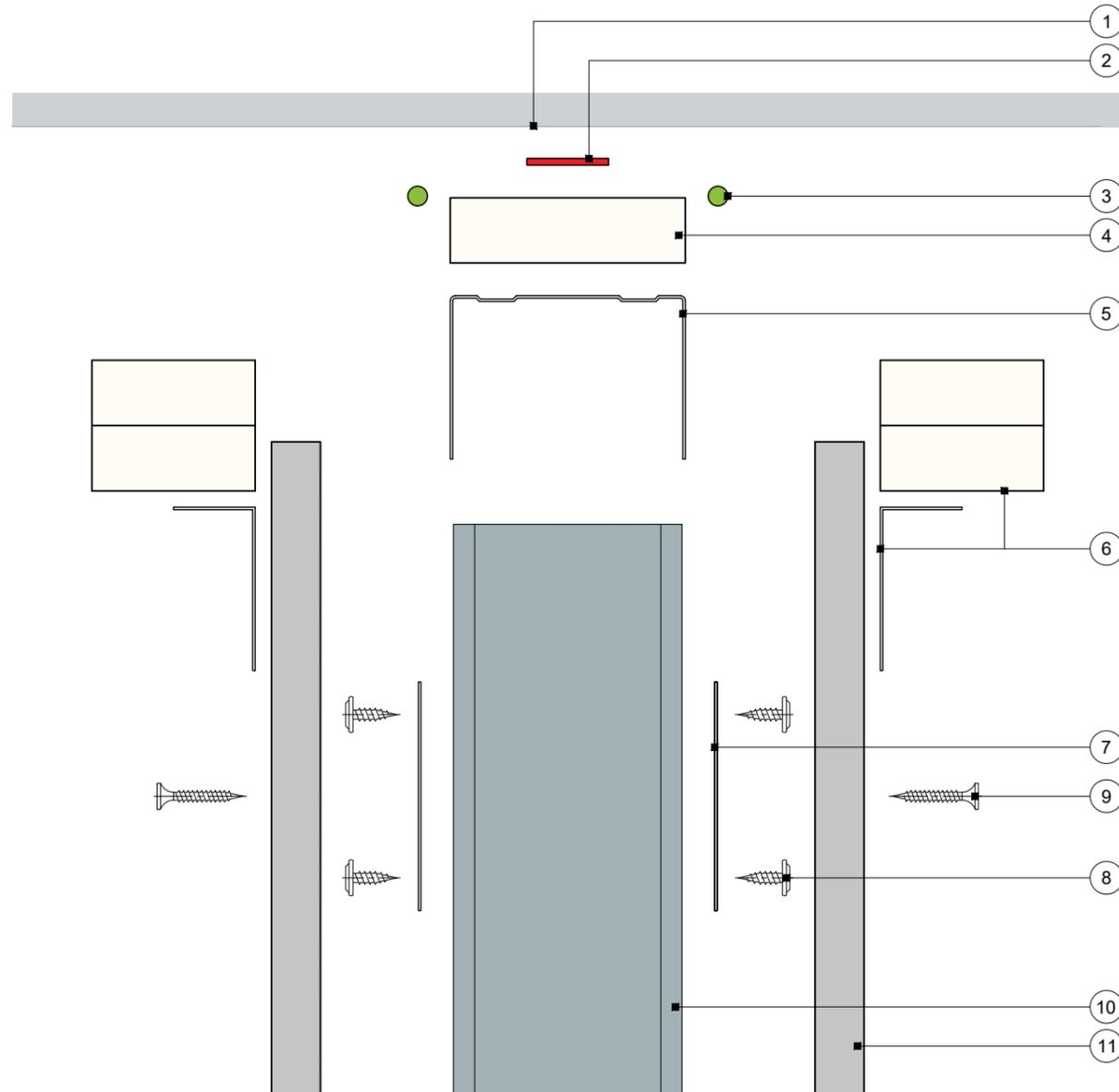


Fig. 5
GypWall Single Frame anatomy of a deflection head
BS EN 1364-1 30 or 60 minutes fire resistance



Structural soffit (1)

This can take many forms from concrete slab, CLT slab, timber/steel joists or purlins, profiled/waffle deck and encased beams and in most cases must be at least the same fire resistance performance as the partition.

Gyproc FireStrip (2)

This is a fire intumescent linear gap filler and is required between the structural soffit which may have small irregularities (in its surface) and the flat surface of the Gyproc or Glasroc dropped soffit. The purpose is to ensure that following installation no visible gaps exist between the two surfaces. This seals the joint between the two surfaces to prevent the passage of hot gases of combustion escaping the furnace (fire side) to the unexposed face (room side). This will also help maximise acoustic performance.

Gyproc Sealant (3)

Gyproc Sealant is applied to all junctions with the structure to minimise air leakage for optimum sound insulation.

Dropped soffit (4)

If the head channel is directly exposed to fire, the heat of the furnace will track around the channel causing a fire resistance insulation failure. The purpose of the Gyproc CoreBoard or Glasroc F FireCase board is to keep the head channel below the top of the board lining and remove the risk of early fire resistance insulation failure. A minimum 7mm board lining overlap is required over the dropped soffit.

Gypframe channel (5)

To maintain lateral stability under all conditions the Gypframe studs must maintain a minimum 20mm engagement into the head channel. The only Gypframe channels suitable for most deflection head situations are either denoted 'DC' with 50mm flanges or 'EDC' with 70mm flanges. The Gypframe 'FEC' channels are not suitable to accommodate movement in most cases.

Cloaking element (6)

To achieve a fire resistance to BS EN 1364-1 a cloaking element consisting of two 50mm wide strips of Glasroc F FireCase is required over the deflection gap. Alternatively Gypframe GA4 or GA7 Steel Angle can be used.

Gypframe GFS1 Fixing Strap (7)

To comply with the partition system requirements for the board linings to be fixed at 300mm centres around their perimeter (9). **As the head channel is subject to movement no board lining fixings are allowed either to the head channel or within the movement zone below it.** The Gypframe GFS1 Fixing Strap is fixed to the Gypframe studs using British Gypsum Drywall or Wafer Head Jack-Point Screws (8) for single layer board linings. For multi-layer board linings the fixing strap is inserted behind the outer layer of board and fixed through the inner layer(s) to the studs with British Gypsum Drywall or Jack-Point Screws at 1200mm centres. Note; the Gypframe GFS1 Fixing Strap is not required where studs are at 300mm centres.

British Gypsum Wafer Head Drywall Screws 13mm or British Gypsum Wafer Head Jack-Point Screws 13mm (8)

British Gypsum Drywall Screws (9)

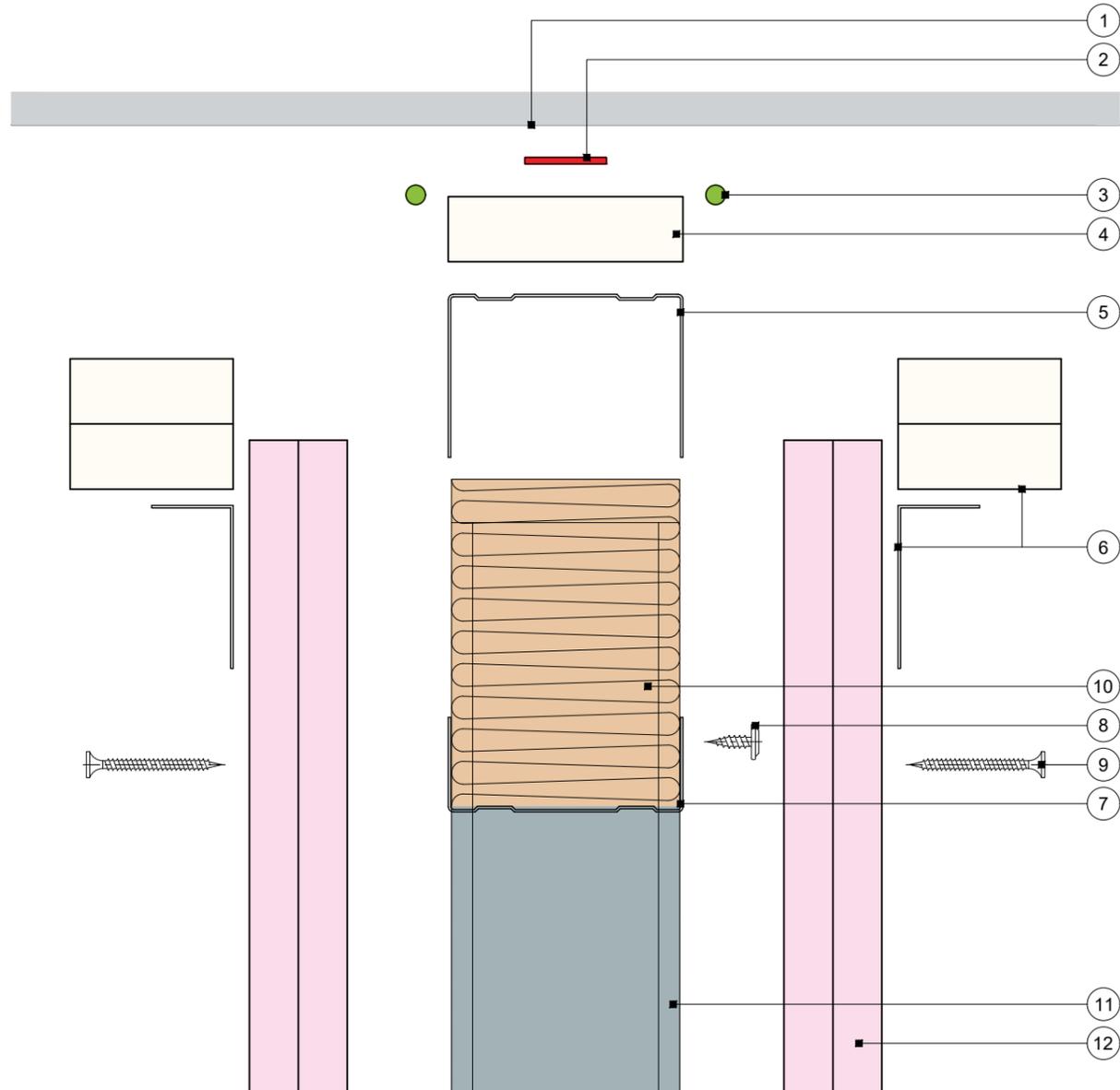
Gypframe stud (10)

The Gypframe stud must maintain a minimum engagement into the head channel of 20mm at all times regardless of the movement required.

Gyproc plasterboard or Glasroc specialist board linings (11)

The top edge of the specified board linings must cover the head channel so that at no point in the deflection cycle will it become exposed to fire.

Fig. 6
GypWall Single Frame anatomy of a deflection head
BS EN 1364-1 90 or 120 minutes fire resistance



Structural soffit (1)

This can take many forms from concrete slab, CLT slab, timber/steel joists or purlins, profiled/waffle deck and encased beams and in most cases must be at least the same fire resistance performance as the partition.

Gyproc FireStrip (2)

This is a fire intumescent linear gap filler and is required between the structural soffit which may have small irregularities (in its surface) and the flat surface of the Gyproc or Glasroc dropped soffit. The purpose is to ensure that following installation no visible gaps exist between the two surfaces. This seals the joint between the two surfaces to prevent the passage of hot gases of combustion escaping the furnace (fire side) to the unexposed face (room side). This will also help maximise acoustic performance.

Gyproc Sealant (3)

Gyproc Sealant is applied to all junctions with the structure to minimise air leakage for optimum sound insulation.

Dropped soffit (4)

If the head channel is directly exposed to fire, the heat of the furnace will track around the channel causing a fire resistance insulation failure. The purpose of the Gyproc CoreBoard or Glasroc F FireCase board is to keep the head channel below the top of the board lining and remove the risk of early fire resistance insulation failure. A minimum 7mm board lining overlap is required over the dropped soffit.

Gypframe channel (5)

To maintain lateral stability under all conditions the Gypframe studs must maintain a minimum 20mm engagement into the head channel. The only Gypframe channels suitable for most deflection head situations are either denoted 'DC' with 50mm flanges or 'EDC' with 70mm flanges. The Gypframe 'FEC' channels are not suitable to accommodate movement in most cases.

Cloaking element (6)

To achieve a fire resistance to BS EN 1364-1 a cloaking element consisting of two 50mm wide strips of Glasroc F FireCase is required over the deflection gap. Alternatively Gypframe GA4 Steel Angle can be used.

Channel nogging (7)

To comply with the partition system requirements for the board linings to be fixed at 300mm centres around their perimeter (9). **As the head channel is subject to movement no board lining fixings are allowed either to the head channel or within the movement zone below it.** The noggings of Gypframe channel are inserted between studs and fixed through the flange to the Gypframe studs using British Gypsum Drywall or Jack-Point Wafer Head Screws (8).

British Gypsum Wafer Head Drywall Screws 13mm or British Gypsum Wafer Head Jack-Point Screws 13mm (8)

British Gypsum Drywall Screws (9)

Stone mineral wool (10)

The cavity between channel nogging and head channel is filled with stone mineral wool 33kg/m³ minimum density by others

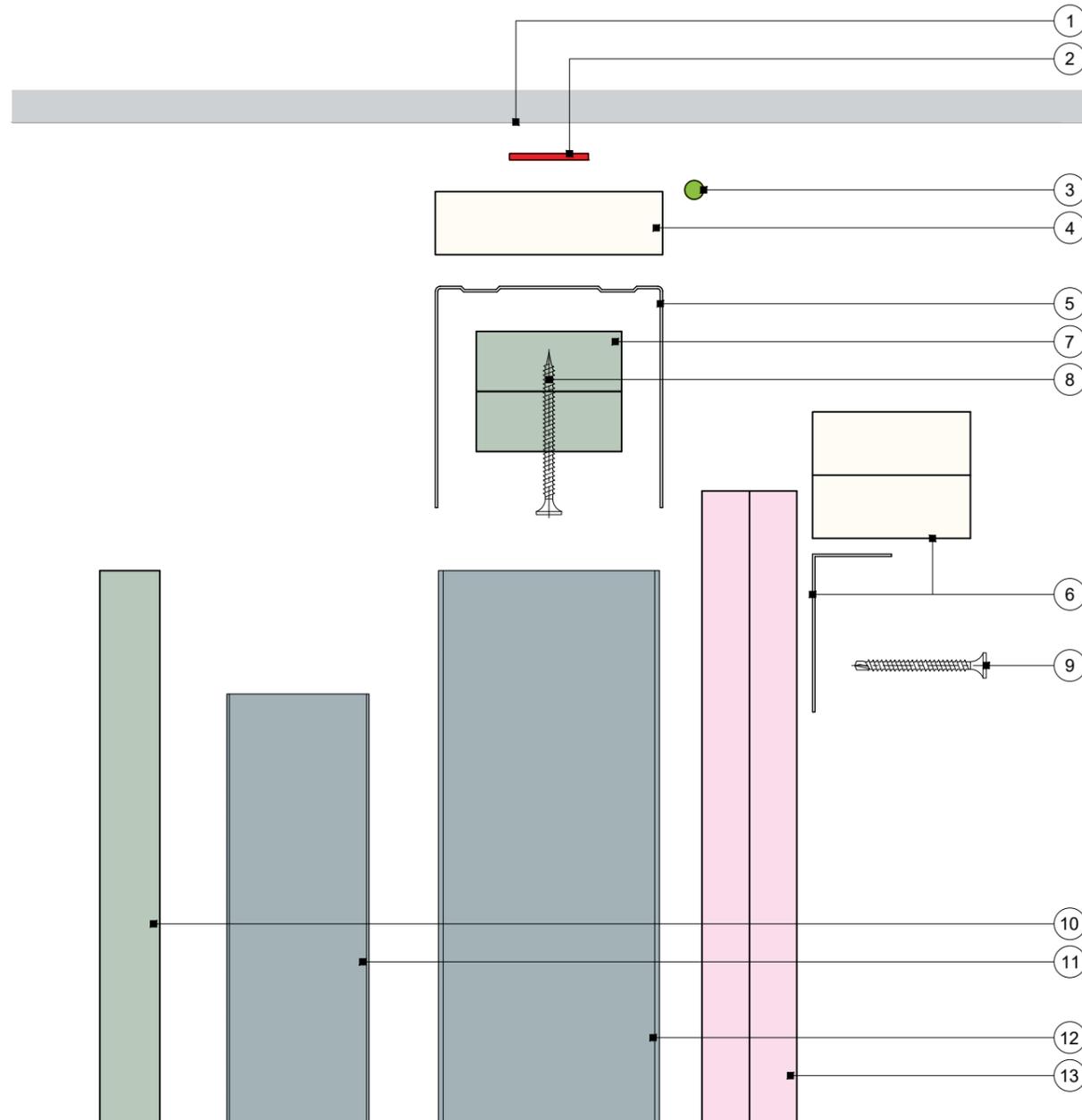
Gypframe stud (11)

The Gypframe stud must maintain a minimum engagement into the head channel of 20mm at all times regardless of the movement required.

Gyproc plasterboard or Glasroc specialist board linings (12)

The top edge of the specified board linings must cover the head channel so that at no point in the deflection cycle will it become exposed to fire.

Fig. 7
GypWall Shaft anatomy of a deflection head
BS EN 1364-1 60 or 90 minutes fire resistance



Structural soffit (1)

This can take many forms from concrete slab, CLT slab, timber/steel joists or purlins, profiled/waffle deck and encased beams and in most cases must be at least the same fire resistance performance as the partition.

Gyproc FireStrip (2)

This is a fire intumescent linear gap filler and is required between the structural soffit which may have small irregularities (in its surface) and the flat surface of the Gyproc or Glasroc dropped soffit. The purpose is to ensure that following installation no visible gaps

exist between the two surfaces. This seals the joint between the two surfaces to prevent the passage of hot gases of combustion escaping the furnace (fire side) to the unexposed face (room side). This will also help maximise acoustic performance.

Gyproc Sealant (3)

Gyproc Sealant is applied to all junctions with the structure to minimise air leakage for optimum sound insulation.

Dropped soffit (4)

If the head channel is directly exposed to fire, the heat of the furnace will track around the channel causing a fire resistance insulation failure. The purpose of the Gyproc CoreBoard or Glasroc F FireCase board is to keep the head channel below the top of the board lining and remove the risk of early fire resistance insulation failure. A minimum 7mm board lining overlap is required over the dropped soffit.

Gypframe channel (5)

To maintain lateral stability under all conditions the Gypframe studs must maintain a minimum 20mm engagement into the head channel. The only Gypframe channels suitable for most deflection head situations are either denoted 'JC' with a 50mm flange (for 60mm studs only) or 'EDC' with 70mm flanges. The Gypframe 'FEC' channels are not suitable to accommodate movement in most cases.

Cloaking element (6)

To achieve a fire resistance to BS EN 1364-1 a cloaking element consisting of two 50mm wide strips of Glasroc F FireCase is required over the deflection gap.

Alternatively for a deflection of 15mm or less Gyproframe GA4 Steel Angle can be used. The cloaking element is optional for a deflection of 15mm or less.

Firestops (7)

Horizontal firestops cut from 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase are fixed inside the head channel with two screws (8).

Suitable British Gypsum Screws (8)

Uppermost board fixing (9)

As the head channel is subject to movement no board lining fixings are allowed either to the head channel or within the movement zone below it.

Gyproc CoreBoard (10)

Gyproc CoreBoard is positioned inside the channels and against the stud flanges on the shaft side of the partition.

Gypframe Retaining Channel (11)

Gyproc CoreBoard secured against the stud flanges with Gypframe Retaining Channel.

Gypframe stud (12)

The Gypframe stud must maintain a minimum engagement into the head channel of 20mm at all times regardless of the movement required.

Gyproc plasterboard or Glasroc specialist board linings (13)

The top edge of the specified board linings must cover the head channel so that at no point in the deflection cycle will it become exposed to fire.

Design Principles - Junctions

Partition abutments that incorporate a deflection head introduce a problem commonly known within the industry as a 'mouse hole'. Careful detailing and setting out is required to overcome this, refer to details 11 to 13.

Fig. 8
Junction with mousehole

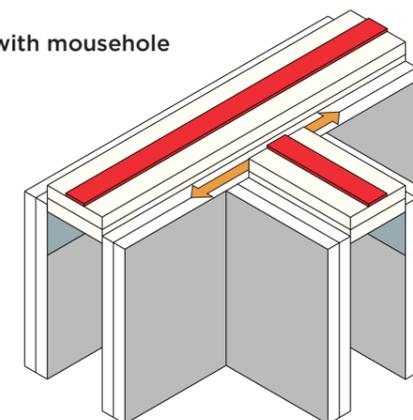
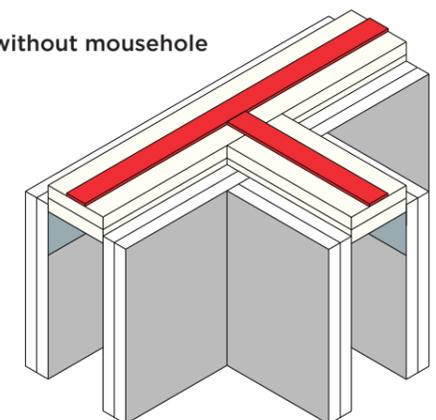


Fig. 9
Junction without mousehole



Detail 1

GypWall Single Frame and GypWall Single Frame Enhanced

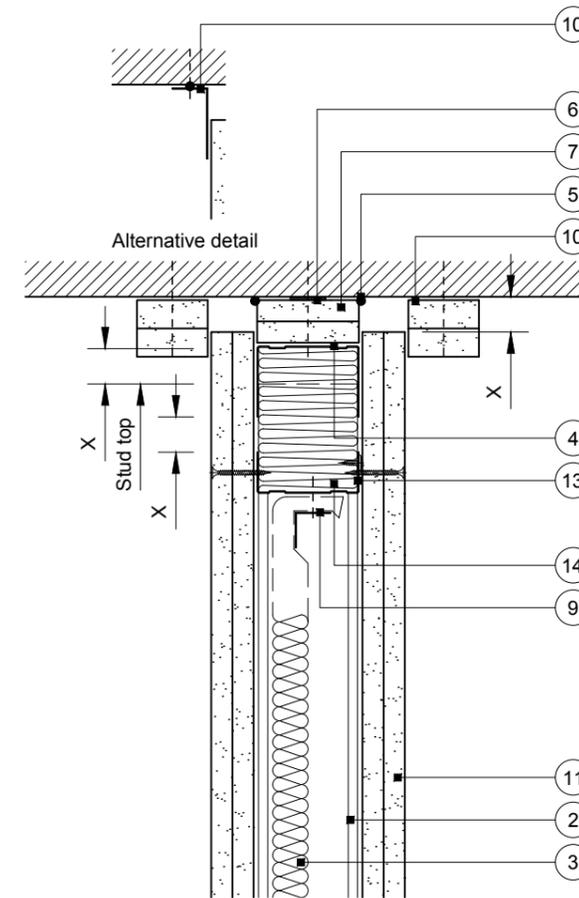
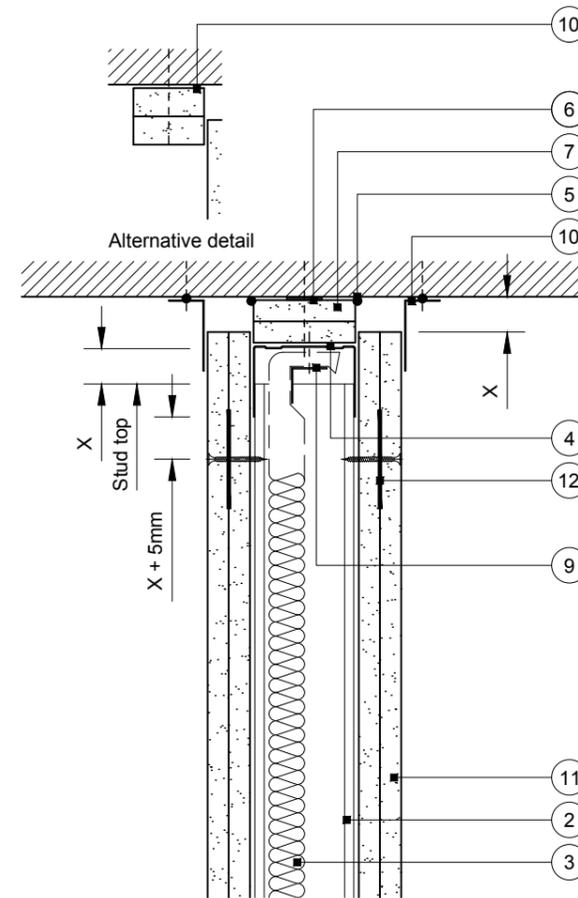
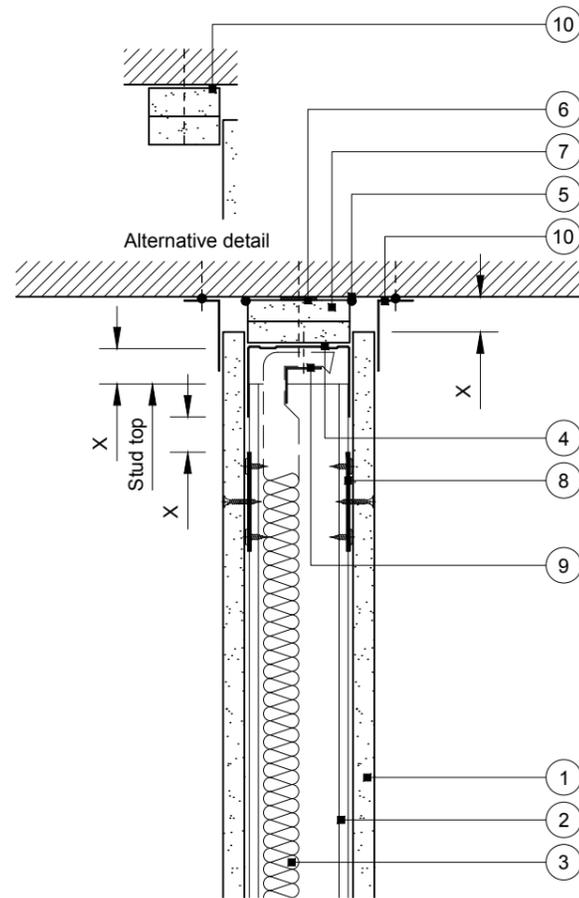
Deflection heads

Downward (vertical) movement

- 1 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gypframe 'C' studs at specified centres
- 3 Isover insulation where required
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 5 Gyproc Sealant for optimum sound insulation
- 6 Gyproc FireStrip
- 7 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres

- 8 Gypframe GFS1 Fixing Strap fixed to each stud with two suitable British Gypsum wafer head screws to receive uppermost board fixings (no fixings into head channel)
- 9 Gypframe steel angle or timber batten suitably fixed to channel to retain insulation where required
- 10 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 11 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)

- 12 Gypframe GFS1 Fixing Strap fixed through board to studs with suitable British Gypsum screws at 1200mm centres to receive uppermost board fixings (no fixings into head channel)
- 13 Gypframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel). Alternatively Gypframe stud noggings tightly fitted between studs
- 14 Stone mineral wool 33kg/m³ minimum density by others



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 4	CLOAKING ELEMENT NOTE 10
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only

Important information

Fire resistance BS EN 1364-1
 • 30 or 60 minutes through partition subject to specification

Important information

Fire resistance BS EN 1364-1
 • 30 or 60 minutes through partition subject to specification

Important information

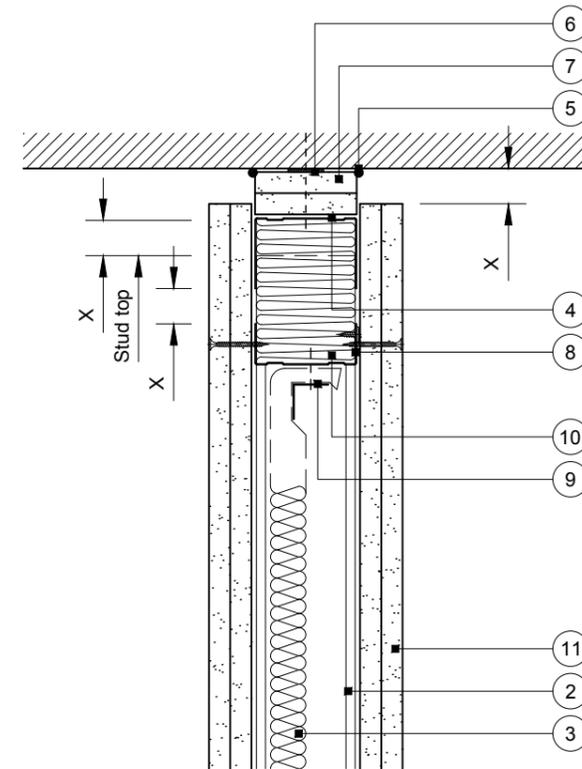
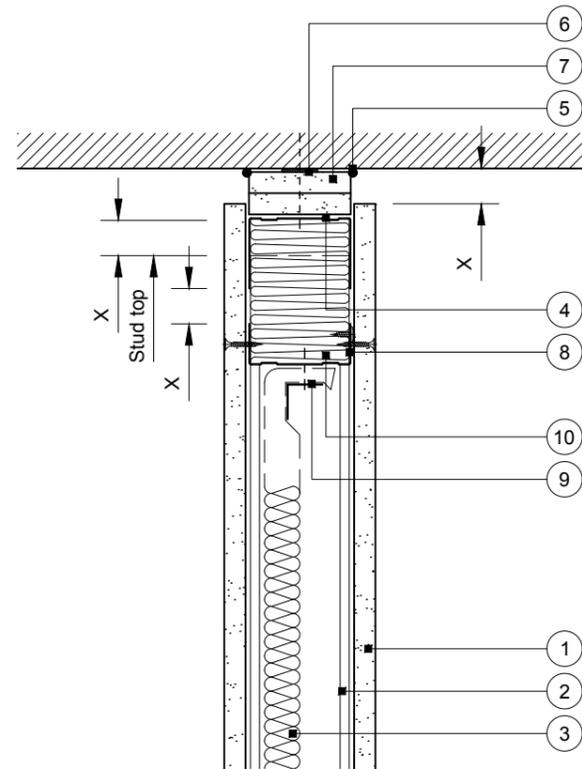
Fire resistance BS EN 1364-1
 • 90 or 120 minutes through partition subject to specification

Detail 2

GypWall Single Frame and GypWall Single Frame Enhanced

Alternative deflection heads Downward (vertical) movement

- 1 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gypframe 'C' studs at specified centres
- 3 Isover insulation where required
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 5 Gyproc Sealant for optimum sound insulation
- 6 Gyproc FireStrip
- 7 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 8 Gypframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel). Alternatively Gypframe stud noggings tightly fitted between studs
- 9 Gypframe steel angle or timber batten suitably fixed to nogging to retain insulation where required
- 10 Stone mineral wool 33kg/m³ minimum density by others
- 11 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)



DEFLECTION (VERTICAL) HEAD DESIGN		
DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 4
1-15mm	One 19mm ^A or 20mm ^B	DC
16-20mm	Two 15mm ^B	DC
21-25mm	Two 15mm ^B	DC
26-30mm	Two 20mm ^B	DC
31-35mm	Two 20mm ^B	EDC
36-40mm	Two 25mm ^B	EDC
41-45mm	Two 25mm ^B	EDC
46-50mm	Two 30mm ^B	EDC

^A Gyproc CoreBoard
^B Glasroc F FireCase

Important information

Fire resistance BS EN 1364-1

- 30 or 60 minutes through partition subject to specification

Potential loss of around 4dB to 5dB sound insulation due to air leakage

Important information

Fire resistance BS EN 1364-1

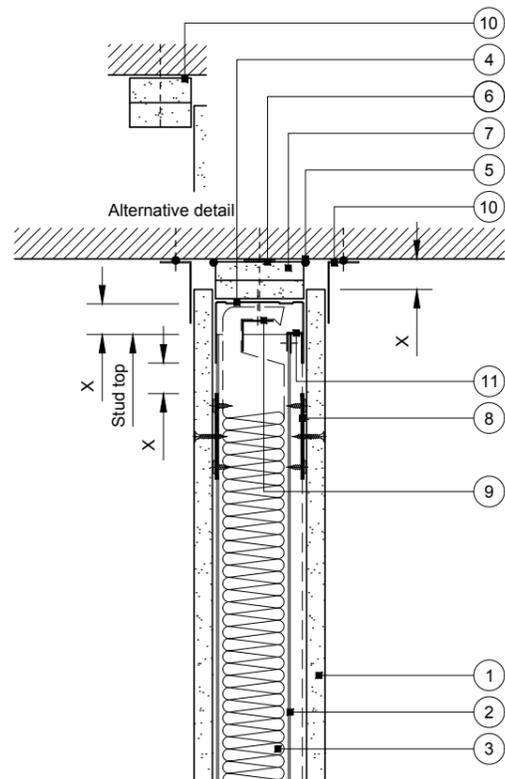
- 30 or 60 minutes through partition subject to specification

Potential loss of around 4dB to 5dB sound insulation due to air leakage

Deflection heads

Downward (vertical) movement

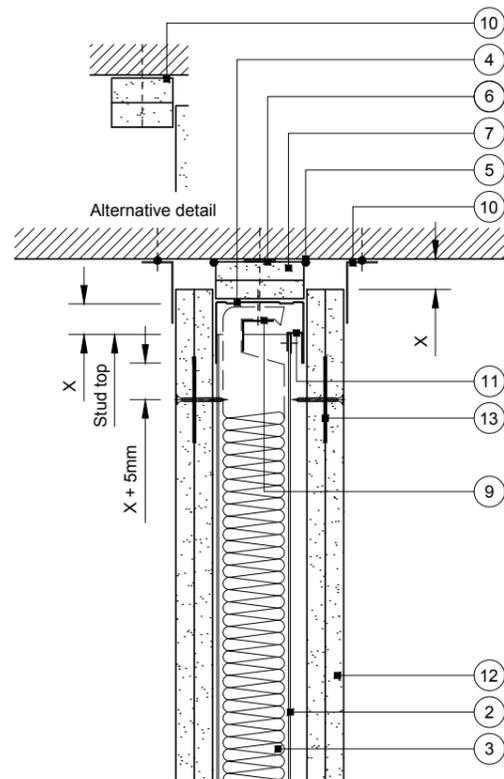
- 1 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gypframe 'I' studs at specified centres and alternately staggered with Gypframe Spacer Clips
- 3 Isover insulation where required
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 5 Gyproc Sealant for optimum sound insulation
- 6 Gyproc FireStrip
- 7 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 8 Gypframe GFS1 Fixing Strap fixed to each stud with two suitable British Gypsum wafer head screws to receive uppermost board fixings (no fixings into head channel)
- 9 Gypframe steel angle or timber batten suitably fixed to channel to retain insulation where required
- 10 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 11 Gypframe Spacer Clips pre-fixed to studs
- 12 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 13 Gypframe GFS1 Fixing Strap fixed through board to studs with suitable British Gypsum screws at 1200mm centres to receive uppermost board fixings (no fixings into head channel)
- 14 Gypframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel). Alternatively Gypframe stud noggings tightly fitted between studs
- 15 Stone mineral wool 33kg/m³ minimum density by others



Important information

Fire resistance BS EN 1364-1

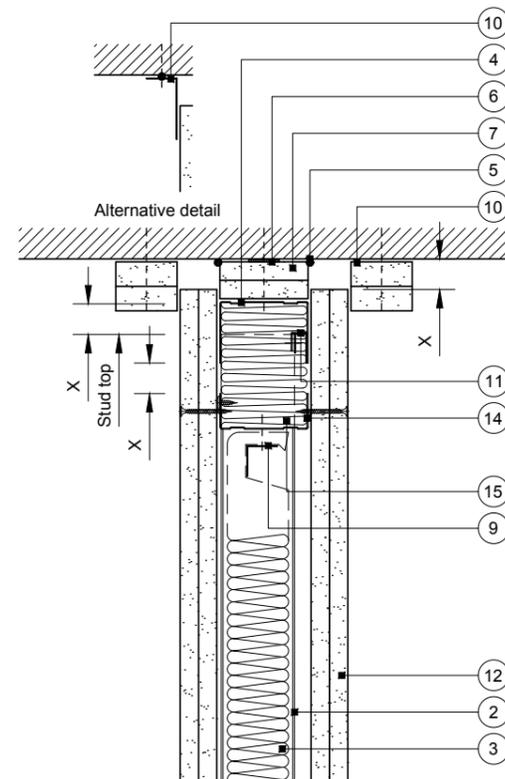
- 30 or 60 minutes through partition subject to specification



Important information

Fire resistance BS EN 1364-1

- 30 or 60 minutes through partition subject to specification



Important information

Fire resistance BS EN 1364-1

- 90 or 120 minutes through partition subject to specification

DEFLECTION (VERTICAL) HEAD DESIGN

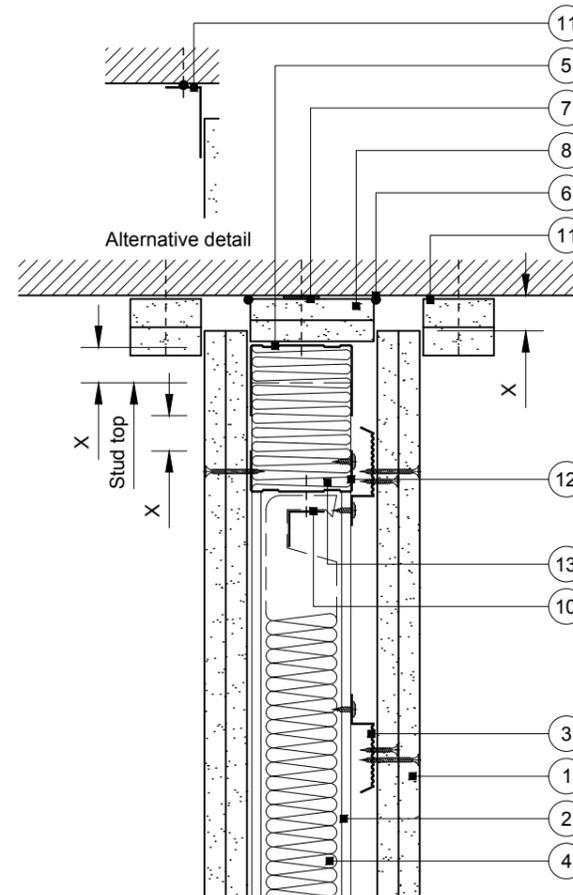
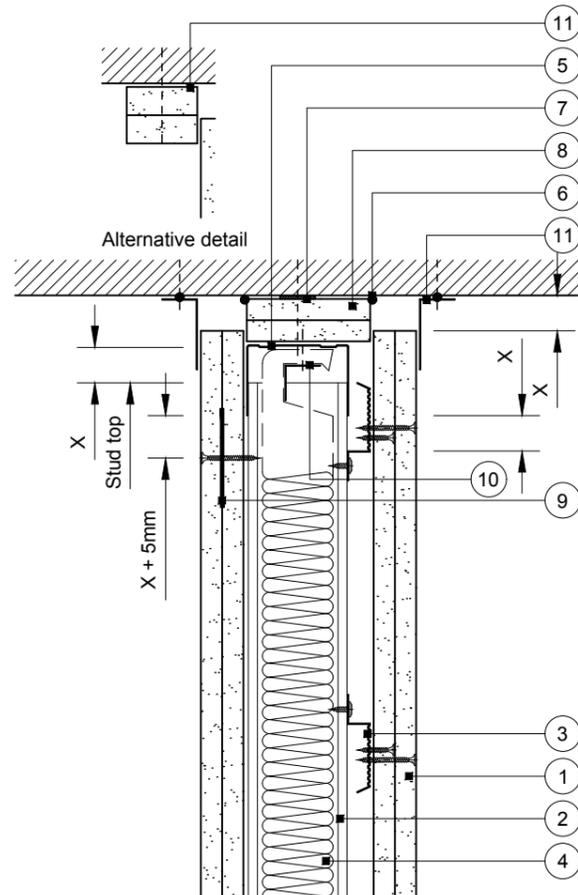
DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 4	CLOAKING ELEMENT NOTE 10
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only

Deflection heads

Downward (vertical) movement

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gyproframe 'C' studs at specified centres
- 3 Horizontal Gyproframe RB1 Resilient Bars at specified centres fixed to all studs with suitable British Gypsum wafer head screws
- 4 Isover insulation where required
- 5 Gyproframe Deep Flange Floor & Ceiling Channel or Gyproframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 6 Gyproc Sealant for optimum sound insulation
- 7 Gyproc FireStrip
- 8 One or two channel width +15mm (ie. 72+15mm) strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 9 Gyproframe GFS1 Fixing Strap fixed through board to studs with suitable British Gypsum screws at 1200mm centres to receive uppermost board fixings (no fixings into head channel)
- 10 Gyproframe steel angle or timber batten suitably fixed to channel to retain insulation where required
- 11 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gyproframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 12 Gyproframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel)
- 13 Stone mineral wool 33kg/m³ minimum density by others



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 8	CHANNEL NOTE 5	CLOAKING ELEMENT NOTE 11
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only

Important information

Fire resistance BS EN 1364-1
 • 30 or 60 minutes through partition subject to specification

Important information

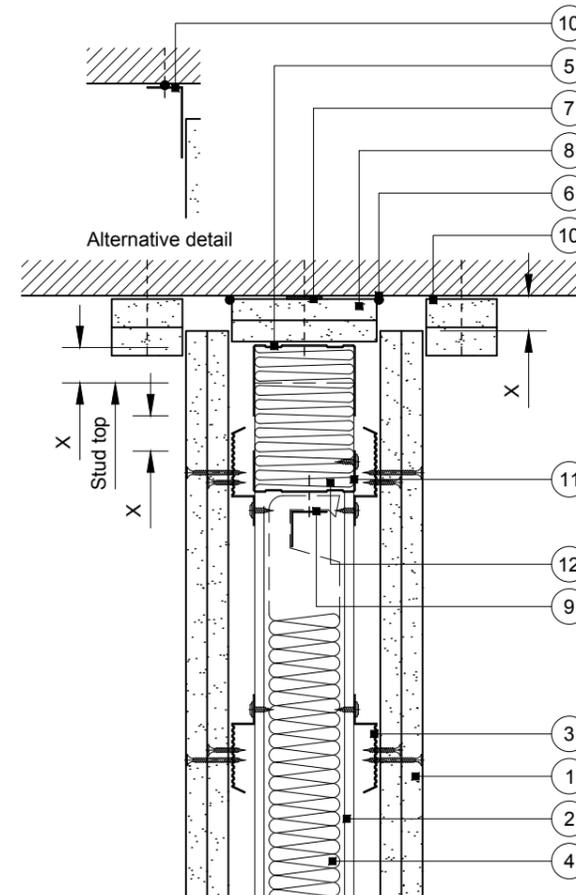
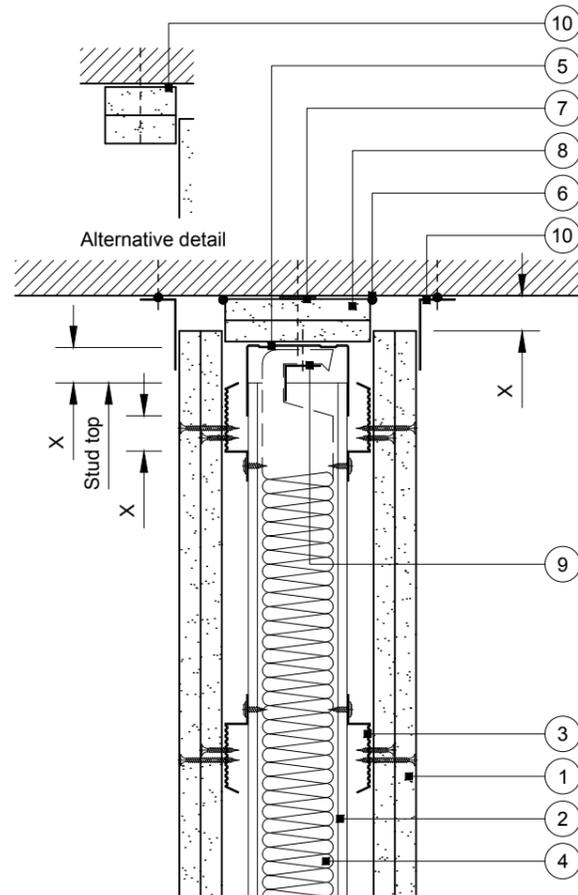
Fire resistance BS EN 1364-1
 • 90 or 120 minutes through partition subject to specification

Deflection heads

Downward (vertical) movement

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gyframe 'C' studs at specified centres
- 3 Horizontal Gyframe RB1 Resilient Bars at specified centres fixed to all studs with suitable British Gypsum wafer head screws
- 4 Isover insulation where required
- 5 Gyframe Deep Flange Floor & Ceiling Channel or Gyframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 6 Gyproc Sealant for optimum sound insulation
- 7 Gyproc FireStrip
- 8 One or two channel width +30mm (i.e. 72+30mm) strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres

- 9 Gyframe steel angle or timber batten suitably fixed to channel to retain insulation where required
- 10 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gyframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 11 Gyframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel)
- 12 Stone mineral wool 33kg/m³ minimum density by others



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 5	CLOAKING ELEMENT NOTE 10
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only

Important information

Fire resistance BS EN 1364-1
 • 30 or 60 minutes through partition subject to specification

Important information

Fire resistance BS EN 1364-1
 • 90 or 120 minutes through partition subject to specification

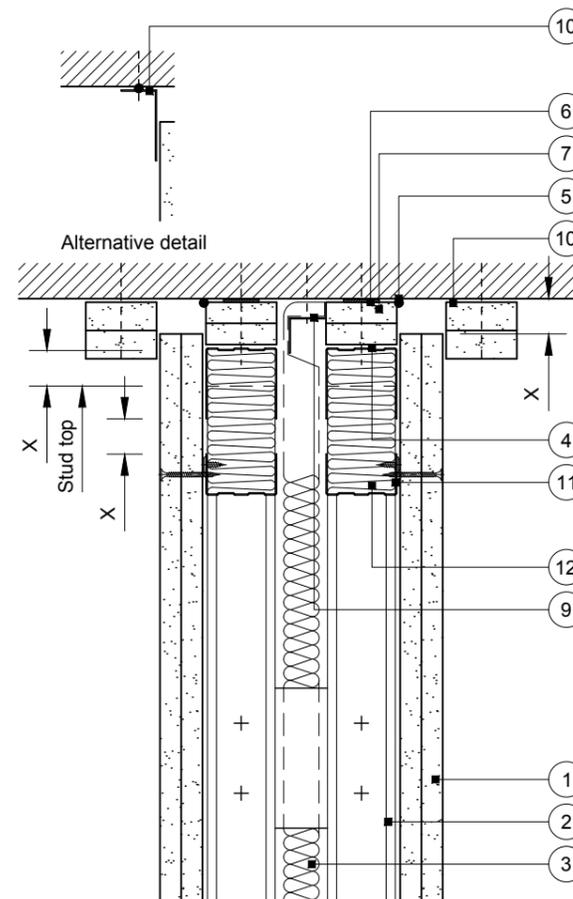
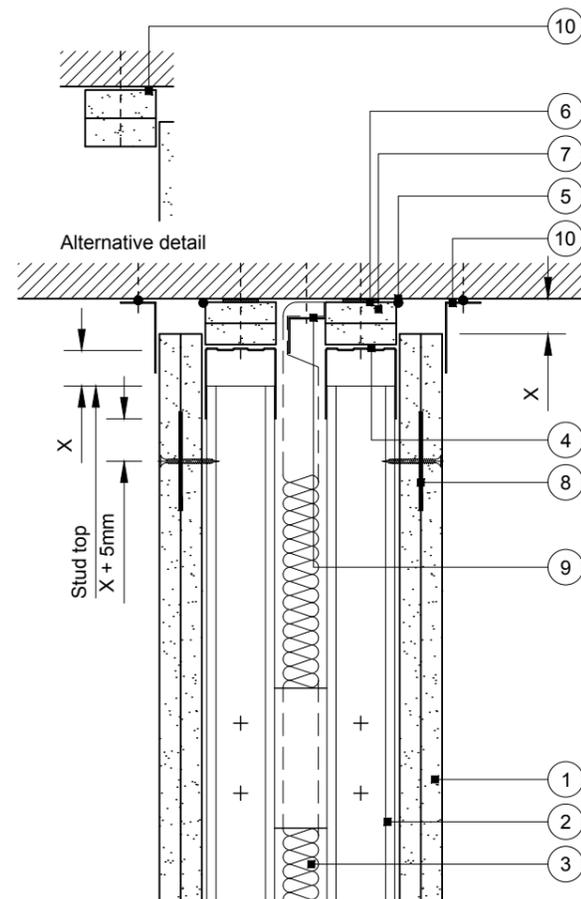
Detail 6

GypWall Twin Frame Braced

Deflection heads

Downward (vertical) movement

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Two lines of Gypframe 'C' studs at specified centres cross braced with Gypframe 99 FC 50 Fixing Channel at 1200mm centres (staggered by 600mm between stud pairs for heights over 2400mm) fixed to each stud with two suitable British Gypsum wafer head screws
- 3 Isover insulation where required
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres
- 5 Gyproc Sealant for optimum sound insulation
- 6 Gyproc FireStrip
- 7 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 8 Gypframe GFS1 Fixing Strap fixed through board to studs with suitable British Gypsum screws at 1200mm centres to receive uppermost board fixings (no fixings into head channel)
- 9 Gypframe steel angle or timber batten suitably fixed to soffit to retain insulation where required
- 10 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 11 Gypframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel)
- 12 Stone mineral wool 33kg/m³ minimum density by others



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 4	CLOAKING ELEMENT NOTE 10
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only

Important information

Fire resistance BS EN 1364-1
 • 30 or 60 minutes through partition subject to specification

Important information

Fire resistance BS EN 1364-1
 • 90 or 120 minutes through partition subject to specification

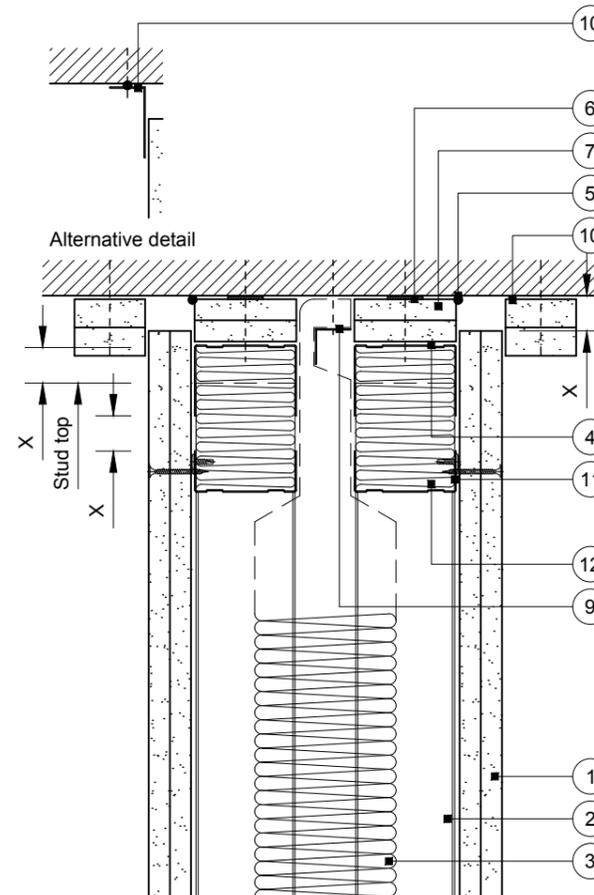
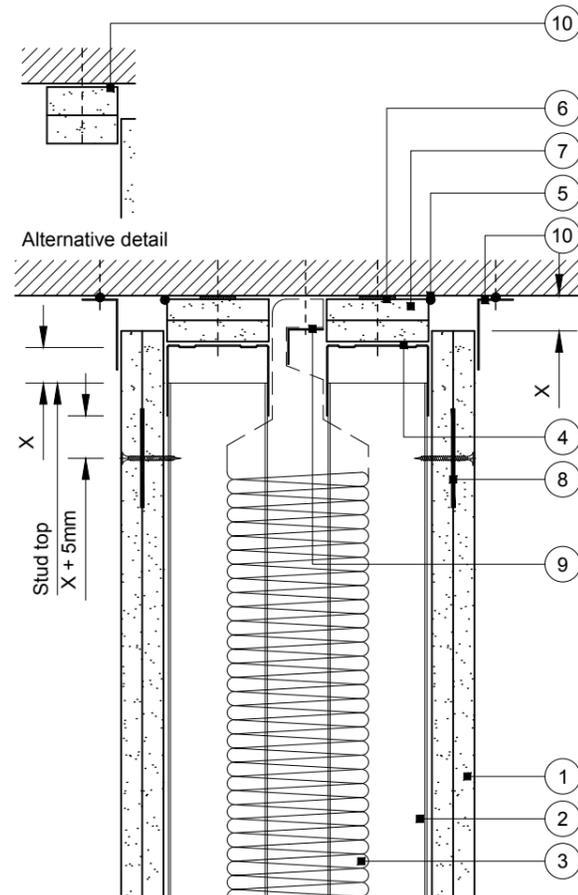
Detail 7

GypWall Twin Frame Independent

Deflection heads

Downward (vertical) movement

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Two lines of Gyframe 'I' studs at specified centres
- 3 Isover insulation where required
- 4 Gyframe Deep Flange Floor & Ceiling Channel or Gyframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 5 Gyproc Sealant for optimum sound insulation
- 6 Gyproc FireStrip
- 7 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 8 Gyframe GFS1 Fixing Strap fixed through board to studs with suitable British Gypsum screws at 1200mm centres to receive uppermost board fixings (no fixings into head channel)
- 9 Gyframe steel angle or timber batten suitably fixed to soffit to retain insulation where required
- 10 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gyframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 11 Gyframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel)
- 12 Stone mineral wool 33kg/m³ minimum density by others



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 4	CLOAKING ELEMENT NOTE 10
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only

Important information

Fire resistance BS EN 1364-1
 • 30 or 60 minutes through partition subject to specification

Important information

Fire resistance BS EN 1364-1
 • 90 or 120 minutes through partition subject to specification

Detail 8

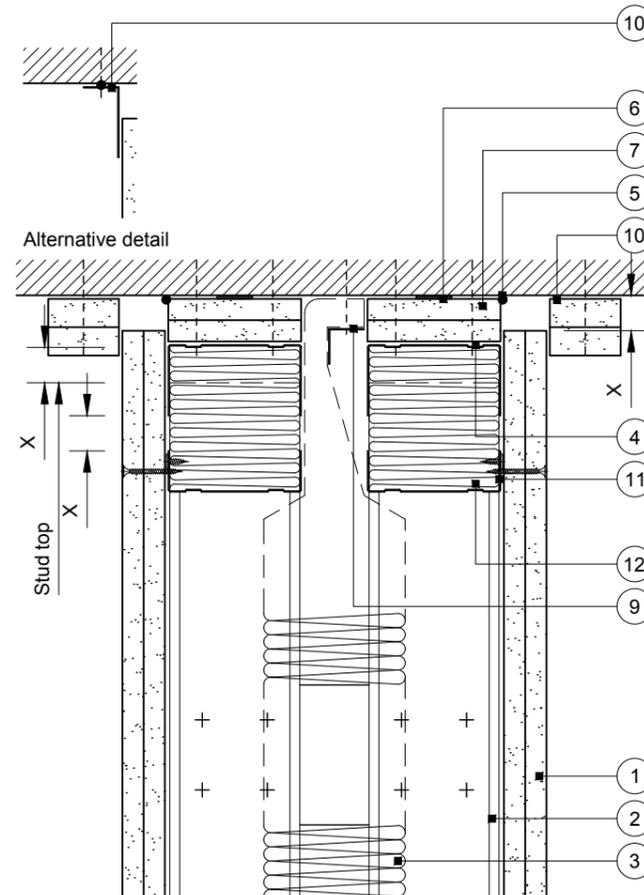
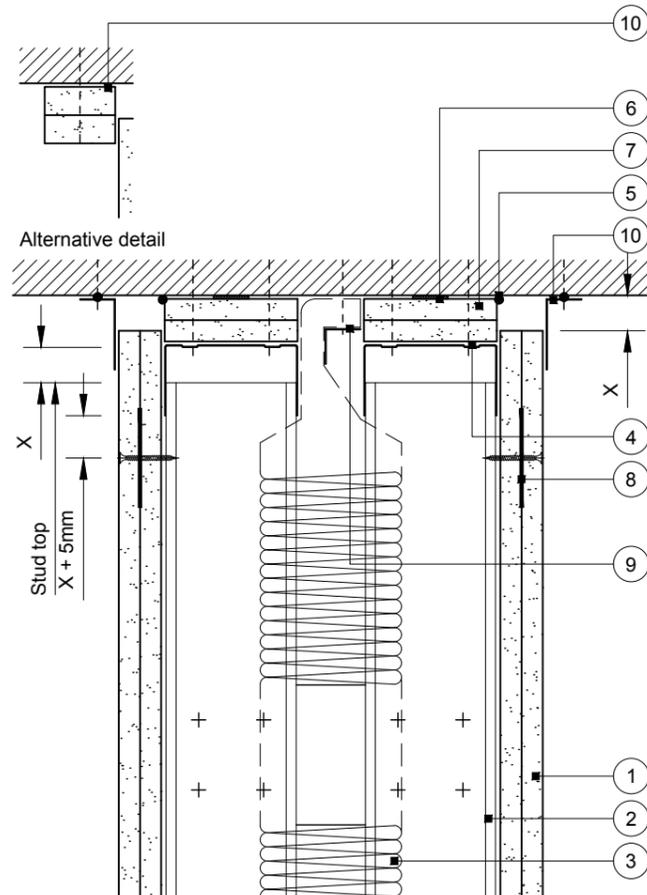
GypWall Twin Frame Audio

Deflection heads

Downward (vertical) movement

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Two lines of Gypframe 'C' studs at specified centres cross braced with Gypframe 99 FC 50 Fixing Channel at 3600mm centres (staggered by 1800mm between stud pairs) fixed to each stud with four suitable British Gypsum wafer head screws
- 3 Isover insulation and/or stone mineral wool where required
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (see table) suitably fixed through board to soffit at 600mm centres in two lines staggered by 300mm
- 5 Gyproc Sealant for optimum sound insulation
- 6 Gyproc FireStrip
- 7 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres

- 8 Gypframe GFS1 Fixing Strap fixed through board to studs with suitable British Gypsum screws at 1200mm centres to receive uppermost board fixings (no fixings into head channel)
- 9 Gypframe steel angle or timber batten suitably fixed to soffit to retain insulation where required
- 10 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 11 Gypframe channel noggings with ends notched around studs and fixed with suitable British Gypsum wafer head screws, to receive uppermost board fixings (no fixings into head channel)
- 12 Stone mineral wool 33kg/m³ minimum density by others



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 7	CHANNEL NOTE 4	CLOAKING ELEMENT NOTE 10
1-15mm	One 19mm ^A or 20mm ^B	DC	Two 15mm ^B or GA4
16-20mm	Two 15mm ^B	DC	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	DC	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	DC	Two 20mm ^B or GA7 ^C
31-35mm	Two 20mm ^B	EDC	Two 25mm ^B or GA7 ^C
36-40mm	Two 25mm ^B	EDC	Two 25mm ^B or GA7 ^C
41-45mm	Two 25mm ^B	EDC	Two 30mm ^B or GA7 ^C
46-50mm	Two 30mm ^B	EDC	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard

^B Glasroc F FireCase

^C 30 or 60 minutes fire resistance only

Important information

- Fire resistance BS EN 1364-1
- 30 or 60 minutes through partition subject to specification

Important information

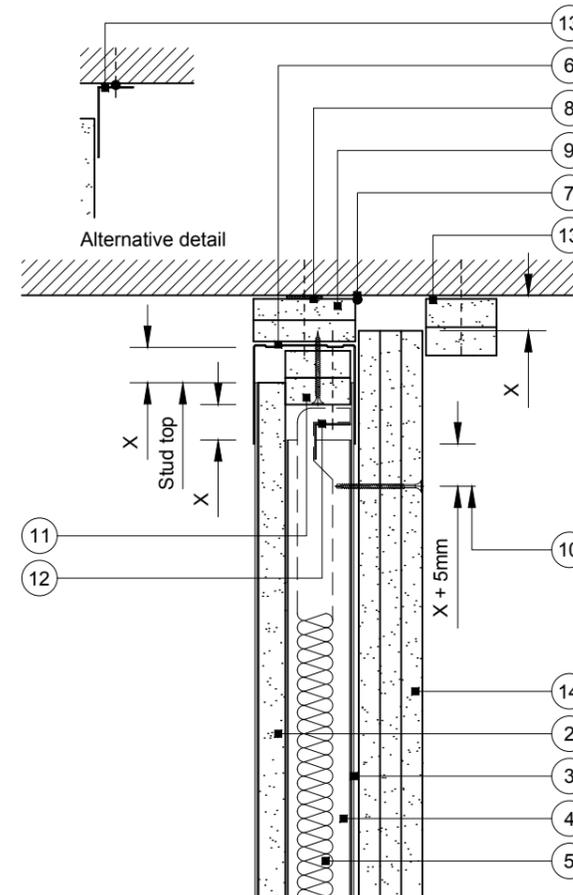
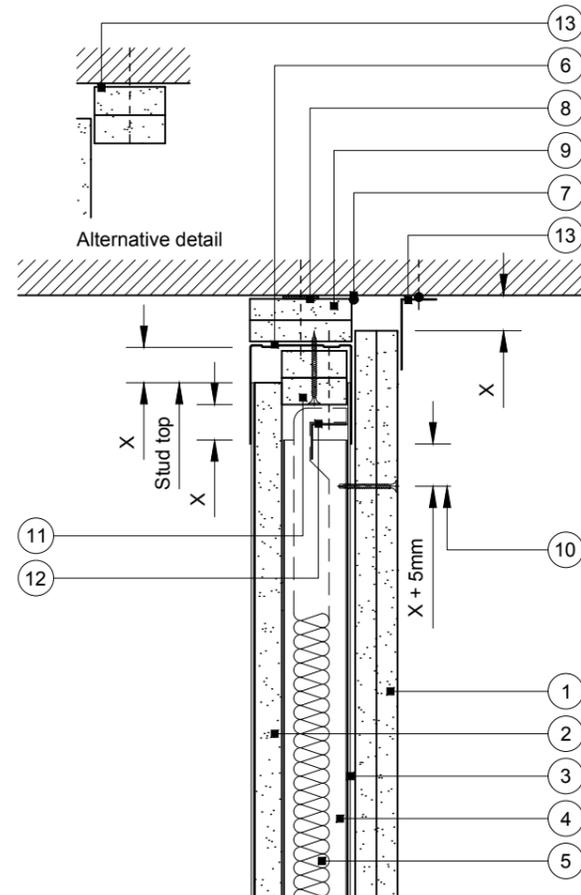
- Fire resistance BS EN 1364-1
- 90 or 120 minutes through partition subject to specification

Deflection heads

Downward (vertical) movement

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm
- 3 Gypframe 'I' studs (tabbed 'I' studs for 146mm) at specified centres
- 4 Gypframe Retaining Channel
- 5 Isover insulation where required
- 6 Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) suitably fixed through board to soffit at 300mm centres (at 600mm centres in two lines staggered by 300mm for 94mm and 148mm channels)
- 7 Gyproc Sealant for optimum sound insulation
- 8 Gyproc FireStrip
- 9 One or two channel width strip(s) of board (see table). Two strips pre-fixed to channel from underside with suitable British Gypsum screws at 600mm centres

- 10 Uppermost board fixing to studs
- 11 Two or three firestops (see table) 36/46/68/122mm width (to suit 60/70/92/146mm studs) cut from Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm, installed between studs and fixed to channel with two suitable British Gypsum screws
- 12 Gypframe steel angle or timber batten suitably fixed to channel to retain insulation where required
- 13 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see table)
- 14 Three layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)



DEFLECTION (VERTICAL) HEAD DESIGN

DEFLECTION DIM. X	DROPPED SOFFIT NOTE 9	FIRESTOP NOTE 11	CLOAKING ELEMENT NOTE 13
1-15mm	One 19mm ^A or 20mm ^B	Two	Optional GA4 ^D
16-20mm	Two 15mm ^B	Two	Two 15mm ^B or GA4 ^C
21-25mm	Two 15mm ^B	Two	Two 20mm ^B or GA4 ^C
26-30mm	Two 20mm ^B	Two	Two 20mm ^B or GA7 ^C
31-35mm ^E	Two 20mm ^B	Three	Two 25mm ^B or GA7 ^C
36-40mm ^E	Two 25mm ^B	Three	Two 25mm ^B or GA7 ^C
41-45mm ^E	Two 25mm ^B	Three	Two 30mm ^B or GA7 ^C
46-50mm ^E	Two 30mm ^B	Three	Two 30mm ^B or GA7 ^C

^A Gyproc CoreBoard
^B Glasroc F FireCase
^C 30 or 60 minutes fire resistance only
^D For optimum sound insulation
^E Maximum 30mm for 'J' Channel

Important information

Fire resistance BS EN 1364-1

- 60 or 90 minutes through partition subject to specification

Important information

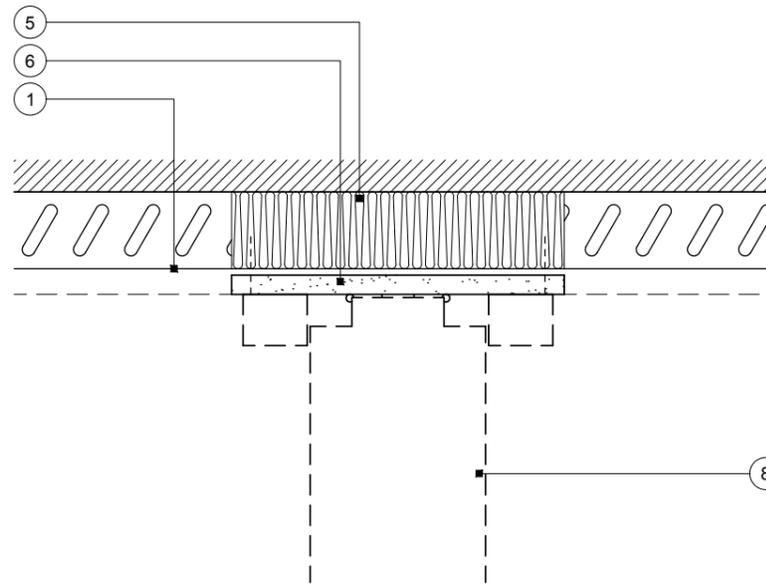
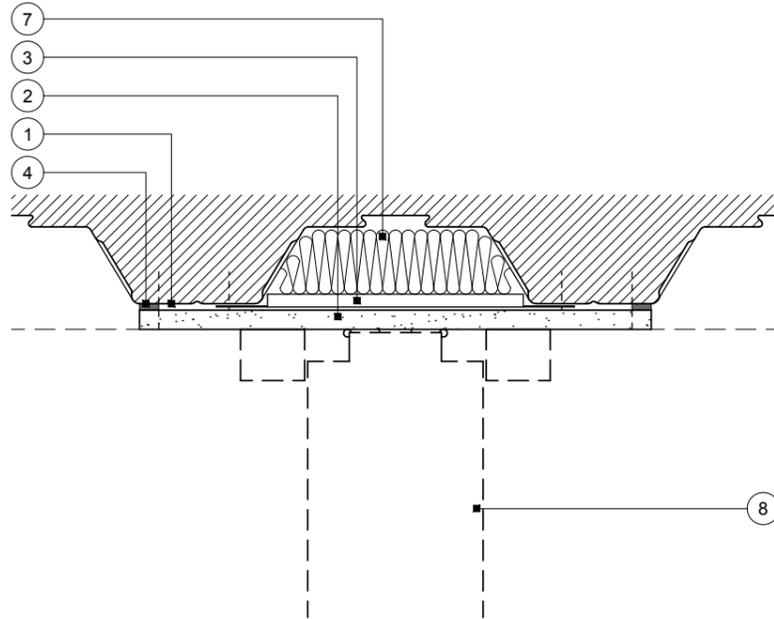
Fire resistance BS EN 1364-1

- 120 minutes through partition subject to specification

Detail 10

GypWall Single Frame and GypWall Single Frame Enhanced

Deflection head to profile soffit

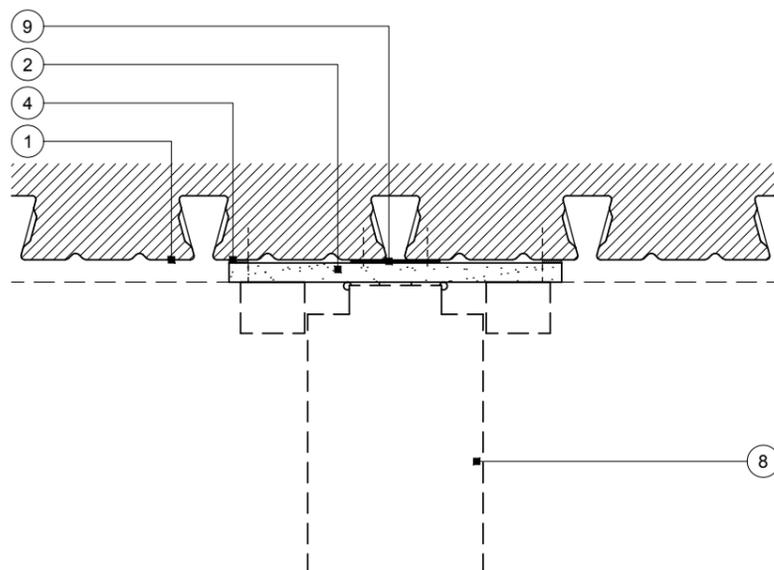


- 1 Profile sheet decking
- 2 Glasroc F FireCase (see table) suitably fixed to soffit at 150mm centres (min. 50mm overlap on soffit)
- 3 Gypframe 99 FC 50 Fixing Channel at 600mm centres (300mm centres for 94mm and 148mm channels) suitably fixed to soffit (flanges snipped and bent flat to facilitate fixing), to receive partition head fixings
- 4 Fire resistant sealant manufactured and supplied by others
- 5 Suitable fire stopping material by others (see important information)
- 6 Packer of Glasroc F FireCase (see table) suitably fixed to soffit
- 7 Isover insulation where required for sound insulation purposes
- 8 Indicative partition, see separate drawing for deflection head
- 9 Gypframe GFS1 Fixing Strap suitably fixed to soffit with pairs of fixings at 600mm centres, to receive partition head fixings

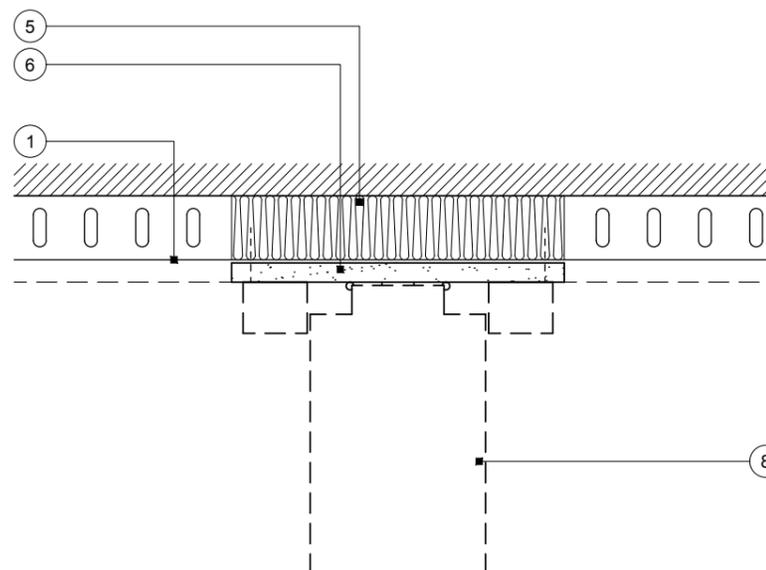
SOFFIT DESIGN

PARTITION FIRE RESISTANCE	SOFFIT BOARD
30 or 60 minutes	15mm Glasroc F FireCase
90 or 120 minutes	20mm Glasroc F FireCase

Parallel to trapezoidal profile



Perpendicular to trapezoidal profile



Parallel to dovetail profile

Perpendicular to dovetail profile

Important information

Fire resistance BS EN 1364-1

- Up to 120 minutes through partition subject to specification
- Estimated up to 120 minutes room to room through junction subject to partition specification

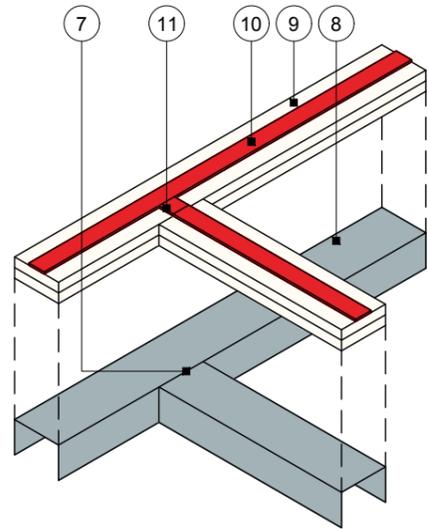
Performance is based on maintaining compartmentation through the British Gypsum partition up to the line of the abutting structural element. This is on the basis the structural element has at least the equivalent fire resistance performance to that of the partition. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements

Performance characteristics of the British Gypsum system must be maintained. It is important that a suitable fire stopping product with appropriate fire resistance substantiation is sought from a third party manufacturer

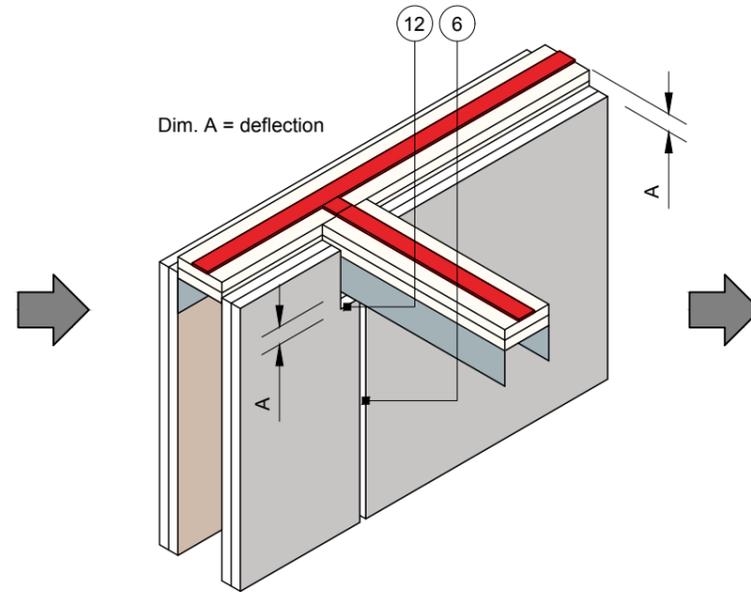
Detail 11

GypWall Single Frame and GypWall Single Frame Enhanced

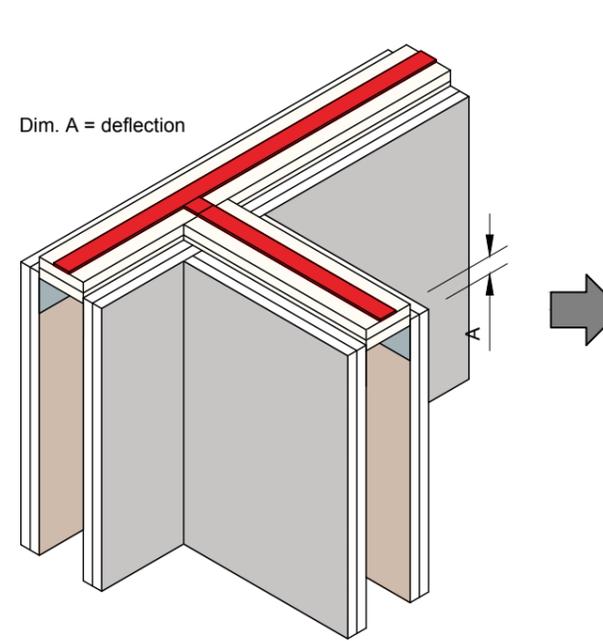
Deflection head arrangement at T-junction
Optimum acoustic performance and reduced flanking transmission



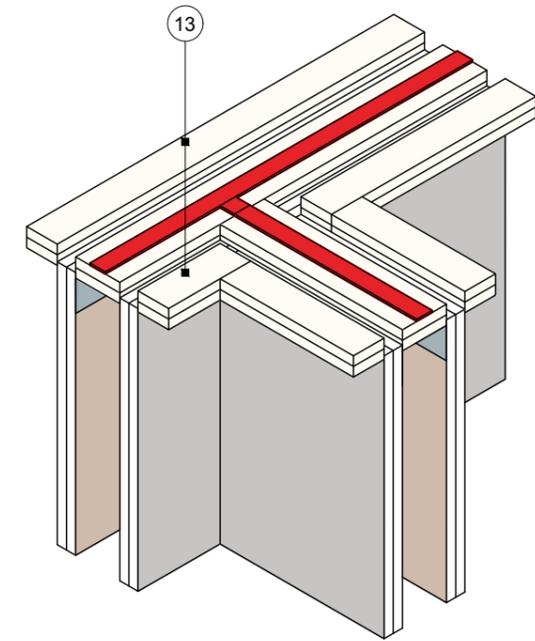
Head channel and dropped soffit arrangement



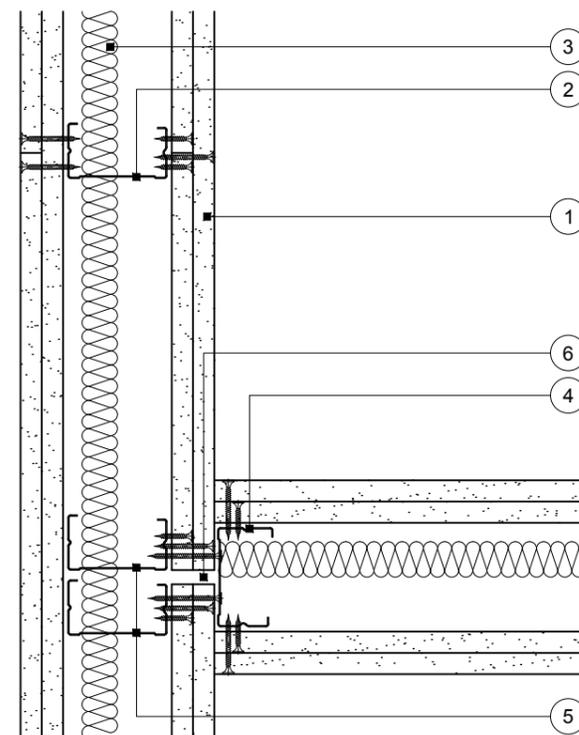
Board arrangement stage 1



Board arrangement stage 2



Cloaking element arrangement



Plan

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gypframe 'C' studs at specified centres
- 3 Isover insulation where required
- 4 Gypframe 'C' stud fixed through board to stud(s) with suitable British Gypsum screws at 600mm centres (in two lines staggered by 300mm for 92mm and 146mm studs)
- 5 Additional Gypframe 'C' stud at junction (two for 92mm and 146mm studs in adjacent partition)
- 6 Nominal 10mm gap between boards
- 7 Channels butt together
- 8 Gypframe channel to suit deflection suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)

- 9 One or two channel width strip(s) of board to suit deflection. Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 10 Gyproc FireStrip
- 11 Additional short length of Gyproc FireStrip
- 12 Board cut around head channel with sufficient clearance for deflection
- 13 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see separate drawing for deflection head)

Important information

Fire resistance BS EN 1364-1

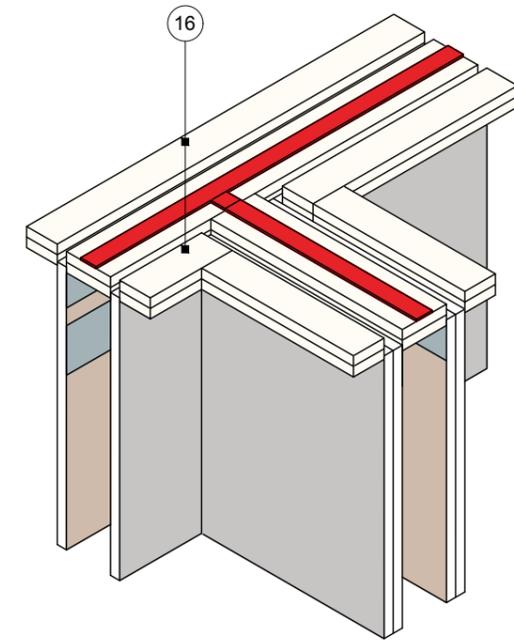
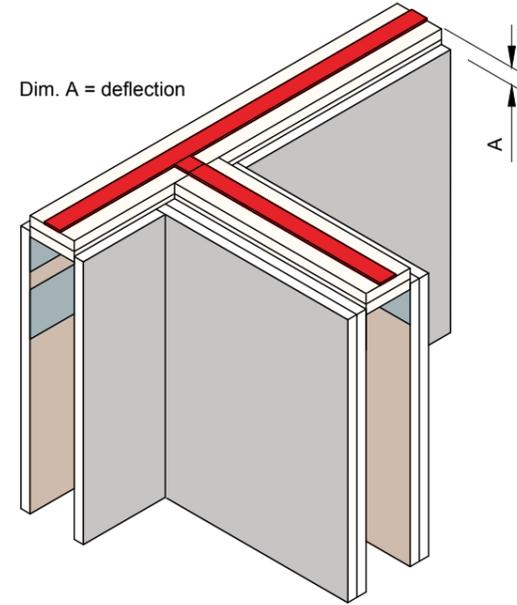
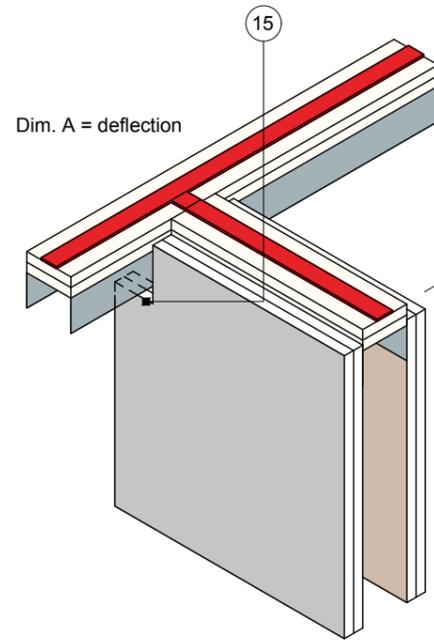
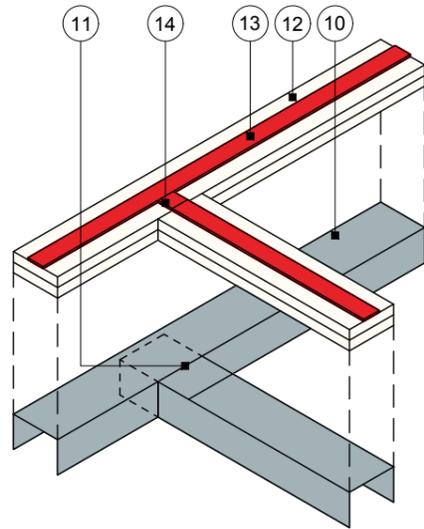
- Estimated 30 or 60 minutes through partition junction subject to specification

As there is no recognised method for fire resistance testing of junctions, any performance characteristics, stated or inferred, in this detail are estimated based on each system tested in isolation and other relevant test data. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements

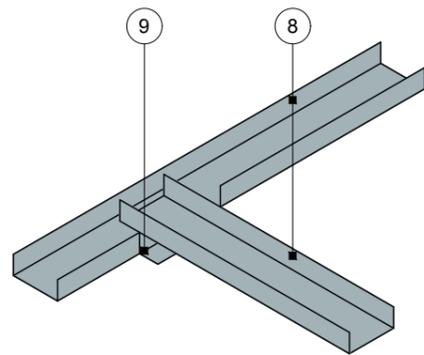
Detail 12

GypWall Single Frame and GypWall Single Frame Enhanced

Deflection head arrangement at T-junction High meeting low acoustic performance

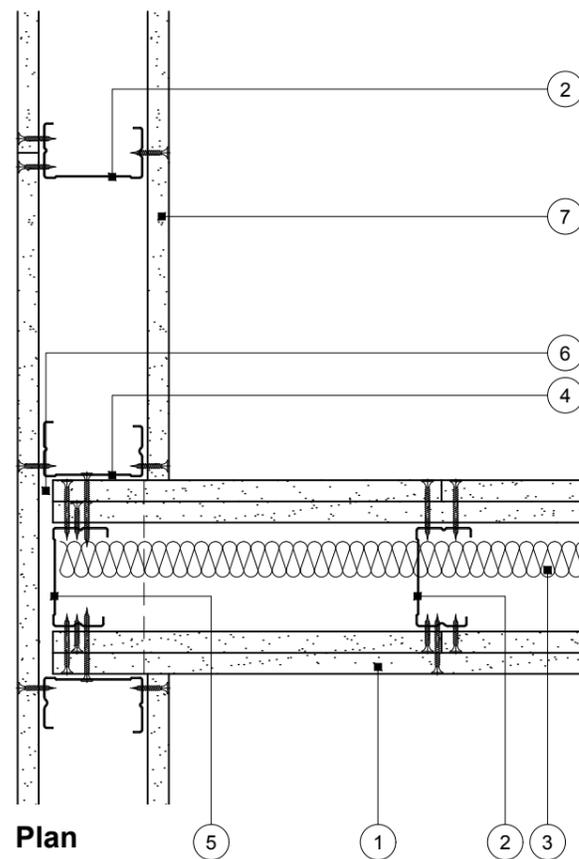


Head channel and dropped soffit arrangement



Floor channel arrangement

Board arrangement stage 1



Board arrangement stage 2

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gypframe 'C' studs at specified centres
- 3 Isover insulation where required
- 4 Gypframe 'C' stud fixed through board to stud(s) with suitable British Gypsum screws at 600mm centres (in two lines staggered by 300mm for 92mm and 146mm studs)
- 5 Additional Gypframe 'C' stud at junction (two for 92mm and 146mm studs in adjacent partition)
- 6 Nominal 10mm gap between boards
- 7 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 8 Gypframe channel suitably fixed to floor at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels). deep channel for heights between 4200mm and 8000mm or extra deep channel for heights over 8000mm

Cloaking element arrangement

- 9 Channel cut and bent to allow channel and board of abutting partition to run through
- 10 Gypframe channel to suit deflection suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 11 Channel cut and bent to allow channel of abutting partition to run through
- 12 One or two channel width strip(s) of board to suit deflection. Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 13 Gyproc FireStrip
- 14 Additional short length of Gyproc FireStrip
- 15 Board cut around head channel with sufficient clearance for deflection
- 16 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see separate drawing for deflection head)

Important information

Fire resistance BS EN 1364-1

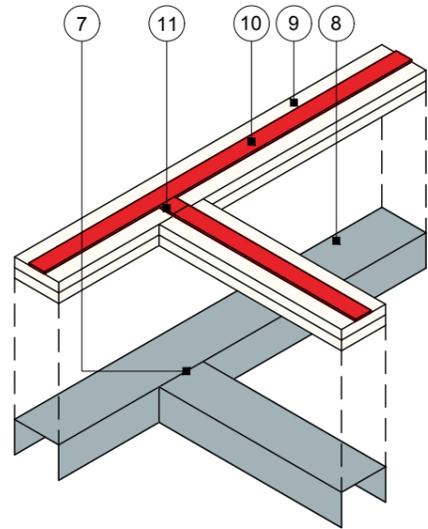
- Estimated 30 or 60 minutes through partition junction subject to specification

As there is no recognised method for fire resistance testing of junctions, any performance characteristics, stated or inferred, in this detail are estimated based on each system tested in isolation and other relevant test data. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements

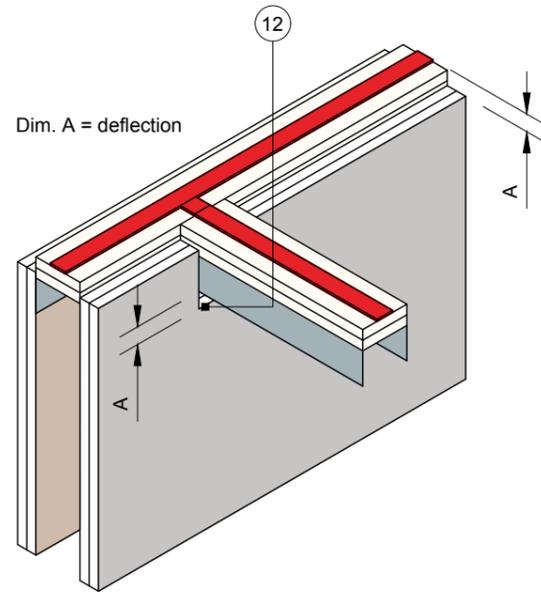
Detail 13

GypWall Single Frame and GypWall Single Frame Enhanced

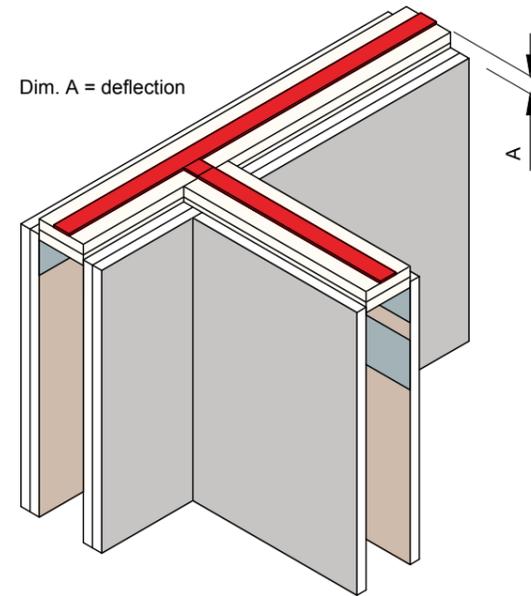
Deflection head arrangement at T-junction
Low meeting high acoustic performance



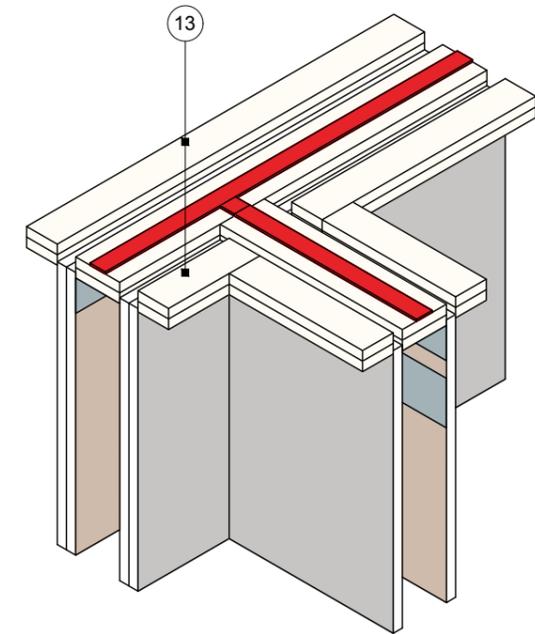
Head channel and dropped soffit arrangement



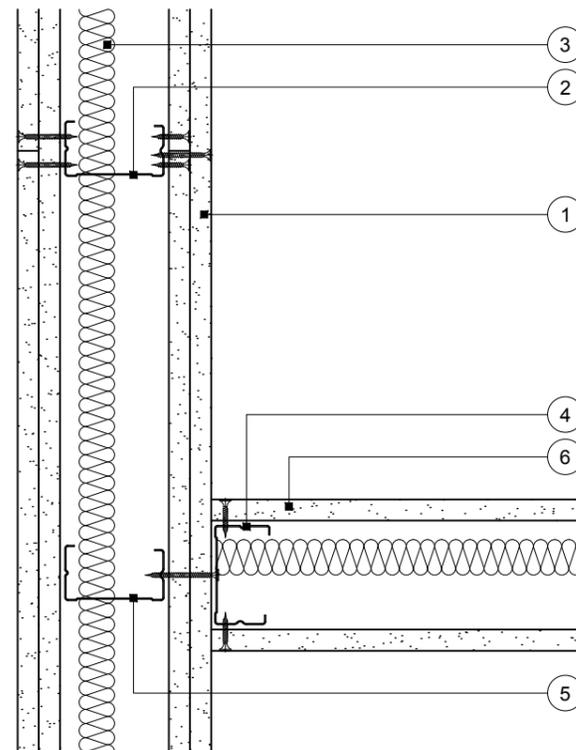
Board arrangement stage 1



Board arrangement stage 2



Cloaking element arrangement



Plan

- 1 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 2 Gypframe 'C' studs at specified centres
- 3 Isover insulation where required
- 4 Gypframe 'C' stud fixed through board to stud(s) with suitable British Gypsum screws at 600mm centres (in two lines staggered by 300mm for 92mm and 146mm studs)
- 5 Additional Gypframe 'C' stud at junction (two for 92mm and 146mm studs in adjacent partition)
- 6 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 7 Channels butt together
- 8 Gypframe channel to suit deflection suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)

- 9 One or two channel width strip(s) of board to suit deflection. Two strips pre-fixed to channel with suitable British Gypsum screws at 600mm centres
- 10 Gyproc FireStrip
- 11 Additional short length of Gyproc FireStrip
- 12 Board cut around head channel with sufficient clearance for deflection
- 13 Two 50mm width strips of Glasroc F FireCase fixed to soffit with suitable fire resistant fixings at 600mm centres, or Gypframe steel angle bedded on bead of Gyproc Sealant and fixed to soffit with suitable fire resistant fixings at 600mm centres (see separate drawing for deflection head)

Important information

Fire resistance BS EN 1364-1

- Estimated 30 or 60 minutes through partition junction subject to specification

As there is no recognised method for fire resistance testing of junctions, any performance characteristics, stated or inferred, in this detail are estimated based on each system tested in isolation and other relevant test data. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements



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