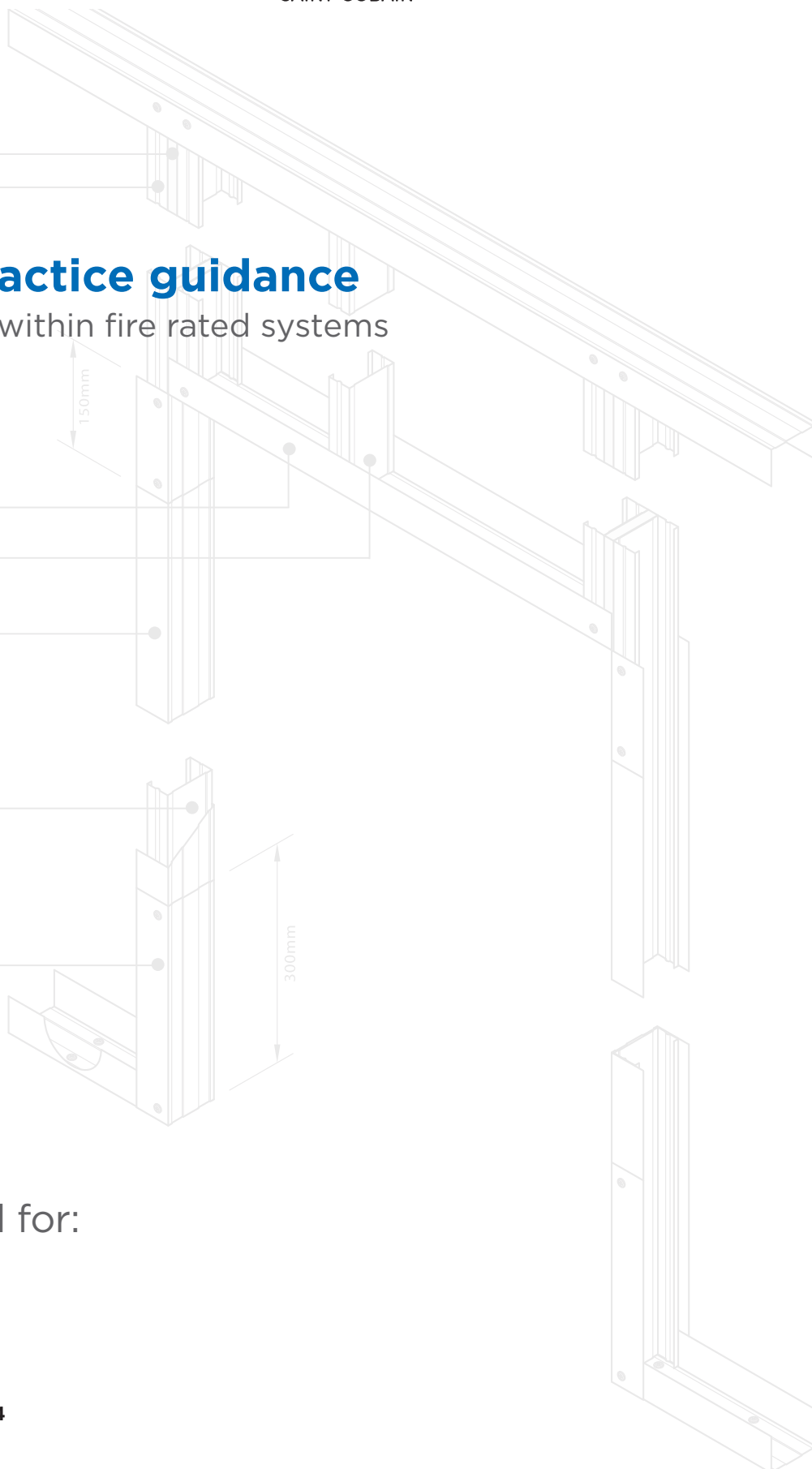


Best practice guidance

Openings within fire rated systems



Prepared for:

16 February 2024

BPG001

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This guidance has been prepared with the context of allowing any fire-stopping solution that has been successfully tested in an appropriate standard flexible supporting construction to be utilised within our GypWall partitions, GypLyner Independent and GypWall Shaft systems. The design principles contained within the appropriate BS EN test standard have been adopted throughout this document as it is the most up to date guidance available. This is irrespective of whether the project specification is designed to BS 476-22:1987 or the more up to date BS EN 1364-1:2015.

1. Service penetration seals

- 1.1 Reference is made to BS EN 1366-3, in conjunction with fire test evidence undertaken by British Gypsum on GypWall partitions, GypLyner Independent and GypWall Shaft to formulate the following guidance. Openings for service penetration seals should be formed in accordance with current British Gypsum fire-stopping details.

Openings must be framed out with the transom sections fixed to full height Gypframe studs. British Gypsum recommends lining the reveals to match the specification of the wall, however guidance should be sought from the fire-stopping manufacturer to determine if this is required. If the aperture is not lined to match the specification of the partition or lining, the fire stopping material must in all cases fully cover any exposed metal framework in order to maintain the fire and acoustic performance of the system.
- 1.2 The transom members forming the opening must be supported on both sides by full height Gypframe studs. This maximises the structural stability in terms of lateral loads and the limiting deflection criteria based on industry standard L/240@200Pa and the stiffness requirements in accordance with BS 5234-2:1992.
- 1.3 The width of an opening is limited to the distance achieved by the partial removal of a single Gypframe stud for partitions systems with overall width less than 100mm, or the partial removal of three Gypframe studs for partition systems 100mm wide or more. The opening span is measured from inside faces of the opening, refer to Tables 1 and 2.

- 1.4 When selecting an appropriate fire-stopping solution, it is important that the fire-stopping manufacturer is aware of the partition system type, this will enable them to confirm the solution is within the field of application for that product. This is important as fire-stopping tests conducted within a standard flexible supporting construction may not directly cover the end use conditions and need to be considered by the fire-stopping provider, e.g. GypWall Shaft systems are required to be tested in both directions.

2. Multiple service penetration seals

- 2.1 The British Gypsum fire stopping drawings contained within this guidance document are based on the following design principles; when multiple openings are formed in a partition, the openings can be constructed without potential adverse effect on adjacent openings. This allows multiple fire stopping solutions which have been tested in an appropriate flexible supporting construction to be included in the same partition.
- 2.2 Where multiple penetrations occur in a partition, consideration should be given to the structural integrity of the system. Openings wider than 600mm (i.e. preventing a single full height Gypframe stud) should be no closer than 300mm between openings. Where multiple wider openings occur (i.e. preventing up to three full height Gypframe studs) these should be no closer than 600mm. Refer to drawings 6 and 7.
- 2.3 The minimum distance between openings when one above another, or side by side when no full height Gypframe stud is affected is 200mm.
- 2.4. Where multiple openings of less than 600mm are side by side, the common central stud should be boxed, refer to drawing 6.

TABLE 1: MAXIMUM CLEAR OPENING WIDTHS FOR SYSTEMS <100MM OVERALL PARTITION THICKNESS (STUD AND BOARD LINING) INCLUDING GYPWALL SHAFT

GYPFRAME STUD TYPE	PLASTERBOARD REVEAL LINING (mm)	CLEAR OPENING WIDTH*		
		STUD CENTRES (mm)		
		600	400	300
Gypframe 'C'	Unlined	1161	761	561
	1 x 12.5	1136	736	536
	2 x 12.5	1111	711	511
	1 x 15	1131	731	531
	2 x 15	1101	701	501
	3 x 15	1071	671	471
Gypframe 'I'	Unlined	1162	762	562
	1 x 12.5	1137	737	537
	2 x 12.5	1112	712	512
	1 x 15	1132	732	532
	2 x 15	1102	702	502
	3 x 15	1072	672	472
Gypframe 'AcouStud'	Unlined	1156	756	556
	1 x 12.5	1131	731	531
	2 x 12.5	1106	706	506
	1 x 15	1126	726	526
	2 x 15	1096	696	496
	3 x 15	1066	666	466

*Clear opening widths - refer to 1.3

TABLE 2: MAXIMUM CLEAR OPENING WIDTHS FOR ALL SYSTEMS 100MM OR MORE OVERALL PARTITION THICKNESS (STUD AND BOARD LINING) INCLUDING GYPWALL SHAFT

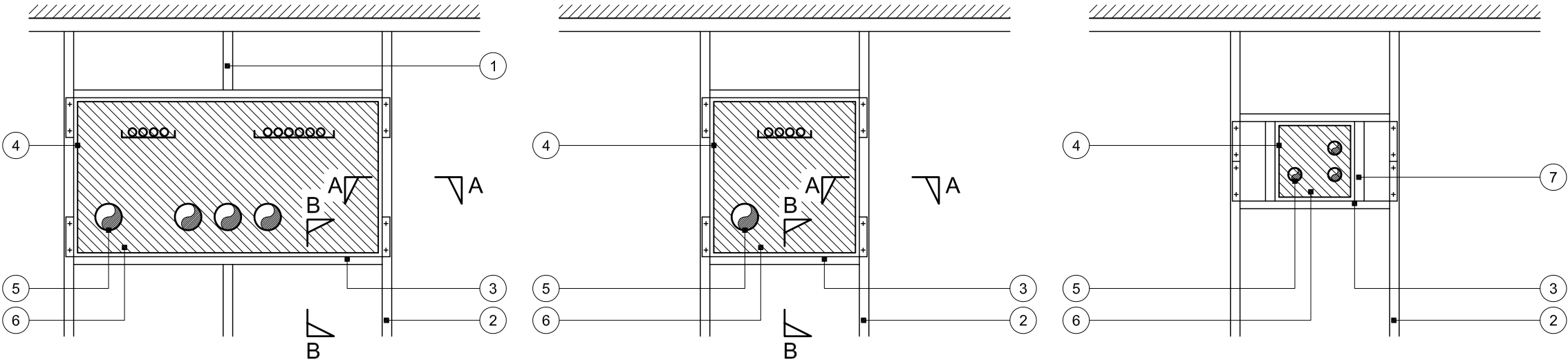
GYPFRAME STUD TYPE	PLASTERBOARD REVEAL LINING (mm)	CLEAR OPENING WIDTH*		
		STUD CENTRES (mm)		
		600	400	300
Gypframe 'C'	Unlined	2361	1561	1161
	1 x 15	2331	1531	1131
	2 x 12.5	2311	1511	1111
	2 x 15	2301	1501	1101
	3 x 15	2271	1471	1071
	Unlined	2362	1562	1162
Gypframe 'I'	1 x 15	2332	1532	1132
	2 x 12.5	2212	1512	1112
	2 x 15	2302	1502	1102
	3 x 15	2272	1472	1072
Gypframe 'AcouStud'	Unlined	2356	1556	1156
	1 x 15	2326	1526	1126
	2 x 12.5	2306	1506	1106
	2 x 15	2296	1496	1096
	3 x 15	2266	1466	1066

*Clear opening widths - refer to 1.3

3. Fire rated door sets, riser doors and access panels

- 3.1 The design principle we have applied is each opening within a partition featuring a fire rated doorset, riser door or access panel is constructed such, that there is no potential adverse effect on any adjacent openings when in the fire condition. The dimensions included within BS EN 1634-1:2014 have been adopted. This allows any fire rated doorset that has been tested in an appropriate flexible supporting construction to be included within this guidance.
- 3.2 The minimum distance between adjacent fire rated doorsets, riser doors or access panels is 300mm in accordance with BS EN 1634-1:2014. It may be possible to reduce this dimension if the doorset manufacturer has fire test evidence carried out within a flexible supporting construction. Refer to drawing 9.

- 3.3 The installation method and construction detail of the fire rated doorset, riser door or access panel should exactly match the installation method of the fire tested solution, or be within the direct field rules set out in BS EN 1634-1:2014 and/or door assembly fire assessment..
- 3.4 For riser doors and access panels where a four sided opening is required. Refer to drawing 10.



Large opening elevation (1:20)

Single stud interrupted by opening
See table for width

MAXIMUM CLEAR OPENING WIDTH*				
STUD TYPE	REVEAL LINING	STUD CENTRES		
		600mm	400mm	300mm
'C'	Unlined	1161mm	761mm	561mm
	1 x 12.5mm	1136mm	736mm	536mm
	1 x 15mm	1131mm	731mm	531mm
	2 x 12.5mm	1111mm	711mm	511mm
	2 x 15mm	1101mm	701mm	501mm
	3 x 15mm	1071mm	671mm	471mm
'I'	Unlined	1162mm	762mm	562mm
	1 x 12.5mm	1137mm	737mm	537mm
	1 x 15mm	1132mm	732mm	532mm
	2 x 12.5mm	1112mm	712mm	512mm
	2 x 15mm	1102mm	702mm	502mm
	3 x 15mm	1072mm	672mm	472mm
AcouStud	Unlined	1156mm	756mm	556mm
	1 x 12.5mm	1131mm	731mm	531mm
	1 x 15mm	1126mm	726mm	526mm
	2 x 12.5mm	1106mm	706mm	506mm
	2 x 15mm	1096mm	696mm	496mm
	3 x 15mm	1066mm	666mm	466mm

*Single stud interrupted by opening

Medium opening elevation (1:20)

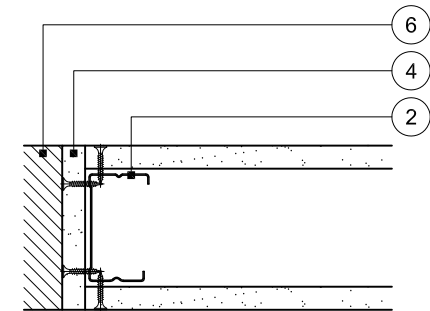
Between full height studs
See table for width

MAXIMUM CLEAR OPENING WIDTH*				
STUD TYPE	REVEAL LINING	STUD CENTRES		
		600mm	400mm	300mm
'C'	Unlined	561mm	361mm	261mm
	1 x 12.5mm	536mm	336mm	236mm
	1 x 15mm	531mm	331mm	231mm
	2 x 12.5mm	511mm	311mm	211mm
	2 x 15mm	501mm	301mm	201mm
	3 x 15mm	471mm	271mm	171mm
'I'	Unlined	562mm	362mm	262mm
	1 x 12.5mm	537mm	337mm	237mm
	1 x 15mm	532mm	332mm	232mm
	2 x 12.5mm	512mm	312mm	212mm
	2 x 15mm	502mm	302mm	202mm
	3 x 15mm	472mm	272mm	172mm
AcouStud	Unlined	556mm	356mm	256mm
	1 x 12.5mm	531mm	331mm	231mm
	1 x 15mm	526mm	326mm	226mm
	2 x 12.5mm	506mm	306mm	206mm
	2 x 15mm	496mm	296mm	196mm
	3 x 15mm	466mm	266mm	166mm

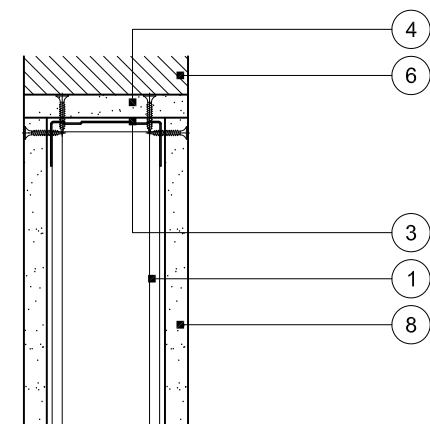
*Between full height studs

Small opening elevation (1:20)

Transoms supported by full height studs
Opening width subject to service penetration size



Plan A-A (1:5)



Section B-B (1:5)

- 1 Gypframe studs at specified centres
- 2 Gypframe stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Short length of Gypframe 'C' stud or channel with ends tabbed (minimum 150mm), bent and fixed to channels top and bottom using 2 suitable British Gypsum wafer head screws
- 8 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)

Important information

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

We would recommend the following substantiation is sought:

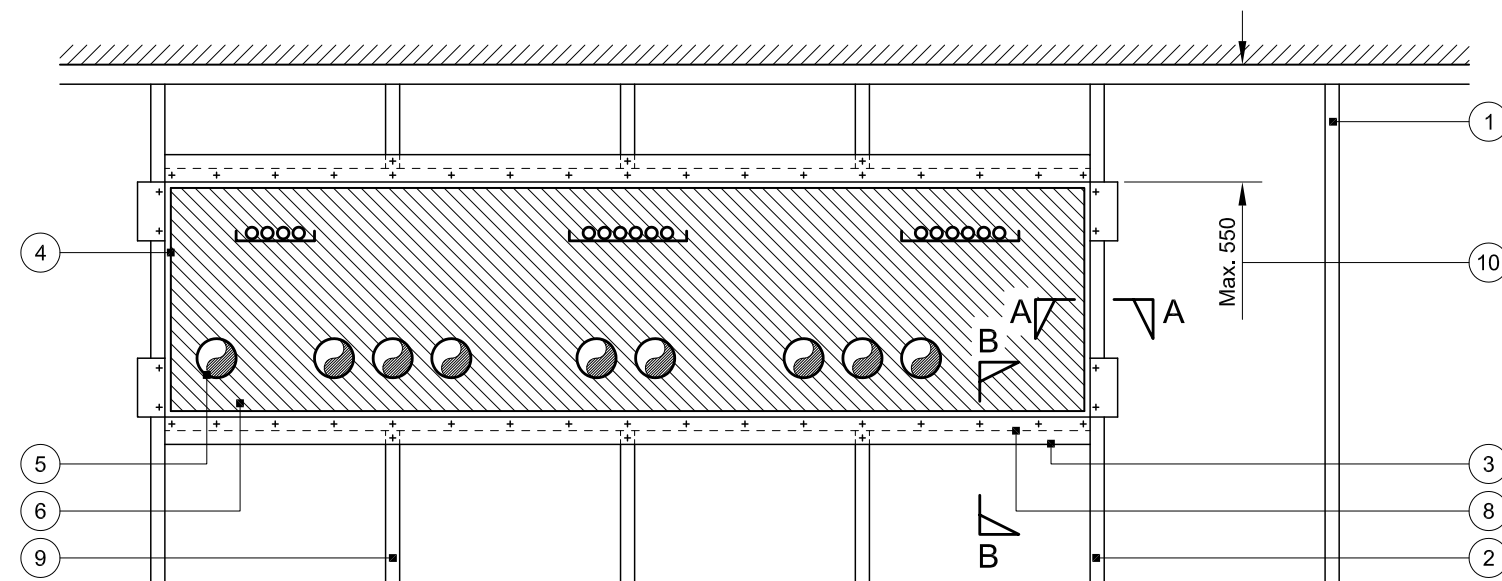
- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

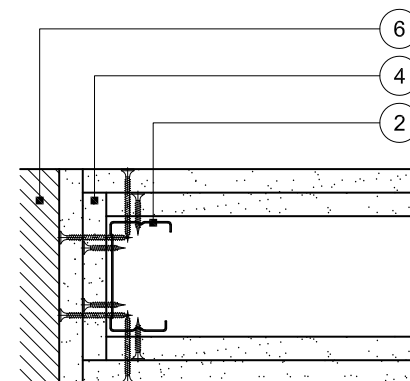
Openings for services

Extra large openings for services



Three studs interrupted by opening
See table for width

*Three studs interrupted by opening



Technical drawing of a window frame cross-section. The drawing shows a window frame with a double-pane unit. Various components are labeled with circled numbers:

- 3: Points to the main frame profile.
- 4: Points to the top seal or gasket.
- 6: Points to the top seal or gasket.
- 7: Points to the bottom seal or gasket.
- 8: Points to the inner pane or seal.
- 9: Points to the bottom seal or gasket.

- 1 Gypframe studs at specified centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Extra Deep Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire stopping material by others (see important information)
- 7 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 8 Gypframe 'C' Stud inserted into channel and fixed through both flanges with suitable British Gypsum wafer head screws at 150mm centres
- 9 Gypframe studs at specified centres fixed to transom/cill channel through both flanges with suitable British Gypsum wafer head screws
- 10 Maximum partition above a extra large opening is 550mm. The minimum distance is 300mm. Alternatively refer to three sided opening detail 11

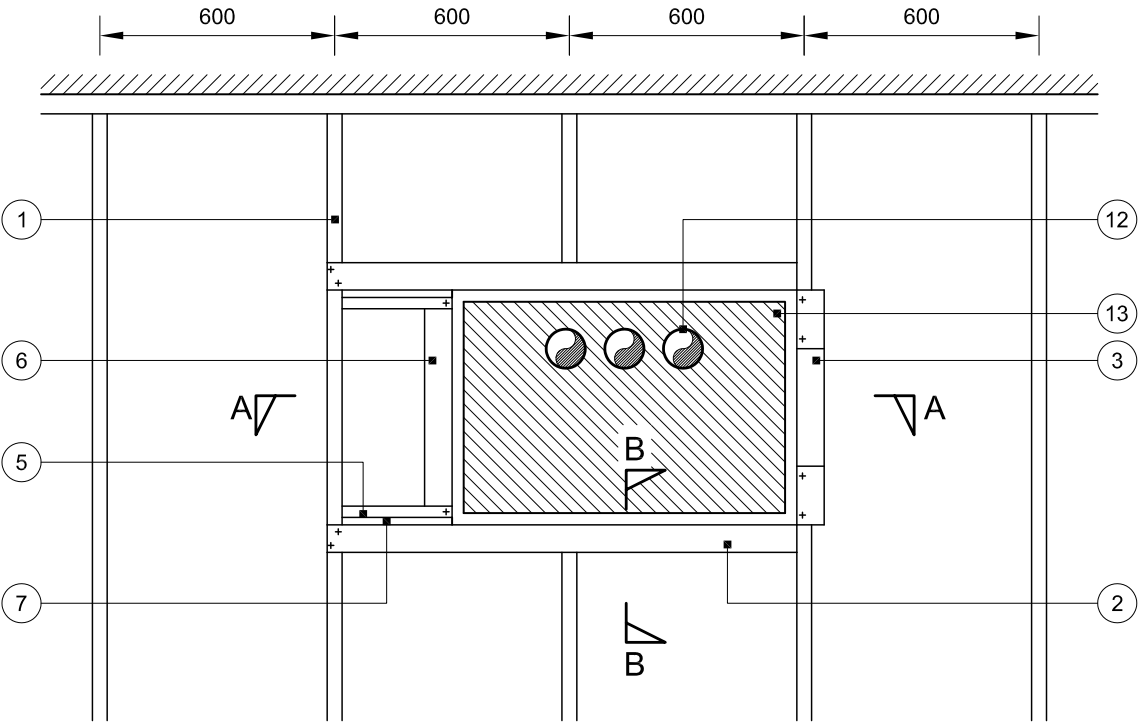
This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

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Detail 3

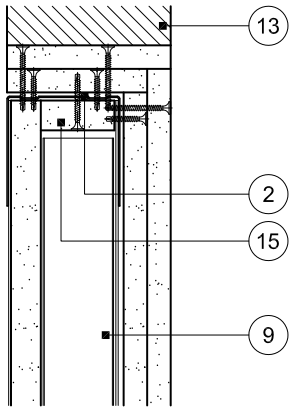
GypWall Shaft

Small and medium openings for services



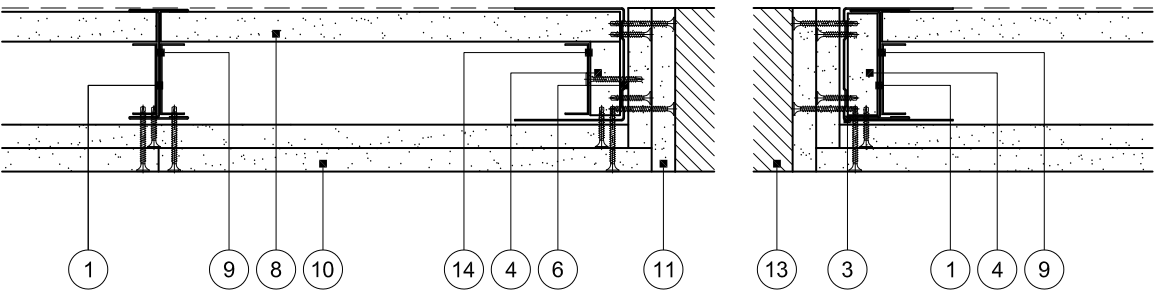
Framework elevation (1:20)

Opening width varies
Single stud interrupted by opening



Section B-B

- 1 Gypframe 'I' Studs at 600mm centres
- 2 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) web cut around stud (where at opening jamb channel cut and bent to extend 150mm up/down stud) and fixed through both flanges with two suitable British Gypsum wafer head screws
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) sleeved over stud between returned channels at opening head and base
- 4 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer full opening height
- 5 Gypframe Folded Edge Standard Floor & Ceiling Channel fixed through packer to channel with suitable British Gypsum screws
- 6 Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) fixed into channel top and bottom with suitable British Gypsum wafer head screws
- 7 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer between channels
- 8 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 11 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 12 Indicative services independently supported
- 13 Suitable fire-stopping material by others (see important information)
- 14 Gypframe Retaining Channel fixed through packer to channel with suitable British Gypsum screws at 600mm centres
- 15 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer full opening width between studs



Plan A-A

Opening for services

Important information

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

- We would recommend the following substantiation is sought:
- Test should be full scale with suitable size openings
 - Test suitable for the required penetrating element and fire duration

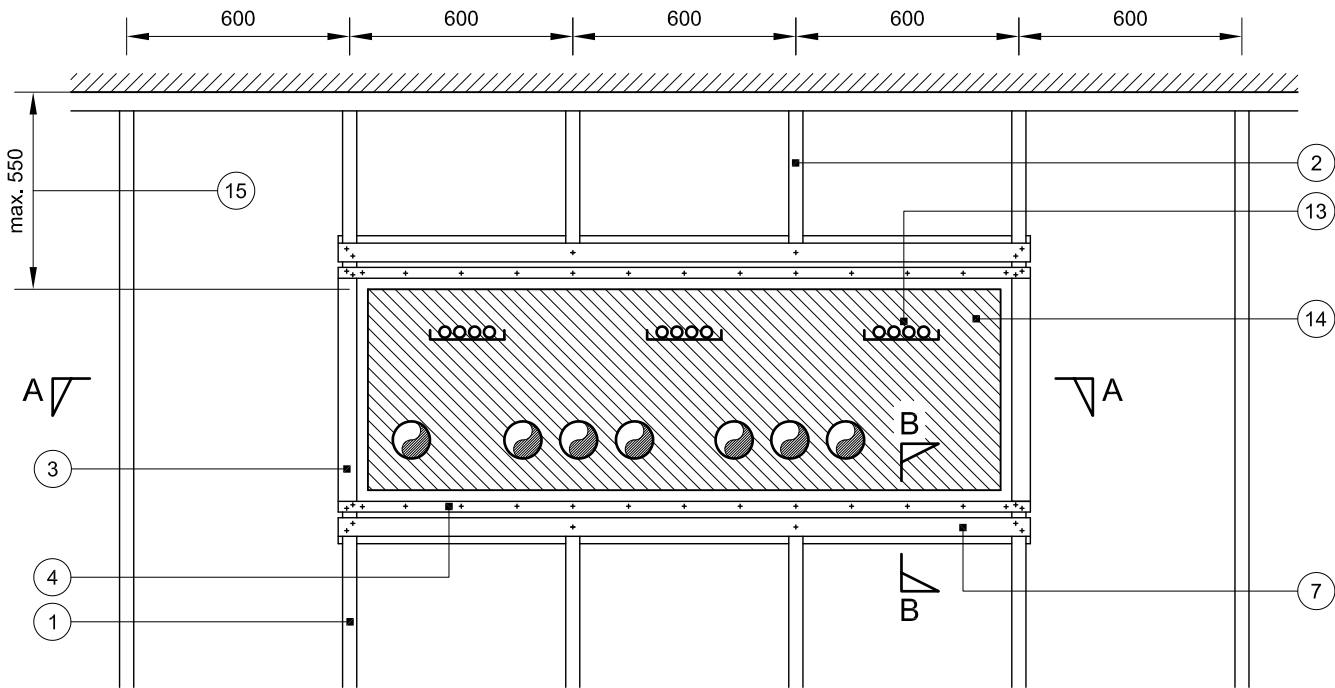
This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

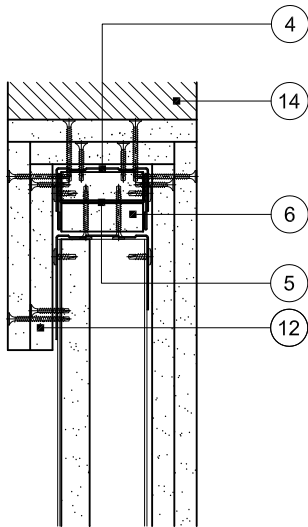
Detail 4

GypWall Shaft

Extra large openings for services – 60mm stud only (maximum 1800mm)

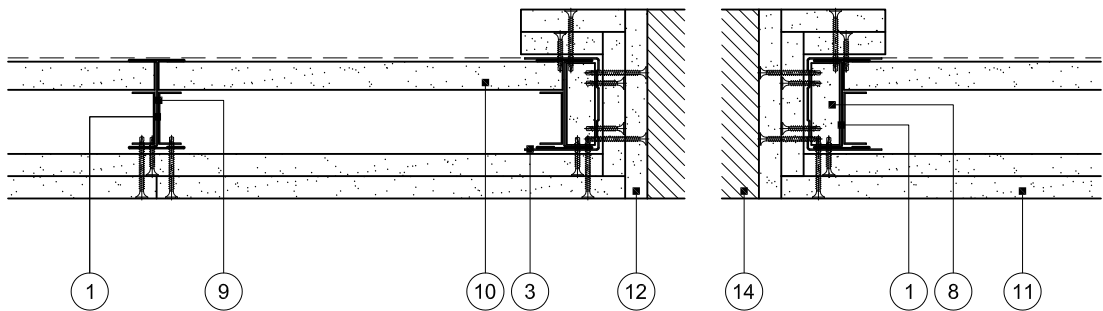


Framework elevation (1:20)
Opening width max. 1800mm



Section B-B

- 1 Gypframe 'I' Studs at 600mm centres
- 2 Gypframe 'I' Studs fixed to transom/cill channel through both flanges with suitable British Gypsum wafer head screws
- 3 Gypframe Deep Channel or 'J' Channel sleeved over stud between channels at opening head and base
- 4 Gypframe Channel with web cut around jamb stud and fixed through both flanges with two suitable British Gypsum wafer head screws
- 5 Gypframe 'I' Stud inserted into channel and fixed through both flanges with suitable British Gypsum wafer head screws at 150mm centres
- 6 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase packer inserted both sides of 'I' stud to full opening width and extended into jamb stud web
- 7 Gypframe 'J' Channel with web cut around jamb stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Web fixed through to horizontal 'I' stud with suitable British Gypsum screws at 300mm centres in two lines staggered by 150mm
- 8 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase packer to full opening height
- 9 Gypframe Retaining Channel
- 10 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase
- 11 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 12 Board returned at jambs, transom and cill of opening and over back flange of channel and fixed with suitable British Gypsum screws
- 13 Indicative services independently supported
- 14 Suitable fire stopping material by others (see important information)
- 15 Maximum partition above a extra large opening is 550mm. The minimum distance is 300mm. Alternatively refer to three sided opening detail 11



Plan A-A

Opening for services

60mm stud
Partitions with two or three layers of board

Important information

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

- We would recommend the following substantiation is sought:
- Test should be full scale with suitable size openings
 - Test suitable for the required penetrating element and fire duration

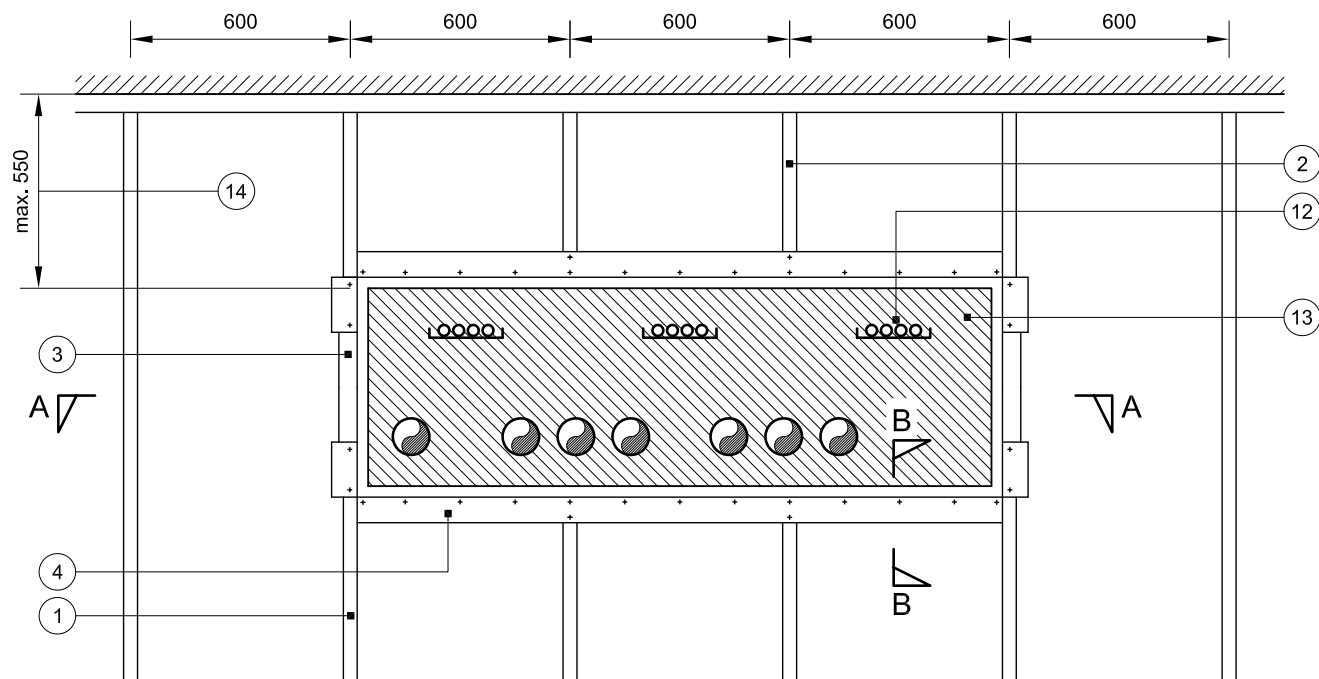
This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire stopping solution it is important that the fire stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

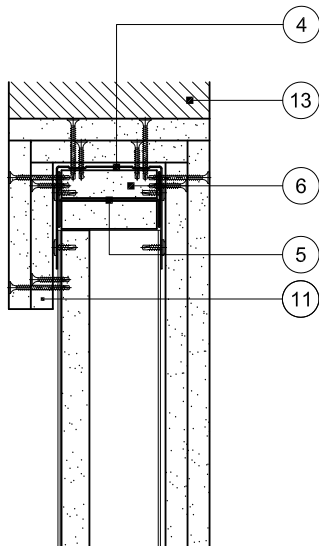
Detail 5

GypWall Shaft

Extra large openings for services (maximum 1800mm)

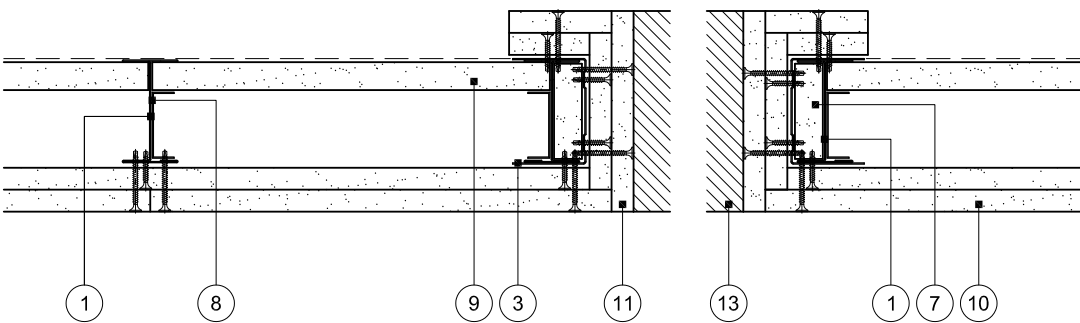


Framework elevation (1:20)
Opening width max. 1800mm



Section B-B

- 1 Gypframe 'I' Studs at 600mm centres
- 2 Gypframe 'I' Studs fixed to transom/cill channel through both flanges with suitable British Gypsum wafer head screws
- 3 Gypframe Deep Channel sleeved over stud between returned channels at opening head and base
- 4 Gypframe Extra Deep Channel cut and bent to extend 150mm up/down stud and fixed through both flanges with two suitable British Gypsum wafer head screws
- 5 Gypframe 'I' Stud inserted into channel and fixed through both flanges with suitable British Gypsum wafer head screws at 150mm centres
- 6 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase packer inserted both sides of 'I' stud to full opening width and extended into jamb stud web
- 7 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase packer to full opening height
- 8 Gypframe Retaining Channel
- 9 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 11 Board returned at jambs, transom and cill of opening and over back flange of channel and fixed with suitable British Gypsum screws
- 12 Indicative services independently supported
- 13 Suitable fire stopping material by others (see important information)
- 14 Maximum partition above a extra large opening is 550mm. The minimum distance is 300mm. Alternatively refer to three sided opening detail 11



Plan A-A

Opening for services
70mm, 92mm and 146mm studs
Partitions with two or three layers of board

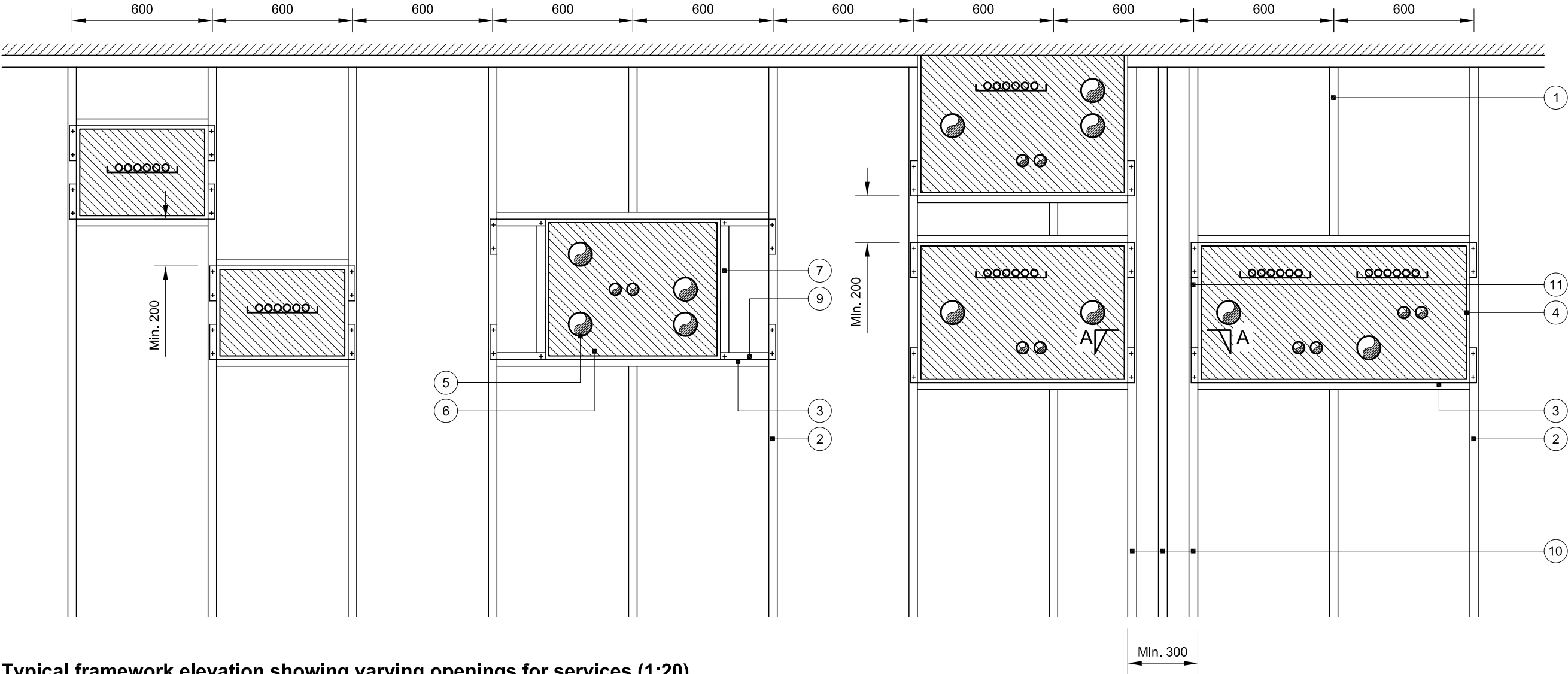
Important information

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

- We would recommend the following substantiation is sought:
- Test should be full scale with suitable size openings
 - Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire stopping solution it is important that the fire stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction



Typical framework elevation showing varying openings for services (1:20)

- 1 Gypframe studs at 600mm centres
- 2 Gypframe 'C' stud at jamb
- 3 Gypframe Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire stopping material by others (see important information)
- 7 Short length of Gypframe 'C' stud fixed to channels top and bottom using suitable British Gypsum wafer head screws
- 8 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 9 Short length of Gypframe Channel fixed to trimming channels with suitable British Gypsum wafer head screws at 300mm centres
- 10 Gypframe 'I' stud
- 11 Gypframe Channel sleeved over stud between returned channels at opening head and base



Important information

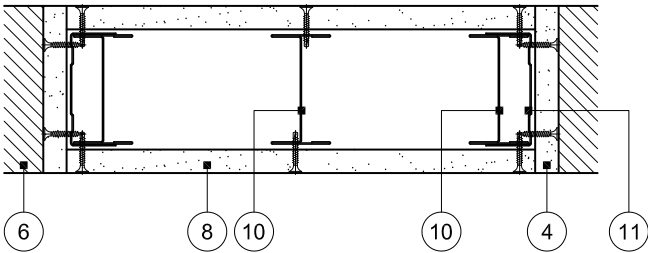
Performance characteristics of the British Gypsum system must be maintained. It is important that a suitable fire stopping product with appropriate fire resistance substantiation is sought from a third party manufacturer

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

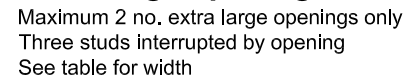
This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire stopping solution it is important that the fire stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction



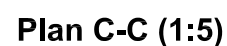
Plan A-A (1:5)

Nib between openings minimum 300mm
Use 'I' studs when less than 600mm



*Three studs interrupted by opening

Partitions with one, two or three layers of board
Detail only applies to Severe Duty rated systems



- 1 Gypframe studs at specified centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Extra Deep Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire stopping material by others (see important information)
- 7 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 8 Gypframe 'C' Stud inserted into channel and fixed through both flanges with suitable British Gypsum wafer head screws at 150mm centres
- 9 Gypframe studs at specified centres fixed to transom/cill channel through both flanges with suitable British Gypsum wafer head screws
- 10 Gypframe 'I' stud
- 11 Gypframe Extra Deep Channel sleeved over stud between returned channels at opening head and base
- 12 Maximum partition above a extra large opening is 550mm. The minimum distance is 300mm. Alternatively refer to three sided opening detail 11

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

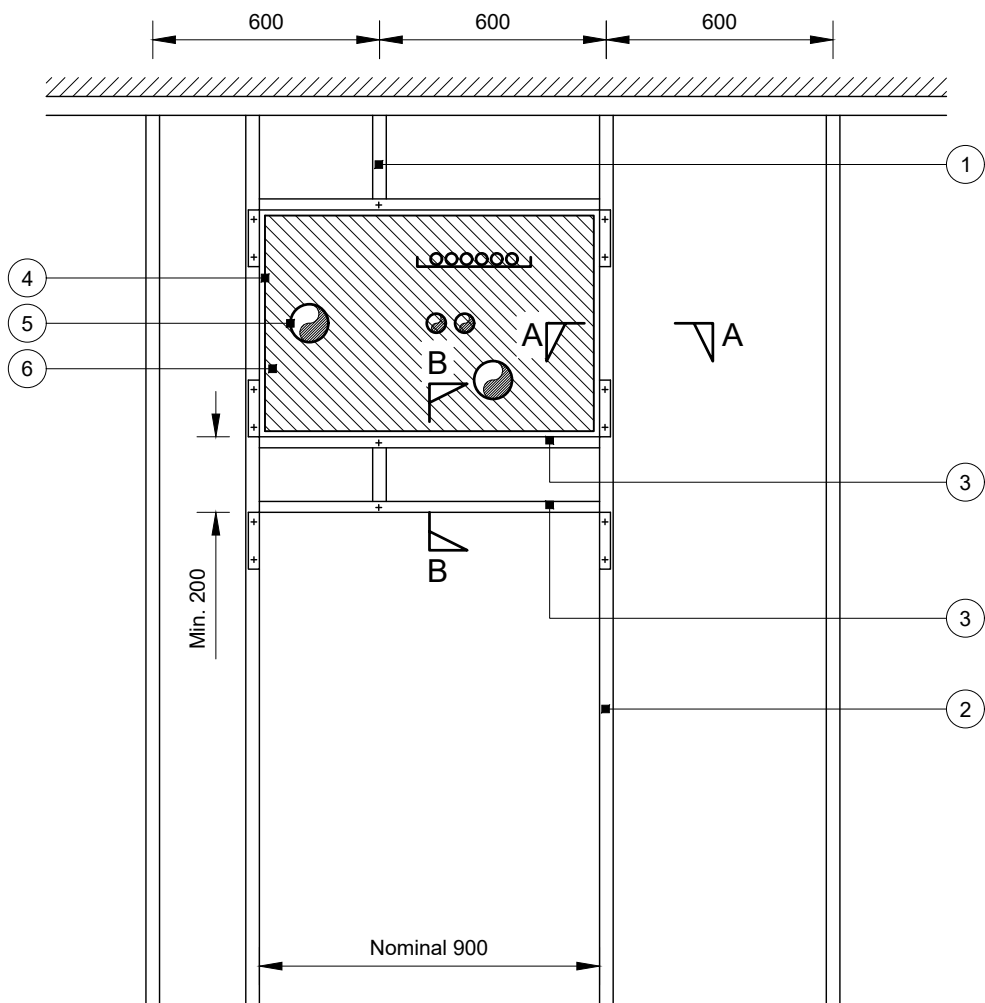
- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire stopping solution it is important that the fire stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

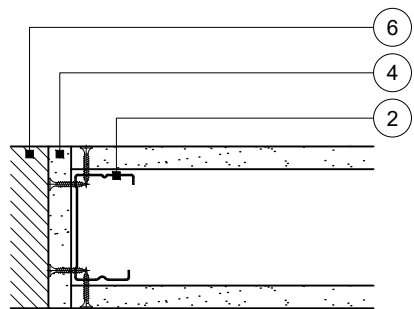
Detail 8

GypWall systems
Services above a door

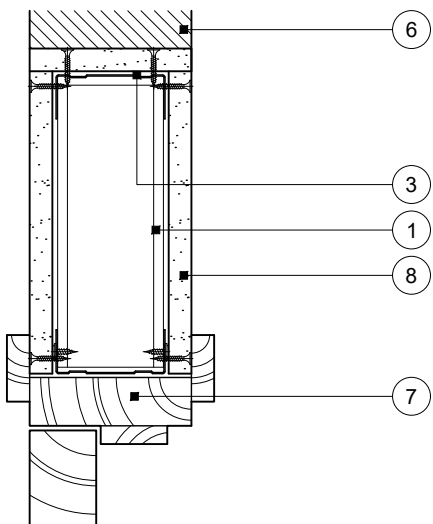


Framework elevation (1:20)

Opening shown nominal 900 x 600mm



Plan A-A (1:5)



Section B-B (1:5)

- 1 Gypframe studs at 600mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Indicative timber door frame and architrave
- 8 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)

Important information

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

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

The exact construction depicted on this drawings has not been tested and any performance characteristics, stated or inferred, are estimated based on 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

For fire rated situations, it is important that a suitable fire door with appropriate fire substantiation in a lightweight construction is sought from a third party manufacturer. Consideration must be given to opening size and framing around opening to ensure it is consistent with fire substantiation supplied

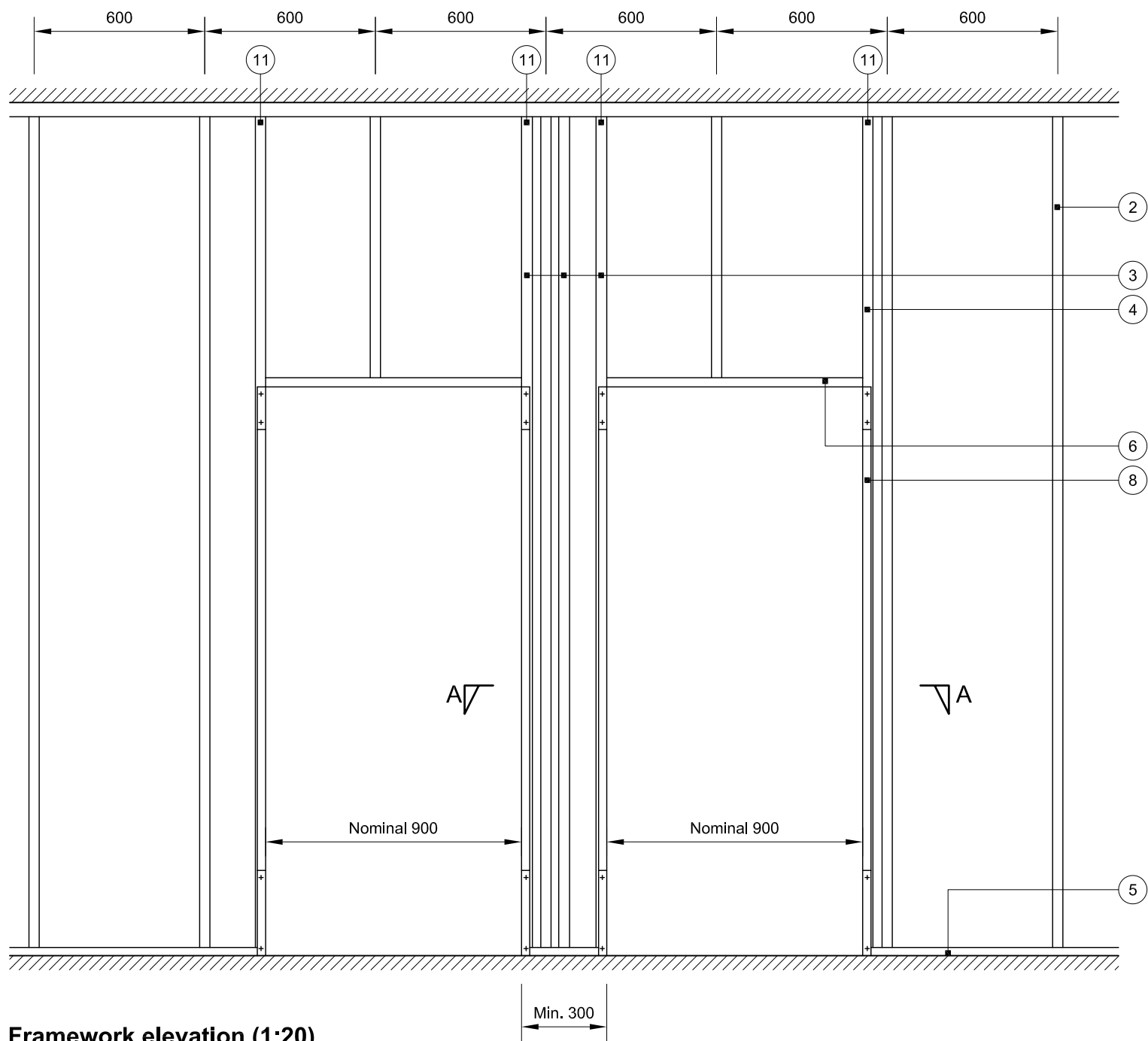
This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Opening for services above door

See separate drawing for door opening

Detail 9

GypWall systems
Adjacent door openings



Framework elevation (1:20)

300mm wide margin between door openings

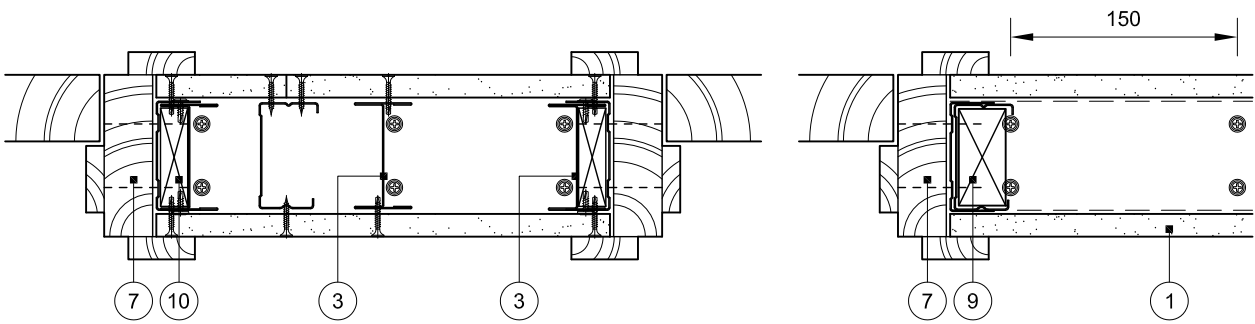
Maximum door weight 60kg to BS 5234: Parts 1 & 2: 1992 - Heavy and Severe Duty

- 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 600mm centres to maintain stud module
- 3 Gypframe 'I' Stud at jamb and centre of margin if not on stud module
- 4 Gypframe 'C' Stud at jamb
- 5 Gypframe Folded Edge Standard Floor & Ceiling Channel suitably fixed to floor with two pairs of fixings at 150mm centres (four total) and at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels) thereafter. Channel cut and bent to extend 300mm up stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Deep flange channel for heights between 4200mm and 8000mm or extra deep flange channel for heights over 8000mm
- 6 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm down stud and fixed through both flanges with two suitable British Gypsum wafer head screws or crimped
- 7 Indicative timber door frame and architrave
- 8 Gypframe Folded Edge Standard Floor & Ceiling Channel sleeved over stud between returned channels at opening head and base
- 9 Optional indicative timber stud 64/86/140 x 30mm (to suit 70/92/146mm stud) to extend nominal 50mm above opening height
- 10 Optional indicative timber insert 64/86/140 x 19mm (to suit 70/92/146mm stud) to extend nominal 50mm above opening height
- 11 Do not interrupt studs at jamb

Important information

For fire rated situations, it is important that a suitable fire door tested in an appropriate supporting construction to BS EN 1364-1 is sought from a third party manufacturer. Consideration must be given to opening size and framing around opening to ensure it is consistent with fire substantiation supplied

Advice should be sought from the door manufacturer or installer prior to construction of this detail



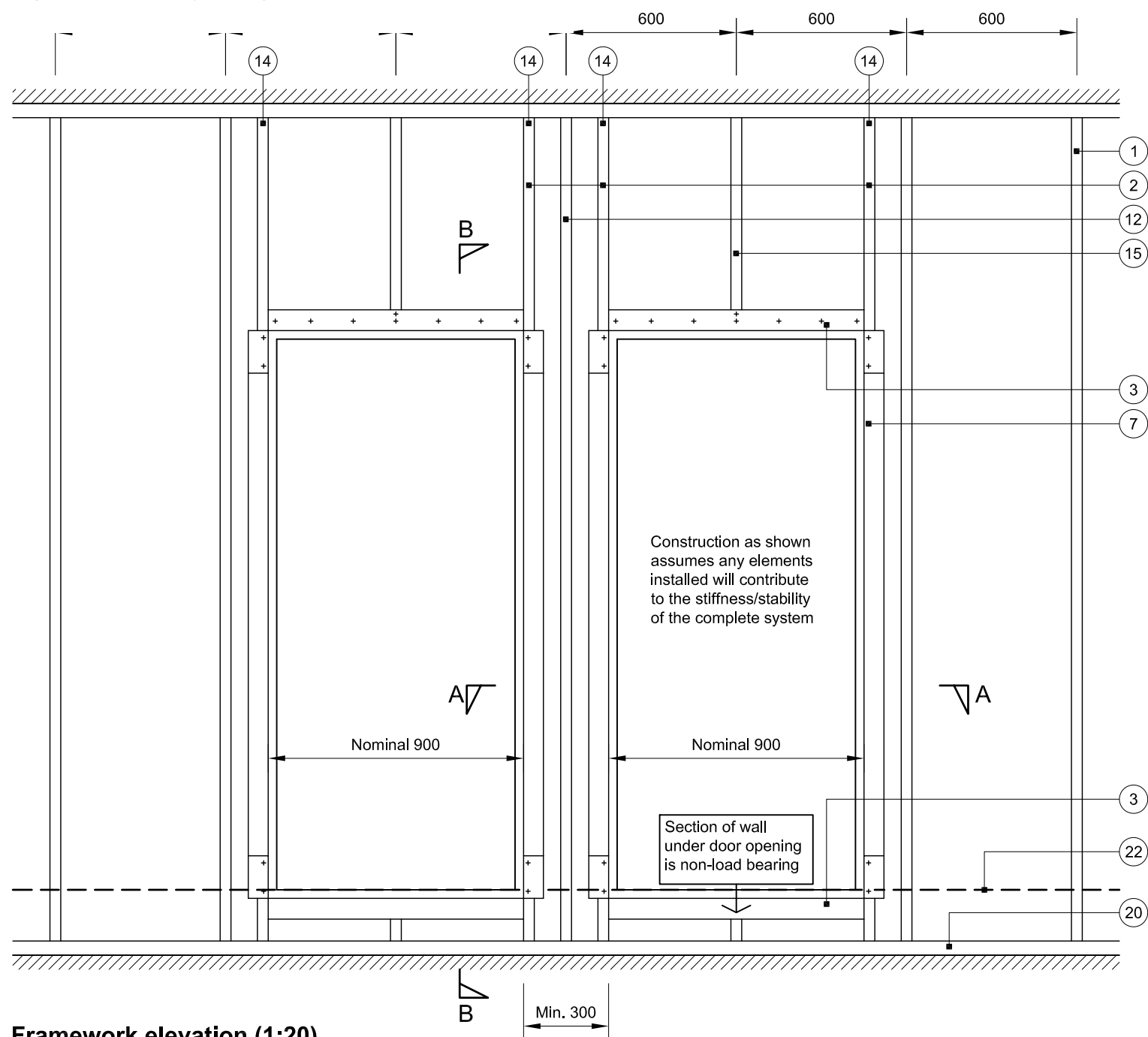
Plan A-A (1:5)

Nib between openings minimum 300mm
Use 'I' studs when less than 600mm

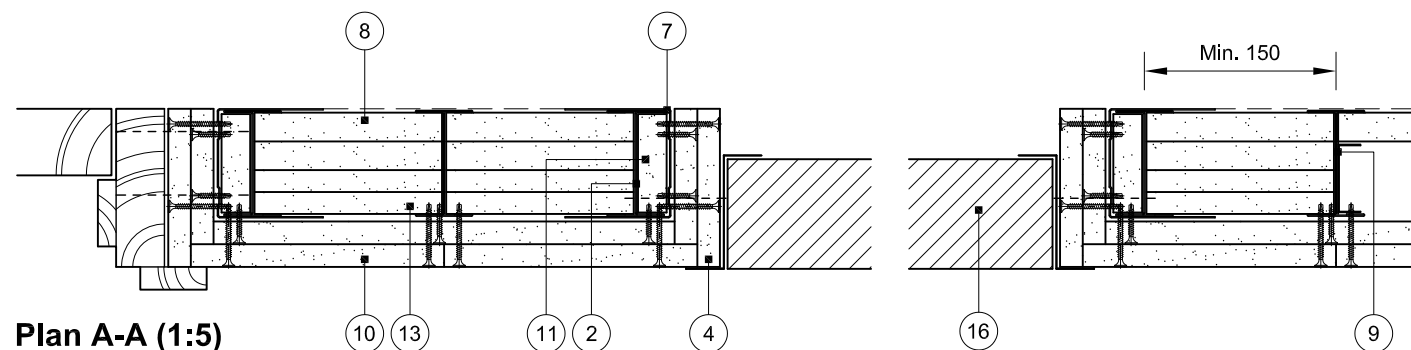
Detail 10

GypWall Shaft

Adjacent door openings

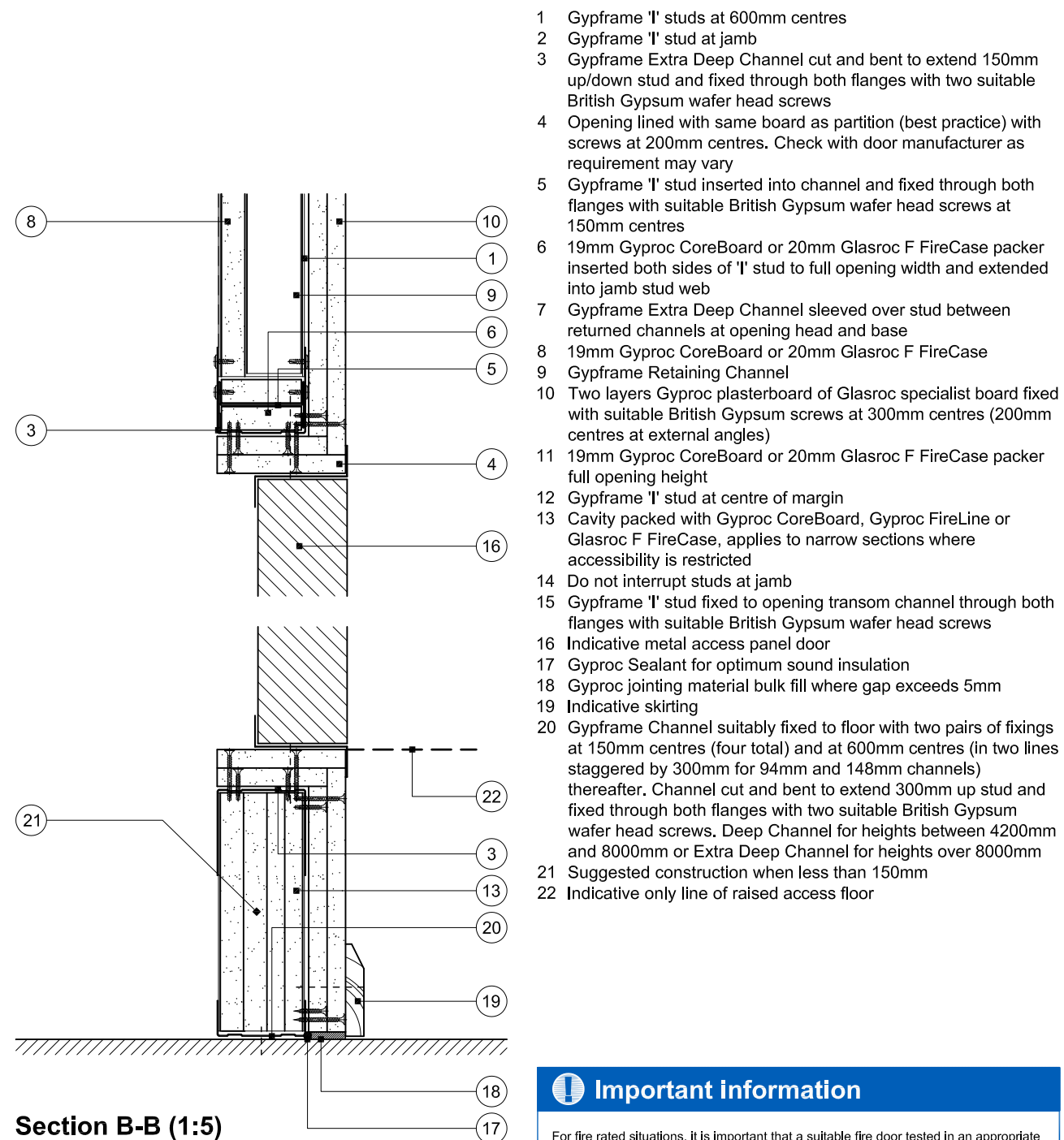


Framework elevation (1:20)



Plan A-A (1:5)

Riser door openings



Section B-B (1:5)

- 1 Gypframe 'I' studs at 600mm centres
- 2 Gypframe 'I' stud at jamb
- 3 Gypframe Extra Deep Channel cut and bent to extend 150mm up/down stud and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with door manufacturer as requirement may vary
- 5 Gypframe 'I' stud inserted into channel and fixed through both flanges with suitable British Gypsum wafer head screws at 150mm centres
- 6 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase packer inserted both sides of 'I' stud to full opening width and extended into jamb stud web
- 7 Gypframe Extra Deep Channel sleeved over stud between returned channels at opening head and base
- 8 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 11 19mm Gyproc CoreBoard or 20mm Glasroc F FireCase packer full opening height
- 12 Gypframe 'I' stud at centre of margin
- 13 Cavity packed with Gyproc CoreBoard, Gyproc FireLine or Glasroc F FireCase, applies to narrow sections where accessibility is restricted
- 14 Do not interrupt studs at jamb
- 15 Gypframe 'I' stud fixed to opening transom channel through both flanges with suitable British Gypsum wafer head screws
- 16 Indicative metal access panel door
- 17 Gyproc Sealant for optimum sound insulation
- 18 Gyproc jointing material bulk fill where gap exceeds 5mm
- 19 Indicative skirting
- 20 Gypframe Channel suitably fixed to floor with two pairs of fixings at 150mm centres (four total) and at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels) thereafter. Channel cut and bent to extend 300mm up stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Deep Channel for heights between 4200mm and 8000mm or Extra Deep Channel for heights over 8000mm
- 21 Suggested construction when less than 150mm
- 22 Indicative only line of raised access floor

Important information

For fire rated situations, it is important that a suitable fire door tested in an appropriate supporting construction to BS EN 1364-1 is sought from a third party manufacturer. Consideration must be given to opening size and framing around opening to ensure it is consistent with fire substantiation supplied

Advice should be sought from the access panel or door manufacturer or installer prior to construction of this detail

Detail 11

GypWall systems

Three-sided openings for services

- 1

Gypframe studs at specified centres
- 2

Gypframe 'C' Stud at jamb
- 3

Gypframe Extra Deep Flange Floor & Ceiling Channel cut and bent to extend 150mm up studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4

Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire stopping manufacturer as requirement may vary
- 5

Indicative services independently supported
- 6

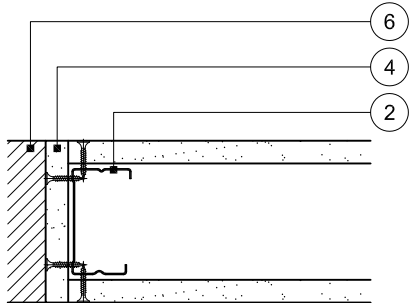
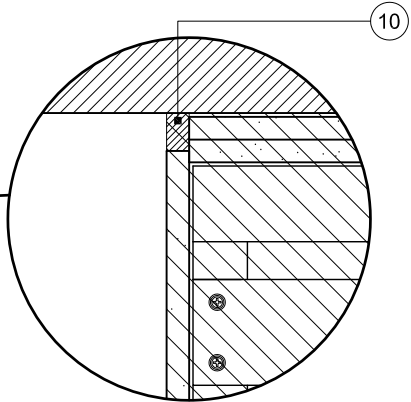
Suitable fire stopping material by others (see important information). Material must be suitable for deflection criteria
- 7

Gypframe channel to suit deflection amount suitably fixed through board to soffit at 600mm centres (in two lines staggered by 300mm for 94mm and 148mm channels)
- 8

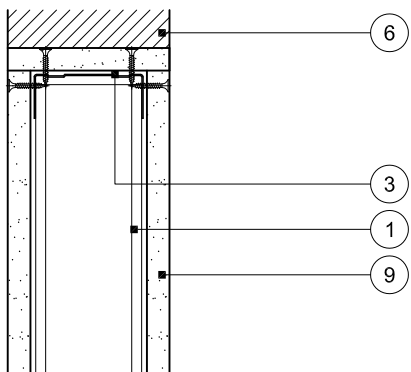
Gypframe GFS1 Fixing Strap fixed to each stud with two suitable British Gypsum wafer head screws to receive uppermost board fixings (no fixings into head channel)
- 9

Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 10

Separate section of fire stopping material in deflection zone by others (see important information)
The fire stopping manufacturer should confirm capability of the fire stopping material to accommodate deflection



Section A-A (1:5)



Section B-B (1:5)

MAXIMUM CLEAR OPENING WIDTH*				
STUD TYPE	REVEAL LINING	STUD CENTRES		
		600mm	400mm	300mm
'C'	Unlined	1161mm	761mm	561mm
	1 x 12.5mm	1136mm	736mm	536mm
	1 x 15mm	1131mm	731mm	531mm
	2 x 12.5mm	1111mm	711mm	511mm
	2 x 15mm	1101mm	701mm	501mm
	3 x 15mm	1071mm	671mm	471mm
'I'	Unlined	1162mm	762mm	562mm
	1 x 12.5mm	1137mm	737mm	537mm
	1 x 15mm	1132mm	732mm	532mm
	2 x 12.5mm	1112mm	712mm	512mm
	2 x 15mm	1102mm	702mm	502mm
	3 x 15mm	1072mm	672mm	472mm
AcouStud	Unlined	1156mm	756mm	556mm
	1 x 12.5mm	1131mm	731mm	531mm
	1 x 15mm	1126mm	726mm	526mm
	2 x 12.5mm	1106mm	706mm	506mm
	2 x 15mm	1096mm	696mm	496mm
	3 x 15mm	1066mm	666mm	466mm

*Single stud interrupted by opening

Important information

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

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire stopping solution it is important that the fire stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Dimension A = deflection allowance

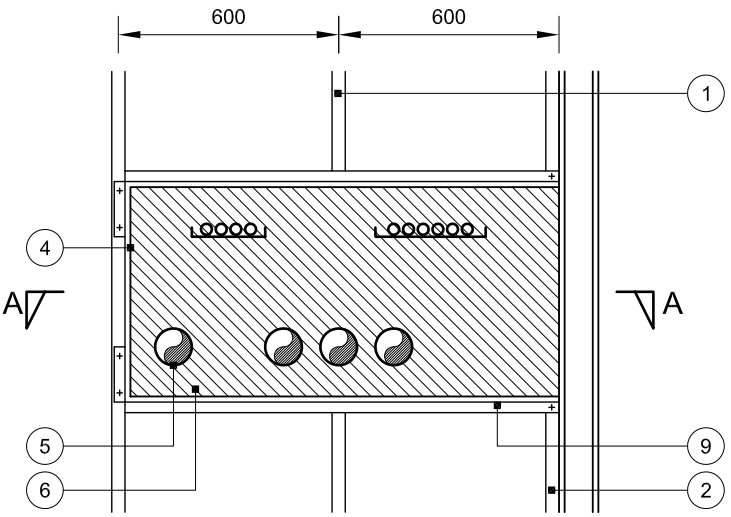
Framework elevation

Opening for services at deflection head

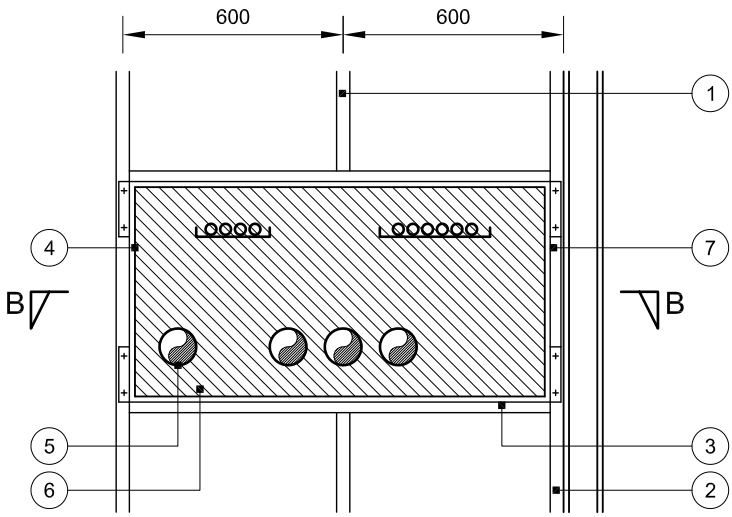
Single stud interrupted by opening
See table for width

Detail 12

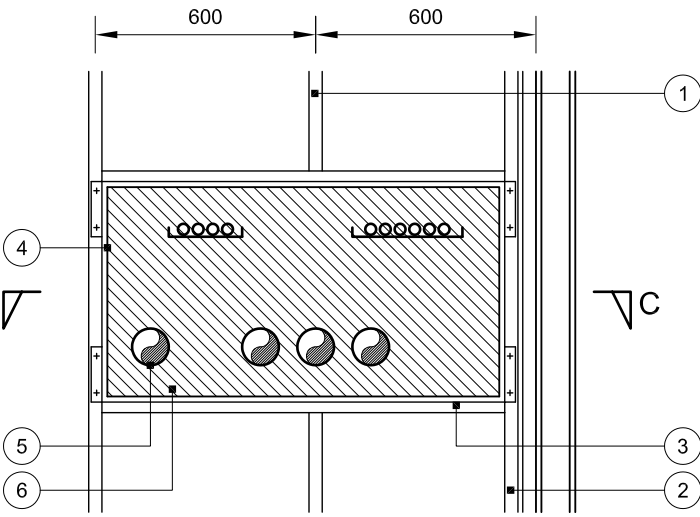
GypWall systems
Openings at partition junctions



Framework elevation (1:20)
Opening width framing only 1181mm
Opening width lined with 12.5mm board 1168mm

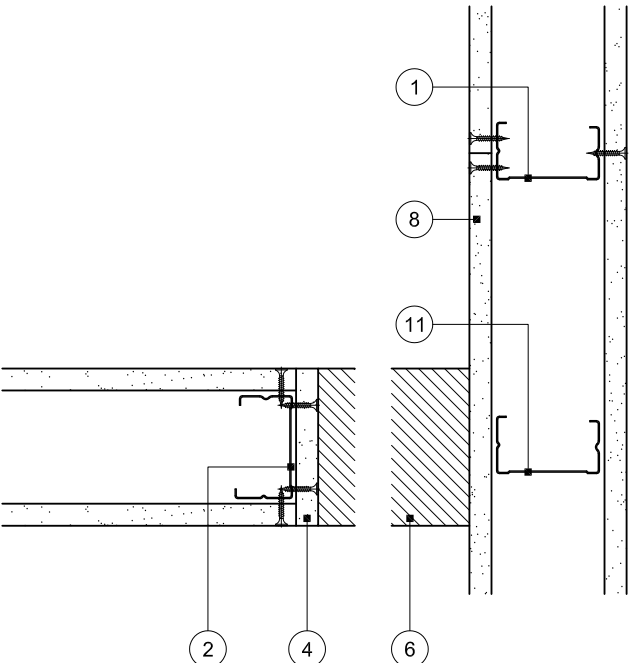


Framework elevation (1:20)
Opening width framing only 1140mm
Opening width lined with 12.5mm board 1115mm

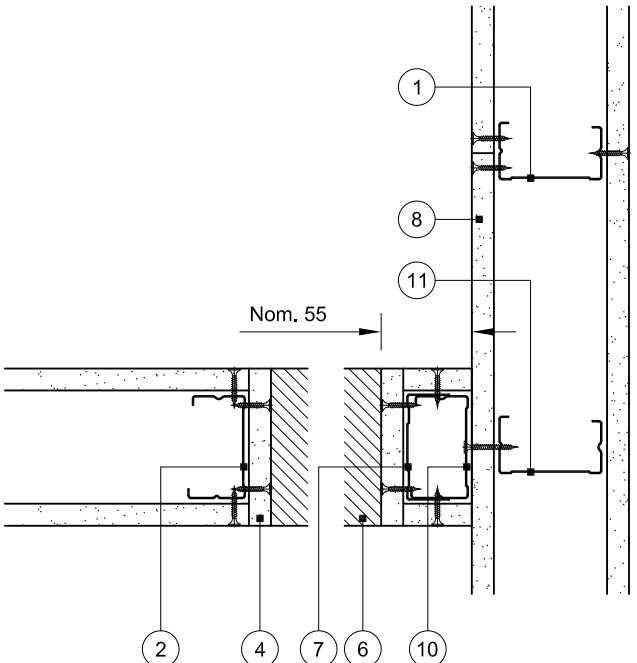


Framework elevation (1:20)
Opening width framing only 1090mm
Opening width lined with 12.5mm board 1065mm

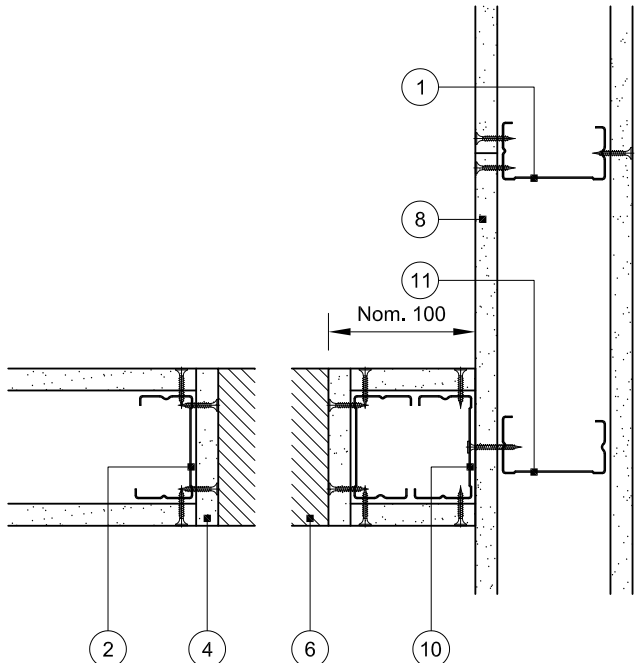
- 1 Gypframe studs at 600mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Gypframe Folded Edge Standard Floor & Ceiling Channel sleeved over stud between returned channels at opening head and base
- 8 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 9 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm down stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Other end fixed to stud through both flanges with suitable British Gypsum wafer head screws.
- 10 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)
- 11 Additional Gypframe stud at junction (two for 92mm and 146mm studs in adjacent partition)



Plan A-A (1:5)



Plan B-B (1:5)



Plan C-C (1:5)

Opening for services at partition junction

See detail 1 for comprehensive list of opening sizes based varying board combinations, stud type and centres

Important information

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

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

Partition constructions must be of equal performance and openings lined with relevant partition linings

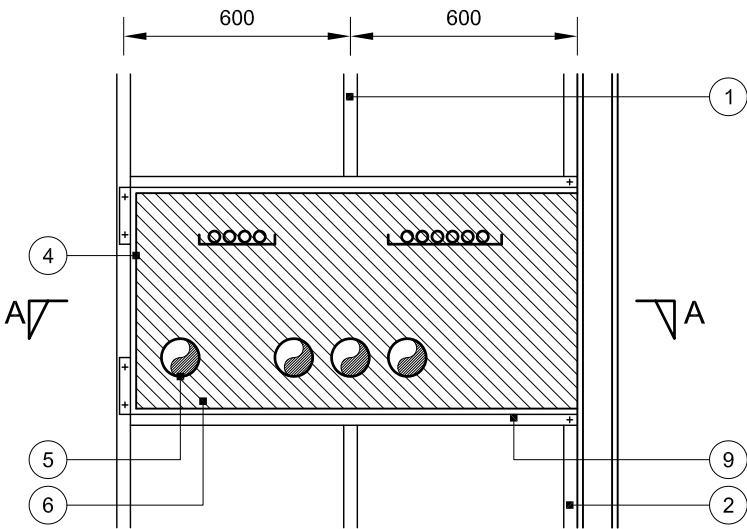
As there is no recognised method for fire resistance testing of junctions, any performance characteristics, stated or inferred, in this detail are estimated based on each system tested in isolation and other relevant test data. The drawing should be approved by the project design and management authority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

The exact construction depicted on this drawings has not been tested and any performance characteristics, stated or inferred, are estimated based on 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

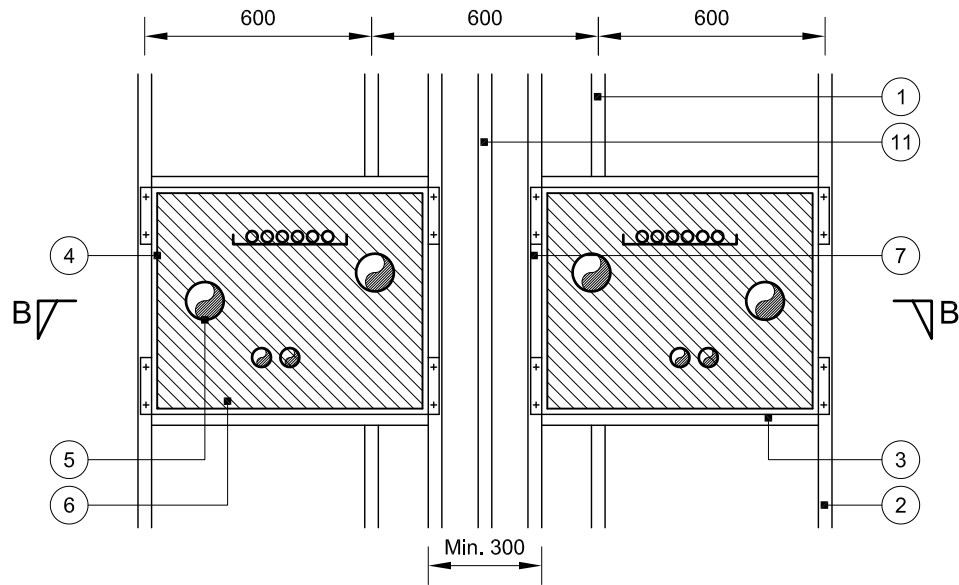
This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Detail 13

GypWall systems
Openings at partition junctions

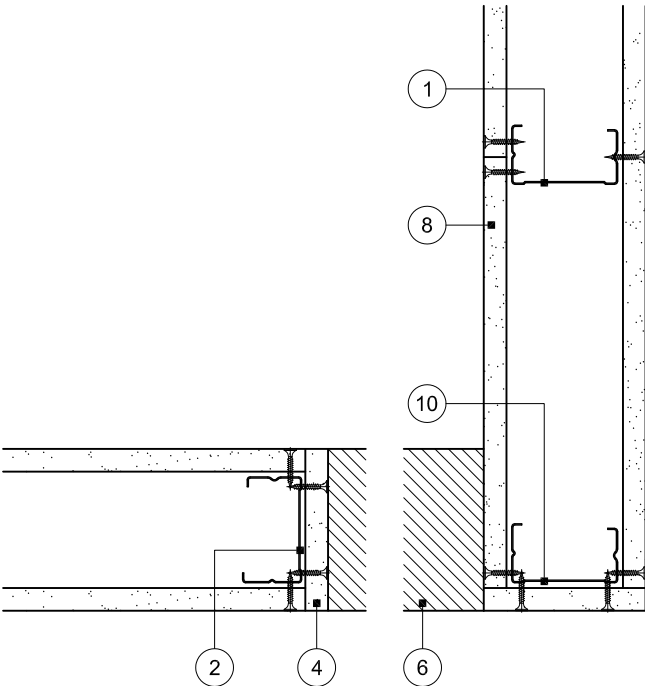


Framework elevation (1:20)
Opening width framing only 1181mm
Opening width lined with 12.5mm board 1168mm

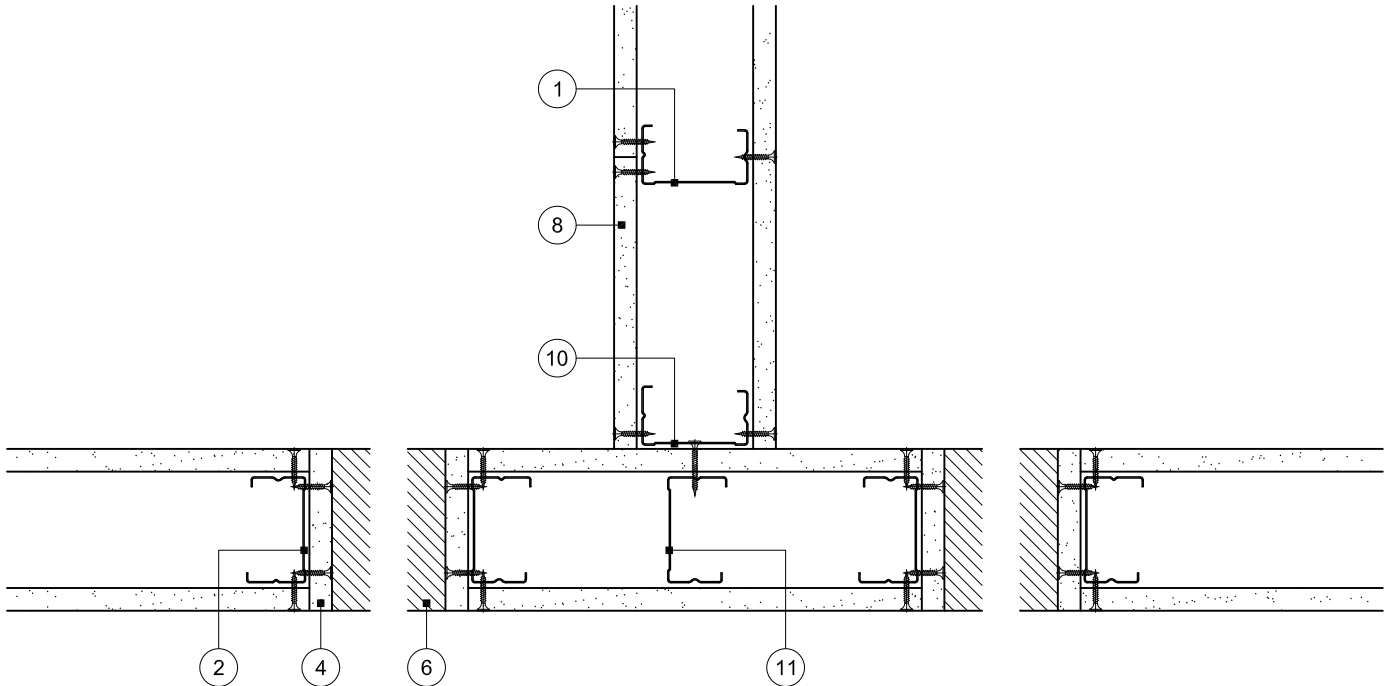


Framework elevation (1:20)
Opening width framing only 731mm
Opening width lined with 12.5mm board 706mm

- 1 Gypframe studs at 600mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Gypframe Folded Edge Standard Floor & Ceiling Channel sleeved over stud between returned channels at opening head and base
- 8 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 9 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm down stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Other end fixed to stud through both flanges with suitable British Gypsum wafer head screws.
- 10 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)
- 11 Additional Gypframe stud at junction (two for 92mm and 146mm studs in adjacent partition)



Plan A-A (1:5)



Plan B-B (1:5)

Opening for services at partition junction

See detail 1 for comprehensive list of opening sizes based varying board combinations, stud type and centres

Important information

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

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

Partition constructions must be of equal performance and openings lined with relevant partition linings

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

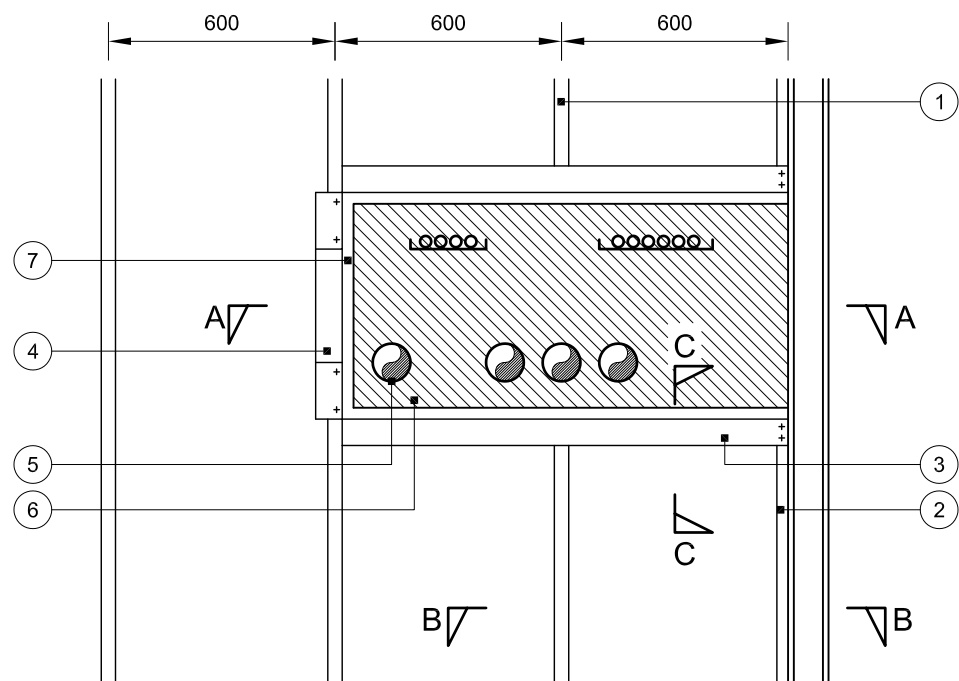
The exact construction depicted on this drawings has not been tested and any performance characteristics, stated or inferred, are estimated based on other relevant test data. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Detail 14

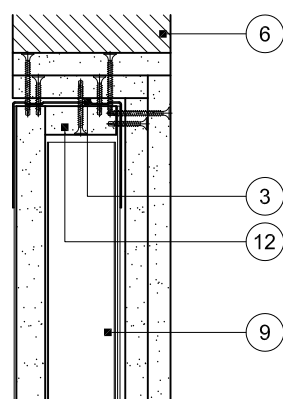
GypWall Shaft

Openings at partition junctions



Framework elevation (1:20)

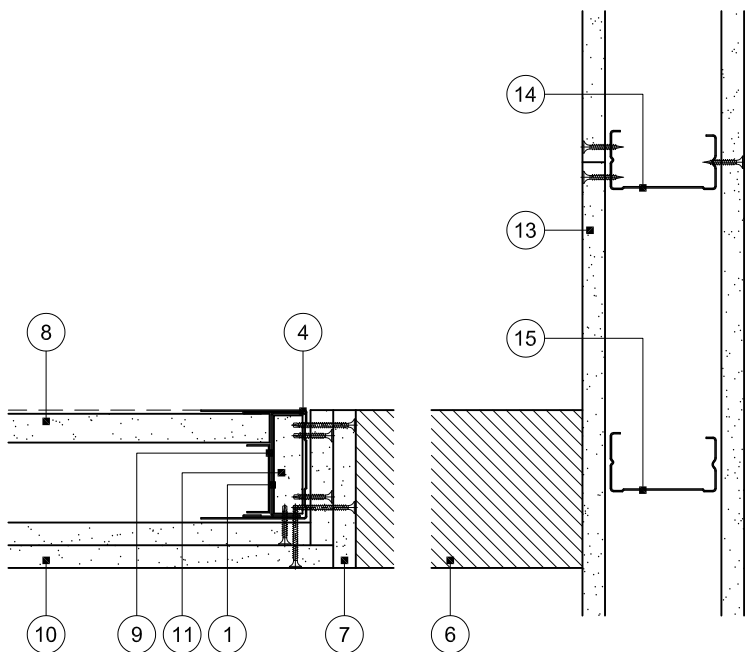
Opening width framing only 1181mm
Opening width lined with two layers 12.5mm board 1156mm



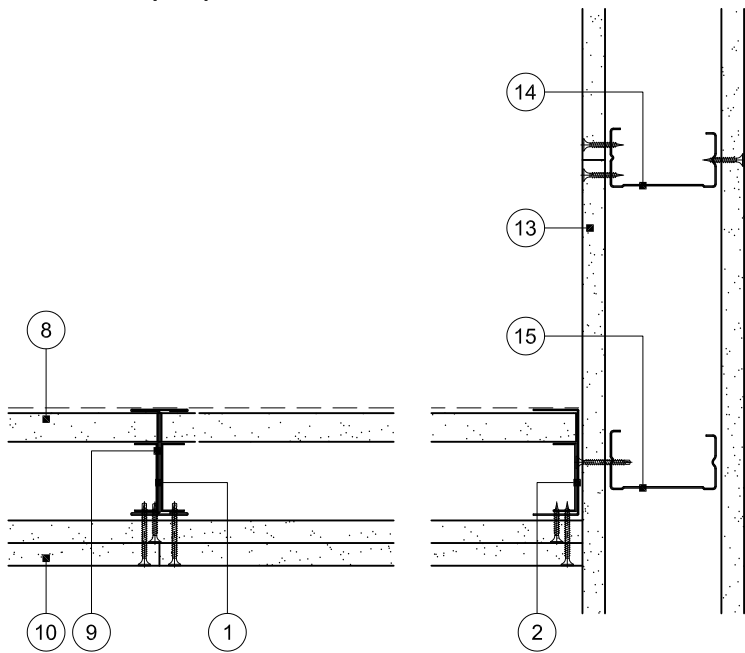
Section C-C (1:5)

Opening for services at partition junction

See detail 1 for comprehensive list of opening sizes based varying board combinations, stud type and centres



Plan A-A (1:5)



Plan B-B (1:5)

- 1 Gypframe 'I' Studs at 600mm centres
- 2 Gypframe Starter Channel (Gypframe Tabbed Starter Channel for 146mm) fixed through to studs with suitable British Gypsum at 600mm centres
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) cut and bent to extend 150mm up/down stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Other end fixed to stud through both flanges with suitable British Gypsum wafer head screws.
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) sleeved over stud between returned channels at opening head and base
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 8 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 11 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer full opening height
- 12 Gyproc CoreBoard or Glasroc F FireCase 20mm packer full opening width between studs
- 13 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 14 Gypframe studs at 600mm centres
- 15 Additional Gypframe stud at junction (two for 92mm and 146mm studs in adjacent partition)

Important information

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

- We would recommend the following substantiation is sought:
- Test should be full scale with suitable size openings
 - Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution It is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

Partition constructions must be of equal performance and openings lined with relevant partition linings

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

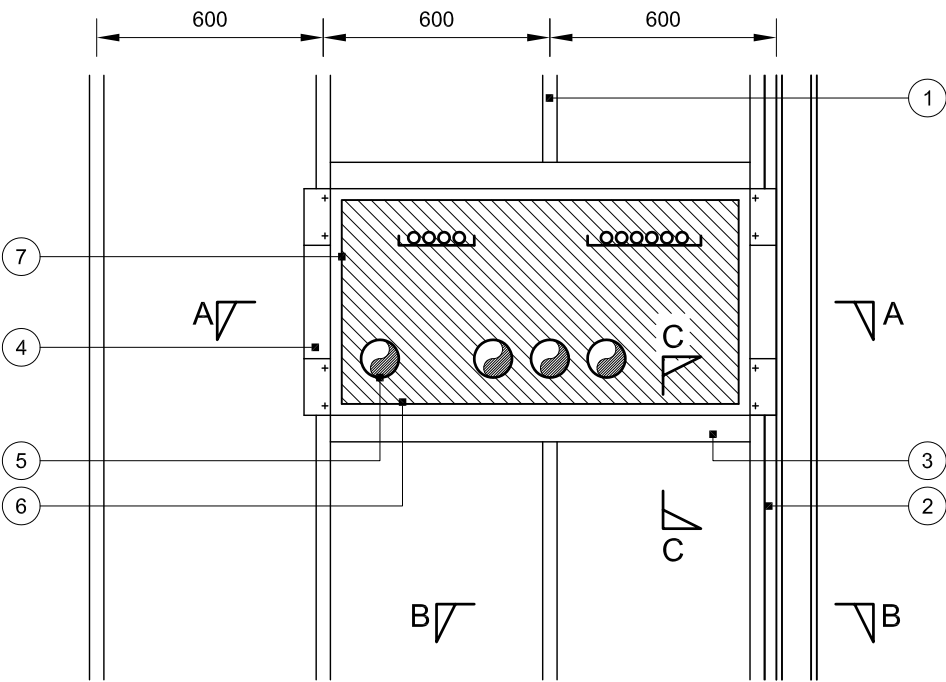
The exact construction depicted on this drawings has not been tested and any performance characteristics, stated or inferred, are estimated based on other relevant test data. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Detail 15

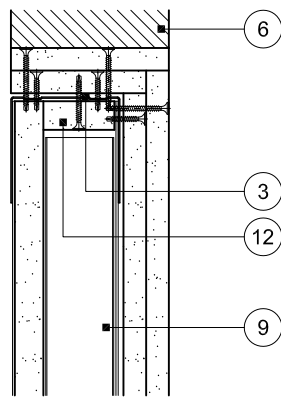
GypWall Shaft

Openings at partition junctions



Framework elevation (1:20)

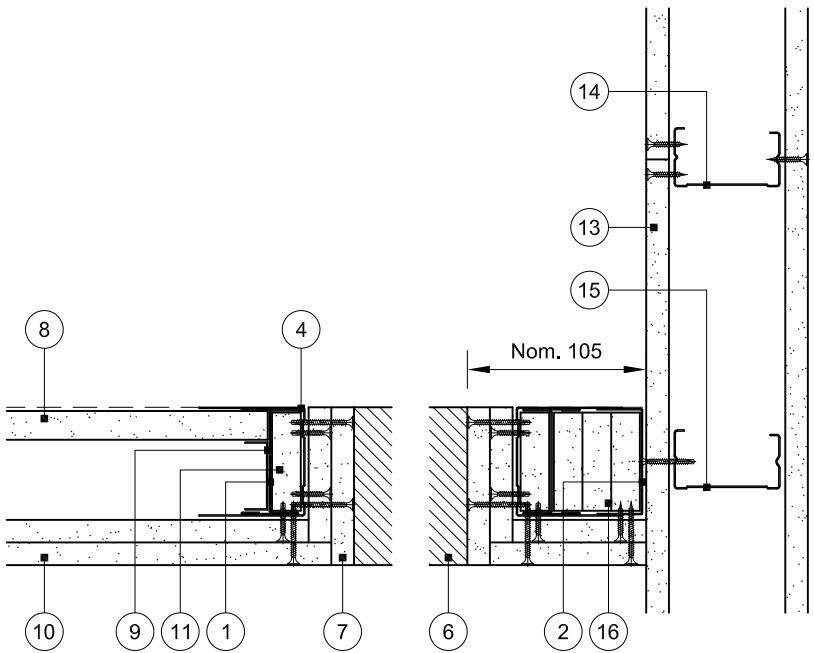
Opening width framing only 1101mm
Opening width lined with two layers 12.5mm board 1051mm



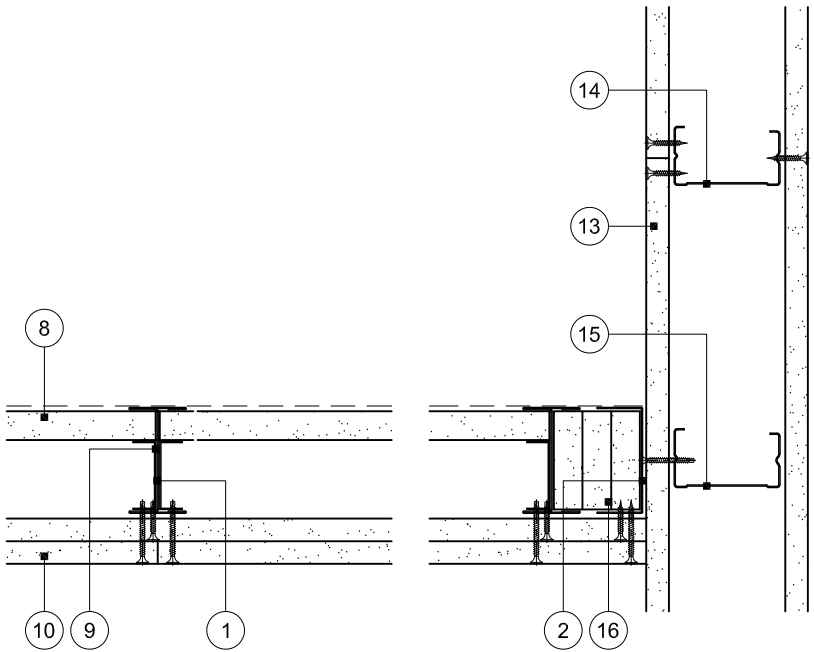
Section C-C (1:5)

Opening for services at partition junction

See detail 1 for comprehensive list of opening sizes based varying board combinations, stud type and centres



Plan A-A (1:5)



Plan B-B (1:5)

- 1 Gypframe 'I' Studs at 600mm centres
- 2 Gypframe Starter Channel (Gypframe Tabbed Starter Channel for 146mm) fixed through to studs with suitable British Gypsum at 600mm centres
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Channel (Gypframe 'J' Channel for 62mm) cut and bent to extend 150mm up/down stud and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) sleeved over stud between returned channels at opening head and base
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 8 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 11 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer full opening height
- 12 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer full opening width between studs
- 13 One layer Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 14 Gypframe 'C' Studs at 600mm centres
- 15 Additional Gypframe stud at junction (two for 92mm and 146mm studs in adjacent partition)
- 16 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packers full partition height

Important information

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

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

Partition constructions must be of equal performance and openings lined with relevant partition linings

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

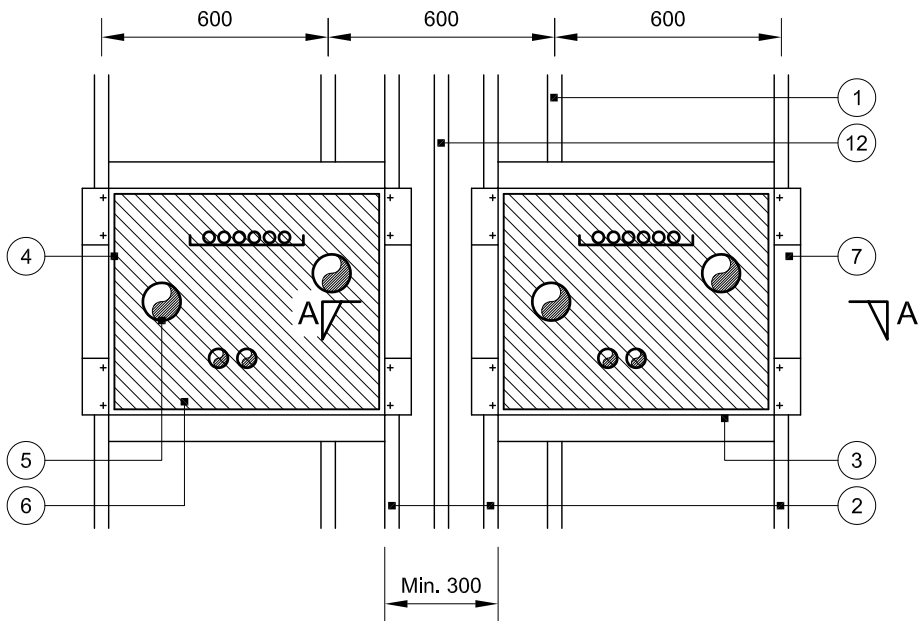
The exact construction depicted on this drawings has not been tested and any performance characteristics, stated or inferred, are estimated based on other relevant test data. The drawing should be approved by the project design and management authority before use to ensure that it meets with their specific project requirements

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Detail 16

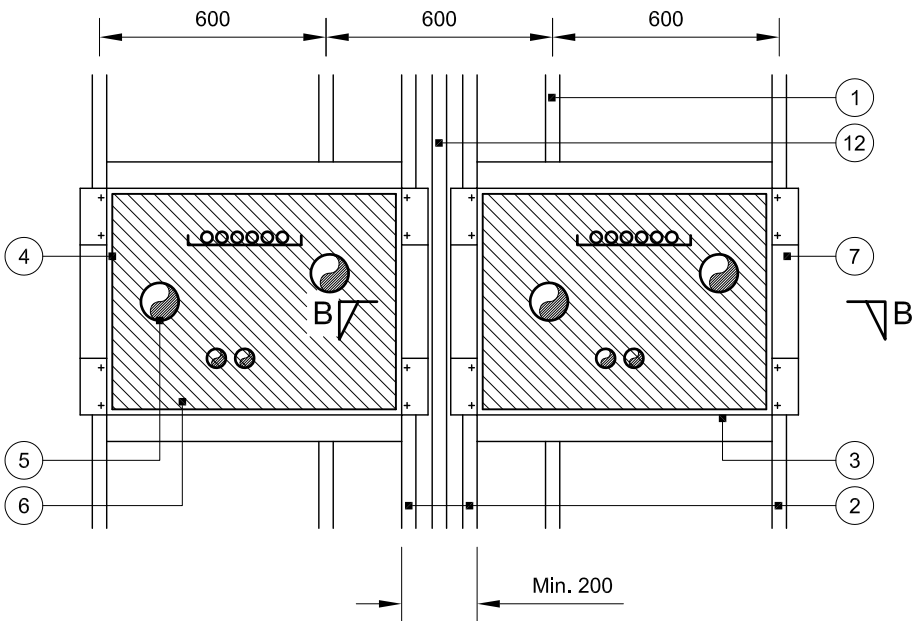
GypWall Shaft

Openings at partition junctions



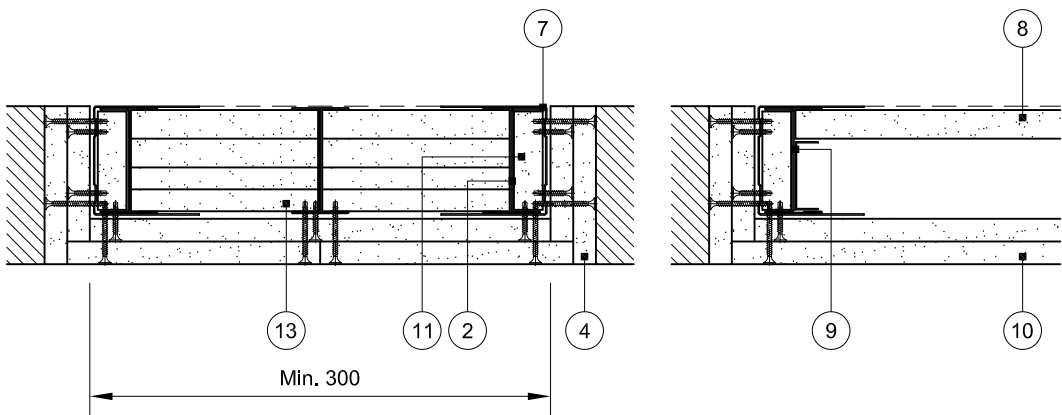
Framework elevation (1:20)

Opening width framing only 745mm
Opening width lined with two layers 12.5mm board 695mm



Framework elevation (1:20)

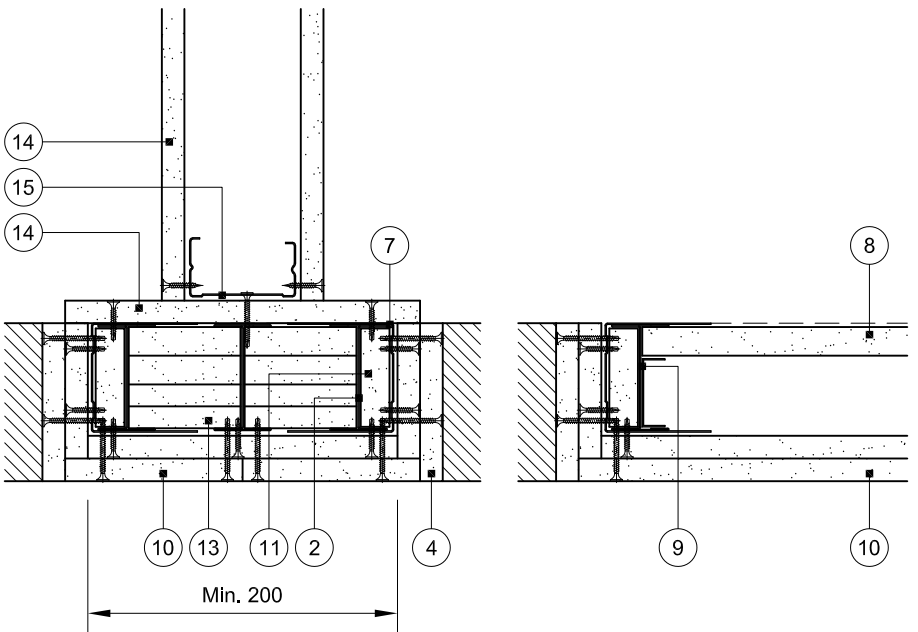
Opening width framing only 795mm
Opening width lined with two layers 12.5mm board 745mm



Plan A-A (1:5)

Opening for services at partition junction

See detail 1 for comprehensive list of opening sizes based varying board combinations, stud type and centres



Plan B-B (1:5)

Reduced margin width only applicable where there is a partition abutment

- 1 Gypframe 'I' Studs at 600mm centres
- 2 Gypframe 'I' Stud at jamb
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) cut and bent to extend 150mm up/down stud and fixed through both flanges with two suitable British Gypsum wafer head screws
- 4 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with door manufacturer as requirement may vary
- 5 Indicative services independently supported
- 6 Suitable fire-stopping material by others (see important information)
- 7 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62mm) sleeved over stud between returned channels at opening head and base
- 8 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 11 Gyproc CoreBoard 19mm or Glasroc F FireCase 20mm packer full opening height
- 12 Gypframe 'I' Stud at centre of margin
- 13 Cavity packed with Gyproc CoreBoard, Gyproc FireLine or Glasroc F FireCase, applies to narrow sections where accessibility is restricted
- 14 One layer Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 15 Gypframe 'C' Stud fixed through board to stud with suitable British Gypsum screws at 600mm centres

Important information

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

We would recommend the following substantiation is sought:

- Test should be full scale with suitable size openings
- Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire-stopping solution it is important that the fire-stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire-stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire-stopping provider on a case by case basis

Partition constructions must be of equal performance and openings lined with relevant partition linings

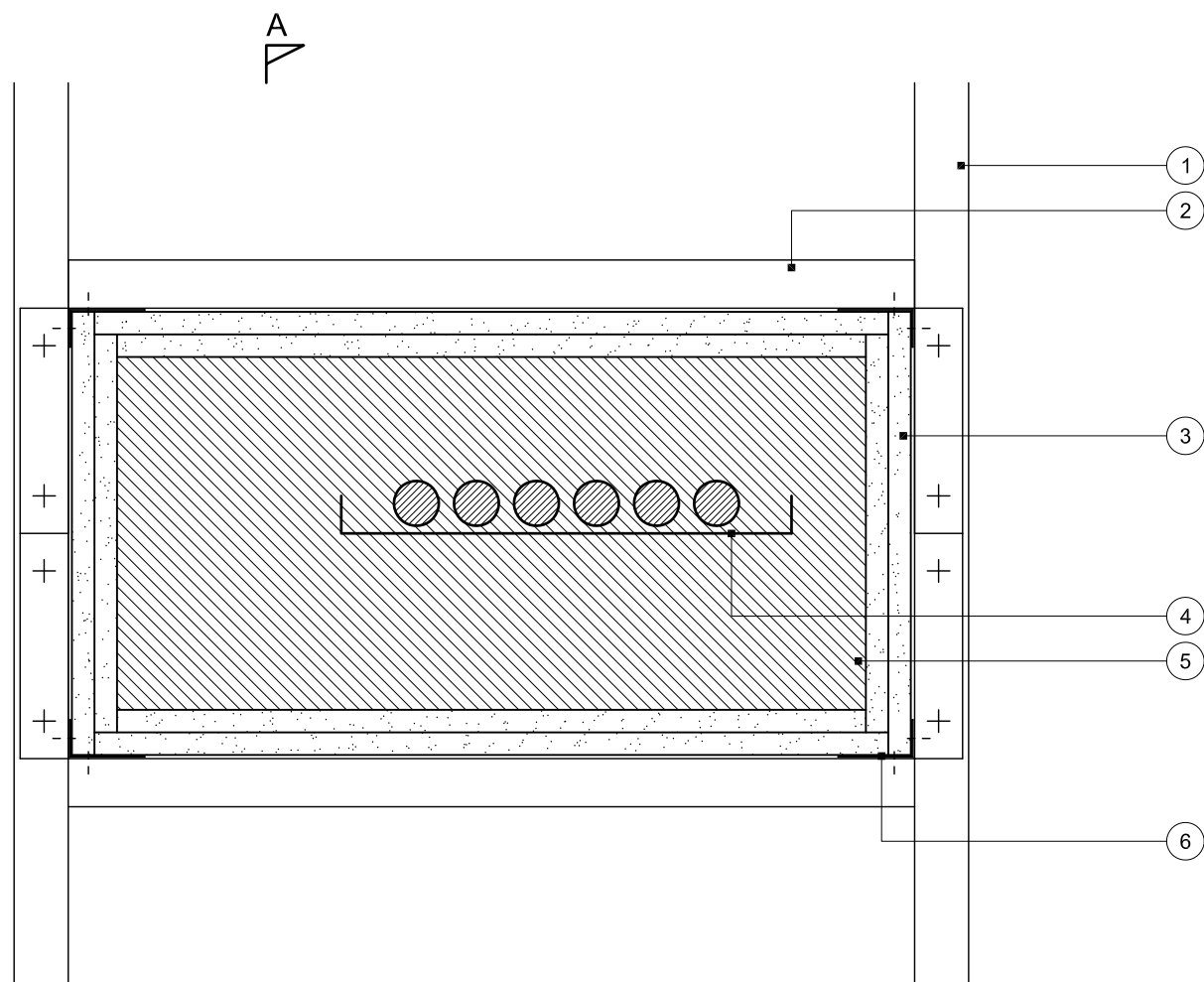
As there is no recognised method for fire resistance testing of junctions, any performance characteristics, stated or inferred, in this detail are estimated based on each system tested in isolation and other relevant test data. The drawing should be approved by the project design and management authority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

The exact construction depicted on this drawings has not been tested and any performance characteristics, stated or inferred, are estimated based on 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

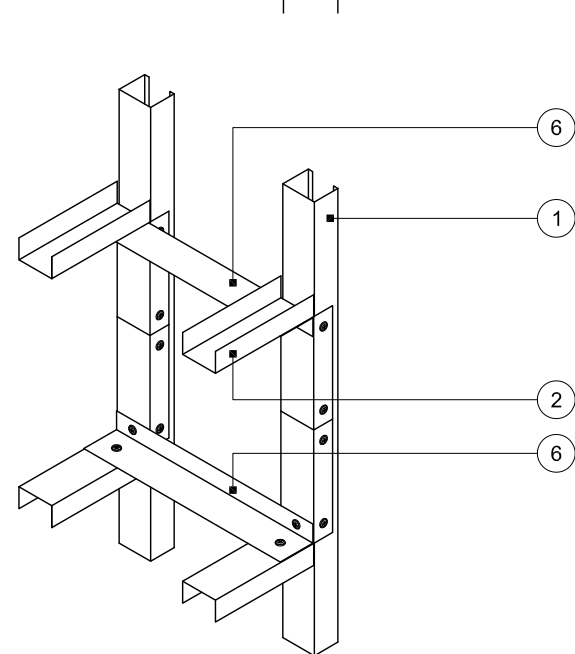
This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Detail 17

GypWall Twin Frame Braced

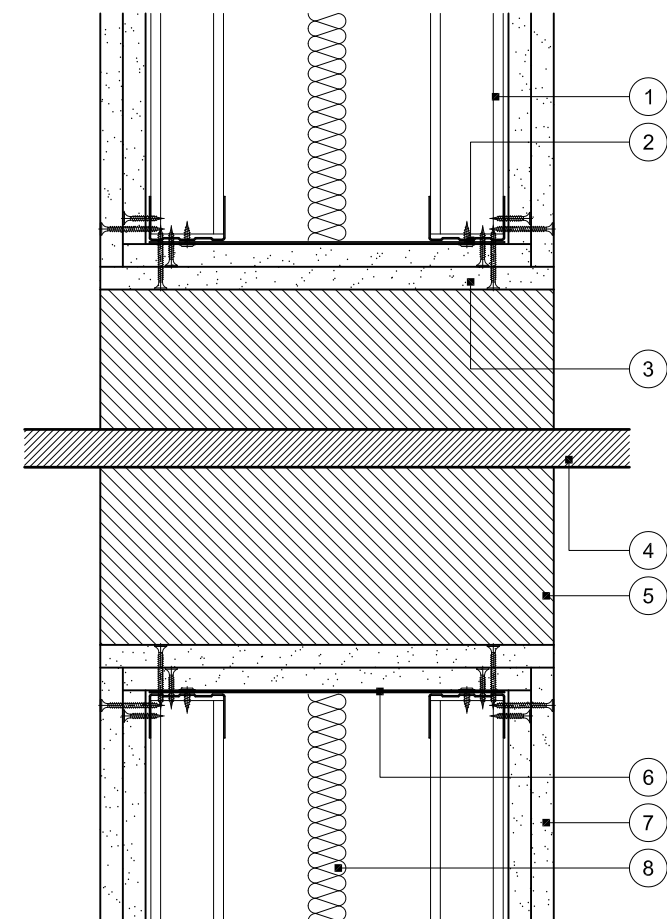


Framework elevation
Opening width framing only 561 x 300mm
Opening width lined with two layers 15mm board 501 x 240mm



Isometric

Small 'letter box' opening for services
Frame opening size shown nominally 600 x 300mm



Section A-A

- 1 Two lines of Gyproframe 'C' Studs at specified centres cross braced with Gyproframe 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
- 2 Gyproframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150mm up/down studs and fixed through both flanges with two suitable British Gypsum wafer head screws
- 3 Opening lined with same board as partition (best practice) with screws at 200mm centres. Check with fire-stopping manufacturer as requirement may vary
- 4 Indicative services independently supported
- 5 Suitable fire stopping material by others (see important information)
- 6 Short length of Gyproframe GA4 Steel Angle fixed to channels with suitable British Gypsum wafer head screws
- 7 Two layers Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300mm centres (200mm centres at external angles)
- 8 Isover insulation where required

Important information

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

- We would recommend the following substantiation is sought:
- Test should be full scale with suitable size openings
 - Test suitable for the required penetrating element and fire duration

This guidance is given with reference to British Gypsum partition systems and how to form openings. With regard to the selection of an appropriate fire stopping solution it is important that the fire stopping provider is aware of the partition system type that the opening has been created within so that they can confirm that the field of application of any proposed solution is approved for use within the specific partition type being utilised. This is important as fire stopping tests conducted within a standard flexible construction do not directly cover all end use conditions and may need to be considered by the fire stopping provider on a case by case basis

This detail is suitable for use as part of a fire rated element providing the penetration seal, access panel or door set has been tested within a flexible supporting construction

Field of application

The process of direct or extended application uses rules which are essentially based on a worst case scenario and interpolation techniques.

Fire rated doorset

A complete component designed and tested as a whole system.

Fire-stopping

A system used to maintain the fire resistance of a fire-separating element where services pass through.

Flexible supporting construction

Horizontal or vertical supporting construction consisting of studs, including linings and optional insulation.

Penetration

An aperture in a fire-separating element with one or more services passing through.

Penetration seal

A system used to maintain the fire resistance of a fire-separating element where services pass through.

Relevant Approving Authority

The body responsible for enforcing Building Regulations on a project.

Riser doors and access panels

Fire rated removable panels installed within a four sided aperture.

Structural post

Steel member designed and supplied by others to add to the structural performance of a partition.

System owner

Person or organisation who owns the performance evidence of a system.

Standards Referenced throughout this guidance;

- BS EN 1364-1:2015 Fire resistance tests for non-loadbearing elements, walls
- BS EN 1366-2:2015 Fire resistance tests for service installations, fire dampers
- BS EN 1366-3:2009 Fire resistance tests for service installations, penetration seals
- BS EN 1634-1:2014 Fire resistance tests for door and shutter assemblies
- BS 5234-2:1992 Partitions, specification for performance requirements for strength and robustness

DATE	CHANGES
12 April 2023	Detail 2, extra large openings
	Detail 4, large opening 62mm GypWall Shaft
	Detail 5, large opening GypWall Shaft
	Detail 7, multiple extra large openings
22 December 2023	Detail 8, reinstated 200mm dim above door



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