

Best practice guidance

Openings within fire rated systems

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Best practice guidance

Openings within fire rated systems

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. Deflection heads are shown as indicative only. Please refer to our Best Practice Guidance – Deflection Heads.

This guidance document does not currently cover fire and/or smoke dampers. Please refer to the fire damper manufacturer's installation guidance and fire test reports.

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@200 Pa and the stiffness requirements in accordance with BS 5234-2:1992.
- 1.3 The width of an opening is limited to the partial removal of a single Gypframe stud for partition systems with an overall width of 75 mm or more, and MEDIUM or HEAVY duty rating. Or the partial removal of maximum three Gypframe studs for

partition systems 100 mm wide or more, and SEVERE duty rating. The maximum opening width for any GypWall Shaft system is 1800 mm. The opening 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 600 mm (i.e. preventing a single full height Gypframe stud) should be no closer than 300 mm between openings. Where multiple wider openings occur (i.e. preventing up to three full height Gypframe studs) these should be no closer than 600 mm. Refer to details 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 200 mm.

TABLE 1: MAXIMUM OPENING WIDTHS FOR SYSTEMS75 MM OR MORE OVERALL THICKNESS. INCLUDINGGYPWALL SHAFT

GYPFRAME	PLASTERBOARD	CLEAR C	CLEAR OPENING WIDTH*		
STUD TYPE	REVEAL LINING (mm)	STUD CENTRES (mm)			
		600	400	300	
	Unlined	1161	761	561	
	1 x 12.5	1136	736	536	
Cuptrama (C)	2 x 12.5	1111	711	511	
Gypframe C	1 x 15	1131	731	531	
	2 x 15	1101	701	501	
	3 x 15	1071	671	471	
	Unlined	1162	762	562	
	1 x 12.5	1137	737	537	
Cupframe 'T'	2 x 12.5	1112	712	512	
Gypframe 1	1 x 15	1132	732	532	
	2 x 15	1102	702	502	
	3 x 15	1072	672	472	
	Unlined	1156	756	556	
	1 x 12.5	1131	731	531	
Gypframe	2 x 12.5	1106	706	506	
'AcouStud'	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

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 300 mm 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 detail 9.



TABLE 2: MAXIMUM OPENING WIDTHS FOR SYSTEMS100 MM OR MORE OVERALL THICKNESS AND SEVEREDUTY RATED. INCLUDING GYPWALL SHAFT UP TOMAXIMUM OPENING WIDTH 1800 MM

GYPFRAME	PLASTERBOARD	CLEAR OPENING WIDTH*		
STUD TYPE	REVEAL LINING (mm)	STUD CENTRES (mm)		
		600	400	300
	Unlined	2361	1561	1161
	1 x 15	2331	1531	1131
Gypframe 'C'	2 x 12.5	2311	1511	1111
·	2 x 15	2301	1501	1101
	3 x 15	2271	1471	1071
Gypframe 'I'	Unlined	2362	1562	1162
	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

- 3.3 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 assessement.
- 3.4 For riser doors and access panels where a four sided opening is required. Refer to detail 10.
- 3.5 Opening details within this guidance are generally suitable for use with fire-rated glazed screens which have been tested in an appropriate flexible supporting construction.

GypWall partitions 75 mm or more overall thickness

Small, medium and large openings for services





Large opening elevation (1:20)

One stud interrupted by opening

See Table 1 for clear opening widths

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

Medium opening elevation (1:20)

Between full height studs See Table 2 for clear opening widths

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



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)

Openings for services



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

GypWall partitions 100 mm or more overall thickness

and Severe Duty Rated

Extra large openings for services



Extra large opening elevation (1:20)

Three studs interrupted by opening See Table 1 for clear opening widths

TABLE 1: MAXIMUM CLEAR OPENING WIDTHS THREE STUDS INTERUPTED BY OPENING				
STUD TYPE	REVEAL LINING (mm)	CLEAR OPENING WIDTH (mm) STUD CENTRES (mm)		DTH (mm)
)
		600	400	300
'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
'I'	Unlined	2362	1562	1162
	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
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







Section B-B (1:5)



- 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 150 mm 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 200 mm 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 300 mm centres (200 mm centres at external angles)
- 8 Gypframe 'C' Stud inserted into channel and fixed through both flanges with suitable British Gypsum wafer head screws at 150 mm centres
- 9 Gypframe studs at specified centres fixed to transom/cill channel through both flanges with suitable British Gypsum wafer head screws
- 10 Maximum 550 mm partition height above extra large opening. The minimum partition height is 300 mm. Alternatively refer to three sided opening on Detail 11

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

GypWall Shaft Large openings for services



Framework elevation (1:20) Single stud interrupted by opening Opening width varies





Large opening for services



Section B-B



- 1 Gypframe 'I' Studs at 600 mm 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 150 mm 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 62 mm) sleeved over stud between returned channels at opening head and base
- 4 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 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 62 mm) fixed into channel top and bottom with suitable British Gypsum wafer head screws
- 7 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer between channels
- 8 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 11 Opening lined with same board as partition (best practice) with screws at 200 mm 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 600 mm centres
- 15 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer full opening width between studs

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

GypWall Shaft Extra large openings for services - 60 mm stud only (maximum 1800 mm)





Section B-B

Framework elevation (1:20) Two studs interrupted by opening

See Table 1 for clear opening widths



Plan A-A

Extra large opening for services

60 mm stud only Partitions with two or three layers of board

TABLE 1: MAXIMUM CLEAR OPENING WIDTHS TWO STUDS INTERUPTED BY OPENING			
STUD TYPE	REVEAL LINING (mm)	CLEAR OPENING WIDTH (mm)	
		STUD CENTRES (mm)	
		600	
Т	Unlined	1762	
	2 x 12.5	1612	
	2 x 15	1702	
	3 x 15	1672	



- 1 Gypframe 'I' Studs at 600 mm centres
- 2 Gypframe 'l' 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 150 mm centres
- 6 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 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 300 mm centres in two lines staggered by 150 mm
- 8 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer to full opening height
- 9 Gypframe Retaining Channel
- 10 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm
- 11 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm 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 550 mm partition height above extra large opening. The minimum partition height is 300 mm. Alternatively refer to three sided opening on Detail 11

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 should be tull 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

GypWall Shaft Extra large openings for services (maximum 1800 mm)





Section B-B

Framework elevation (1:20) Two studs interrupted by opening

See Table 1 for clear opening widths





Extra large opening for services

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

TABLE 1: MAXIMUM CLEAR OPENING WIDTHS TWO STUDS INTERUPTED BY OPENING			
STUD TYPE	REVEAL LINING (mm)	CLEAR OPENING WIDTH (mm)	
		STUD CENTRES (mm)	
		600	
Т	Unlined	1762	
	2 x 12.5	1612	
	2 x 15	1702	
	3 x 15	1672	



- Gypframe 'I' Studs at 600 mm centres
- 2 Gypframe 'I' Studs fixed to transom/cill channel through both flanges with suitable British Gypsum wafer head screws
- Gypframe Deep Flange Floor & Ceiling Channel sleeved over 3 stud between returned channels at opening head and base 4 Gypframe Extra Deep Flange Floor & Ceiling Channel cut and
- bent to extend 150 mm 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 150 mm centres
- 6 Gyproc CoreBoard 19mm or Glasroc F FireCase 20 mm packer inserted both sides of 'l' stud to full opening width and extended into jamb stud web
- 7 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer to full opening height
- Gypframe Retaining Channel
- 9 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm 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 550 mm partition height above extra large opening. The minimum partition height is 300 mm. Alternatively refer to three sided opening on Detail 11

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

Detail 6 GypWall systems



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

- 1 Gypframe studs at 600 mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 200 mm 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 300 mm centres (200mm centres at external angles)
- 9 Short length of Gypframe Folded Edge Standard Floor & Ceiling Channel fixed to trimming channels with suitable British Gypsum wafer head screws at 300 mm centres
- 10 Gypframe 'l' Stud
- 11 Gypframe Folded Edge Standard Floor & Ceiling Channel sleeved over stud between returned channels at opening head and base
- 12 Refer to three sided opening on Detail 11

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



Plan A-A (1:5) Nib between openings minimum 300 mm Use 'l' studs when less than 600 mm





GypWall partitions 100 mm or more overall thickness

& Severe Duty Rated

Multiple extra large openings for services









Framework elevation (1:20) Opening shown nominal 900 x 600mm

Opening for services above door

See separate drawing for door opening



Plan A-A (1:5)



Section B-B (1:5)



- 1 Gypframe studs at 600 mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 200 mm 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)
- Indicative timber door frame and architrave 7
- 8 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm 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 manufacture

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





300 mm wide margin between adjacent door openings

Maximum door weight 60 kg 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 300 mm centres (200 mm centres at external angles)
- 2 Gypframe 'C' Studs at 600 mm 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 150 mm centres (four total) and at 600 mm centres (in two lines staggered by 300 mm for 94 mm and 148 mm channels) thereafter. Channel cut and bent to extend 300 mm up stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Deep flange channel for heights between 4200 mm and 8000 mm or extra deep flange channel for heights over 8000 mm
- 6 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 30 mm (to suit 70/92/146 mm stud) to extend nominal 50 mm above opening height
- 10 Optional indicative timber insert 64/86/140 x 19 mm (to suit 70/92/146 mm stud) to extend nominal 50 mm above opening height
- 11 Do not interrupt studs at jamb
- 12 Dimension can be reduced to minimum 150 mm, if door manufacturer has tested adjacent doors closer than 300 mm



Plan A-A (1:5) Nib between openings minimum 300 mm Use 'l' studs when less than 600 mm



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

GypWall Shaft Adjacent door openings



Adjacent riser door openings



- 1 Gypframe 'I' Studs at 600 mm centres
- 2 Gypframe 'l' Stud at jamb
- 3 Gypframe Extra Deep Flange Floor & Ceiling 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 200 mm 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 150 mm centres
- 6 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 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 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 11 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 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 'l' 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 5 mm
- 19 Indicative skirting
- 20 Gypframe Folded Edge Standard Floor & Ceiling Channel suitably fixed to floor with two pairs of fixings at 150 mm centres (four total) and at 600 mm centres (in two lines staggered by 300 mm for 94 mm and 148 mm channels) thereafter. Channel cut and bent to extend 300 mm up stud and fixed through both flanges with two suitable British Gypsum wafer head screws. Deep flange channel for heights between 4200 mm and 8000 mm or extra deep flange channel for heights over 8000 mm
- 21 Suggested construction when less than 150 mm
- 22 Indicative line of raised access floor
- 23 Dimension can be reduced to minimum 150 mm, if door manufacturer has tested adjacent doors closer than 300 mm

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

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 150 mm 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 200 mm 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 600 mm centres (in two lines staggered by 300 mm for 94 mm and 148 mm 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 300 mm centres (200 mm centres at external angles)
- 10 Separate section of fire stopping material in deflection zone by others (see important information)





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Section A-A (1:5)



Framework elevation

Section B-B (1:5)

Three sided opening for services at deflection head

One stud interrupted by opening See Table 1 for opening widths



TABLE 1: MAXIMUM CLEAR OPENING WIDTHS ONE STUD INTERUPTED BY OPENIN

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

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 utililsed. 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 fire stopping manufacturer should confirm capability of the fire stopping material to accommodate the specified deflection and their installation instructions must be followed



GypWall systems Openings at partition junctions



Opening for services at partition junction

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



- 1 Gypframe studs at 600 mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 200 mm 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 300 mm centres (200 mm centres at external angles)
- 9 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 600 mm centres (in two lines staggered by 300 mm for 92 mm and 146 mm studs)
- 11 Additional Gypframe stud at junction (two for 92 mm and 146 mm 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



GypWall systems Openings at partition junctions



Opening for services at partition junction

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



- 1 Gypframe studs at 600 mm centres
- 2 Gypframe 'C' Stud at jamb
- 3 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 200 mm 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 300 mm centres (200 mm centres at external angles)
- 9 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 600 mm centres (in two lines staggered by 300 mm for 92 mm and 146 mm studs)
- 11 Additional Gypframe stud at junction (two for 92 mm and 146 mm 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



GypWall Shaft Openings at partition junctions





Framework elevation (1:20) Opening width framing only 1181 mm Opening width lined with two layers 12.5 mm board 115 6mm





Section C-C (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



- 1 Gypframe 'I' Studs at 600 mm centres
- 2 Gypframe Starter Channel (Gypframe Tabbed Starter Channel for 146 mm) fixed through to studs with suitable British Gypsum at 600 mm centres
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62 mm) cut and bent to extend 150 mm 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 62 mm) 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 200 mm centres. Check with fire stopping manufacturer as requirement may vary
- 8 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm
- 9 Gypframe Retaining Channel
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 11 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer full opening height
- 12 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer full opening width between studs
- 13 One layer Gyproc plasterboard or Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 14 Gypframe studs at 600 mm centres
- 15 Additional Gypframe stud at junction (two for 92 mm and 146 mm 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



GypWall Shaft Openings at partition junctions





Framework elevation (1:20) Opening width framing only 1101 mm Opening width lined with two layers 12.5 mm board 1051 mm





Section C-C (1:5)

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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



- Gypframe 'I' Studs at 600 mm centres
- Gypframe Starter Channel (Gypframe Tabbed Starter Channel 2 for 146 mm) fixed through to studs with suitable British Gypsum at 600 mm centres
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Channel (Gypframe 'J' Channel for 62 mm) cut and bent to extend 150 mm 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 62 mm) 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 200 mm centres. Check with fire stopping manufacturer as requirement may vary
- 8 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm
- Gypframe Retaining Channel 9
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 11 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer full opening height
- 12 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm packer full opening width between studs
- 13 One layer Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 14 Gypframe 'C' Studs at 600 mm centres
- 15 Additional Gypframe stud at junction (two for 92 mm and 146 mm studs in adjacent partition)
- 16 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 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 manufacture

- 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 utililsed. 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



GypWall Shaft Openings at partition junctions





Framework elevation (1:20)

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

Framework elevation (1:20) Opening width framing only 745 mm Opening width lined with two layers 12.5 mm board 695 mm



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







- Gypframe 'I' Studs at 600 mm centres 1
- Gypframe 'I' Stud at jamb 2
- 3 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62 mm) cut and bent to extend 150 mm 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 200 mm centres. Check with door manufacturer as requirement may vary
- Indicative services independently supported 5
- Suitable fire stopping material by others (see important 6 information)
- 7 Gypframe Deep Flange Floor & Ceiling Channel or Gypframe Extra Deep Flange Floor & Ceiling Channel (Gypframe 'J' Channel for 62 mm) sleeved over stud between returned channels at opening head and base
- Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 8 Gypframe Retaining Channel 9
- 10 Two layers Gyproc plasterboard of Glasroc specialist board fixed with suitable British Gypsum screws at 300 mm centres (200 mm centres at external angles)
- 11 Gyproc CoreBoard 19 mm or Glasroc F FireCase 20 mm 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 300 mm centres (200 mm centres at external angles)
- 15 Gypframe 'C' Stud fixed through board to stud with suitable British Gypsum screws at 600 mm 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 utililised. 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 require

Detail 17 GypWall Twin Frame Braced



Opening width framing only 561 x 300 mm

Opening width lined with two layers 15 mm board 501 x 240 mm



Small 'letter box' opening for services

Frame opening size shown nominally 600 x 300 mm



- 1 Two lines of Gypframe 'C' Studs at specified centres cross braced with Gypframe 99 FC 50 Fixing Channel at 1200 mm centres (staggered by 600 mm between stud pairs for heights over 2400 mm) fixed to each stud with two suitable British Gypsum wafer head screws
- 2 Gypframe Folded Edge Standard Floor & Ceiling Channel cut and bent to extend 150 mm 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 200 mm 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 Gypframe 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 300 mm centres (200 mm centres at external angles)
- 8 Isover insulation where required

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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 utililsed. 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

Glossary of terms

Revisions

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 nonloadbearing 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	
DATE	CHANGES
12 April 2023	Detail 2, extra large openings
	Detail 4, large opening 62 mm GypWall S
	Detail 5, large opening GypWall Shaft
	Detail 7, multiple extra large openings
22 December 2023	Detail 8, reinstated 200 mm dim above o
4 February 2025	Page 2, reference to deflection heads add
	Page 3, added para 3.5
	Detail 9, amendment to door nib demens
	Detail 10, amendment to door nib dimens
	Detail 11, clarity on deflection requiremen



Shaft
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nts for three sided openings.



British Gypsum

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 bsi.
 ISO 9001 Quality Management
 ISO 45001 Occupational Health and Safety Management
 ISO 14001 Environmental Management
 ISO 50001 Environmental Management

 FM550533
 OH5550586
 EM5543324
 ENMS606206

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