ShaftWall

Shaft and duct encasement system

SpecSure®
GYPROC SYSTEMS GUARANTEE

ShaftWall

ShaftWall provides a lightweight, fire resistant structure from 60 up to 120 minutes to protect elements in confined spaces wherever access is limited to one side only.

60 – 120 mins

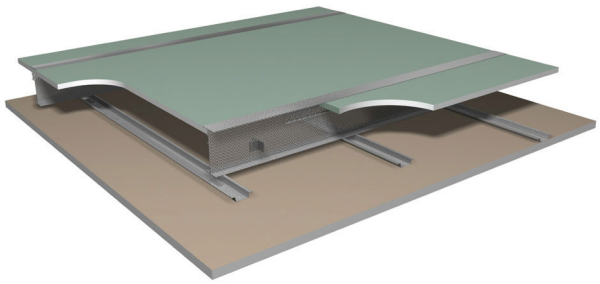
38 – 52 R_w dB

SpecSure®

Refer to C01. S01. P08

The system provides a protective structure which can be incorporated at an early stage of the construction without the need for scaffolding.

The system can also be built horizontally to provide a fire rated membrane.



Key benefits

- Horizontal membranes are built entirely from below
- A **ShaftWall** variant with non-combustible Glasroc F FireCase board linings is available
- Commonality with **GypWall** partition components, particularly 70mm stud solutions
- Higher certainty of installed acoustic performance due to laboratory tests incorporating deflection heads
- Can be used where access is limited to one side at the head, e.g. M & E cages already installed in corridors

Saint-Gobain Ireland may provide relevant test report evidence on request. Please contact our Technical Department
tech.ie@saint-gobain.com

You may also be interested in...

For assistance in choosing the right solution for your project, try **our System Selector**; an online tool that enables quick and easy filtering by performance criteria. It provides system specific downloads including:

- BIM (Revit) objects
- Specification Clauses
- System and product data sheets

▶ Refer to gyproc.ie

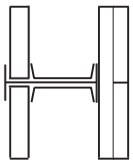
ShaftWall performance

Vertical elements

For details of when to specify fire resistance using EN
Refer to **C02. S01. P18**

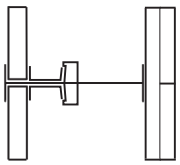
Table 1a — Solutions to satisfy the requirements of *BS EN 1364-1: 1999*

1



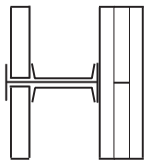
Gypframe 60, 70 or 92mm 'I' Stud framework with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

2



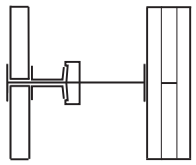
Gypframe 146 TI 90 Tabbed 'I' Stud framework with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

3



Gypframe 60, 70 or 92mm 'I' Stud framework with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

4



Gypframe 146 TI 90 Tabbed 'I' Stud framework with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

Detail	Partition thickness mm	Lining boards to non-shaft side[1]		Max. partition height[2] mm	Stud size mm	Sound insulation R_wdB[3]		Duty rating[5]	Approx. weight kg/m²	System reference
		Board type	Lining thickness mm			No insulation	Sealed structure plus 25mm Isover Acoustic Roll[4]			
60 minutes fire resistance EN										
1	87	Gyproc FireLine	2 x 12.5	4400	60	40	44	Severe	39	A306002/012
1	97	Gyproc FireLine	2 x 12.5	4400	70	40	44	Severe	39	A306002/012
1	119	Gyproc FireLine	2 x 12.5	6000	92	45	47	Severe	40	A306005/014
2	173	Gyproc FireLine	2 x 12.5	6000	146	48	52	Severe	42	A306008/020
90 minutes fire resistance EN										
1	92	Gyproc FireLine	2 x 15	4500	60	42	45	Severe	43	A306003/023
1	102	Gyproc FireLine	2 x 15	4500	70	42	45	Severe	43	A306003/023
1	124	Gyproc FireLine	2 x 15	6000	92	44	46	Severe	44	A306006/025
2	178	Gyproc FireLine	2 x 15	6000	146	48	50	Severe	46	A306009/028
120 minutes fire resistance EN										
3	107	Gyproc FireLine	3 x 15	4500	60	43	45	Severe	55	A306030/035
3	117	Gyproc FireLine	3 x 15	4500	70	43	45	Severe	55	A306030/035
3	139	Gyproc FireLine	3 x 15	6000	92	45	46	Severe	56	A306031/036
4	193	Gyproc FireLine	3 x 15	6000	146	49	50	Severe	58	A306032/033

For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

1 For improved durability and impact resistance, the outer layer of Gyproc FireLine can be replaced with a layer of 15mm Gyproc DuraLine.
2 The maximum heights quoted are limited by the fire state field of application or by limiting deflection of L/240 at 200 Pa, whichever is the more onerous.
3 The acoustic performance figures quoted include **ShaftWall** partitions with deflection heads.
4 Gyproc CoreBoard and first layer of lining board are bedded onto Gyproc Sealant, as required for pressurised air shafts, in addition to normal sealing.
5 Estimated rating from non-shaft side only.

NB Fire resistance and sound insulation performances are for imperforate partitions, but incorporating deflection heads, with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at the head. For the base Gypframe Folded Edge Standard Floor & Ceiling Channel should be used for heights up to 4200mm, Gypframe Deep Flange Floor & Ceiling Channel should be used for heights between 4200mm and 8000mm, Gypframe Extra Deep Flange Floor & Ceiling Channel should be used for heights in excess of 8000mm.

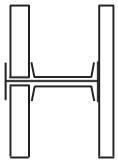
ShaftWall performance (continued)

Vertical elements

For details of when to specify fire resistance using BS
▶ Refer to **C02. S01. P18**

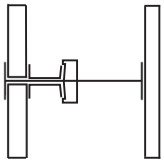
Table 1b — Solutions to satisfy requirements of *BS 476: Part 22: 1987*

1



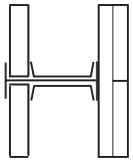
' Studframe 60, 70 or 92mm C
in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

2



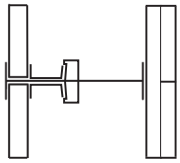
Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres. Gypframe 146 T

3



Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

4



' Studframe 146 T with 2 layers of CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity. Lining boards to non-shaft side, see table. Studs at 600mm centres.

Detail	Partition thickness mm	Lining boards to non-shaft side[1]		Max. partition height[2] mm	Stud size mm	Sound insulation R_w dB[3]		Duty rating[5]	Approx. weight kg/m²	System reference
		Board type	Lining thickness mm			No insulation	Sealed structure plus 25mm Isover Acoustic Roll[4]			
(60)/30 minutes fire resistance BS (exposure to fire from shaft side)										
1	77	Gyproc FireLine	1 x 15	4200	60	39	42	Heavy	30	A306001/010
1	87	Gyproc FireLine	1 x 15	4200	70	39	42	Heavy	30	A306001/010
1	109	Gyproc FireLine	1 x 15	6000	92	40	43	Heavy	31	A306004/011
2	163	Gyproc FireLine	1 x 15	7700	146	43	46	Heavy	33	A306007/013
(90)/60 minutes fire resistance BS (exposure to fire from shaft side)										
1	87	Gyproc FireLine	2 x 12.5	4400	60	40	44	Severe	39	A306002/012
1	97	Gyproc FireLine	2 x 12.5	4400	70	40	44	Severe	39	A306002/012
1	119	Gyproc FireLine	2 x 12.5	6400	92	45	47	Severe	40	A306005/014
2	173	Gyproc FireLine	2 x 12.5	7900	146	48	52	Severe	42	A306008/020
(120)/90 minutes fire resistance BS (exposure to fire from shaft side)										
3	92	Gyproc FireLine	2 x 15	4500	60	42	45	Severe	43	A306003/023
3	102	Gyproc FireLine	2 x 15	4500	70	42	45	Severe	43	A306003/023
3	124	Gyproc FireLine	2 x 15	6700	92	44	46	Severe	44	A306006/025
4	178	Gyproc FireLine	2 x 15	7900	146	48	50	Severe	46	A306009/028

▶ For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to Gyproc.ie

[1] For improved durability and impact resistance, the outer layer of Gyproc FireLine can be replaced with a layer of 15mm Gyproc DuraLine.
[2] Based on limiting deflection of L/240 at 200 Pa.
[3] The acoustic performance figures quoted include **ShaftWall** partitions with deflection heads.
[4] Gyproc CoreBoard and first layer of lining board are bedded onto Gyproc Sealant, as required for pressurised air shafts, in addition to normal sealing.
[5] Estimated rating from non-shaft side only.

NB The fire resistance and sound insulation performances are for imperforate partitions, but incorporating deflection heads, with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

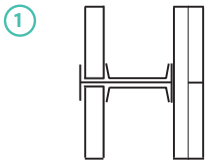
NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at the head. For the base Gypframe Folded Edge Standard Floor & Ceiling Channel should be used for heights up to 4200mm, Gypframe Deep Flange Floor & Ceiling Channel should be used for heights between 4200mm and 8000mm, Gypframe Extra Deep Flange Floor & Ceiling Channel should be used for heights in excess of 8000mm.

ShaftWall performance (continued)

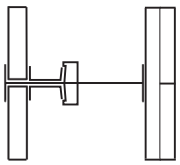
Vertical elements — non-combustible board linings

For details of when to specify fire resistance using EN
▶ Refer to **C02. S01. P18**

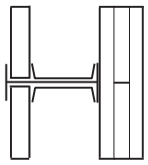
Table 2a — Solutions to satisfy the requirements of *BS EN 1364-1: 1999*



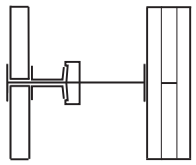
Gypframe 60, 70 or 92mm 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.



Gypframe 146 TI 90 Tabbed 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.



Gypframe 60, 70 or 92mm 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.



Gypframe 146 TI 90 Tabbed 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

Detail	Partition thickness mm	Lining boards to non-shaft side[1]		Max. partition height[2] mm	Stud size mm	Sound insulation R_w dB[3]		Duty rating[5]	Approx. weight kg/m²	System reference
		Board type	Lining thickness mm			No insulation	Sealed structure plus 25mm Isover Acoustic Roll[4]			
90 minutes fire resistance EN										
1	92	Glasroc F firecase	2 x 15	4500	60	41	44	Severe	46	G306003/023
1	102	Glasroc F firecase	2 x 15	4500	70	41	44	Severe	46	G306003/023
1	124	Glasroc F firecase	2 x 15	6000	92	43	45	Severe	47	G306006/025
2	178	Glasroc F firecase	2 x 15	6000	146	47	49	Severe	49	G306009/028
120 minutes fire resistance EN										
3	107	Glasroc F firecase	3 x 15	4500	60	42	44	Severe	59	G306030/035
3	117	Glasroc F firecase	3 x 15	4500	70	42	44	Severe	59	G306030/035
3	139	Glasroc F firecase	3 x 15	6000	92	44	45	Severe	60	G306031/036
4	193	Glasroc F firecase	3 x 15	6000	146	48	49	Severe	62	G306032/033

▶For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

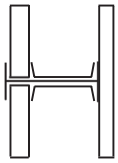
[1] For a non-combustible solution on the shaft side use only the Glasroc F firecase. On the non-shaft side this can be replaced with a layer of 15mm Gyproc FireLine or Gyproc DuraLine.
[2] The maximum heights quoted are limited by the fire state field of application or by limiting deflection of L/240 at 200 Pa, whichever is the more onerous.
[3] The acoustic performance figures quoted include **ShaftWall** partitions with deflection heads.
[4] 20mm Glasroc F firecase and first layer of lining board are bedded onto Gyproc Sealant, as required for pressurised air shafts, in addition to normal sealing.
[5] Estimated rating from non-shaft side only.

NB The fire resistance and sound insulation performances are for imperforate partitions, but incorporating deflection heads, with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

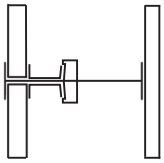
NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at the head. For the base Gypframe Folded Edge Standard Floor & Ceiling Channel should be used for heights up to 4200mm, Gypframe Deep Flange Floor & Ceiling Channel should be used for heights between 4200mm and 8000mm, Gypframe Extra Deep Flange Floor & Ceiling Channel should be used for heights in excess of 8000mm.

For details of when to specify fire resistance using BS
▶ Refer to **C02. S01. P18**

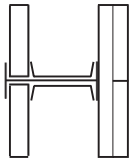
Table 2b — Solutions to satisfy requirements of *BS 476: Part 22: 1987*

① 

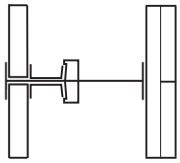
Gypframe 60, 70 or 92mm 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

② 

Gypframe 146 TI 90 Tabbed 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

③ 

Gypframe 60, 70 or 92mm 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

④ 

Gypframe 146 TI 90 Tabbed 'I' Stud framework with 20mm Glasroc F firecase between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Lining boards to non-shaft side, see table. Studs at 600mm centres.

Detail	Partition thickness mm	Lining boards to non-shaft side[1]		Max. partition height[2] mm	Stud size mm	Sound insulation R_w dB[3]		Duty rating[5]	Approx. weight kg/m²	System reference
		Board type	Lining thickness mm			No insulation	Sealed structure plus 25mm Isover Acoustic Roll[4]			
(60)/30 minutes fire resistance BS (exposure to fire from shaft side)										
①	77	Glasroc F firecase	1 x 15	4200	60	38	41	Heavy	32	G306001/010
①	87	Glasroc F firecase	1 x 15	4200	70	38	41	Heavy	32	G306001/010
①	109	Glasroc F firecase	1 x 15	6000	92	39	42	Heavy	33	G306004/011
②	163	Glasroc F firecase	1 x 15	7700	146	42	45	Heavy	35	G306007/013
(90)/60 minutes fire resistance BS (exposure to fire from shaft side)										
①	92	Glasroc F firecase	2 x 15	4500	60	41	44	Severe	46	G306003/023
①	102	Glasroc F firecase	2 x 15	4500	70	41	44	Severe	46	G306003/023
①	124	Glasroc F firecase	2 x 15	6400	92	43	45	Severe	47	G306006/025
②	178	Glasroc F firecase	2 x 15	7900	146	47	49	Severe	49	G306009/028
(120)/90 minutes fire resistance BS (exposure to fire from shaft side)										
③	92	Glasroc F firecase	2 x 15	4500	60	41	44	Severe	46	G306003/023
③	102	Glasroc F firecase	2 x 15	4500	70	41	44	Severe	46	G306003/023
③	124	Glasroc F firecase	2 x 15	6700	92	43	45	Severe	47	G306006/025
④	178	Glasroc F firecase	2 x 15	7900	146	47	49	Severe	49	G306009/028

▶ For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

[1] For a non-combustible solution on the shaft side use only the Glasroc F firecase. On the non-shaft side this can be replaced with a layer of 15mm Gyproc FireLine or Gyproc DuraLine.
[2] Based on limiting deflection of L/240 at 200 Pa.
[3] The acoustic performance figures quoted include **ShaftWall** partitions with deflection heads.
[4] 20mm Glasroc F firecase and first layer of lining board are bedded onto Gyproc Sealant, as required for pressurised air shafts, in addition to normal sealing.
[5] Estimated rating from non-shaft side only.

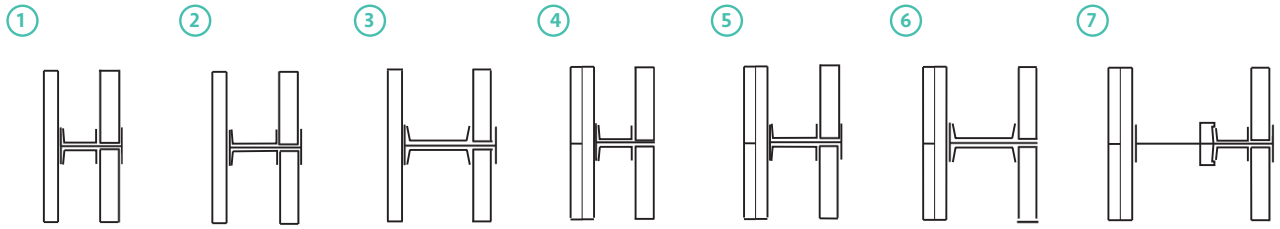
NB Fire resistance and sound insulation performances are for imperforate partitions, but incorporating deflection heads, with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at the head. For the base Gypframe Folded Edge Standard Floor & Ceiling Channel should be used for heights up to 4200mm, Gypframe Deep Flange Floor & Ceiling Channel should be used for heights between 4200mm and 8000mm, Gypframe Extra Deep Flange Floor & Ceiling Channel should be used for heights in excess of 8000mm.

ShaftWall performance (continued)

Vertical elements

Table 3 — Limiting heights at various air pressure and allowable deflections



1 Gypframe 60 I 70 'I' Stud framework with one layer of 15mm Gyproc FireLine[1].

2 Gypframe 70 I 70 'I' Stud framework with one layer of 15mm Gyproc FireLine[1].

3 Gypframe 92 I 90 'I' Stud framework with one layer of 15mm Gyproc FireLine[1].

4 Gypframe 60 I 70 'I' Stud framework with two layers of 12.5mm Gyproc FireLine[1].

5 Gypframe 70 I 70 'I' Stud framework with two layers of 12.5mm Gyproc FireLine[1].

6 Gypframe 92 I 90 'I' Stud framework with two layers of 12.5mm Gyproc FireLine[1].

7 Gypframe 146 TI 90 Tabbed 'I' Stud framework with two layers of 12.5mm Gyproc FireLine[1].

Detail	System	Allowable deflection	Limiting height (mm) at stated air pressure (Pa)									System reference
			200	240	300	360	400	480	500	600	650	
1	ShaftWall	L/125	5000	4700	4400	4100	4000	3800	3700	3500	3400	A306001/010
		L/240	4200	4000	3700	3500	3300	3200	3100	2900	2800	
		L/360	3700	3500	3300	3100	2900	2800	2700	2600	2500	
2	ShaftWall	L/125	5000	4700	4400	4100	4000	3800	3700	3500	3400	Based on A306001/010
		L/240	4200	4000	3700	3500	3300	3200	3100	2900	2800	
		L/360	3700	3500	3300	3100	2900	2800	2700	2600	2500	
3	ShaftWall	L/125	7500	7100	6600	6200	6000	5700	5500	5200	5100	A306004/011
		L/240	6000	5700	5300	5000	4800	4600	4400	4200	4100	
		L/360	5200	4900	4600	4300	4200	4000	3900	3600	3500	
4	ShaftWall	L/125	5200	4900	4600	4300	4200	4000	3800	3600	3500	A306002/012
		L/240	4400	4100	3800	3600	3500	3300	3200	3000	2900	
		L/360	3800	3600	3300	3100	3000	2900	2800	2600	2500	
5	ShaftWall	L/125	5200	4900	4600	4300	4200	4000	3800	3600	3500	Based on A306002/012
		L/240	4400	4100	3800	3600	3500	3300	3200	3000	2900	
		L/360	3800	3600	3300	3100	3000	2900	2800	2600	2500	
6	ShaftWall	L/125	7900	7400	6900	6500	6300	5900	5800	5500	5300	A306005/014
		L/240	6400	6000	5600	5200	5000	4800	4700	4400	4300	
		L/360	5600	5200	4900	4600	4400	4200	4100	3900	3800	
7	ShaftWall	L/125	9800	9200	8600	8100	7800	7300	7200	6800	6600	A306008/020
		L/240	7900	7400	6900	6500	6200	6000	5800	5500	5300	
		L/360	6900	6500	6000	5600	5500	5200	5100	4800	4600	

For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

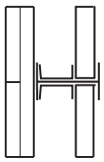
[1] Gyproc FireLine can be replaced with Gyproc DuraLine or Glasroc F firecase.

ShaftWall performance (continued)

Vertical elements

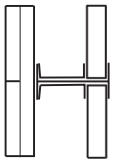
Table 3 — Limiting heights at various air pressure and allowable deflections (continued)

8



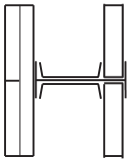
Gypframe 60 I 70 'I' Stud framework with two layers of 15mm Gyproc FireLine[1].

9



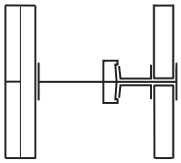
Gypframe 70 I 70 'I' Stud framework with two layers of 15mm Gyproc FireLine[1].

10



Gypframe 92 I 90 'I' Stud framework with two layers of 15mm Gyproc FireLine[1].

11



Gypframe 146 TI 90 Tabbed 'I' Stud framework with two layers of 15mm Gyproc FireLine[1].

Detail	System	Allowable deflection	Limiting height (mm) at stated air pressure (Pa)									System reference
			200	240	300	360	400	480	500	600	650	
8	ShaftWall	L/125	5200	4900	4600	4300	4100	4000	3800	3600	3500	A306003/023
		L/240	4500	4200	3900	3700	3500	3400	3300	3100	3000	
		L/360	3900	3700	3400	3200	3100	3000	2900	2700	2600	
9	ShaftWall	L/125	5200	4900	4600	4300	4100	4000	3800	3600	3500	Based on A306003/023
		L/240	4500	4200	3900	3700	3500	3400	3300	3100	3000	
		L/360	3900	3700	3400	3200	3100	3000	2900	2700	2600	
10	ShaftWall	L/125	8400	7900	7300	6900	6600	6300	6200	5800	5600	A306006/025
		L/240	6700	6300	5900	5500	5300	5100	5000	4700	4500	
		L/360	5600	5300	4900	4600	4500	4200	4100	3900	3800	
11	ShaftWall	L/125	9900	9300	8600	8100	7800	7400	7200	6800	6600	A306009/028
		L/240	7900	7400	6900	6500	6300	6000	5800	5500	5300	
		L/360	6900	6500	6000	5700	5500	5200	5100	4800	4700	

For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

These tables give the limiting heights for **ShaftWall** systems when subjected to air pressures ranging from 200 Pa through to 650 Pa and at three allowable deflection levels - L/125, L/240, L/360. Partition heights are normally quoted for air pressures of 200 Pa at an allowable deflection of L/240.

When the fire performance of **ShaftWall** is specified in terms of *EN 1364-1: 1999*, then the maximum height cannot exceed that given in the relevant table in this book, irrespective of air pressure or allowable deflection.

[1] Gyproc FireLine can be replaced with Gyproc DuraLine or Glasroc F firecase.

NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at the head. For the base Gypframe Folded Edge Standard Floor & Ceiling Channel should be used for heights up to 4200mm, Gypframe Deep Flange Floor & Ceiling Channel should be used for heights between 4200mm and 8000mm, Gypframe Extra Deep Flange Floor & Ceiling Channel should be used for heights in excess of 8000mm.

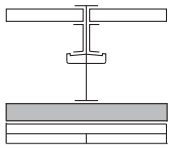
ShaftWall performance (continued)

Horizontal elements

For details of when to specify fire resistance using EN
▶ Refer to **C02. S01. P18**

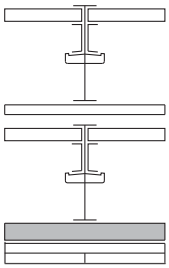
Table 4a – Solutions to satisfy the requirements of *BS EN 1364-2: 1999*

1



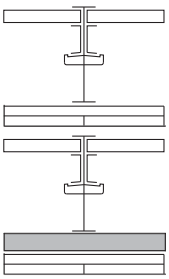
Gypframe 60, 70 or 92mm 'I' Stud or Gypframe 146 TI 90 Tabbed 'I' Stud frames at 600mm centres with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Gypframe MF5 Ceiling Sections fixed to ceiling side at 450mm centres. Lining boards to ceiling side, see table.

2



Two Gypframe 146 TI 90 Tabbed 'I' Stud frames at 600mm centres with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). On the lower framework only, Gypframe MF5 Ceiling Sections fixed to ceiling side at 450mm centres. Lining boards to ceiling side, see table.

3



Two Gypframe 146 TI 90 Tabbed 'I' Stud frames at 600mm centres with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). On the lower framework only, Gypframe MF5 Ceiling Sections fixed to ceiling side at 450mm centres. Lining boards to ceiling side, see table.

Detail	Thickness mm	Lining boards to non-shaft side		Max. span[1] mm	Stud size mm	Sound insulation R_wdB		Approx. weight kg/m²	System reference
		Board type	Lining thickness mm			No insulation	Sealed structure plus 25mm Isover Acoustic Roll		
60 minutes fire resistance EN									
1	120	Gyproc FireLine	2 x 15	2500	60	42	45	39	C106053
1	130	Gyproc FireLine	2 x 15	2800	70	42	45	39	C106053
1	152	Gyproc FireLine	2 x 15	3000	92	44	46	39	C106054
1	206	Gyproc FireLine	2 x 15	4000	146	48	50	39	C106055
90 minutes fire resistance EN									
2	397	Gyproc FireLine upper frame Gyproc FireLine lower frame	1 x 15 2 x 15	4400	146	48	50	77	C106057
120 minutes fire resistance EN									
3	422	Gyproc FireLine upper frame Gyproc FireLine lower frame	2 x 15 2 x 15	4000	146	48	50	88	C106056

▶For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

[1] Based on fire state field of application, or by a limiting deflection of L/400, whichever is greater.

NB Fire resistance and sound insulation performances are for imperforate ceilings incorporating boards, with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB ShaftWall used horizontally should not be used for materials storage or access for personnel, or to provide support to services.

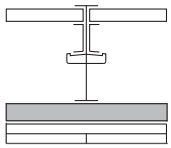
NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at perimeter.

Horizontal elements

For details of when to specify fire resistance using BS
▶ Refer to **C02. S01. P18**

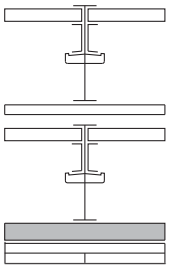
Table 4b – Solutions to satisfy requirements of *BS 476: Part 22: 1987*

1



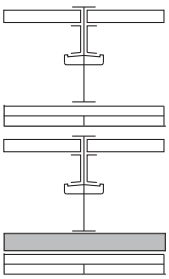
Gypframe 60, 70 or 92mm 'I' Stud or Gypframe 146 TI 90 Tabbed 'I' Stud frames at 600mm centres with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). Gypframe MF5 Ceiling Sections fixed to ceiling side at 450mm centres. Lining boards to ceiling side, see table.

2



Two Gypframe 146 TI 90 Tabbed 'I' Stud frames at 600mm centres with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). On the lower framework only, Gypframe MF5 Ceiling Sections fixed to ceiling side at 450mm centres. Lining boards to ceiling side, see table.

3



Two Gypframe 146 TI 90 Tabbed 'I' Stud frames at 600mm centres with Gyproc CoreBoard between studs, secured by Gypframe Retaining Channel. 25mm Isover Acoustic Roll in cavity (optional). On the lower framework only, Gypframe MF5 Ceiling Sections fixed to ceiling side at 450mm centres. Lining boards to ceiling side, see table.

Detail	Thickness mm	Lining boards to non-shaft side		Max. span[1] mm	Stud size mm	Sound insulation R_wdB		Approx. weight kg/m²	System reference
		Board type	Lining thickness mm			No insulation	Sealed structure plus 25mm Isover Acoustic Roll		
60 minutes fire resistance BS									
1	120	Gyproc FireLine	2 x 15	2500	60	42	45	39	C106053
1	130	Gyproc FireLine	2 x 15	2800	70	42	45	39	C106053
1	152	Gyproc FireLine	2 x 15	3700	92	44	46	39	C106054
1	206	Gyproc FireLine	2 x 15	5100	146	48	50	39	C106055
90 minutes fire resistance BS									
2	397	Gyproc FireLine upper frame Gyproc FireLine lower frame	1 x 15 2 x 15	5100	146	48	50	77	C106057
120 minutes fire resistance BS									
3	422	Gyproc FireLine upper frame Gyproc FireLine lower frame	2 x 15 2 x 15	5100	146	48	50	88	C106056

▶ For further assistance in choosing the right solution for your project, try our System Selector; an online tool that enables quick and easy filtering by performance criteria. It provides system specific information downloads including BIM (Revit) objects. Go to gyproc.ie

[1] Based on a limiting deflection of L/400.

NB Fire resistance and sound insulation performances are for imperforate ceilings incorporating boards, with all joints taped and filled, or skimmed according to Gyproc's recommendations. The quoted performances are achieved only if Gyproc and Isover components are used throughout, and the Company's fixing recommendations are strictly observed. Any variation in the specifications should be checked with Gyproc.

NB **ShaftWall** used horizontally should not be used for materials storage or access for personnel, or to provide support to services.

NB Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel should be used at perimeter.

ShaftWall design

Building design

ShaftWall comprises Gypframe 'I' Studs and Gypframe Starter Channels within Gypframe Floor & Ceiling Channels.

The shaft-side boards are retained between the Gypframe Floor & Ceiling Channels and adjacent studs using Gypframe Retaining Channels; which enables construction from the side only.

Planning – key factors

The position of services should be pre-determined and their installation planned into the frame erection stage. Timber sole plates should be considered, if appropriate, where the floor is uneven.

▶ Refer to C02. S01. P41 – Service installations.

Important information

When exposed to fire from the corridor side in accordance with *BS 476: Part 22,* an insulation failure will occur. If relaxation from Building Control is not given and a full fire rating (insulation and integrity) is required in both directions, the following options are available:

- Use equivalent *EN 1364-1* specification, e.g. if 60 minutes *BS 476: Part 22* performance is required, use a 60 minutes *EN 1364-1* specification
- Specify the next level of fire performance from BS table, e.g. if 60 minutes *BS 476: Part 22* performance is required, use a 90 minute *BS 476: Part 22* specification[1]

It is important that a good standard of control is exercised on site to ensure that the adoption of drylining techniques at such an early stage of construction is fully integrated into the site planning programme. If the building envelope is left unsealed while **ShaftWall** is under construction, Gyproc FireLine mr, Gyproc DuraLine mr or Glasroc F firecase should be used for the lining. All penetrations will need to be adequately fire-stopped.

Important information

For **ShaftWall** systems utilising Gypframe 60 I 70 'I' Studs, Gypframe 62 JC 70 'J' Channel with its asymmetrical legs is needed at the head to facilitate the installation of the Gyproc CoreBoard. The shorter leg is installed facing the non-shaft side. For **ShaftWall** systems that use wider Gypframe 'I' studs, the appropriate Gypframe Extra Deep Flange Floor and Ceiling Channel should be used.

Fixing the floor channel

The floor channel must have continuous support along its length to maintain specified performance levels. If continuous support is not provided by the structure, e.g. Z-sections running transverse to a steel beam, the designer should detail the installation of a rigid non-combustible material between the Z-sections. Z-sections need to be protected and remain in-situ in the event of a fire, taking into account any loads they are supporting.

In situations where the floor channel is fixed to diagonal structural steel, the studs should be accurately scribed to the rake of the channel to maintain the full bearing surface.

Fixing to metal decking

Where **ShaftWall** is to be located transverse to the profiles of the decking, all slots or perforations above the head channel should be sealed using a proprietary fire barrier or fire spray. Fire-stopping material can be applied prior to the head channel being positioned, providing that any surplus is removed flush with the steel decking.

Fixing to structural steel encasements

Where **ShaftWall** abuts a column or beam encasement, the framing will generally require fixing to the structural steelwork.

Where **ShaftWall** abuts the web of the steelwork a Z-section can be located to provide a fixing point level with the flanges of the steelwork. With **FireCase** encasements, where fire resistance up to 60 minutes and a Light or Medium Duty Rating to *BS 5234* is required, it is possible to fix directly to the board cladding subject to fire resistance and loading criteria.

▶ Refer to C03. S02. P84 – **FireCase** construction details.

Handy hint

Where the floor channel is not fully supported, e.g. at the edge of a floor slab, Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel must be used with a continuous 19mm Gyproc CoreBoard fire stop inserted into the base of the channel. The maximum allowable overhang is 25% of the floor channel width.

Limiting heights at different air pressures

The maximum heights quoted in the performance tables for vertical elements are based on a limiting deflection of L/240 at 200 Pa, or by the fire state field of application. In practice, deflection from L/125 to L/360 may be allowed and pressure conditions between 200 Pa and 650 Pa may be encountered. These variations will affect the maximum wall height. Refer to table 3.

[1] Where 120 mins is required to *BS 476: Part 22,* replace the inner layer of 15mm Gyproc FireLine (corridor side) with 19mm Gyproc CoreBoard, fixed horizontally.

ShaftWall design (continued)

Connection to the structure

Structural steelwork and its associated connections often result in complex junctions around shafts. If **ShaftWall** is built on the same line as the beamwork framing the shaft, problems may arise in trying to seal the wall up to the steelwork. It is recommended that, wherever possible, the wall should be located to one side of the beams, and fixed from structural floor to structural soffit.

Partition to structural steelwork junctions

When designing the layout of rooms requiring separation by sound insulating walls abutting structural steelwork, consideration should be given to the potential loss of sound insulation performance through the steelwork.

▶ Refer to C02. S01. P21 – Building acoustics.

Door openings

In the case of both normal access doors and lift doors, the door and frame assembly must have been shown by a fire resistance test to achieve the required standard of performance in this form of construction.

Lift doors must be substantiated in conjunction with **ShaftWall** complete with their framing members and transom panels. To achieve a satisfactory level of compatibility, a suitable starter channel should be mechanically fixed to the door frame at 300mm centres.

▶ Refer to construction details 23-25 within this section.

Pressurised airshafts and service ducts

The use of pressure conditions in various types of shaft / duct requires that the boards should be sealed into the framing members using Gyproc Sealant in addition to the normal sealing of the framing to adjoining structures. It is essential that these areas are identified at a very early stage of the contract, and that other trades are instructed to recognise the need for the application of sealant and its replacement if subsequently damaged or removed. In order that the integrity of the pressurised system can be maintained, Gyproc Sealant should be specified for all board-to-metal applications, and the sealing of Gyproc CoreBoard (or Glasroc F firecase) to the framing.

▶ Refer to construction details 17-20 within this section.

Control joints

Control joints may need to be considered in conditions where excessive movement is likely to occur, or to coincide with constructional expansion joints. In order that the deflection criteria can be maintained throughout the building, it is necessary to introduce horizontal movement joints in the lining where this would normally be required to extend through the height of the building, e.g. stairwells.

The horizontal movement joint can be accommodated adjacent to the floor slab.

▶ Refer to construction detail 28 within this section.

Deflection heads

Deflection heads, by definition, must be able to move and, therefore, achieving an airtight seal is difficult. Inevitably, this will have a detrimental effect on the acoustic performance of any wall that incorporates deflection at the head. In most cases, a suspended ceiling will assist in minimising loss of performance.

▶ Refer to construction details 11-17 for standard head details.

Gyproc FireStrip must be applied as a continuous seal where indicated to maintain fire performance. Also, board fixings must not be inserted above the uppermost line depicted by the red arrow in each drawing. Designs incorporating Gypframe Retaining Clips are not suitable for live loads. Where greater deflection needs to be accommodated, contact the Gyproc Technical Department for further guidance.

Deflection criteria

Partitions built to a maximum height based on L/125 at 200 Pa will exhibit greater deflection compared to partitions built to a maximum height based on L/240 at 200 Pa. Partitions with deflection characteristics outside the standard L/240 criteria will exhibit more flex during installation and in general use, and therefore we recommend you verify the acceptability of the deflections with the relevant interested parties before specifying / installing partitions based on L/125 criteria.

Services

Penetrations

Penetrations of fire-resistant constructions for services should be minimised, however if essential, careful consideration should be given to ensure that the integrity of the element is not impaired, and that the services themselves do not act as the mechanism of fire spread.

▶ Refer to C02. S01. P41 – Service installations.

Independent support

When designing for the installation of services such as fire dampers and associated ductwork through **ShaftWall**, consideration should be given to the size and weight of the damper – this will determine whether it can be supported directly from the partition or needs to be independently supported from the structure.

▶ Refer to C04. S01. P122 – Partitions introduction, construction details 29-31.

Openings bridging studs

Openings should be constructed using channels for the trimming members. The web of the channel should be rebated to allow the flanges to oversail the stud. The flanges are secured with two fixings. Channels are cut and inserted to maintain the 25mm gap surround and fixed to the trimming channels.

▶ Refer to construction detail 21 within this section.

ShaftWall design (continued)

Important information

The quoted sound insulation performances of **ShaftWall**, detailed in the preceeding performance tables, incorporate a deflection head as part of the tested construction. Therefore, this effectively downgrades the sound insulation performance of the system. To minimise the loss, install Gypframe GA4 Steel Angle at the head, which will improve the performance by approximately 2-3dB, refer to C02. S01. P21 – Building acoustics. Further sound insulation improvement can be achieved by substituting Gyproc DuraLine in lieu of Gyproc FireLine, providing 1-2dB improvement. The installation of a Gypframe RB1 Resilient Bar may further improve performance, contact the Gyproc Technical Department for further information.

Openings between studs

The opening is constructed using channels for the trimming members. The web should be rebated and the flanges allowed to oversail the studs. The stud is secured with two fixings. Channels are cut and inserted with the webs folded to provide fixings. A plasterboard packer is inserted adjacent to the stud.

▶ Refer to construction detail 22 within this section.

Electrical services

The installation of electrical services should be carried out in accordance with *BS 7671*. The positions for light switches and other electrical outlets should be pre-determined in order that provision can be made for support, and also for the fire integrity of the system.

Gypframe 99 FC 50 Fixing Channel should be cut to bridge adjoining studs, with the edges flattened to permit fixing. The fixing channel should be backed with stone mineral wool. Gyproc FireLine (or Glasroc F firecase) linings should be cut to allow a close fitting entry of the switch box which can be secured to the fixing channel.

▶ Refer to construction detail 7 within this section.

Access for maintenance

For access doors, openings should be framed to avoid impairing the structural or fire-resistant properties of **ShaftWall**. To provide an opening ready to receive a door set, the jambs to storey height should be capped with Gypframe 'J' Channel incorporating a plasterboard packer. A pre-formed spandrel panel assembled between starter channels should be inserted between jambs and engaged into the head channel, retaining the 15mm gap for deflection at the head.

▶ Refer to construction detail 23 within this section.

Support is provided by a Gypframe 'J' Channel transom. The door frame is secured to both Gypframe 'I' Stud and Gypframe 'J' Channel jambs and also to the transom member.

▶ Refer to construction detail 25 within this section.

A range of Gyproc Profilex Access Panels providing fire integrity is available. Please contact the Gyproc Technical Department for further information:
ROI: 1800 744480
NI: 0845 3990159
Email: tech.ie@saint-gobain.com

Board finishing

▶ Refer to C08. S01. P483 – Finishes.

Tiling

Tiles can be applied to the surface of lightweight partition systems.

▶ Refer to C08. S04. P498 – Tiling.

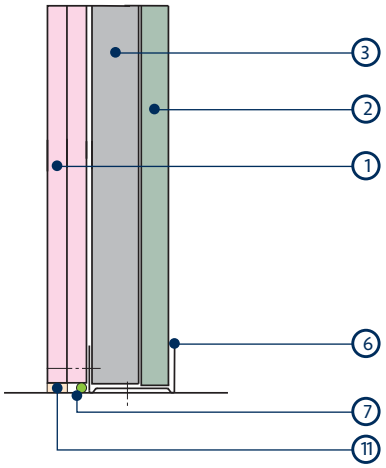
Horizontal ShaftWall

ShaftWall can be specified for horizontal applications as a free-spanning membrane with no support from the soffit. The membrane can be constructed entirely from below and can achieve spans up to 5100mm and fire resistance up to 120 minutes. A typical application is for fire escape corridors. Services should be independently supported from the building structure.

Supporting partitions should be of at least the same fire resistance period as the horizontal **ShaftWall**.

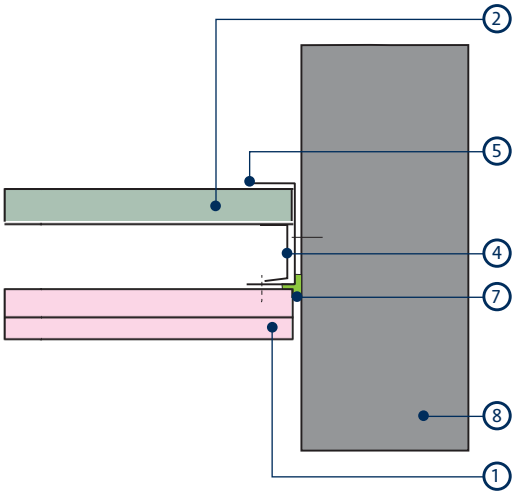
ShaftWall construction details

1



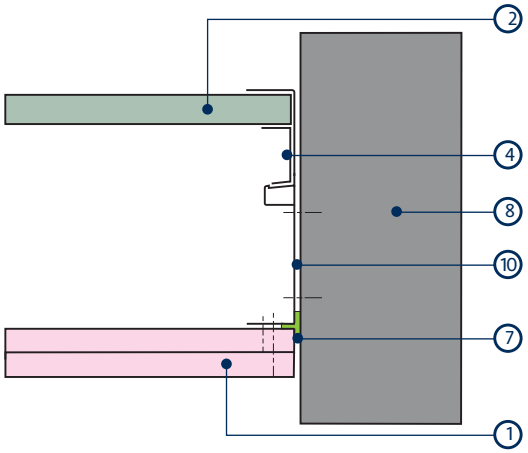
Base

2



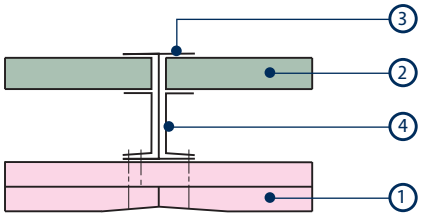
Junction with other elements

3



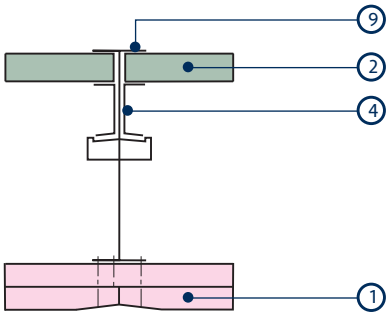
Junction with other elements (framework showing Gypframe Tabbed Starter Channel)

4



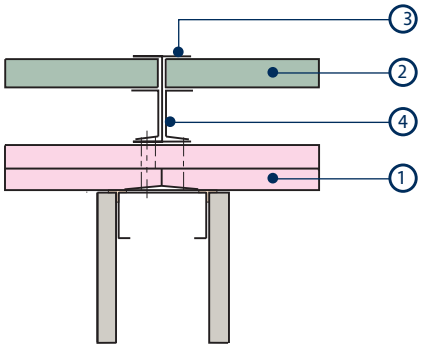
Intermediate stud

5



Intermediate stud (framework showing Gypframe Tabbed 'I' Stud)

6



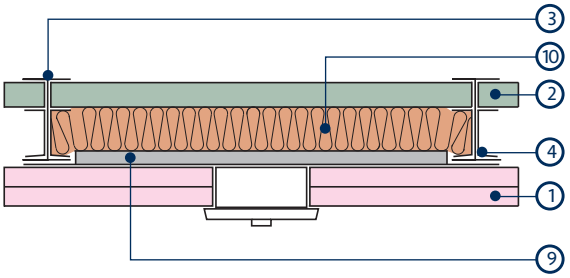
Partition junction (on-stud)

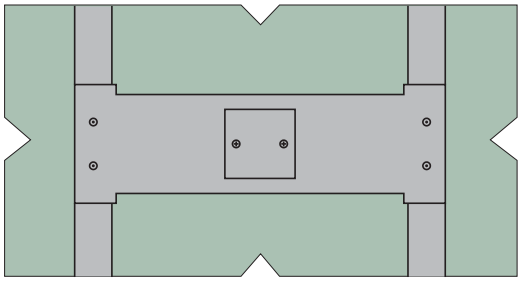
1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe Starter Channel
6 Gypframe Folded Edge Standard Floor & Ceiling Channel
7 Gyproc Sealant
8 Structure
9 Gypframe Tabbed 'I' Stud
10 Gypframe Tabbed Starter Channel
11 Bulk fill with Gyproc jointing materials (where gap exceeds 5mm)

[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings.
[2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.

ShaftWall construction details (continued)

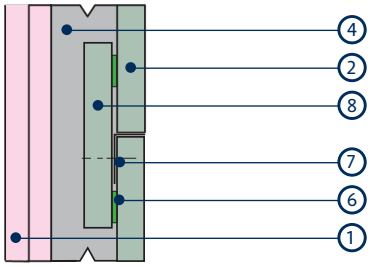
7





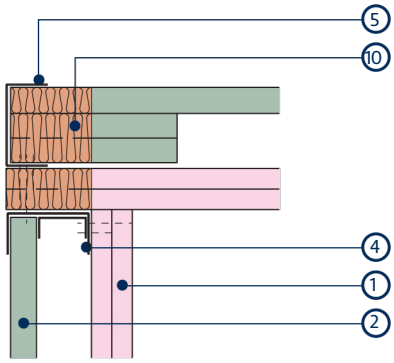
Socket box

8



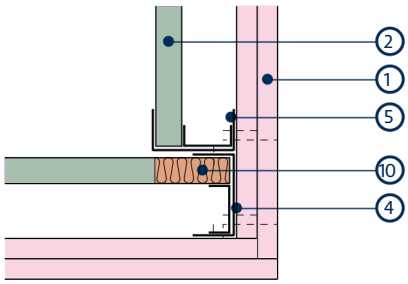
Horizontal Gyproc CoreBoard joints

9



Internal corner

10



External corner

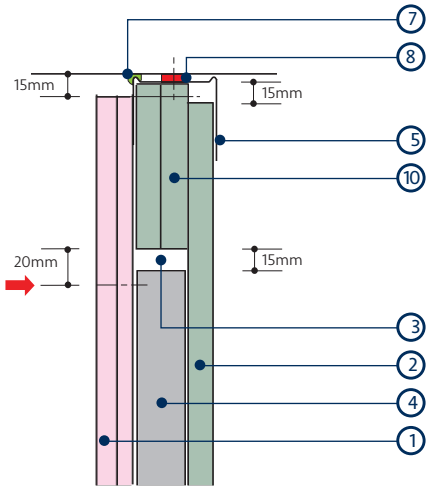
1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe Starter Channel
6 Gyproc Sealant
7 Gypframe GA3 Steel Angle
8 Gyproc CoreBoard strip (cut on site)[2]
9 Gypframe 99 FC 50 Fixing Channel
10 Stone mineral wool (100kg/m3 - by others)

[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings. [2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.

ShaftWall construction details (continued)

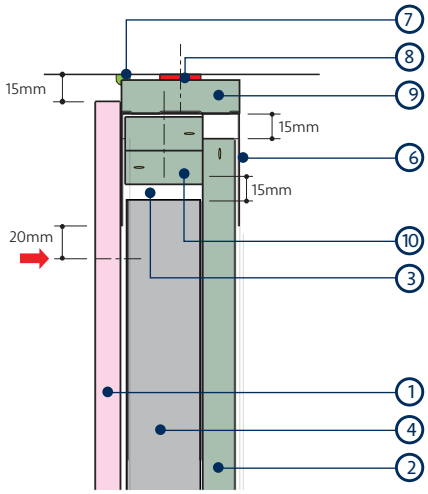
Head details incorporating 15mm downward deflection

11



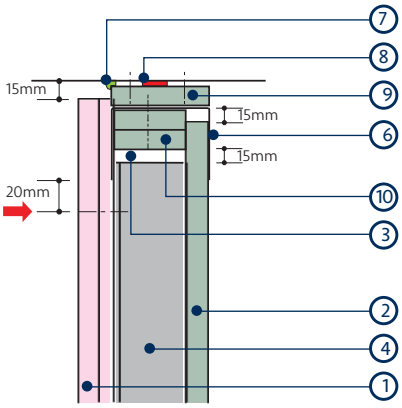
60mm framework (live loads)[3]
- BS 476 Part 22: 1987

12



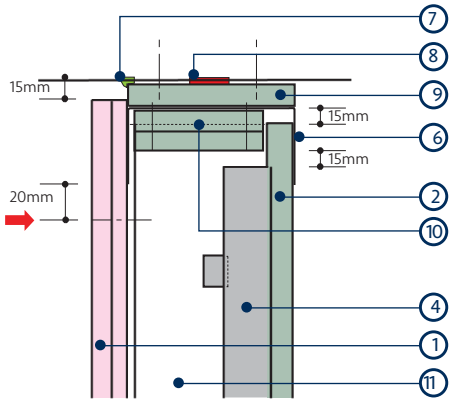
70mm framework (live loads)
- BS 476 Part 22: 1987

13



92mm framework (live loads)
- BS 476 Part 22: 1987

14



146mm framework (live loads)
- BS 476 Part 22: 1987

1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe 'J' Channel
6 Gypframe Extra Deep Flange Floor & Ceiling Channel
7 Gyproc Sealant
8 Gyproc FireStrip
9 Gyproc CoreBoard[2]
10 Gyproc CoreBoard fire-stop[2]
11 Gypframe Tabbed 'I' Stud

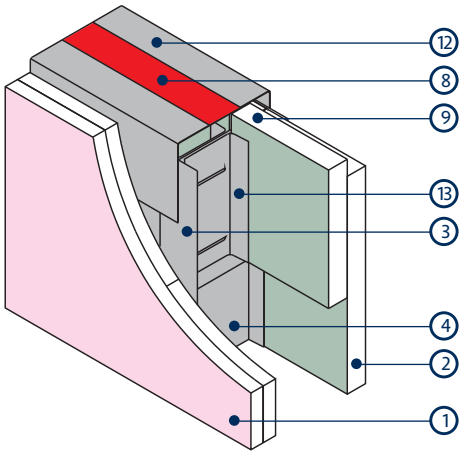
[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings.
[2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.
[3] Vertical fire-stops are not recommended for non-combustible linings, use horizontal fire-stops similar to detail 12.

NB No fixings should be made through the boards into the flanges of the head channel. The arrow ( ) denotes the position of the uppermost board fixing.

ShaftWall construction details (continued)

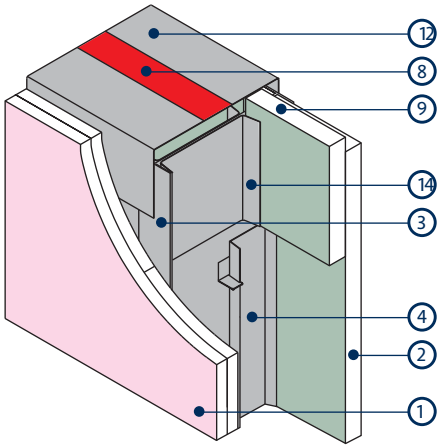
Head details with Retaining Clips

15



Head incorporating Gypframe G108 Retaining Clip (92mm) - BS 476 Part 22: 1987

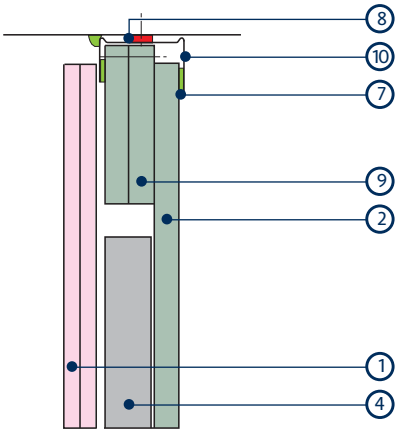
16



Head incorporating Gypframe G109 Retaining Clip (146mm) - BS 476 Part 22: 1987

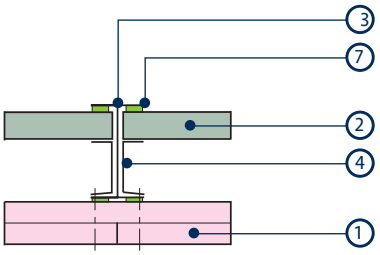
Sealing pressurised air shafts and service ducts

17



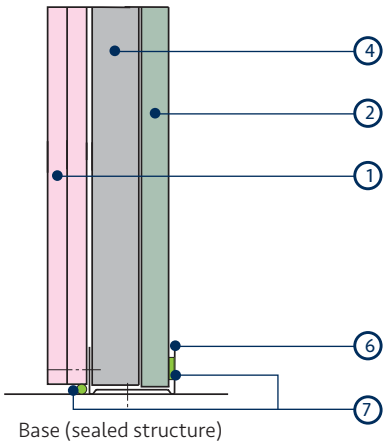
Head (sealed structure). Example shows 60mm stud[3] - BS 476 Part 22: 1987

18



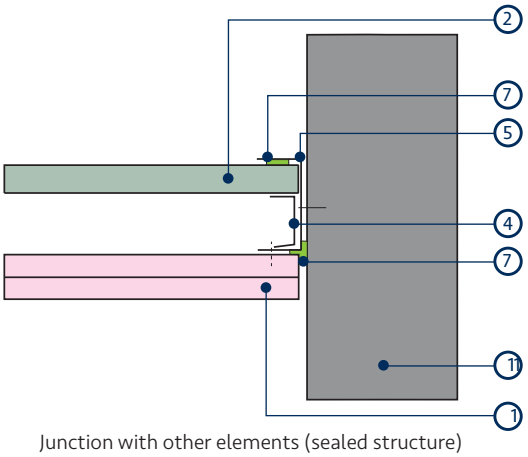
Intermediate stud (sealed structure)

19



Base (sealed structure)

20

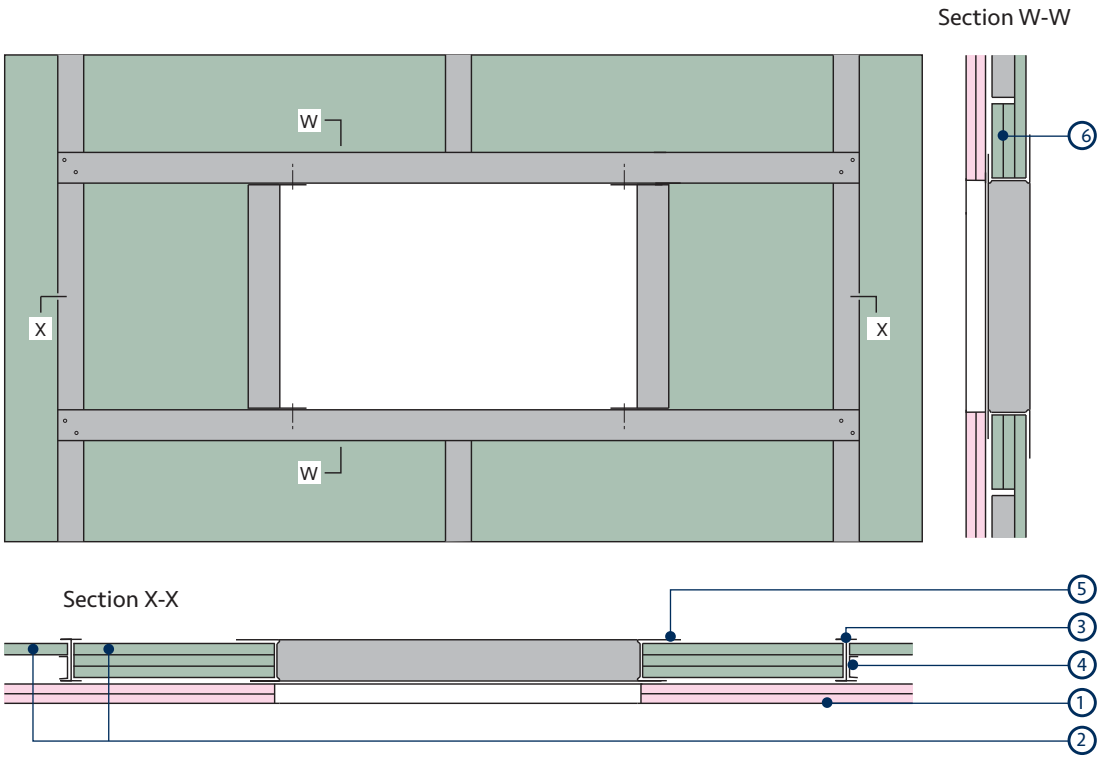


Junction with other elements (sealed structure)

1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe Starter Channel
6 Gypframe Folded Edge Standard Floor & Ceiling Channel
7 Gyproc Sealant
8 Gyproc FireStrip
9 Gyproc CoreBoard fire-stop (cut on site)[2]
10 Gypframe 'J' Channel
11 Structure
12 Gypframe Extra Deep Flange Floor & Ceiling Channel
13 Gypframe G108 Retaining Clip
14 Gypframe G109 Retaining Clip

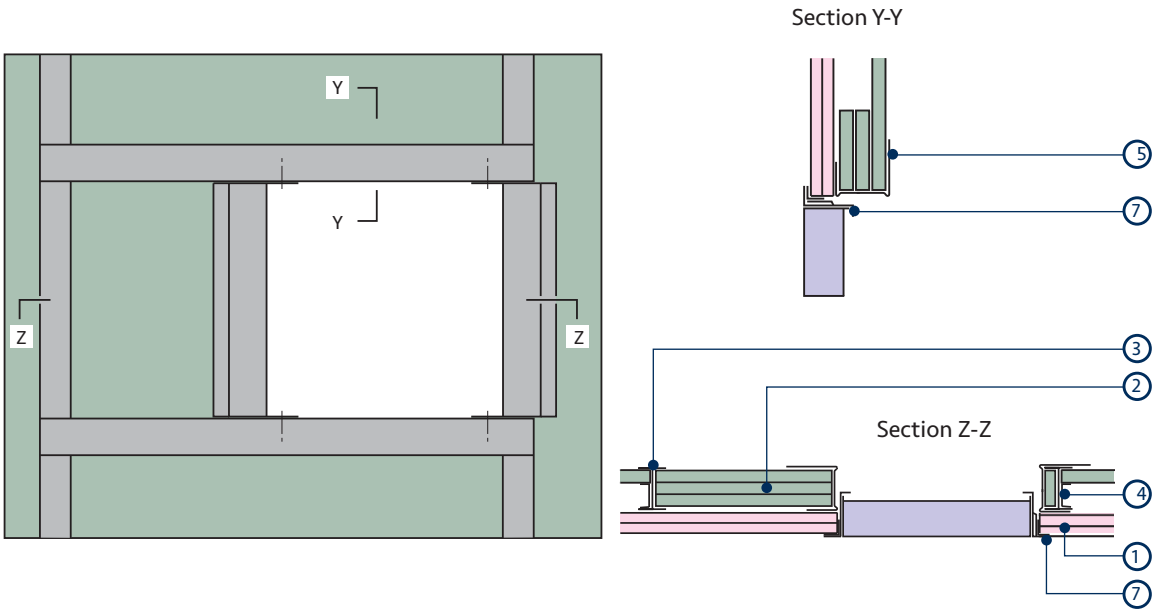
[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings.
[2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.
[3] Use alternative deflection head detail for systems with non-combustible linings.

21



Opening bridging studs. Example shows 60mm stud

22

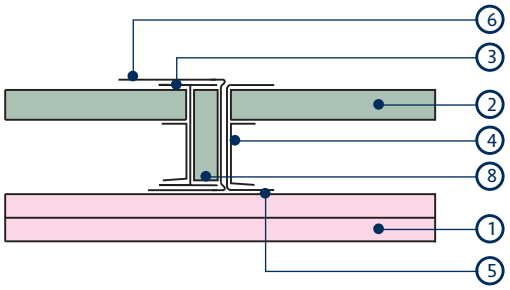


Opening between studs. Example shows 60mm stud

1 Gyproc FireLine
2 Gyproc CoreBoard
3 Gypframe 'I' Studs
4 Gypframe Retaining Channel
5 Gypframe 'J' Channel
6 Gyproc CoreBoard fire-stops (cut on site)
7 Access panel frame (by others)

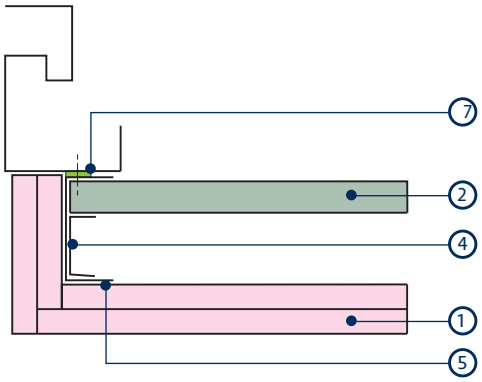
ShaftWall construction details (continued)

23



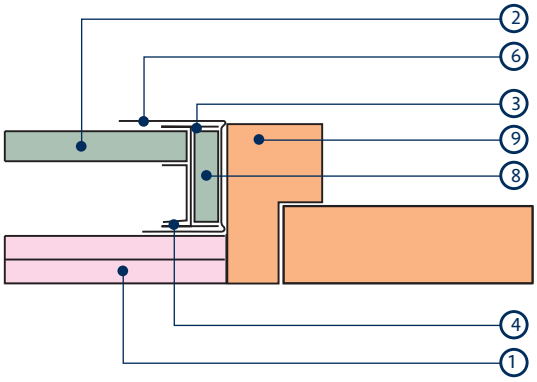
Access door - spandrel panel

24



Lift door (Gypframe Starter Channel mechanically fixed to frame)

25

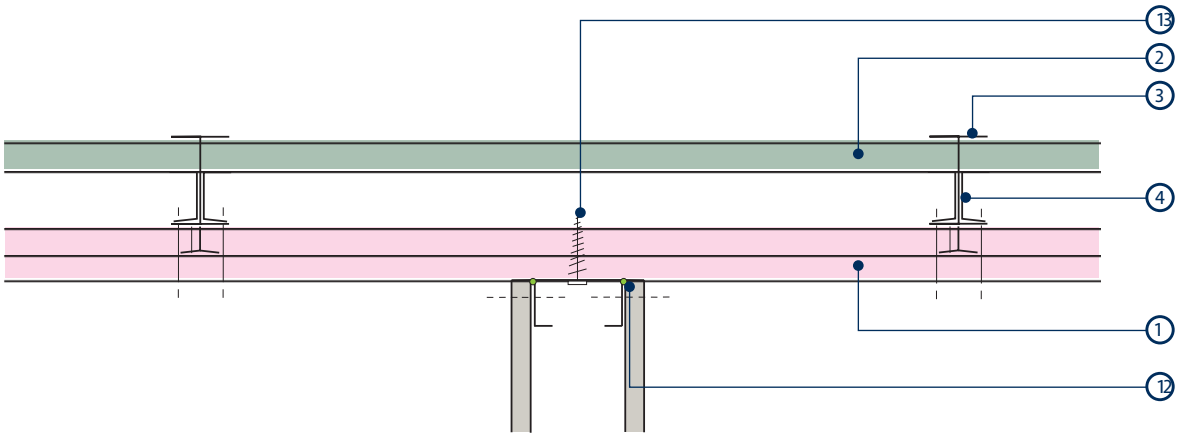


Access door jamb

1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe Starter Channel
6 Gypframe 'J' Channel
7 Gyproc Sealant
8 Gyproc CoreBoard packer (cut on site)[2]
9 Door frame

[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings.
[2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.

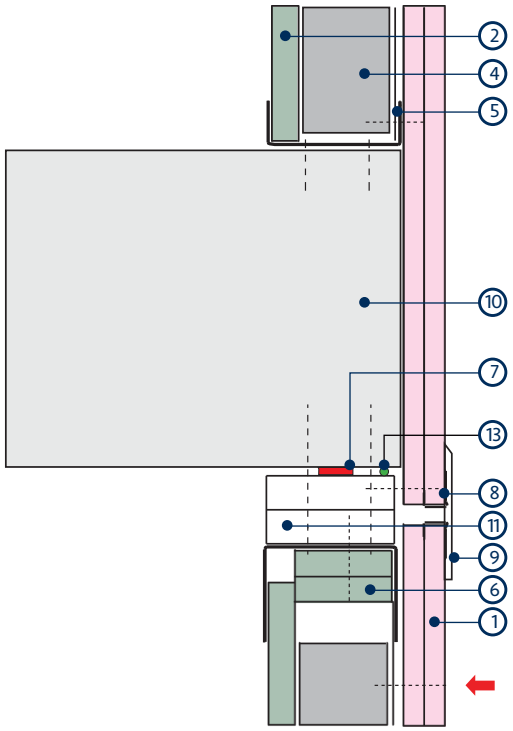
26



Retro-fit non-performance partition junction

Connection to the structure

27



Control joint at floor slab junction where lining boards continue - BS 476 Part 22: 1987

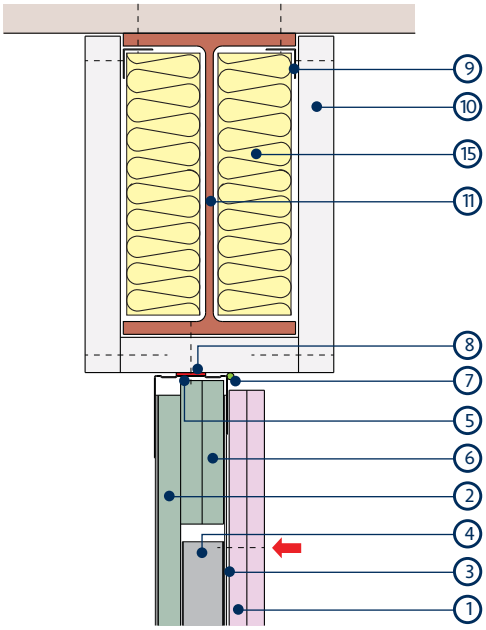
1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe Floor & Ceiling Channel
6 Gyproc CoreBoard fire-stops[2]
7 Gyproc FireStrip
8 Gyproc Edge Bead - if no cover strip is used
9 Cover strip (by others)
10 Structure
11 Glasroc F firecase
12 Gyproc Sealant
13 Suitable metal self-drive fixing (by others)

[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings.
[2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.

NB No fixings should be made through the boards into the flanges of the head channel. The arrow (⬅) denotes the position of the uppermost board fixing.

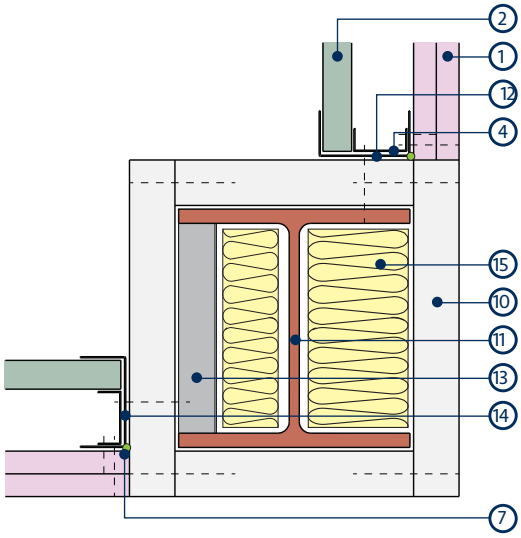
ShaftWall construction details (continued)

29



Beam encasement and partition junction for partitions to satisfy *BS 5234: Parts 1 & 2: 1992* Heavy and Severe Duty Rating - BS 476 Part 22: 1987

30



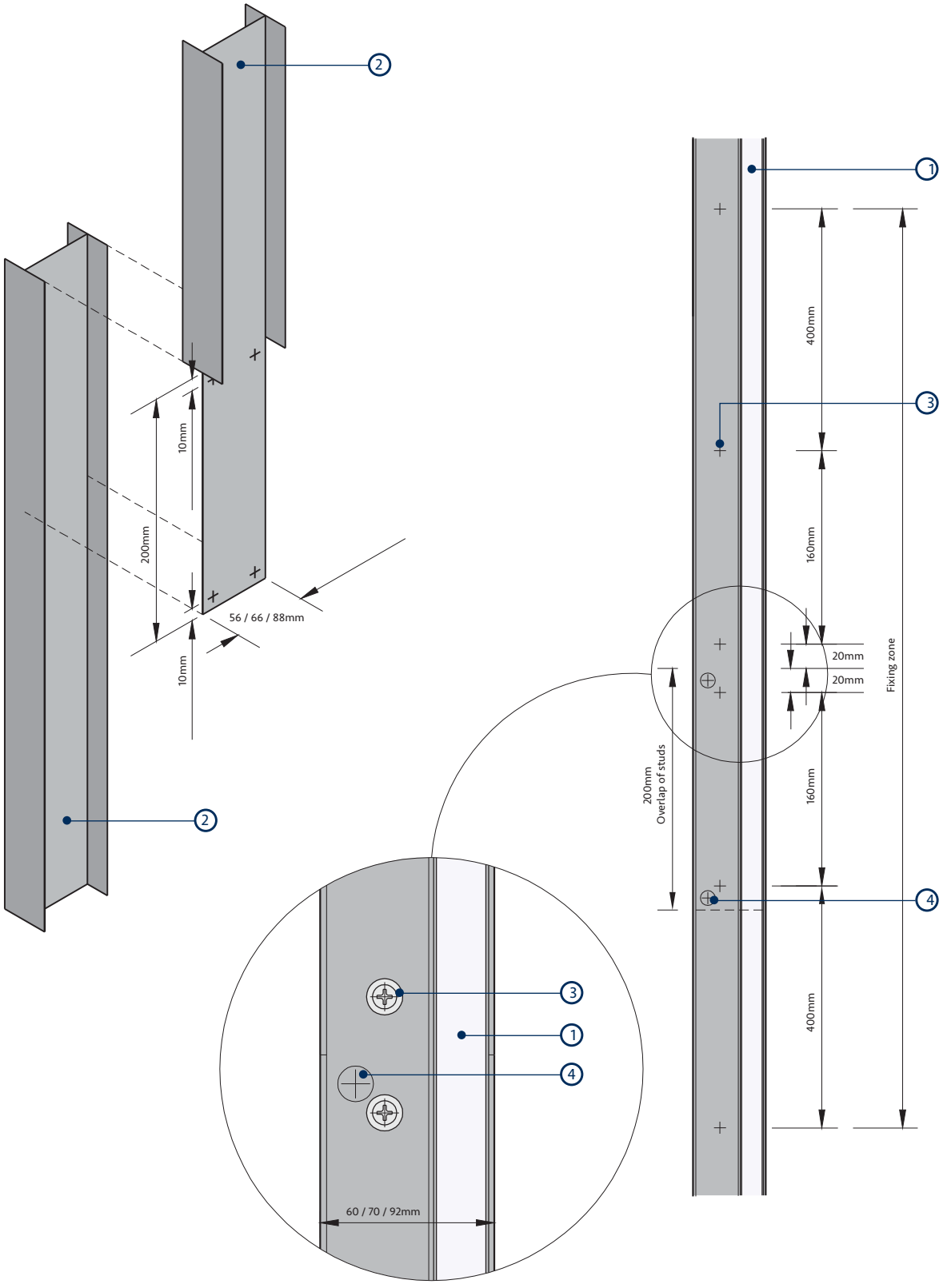
Column encasement and partition junction for partitions up to 120 minutes fire resistance and *BS 5234 Parts 1 & 2: 1992* Heavy and Severe Duty Rating

1 Gyproc FireLine[1]
2 Gyproc CoreBoard[2]
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe 'J' Channel suitably fixed through encasement to structure
6 Gyproc CoreBoard fire-stops[2]
7 Gyproc Sealant
8 Gyproc FireStrip
9 Gypframe GA1 Steel Angle
10 Glasroc F firecase
11 Structural steel
12 Gypframe Starter Channel suitably fixed through Glasroc F firecase to column at 600mm centres (in two lines staggered by 300mm for studs wider than 75mm)
13 Suitable size Z-section (by others) fixed between column flanges at 600mm centres
14 Gypframe Starter Channel suitably fixed through Glasroc F firecase to Z-sections (in two lines staggered by 300mm for studs wider than 75mm).
15 Isover insulation if required to minimise acoustic downgrade

[1] Replace with 15mm Glasroc F firecase for systems with non-combustible linings.
[2] Replace with 20mm Glasroc F firecase for systems with non-combustible linings.

NB No fixings should be made through the boards into the flanges of the head channel. The arrow ( ) denotes the position of the uppermost board fixing.

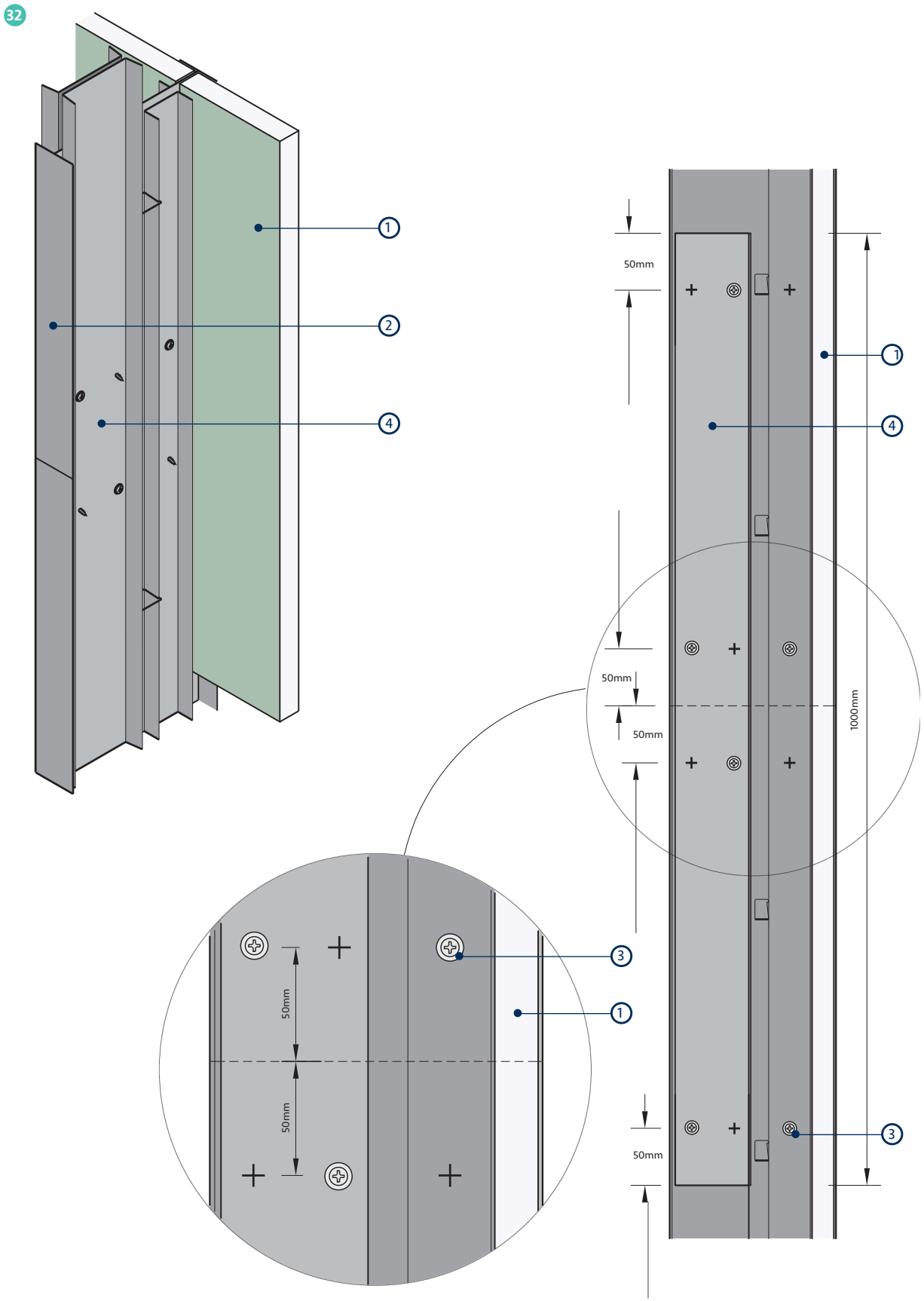
31



60 / 70 / 92mm 'I' Stud splicing detail

1 Gyproc CoreBoard
2 Gypframe 'I' Stud
3 Gyproc Wafer Head Jack-Point Screw
4 14mm dia. pre-drilled hole in Gypframe Retaining Channel to coincide and clear screws connecting overlap of 'I' Studs

ShaftWall construction details (continued)



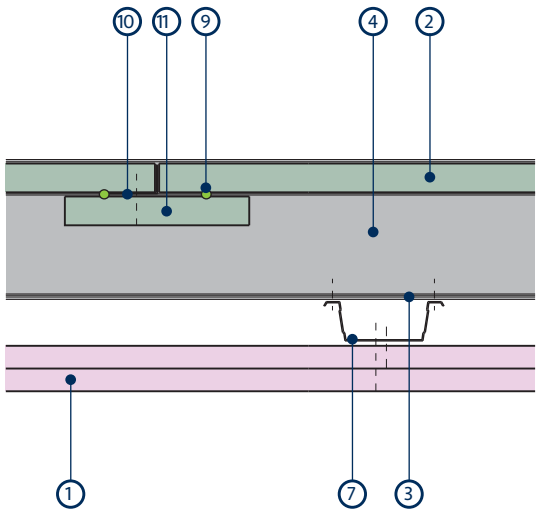
146mm 'I' Stud splicing detail

1 Gyproc CoreBoard
2 Gypframe 'I' Stud
3 Gyproc Wafer Head Jack-Point Screw
4 Gypframe G105 Retaining Channel

ShaftWall construction details (continued)

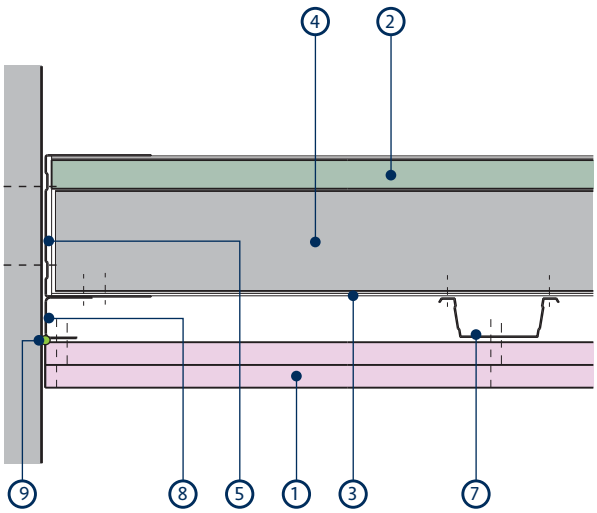
Horizontal ShaftWall (ShaftWall used horizontally should not be used for material storage or access for personnel)

33



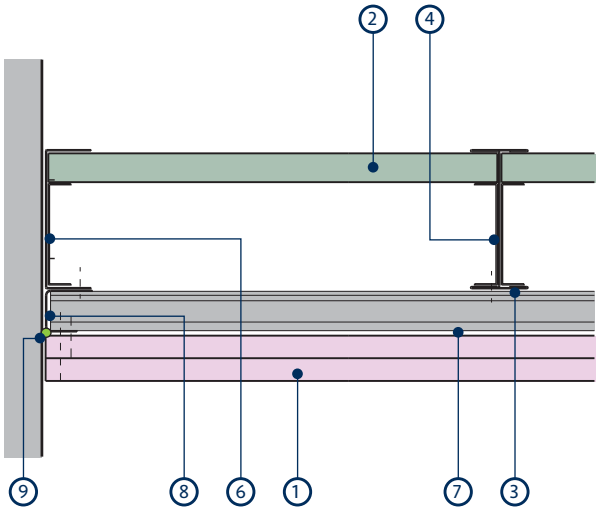
Gyproc CoreBoard joint

34



Perimeter detail 1

35



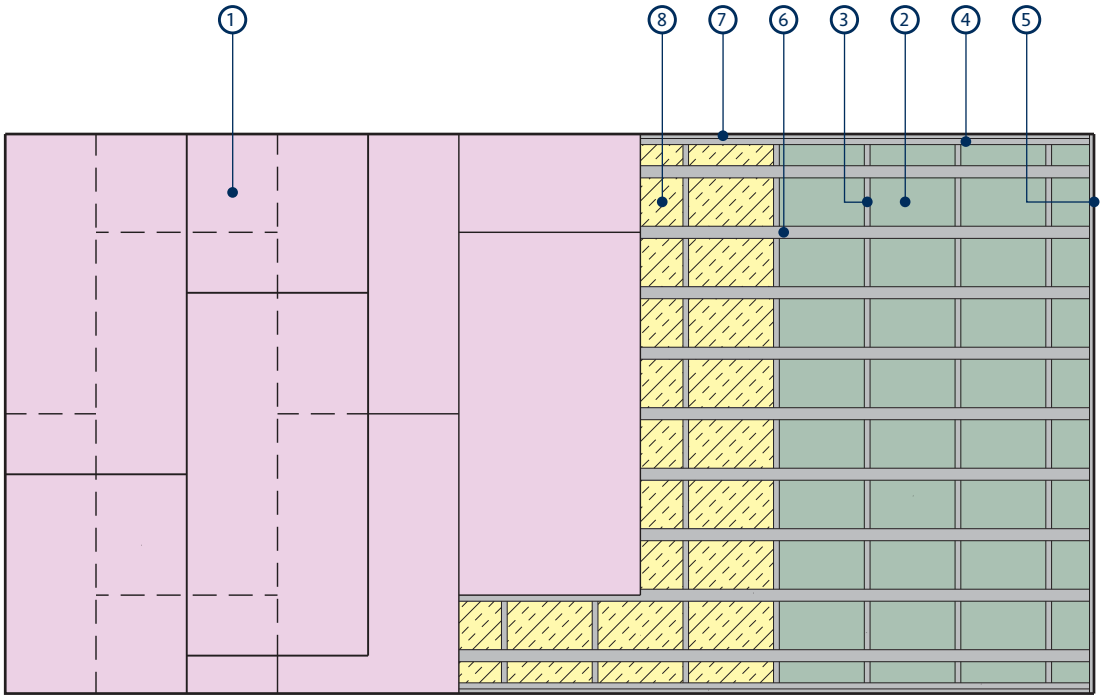
Perimeter detail 2

1 Gyproc FireLine
2 Gyproc CoreBoard
3 Gypframe 'I' Stud
4 Gypframe Retaining Channel
5 Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel
6 Gypframe Starter Channel
7 Gypframe MF5 Ceiling Section
8 Gypframe MF6 Perimeter Channel
9 Gyproc Sealant
10 Gypframe GA3 Steel Angle
11 122mm wide strip of 19mm Gyproc CoreBoard

ShaftWall construction details (continued)

Horizontal ShaftWall (ShaftWall used horizontally should not be used for material storage or access for personnel)

36



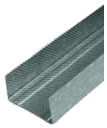
Reflected ceiling

1 Gyproc FireLine
2 Gyproc CoreBoard
3 Gypframe 'I' Stud
4 Gypframe Extra Deep Flange Floor & Ceiling Channel or Gypframe 'J' Channel
5 Gypframe Starter Channel
6 Gypframe MF5 Ceiling Section
7 Gypframe MF6 Perimeter Channel
8 Isover Acoustic Insulation

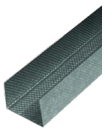
ShaftWall system components

Gypframe metal components

Gypframe 'I' Studs (60 I 70, 70 I 70, 92 I 90, 146 TI 90 Tabbed)
Enhanced strength stud that allows for partition height, without increasing partition width. Designed to receive fixing of board to one side (face fixed) and to accommodate Gyproc CoreBoard within its flange.

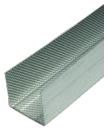


Gypframe Folded Edge Standard Floor & Ceiling Channels (62 FEC 50, 72 FEC 50, 94 FEC 50, 148 FEC 50)
Standard floor channels for retaining the Gypframe studs at floor junctions for heights not exceeding 4200mm.

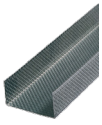


Gypframe Deep Flange Floor & Ceiling Channels (62 DC 60, 72 DC 60, 94 DC 60, 148 DC 60)
Floor and ceiling channels with deep flanges for retaining the Gypframe studs at floor and ceiling junctions for partitions 4200mm to 8000mm high. Also used around openings and in deflection heads (maximum 30mm deflection). Also accommodates Gypframe Retaining Clips / Channels and where applicable used around the perimeter in horizontal applications.

Gypframe 'J' Channel (62 JC 70)
Channels with uneven flanges for retaining the Gypframe studs at ceiling junctions. Also used around openings and in deflection heads.



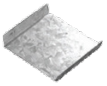
Gypframe Extra Deep Flange Floor & Ceiling Channels (72 EDC 80, 94 EDC 70, 148 EDC 80)
Floor and ceiling channels with extra deep flanges for retaining the Gypframe studs at floor and ceiling junctions for partitions over 8000mm high. Also used around openings and in deflection heads (maximum 50mm deflection). Also accommodates Gypframe Retaining Clips / Channels and where applicable used around the perimeter in horizontal applications.



Gypframe Starter Channels (60 SC 50 at 3600mm, 70 SC 70 at 36000mm or 4200mm, 92 SC 90 at 5000mm or 6000mm)
Vertical stud used at abutments and openings to receive fixing of board.

Gypframe Tabbed Starter Channel (146 TSC 90)
Vertical stud used at abutments and openings to receive fixing of board.

Gypframe Retaining Channel (G102, G105, G110)
Insert channel to provide support for the Gyproc CoreBoard located within the Gypframe 'I' stud. G102 for 60 I 70 and 146 TI 90 'I' Studs.
G105 for 92 I 90 'I' Studs.
G110 for 70 I 70 'I' Studs.



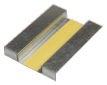
Gypframe Retaining Clips (G108, G109)
Used within Gypframe 'I' studs at deflection heads.
G108 for 92 I 90 'I' Studs.
G109 for 146 TI 90 'I' Studs.

Gypframe GA3 Steel Angle
Steel angle providing framing stability and board support. Used at horizontal joints of Gyproc CoreBoard.

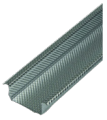
Gypframe 99 FC 50 Fixing Channel
A versatile metal fixing channel used to support medium weight fixtures on walls.

Gypframe GFS1 Fixing Strap
Used to support horizontal board joints.

Gypframe GFT1 Fixing T
Used to support horizontal board joints.



Gypframe Service Support Plate
For installation of 18mm plywood within a partition cavity to support medium to heavyweight fixtures.



Gypframe MF5 Ceiling Section
Secondary section to support fixing of board.

Gypframe MF6 Perimeter Channel
Perimeter section to support Gypframe MF5 Ceiling Section and fixing of board.

ShaftWall system components (continued)

Board products

Gyproc FireLine[2]
Gypsum plasterboard with fire resistant additives.

Gyproc DuraLine[2]
Gypsum plasterboard with fire resistant additives and a high density core for enhanced sound insulation and impact resistance performance.

Gyproc CoreBoard
Gypsum plasterboard with fire and moisture resistant additives. Retained within studs and to form deflection head.

Glasroc F firecase[1]
Non-combustible glass-reinforced gypsum board. Also used to form deflection head.

[1] Glasroc F firecase boards used to replace Gyproc CoreBoard on the shaft side of the system must be cut to 598mm wide (+0mm / -3mm).

[2] Also available in a Moisture Resistant (mr) version. mr boards are specified in intermittent wet use areas.

Fixing products

Gyproc Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board-to-timber and board-to-metal framing less than 0.8mm thick ('I' Studs less than 0.6mm thick).

Gyproc Jack-Point Screws
Corrosion resistant self-tapping steel screws for fixing board to metal framing 0.8mm thick and greater ('I' Studs 0.6mm thick and greater).

Gyproc Collated Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board-to-timber and board-to-metal framing less than 0.8mm thick ('I' Studs less than 0.6mm thick).

Gyproc Wafer Head Jack-Point Screws
Corrosion resistant self-tapping steel screws for fixing metal to metal framing 0.8mm thick and greater ('I' Studs 0.6mm thick and greater).

Gyproc Wafer Head Drywall Screws
Corrosion resistant self-tapping steel screws for fixing metal to metal framing less than 0.8mm thick ('I' Studs less than 0.6mm thick).

Plasterboard accessories

Gyproc Jointing Materials
Jointing compounds, ready mixes and adhesives for reinforcement and finishing of board joints.

Gyproc Sealant
Used to seal air paths for optimum sound insulation.

Gyproc FireStrip
A soft extruded linear intumescent gap sealer to maintain fire resistance located directly to the underside of the soffit when forming a deflection head.

Gyproc Paper Joint Tape
A paper tape designed for reinforcement of flat joints or internal angles.

Gyproc Corner Tape
A paper tape bonded to two corrosion resistant steel strips.

Gyproc Drywall Primer
Used to prepare for painting.
Tub contents 10 litre.

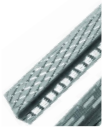
ShaftWall system components (continued)

Finishing products

Gyproc Skimcoat
To provide a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard.

Gyproc Carlite Finish
To provide a plaster skim finish on most common backgrounds including undercoat plasters and plasterboard.

Gyproc Carlite Ultra Finish
Offers all the benefits of Gyproc Skimcoat and Gyproc Carlite Finish with a reduced set time of 90-120mins, making it ideal for smaller jobs.



Plaster accessories
Designed for the reinforcement and finishing of board joints before plaster skimming.

Insulation products

Isover Acoustic Roll
Glass mineral wool for enhanced acoustic and thermal performance.

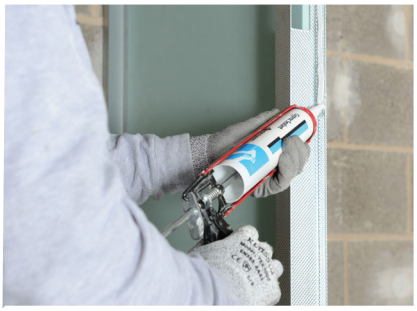
ShaftWall installation overview

This is intended to be a basic description of how the system is built.
For detailed installation guidance refer to the **Gyproc Installation Guide.**

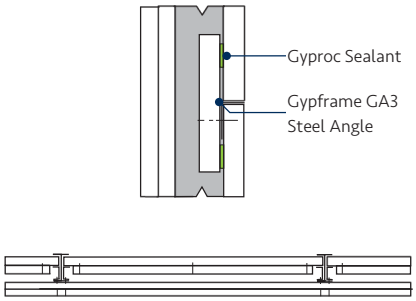
The appropriate Gypframe channels, are suitably fixed to the floor and soffit of the structure. Gyproc FireStrip is used on the channel at the soffit.

Gypframe Starter Channels are suitably fixed to vertical abutments. The perimeter of the partition is sealed with Gyproc Sealant.

Gypframe 'I' Studs or Gypframe Tabbed 'I' Studs are friction fitted into the channels at 600mm required centres. Gyproc CoreBoard or 20mm Glasroc F firecase is fitted between the studs on the shaft side, and held in place with appropriate Gypframe Retaining Channels. Door openings are formed to the **ShaftWall** Access Door Details.



Pressurised shafts and service ducts are sealed using Gyproc Sealant. This is applied to all board-to-metal junctions.



Horizontal board joints are fire stopped using Gypframe GA3 Angle and strips of Gyproc CoreBoard from the non-shaft side.

Isover Acoustic Roll can be added to the partition cavity for increased acoustic performance.

Gyproc plasterboard or Glasroc F firecase are then fixed to the Gypframe framework with Gyproc Drywall Screws or Gyproc Jack-Point Screws.

Additional information

For full installation details, refer to the **Gyproc Installation Guide**, available to download from gyproc.ie