GypWall™
CLASSIC

The definitive metal stud partition system

Al Bahr Towers
Abu Dhabi

GypWall CLASSIC

GypWall CLASSIC is the industry's original lightweight drywall partition system, providing cost-effective, multi-purpose solutions suitable for all types of buildings.

30 - 180 mins

33 - 62 R_w dB

34 - 60 STC dB

Key Benefits

- Lightweight system solution
- Achieves high levels of sound insulation up to R_w 62dB
- Satisfies BS 5234 requirements up to and including Severe Duty
- Accommodates services within the stud cavity
- 30 - 180 minutes fire resistance to BS, EN and ASTM standards
- Can allow for deflection at the head

Eligible for the SpecSure warranty from Gyproc

System components

Gypframe metal components

Gypframe 'C' Studs
(50 S 50, 70 S 50, 92 S 50, 150 S 50)
Vertical stud providing acoustic and structural performances designed to receive fixing of board to both sides

Gypframe 'I' Studs
(70 I 70, 100 I 80, 150 I 90)
Enhanced strength stud that allows for increased partition height, designed to receive fixing of board

Gypframe AcouStud
(70 AS 50, 92 AS 50)
Vertical stud providing enhanced acoustic and structural performances designed to receive fixing of board to both sides

Gypframe Standard Floor & Ceiling Channels
(52 C 50, 72 C 50, 94 C 50, 102 C 50, 152 C 50)
Standard floor and ceiling channels for retaining Gypframe studs at floor and ceiling junctions and around openings to heights not exceeding 4200mm

Gypframe Deep Flange Floor & Ceiling Channels
(52 DC 60, 72 DC 60, 94 DC 60, 102 DC 60, 152 DC 60)
Floor and ceiling channels with deep flanges for retaining Gypframe studs at floor and ceiling junctions for partitions 4200mm to 8000mm high. Also used around openings and in deflection heads (maximum 30mm deflection)

Gypframe Extra Deep Flange Floor & Ceiling Channels
(52 EDC 80, 72 EDC 80, 94 EDC 80, 102 EDC 80, 152 EDC 80)
Floor and ceiling channels with extra deep flanges for retaining Gypframe studs at floor and ceiling junctions for partitions over 8000mm high. Also used around openings and in deflection heads (maximum 50mm deflection)

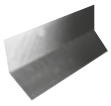
Gypframe 103 FC 50 Fixing Channel
A versatile metal fixing channel used to support medium weight fixtures on walls

Gypframe 103 FC 90 Fixing Channel
A versatile metal fixing channel used to support heavy weight fixtures on walls

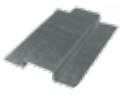
Gypframe GFS1 Fixing Strap
Used to support horizontal board joints and within deflection head details

Gypframe GA1 Steel Angle
Used as a fixing mechanism to hold ISOVER Eco APR in place

Gypframe GA4 Steel Angle
Widely used in framed construction to provide support, fixing and additional strength to penetrations. Also used as an angle to improve the fire and acoustic performance at deflection heads



Gypframe GA6 Splayed Angle
Steel angle providing framing stability and board support



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

System components (continued)

Board products (continued)

Gyproc Regular[1, 2, 3]
(12.5, 15mm)
Standard gypsum plasterboard

Gyproc SoundBloc[1, 2]
(12.5, 15mm)
Gypsum plasterboard with a high density core for enhanced sound insulation performance

Gyproc Moisture Resistant[2, 3]
(12.5, 15mm)
Gypsum plasterboard with moisture resistant additives in the core and special green lining paper for easy recognition

Glasroc X[2]
(12.5mm)
Glasroc X is a high performance board with a glass-mat liner on both surfaces and a mold & moisture resistant (M2TECH) gypsum core

Gyproc FireStop[1, 2, 3]
(12.5, 15mm)
Gypsum plasterboard with fire resistant additives

[1] Moisture resistant (MR) versions of the above boards are specified in intermittent wet use areas, e.g. shower cubicles

[2] Available with Activ'Air technology

[3] Available with M2TECH technology

Fixing products

Gyproc Drywall Screws
Corrosion resistant self-tapping steel screws for fixing board to metal framing less than 0.8mm thick

Gyproc Waferhead Screws
Corrosion resistant self-tapping steel screws for fixing metal to metal framing less than 0.8mm thick

Gyproc Jack-Point Screws
Corrosion resistant self-drilling steel screws for fixing boards to Gypframe metal framing 0.8mm thick or greater and all 'I' studs

Gyproc Waferhead Jack-Point Screws
Corrosion resistant self-drilling steel screws for fixing metal to metal framing 0.8mm thick or greater and all 'I' studs

Gyproc Wedge Anchor
Corrosion resistant anchor used for fixing fire rated partition and ceiling systems into masonry

Gyproc Hammer Fix
Corrosion resistant nail, screw engaged in a nylon plug, suitable for fixing non fire rated partition systems and ceiling perimeters into masonry

System components (continued)

Plasterboard accessories

Gyproc Jointing Compound
Air-drying, asbestos free, ready mixed compound for filling and finishing plasterboard joints and corner beads

Gyproc Paper Tape
Designed for reinforcing flat joints when finishing plasterboard joints providing improved resistance against cracking

Gyproc FireStrip
Soft extruded linear gap seal for use within fire rated Gyproc system deflection head details

Gyproc Fibre Tape
Suitable for flat joint reinforcement

Gyproc Sealant
Used for sealing air paths to reduce air-leakage and optimise sound insulation performance

Glasroc X Tape
Suitable for internal and semi-exposed applications when used in conjunction with Glasroc X, MR and M2TECH range of boards

Corners

Habito Flex 83
Adjustable and superior corner reinforcement that uses structural laminate technology for ultimate impact protection

Levelline Flex
Adjustable corner reinforcement that flexes to any angle and gives high levels of impact protection

Gyproc Drywall Corner Bead
Provides corner reinforcement and protection to plasterboards and plasters

Gyproc Drywall Metal Edge Bead
A galvanised steel channel used to protect plasterboard edges and to form a defined edge commonly used around window reveals

Insulation products

ISOVER Eco
Acoustic Partition Roll (APR)
(25, 50, 75 and 100mm)*
Non-combustible glass mineral wool roll for sound insulation in partitions, linings and ceiling systems

Minimum density: 16 kg/m³

KIMMCO ISOVER
Stone mineral wool
(50 and 70mm)*
For fire stopping, where required

Minimum density: 33 kg/m³

* Available in other thickness and density

Installation overview

Gypframe Floor & Ceiling channels are fixed to the concrete substrate using Gyproc Wedge Anchors (for fire rated systems) or Gyproc Hammer Fix (for non-fire rated systems).

Gypframe 'C' Studs are suitably fixed to abutments.

Gypframe 'C' studs are fitted vertically to a friction fit within the channel sections to form the framework. Studs are fitted to all face the same way.

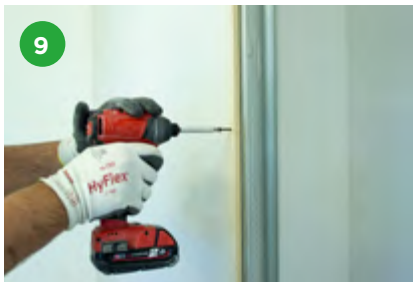
Openings for services can be accommodated using Gypframe channel between or across stud modules.

Door openings are constructed to suit the partitions duty rating.

The perimeter of the metal framework is then sealed with Gyproc Sealant for optimum sound insulation performance.

Gypframe 103 FC 50 Fixing Channel fixed across studs to receive light/ medium weight fixtures.

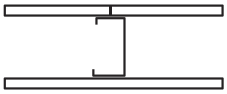
ISOVER Eco APR is added to the partition cavity for increased acoustic performance.



Gyproc plasterboards are fixed with Gyproc Drywall Screws to Gypframe studs. Ensure board joints are staggered between board layers and horizontal board joints in the face layer board should be supported with Gypframe GFS1 Fixing Strap.

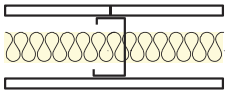
Table 1 – GypWall CLASSIC 50mm Gypframe 'C' Studs (50 S 50) - single and multiple layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119, ANSI / UL 263

1



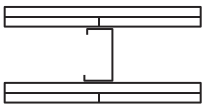
One layer of board each side of 50mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2



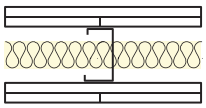
One layer of board each side of 50mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

3



Two layers of board each side of 50mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

4



Two layers of board each side of 50mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

For single layer Severe Duty solutions please refer to GypWall ROBUST and HABITO sections

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
30 minutes fire resistance								
1	77	Regular	1 x 12.5[3]	2500	33	34	Medium	19
2	77	Regular	1 x 12.5[3]	2500	39	40	Medium	19
1	82	Regular	1 x 15	2800	35	35	Medium	25
2	82	Regular	1 x 15	2800	41	42	Medium	25
60 minutes fire resistance								
1	82	FireStop	1 x 15	2800	35	35	Heavy	26
2	82	FireStop	1 x 15	2800	41	42	Heavy	26
3	102	Regular	2 x 12.5	3400	39	41	Severe	37
4	102	Regular	2 x 12.5	3400	47	49	Severe	37
120 minutes fire resistance								
3	102	FireStop	2 x 12.5	3400	40	41	Severe	42
4	102	FireStop	2 x 12.5	3400	49	51	Severe	42
4	112	SoundBloc	2 x 15	3700	54	55	Severe	55

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.
[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.
[3] Fire resistance to BS 476 only.

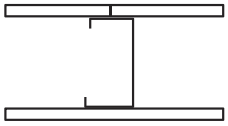
NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

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

NB Where tiling, refer to 'Tiling section' on page 304

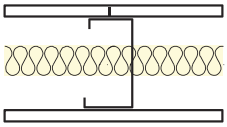
Table 2 – GypWall CLASSIC 70mm Gypframe 'C' Studs (70 S 50) - single layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119, ANSI / UL 263

1



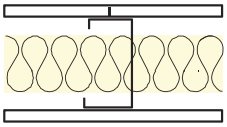
One layer of board each side of 70mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2



One layer of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

3



One layer of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

For single layer Severe Duty solutions please refer to GypWall ROBUST and HABITO sections

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
30 minutes fire resistance								
1	97	Regular	1 x 12.5[3]	3600	35	35	Medium	19
2	97	Regular	1 x 12.5[3]	3600	41	42	Medium	19
3	97	Regular	1 x 12.5[3]	3600	44	44	Medium	19
1	97	SoundBloc	1 x 12.5[3]	3600	36	37	Medium	26
2	97	SoundBloc	1 x 12.5[3]	3600	43	45	Medium	26
3	97	SoundBloc	1 x 12.5[3]	3600	46	47	Medium	26
1	97	Glasroc X	1 x 12.5[3]	3600	39	41	Medium	26
2	97	Glasroc X	1 x 12.5[3]	3600	47	48	Medium	26
3	97	Glasroc X	1 x 12.5[3]	3600	50	51	Medium	26
1	102	Regular	1 x 15	3800	35	36	Medium	26
2	102	Regular	1 x 15	3800	42	43	Medium	26
1	102	SoundBloc	1 x 15	3800	38	38	Heavy	29
2	102	SoundBloc	1 x 15	3800	44	44	Heavy	30
3	102	SoundBloc	1 x 15	3800	48	49	Heavy	30
60 minutes fire resistance								
1	102	FireStop	1 x 15	3800	36	37	Heavy	25
2	102	FireStop	1 x 15	3800	43	41	Heavy	25
3	102	FireStop	1 x 15	3800	45	43	Heavy	25

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.

[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.

[3] Fire resistance to BS 476 only.

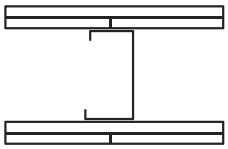
NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

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

NB Where tiling, refer to 'Tiling section' on page 304

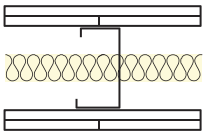
Table 3 – GypWall CLASSIC 70mm Gypframe 'C' Studs (70 S 50) - multiple layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119, ANSI / UL 263

1



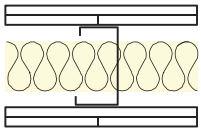
Two layers of board each side of 70mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2



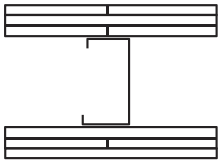
Two layers of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

3



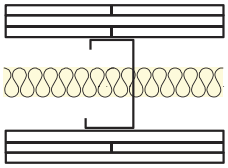
Two layers of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

4



Three layers of board each side of 70mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

5



Three layers of board each side of 70mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

For single layer Severe Duty solutions please refer to GypWall ROBUST and HABITO sections

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
60 minutes fire resistance								
1	122	Regular	2 x 12.5	4600	41	42	Severe	36
2	122	Regular	2 x 12.5	4600	48	49	Severe	36
3	122	Regular	2 x 12.5	4600	50	51	Severe	37
90 minutes fire resistance								
2	122	SoundBloc	2 x 12.5	4600	53	54	Severe	48
3	122	SoundBloc	2 x 12.5	4600	54	55	Severe	49
1	132	Regular	2 x 15	4900	44	43	Severe	49
120 minutes fire resistance								
1	122	FireStop	2 x 12.5	4600	42	44	Severe	42
2	122	FireStop	2 x 12.5	4600	50	51	Severe	42
3	122	FireStop	2 x 12.5	4600	51	52	Severe	43
2	132	SoundBloc	2 x 15	4900	55[3]	56	Severe	55
180 minutes fire resistance								
4	162	FireStop	3 x 15	4900	44	43	Severe	71
5	162	FireStop	3 x 15	4900	51	52	Severe	71

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.
[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.
[3] Increasing insulation to 50mm ISOVER Eco APR will not improve acoustic performance.

NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito..

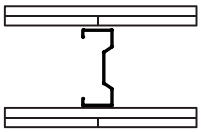
NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, according to Gyproc recommendations. The quoted performances are achieved only if Gyproc components are used throughout, and the company's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

NB For heights between 4200mm and 8000mm, Gypframe Deep Channels should be used at the base and at the head (subject to deflection head criteria).

NB Where tiling, refer to 'Tiling section' on page 304

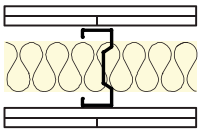
Table 4 – GypWall CLASSIC 70mm Gypframe AcouStuds (70 AS 50) - multiple layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119 & ANSI / UL 263

1



Two layers of board each side of 70mm Gypframe AcouStuds at 600mm centres. Linings as in table.

2



Two layers of board each side of 70mm Gypframe AcouStuds at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
90 minutes fire resistance								
2	122	SoundBloc	2 x 12.5	4700	57	56	Severe	48
120 minutes fire resistance								
1	122	FireStop	2 x 12.5	4700	45	46	Severe	42
2	122	FireStop	2 x 12.5	4700	56	54	Severe	43

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.

[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.

NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

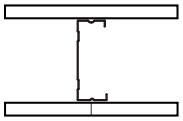
NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, according to Gyproc recommendations. The quoted performances are achieved only if Gyproc components are used throughout, and the company's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

NB For heights between 4200mm and 8000mm, Gypframe Deep Channels should be used at the base and at the head (subject to deflection head criteria).

NB Where tiling, refer to 'Tiling section' on page 304

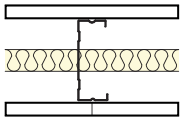
Table 5 – GypWall CLASSIC 92mm Gypframe 'C' Studs (92 S 50) - single layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119 & ANSI / UL 263

1



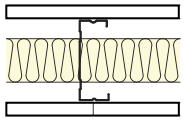
One layer of board each side of 92mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2



One layer of board each side of 92mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table

3



One layer of board each side of 92mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

For single layer Severe Duty solutions please refer to GypWall ROBUST and HABITO sections

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
30 minutes fire resistance								
1	119	Regular	1 x 12.5[3]	4500	35	35	Medium	19
2	119	Regular	1 x 12.5[3]	4500	43	43	Medium	20
3	119	Regular	1 x 12.5[3]	4500	44	44	Medium	20
3	119	SoundBloc	1 x 12.5[3]	4500	47	45	Medium	25
3	124	SoundBloc	1 x 15	4700	49	47	Heavy	29
60 minutes fire resistance								
1	124	FireStop	1 x 15	4700	39	41	Heavy	25
3	124	FireStop	1 x 15	4700	46	47	Heavy	25

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres.Refer to **Technical performance and principles of system design - Robustness** for increased heights.

[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.

[3] Fire resistance to BS 476 only.

NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

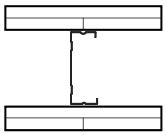
NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, according to Gyproc recommendations. The quoted performances are achieved only if Gyproc components are used throughout, and the company's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

NB For heights between 4200mm and 8000mm, Gypframe Deep Channels should be used at the base and at the head (subject to deflection head criteria).

NB Where tiling, refer to 'Tiling section' on page 304

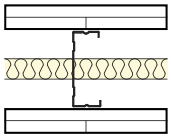
Table 6 – GypWall CLASSIC 92mm Gypframe 'C' Studs (92 S 50) - multiple layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119 & ANSI / UL 263

1



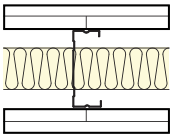
Two layers of board each side of 92mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2



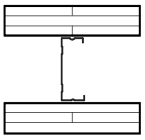
Two layers of board each side of 92mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

3



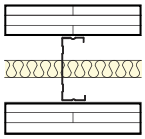
Two layers of board each side of 92mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

4



Three layers of board each side of 92mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

5



Three layers of board each side of 92mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
60 minutes fire resistance								
1	144	Regular	2 x 12.5	5700	45	45	Severe	36
2	144	Regular	2 x 12.5	5700	51	51	Severe	36
90 minutes fire resistance								
3	144	SoundBloc	2 x 12.5	5700	55	55	Severe	49
1	154	Regular	2 x 15	5900	45	45	Severe	48
120 minutes fire resistance								
1	144	FireStop	2 x 12.5	5700	46	47	Severe	42
2	144	FireStop	2 x 12.5	5700	51	51	Severe	42
3	144	FireStop	2 x 12.5	5700	53	53	Severe	43
3	154	SoundBloc	2 x 15	5900	55	56	Severe	56
180 minutes fire resistance								
4	184	FireStop	3 x 15	5900	46	47	Severe	71
5	184	FireStop	3 x 15	5900	51	51	Severe	72

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.

[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.

NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

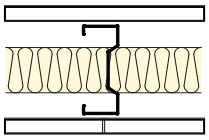
NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, according to Gyproc recommendations. The quoted performances are achieved only if Gyproc components are used throughout, and the company's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

NB For heights between 4200mm and 8000mm, Gypframe Deep Channels should be used at the base and at the head (subject to deflection head criteria).

NB Where tiling, refer to 'Tiling section' on page 304

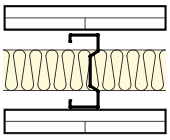
Table 7 – GypWall CLASSIC 92mm Gypframe AcouStuds (92 AS 50) - single and multiple layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119 & ANSI / UL 263

1



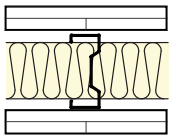
One layer of board each side of 92mm Gypframe AcouStuds at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

2



Two layers of board each side of 92mm Gypframe AcouStuds at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

3



Two layers of board each side of 92mm Gypframe AcouStuds at 600mm centres. 75mm ISOVER Eco APR in the cavity. Linings as in table.

Detail	Partition thickness mm	Board type[3]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation		Duty rating	Approx. weight kg/m²
					R_w (R_w+Ctr) dB	STC dB		
30 minutes fire resistance								
1	119	SoundBloc	1 x 12.5[2]	4700	49	48	Medium	24
90 minutes fire resistance								
2	144	SoundBloc	2 x 12.5	5800	59 (51)	56	Severe	47
120 minutes fire resistance								
3	154	SoundBloc	2 x 15	6000	62 (54)	60	Severe	58

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.

[2] Fire resistance to BS 476 only.

[3] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.

NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

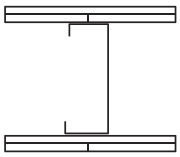
NB The fire resistance and sound insulation performances are for imperforate partitions, walls and ceilings incorporating boards with all joints taped and filled, according to Gyproc recommendations. The quoted performances are achieved only if Gyproc components are used throughout, and the company's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

NB For heights between 4200mm and 8000mm, Gypframe Deep Channels should be used at the base and at the head (subject to deflection head criteria).

NB Where tiling, refer to 'Tiling section' on page 304

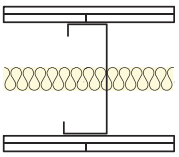
Table 8 – GypWall CLASSIC 150mm Gypframe 'C' Studs (150 S 50) - multiple layer board linings. Solutions to satisfy the requirements of BS 476: Part 22: 1987, ASTM E119 & ANSI / UL 263

1



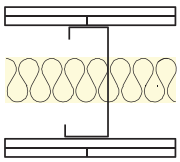
Two layers of board each side of 150mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

2



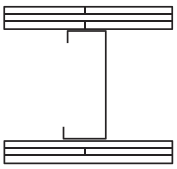
Two layers of board each side of 150mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

3



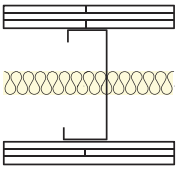
Two layers of board each side of 150mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

4



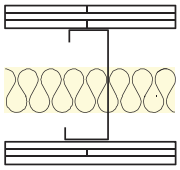
Three layers of board each side of 150mm Gypframe 'C' Studs at 600mm centres. Linings as in table.

5



Three layers of board each side of 150mm Gypframe 'C' Studs at 600mm centres. 25mm ISOVER Eco APR in the cavity. Linings as in table.

6



Three layers of board each side of 150mm Gypframe 'C' Studs at 600mm centres. 50mm ISOVER Eco APR in the cavity. Linings as in table.

Detail	Partition thickness mm	Board type[2]	Lining thickness mm	Maximum partition heights[1] mm	Sound insulation R_w dB	Sound insulation STC dB	Duty rating	Approx. weight kg/m²
60 minutes fire resistance								
1	202	Regular	2 x 12.5	7600	47	48	Severe	36
2	202	Regular	2 x 12.5	7600	52	52	Severe	36
90 minutes fire resistance								
1	212	Regular	2 x 15	7900	49	50	Severe	48
2	212	Regular	2 x 15	7900	52	53	Severe	48
120 minutes fire resistance								
1	202	FireStop	2 x 12.5	7600	47	48	Severe	42
2	202	FireStop	2 x 12.5	7600	52	52	Severe	43
3	202	FireStop	2 x 12.5	7600	53	53	Severe	43
180 minutes fire resistance								
4	242	FireStop	3 x 15	7900	49	50	Severe	72
5	242	FireStop	3 x 15	7900	52	53	Severe	73
6	242	FireStop	3 x 15	7900	53	53	Severe	73

[1] Based on a limiting deflection of L/240 at 200 Pa. Greater heights can be achieved through the use of Gypframe 'I' Studs, or reduced stud centres. Refer to **Technical performance and principles of system design - Robustness** for increased heights.

[2] The boards listed and the performances shown include MR, M2TECH & Activ'Air versions.

NB For increased fixing capability replace above listed boards with equivalent thickness of Gyproc Habito.

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

NB For heights between 4200mm and 8000mm, Gypframe Deep Channels should be used at the base and at the head (subject to deflection head criteria).

NB Where tiling, refer to 'Tiling section' on page 304

Design

Planning – key factors
GypWall CLASSIC comprises Gypframe 'C' Studs installed at 600mm centres within Gypframe Floor & Ceiling Channels. The position of services and heavy fixtures should be pre-determined and their installation planned into the frame erection stage.

Fixing floor and ceiling channels
Gypframe Floor & Ceiling Channels must be securely fixed with a row of fixings at 600mm maximum centres. For 94mm and above, two rows of staggered fixings are required, each row at 600mm centres and each fixing 25mm in from the flange. If the floor is uneven, a 38mm thick timber sole plate equal to the width of the channel should be used.

If the concrete or screeded floor is new and still damp, consideration should be given to the installation of a damp-proof membrane between the floor surface and the channel or sole plate.

Splicing
To extend studs, overlap by 600mm (minimum) and fix together using Gyproc Waferhead Screws. Refer to construction detail 17, 18 & 19 on page 85.

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 Building acoustics for further information.

Door openings
The designer should consider thickness tolerances of the partition types in relation to the proposed door frame detail. Standard door frame detailing to suit BS 5234: Part 2 Light and Medium Duty applications is shown in construction detail 27. Detailing to satisfy BS 5234: Part 2 requirements for Heavy and Severe Duty Rating is shown in construction details 28 and 29. The door manufacturer should also be consulted in relation to door details.

Specialist advice should be sought from door manufacturers and acoustic consultants to ensure the required acoustic performance is achieved. This becomes more important as acoustic requirements increase.

Framing surround for openings
Where services such as horizontal ducts, fire dampers and access panels are required to penetrate the wall, their position should be pre-determined in order that a framed opening can be provided. The openings should be constructed using established metal stud procedures. Refer to construction details 33 to 35.

Cavity barriers
Minimum 12.5mm Gyproc plasterboard, screw-fixed into the web of perimeter channels or vertical studs, will provide a satisfactory closure to flame or smoke.

Control joints
Control joints may be required in the partition to relieve stresses induced by expansion and contraction of the structure. Refer to construction detail 15. They should coincide with movement joints within the surrounding structure.

Deflection heads
Partition head deflection designs may be necessary to accommodate deflections in the supporting floor. Deflection heads may also be required to the underside of roof structures subjected to positive and negative pressures. Refer to construction details 22 to 26. When ceilings are not present to one or both sides of the partition, consideration should be given to the potential loss of acoustic performance. Refer to Building acoustics for further information.

Services

Penetrations
Penetrations of fire-resistant or sound-insulating constructions for services need careful consideration to ensure that the performance of the element is not downgraded. Consideration also needs to be given to the services themselves so they do not act as the mechanism of fire spread or sound transmission. Refer to Service installations for further information.

Electrical
The installation of electrical services should be carried out in accordance with BS 7671 or other equivalent international standard. The service cut-outs in the studs can be used for routing electrical and other small services. Refer to construction detail 1. Cables should be protected by conduit, or other suitable precautions taken to prevent abrasion when they pass through the metal frame. Service cut-outs should be aligned to allow easy installation of service. If studs require cutting, cut from the same end of each stud to ensure cut-out alignment. Switch boxes and socket outlets can be supported from Gypframe 103 FC 50 Fixing Channel fixed horizontally between studs, or a high performance socket box detail can be used where higher acoustic performance is required.

Independent support
When designing for the installation of services such as fire dampers and associated ductwork through a GypWall partition, 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 construction details 33 and 34.

Fixtures
Lightweight fixtures can be made directly to the partition board linings. Medium weight fixtures can be made to Gypframe 103 FC 50 Fixing Channel. Heavyweight fixtures (to BS 5234: Part 2) such as wash basins and wall cupboards, can be fixed using plywood secured by Gypframe Service Support Plates. Refer to Service installations for further information.

Design (continued)

Where it is not possible to predetermine the exact location of fixtures, or where additional fixtures may be added or moved around the room in the future, Gyproc Habito board should be considered as the lining board where medium and / or heavy weight fixtures are to be included. Refer to GypWall HABITO on page 118 for further information.

Access for maintenance
Suitable access panels (by others) can be used to provide access for maintenance. Access panels must be fully compatible with drywall construction and match the fire rating of the partition.

Board finishing
Refer to Finishing systems.

Tiling
Tiles up to 32 kg/m^2 can be applied to the surface of Gyproc plasterboard systems. Tiles up to 60kg/m^2 can be applied when using Glasroc X or Aquaroc FC board. Refer to Tiling on page 304 for further information.

Mold & moisture protection
Where additional protection against moisture is required, for example in a bathroom, kitchen or other area subject to intermittent humidity, then the moisture resistant grade of the required board type should be specified – for example Gyproc SoundBloc MR. Similarly, if protection against mold spores forming is required then M2TECH (mold & moisture technology) versions of the boards should be specified – for example Gyproc SoundBloc M2TECH.

Using MR or M2TECH versions of any of the plasterboard linings listed in the performance tables, will not affect the fire, acoustic, height or robustness performances listed.

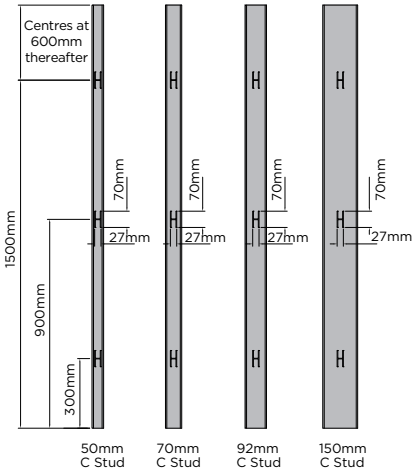
Air quality
Consideration should be given to specifying plasterboard linings that, in addition to the performances listed in the preceding tables from page 72-79 (covering fire, acoustic, duty rating etc), actively absorb harmful volatile organic compounds (VOC's) such as formaldehyde, from the atmosphere. Where additional protection against VOC's is required, then Activ'Air versions of the boards listed in these pages should be specified – for example Gyproc SoundBloc Activ'Air.

Using Activ'Air versions of any of the plasterboard linings listed in the performance tables, will not affect the fire, acoustic, height or robustness performances listed.

Construction details
For GypWall construction details, refer to the construction details shown on pages 82 to 92. For more typical or example details, please contact the Gyproc Technical Team.

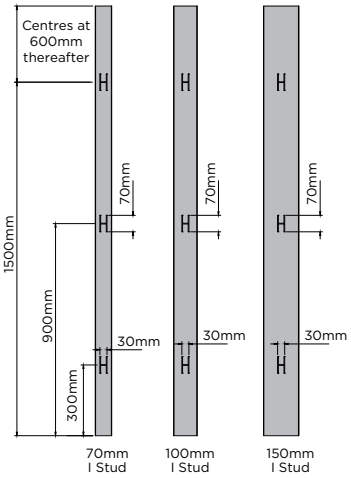
Construction details

1A



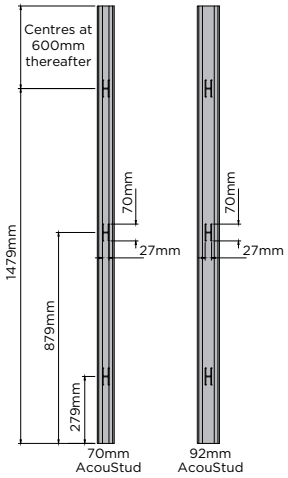
Gypframe 'C' Studs service cut-out details

1B



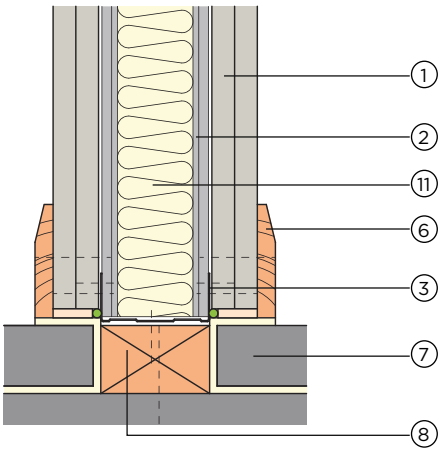
Gypframe 'I' Studs service cut-out details

1C



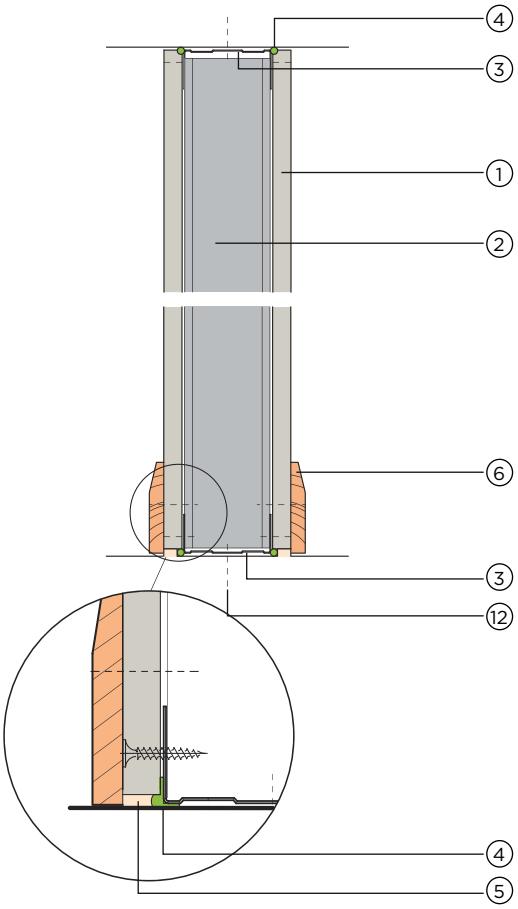
Gypframe 'AS' AcouStuds service cut-out details

2



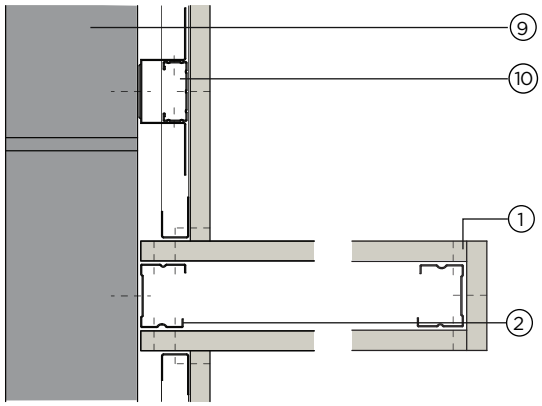
Base detail with timber sole plate

3



Head and base detail

4

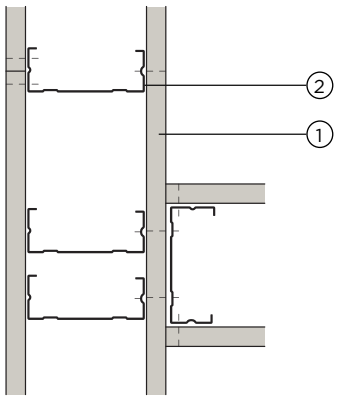


Junction with masonry and stop end detail

1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. Gypframe Floor & Ceiling Channel
4. Gyproc Sealant
5. Bulk fill with Gyproc Jointing Compound (where gap exceeds 5mm)
6. Skirting
7. Floating screed on resilient layer
8. Timber sole plate suitably fixed to structure
9. Blockwork
10. GypLyner wall lining system
11. ISOVER Eco APR
12. Gyproc Wedge Anchor for fire rated partitions or Gyproc Hammer Fix for non-fire rated partitions

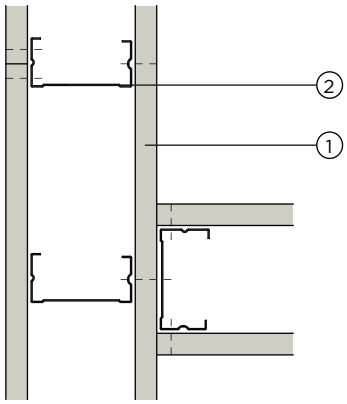
Construction details (continued)

5



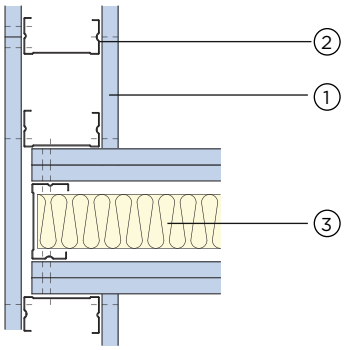
'T' junction detail for 92 / 150mm stud - single layer

6



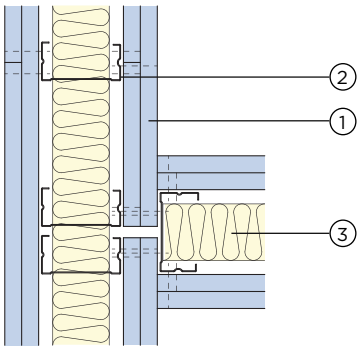
'T' junction detail for 50 / 70mm stud - single layer

7



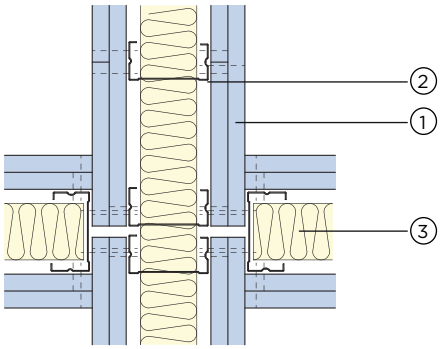
'T' junction detail when partition with higher acoustic performance abuts a partition with lower acoustic performance. Acoustic principles only - detail may not be suitable for all solutions

8



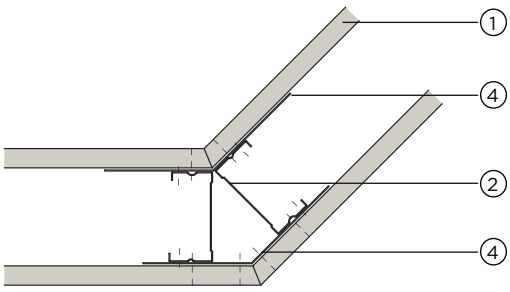
'T' junction detail to optimise acoustic performance and reduce flanking transmission

9



Four way junction detail to optimise acoustic performance and reduce flanking transmission

10

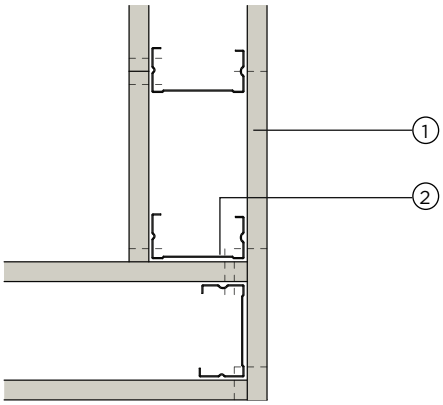


Splayed corner

1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. ISOVER Eco APR
4. Gypframe GA6 Splayed Angle

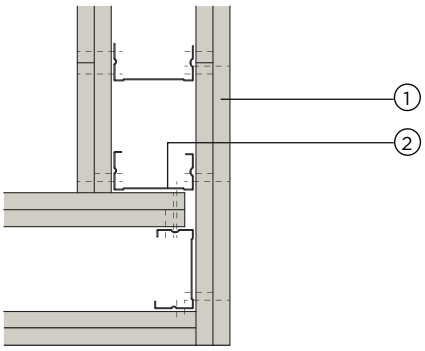
Construction details (continued)

11



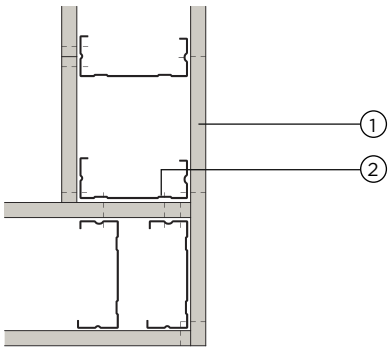
Corner detail for 50 / 70mm stud - single layer

12



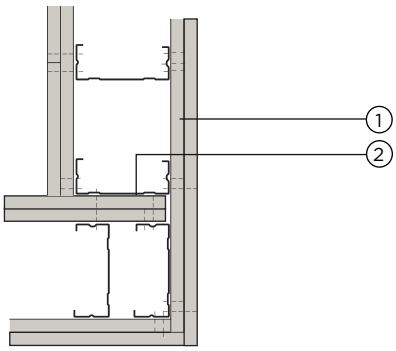
Corner detail for 50 / 70mm stud - double layer

13



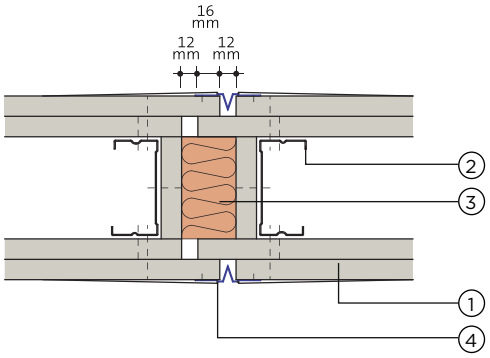
Corner detail for 92 / 150mm stud - single layer

14



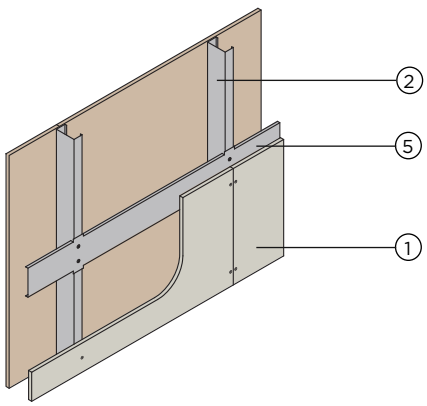
Corner detail for 92 / 150mm stud - double layer

15



Typical control joint

16

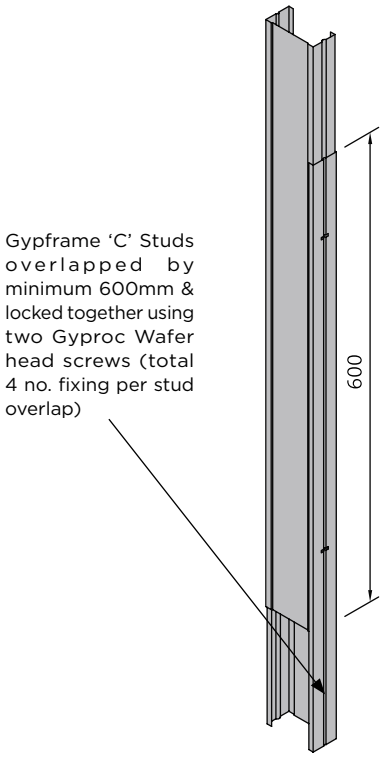


Gypframe 103 FC 50 Fixing Channel (short legs flattened at stud positions) for medium weight fixtures

1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. Stone mineral wool (minimum 23 kg/m^3) (by KIMMCO ISOVER)
4. Control joint (by others)
5. Gypframe 103 FC 50 Fixing Channel

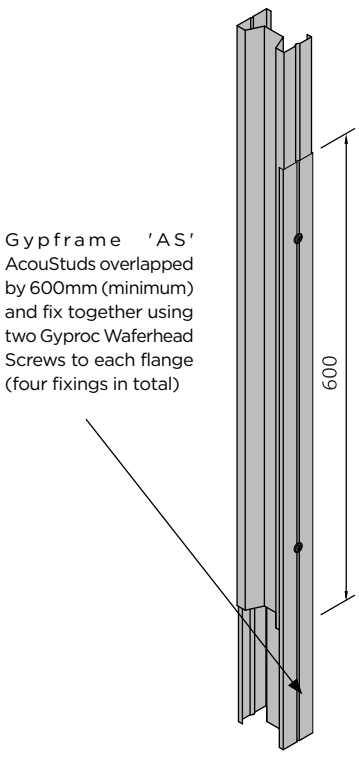
Construction details (continued)

17



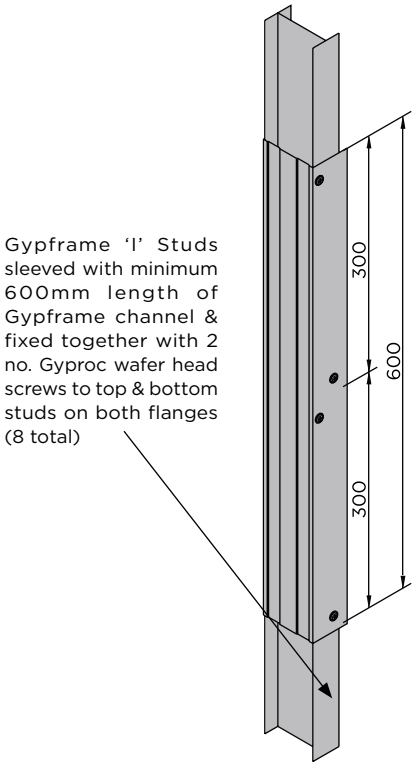
Stud Splice detail - Gypframe 'C' Stud

18



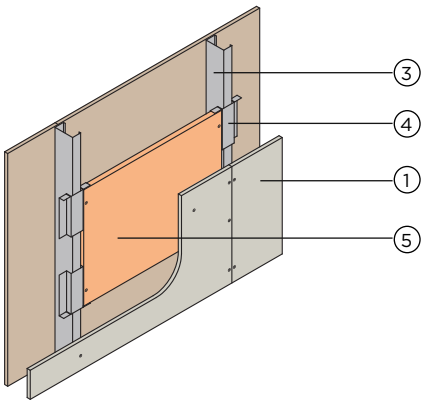
Stud Splice detail - Gypframe AcouStud

19



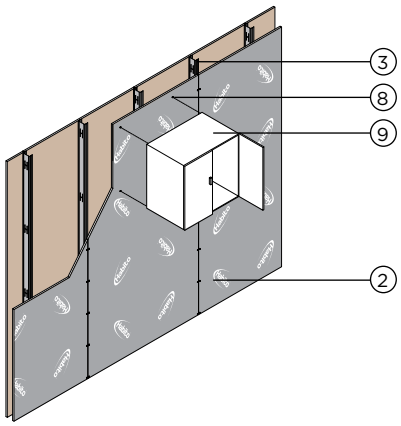
Stud Splice detail - Gypframe 'I' Stud

20



Gypframe Service Support Plate

21

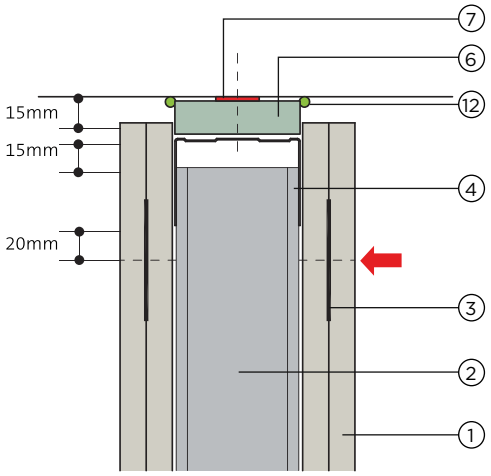


Habito direct fixing detail

1. Gyproc plasterboard
2. Gyproc Habito plasterboard
3. Gypframe 'C' Stud
4. Gypframe Service Support Plate
5. 18mm Plywood
6. Gyproc Habito board
7. Gyproc Habito Screw
8. No. 10 woodscrew, directly fixed to board only
9. Wall cupboard

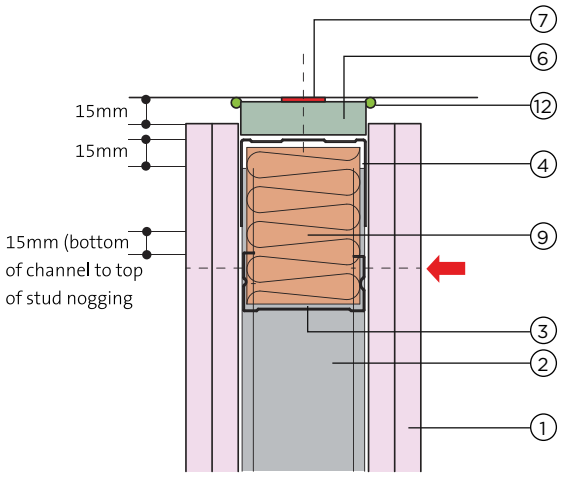
Construction details (continued)

22



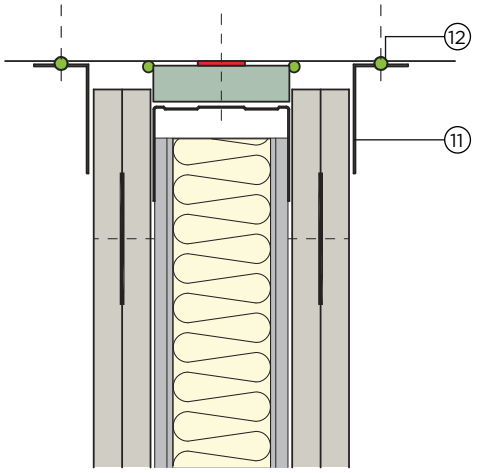
Deflection head detail for 15mm downward movement and 60 minutes fire resistance

23



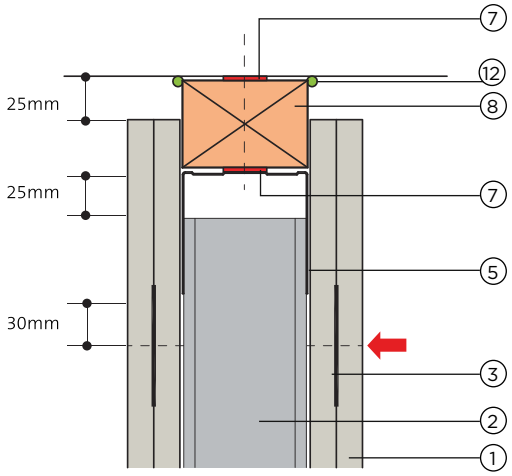
Deflection head detail for 15mm downward movement and up to 120 minutes fire resistance

24



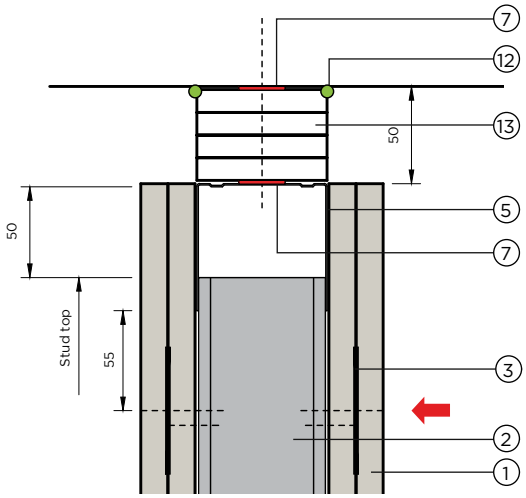
Deflection head detail with GA4 angles to help maintain acoustic performance of partition. Can be omitted where a ceiling is to both sides

25



Deflection head detail for plus or minus 25mm movement and 60 minutes fire resistance

26



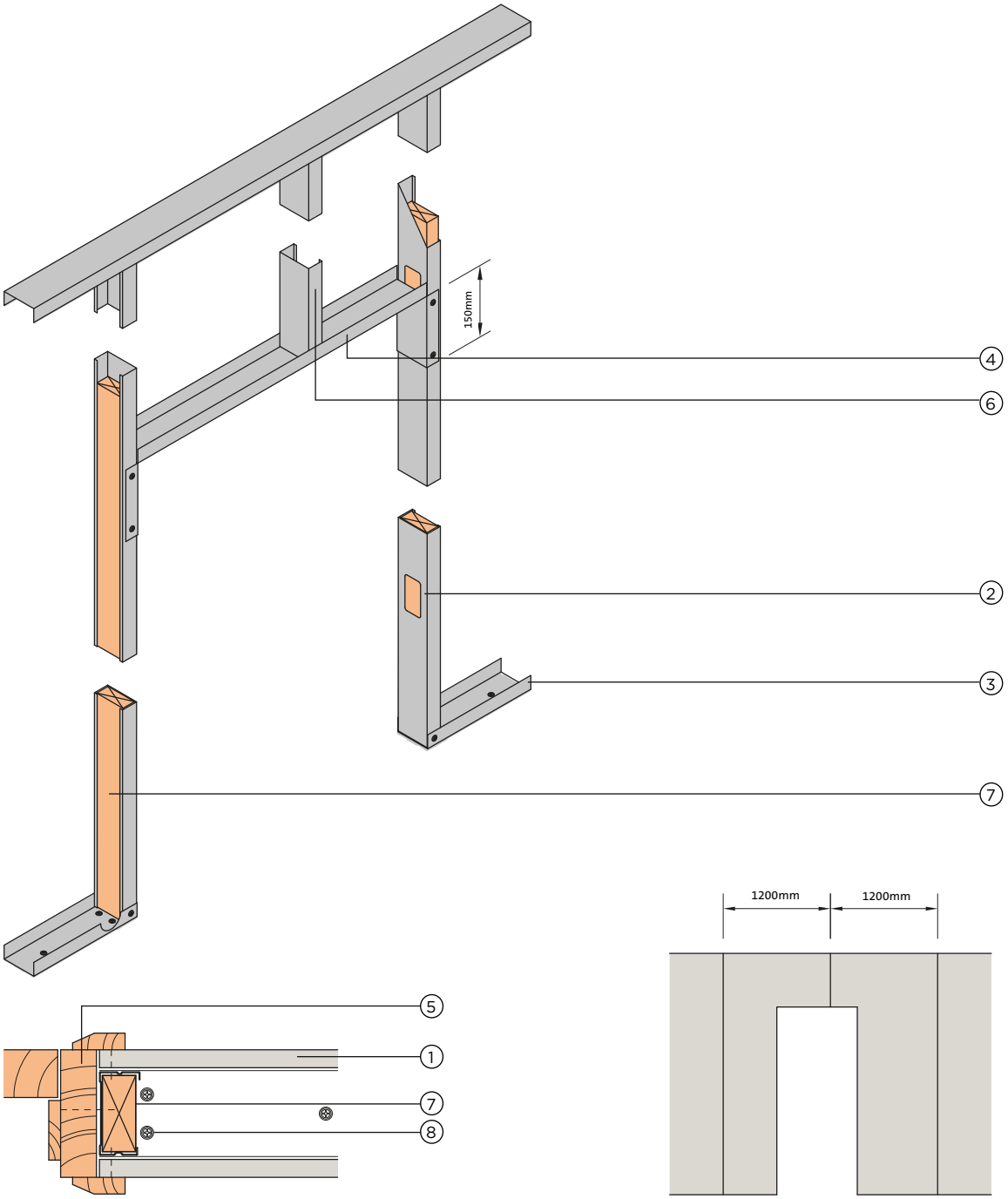
Deflection head detail for 50mm downward movement and 60 minutes fire resistance

1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. Gypframe GFS1 Fixing Strap
4. Gypframe Deep Channel suitably fixed through fire-stop to structure at 600mm
5. Gypframe Extra Deep Channel fixed to timber head plate
6. Gyproc CoreBoard
7. Gyproc FireStrip (continuous)
8. Timber head plate suitably fixed to structure
9. Stone mineral wool (minimum 33 kg/m^3) (by KIMMCO ISOVER) retained by stud nogging
10. Nogging cut from Gypframe 'C' Stud
11. Gypframe GA4 Steel Angle
12. Gyproc Sealant
13. 4 No. channel wide strips of 12.5mm Glasroc X

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, which should be made into Gypframe GFS1 Fixing Strap (or stud nogging in construction detail 22). Gyproc FireStrip is used where the soffit shows signs of undulation or where small gaps, cracks or holes are apparent. FireStrip must be continuous to maintain fire performance. Where there is a need for a deflection head in a 90 minute wall, the 120 minute solution can be used (refer to construction detail 22) or alternatively, please contact the Gyproc Technical Team for further guidance.

Construction details (continued)

27



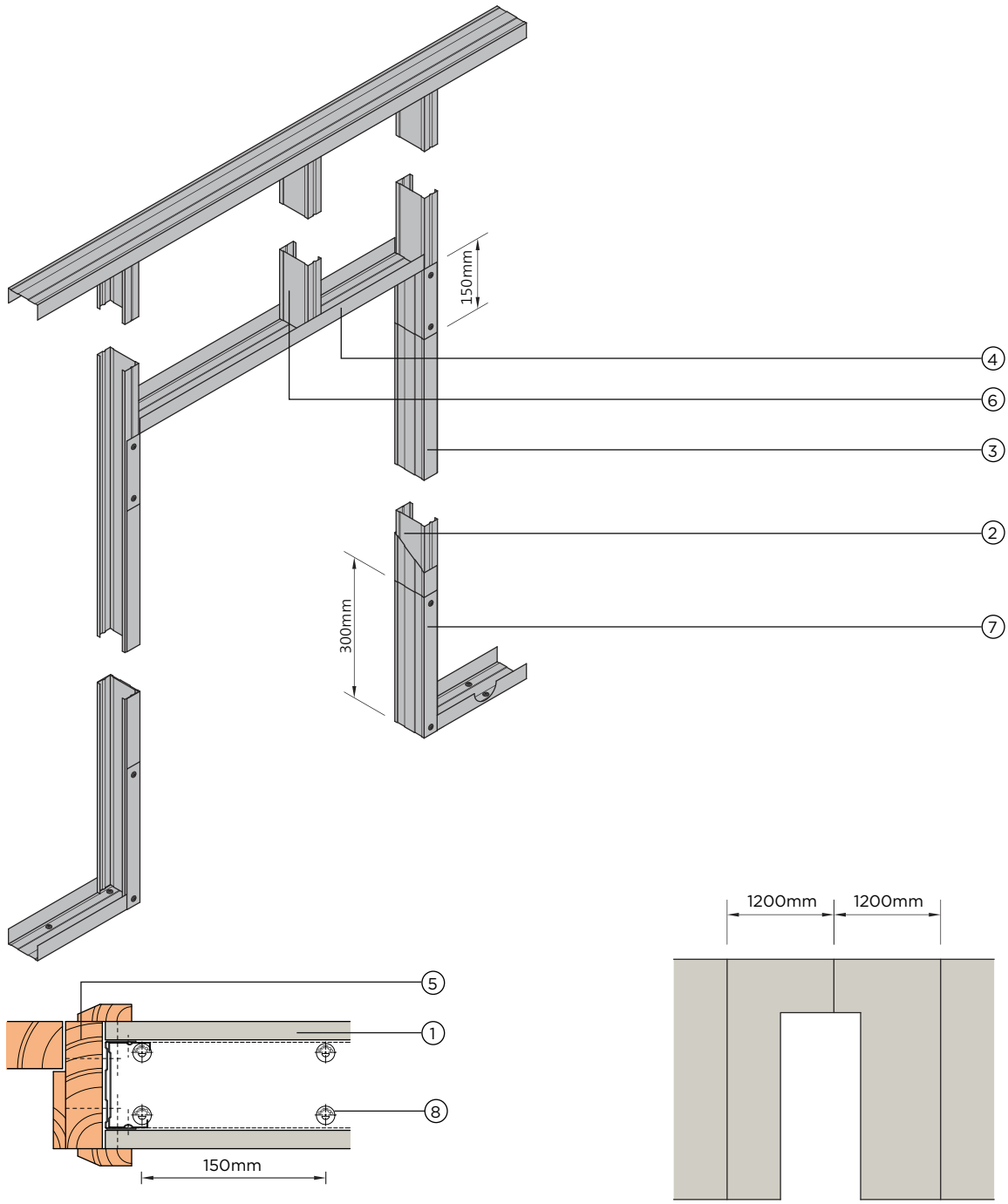
Door frame detail to satisfy BS 5234: Parts 1 & 2: 1992 - Light and Medium Duty.
Suitable for door weights upto 35kg.

1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. Gypframe Channel
4. Gypframe Channel cut and bent to form door head
5. Timber door frame and architrave
6. Gypframe 'C' Stud to maintain stud module
7. Timber sub-frame
8. Gyproc Wedge Anchor for fire rated partitions or Gyproc Hammer Fix for non-fire rated partitions

NB Advice should be sought from the door manufacturer prior to the construction of these details.

Construction details (continued)

28



Door frame detail to satisfy BS 5234: Parts 1 & 2: 1992 - Heavy and Severe Duty. Suitable for door weights upto 60kg. For door weights in excess of 60kg, please contact Gyproc Technical Team.

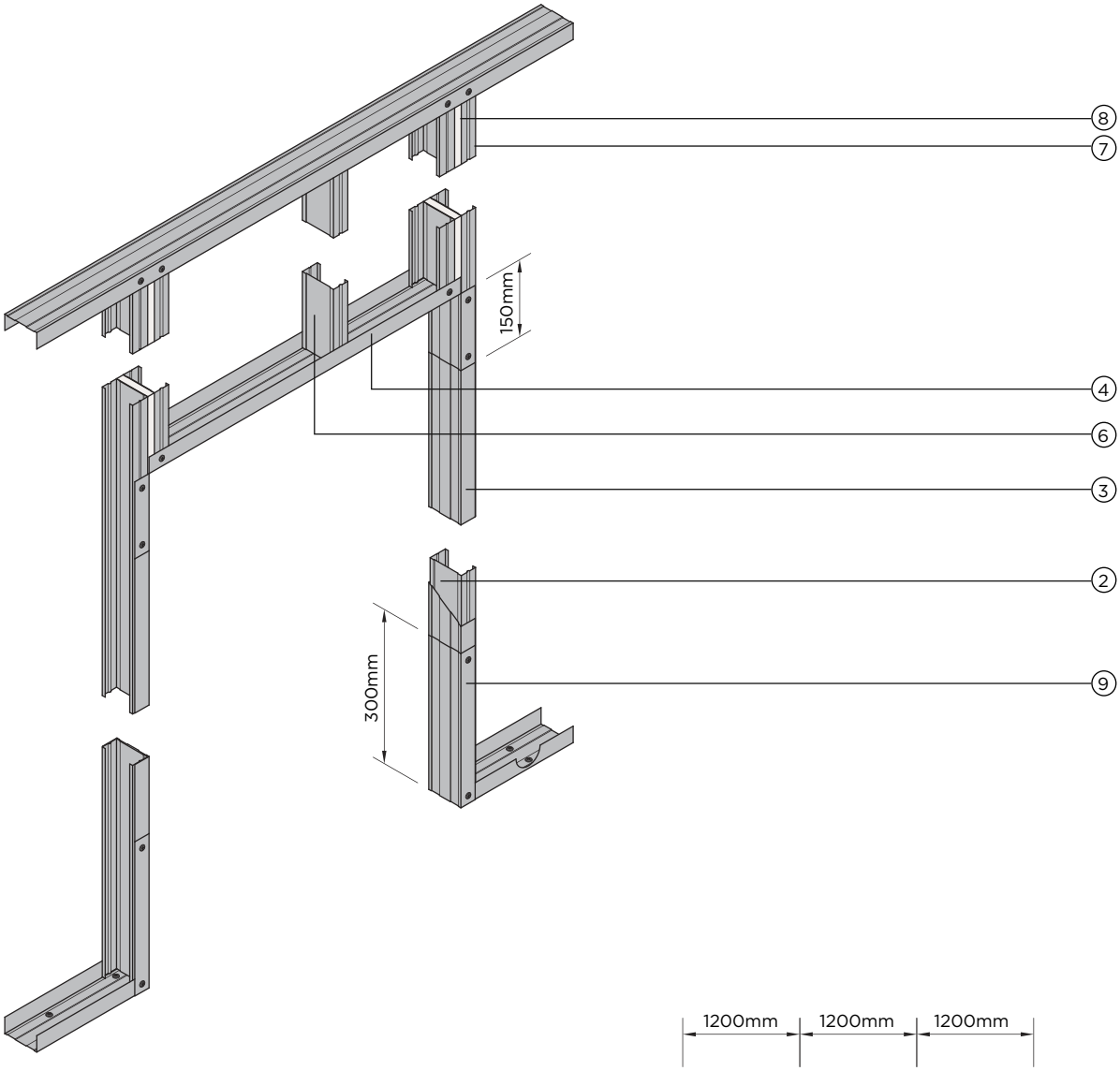
1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. Gypframe Channel to sleeve studs
4. Gypframe Channel cut and bent to form door head
5. Timber door frame and architrave
6. Gypframe 'C' Stud to maintain stud module
7. Gypframe Channel cut and bent to extend up studs
8. Gyproc Wedge Anchor for fire rated partitions or Gyproc Hammer Fix for non-fire rated partitions

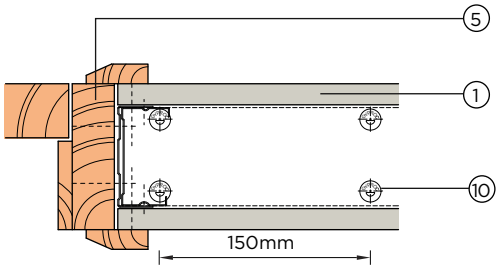
NB Advice should be sought from the door manufacturer prior to the construction of these details.

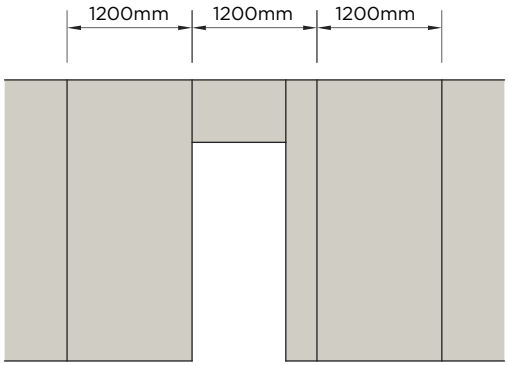
NB At the base, the channel is cut and bent to extend 300mm up the studs and fixed each side with two Gyproc Wafer Head Screws. The studs each side of the opening are sleeved full height of opening with Gypframe Channel.

Construction details (continued)

29







Alternative 'reduced plasterboard waste' door frame detail to satisfy BS 5324: Parts 1 & 2: 1992 - Heavy and Severe Duty. Suitable for door weights upto 60kg. For door weights above 60kg, please contact the Gyproc Technical Team.

1. Gyproc plasterboard
2. Gypframe 'C' Stud
3. Gypframe Channel to sleeve studs
4. Gypframe Channel cut and bent to form door head
5. Timber door frame and architrave
6. Gypframe 'C' Stud to maintain stud module
7. Gypframe 'C' Studs fixed back to back with Gyproc Drywall Screws at 300mm centres staggered
8. Plasterboard infill (same type as lining) cut to fit between studs
9. Gypframe Channel cut and bent to extend up studs
10. Gyproc Wedge Anchor for fire rated partitions or Gyproc Hammer Fix for non-fire rated partitions

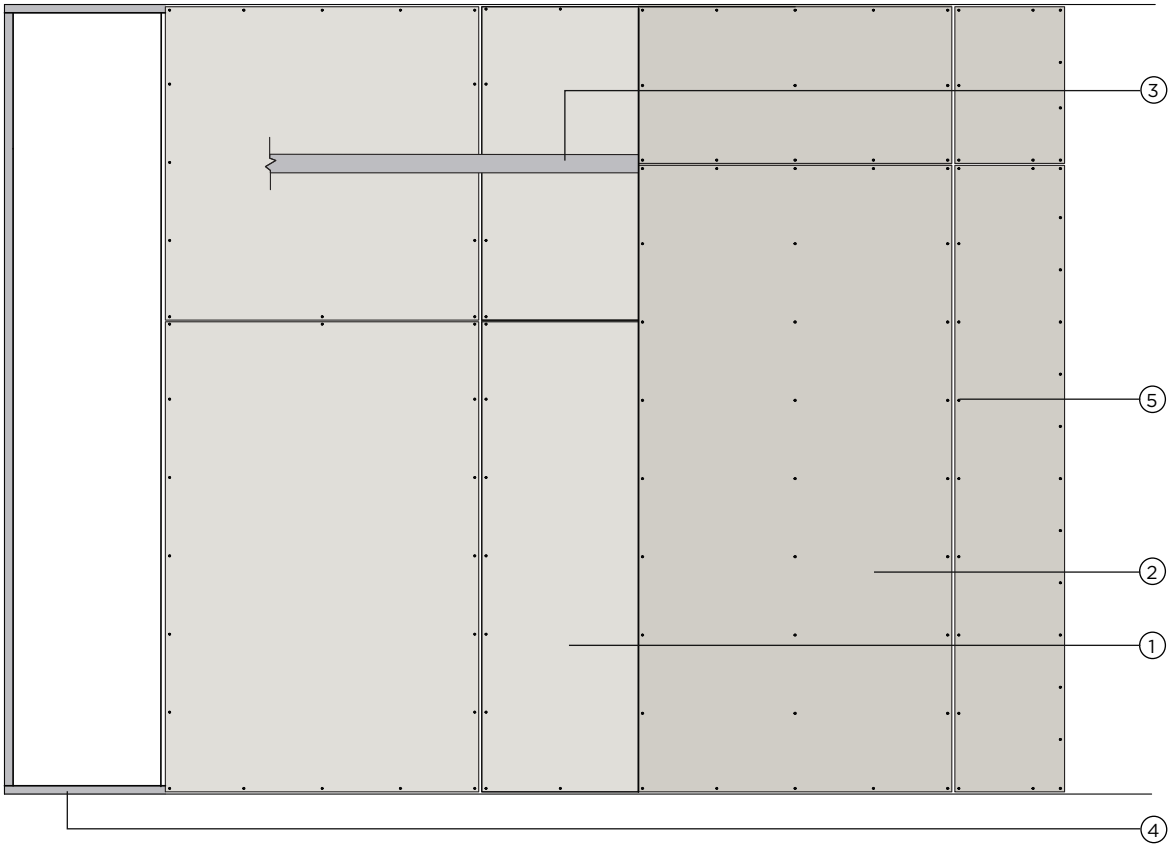
NB Advice should be sought from the door manufacturer prior to the construction of these details.

NB At the base, the channel is cut and bent to extend 300mm up the studs and fixed each side with two Gyproc Wafer Head Drywall Screws. The studs each side of the opening are sleeved full height of opening with Gypframe Channel.

NB The principle of this alternative 'reduced plasterboard waste' detail is only suitable for GypWall CLASSIC and GypWall ROBUST for fixed head situations only.

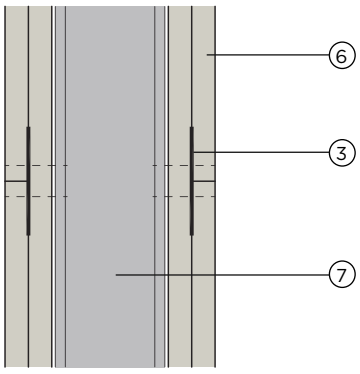
Construction details (continued)

30



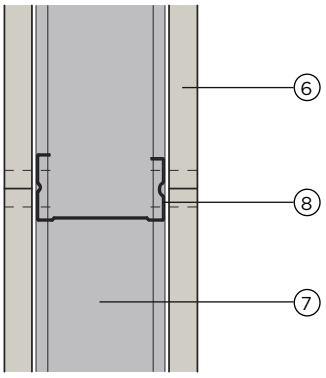
Board layout - typical configuration

31



Horizontal board joint - double layer

32



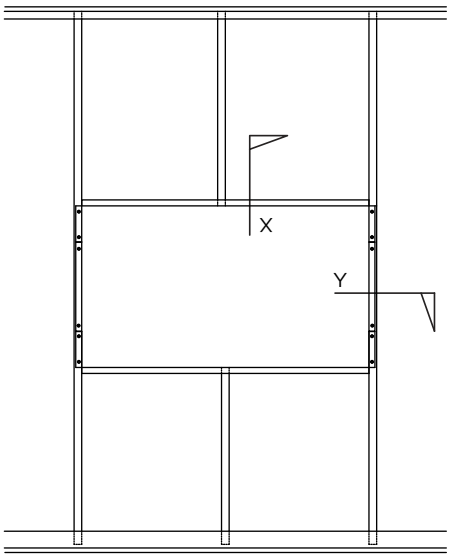
Horizontal board joint - single layer

1. Inner layer of Gyproc plasterboard
2. Outer layer of Gyproc plasterboard
3. Gypframe GFS1 Fixing Strap
4. Gypframe metal framing
5. Gyproc Drywall Screws
6. Gyproc plasterboard
7. Gypframe 'C' Stud
8. Horizontal nogging cut from Gypframe 'C' Stud

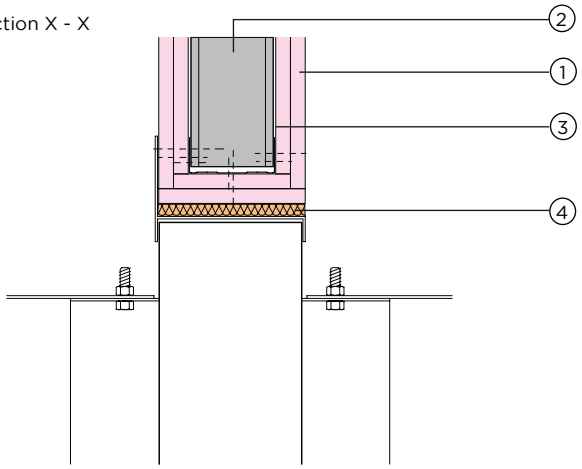
Construction details (continued)

33

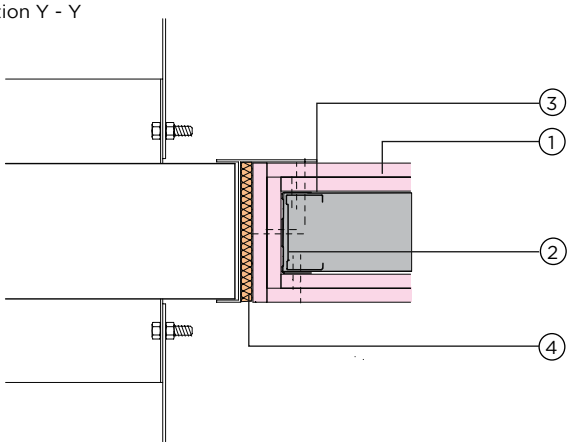
Elevation



Section X - X

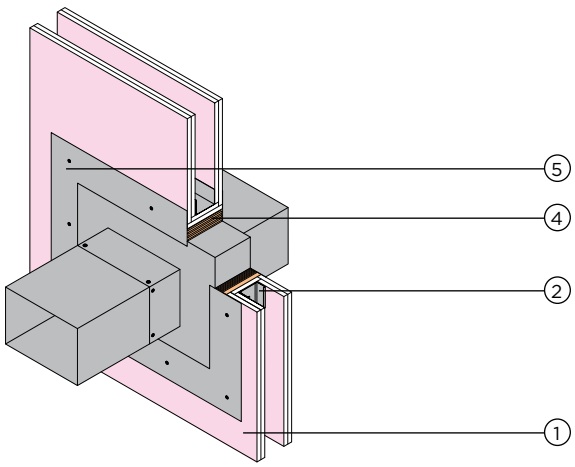


Section Y - Y



Opening upto 1200mm for service penetrations in fire-rated partitions with fixed heads.
For openings where deflection heads are specified, contact the Gyproc Techincal Team.

34

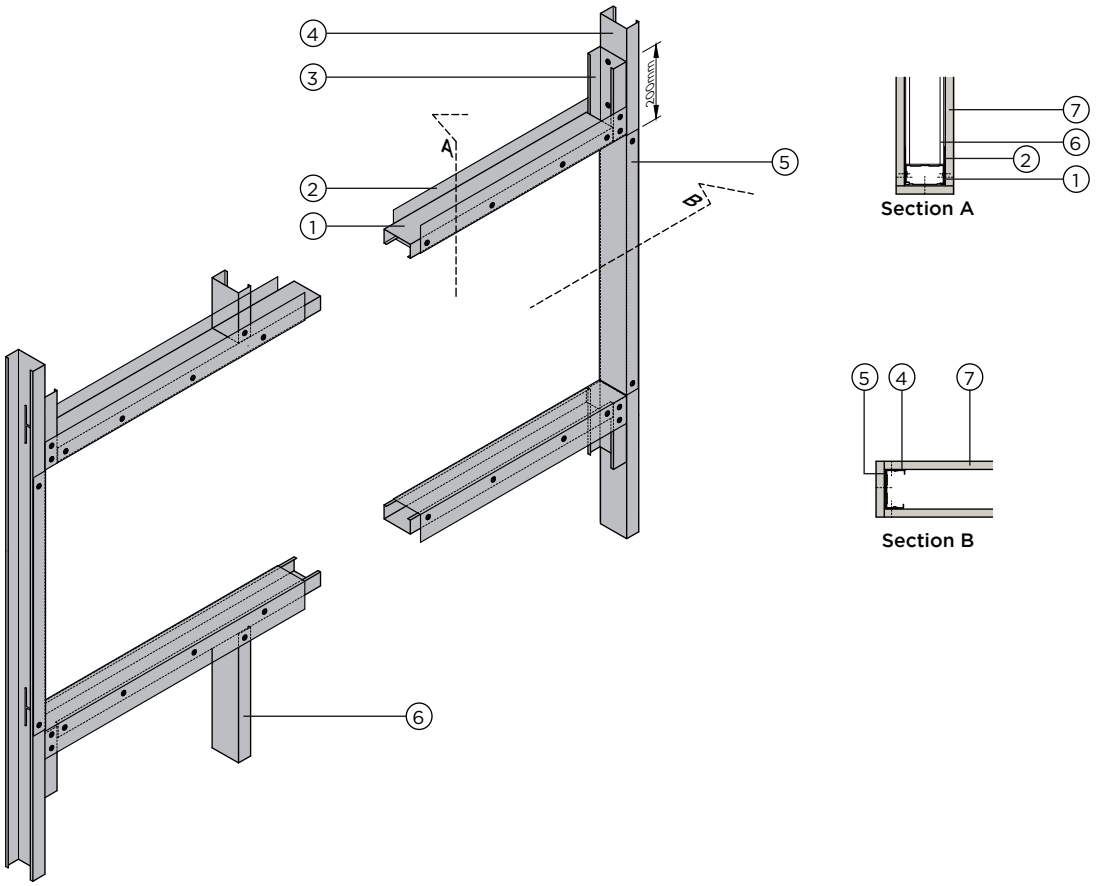


Fire tested construction construction detail in which the damper is supported by the partition (isometric view)

1. Gyproc plasterboard
2. Gypframe ‘C’ Stud
3. Gypframe Channel
4. Penetration seal as tested by damper manufacturer or proprietary alternative, confirmed as compatible by system designer / specifier (Plasterboard lining around opening may not be required)
5. Damper (by others). Weight of damper should not exceed 57kg. Size of damper should not exceed 1400mm (height) x 1200mm (width)

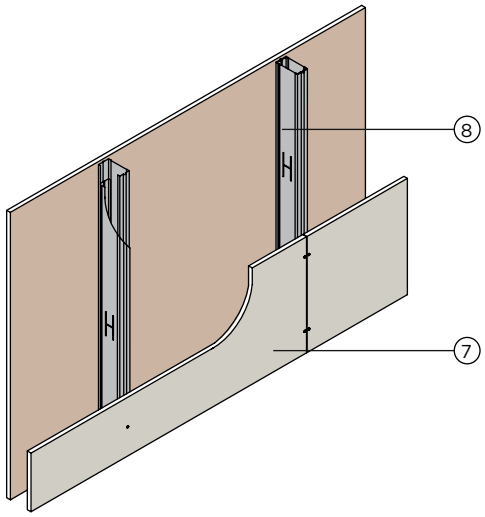
Construction details

35



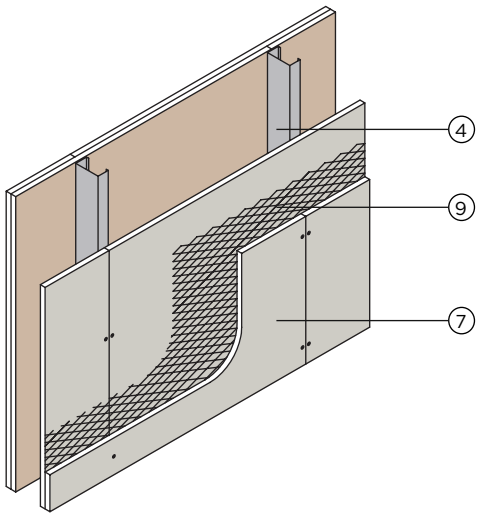
Opening from 1200mm to 3600mm wide for MEP services/door/window/glazed screen (detail may vary according to weight of glazing. Contact the Gyproc Technical Team for guidance).

36



Boxed Gypframe 'C' Studs for improved strength and robustness

37



Expanded metal lath between board layers for additional security

1. Gypframe 'C' Stud inserted into channel
2. Gypframe Extra Deep Channel
3. 200mm length Gypframe 'C' Stud soldiers
4. Gypframe 'C' Stud
5. Gypframe Stud sleeve to full opening height with Gypframe channel
6. Additional Gypframe 'C' studs to suit stud module
7. Gyproc Plasterboards
8. Gypframe Box 'C' Stud
9. Expament Securilath MD1 (2076F) or similar, bedded on vertical beads of Gyproc Sealant at 300mm centres and fixed to studs

NB For openings greater than 1800mm, contact the Gyproc Technical Team.

NB When using detail 29 and/or 30 for improved strength, robustness and security, we would also recommend the use of Gyproc DuraLine for greater impact resistance. See the GypWall robust section for further details.

Notes