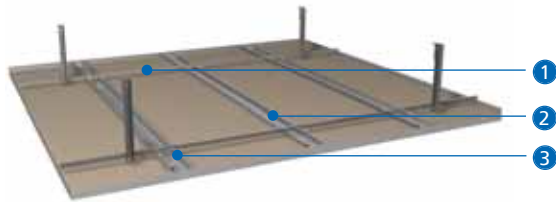


Concealed grid MF suspended ceiling system

Casoline MF is a suspended ceiling system suitable for most internal drylining applications. The grid is fully concealed and the ceiling lining is joint-treated or plastered to present a seamless, monolithic appearance.





- 1 Gypframe MF7 Primary Support Channel
- 2 Gypframe MF5 Ceiling Section
- 3 Gypframe MF9 Connecting Clip

Key facts

- Monolithic appearance
- Suspension from concrete or timber floors
- Acoustic hangers provide option of resilient suspension
- Durable ceiling lining
- Ventilation ducts and other services accommodated in plenum
- Access panels provide services access
- Easy to create bulkheads and change levels

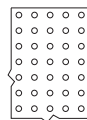
Components

Gyproc and Glasroc board products

			Take-off quantities ¹
	Gyproc WallBoard^{2,3} Thickness 12.5, 15mm Width 900, 1200mm		100m ²
	Gyproc SoundBloc² Thickness 12.5, 15mm Width 1200mm		100m ²
	Gyproc FireLine^{2,3} Thickness 12.5, 15mm Width 900, 1200mm		100m ²
	Glasroc MultiBoard Thickness 6, 10, 12.5mm Width 1200mm		100m ²

¹ Quantities are for 100m² of regular shaped rectangular ceiling, with a 1m depth of suspension. Quantities are based on a maximum recommended load on the CasoLine ceiling grid (including the weight of the board) of 30kg/m² MF5 component at 450mm centres. Quantities are approximate for a single layer installation and for guidance only, no allowance has been made for waste.

Arteco ceiling products



Arteco Gyptone board products
and
Arteco Rigitone board products

Take-off quantities¹

as required

Gypframe metal products



Gypframe MF5 Ceiling Section
Main support section.

Prime dimensions 80 x 26mm
Gauge 0.5mm
Length 3600mm

230m



Gypframe MF6 Perimeter Channel
Perimeter support for MF5s.

Prime dimensions 20 x 28 x 30mm
Gauge 0.5mm
Length 3600mm






varies depending on the ceiling perimeter

Refer to section 11 – Quantity take-off details.

² Moisture resistant boards are specified in intermittent wet use areas e.g. shower cubicles.

³ Also available in DUPLEX grades where vapour control is required.

Gypframe metal products		Take-off quantities ¹
	<p>Gypframe MF7 Primary Support Channel Primary support for MF5s. Prime dimensions 15 x 45mm Gauge 0.9mm Length 3600mm</p>	83m
	<p>Gypframe MF8 Strap Hanger Suspension of ceiling grid. Prime dimension 25mm Gauge 0.55mm Length 25m (coil)</p>	64m
or		
	<p>Gypframe GA1 Steel Angle Width 25 x 25mm Gauge 0.5mm Length 2900mm</p>	64m
or		
	<p>Gypframe GAH1 Acoustic Hanger Length 35mm</p>	70
	<p>Gypframe GAH2 Acoustic Hanger Length 70mm</p>	where specified

Gypframe metal products		Take-off quantities ¹
	<p>Gypframe MF9 Connecting Clip Fixing MF5s to MF7. Gauge 2.65mm</p>	190
	<p>Gypframe MF11 Nut and Bolt Joining hanger to soffit cleat. Dimensions 6 x 12mm bolt</p>	100
	<p>Gypframe MF12 Soffit Cleat Suspension point from structural soffit. Prime dimensions 27 x 37 x 25mm Gauge 1.6mm</p>	70
Fixing and finishing products		
	<p>Gyproc Profiflex Access Panels For access to the plenum for maintenance purposes.</p>	as required
	<p>Gyproc Drywall Screws For fixing boards to framing up to 0.79mm thick.</p>	1800

Components

Fixing and finishing products

		Take-off quantities [†]
	Gyproc Wafer Head Drywall Screws For metal-to-metal fixing up to 0.79mm thick.	as required
	Gyproc Wafer Head Jack-Point Screws For metal-to-metal fixing 0.8mm thick or greater.	as required
	Gyproc Sealant For sealing air paths to achieve optimum sound insulation.	1 cartridge per 35m based on 6-10mm bead
	Thistle Multi-Finish or Thistle Board Finish To provide a plaster skim finish.	10m ² per 25kg bag
	Thistle Spray Finish Gypsum finish plaster for spray or hand application.	11m ² per 25kg bag
	Isover General Purpose Roll For providing acoustic / thermal insulation.	as required

Fixing and finishing products

		Take-off quantities [†]
	Isover Modular Roll For providing acoustic / thermal insulation.	as required
	Isover Frame Batt 32 For providing acoustic / thermal insulation.	as required
	Stone Mineral Wool For providing fire performance.	as required
	Gyproc jointing materials For seamless jointing.	as required

[†] Quantities are for 100m² of regular shaped rectangular ceiling, with a 1m depth of suspension. Quantities are based on a maximum recommended load on the Casoline ceiling grid (including the weight of the board) of 30kg/m² MF5 component at 450mm centres. Quantities are approximate for a single layer installation and for guidance only, no allowance has been made for waste.

Construction tips

- Estimated construction time 1.5m²/ man hour (single layer ceiling) or 1 m²/ man hour (double layer ceiling) ready for finishing
- Recommended board size is 900mm x 1800mm. If longer boards are specified, lift and hold against ceiling grid using a suitable board jack
- Ascertain ceiling height required and set out accordingly
- Plan the ceiling layout. Fixing points for suspending the metal grid are required at 1200mm centres in each direction. Suitable fixing devices should be employed when fixing to the structure.
- Make provision for an adequate flexible seal between ceiling and walls to counter shrinkage gaps
- Install services before fixing the framework
- Install a vapour control layer, if required, to reduce the risk of interstitial condensation
- Install cavity barriers where specified
- Steel angle provides a more robust suspension support than strap hangers. Gypframe GA1 Steel Angle is thus the required suspension option when a plaster finish is specified

Construction tips (cont'd)

- The MF ceiling grid will accept a degree of loading. Suspension and MF7 centres may require closing down – refer to the British Gypsum **WHITE BOOK**, available to download from www.british-gypsum.com
- Pre-determine the position of fixtures and fittings. Fixings must be made into the grid or to supplementary framing
- Gyproframe acoustic hangers can be used to suspend the grid from timber joists to maximise the degree of acoustic isolation. With concrete floors the high mass of the construction means that high levels of acoustic performance can be achieved when the **Casoline MF** ceiling is suspended by conventional means i.e. strap hangers or angle section
- Consider installing a standard or fire-rated Gyproc Profiflex Access Panel at access points (600 x 1200mm maximum size)
- Airtightness is essential for optimum sound insulation. Gaps at the perimeter of the ceiling, and other small airpaths, can be sealed using Gyproc Sealant
- Consider sound absorption requirements. Gyptone boards provide sound absorption when used in conjunction with an air space behind a ceiling
- Gyproc Control Joints may be required in the ceiling to relieve stresses induced by expansion and contraction of the structure. It is recommended that they coincide with movement joints within the surrounding structure

Construction tips (cont'd)

Ceiling lift

Changes to Building Regulations Approved Document L, airtightness requirements within dwellings, can lead to greater changes in air pressure when a door is opened. The ceiling is normally the lightest fixed element in the room, and therefore most likely to be affected by this change in pressure.

This can cause the ceiling to lift, which may create a noise. Whilst this noise can be annoying to the occupier, it has no detrimental effect on the performance of the ceiling.

The designer should consider incorporating a pressure release system to minimise the risk of ceiling lift. Where sufficient 'pressure relief' cannot be designed in, it is recommended that the Gypframe MF5 Ceiling Section and the Gypframe MF7 Primary Support Channel should be screw-fixed together using two Gyproc Wafer Head Jack-Point Screws at each intersection, particularly where non-perforated board linings are specified.

Installation

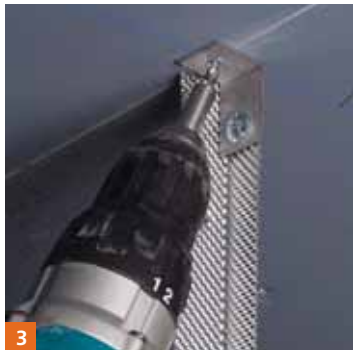


- Determine the required ceiling level and mark the position of Gypframe MF6 Perimeter Channel on the walls.
- Fix Gypframe MF6 at 600mm centres, using appropriate fixings.
- Mark fixing points of Gypframe MF12 Soffit Cleats to the structure at 1200mm centres (to form a 1200 x 1200mm grid). Secure each cleat using appropriate fixing.
- Pre-cut Gypframe MF8 Strap Hangers or Gypframe GA1 Steel Angle to the approximate depth of suspension required. Pre-punch or pre-drill to facilitate fixing to soffit cleat.



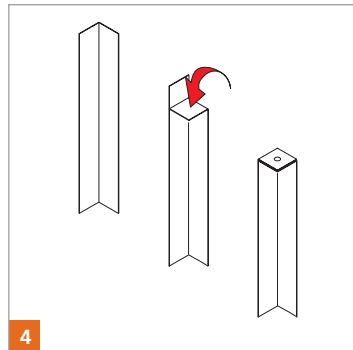
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- Locate each strap hanger or angle section against a Gypframe MF12 Soffit Cleat and fix using a Gypframe MF11 Nut and Bolt.



3

- Screw-fix to the structure.

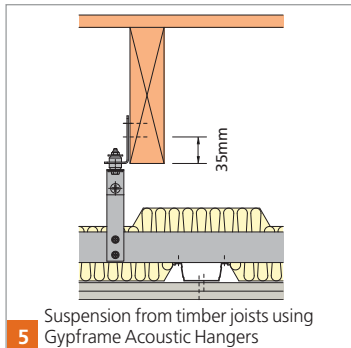


4

- Alternatively, Gypframe GA1 Steel Angle can be cut, bent and drilled to facilitate direct fixing to the structure (maximum loads will be reduced by 25% if using this method).

For double layer ceilings the Gypframe GA1 Steel Angles are fixed at max. 1200mm centres, but the Gypframe MF7s are closed down to 900mm max. centres.

Gypframe GA1 Steel Angles must not be fixed direct to the soffit if the ceiling is likely to deflect, e.g. due to varying pressures.



5 Suspension from timber joists using Gypframe Acoustic Hangers

- Mark fixing points of Gypframe GAH2 Acoustic Hangers to the timber joists at 1200mm centres (to form a 1200mm x 1200mm grid). Secure each hanger using two Gyproc Drywall Timber Screws. Fix a Gypframe MF12 Soffit Cleat to the Gypframe Acoustic Hanger using an M6 Bolt, washers and locking nut.



6

Suspension from concrete soffit using Gypframe Acoustic Hangers

- Mark fixing points of Gypframe GAH1 or GAH2 Acoustic Hangers to the structure at 1200mm centres (to form a 1200mm x 1200mm grid). Secure each hanger with a suitable proprietary concrete fixing including steel washers to ensure fixing does not pull through acoustic rubber.

NB When fixing through plasterboard ceiling into timber joist, use suitable wood screw and washers.



7

- Begin to form the primary grid by fixing the first Gypframe MF7 Support Channel. Rest one end on the top flange of the perimeter channel.



8

- Fix hangers (two fixings per hanger) to Gypframe MF7 Primary Support Channel using Gypframe Wafer Head Jack-Point Screws.



9

- Extend Gypframe MF7 channels by overlapping back-to-back by 150mm minimum and fix together using two Gypframe Wafer Head Jack-Point Screws.
- Fix further Gypframe MF7 channels to complete the primary grid.



10

- Form the secondary grid by running Gypframe MF5 Ceiling Section at right angles to the underside of the primary grid at maximum 450mm¹ centres, engaging into Gypframe MF6 Perimeter Channel at the perimeter.
- Screw-fix the Gypframe MF5 to the Gypframe MF7 using two Gyproc Wafer Head Jack-Point Screws.

¹ MF5 maximum fixing centres are reduced to 400mm for systems providing 120 minutes fire resistance. Please refer to the **WHITE BOOK**, **CasoLine MF** system section for further information and the systems effected.



- Alternatively connect Gypframe MF5 to Gypframe MF7 using Gypframe MF9 Connecting Clips.

NB Consider construction tip on page 297 on 'ceiling lift'.



- Use a cut piece of Gypframe MF7 (or similar) to facilitate engagement of the second leg of the clip.
- Do not squeeze the Gypframe MF5 Ceiling Section.



- Extend Gypframe MF5 sections (overlapping by 150mm minimum) and crimp or screw-fix twice through each flange.
- Ensure that joints do not occur at the intersection of Gypframe MF5 and Gypframe MF7 sections, otherwise engagement of the Gypframe MF9 clip will be impaired.



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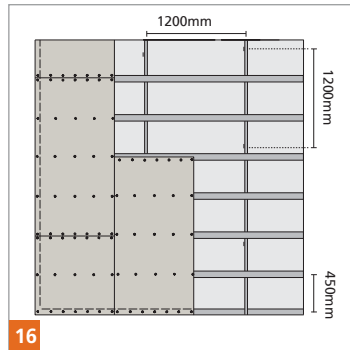
- Install further Gypframe MF5 sections to complete the grid.



15

Fixtures

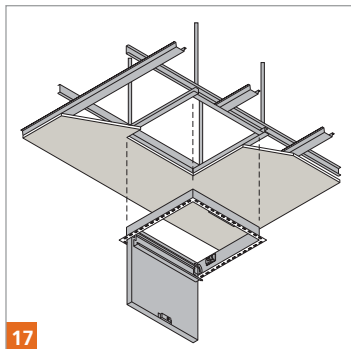
- Install additional Gypframe MF5 section, close down suspension centres or install supplementary framing, as required, to support fixtures and fittings.



16

Fixing Gyproc boards

- Fix boards to Gypframe MF5 sections with long edges at right angles to the framing using Gyproc Drywall Screws. Lightly butt board ends inserting fixings not closer than 10mm from bound board edges and 13mm from cut edges. Stagger end joints.
- Insert screws at 230mm maximum centres in the field of boards and 150mm maximum centres at board ends.



17

- For double layer linings stagger board joints in the second layer relative to the first.

NB Consideration should be given to any unevenness of the perimeter walls. The high and low spots could be established by use of a chalk line and the framing out and boarding procedure should be adjusted accordingly.

Installing access panels

- Fix a standard or fire-rated Gyproc Proflex Access Panel, if specified (see Section 12 – Products).

Services

- Route all services including ducting, pipework, electrical cables and conduit, within the plenum.

NB Consideration must be given to maintaining the integrity of the ceiling to meet fire resistance and sound insulation requirements.

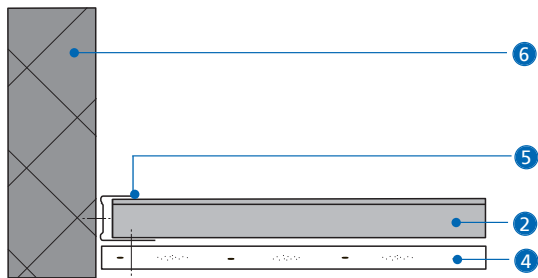


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Fixing Gyptone and Rigitone boards

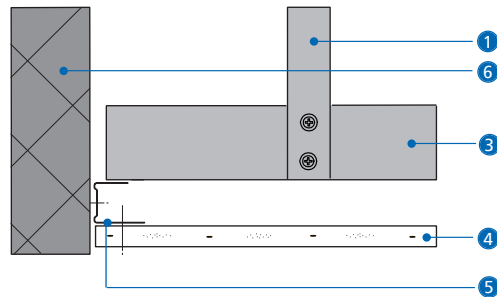
- For installation details covering Arteco Gyptone and Arteco Rigitone boards, refer to the British Gypsum Ceilings Installation Guide, available to download from www.british-gypsum.com

Junction details



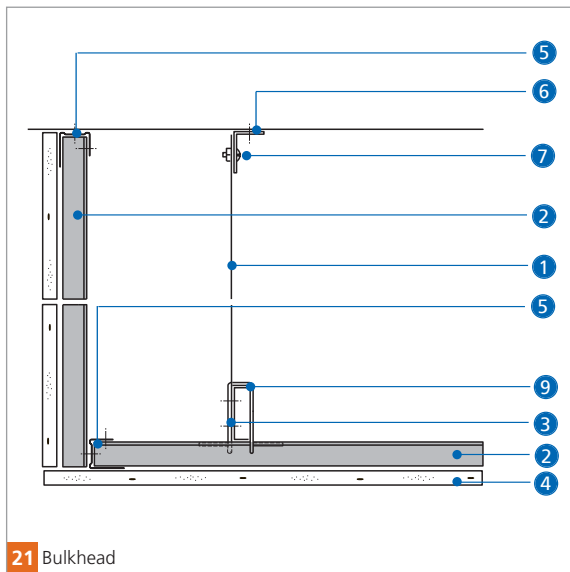
19 Perimeter fixing Gypframe MF5 Ceiling Section

- 1 Gypframe MF8 Strap Hanger or Gypframe GA1 Steel Angle
- 2 Gypframe MF5 Ceiling Section
- 3 Gypframe MF7 Primary Support Channel
- 4 Ceiling boards

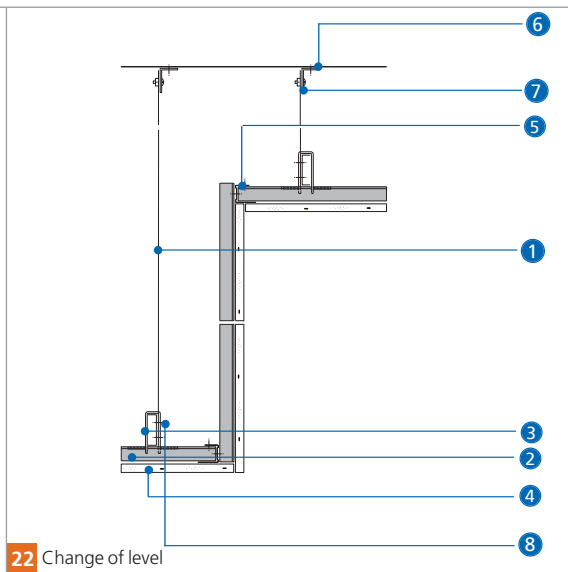


20 Perimeter arrangement - Gypframe MF7 Primary Support Channel

- 5 Gypframe MF6 Perimeter Channel
- 6 Wall structure



- 1 Gypframe MF8 Strap Hanger or Gypframe GA1 Steel Angle
- 2 Gypframe MF5 Ceiling Section
- 3 Gypframe MF7 Primary Support Channel
- 4 Ceiling boards
- 5 Gypframe MF6 Perimeter Channel



- 6 Gypframe MF12 Soffit Cleat
- 7 Gypframe MF11 Nut and Bolt
- 8 Gyproc Wafer Head Jack-Point Screw
- 9 Gypframe MF9 Connecting Clip