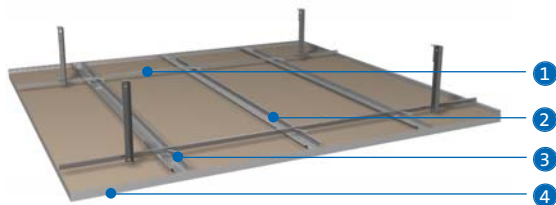


## Concealed grid MF suspended ceiling system

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
- ④ Gypframe MF6 Perimeter Channel

### 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 can be accommodated in plenum
- Access panels provide services access
- Easy to create bulkheads and change levels

## Components

### Gyproc and Glasroc board products



#### Gyproc WallBoard<sup>1,2</sup>

Thickness	9.5, 12.5, 15mm
Width	900, 1200mm



#### Gyproc SoundBloc<sup>1</sup>

Thickness	12.5, 15mm
Width	1200mm



#### Gyproc FireLine<sup>1,2</sup>

Thickness	12.5, 15mm
Width	1200mm



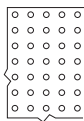
#### Glasroc MultiBoard

Thickness	6, 10, 12.5mm
Width	1200mm

<sup>1</sup> Moisture resistant boards are specified in intermittent wet use areas e.g. shower areas, bathrooms and kitchens.

<sup>2</sup> Also available in DUPLEX grades where vapour control is required.

### Ceiling products



**Gyptone board products**  
and

**Rigitone board products**

### Gypframe metal products



#### Gypframe MF5 Ceiling Section

Main support section.  
Prime dimensions 80 x 26mm



#### Gypframe MF6 Perimeter Channel

Perimeter support for MF5s.  
Prime dimensions 20 x 28 x 30mm



#### Gypframe MF7 Primary Support Channel

Primary support for MF5s.  
Prime dimensions 15 x 45mm

### Gypframe metal products



#### Gypframe MF8 Strap Hanger

Suspension of ceiling grid.

Prime dimension 25mm

OR



#### Gypframe GA1 Steel Angle

Width 25 x 25mm

OR



#### Gypframe GAH1 Acoustic Hanger

Length 35mm

#### Gypframe GAH2 Acoustic Hanger

Length 70mm



#### Gypframe MF11 Nut and Bolt

Joining hanger to soffit cleat.

Dimensions 6 x 12mm bolt

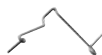


#### Gypframe MF12 Soffit Cleat

Suspension point from structural soffit.

Prime dimensions 27 x 37 x 25mm

### Gypframe metal products



#### Gypframe MF9 Connecting Clip

Fixing MF5s to MF7.

### Fixing and finishing products



#### Gyproc Proflex Access Panels

For access to the plenum for maintenance purposes.



#### Gyproc Drywall Screws

For fixing boards to framing up to 0.79mm thick.



#### Gyproc Wafer Head Drywall Screws

For metal-to-metal fixing up to 0.79mm thick.



#### Gyproc Wafer Head Jack-Point Screws

For metal-to-metal fixing 0.8mm thick or greater.

## Components

### Fixing and finishing products

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#### **Gyproc Sealant**

For sealing air paths to achieve optimum sound insulation.



#### **Gyproc Skimcoat, Gyproc Carlite Finish or Gyproc Board Finish**

To provide a plaster skim finish.



#### **Moy Plus Roll**

For providing acoustic / thermal insulation.



#### **Stone Mineral Wool**

For providing fire performance.

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### Fixing and finishing products

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#### **Gyproc jointing materials**

For seamless jointing.

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## Construction tips

- Estimated construction time 1.5m<sup>2</sup> / man hour (single layer ceiling) or 1m<sup>2</sup> / man hour (double layer ceiling) ready for finishing
- 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 Gypsum Industries Product Manual for full details ([www.gypsum.ie](http://www.gypsum.ie))
- Pre-determine the position of fixtures and fittings. Fixings must be made into the grid or to supplementary framing
- Gypframe 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 Proflex Access Panel at access points (600 x 1200mm maximum size)
- Air-tightness 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 and Rigitone 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)

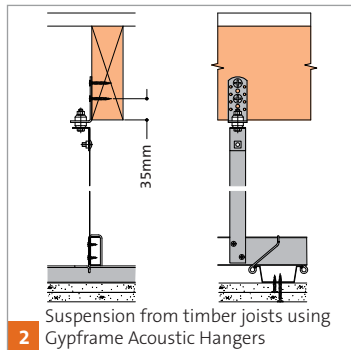
- The designer should give consideration to designing in a 'pressure relief' to minimise the risk of ceiling 'lift' in rooms with no permanent ventilation. This situation arises when a door is opened in a virtually leak proof room causing the lightest element in the room, normally the ceiling, to lift. Making efforts to improve airtightness in buildings may increase the instances of ceiling lift. Designing this out by incorporating permanent ventilation would be desirable.

## Typical Installation for Gyproc Plasterboard Ceilings



- 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 (by others) around the full perimeter of the ceiling.
- 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 suitable fixings (by others).

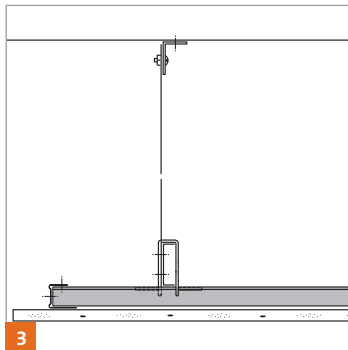




### Acoustic Hangers - timber only

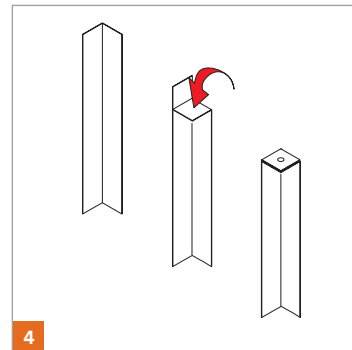
- Mark fixing points of Gypframe GAH2 Acoustic Hangers to the timber joists at 1200mm centres (to form a 1200mm x 1200mm grid). Secure each hanger using two Gyproc Drywall Timber Screws. Fix a Gypframe MF12 Soffit Cleat to the Gypframe Acoustic Hanger using an M6 Bolt, washers and locking nut.

Gyproc Drywall Timber Screws should achieve a minimum of 25mm penetration into the timber joist.



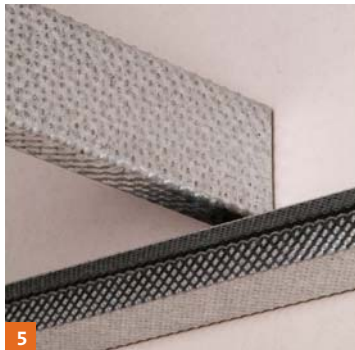
### Standard Hangers - MF8 or GA1

- 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.
- Locate each MF8 strap hanger or angle section against a Gypframe MF12 Soffit Cleat and fix using a Gypframe MF11 Nut and Bolt.

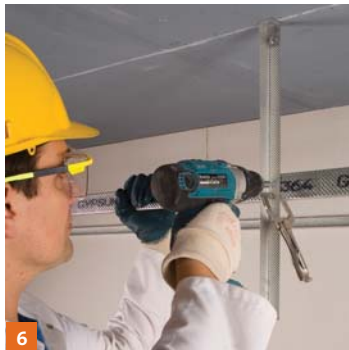


- Alternatively, Gypframe GA1 Steel Angle can be cut, bent and drilled to facilitate direct fixing to the structure (maximum loads will be reduced by 25% if using this method).

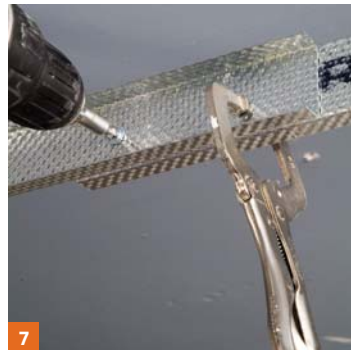
If the above method is used, for most double layer ceilings the Gypframe GA1 Steel Angles are fixed at max. 1200mm centres, but the Gypframe MF7s are closed down to 900mm max. centres.



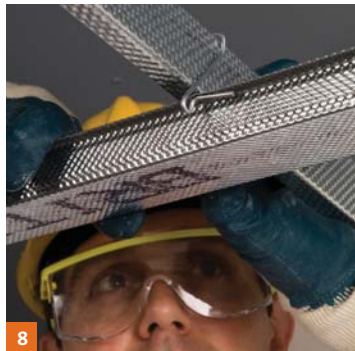
- Begin to form the primary grid by fixing the first Gypframe MF7 Primary Support Channel, resting one end on the top flange of the Gypframe MF6 Perimeter Channel.



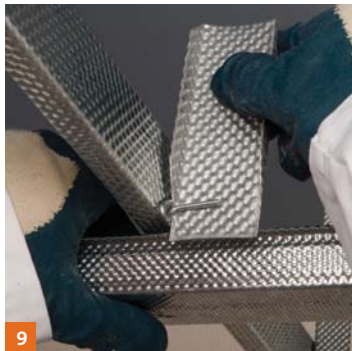
- Ensuring the Gypframe MF7 Primary Support Channels are at the required level, fix to each suspension hanger using Gypframe Wafer Head Jack-Point Screws with two fixings per hanger.



- 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 at required centres to complete the primary grid.



- Form the secondary grid by installing Gypframe MF5 Ceiling Section at right angles to the underside of the primary grid at 450mm (maximum) centres for Gyproc plasterboard ceilings.
- Engage MF5's into Gypframe MF6 Perimeter Channel at the perimeter.
- Connect Gypframe MF5 to Gypframe MF7 using Gypframe MF9 Connecting Clips.



- Use a cut piece of Gypframe MF7 (or similar) to facilitate engagement of the second leg of the Gypframe MF9 Connecting Clip.
- Do not squeeze the Gypframe MF5 Ceiling Section.



- Alternatively, screw-fix the Gypframe MF5 to the Gypframe MF7 using two Gyproc Wafer Head Jack-Point Screws.

Where ceilings are pitched, screwing of MF5's to MF7's is recommended.



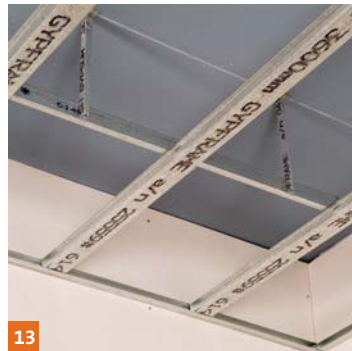
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- Extend Gypframe MF5 sections (overlapping by 150mm minimum) and crimp or screw-fix twice through each flange.
- Ensure that joins do not occur at the intersection of Gypframe MF5 and Gypframe MF7 sections, otherwise engagement of the Gypframe MF9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



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- Install further Gypframe MF5 Ceiling Sections at required centres to complete the grid.

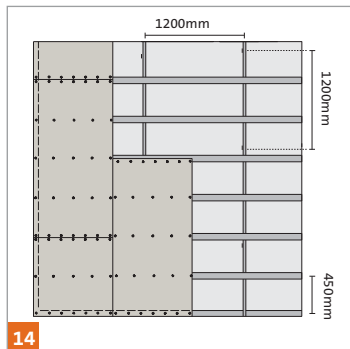


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### Fixtures

- Install additional Gypframe MF5 section, close down suspension centres or install supplementary framing, as required, to support fixtures and fittings.
- Where apertures are cut in the ceiling to accommodate fixtures, additional framing will be required to support perimeters around the opening.

**NB** Additional suspension support may be required to independently support heavier fixtures.



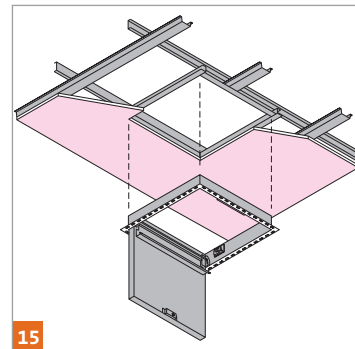
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### Fixing Gyproc boards

- 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.

- 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.



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### Installing access panels

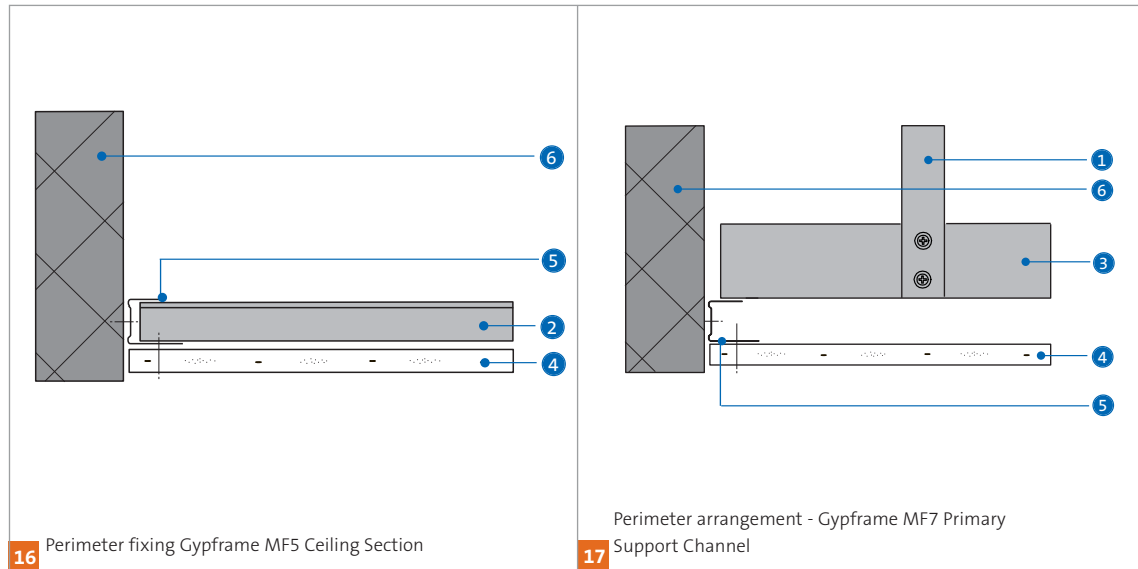
- Fix a standard or fire-rated Gyproc Proflex Access Panel, if specified

### Services

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

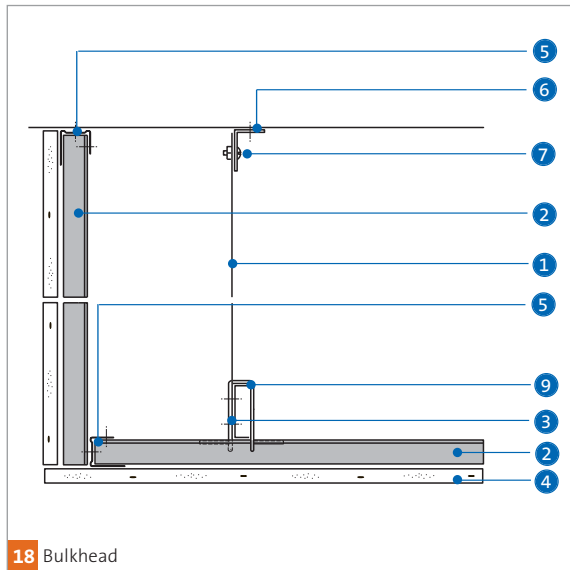
**NB** Consideration must be given to maintaining the integrity of the ceiling to meet fire resistance and sound insulation requirements.

## Junction details

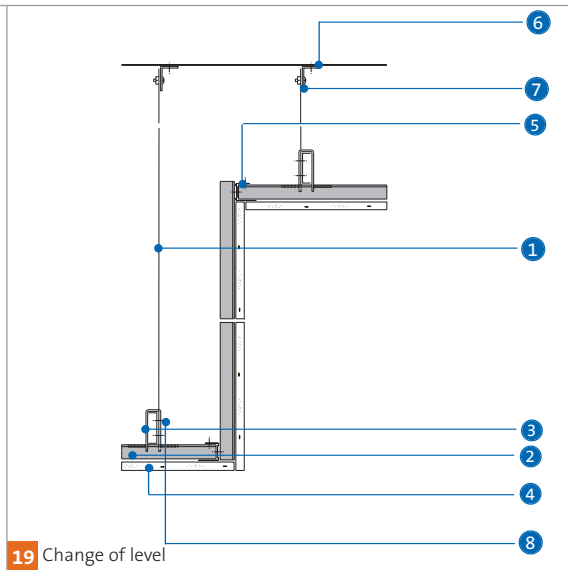


- 1 Gypframe MF8 Strap Hanger or Gypframe GA1 Steel Angle
- 2 Gypframe MF5 Ceiling Section
- 3 Gypframe MF7 Primary Support Channel
- 4 Ceiling boards

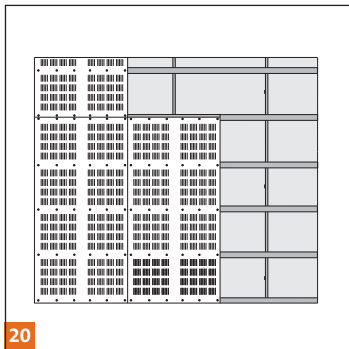
- 5 Gypframe MF6 Perimeter Channel
- 6 Wall structure



- 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

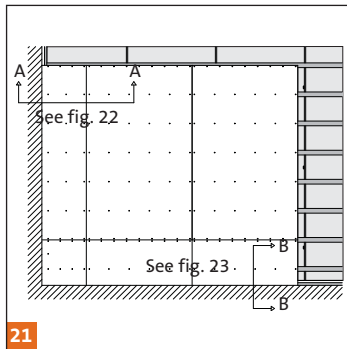


- 6 Gypframe MF12 Soffit Cleat
- 7 Gypframe MF11 Nut and Bolt
- 8 Gyproc Wafer Head Jack-Point Screw
- 9 Gypframe MF9 Connecting Clip



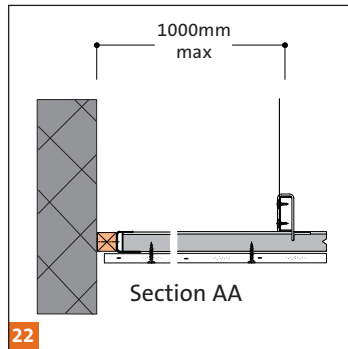
### Typical Installation for a Gyptone Ceiling System

- Install framework as per a typical Gyproc Plasterboard MF Ceiling System with the exception that the MF5s are installed at 600mm centres to coincide with the unperforated areas.
- In high humidity areas, install MF5s at 400mm centres.
- To aid finishing of the boards, Gyptone boards joints are generally in-line (i.e. not staggered)



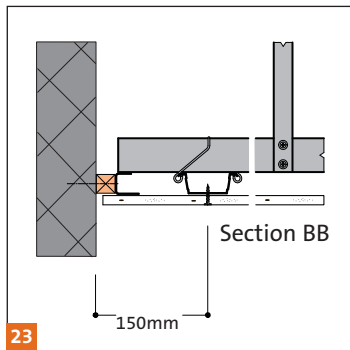
### Typical Installation for a Rigitone Ceiling System

- Determine the required ceiling level and mark the position of Gypframe MF6a Perimeter Channel on the walls.
- Fix MF6a at 600mm centres using appropriate fixings.
- **NB** For Rigitone boards: Fix MF6A Perimeter Channels through 25 x 25mm timber battens (see Figs 22 and 23), forming a 10mm shadow gap detail around the perimeter of the ceiling.



- The Gypframe MF7 Primary Support Channels are installed at 1000mm centres. A fixing point should be provided at 900mm centres along MF7. Gypframe MF5 Ceiling Sections are at nominal 330mm centres. The first MF5 should be a maximum 150mm from the perimeter wall.
- The framework should be assembled and adjusted in such a way that the Rigitone perforated boards are fixed to MF5 ceiling sections with long edges at





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right angles to the framing, using Gyproc Drywall Screws. The Rigitone boards should be fixed in line i.e. no staggered joints, and there should always be an MF5 Ceiling Section at the end joints of the boards.

- While planning the layout it should be considered that the longitudinal joints run parallel to the incidence of light in the room.



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- Lightly sand the front edge of the paper liner to remove any paper burrs from the boards before fixing. Apply Thistle GypPrime (diluted 4 parts water to 1 part GypPrime) to all of the board edges with a brush or sponge. The primer should be allowed to dry for 24 hours before the jointing of the system is carried out.

- The fixing of Rigitone boards should always start at the centre of the room and work outwards. The position of the first board should be measured and marked with a chalkline.



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- Lift the boards into position and use the Rigitone installation tool to correctly space them. When fixing, the boards should be positioned so that the perforation pattern is aligned in all directions.

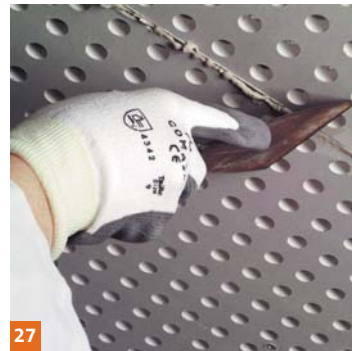
- All boards should be fixed using 25mm Gyproc Drywall Screws at maximum 150mm centres at board perimeters and 230mm centres in the field of the board. Screw fix the board perimeter prior to fixing the field of the board.



No fixings should be made into MF6A Perimeter Channels. Outermost fixings in line with MF5 ceiling section should be a maximum of 150mm from perimeter. Outermost fixings perpendicular to MF5 ceiling sections should be a maximum of 15mm from edge of MF6A Perimeter Channel.

- Mix the Rigitone Vario 60 filler with clean water (approximately 3 parts water to 1 part filler) and fill a cartridge with the mixture. Insert the bung and screw the nozzle onto the end of the cartridge. Apply the filler to the joints ensuring the joint is completely full. Failure to fully fill the joint can cause the joint to crack.

Once the cartridge is empty the bung should be removed for reuse using the tool supplied.



- The filler should be left to dry for a minimum of 50 minutes before striking the excess material away from the joint.



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- Allow all the joints to dry for a minimum of 24 hours before finishing. Mask the perforations either side of the joints using wet paper tape.



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- Fill the joints and screw heads, let the material project slightly from the boards to allow for shrinkage and sanding.



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Once the joint has been filled remove the paper tape immediately. Lightly sand once dry. The board should be primed ready for decoration.

- The boards should be painted using a roller applied finish, the perforated boards should not be spray painted, as this will impair the acoustic performance.

