MADA GYPSUM

ProGuard
DRYWALL PARTITION
(INTERNAL)

INSTALLATION MANUAL

Edition 01. 2026

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RISK ASSESSMENT
RECOMMENDATIONS*

Hazard	Safety Controls
General health and safety	1. Installer should be informed of specific health and safety requirements in context via joining instructions.
Hand tools	1. All workers should be properly trained regarding tools and provided with hand tools that meet relevant safety requirements. 2. Tools should be inspected by supervisors at regular intervals and damaged or defective tools should be taken out of use immediately. 3. The installer is instructed by joining instructions and provided with all necessary PPE.
Power tools	1. Site supervisor to provide training and demonstration on power tools operation and safety. 2. Cables should be routed away from aisles and walkways where they could create trip hazards to other persons. 3. Periodically check power tools and their cables for damage/defects and where necessary take out of action and label "Do not use".
Manual handling	1. All materials to be stored in approved and agreed locations within a working area. 2. Forklift truck/pallet truck to be provided for transport of large pallets and waste skips. 3. PPE should be worn when mixing plaster, including goggles, a dust mask, overalls, and safety shoes. 4. Use gloves with cut resistance level 5, especially when working with metal profiles.
Working at height	1. Demonstration by a certified individual in the safe use of: erection, securing, stabilizing steps, hop ups, trestles. 2. Provision of safe means of access to steps, hop ups, trestles. 3. Use of warning signs at all access points to the work area where work is being carried out above ground level.
Materials	1. All materials are stored in an approved location within a working area. 2. MSDS to be displayed in the storage area. 3. Site supervisor to instruct / explain the safe handling of materials. 4. Workers should be informed of personal hygiene requirements and instructed to wash their hands after handling materials and before eating, drinking, or smoking.
General housekeeping	1. Worker given verbal instructions to maintain clean/tidy up individual workplaces during and after work times. 2. Tools/equipment to be stored in lockable toolbox. 3. Wet/damp sweeping techniques to be used for general cleaning of work area to control dust levels.
Site suitability	1. Mada Gypsum systems are intended for use as internal construction systems (unless stated otherwise). As a result, construction of Mada Gypsum elements should commence only when the perimeter of the build is sufficiently sealed as to provide appropriate levels of weather resistance. 2. Additionally, if the project site is located in an environment that can cause abnormal conditions (such as corrosive sprays), please contact the Mada Technical team for additional guidance.

* It is the sole responsibility of the contractor to conduct an appropriate risk assessment for the site.

STORAGE RECOMMENDATIONS

Mada ProGuard Plasterboards shall be stored in a warehouse or other suitable structure where they will not be exposed to inclement weather or to temperatures that frequently exceed 52°C. Stacks of Mada ProGuard Plasterboards shall be stored supported evenly on a firm, dry, level, and structurally sound floor. Gypsum board shall always be stored flat. Stacks of Mada ProGuard Plasterboards shall be limited to a maximum height of 5m (or a maximum of four bundles seperated by riser or spacers).**

Mada ProGuard Plasterboards shall not be stored in areas of excessive humidity nor shall they be stored beneath overhead equipment which may have a tendency to drip grease, oil, or water. Mada ProGuard Plasterboards shall not be left in heavy traffic areas or where they can be damaged by lift trucks and other warehouse equipment, nor shall they be stored at aisle intersections. If Mada ProGuard Plasterboards are stored at aisle junctions, corner protectors constructed of sheet metal or similar suitable materials shall be used.

Most plasterboard panels are sensitive to moisture and should not be stored outdoors without complete protection from the weather conditions.

The plastic covering provided for product protection during shipment on flatbed trucks is not suitable for storage of the Mada ProGuard Plasterboards and shall be removed upon arrival at the destination prior to warehouse storage. Failure to remove this plastic covering can result in damage to the Mada ProGuard Plasterboards due to moisture, condensation, wet product, and/or mold.

Metal products are available in both pack and sub-pack quantities and should be handled in accordance with the recommendations contained in local health and safety at work principles and practices.

Store metal products away from airborne contaminants such as acid or salt spray in an environmentally friendly area.

Storing gypsum board on job sites

- Mada ProGuard Plasterboards placed on a job site shall be separated by type (place the type of products near areas where it will be installed. This system of placement reduces the chance that the wrong type of Mada ProGuard Plasterboards will be installed and applicators / installers will have easy access to the stocked products.)
- Do not place longer-length Mada ProGuard Plasterboards sizes on top of shorter lengths.
- Mada ProGuard Plasterboards shall be stocked out of the way of construction traffic.
- Special care shall be taken to ensure that the Mada ProGuard Plasterboards do not damage the exposed studs, windows, door frames, etc.
- Mada ProGuard Plasterboards shall be stockpiled so as not to hinder the work of construction tradesmen.
- Mada ProGuard Plasterboards on a job site shall never have any other materials stored or stacked on top of them.
- Mada ProGuard Plasterboards shall be stockpiled so their weight is evenly distributed, and the floor is not overloaded.
- Mada ProGuard Plasterboards shall not be stacked high enough to pose a danger from toppling.
- Mada ProGuard Plasterboards stored in unenclosed buildings shall be placed far enough inside so that they are not exposed to inclement weather, such as wind blown rain or snow..
- Special care is necessary when stockpiling boards on the upper floors of open buildings during periods of high winds.

Metal storage

- Products are supplied in pack and sub–pack quantities and should be handled in accordance with the recommendations of health and safety at work principles and practice.
- Where mechanical lifting or moving equipment is required, trained and licensed operators are to be used.
- Metal products should be stored in an environmentally–friendly area away from airborne contaminants such as acid and salt sprays.

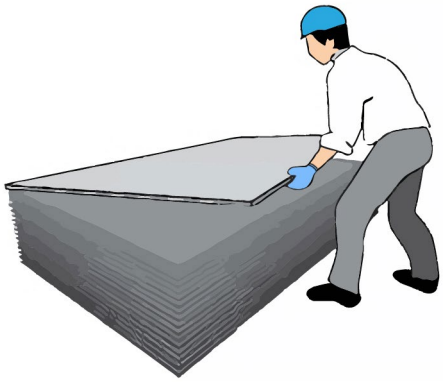
** The risers/spacers shall be of uniform size and shall be positioned as per the recommendations mentioned in GA 801 ie the risers shall be aligned vertically so that the load is transfered to the floor.

MATERIAL
HANDLING

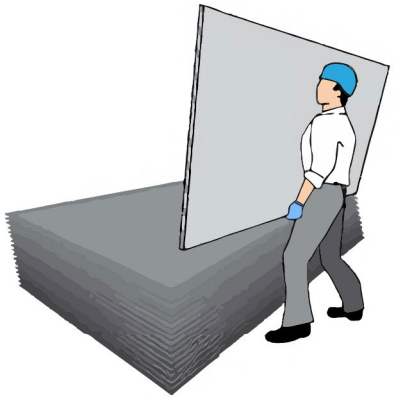
Handling Boards

One person

- Eye protection, hard hat and safety shoes required
- Pull the board in towards yourself
- Bend your knees for low level work
- Lift by pushing with your legs

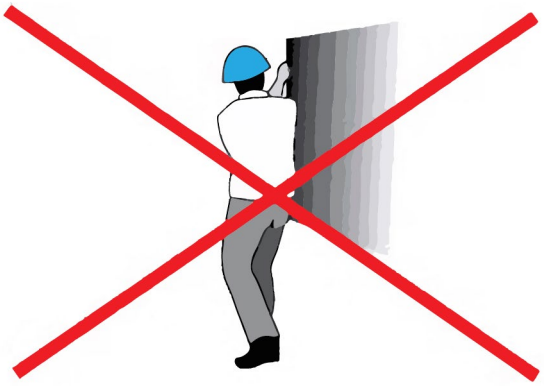


- Carry the board in a balanced manner (for large boards, you can support the board on the top of the chest / shoulder)
- Only lift what you feel you can manage
- If necessary, seek assistance



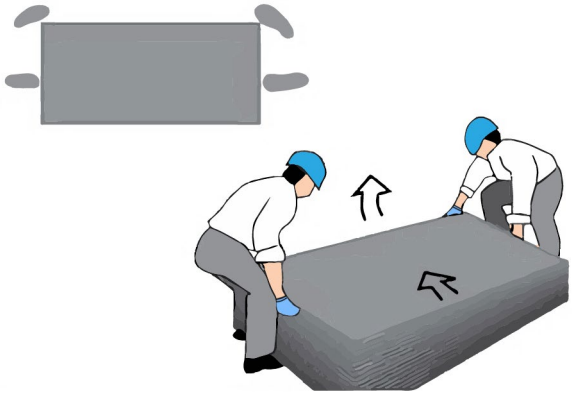
- Carry in a balanced manner across your body
- If walking backwards, ensure it is over the shortest possible distance and clear the route beforehand.

DO NOT CARRY HEAVY OBJECTS ON ONE SIDE



Two people

- Operate from the corners of the stack
- Bend your knees for low level work
- Lift board together to vertical position
- Only lift what you feel you can manage



MATERIAL
HANDLING

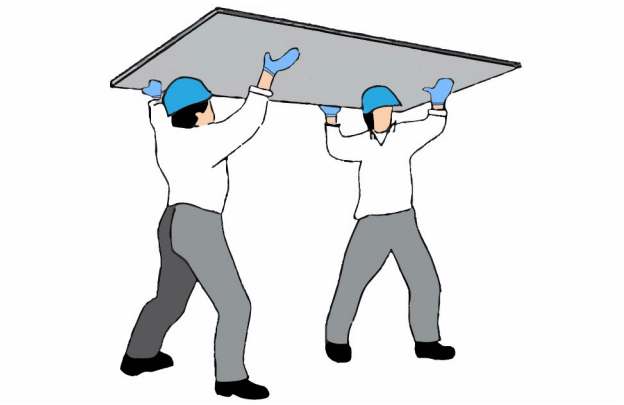
Lifting Plasterboards Into Place

Two person operation

- Eye protection, hard hat and safety shoes required
- Communicate
- Work together
- Take a firm grip of the board in both hands

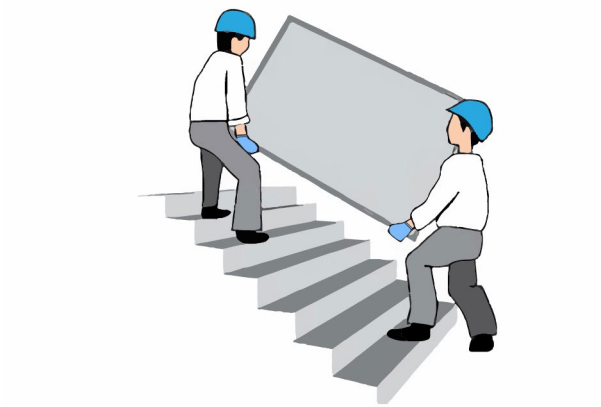
Bend your knees to place board in position

- Always work in front of the body



Carrying board up / downstairs

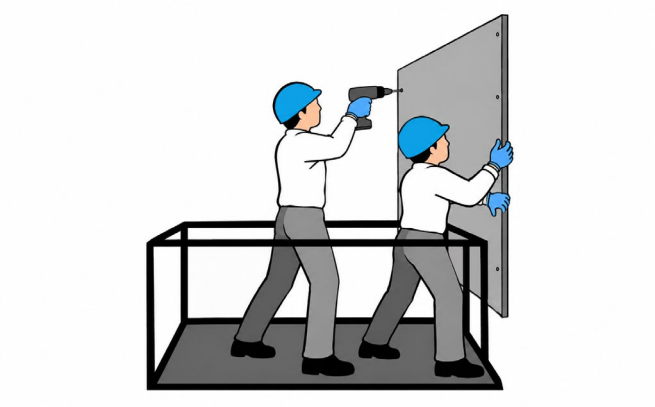
- Eye protection, hard hat and safetyshoes required
- Whether going up or down stairs, place one foot forward then bring both feet together on each step
- Keep the boards in a balanced manner
- Place both feet on each step before moving off to improve control and balance through-out the lift
- Work together in synergy
- Stop whenever necessary (if steps are in poor condition or have a deeper drop, you may need to place the load down first)
- Only lift what you feel you can manage



MATERIAL
HANDLING

Fixing Plasterboards

- Eye protection, hard hat and safety shoes required
- Always work in a balanced position
- Operate with one foot forward
- Keep the body upright
- Always use appropriate platforms where necessary



DO NOT OVERREACH

EXECUTION OF WORK

NON FIRE RATED PARTITION

Framing

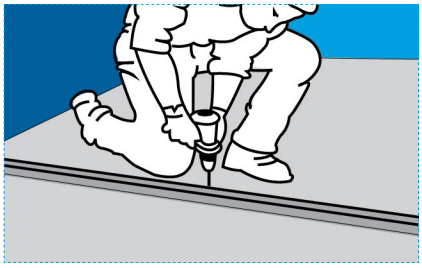
- Set out the bottom and head tracks along the partition's setting out line at the floor and the soffit, and secure them with appropriate Mada fasteners at designated centers as defined in the Mada project proposal.
- Ensure that the span for the Mada C-Studs does not exceed maximum span defined in the Mada project proposal.
- Cut the Mada C-Studs to length, allowing for gap under the Mada Track at the soffit to match the appropriate Mada Deflection Head detail required to satisfy the project head deflection allowance.
- The Mada C-Studs should be inserted into the Mada Tracks with the web of the section parallel to the face of the partition and turned to lock into place. The webs of perimeter Mada C-Studs shall be flat against adjoining walls or partitions, fastened at specified centers [as mentioned in the proposal with appropriate Mada fasteners. Gypsum board widths of less than 300mm should be avoided during framing.
- Use additional Mada C-Studs [according to the Mada typical details drawing] at openings, corners, junctions, and stop ends, attaching them with Mada Plus Wafer Head Screws to the head and floor framing.

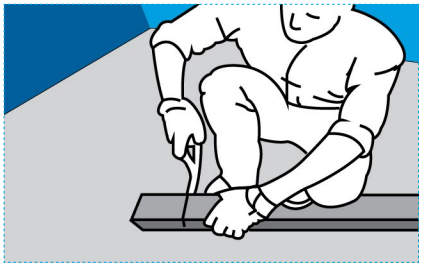
Noggins

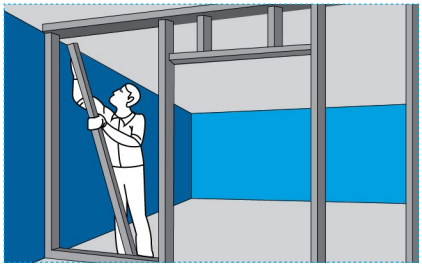
- Install noggins if required by the Mada project proposal at location specified in it
- Noggins are to be made from the same Mada U-Track profile, cut to length, and securely fixed to each adjacent stud.

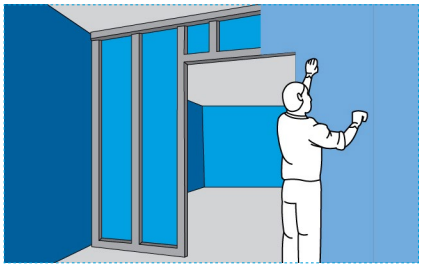
Boarding

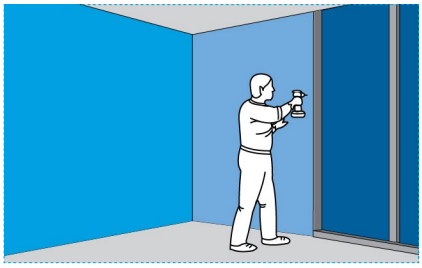
- Cut the Mada ProGuard plasterboard to the correct height (considering gap required as per the appropriate Mada Deflection Head detail required to satisfy the project soffit deflection allowance) and fasten with the specified screws (given in the proposal), taking care to leave the gap specified in the proposal at the top and at least 8mm from the floor and on all sides.
- Boards vertical edges should be centered over the studs.
  1. Boards on opposing sides, and adjacent to, Mada framework, must have vertical joints staggered by one stud position and horizontal joints staggered by 300mm centers (minimum).
  2. Adjacent boards on the same side, must have vertical joints staggered by one stud position and horizontal joints staggered by 300mm centers (minimum).
- For face / surface layers, the specified Mada fixings are to be located at 150mm centers to the perimeter of the board and 250mm centers to the field of the board.
- For internal layers, the specified Mada fixings are to be located at 250mm centers to the perimeter of the board and 300mm centers to the field of the board.
- Choose the proper screw length so that it penetrates the metal a minimum of 10mm. When securing the boards, pay attention to the screwhead depth. The screw's head ought to be just barely visible within the board. It should never break the paper liner or fracture the gypsum core of the board, and it shouldn't protrude over the surface of the board either.











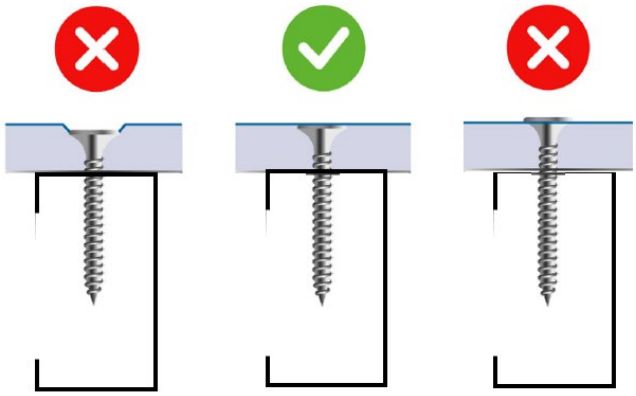
EXECUTION OF WORK

NON FIRE RATED PARTITION

Other activities

- Follow steps as per "insulation installation works", if insulation is required as per project proposal.
- Complete the second side boarding following the steps given above.
- Follow steps as per "sealant filling works" after boarding is done.
- Follow steps as per "jointing and finishing works" to complete the partition

Screw Head Fixing - Detail



EXECUTION OF WORK
FIRE RATED

Framing

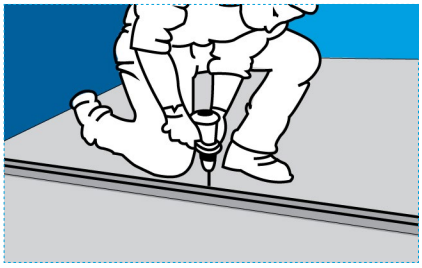
- Set out the bottom and head tracks the partition's setting out line at the floor and the soffit, and secure them with appropriate Mada fasteners and designated centers as defined in the Mada project proposal.
- Ensure that the span for the Mada C-Studs does not exceed maximum span defined in the Mada project proposal.
- Cut the Mada C-Studs to length, allowing for gap under the Mada Track at the soffit to match the appropriate Mada Deflection Head detail required to satisfy the project soffit deflection allowance.
- The Mada C-Studs should be inserted into the Mada Tracks with the web of the section parallel to the face of the partition and turned to lock into place. The webs of perimeter Mada C-Studs shall be flat against adjoining walls or partitions, fastened at specified centers [as mentioned in the proposal] with appropriate Mada fasteners. Gypsum board widths of less than 300mm should be avoided during framing.
- Use additional Mada C-Studs [according to the Mada typical details drawing] at openings, corners, junctions, and stop ends, attaching them with Mada Plus Wafer Head Screws to the head and floor framing.

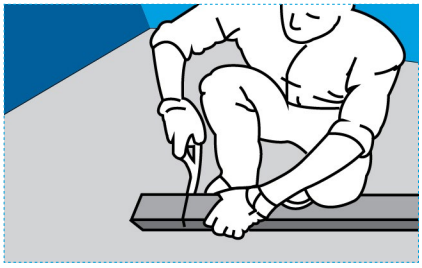
Noggins

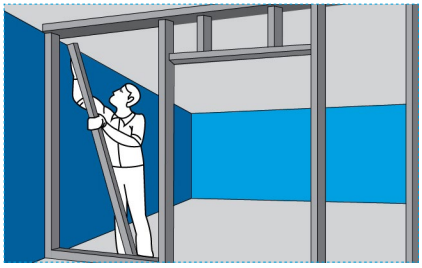
- Install noggins if required by the Mada project proposal at location specified in it.
- Noggins are to be made from the same Mada U-Track profile, cut to length, and securely fixed to each adjacent stud.
- For firerated partitions, all inner horizontal joints of the boards should be backed-up with Fixing Channel (as per Mada project proposal).

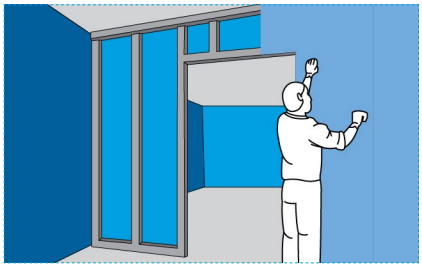
Boarding

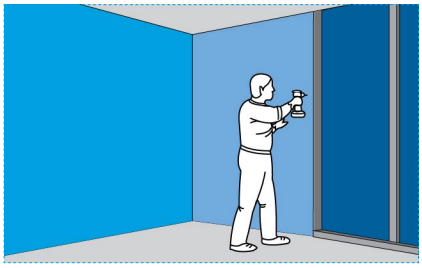
- Cut the Mada ProGuard plasterboard to the correct height (considering spacing required as per the appropriate Mada Deflection Head detail required to satisfy the project soffit deflection allowance) and fasten with the specified screws (given in the proposal), taking care to leave the gap specified in the proposal at the top and at least 8mm from the floor and on all sides.
- Boards vertical edges should be centered over the studs and horizontal joints centred over fixing channels/noggins.
- Boards on opposing sides, and adjacent to, Mada framework, must have vertical joints staggered by one stud position and horizontal joints staggered by 300mm centers (minimum).











EXECUTION OF WORK
FIRE RATED

- Adjacent boards on the same side, must have vertical joints staggered by one stud position and horizontal joints staggered by 300mm centers (minimum).
- In multilayer fire rated partitions, all face layer's horizontal board joints should be backed with flat strap (minimum 50mm width) .
- For face/surface layers, the specified Mada fixings are to be located at 150mm centers to the perimeter of the board and 250mm centers to the field of the board.
- For internal layers, the specified Mada fixings are to be located at 250mm centers to the perimeter of the board and 300mm centers to the field of the board.
- Place screws no closer than 10mm or more than 13mm from board edges and ends. Space screws at 200mm center around openings / penetrations.
- Choose the proper screw length so that it penetrates the metal a minimum of 10mm. When securing the boards, pay attention to the screwhead depth. The screw's head ought to be just barely visible within the board. It should never break the paper liner or fracture the gypsum core of the board, and it shouldn't protrude over the surface of the board either.

Other activities

- Follow steps as per "insulation installation works", if insulation is required as per project proposal.
- Complete the second side boarding following the steps given above.
- Follow steps as per "sealant filling works" after boarding is done.
- Follow steps as per "jointing and finishing works" to complete the partition installation.

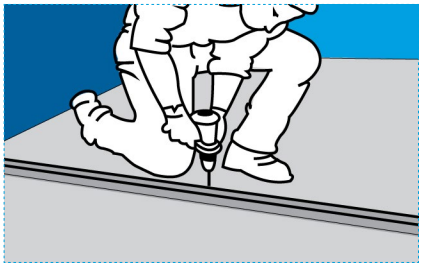
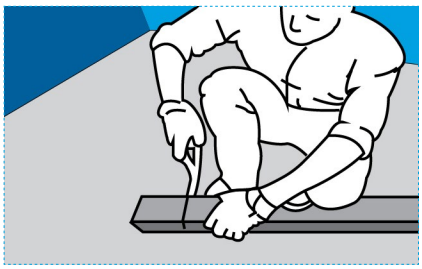
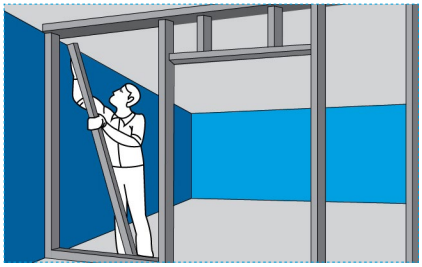
EXECUTION OF WORK
TWIN FRAME PARTITION

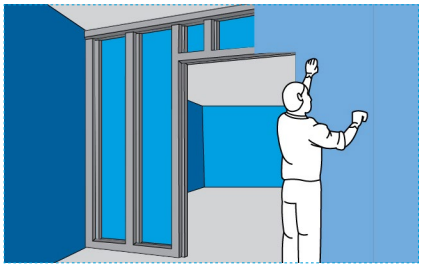
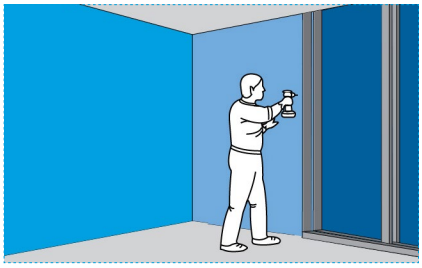
Framing

- Set out the bottom and head tracks along the partition's setting out line at the floor and the soffit, and secure them with appropriate Mada fasteners and designated centers as defined in the Mada project proposal.
- Repeat this set out for the second pair of bottom and head tracks. Ensure the gap is maintained between the two sets of tracks, as per Mada proposal.
- Ensure that the span for the Mada C-Studs does not exceed maximum span defined in the Mada project proposal.
- Cut the Mada C-Studs to length, allowing for gap under the Mada Track at the soffit to match the appropriate Mada Deflection Head detail required to satisfy the project soffit deflection allowance.
- The Mada C-Studs should be inserted into the Mada Tracks with the web of the section parallel to the face of the partition and turned to lock into place. The webs of perimeter Mada C-Studs shall be flat against adjoining walls or partitions, fastened at specified centers [as mentioned in the proposal] with appropriate Mada fasteners. Gypsum board widths of less than 300mm should be avoided during framing.
- Repeat this step for the second frame, ensuring that the stud pairs in twin frame are aligned.
- Mada C-Studs are to be located in pairs. Where bracing is defined in the Mada project proposal, the appropriate components are to be used at the specified vertical centers linking each pair of studs. Bracing is to be secured to the web of each Mada C-Stud using a minimum of 2 suitable Mada fixings.
- Use extra C-Studs [As per Mada typical details drawing] at openings, corners, junctions and stop ends, fixing to head and floor U-Tracks with Wafer Head Screws. In other place intermediate studs should not be fixed to U-Tracks to allow for adjustment when fixing boards.

Noggins

- Install noggins if required by the Mada project proposal at location specified in it.
- Noggins are to be made from the same Mada U-Track profile, cut to length, and securely fixed to each adjacent stud.
- For firerated partitions, all inner horizontal joints of the boards should be backed-up with Fixing Channel (as per Mada project proposal).

EXECUTION OF WORK
TWIN FRAME PARTITION

Boarding

- Cut the Mada ProGuard plasterboard to the correct height considering spacing required as per the appropriate Mada Deflection Head Detail required to satisfy the project soffit deflection allowance and fasten with the specified screws (given in the proposal), taking care to leave the gap specified in the proposal at the top and at least 8mm from the floor and on all sides.
- Boards vertical edges should be centered over the studs and horizontal joints centred over fixing channels/noggins.
- Boards on opposing sides, and adjacent to, Mada framework, must have vertical joints staggered by one stud position and horizontal joints staggered by 300mm centers (minimum).
- Adjacent boards on the same side, must have vertical joints staggered by one stud position and horizontal joints staggered by 300mm centers (minimum).
- In multilayer fire rated partitions, all face layer's horizontal board joints should be backed with flat strap (minimum 50mm width) .
- For face/surface layers, the specified Mada fixings are to be located at 150mm centers to the perimeter of the board and 250mm centers to the field of the board.
- For internal layers, the specified Mada fixings are to be located at 250mm centers to the perimeter of the board and 300mm centers to the field of the board.
- Place screws no closer than 10mm or more than 13mm from board edges and ends. Space screws at 200mm center around openings / penetrations.
- Choose the proper screw length so that it penetrates the metal a minimum of 10mm. When securing the boards, pay attention to the screwhead depth. The screw's head ought to be just barely visible within the board. It should never break the paper liner or fracture the gypsum core of the board, and it shouldn't protrude over the surface of the board either.

Other activities

- Follow steps as per "insulation installation works", if insulation is required as per project proposal.
- Complete the second side boarding following the steps given above.
- Follow steps as per "sealant filling works" after boarding is done.
- Follow steps as per "jointing and finishing works" to complete the partition installation.

INSULATION
INSTALLATION WORKS

Insulation (if required by Mada project proposal)
The Installation method is prepared in general to provide basic steps while installing Mada Insulation within drywall steel structural frame. Depends on actual site conditions the sequence or method can be altered as per engineer-in-charge.

Basic Tools required
- Measuring tape
- Utility knife or an insulation saw – a knife with a serrated blade
- Straightedge to cut insulation straight

Protection Equipment
- Work gloves, loosely fitted dress which covers the complete body
- Safety glasses
- Disposable dust mask

Material Handling Measures
- Store Mada Insulation material off the ground, in dry and ventilated areas.
- Remove insulation packaging near the installation site.
- Avoid unnecessary handling or transportation of Mada Insulation material once packaging is removed.
- Do not walk over Mada Insulation material; It may damage the Insulation and facing.
- To avoid excess dust and loose fiber particles during cutting use sharp knife to cut and use flat surface to keep the material while cutting.
- Cover the open insulation surface during night to prevent the dew droplets fall over insulation at places where humidity level is higher.
- Keep the workplace clean and remove the cutouts and left out unused pieces immediately to garbage bin.
- In confined spaces make necessary arrangement for ventilation.

Installation method: High-density slab insulation
Once steel structure frame for the Mada drywall partition is ready, and one side of the frame boarded. Mada Insulation shall be installed as follows:

1) Site Preparation:
   i. Clean the surface thoroughly to ensure it is free from dust, rust and any foreign particles.
   ii. Remove any protrusions from the installation surface.

INSULATION
INSTALLATION WORKS

2) Application of Self Adhesive Stuck-Up Pins and adhesive:

In general the Mada Insulation is installed snug fit within the framing cavity and no need of stuck pin or adhesive. Where additional restraint is required, follow these steps:

i. Mark the location for Stuck-Up pins such that each panel of size 1.2 m x 0.6m has five stuck Up pins.

ii. Four Self Adhesive Stuck-Up pins at each corner, 150mm inside from the edges and one at center.

iii. In case adhesive is used, apply the adhesive as per adhesive manufacturer instruction to the installed gypsum/cement fiber board.

iv. Provide and fix Mada Insulation within the frame.

v. Insert the Speed Washer (minimum 50mm)

3) Application of Mada Insulation:

i. Provide and Fix the Mada Insulation of desired thickness and density, within the frame structure ensuring a tight snug fit.

ii. In case adhesive is used, press the Mada Insulation gently.

iii. Make a snug fit application near the openings.

Installation method:Quilt insulation

Once steel structure frame for the Mada drywall partition is ready, and one side of the frame boarded. Mada Insulation shall be installed as follows:

1) Site Preparation:

i. Clean the surface thoroughly to ensure it is free from dust, rust and any foreign particles.

ii. Remove any protrusions from the installation surface.

2) Hanging Quilt:

i. Ensure insulation is separated to match stud spacings and that the length of material is adequate to span the full height of the partition in a continuous drop.

ii. clamp the insulation to the soffit (inside the channel or the partition cavity as stated in the Mada project proposal) using Mada Wall Angle (25x25mm) cut to length to fit within stud centres, secured using appropriate Mada fixings, with a minimum 50mm of excess material overlapping the clamp.

iii. ensure the insulation is inserted into the framing profiles to maintain full coverage.

iv. where the material supplied does not allow for a complete and continuous drop, insulation can be jointed as appropriate to its density by stitching or creating an intermediate suspension point using appropriate Mada sections.

v. Make a snug fit application around penetrations or openings.

Continue installation as per partition guidance.

SEALANT

FILLING WORKS

Perimeter Sealant

The perimeter sealant though optional for the non firerated and non acoustic rated partitions, it is highly recommended for all partitions as it provides the necessary smoke seal between two spaces.

Use backer rods to partially fill the perimeter gaps, as recommended in Mada project proposal.

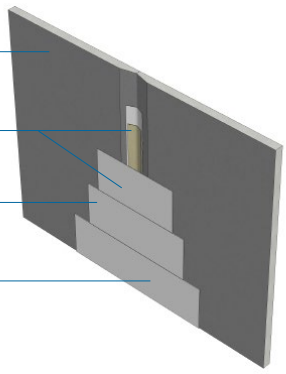
Apply a minimum of 8mm square bead of sealant around the perimeter of the wall. Also, around penetration cut-outs sealant to be applied as per the typical detail drawings. Filling the top gap will be as specified in the Mada project proposal.

MEP services

The installation of MEP services should be carried out according to the Mada standard typical detail drawings. Details should be coordinated with the concerned MEP specialist.

JOINTING & FINISHING WORKS

Tapered Edge Board Jointing



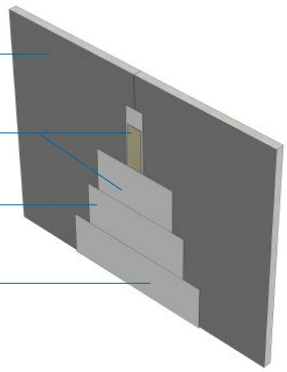
Mada ProGuard Plasterboard

Bedding coat (150mm wide) using Mada Fibre Tape bedded into Mada All-Purpose Jointing Compound

Second coat (200mm wide) of Mada All-Purpose Jointing Compound feathered out 50mm to 60mm beyond bedding coat

Third coat (250mm wide) of Mada All-Purpose Jointing Compound feathered out 50mm to 60mm beyond second coat

Square Edge Board Jointing

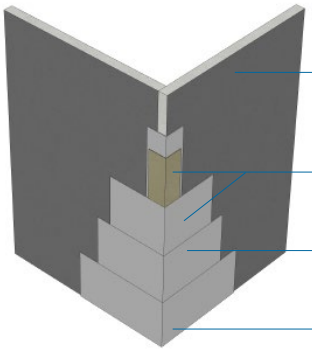


Mada ProGuard Plasterboard

Bedding coat (250mm wide) using Mada Fibre Tape bedded into Mada All-Purpose Jointing Compound

Second coat (350mm wide) of Mada All-Purpose Jointing Compound feathered out 100mm to 110mm beyond bedding coat

Third coat (450mm wide) of Mada All-Purpose Jointing Compound feathered out 100mm to 110mm beyond second coat



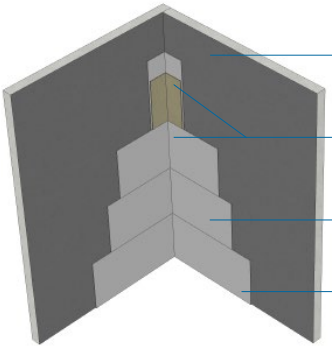
External Corner Joints

Mada ProGuard Plasterboard

Bedding coat (150mm each side) using Mada External Corner bead bedded into Mada All-Purpose Jointing Compound

Second coat (200mm each side) of Mada All-Purpose Jointing Compound feathered out 50mm to 60mm beyond bedding coat

Third coat (250mm wide) of Mada All-Purpose Jointing Compound feathered out 50mm to 60mm beyond second coat



Internal Corner Joints

Mada ProGuard Plasterboard

Bedding coat (100mm each side) using Mada Internal Corner bead bedded into Mada All-Purpose Jointing Compound

Second coat (125mm each side) of Mada All-Purpose Jointing Compound feathered out 25mm to 30mm beyond bedding coat

Third coat (150mm each side) of Mada All-Purpose Jointing Compound feathered out 25mm to 30mm beyond second coat

Note: for high moisture exposure areas use Mada Cement Jointing Compound instead of Mada All-Purpose Jointing Compound.

MADA GYPSUM

Head Office: P.O.Box 31542, Yanbu Al Sinayah 51000 Kingdom of Saudi Arabia
Tel.: + 966 14 325 3253 I Fax: + 966 14 325 0420

www.madagypsum.com