

DRYWALL PARTITION

MADA FIBER CEMENT BOARD

INSTALLATION MANUAL

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RISK ASSESSMENT RECOMMENDATIONS*

Hazard	Safety Controls
General health & 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 & damaged/defective tools to 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 & demonstration on power tools operation & safety. 2. Cables should be routed away from aisles and walkways where they could create trip hazards to other persons. 3. Periodically check tools 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 to be worn when mixing plaster, this includes goggles, dust mask, overalls, safety shoes.
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. The worker informed of personal hygiene requirements, wash hands after use/contact and before eating, drinking, and smoking.
General house keeping	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.

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

STORAGE RECOMMENDATIONS

- Mada Fiber Cement Board to be stored on pallets or on a pack of boards and supported evenly on a firm, dry, level and structurally sound floor.
- Protect Mada Fiber Cement Board from direct rain, sunlight, or other extensive weather conditions. Mada Fiber Cement Board to be stored in dry area inside the building which is ready to receive drywall installation.
- Cover stored Mada Fiber Cement Board with plastic sheeting or tarpaulin.
- Use forklift for horizontal transportation and designed hoists for vertical transportation of pallets.
- Loose Mada Fiber Cement Board must be handled by two people. The board must be lifted in a vertical orientation to avoid breaking due to flexing.
- 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.

EXECUTION OF WORK

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.
- 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 spacing under the Mada Track at the soffit to match the appropriate Mada Deflection Head detail.
- 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.

Boarding

- Cut the Mada Fiber Cement Board 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 space specified in the proposal at the top and at least 8mm from the floor on all sides.
- For surface layers, the specified Mada fixings are to be located at 200mm centers to the perimeter of the board and 300mm centers to the field of the board.
- For internal layers, the specified Mada fixings are to be located at 400mm centers to the perimeter of the board and 600mm centers to the field of the board.
- Install screws between 10 and 13mm from board edges. Layer-to-layer and face-to-face joints should be spaced apart vertically and horizontally. Screws should be spaced 200 mm apart all around holes and penetrations.

Insulation (if required by the Mada project proposal)

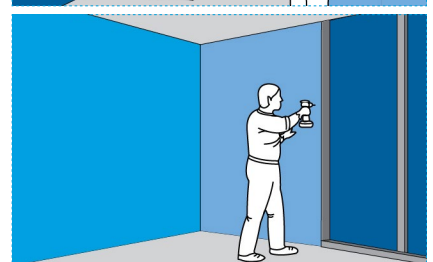
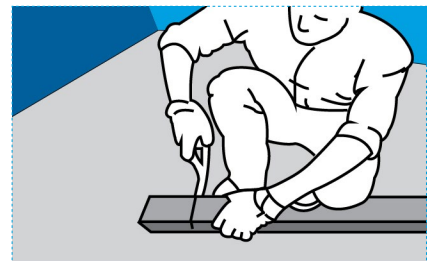
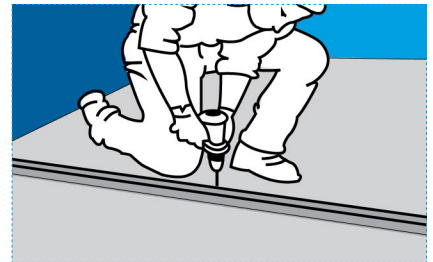
Where insulation is required, use the specified quilt and secure insulation with appropriate insulation fixtures. This will prevent later sagging and loss of performance. For additional guidance, see the Insulation Installation Section.

Perimeter Sealant

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. 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.



EXECUTION OF WORK

PARTITION

Insulation (if required by Mada project proposal)

The Installation method is prepared in general to provide basic steps while installing Mada Insulation with in Dry Wall 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 in case of overhead work
- Disposable dust mask

Material Handling Measures: -

- Store Mada Insulation material to prevent from damage.
- 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 after to garbage bin.
- In confined spaces make necessary arrangement of ventilation.

EXECUTION OF WORK

PARTITION

Partition Installation Method - High Density Slab Insulation:

Once steel structure frame for the Mada Dry Wall 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) 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 panels 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 Wash er (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.

Continue installation as per Partition guidance.

EXECUTION OF WORK

PARTITION

Partition Installation Method - Quilt Insulation:

Once steel structure frame for the Mada Dry Wall 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:

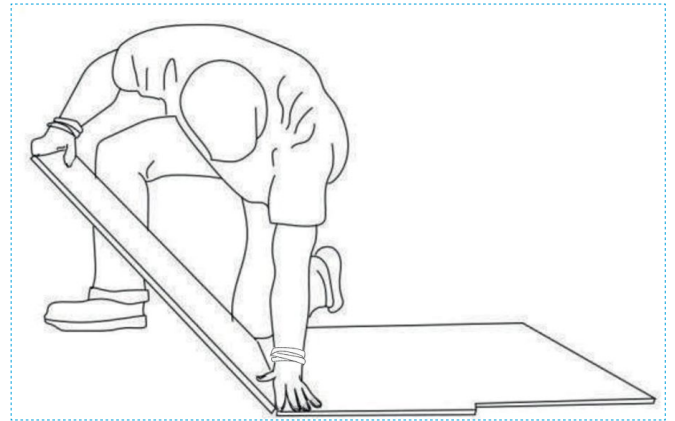
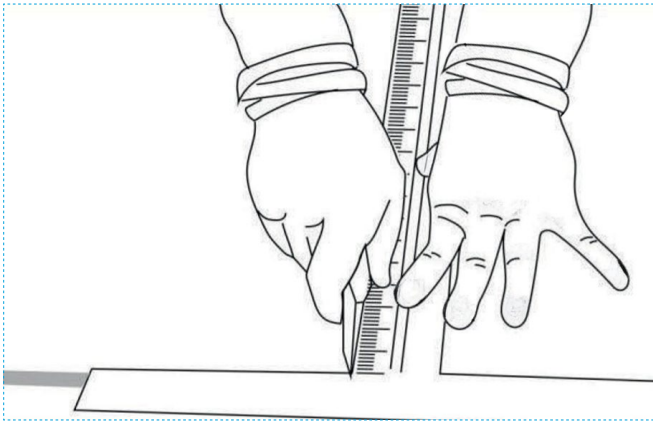
- i. Ensure insulation is separated to match stud spacings and that the length of material is adequate to span the full height of the partition in a continuous drop.
- ii. clamp the insulation to the soffit (inside the channel or the partition cavity as stated in the Mada project proposal) using Mada Wall Angle (25x25mm) cut to length to fit within stud centres, secured using appropriate Mada fixings, with a minimum 50mm of excess material over lapping 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.

HOW TO INSTALL CEMENT BOARD

Cutting: Mada Fiber Cement Board by hand

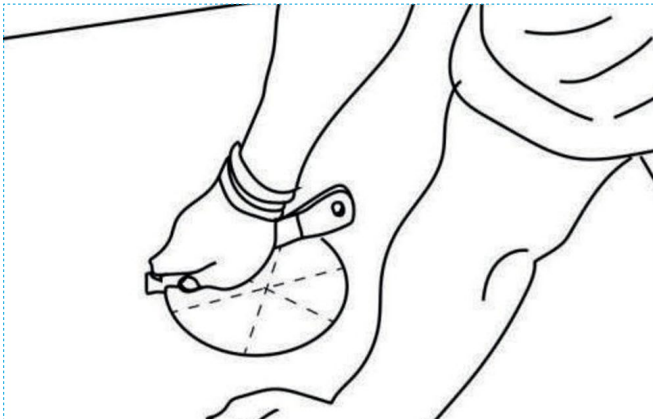
For larger cuts: [Measure and Drill Cutter Method](#)



1. Make your cut using the straight edge and ensure uniform cutting lines.
2. Using scoring knife, apply firm pressure to score long & straight edge.
3. Place Mada Fiber Cement Board on flat surface floor, apply pressure on two locations of board near the cut. Hold the edge of the cut piece and lift to snap the board as shown in the image.

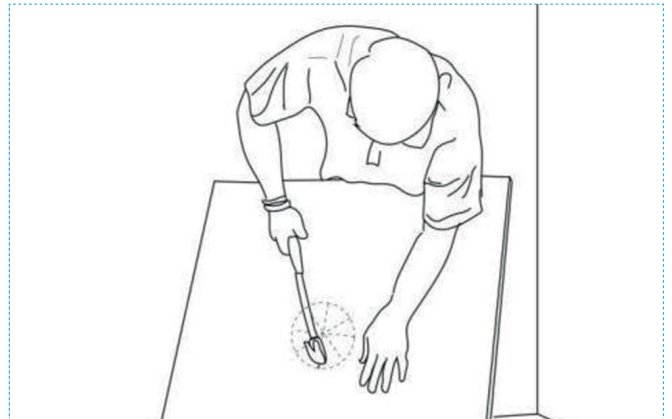
HOW TO INSTALL CEMENT BOARD

Circle and small holes



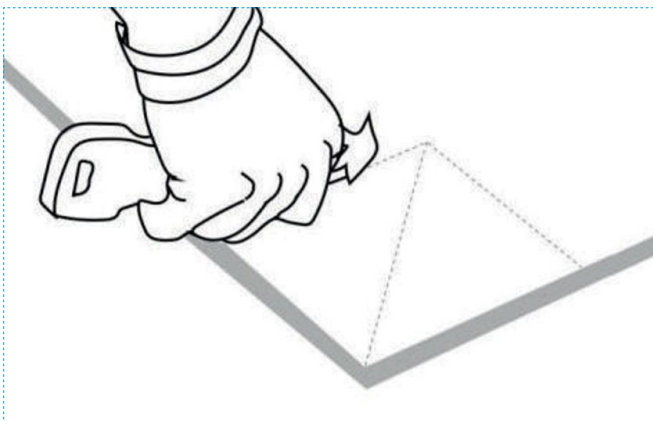
method for cutting holes confirmed as follows:

Score the circle & and line across inside the circle, tapping in the center of the circle gradually increasing strength until smaller pieces snap. remove pieces using hands or knife as required.

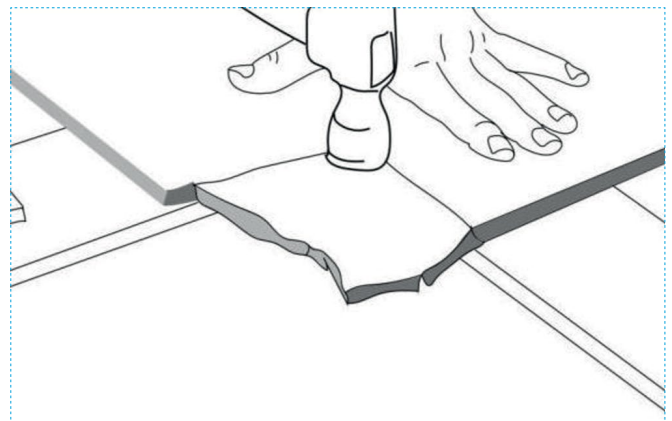


Board to be placed on flat surface frame to hammer out the cut.

Falange or corner



Place the board on edge of a table & score after measuring then hit with the hammer.



JOINTING & FINISHING WORKS

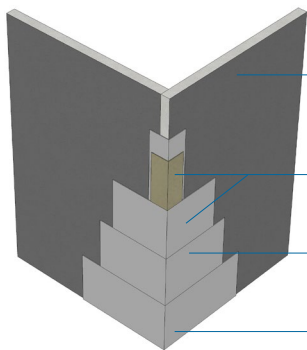
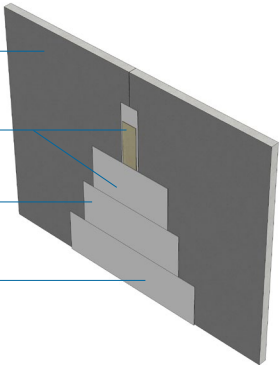
Square Edge Board Jointing

Mada Cement Board

Bedding coat (300mm) using Mada tape bedded into Mada Cement Jointing Compound

Second coat (400mm) of Mada Cement Jointing Compound feathered out 50mm to 60mm beyond bedding coat

Third coat (500mm) of Mada Cement Jointing Compound feathered out 50mm to 60mm beyond second coat



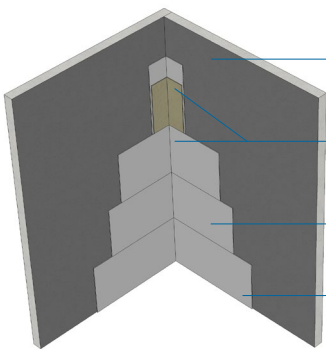
External Corner Joints

Mada Cement Board

Bedding coat (150mm each side) using Mada Metal corner tape bedded into Mada Cement Jointing Compound

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

Third coat (300mm each side) of Mada Cement Jointing Compound feathered out 50mm to 60mm beyond second coat



Internal Corner Joints

Mada Plasterboard

Bedding coat (100mm each side) using Mada tape bedded into Mada Cement Jointing Compound

Second coat (125mm each side) of Mada Cement Jointing Compound feathered out 50mm to 60mm beyond bedding coat

Third coat (150mm each side) of Mada Cement Jointing Compound feathered out 50mm to 60mm beyond second coat



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