Mach Wall[™] Installation Instructions

Planning the Job

Mach WallTM is an innovative product that accomplishes THREE tasks at the same time: framing, insulation and drywall. Vertically installed panels replace traditional wall building processes.

It is best to plan your installation with the least number of joints (the seam where panels meet). Less joints mean less finish work later.

To determine how many panels your job will need:

- 1. Simply calculate the total surface area of your walls by multiplying the length times the height of all of the walls. Do not deduct for doors and windows
- 2. Divide the total area calculated by the square footage of a Mach Wall panel (32 square feet for an 8-foot board)
- 3. Round up to determine the number of panels you will need.

Tool List:

Tape measure Electric 7 ¼" circular saw with plywood blade 4-foot T square or straight edge Safety glasses or goggles Marking pencil Dust mask 4-foot level Chalk line Wallboard saw or electric router Tin snips Step ladder Electric or battery powered screw gun

Installation Instructions

Locate the position of the wall on the floor at opposite ends. Using a chalk line snap a line on the floor to follow along the entire length.



Use a level or a laser dot to transfer that line to the ceiling. If that line is between joists then blocking will have to be installed first.



Place a section of metal track along the line on the floor and fasten it using screws or nails if the floor is wood composition. If the floor is concrete then a concrete screw or power actuated fastener may be used. Be sure to stop the track even with the door openings since it will be difficult to cut out the track later.



Pre-cut sections of track to be used for the top of the Panels (20-36 inches recommended).

Along the flange of the track cut and bend out 2-4 tabs that align with the spacing of the ceiling framing. You are now ready to build your Mach Wall!

Two people lift the panel along the 8 foot sides. Grasp the panel supporting the bottom edge and not between the core sections.



Stand the panel up and insert the flanges of the floor track into the pre-cut slots on the bottom edge of the panel.



Integral chaises are directional in the panel so place marked sides of the panel in the same direction.

Place $\frac{1}{2}$ " spacer blocks on the floor underneath the bottom edge of the panel to prevent moisture from wicking into drywall.

Slide two pieces of pre-cut track into the top slots of the panel with the tabs extended and slide them to meet with the ceiling framing.



Align these pieces of track with the chalk line on the ceiling and secure the tabs of the track to the ceiling framing with screws or nails.



If this is the first panel, use a level to make sure the panel is plumb.

Place 1 $\frac{1}{2}$ " drywall screws into the bottom and top tracks so that they are $\frac{1}{2}$ " from the edges of the panel*.

*See alternate methods of installing the top track below.

To continue installing additional panels, insert the flat metal spline into the pre-cut slot along the side of the panel and fasten it with $1 \frac{1}{4}$ drywall screws 24 on center and $\frac{3}{4}$ from the edge of the panel. Then follow the same process to install each individual panel along the same run.



To install perpendicular walls, follow the same procedure to locate the position of the wall on the floor. Use a level to mark this to line up the face of the standing panel. Screw a 90-degree spline to the already installed Panel, following this line with the spline turned so that the new panel will cover the spline.



Stand up the next panel on the bottom track so that the flange goes into the slot. Slide the vertical panel slot onto the 90-degree spline and abut the already installed wall. Secure the panel to the 90-degree spline and bottom track. Slide the pre-cut pieces of track into the top slots as before, align with the marked line on the ceiling and fasten those tracks to the ceiling framing and screw the panel to the top track*.

Proceed with installing as many panels as necessary to complete this wall following the procedures previously described. To install the last Panel in this run measure the width of the last Panel and cut the Panel to that dimension. Install this panel by sliding the panel onto the bottom track and insert a precut section of track into the top slots as previously done. (There will not be enough room to insert splines into the vertical surfaces). Once this panel is installed apply a thin bead of construction adhesive into the corner that is formed with the perpendicular wall. Once this cures it will provide enough support to keep the panel from flexing*.

*Alternate Methods of Installing the Top Track:

There are several options to install the top track for the Mach Wall panels.

If there is a structural slab or ceiling joist framing at the height of your wall:

Follow the procedure previously described, or install full lengths of 2" deep track (bottom track will be 1 1/8" deep). Follow the layout line that is marked on the ceiling framing.

The procedure used in this method varies slightly: once you stand up the panel, **lift the panel up onto the 2" top track**, inserting the flange of the track into the top slot of the panel. Then lower the panel down onto the 1 1/8" bottom track and the ½" spacer blocks on the floor, so that the flange of the track inserts into the slot on the bottom of the panel. Install the screws into the top and bottom track as previously described.

If this is a curtain wall installation (the height of your wall does not reach the roof structure):

Follow the procedure to install the Mach Wall panels but do not insert the pre-cut sections of top track. Once you have installed 2 panels together onto the bottom track, drop in a full length of top track into the slots on top of the panel and screw the panel to the inserted track. Temporary bracing of the first two panels may be required for stability.

Permanently secure the top of the track to the structure with blocking. Continue to alternate installing 2 sections of Mach Wall panels and top track to complete the wall section.

Cut Outs

You will need to cut openings in the panels to accommodate electrical outlets and light fixtures. To make these cutouts mark the outline of the box on the face of the panel and use the drywall saw or router to cut through the face and the foam core. This can be done before or after the Panel is installed. Remove the cutout and use the integral chaises to run the wire from one box to the next.

To make door and window openings, lay the panels flat on a firm surface with the panel fully supported. Mark the desired opening on the face of the panel. Use the circular saw to cut out the opening following the marked lines. Carefully flip the panel over and duplicate the procedure on the other face to complete the cutout. Use care in installing this panel because the long sections of the cutout may be fragile until it is installed.





Once the panels with the door/window cutouts are installed the foam core will need to be removed 1 ¾" deep along the legs and head of the cutout. This will allow for wood or metal framing to be inserted, or to attach the door jambs. If you are using metal door jambs the inserted studs will provide extra support for the metal jambs.





