

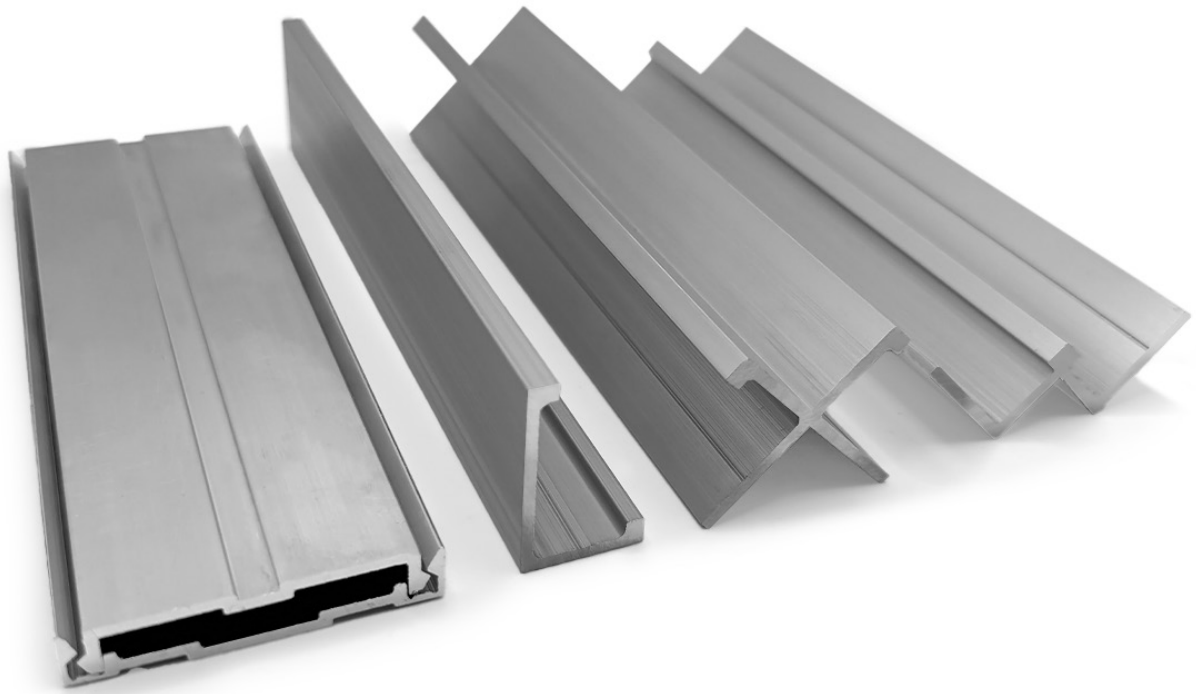


SNAP PANEL SYSTEM

INSTALLATION GUIDE



MONARCH
METAL INC.



SNAP PANEL SYSTEM

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SYSTEM OVERVIEW

ABOUT THE SNAP PANEL SYSTEM



The Monarch Metal Snap Panel System (SPS) is designed for 3/8" and 3/4" panels with a family of trims and reveals. The system is designed around our MSNAP system, which allows for a zero-lift, snap-fit installation of panels onto a variety of substrates. This allows for quick installation, easy replacement of panels, and a modular assembly that can be easily modified.

The Snap Panel System consists of wall rails, panel rails, edge trims, reveals, and corner trims, designed to seamlessly integrate with panels supplied by architectural millworkers or other providers.



WATCH OUR INSTALLATION VIDEO

Scan QR code for full video instructions
or visit www.monarchmetal.com/videos

SPS BENEFITS

- The Snap Panel System's innovative non-progressive, zero-lift design makes panels easy to install and remove.
- The system is designed to work with concealed fasteners and hardware.
- All SPS pieces are stocked in a clear anodized finish, giving your walls a clean and seamless finish.
- The system is compatible with 3/8" to 3/4" panels.
- Durable and long-lasting, Monarch Metal's Snap Panel System will look great for years to come.

APPLICATIONS

The Monarch Metal Snap Panel System is ideal for a variety of applications, including:



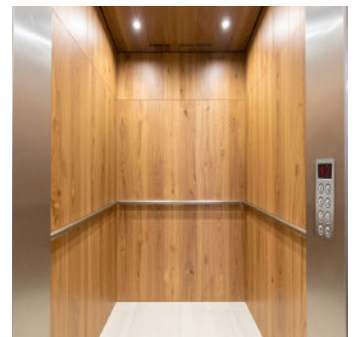
TRADE SHOWS



AIRPORTS



HOSPITALS



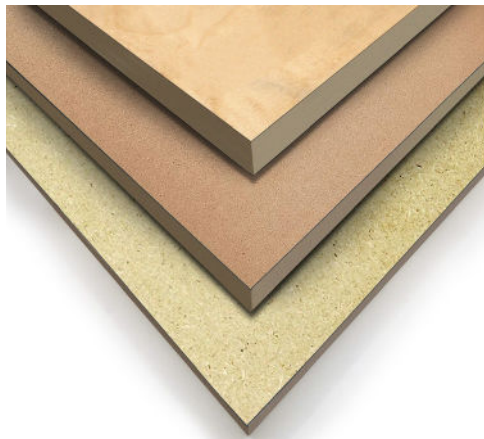
ELEVATORS



COMPONENTS OVERVIEW

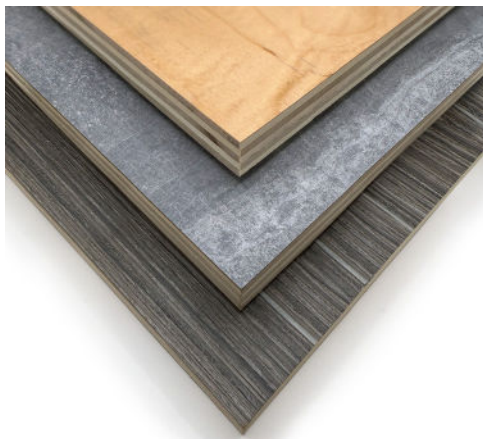
COMMON PANEL MATERIALS

The Monarch Metal Snap Panel System works perfectly with 3/8" & 3/4" (10 mm & 19 mm) panels, and can be utilized with most panel materials that can hold a fastener, including:



MDF

Medium-Density Fiber is generally easier to cut and cheaper than plywood or HPL.



PLYWOOD

Plywood panels are strong, versatile, and are relatively impact resistant.

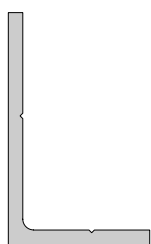


HPL

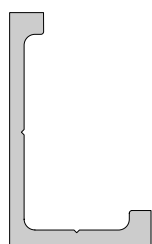
High Pressure Laminate panels are strong, durable, and highly resistant.

EDGE TRIMS AND CORNERS

Monarch Metal's SPS (Snap Panel System) Edge Trims and Corners are designed to provide a clean and seamless finish for panel installations. The system is based around the Monarch MSNAP Rails, with the panel rails attached to the back of the panels, and the wall rails attached to the walls. This allows for the panels to be installed into the system in any order. The system's non-progressive panel installation allows for easy insert or removal of panels.



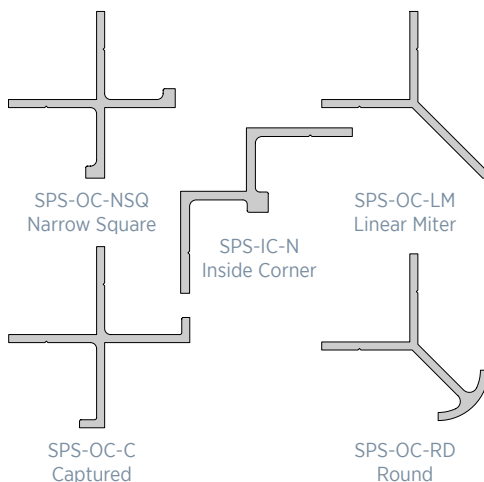
SPS-ET-L
Linear



SPS-ET-N
Narrow

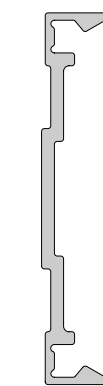
EDGE TRIMS

Our unique system uses one profile for perimeter edge trims, horizontal, and vertical reveals. These are also compatible with 3/8" & 3/4" panels, simply orient the trim for the desired projection.



CORNERS

We offer a selection of corner profiles to suit the aesthetic needs of any project. Outside corners are available in two versions: 3/8" panels and 3/4" panels.



MSNAP-WR
Wall Rail



MSNAP-PR
Panel Rail

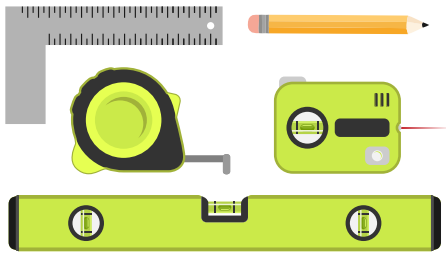
MSNAP

The system and panels are attached using our patent pending MSNAP wall and panel rails. Available in 72" and 144" Lengths, with .203" holes, 8" on-center. Compatible with all common interior walls.



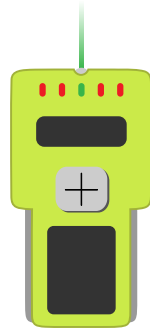
COMPONENTS OVERVIEW

REQUIRED TOOLS AND EQUIPMENT



MEASURING TOOLS

This includes a pencil, a spirit or laser level, tape measure, ruler or square. These are necessary to get the highest level of accuracy.



STUD FINDER

This tool is important to locate studs that will provide structural support for your Snap Panel System.



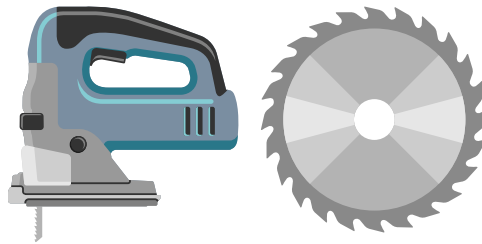
DRILL

A drill or a screw driver is a must in every installation. It is needed for when you are drilling pilot holes or driving & removing screws.



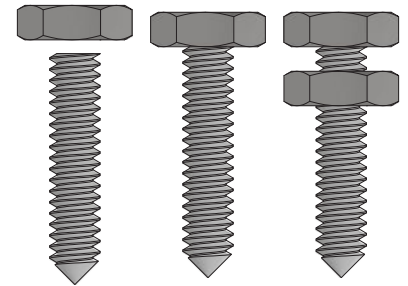
SUCTION CUPS & PRY TOOLS

Suction cups/vacuum suction cups and non-marring plastic pry tools are necessary for removal of the panels in the Snap Panel System without damaging your panels..



SAWS

We recommend a miter saw with a high tooth count blade, or a Jigsaw with a high tooth count blade. A trim router is optional.



MARKING SCREWS

We recommend using (1) 10-24 x 1 Cone Point Set Screw - McMaster-Carr 92785A522 & (2) 10-24 Hex Nuts - McMaster-Carr 90730A512 (x4 minimum).

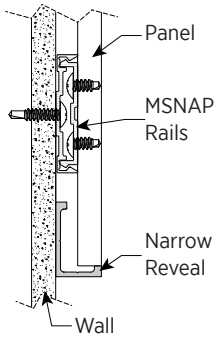
APPROPRIATE FASTENERS FOR WALL SUBSTRATE

Substrate Type	Appropriate Fasteners
Plywood	#8-10 pan/wafer-head screws
Gypsum / Drywall Only	Drilling / screw-type wall anchor, sized to match gypsum / drywall thickness
Direct to Stud / Framing	#8-10 pan/wafer-head screws, matched to stud material.
Wood Studs	1-1/2" Long - GRK Low Profile Cabinet Screws (Preferred)
Steel Studs	1-1/2" Long - Teks Sharp or Drilling Point Lath Screws (Preferred)
Gypsum / Drywall Over Framing	Same Screw types, but add gypsum/drywall thickness to screw length.



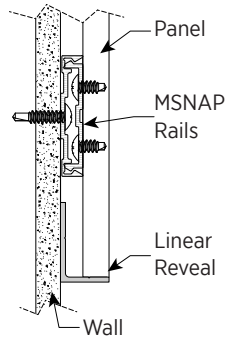
SPS PROFILES INDEX

EDGE TRIMS & REVEALS



NARROW

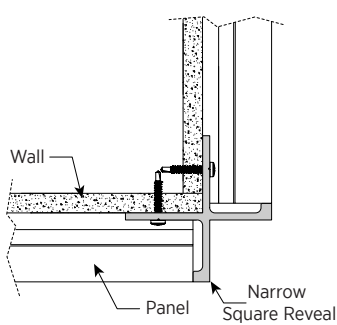
3/8" & 3/4" Panels : SPS-ET-N



LINEAR

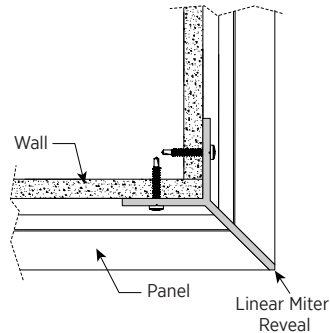
3/8" & 3/4" Panels : SPS-ET-L

CORNER TRIMS



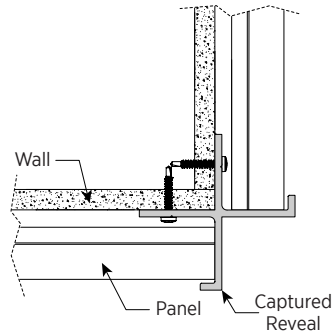
NARROW SQUARE

3/8" Panels : SPS-OC-NSQ
3/4" Panels : SPS-OC-NSQ-75



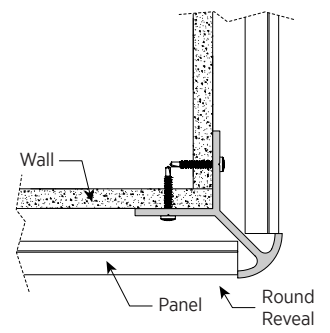
LINEAR MITER

3/8" Panels : SPS-OC-LM
3/4" Panels : SPS-OC-LM-75



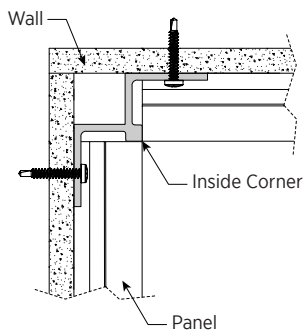
CAPTURED

3/8" Panels : SPS-OC-C
3/4" Panels : SPS-OC-C-75



ROUND

3/8" Panels : SPS-OC-RD
3/4" Panels : SPS-OC-RD-75



INSIDE CORNER

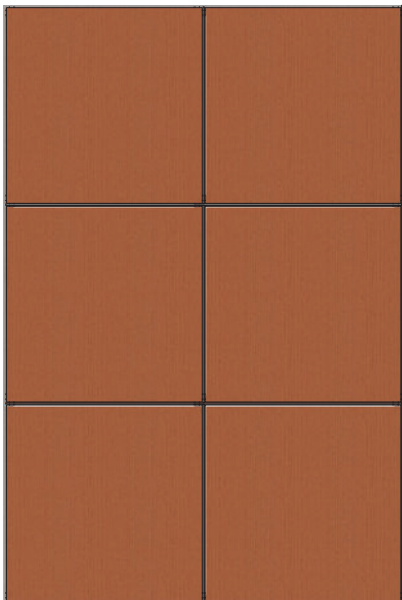
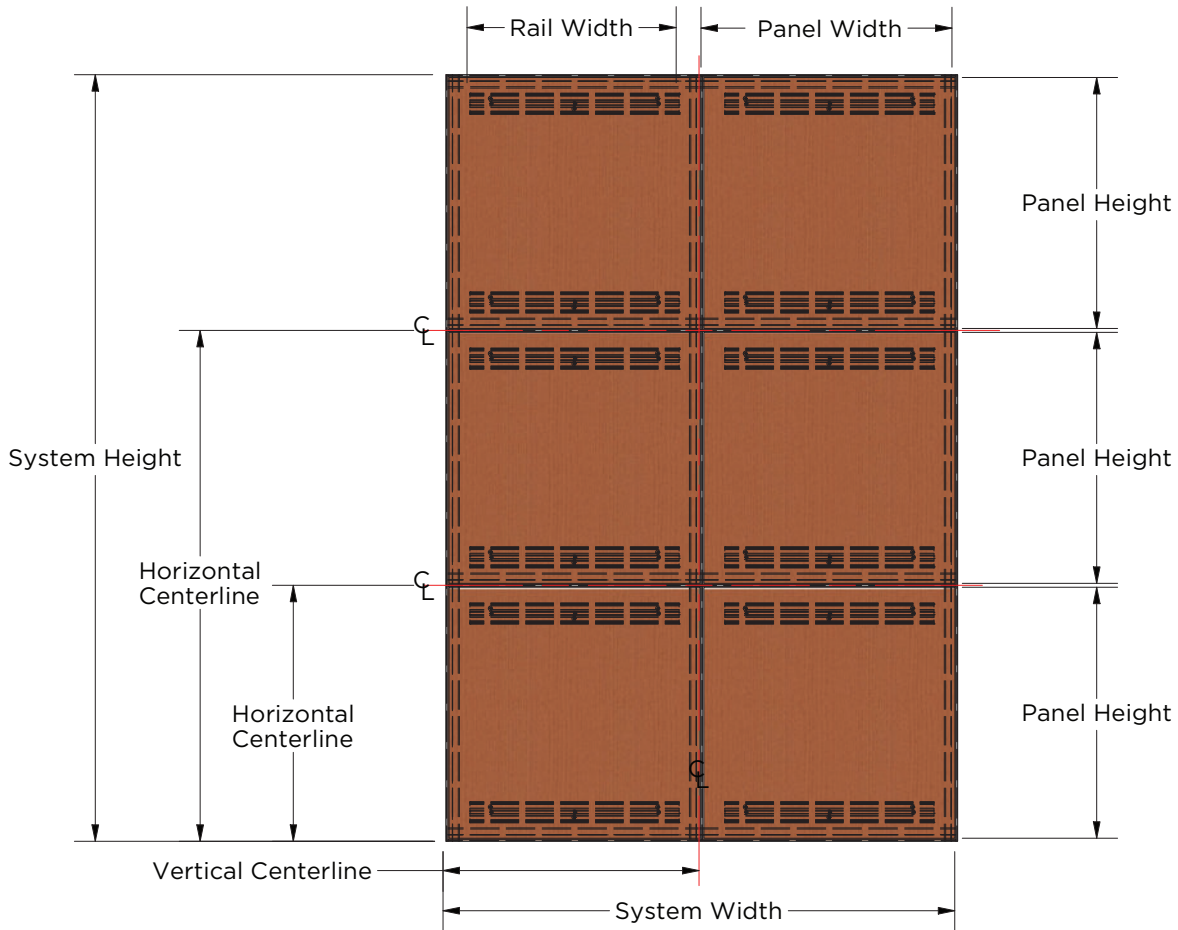
3/8" Panels : SPS-IC-N
3/4" Panels : SPS-IC-N-75



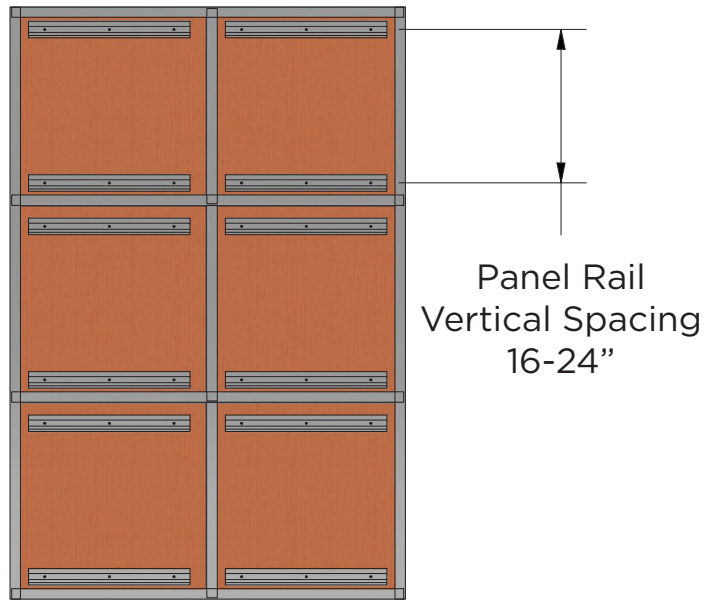
IMPLEMENTATION

CLEAR ELEVATIONS

Elevations should show the clearest view of the panel system, removing furniture, and any fixtures that would hide the panels. It is important to show the panel system height and width to closely represent the installation with precise accuracy, as well as the panel size.



Front View



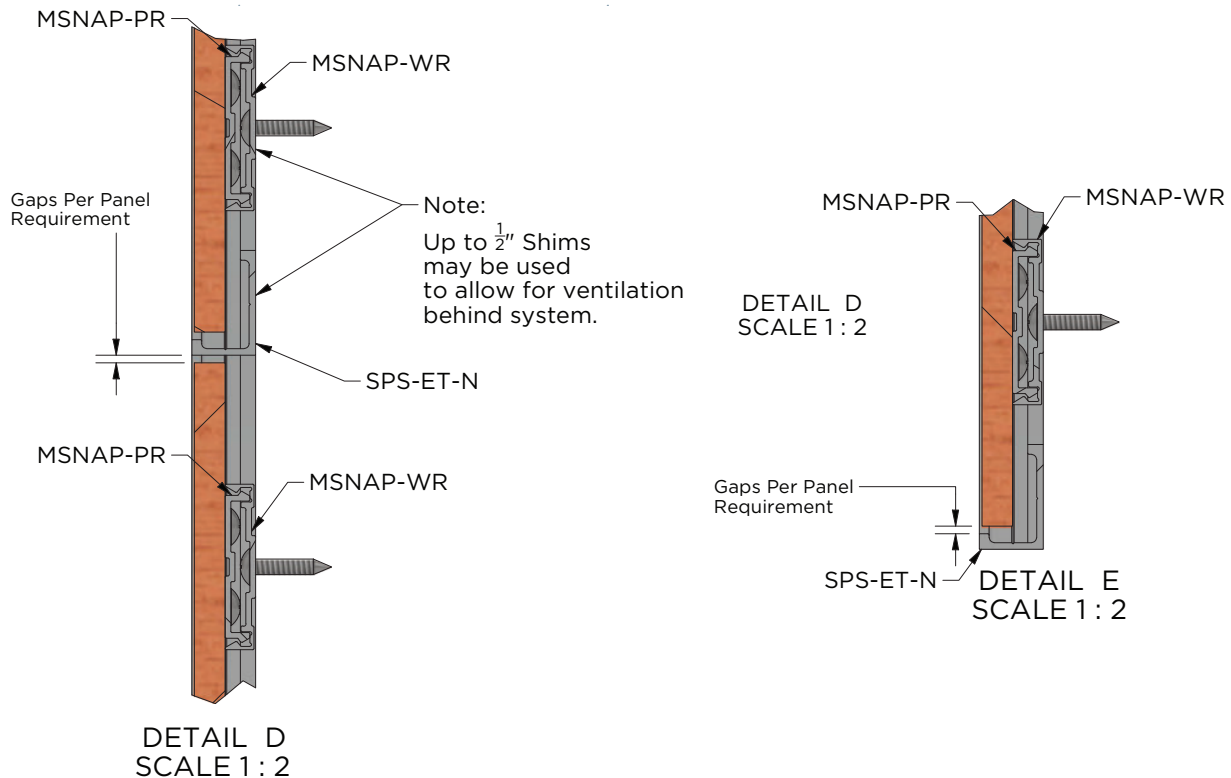
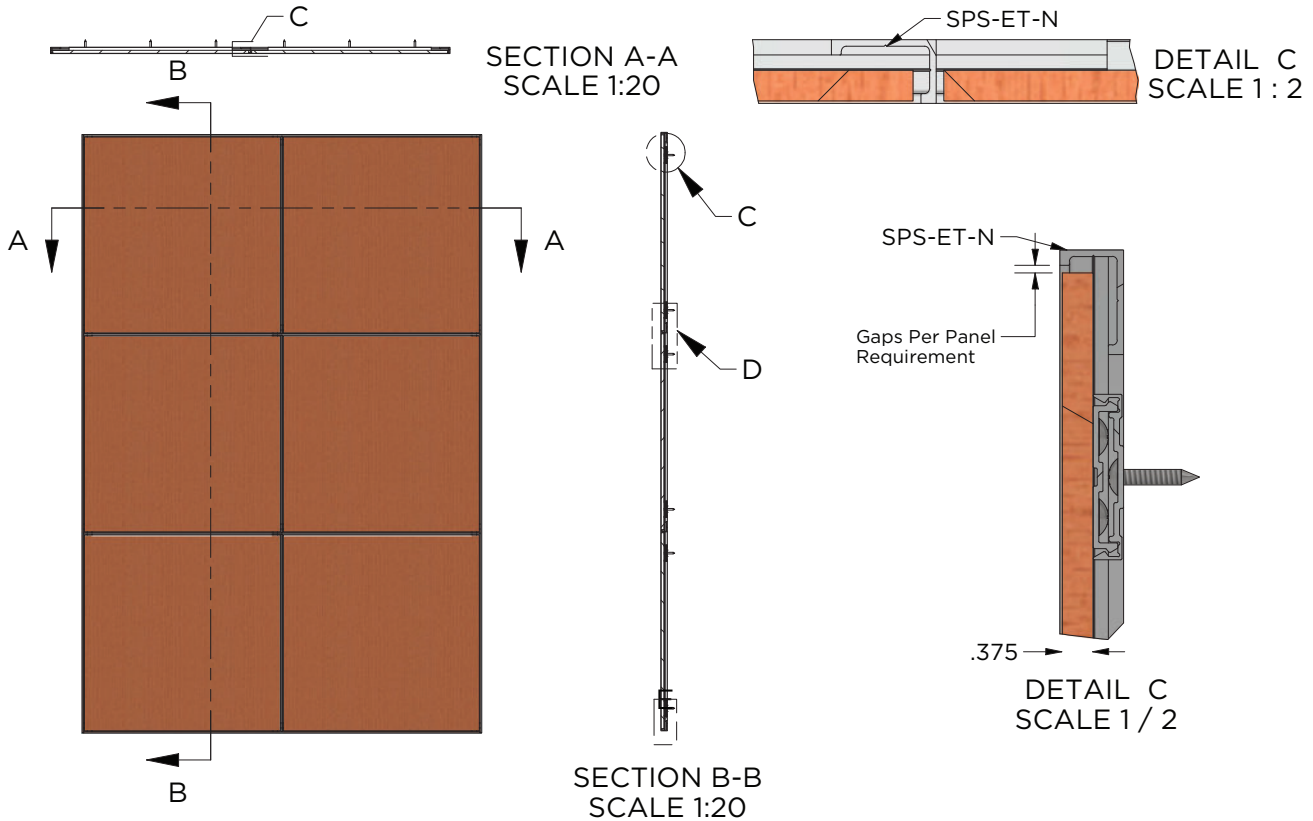
Back View



IMPLEMENTATION

SECTIONAL VIEWS

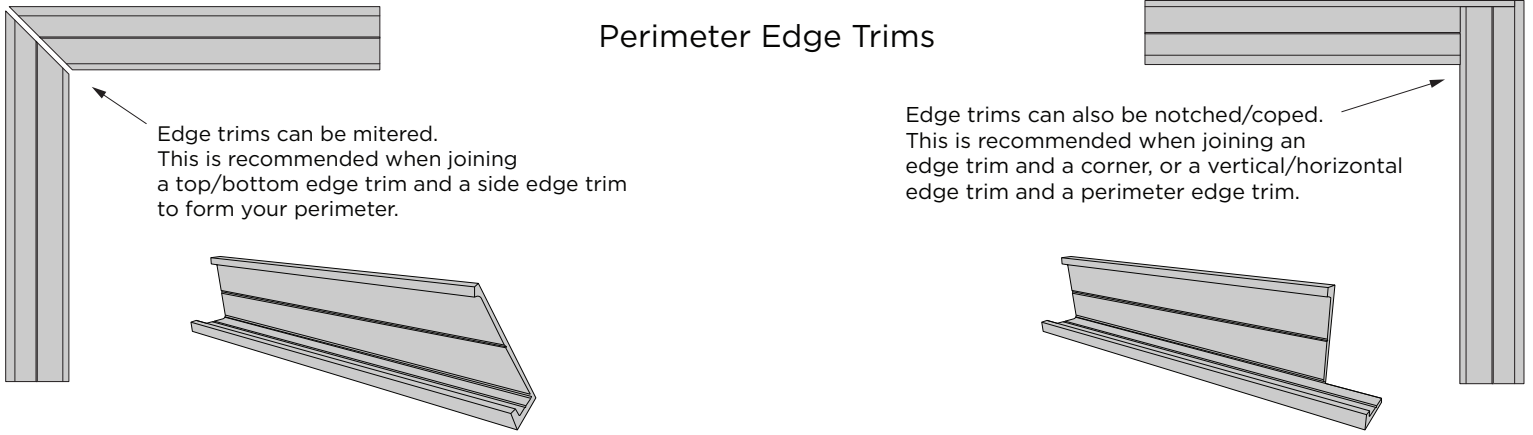
A sectional view should show the internal details of the system from a side view. It is important to show how the system looks fully installed, if the system uses shims be sure to include that as well to closely represent the installation with precise accuracy.



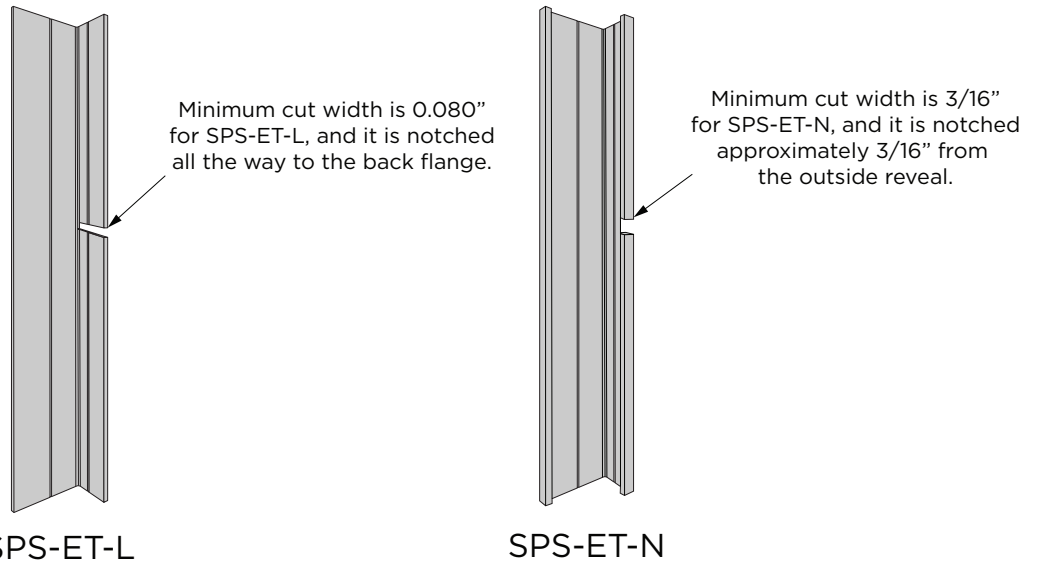
IMPLEMENTATION

CUTTING YOUR TRIMS AND REVEALS

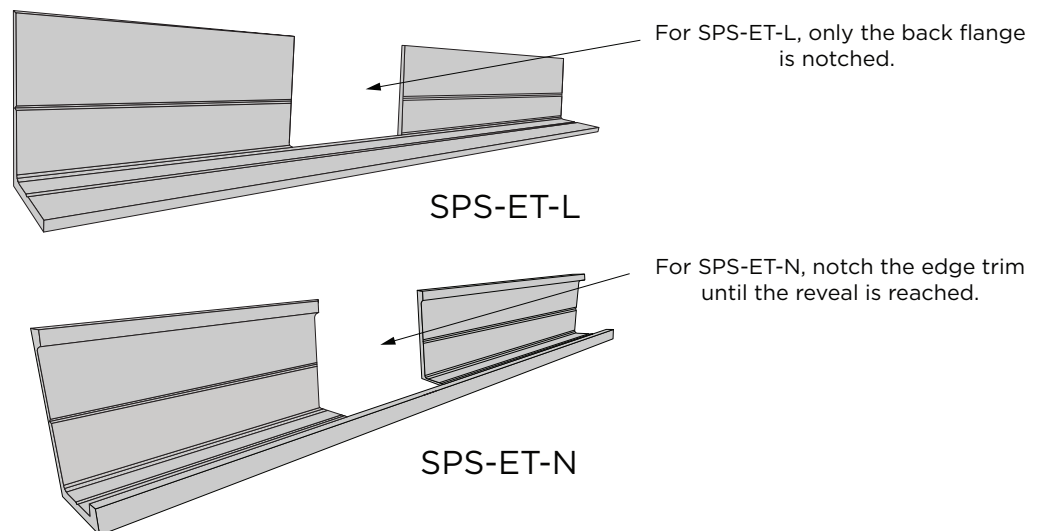
Depending on your specific installation requirements, the SPS system is highly adaptable and can be cut, mitered, or notched using several different techniques which include, but are not limited to:



Edge Trim as Vertical Edge Trim (A)
Edge trim A (used as vertical) is notched to the width of the reveal.



Edge Trim as Horizontal Edge Trim (B)

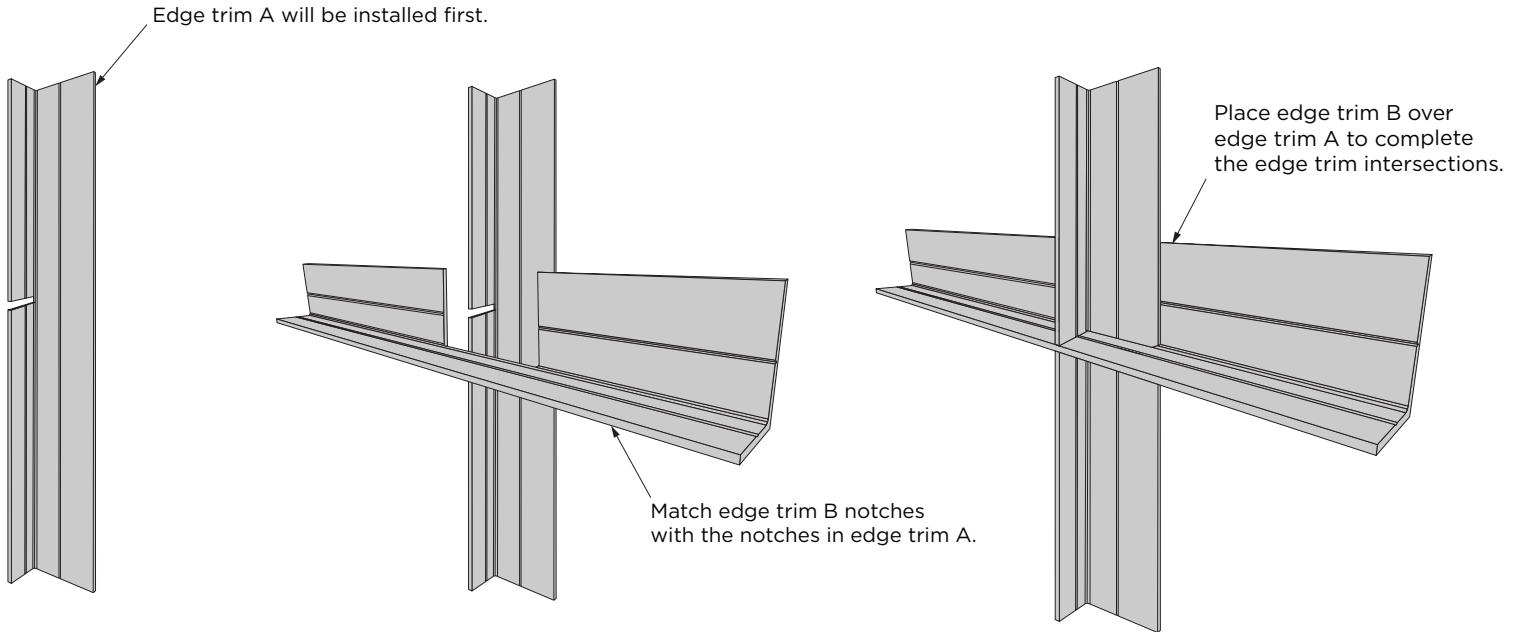


IMPLEMENTATION

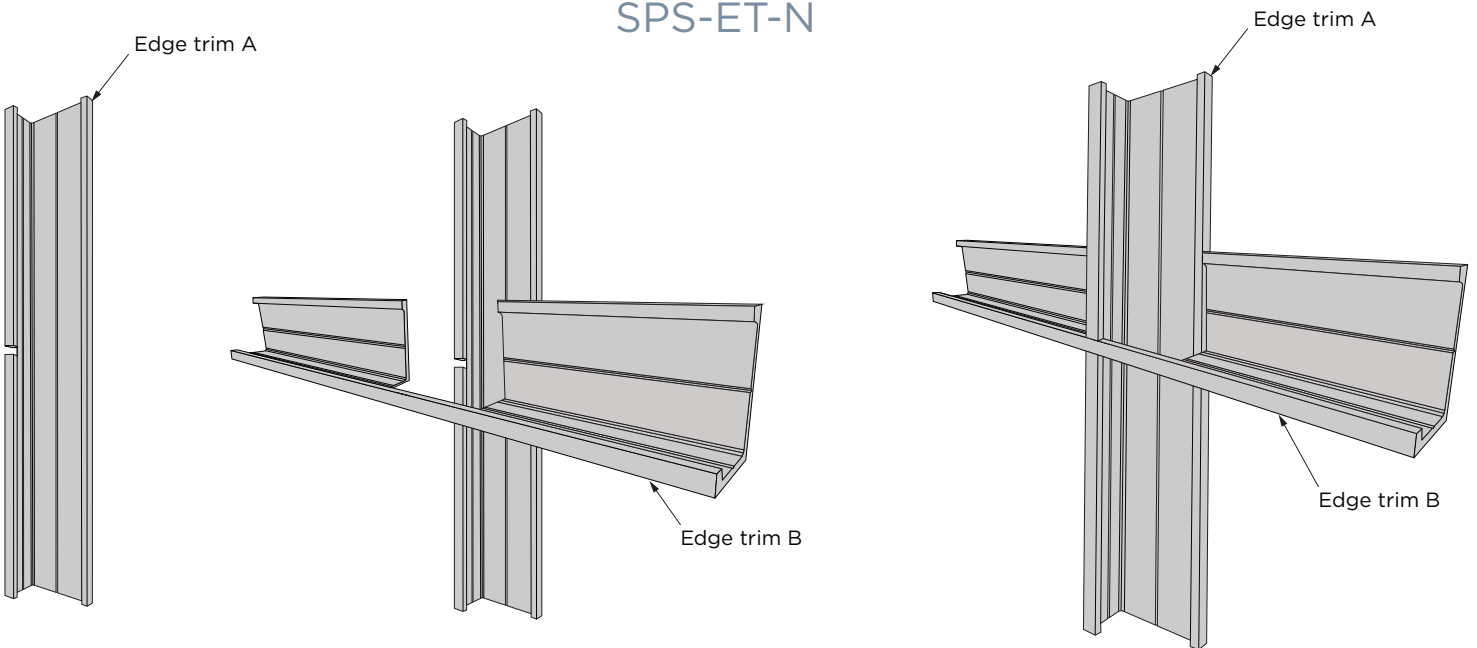
INSTALLING YOUR EDGE TRIM INTERSECTIONS

Once the edge trims have been prepared, form your intersection by overlapping the vertical (edge trim A) and horizontal (edge trim B) to achieve a flush and seamless intersection.

SPS-ET-L



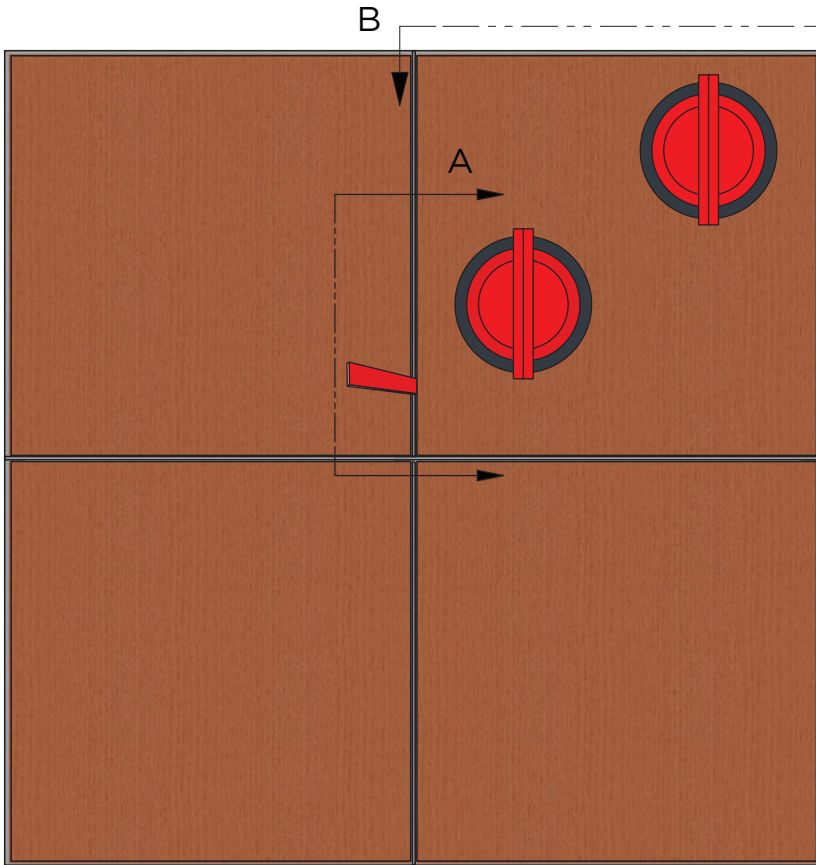
SPS-ET-N



IMPLEMENTATION

REMOVING YOUR PANELS

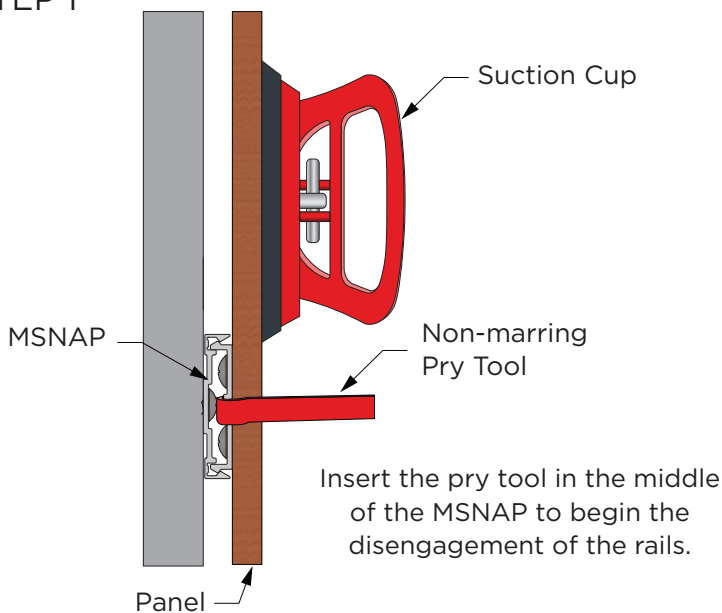
The Snap Panel System's non-progressive design allows for easy, non-sequential panel removal. To ensure system longevity, handle panels with care during removal to avoid damaging the panels, the surrounding trims, or the MSNAP rails. Protecting the edges with tape prior to removal is recommended. If more frequent removal is required, shorter lengths of MSNAP rails should be used.



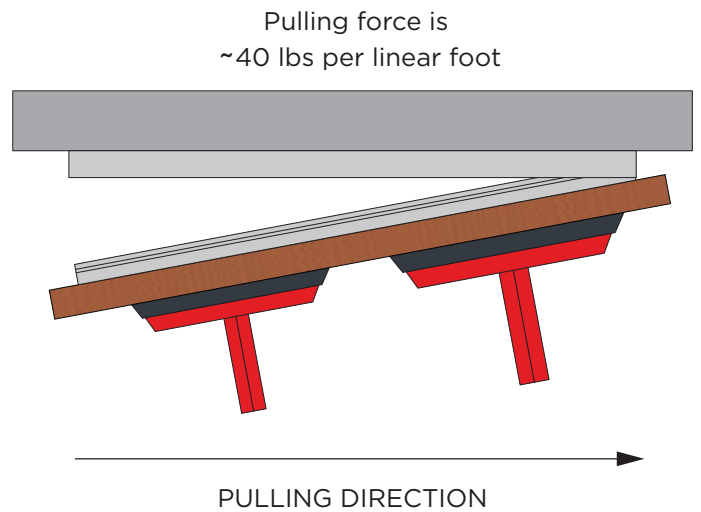
Note: Remove the panel by pulling it horizontally from one side to the other. The MSNAP rails will disengage sequentially along the edges, almost acting like a zipper.

Caution: Do not pull the panels in a vertical motion. Improper removal will cause permanent damage to the MSNAP rails.

SECTION A STEP 1



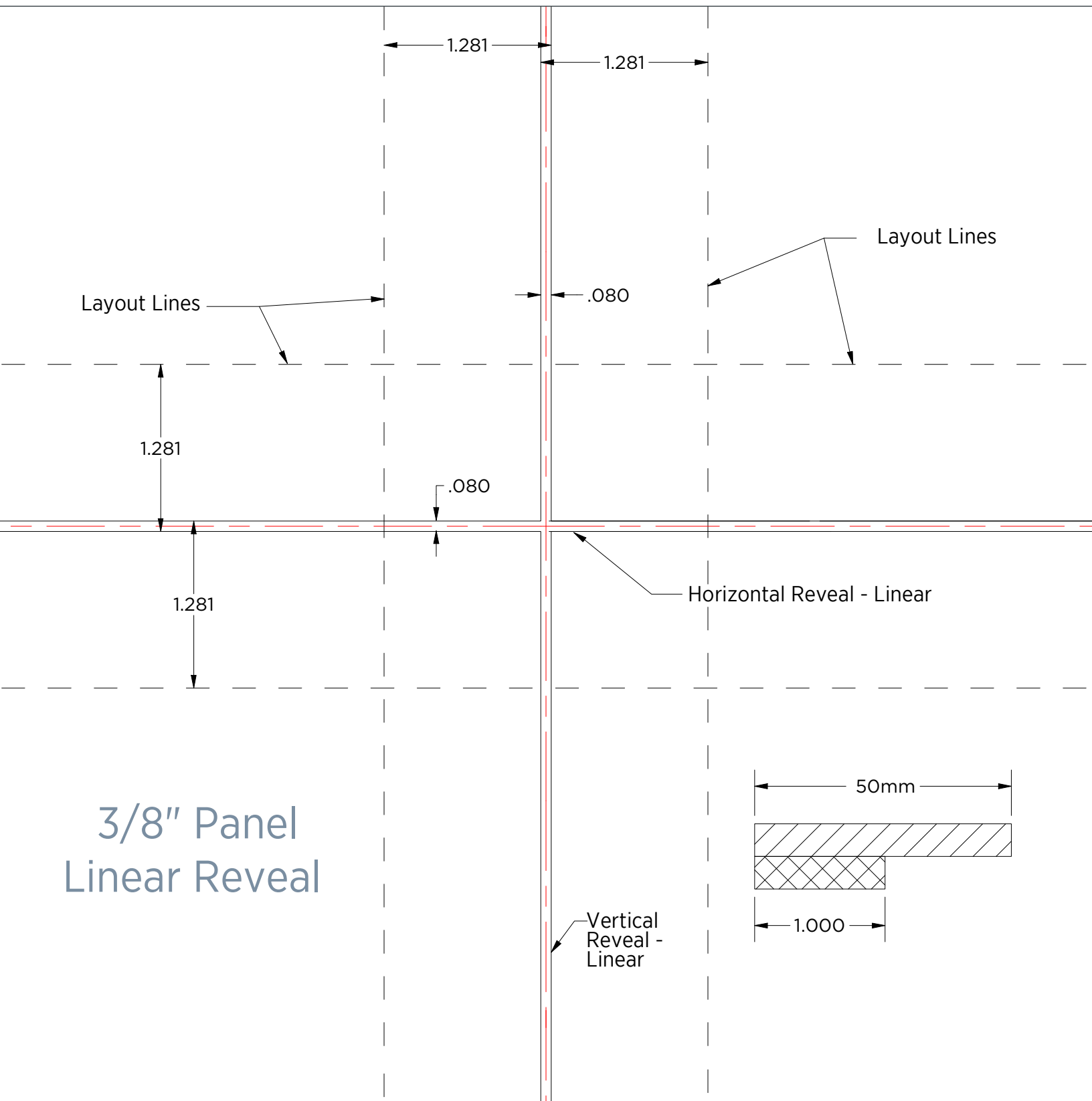
SECTION B STEP 2



IMPLEMENTATION

3/8" PANEL - LINEAR REVEAL LAYOUT GUIDE

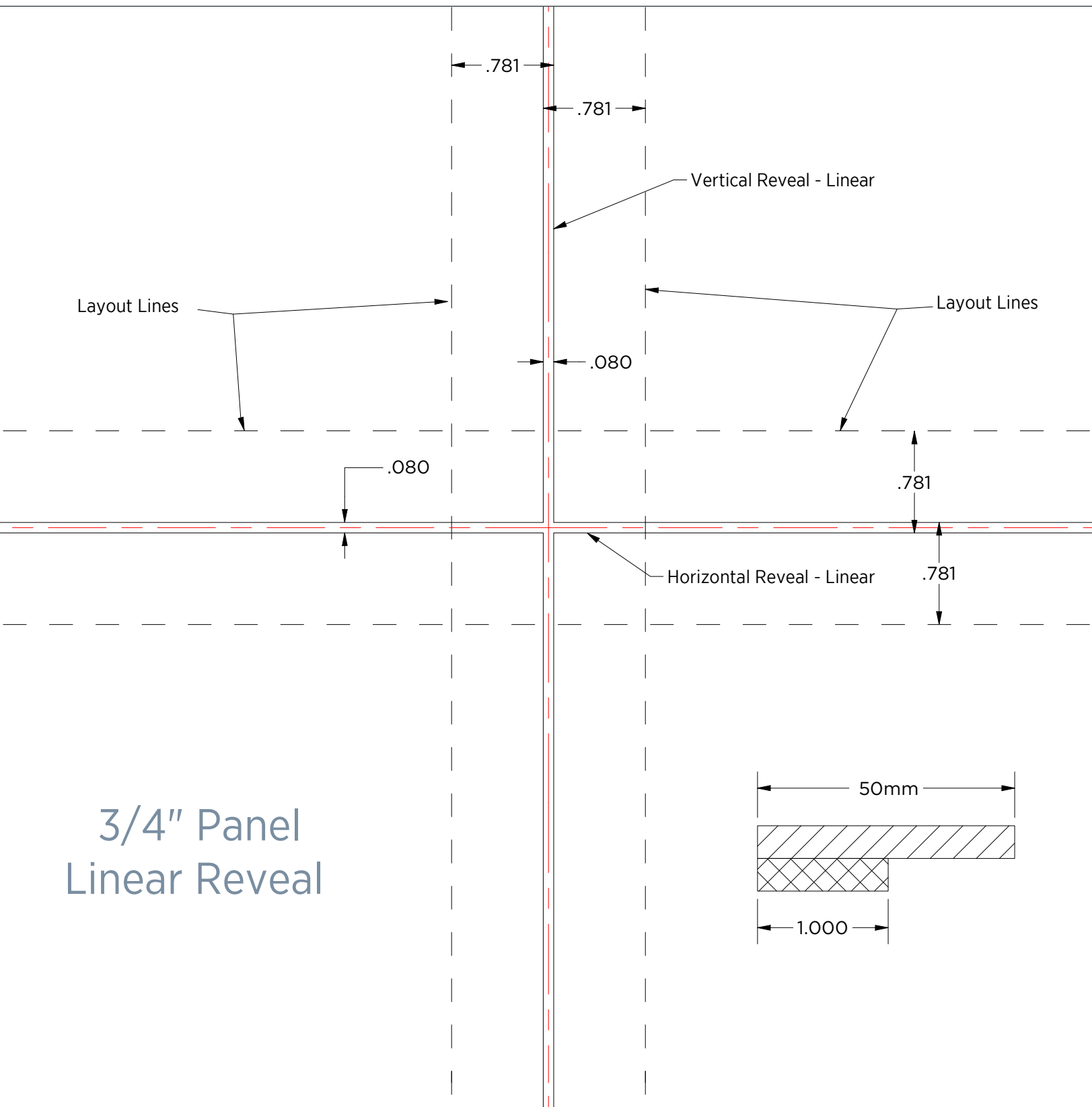
Print Page 1:1, No Scaling. Check Reference Dimension Prior to Use. Cut along the solid lines to use the layout guide and refer to Step 2 in the installation guide for instructions.



IMPLEMENTATION

3/4" PANEL - LINEAR REVEAL LAYOUT GUIDE

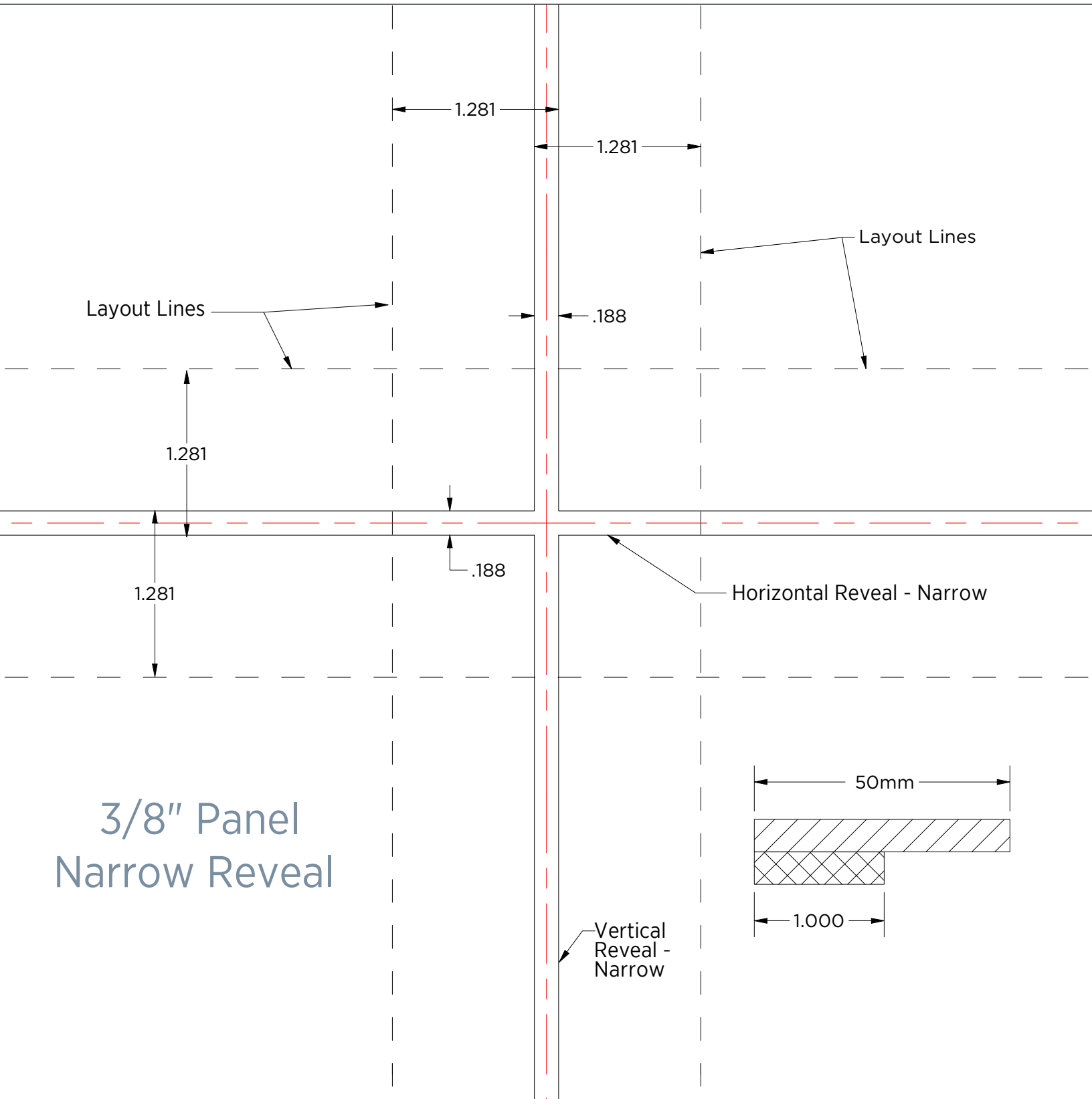
Print Page 1:1, No Scaling. Check Reference Dimension Prior to Use. Cut along the solid lines to use the layout guide and refer to Step 2 in the installation guide for instructions.



IMPLEMENTATION

3/8" PANEL - NARROW REVEAL LAYOUT GUIDE

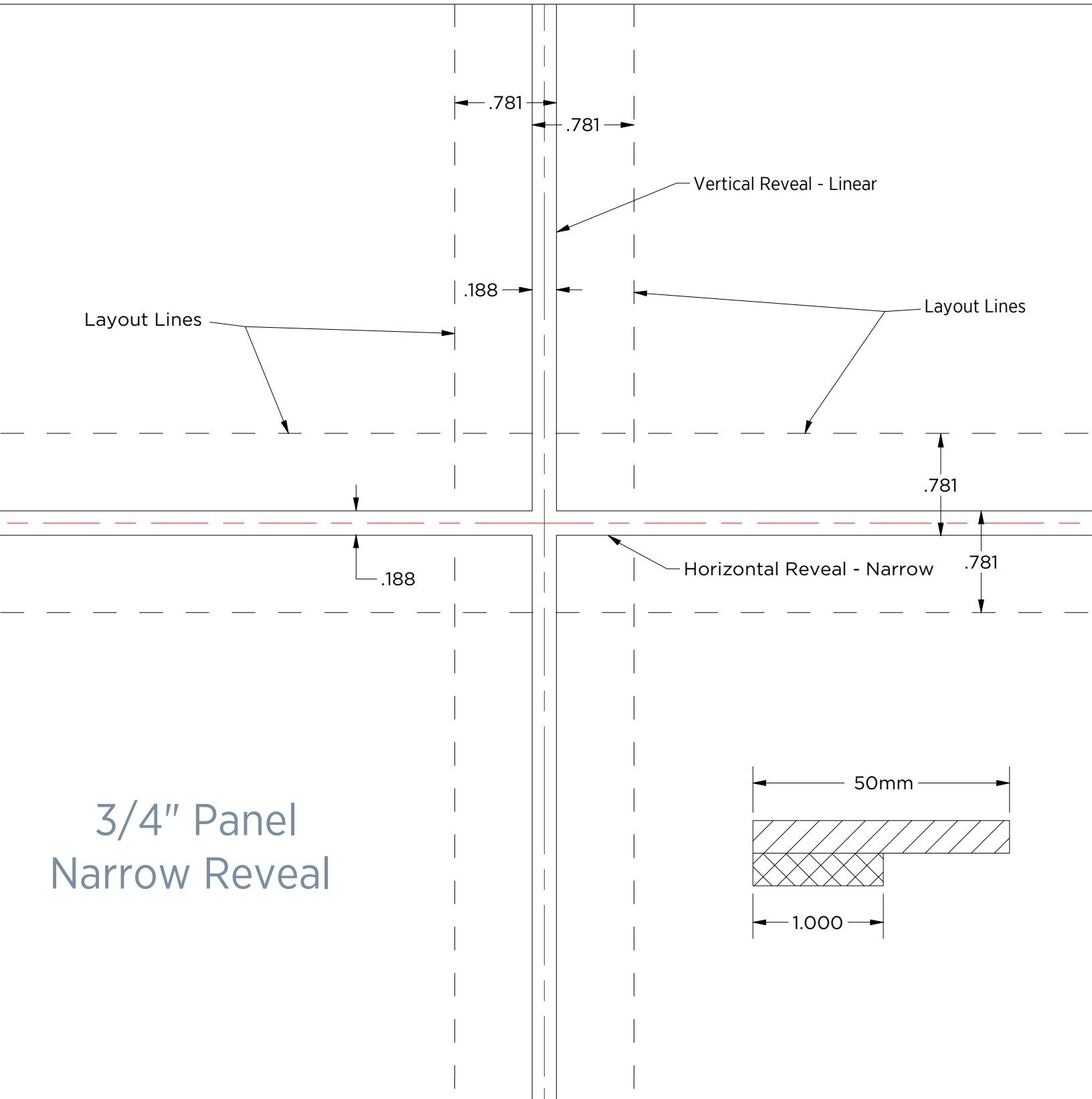
Print Page 1:1, No Scaling. Check Reference Dimension Prior to Use. Cut along the solid lines to use the layout guide and refer to Step 2 in the installation guide for instructions.



IMPLEMENTATION

3/4" PANEL - NARROW REVEAL LAYOUT GUIDE

Print Page 1:1, No Scaling. Check Reference Dimension Prior to Use. Cut along the solid lines to use the layout guide and refer to Step 2 in the installation guide for instructions.



3/4" Panel
Narrow Reveal



TAKEOFF & SYSTEM PLANNING

INITIAL REVIEW

Before starting a takeoff, it's important to review the overall design, elevations, details, and panel choice. The Snap Panel System is very flexible, and can be configured to suit a myriad of design aesthetics.

CHECKLIST FOR REVIEW

- System Elevations
 - i. Overall System Width
 - ii. Overall System Height
 - iii. System Design (Ex. (4) Columns Wide, (3) Rows Tall, etc.)
- System Plan Views
 - i. Inside and Outside Corners
- Panel Thickness 3/8" (10mm) or 3/4" (19mm)
- Panel Sizes Detail
- Views Detail Views

TAKEOFF TIPS

If you have all of the above information, takeoff for SPS is very straightforward. The overall system width and height are where most of the information lies. You will use those dimensions to calculate the amount of edge trim, as well as the horizontal and vertical reveals (as needed).

Your panels will need to be supported by MSNAP wall and panel rails. SPS trims are designed to be independent, and used as reveals only. Typically, 16-24" on center spacing for MSNAP rails is a common place to start for most panel types. Taller panels will need additional rows of MSNAP wall and panel rails. A general approach for MSNAP components is to take the width of the panel, subtract 4-6" from the overall width, and use that as your rail length.

Plan views are crucial to understanding how the system is configured. Inside and outside corners will stand out and should be counted.

The SPS edge trims are used for perimeter edge trims, as well as horizontal and vertical reveals. This reduces the total number of different components, and can help reduce the amount of material needed for your project.

GENERAL TRIM AND CLIP CALCULATIONS

Trim	Calculation
Perimeter Edge Trim	$(\text{Overall Width} \times 2) + (\text{Overall Height} \times 2)$
Horizontal Reveals	$(\text{Overall Width}) \times (\# \text{ of Rows of Panels} - 1)$
Vertical Reveals	$(\text{Overall Width} / \text{Panel Width} - 1) \times (\# \text{ of Same Size Sections}) + (\text{Unique Sections})$
Corners	Number of Inside Corners and Number of Outside Corners. Plan on a full length for anything over 72"
Panel & Wall Rail	Panel and Wall rails should be calculated for each panel size. Each panel should have a minimum of (2) rows of MSNAP rails. Maximum vertical spacing is approximately 24". Rails should measure approximately 4" narrower than the panel width.



INSTALLATION GUIDE

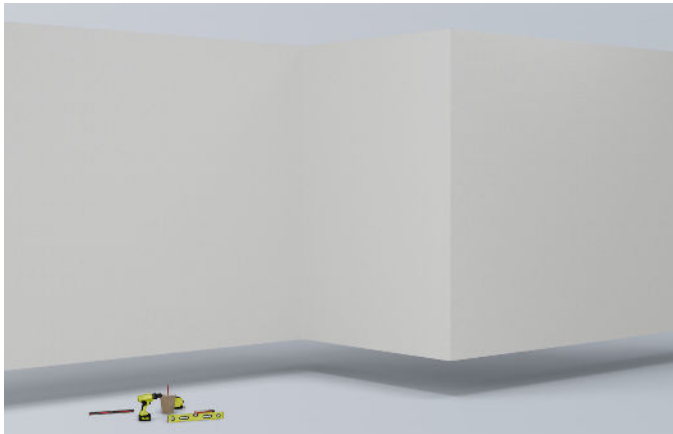
⚠️ DISCLAIMER ⚠️

These instructions are based on feedback from customers and our own test installations. Monarch Metal does not give explicit structural recommendations, offers no warranty and suggests you consult with a structural engineer for your specific installation conditions.

SYSTEM CARE AND CONSIDERATIONS

Expansion and Contraction - The system should be designed for each panel type's weight, and thermal expansion properties. Failure to design the system with appropriate gaps may yield bowing, binding, and failed panels.

Extreme Traffic Areas - If the SPS system will be installed in high-traffic areas, it is recommended to use a metal to metal adhesive between the panel and wall rails. This can also help limit excess movement of the system.



1 | PREPARE YOUR MOUNTING SURFACE

The first step in the installation process is ensuring that the mounting surfaces are clean and free of debris. The installer should also find any high or low spots on the wall, correcting them as necessary, and marking those that can't.

The SPS system can be shimmed as needed to maintain a flat, and plumb system.

2 | PLAN THE SYSTEM LAYOUT

- Mark the perimeter of the system starting at any corner.
- Print SPS intersection layout guides at 1:1 (pg. 9-12).
- From shop drawings, find centerlines for horizontal & vertical reveals.
 - i. Starting with vertical reveals, transfer measurements to wall.
 - ii. Using level, mark vertical centerlines on the wall.
 - iii. Now, transfer horizontal measurements to the wall.
 - iv. Using a level, mark horizontal centerlines on the wall.
 - v. Once the centerlines are marked, take the intersection layout guide, & attach to the first intersection.
 - vii. Transfer layout lines to the wall, and repeat.



3 | CORNERS

Outside and inside corners should be installed first. They must be installed plumb.

These can be installed with self-drilling #8 screws, or by pre-drilling holes. These corners should be fastened 16" O.C.



INSTALLATION GUIDE



4 | PERIMETER EDGE TRIMS

The SPS-ET profiles are used as edge trims, as well as vertical and horizontal reveals. In this step, the perimeter edge trims are cut and fit to the previously marked layout lines. Each section of edge trim must be installed plumb or level.

These can be installed with self-drilling #8 screws, or by pre-drilling holes. These edge trims should be fastened 16" O.C.

Edge trim to edge trim corner joints may be lapped, or mitered to form a corner.

5 | EDGE TRIMS AS REVEALS

When the edge trims are used as horizontal and vertical reveals, they should be installed in the longest continuous section. For example, if the system is longer than it is tall, the horizontal reveals should take preference as a full length.

These can be installed with self-drilling #8 screws, or by pre-drilling holes. These edge trims should be fastened 16" O.C.



6 | EDGE TRIM INTERSECTIONS

Each intersection of edge trims will have (2) cuts for proper fitment. For more information and reveal-specific instructions, see page 8.

Edge Trim A (Vertical Reveal) - Notch the front leg to match your reveal width. After notching, secure this edge trim to the substrate.

Edge Trim B (Horizontal Reveal) - Trim the back leg to match the width of the edge trim. The cut must have a minimum width of 1.3125".

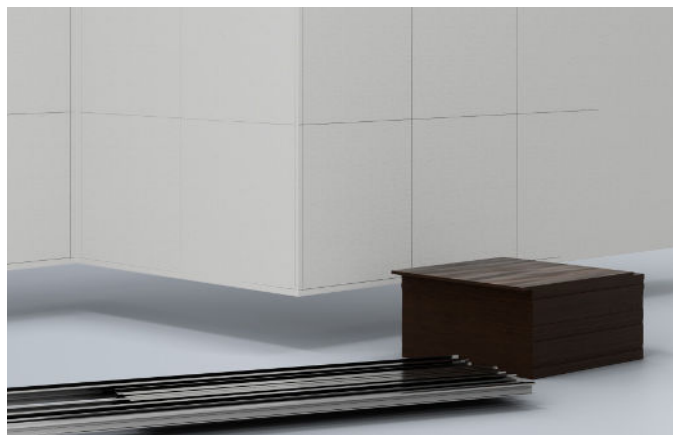
Note: Notch the ends to connect with the perimeter edge trims.

7 | PANEL PREPARATION

Panels should be cut on a CNC to ensure dimensional accuracy, and squareness. SPS uses Monarch Metal's MSNAP rails to allow for a snap-fit, zero-lift installation.

MSNAP-PR (Panel Rail) should be spaced at approximately 16-24" O.C vertically to support panel weights. Larger and/or heavier panels will require tighter spacing.

Rails should be approximately 4"(100mm) shorter than the panel width.



INSTALLATION GUIDE



8 | ATTACH MSNAP-PR

Attach MSNAP-PR to your panel per architectural drawings with appropriate fasteners for panel material such as:

HPL - We recommend #8-10 Type F pan/wafer head screws with pre-drilled holes.

Solid Wood - We recommend #8-10 fine-thread pan/wafer-head screws.

Plywood - We recommend #8-10 coarse-thread pan/wafer-head screws.

9 | MARKING YOUR PANELS

Match MSNAP-WR (wall rail) length to the MSNAP-PR (panel rails).

After cutting wall rail to length, we recommend using the marking screws to help transfer wall rail locations to the wall.

Install a minimum of (2) marking screws on wall rail length.

Slide wall rails onto panel with panel rail attached.



10 | MARKING YOUR PANELS

Take the panel and insert it into the reveals, pressing firmly to mark the location of the wall rail anchors.

Once locations are marked, marking screws can be removed, and wall rail installed.

11 | ATTACH MSNAP-WR

Attach MSNAP-WR with appropriate fasteners for wall substrates such as:

Plywood - We recommend #8-10 pan/wafer-head screws. A plywood substrate is our preferred mounting surface, as it allows for screw placement anywhere on the surface.

Gypsum/Drywall Only - We recommend a drilling/screw-type wall anchor, sized to match gypsum/drywall thickness.



INSTALLATION GUIDE



12 | ATTACH MSNAP-WR CONT.

Direct to Stud/Framing - We recommend #8-10 pan/wafer-head screws, matched to stud material.

Wood Studs - 1-1/2" Long - GRK Low Profile Cabinet Screws (preferred)

Steel Studs - 1-1/2" Long - Teks Sharp or Drilling Point Lath Screws (preferred)

Gypsum/Drywall Over Framing - Can use the same screw types, but add gypsum/drywall thickness to screw length.

13 | PANEL INSTALLATION

We recommend installing each panel immediately after installing the wall rail. This helps reduce errors, and ensures that the panels will be aligned properly in their openings.

The panels should be pushed into the wall rail evenly, not tipped into place. Depending on the size of the panels, a rubber mallet may be needed to seat the rails.

Continue to layout and install the remaining panels.



14 | PANEL REMOVAL

If panels need to be removed, care should be taken not to damage the surrounding trims and panels. Protecting edges with tape prior to removal is recommended. For more information, see page 10.

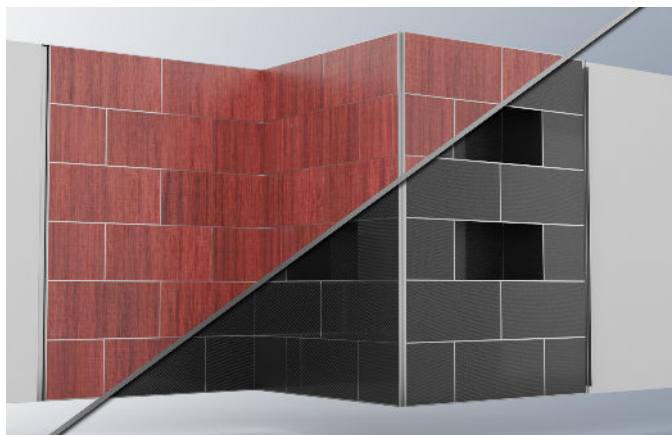
Suction Cups - In many cases, large suction cups can be used to pull the panels straight out of the system.

Non-Marring Plastic Pry Bars - Can be used to pry from the left or right of the panel edge. Panels should not be pried from the top or bottom, as this could damage the panel and wall rails.

15 | ALTERNATIVE ASSEMBLY OPTIONS

While the system is designed for 3/8"(10mm) - 3/4"(19mm) panels, there are ways to accommodate a variety of panel thicknesses. Using a combination of shims, and trim configurations, panels as thin as 1/8" can be used in the system. Please consult Monarch Metal for help with these special configurations.

When using thin panels, where a fastener is difficult to use, it is possible to use 3M VHB and an adhesive to mount the panel rail to panels, this will require additional preparation and materials to complete. This option is suitable for glass, HPL, and other non-porous panel types.



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SNAP PANEL SYSTEM

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MONARCH
METAL INC.