

MILLENNIUM FORMS TILE INSTALLATION

This installation document is to be used as a guideline; due to Millennium Forms being a material supplier only. Refer to the last page of this document and the Millennium Forms specs for substrate and installation measures.

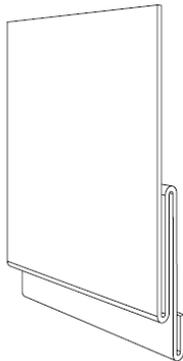
STEP 1) SUBSTRATE – HIGHLY IMPORTANT

When installing Millennium Forms stamped tiles on a wall, the substrate's levelness is highly important in the aesthetic of the tile wrap-around the building. Read: An uneven substrate surface will be highlighted by Millennium Forms tiles.

STEP 2) DRAW LEVEL LINES / INSTALL FALSE STARTER

Ensure the false starter (starter strip) flashing piece is installed level at the bottom of the wall. The false starter will allow the first row of tiles to be installed on the wall. Using a chalk line or laser line, mark the leveled line on the wall from which the false starter and tiles should follow. Continue to mark every 2-3 rows to ensure the tiles are staying level.

Image 1



FALSE STARTER





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STEP 3) INSTALL TILES

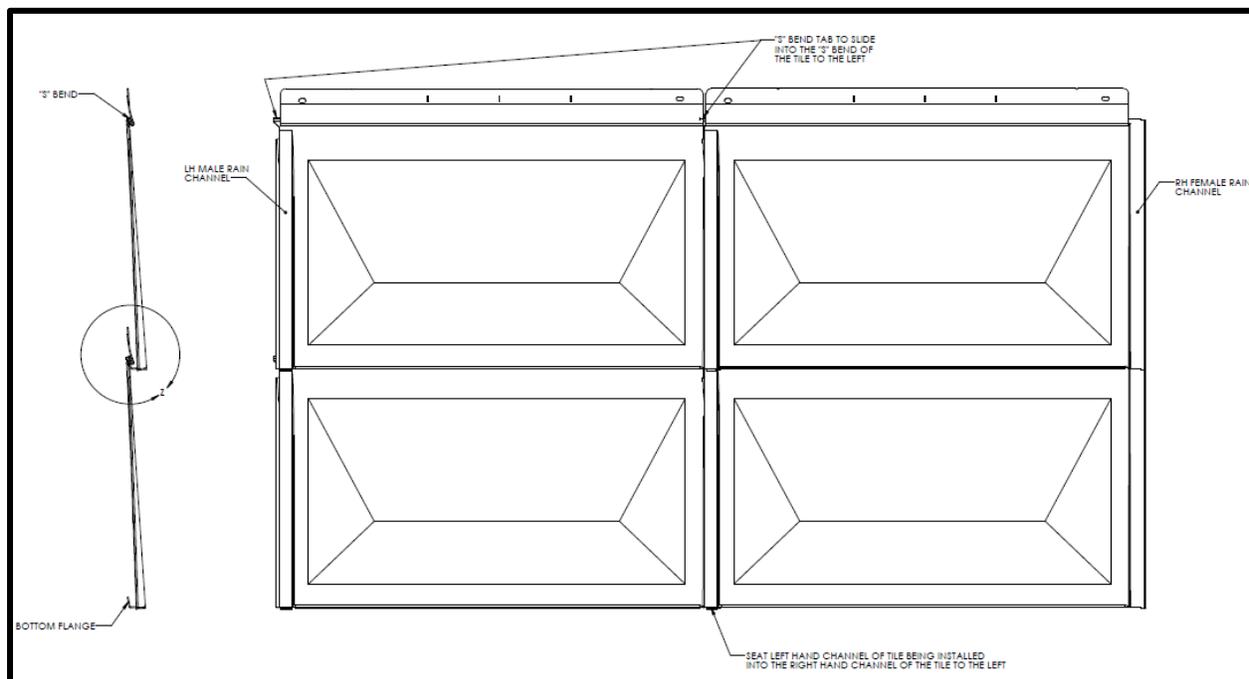
Install tiles starting at the bottom left corner of the wall, working to the right and upwards.

Image 2



Overlap the left-hand rain channel (male) with the previous tile's right-hand rain channel (female).

Image 3



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At the bottom of the left-hand rain channel is a fold-over tab that prevents the tile from installing too far up.

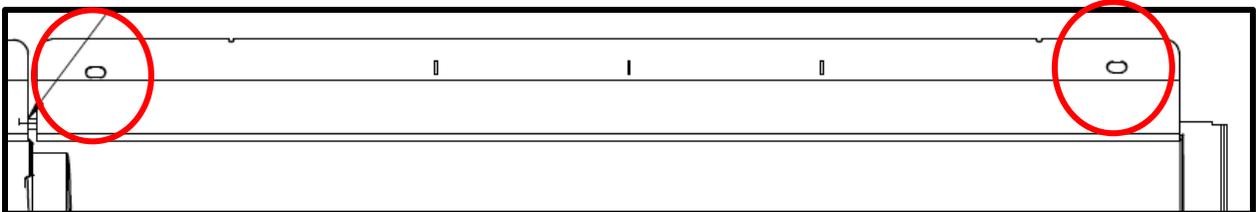
Image 4



Use similar material fasteners to attach the tiles to your substrate. Stainless steel fasteners are best for stainless steel tiles, galvanized fasteners are best for ZALMAG® tiles. Do not over torque the fasteners, as this will warp the tile as it installs.

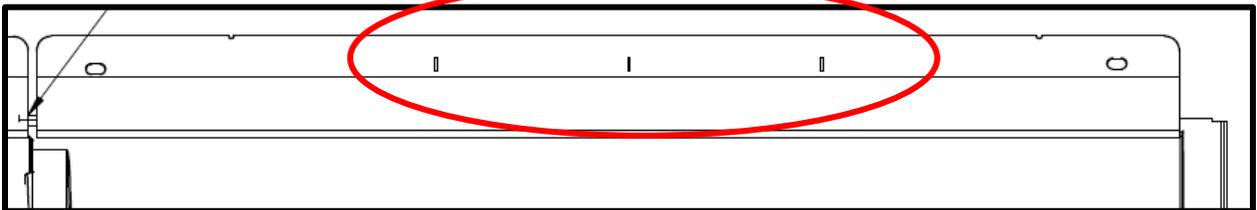
There are two pre-punched fastener holes (in the Installation flange) for this purpose. When tiles are cut or modified, you can fasten through any point along the centerline of the top nailing flange.

Image 5



There are three slotted lines on the Installation flange to aide in tile alignment design. (For running bond, one-third running bond, or stacked pattern.)

Image 6

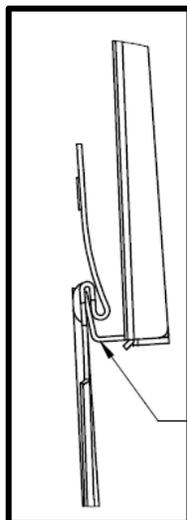




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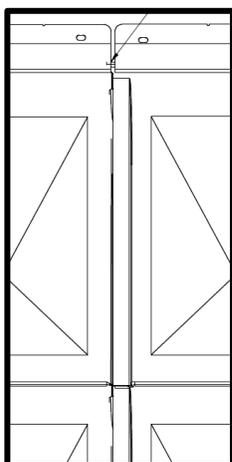
Use the bottom flange of the tile on the top row to engage with the S-Bend of the tile on the row below. (See Image 7.) If needed, use a soft long surface (2x4) and mallet to aid in engaging the bottom flange of the overlapping tile into the S-Bend of the underneath tile.

Image 7



Start the first two rows by leveling the tiles on the chalk line starting from the top of Installation flange. Install five or less tiles on the first two rows. Check the levelness of the rows from the S-Bend and the bottom of the tiles. Opt for a deeper engagement inside the S-bend fold, to ensure tiles stay put during high winds. Tiles may need to be shimmed into place and into a level position.

Image 8



← Leveling point

← Leveling point



Note for better engagement or for better leveling of files: Some tiles may require pressing in the bottom flange more or opening it more. Some tiles may require opening the S-Bend slightly. Please note S-Bend should only be opened slightly. Loss of engagement can occur with over-opening of the S-Bend.

Installation Instruction Recommendations

- 1) Millennium Forms is a supplier of materials only. As such, Millennium Forms has no written or implied liability for the installation of the materials provided. As a courtesy to the installer, Millennium Forms offers the following items for consideration by the installer / contractor and architect of record. Product selection and installation is the sole responsibility of the architect of record, the installer, and the owner.
 - a. Galvanic action occurs when two dissimilar materials come in contact. Recommend the installer and architect of record consider this as it relates to materials provided by Millennium Forms.
 - b. Recommend the installer and architect of record consider and allow for expansion and contraction of all materials, live load floor deflections, and movement of the building as a whole.
 - c. Recommend the architect of record specify and verify that a high-temperature weather barrier is properly installed behind all materials provided by Millennium Forms due to the high heat that is typical with metal claddings.
 - d. If exterior continuous insulation is to be utilized behind Millennium Forms products, it is recommended that foil-faced insulation be considered due to high heat that is typical with metal claddings.
 - e. If Z-Furring is being utilized behind Millennium Forms products, it is recommended that fiberglass or other thermally enhanced product be considered due to its thermal properties.
 - f. Panels and tiles will reflect the flatness of the substrate they are installed on. As such, a flat substrate is recommended.
 - g. Recommend the architect of record design a wall assembly that allows products to be installed in a way that allows for proper drainage and water management behind Millennium Forms products.
 - h. Recommend all flashings and fasteners be sealed to the weather barrier in a manner approved by the architect of record.
 - i. Recommend all products be installed on a properly sloped substrate. Products are not intended to be installed on a flat horizontal surface that is exposed to moisture.
 - j. Oil-canning can occur on all products. Consider that high gloss finishes make this more noticeable. To help make this less noticeable consider the following: larger panels, flatter panels, and panels that are overtightened tend to oil-can more. Install fasteners straight and flush.
 - k. Recommend a preinstallation meeting be held with the general contractor, sub-contractors, and architect of record to discuss details and installation prior to installation on mockup or the building.
 - l. Recommend contractor provide a temporary barrier around panels once installed to prevent damage from other trades.
 - m. Recommend a Mockup be installed and approved by the architect of record prior to installation on the building beginning.
 - n. Recommend the installer obtain approval of submittal documents and mockup (if applicable) prior to the installing materials on the building.
 - o. If the base of wall elevation is not consistent around the perimeter of the building, it is recommended the elevation dimension the architect of record wishes to be consistent around the perimeter of the building be established during the submittal process. Once established, the base of wall with the lowest elevation should be the starting point for the installation. This allows the "sightlines" of the tiles to align as the tile installation progresses around the building.
 - p. Sealing holes: Any time during the installation process if a fastener penetrates the weather barrier and the fastener is removed, it is recommended sealant that is compatible with the weather barrier is used to fill the hole.
 - q. Recommend materials be installed in a manner that meets required building codes.
 - r. Recommend installer wear clean/dry gloves at all times while handling materials provided by Millennium Forms.
 - s. Recommend safety protocols be followed at all times and proper (PPE) Personal Protective Equipment be worn at all times.