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# **PREPARATION**

# **Tools required**

- 1.1 To complete your project, you will need:
- 1 table saw;
- 1 hand grinder;
- 1 level;
- 1 tape measure;
- 1 screwdriver;
- 1 drill;
- 1 caulking gun;
- 1 brush.



















- **1.2** Make sure to wear proper safety equipment:
- Hard hat;
- Safety glasses;
- Steel toe boots;
- Mask;
- Hearing protection;
- Safety gloves.

















### Vena screw-on panel components

- **1.1** To complete your project, here are all the Vena components you will need:
- · Vena screw-on panel;
- Vena screw-on corner panel (if needed);
- Galvanized steel clips for Vena screw-on panel;
- Rust-resistant screws;
- · Vena starter strips;
- Vena sill caps;
- Vena finishing stone for outlet plate;
- Vena finishing stone for light fixture plate.

### **Estimating materials**

#### 1.1 Vena screw-on panel

- Before starting your project, determine the net surface area of the wall to be covered. Do this by multiplying the wall width (in feet) by the wall height (in feet).
- Make sure to subtract the area of windows, doors and any other area that will not be covered by the Vena screw-on panel. If your installation includes outside corners, these must also be subtracted, see explanation in the next paragraph.
- It is recommended that you add an extra 5% to the net surface area to cover for waste during installation.

#### 1.2 Vena screw-on corner panels

- Vena screw-on corner panels are textured on one end which differentiates them from flat panels. These will be used only when you want to cover an outside corner. Determine the height in inches of the corners that will be covered. Divide the height by 8 (height of a corner panel is 8 inches). The result indicates the number of corner panels needed for your project (III. A).
- Multiply the number of corner panels needed for your project by 1.25 ft<sup>2</sup> which is the surface in sq. Ft. covered by one Vena screw-on corner panel. Make sure to subtract the corner area calculated from your net surface area you previously determined.



+ - =





#### 1.3 Vena starter strips

 The number of starter strips required depends on the width (in linear feet) of the wall to be covered. This measurement must be divided by 4 to calculate the number of starter strips needed. Each starter strip is (48 in.) in length.

#### 1.4 Vena galvanized steel clips

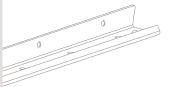
 Vena galvanized steel clips are included with the Vena screw-on panel (2 per panel). However, you can buy extra clips if needed.

#### 1.5 Rust-resistant screws

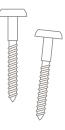
- To ensure the integrity of the installation and make sure the warranty is valid, rust-resistant screws must be used.
- The length of the screw varies according to the type of wall on which the Vena screw-on panel is installed but must have a minimum penetration of 1¼ in. into the frame.
- The size of screw to be used is a #10 screw.
- It is necessary to use a minimum of 2 screws per panel and each panel covers a surface of 1.25 square feet.
- Royal Stones is not responsible of the integrity and durability of the selected screws.

#### **Building code**

1.1 Building code requirements vary by province, state and country. You should check with local authorities to determine which ones apply in your area. Please read all installation instructions carefully before proceeding with installation of your project and follow all necessary safety measures.







## INSTALLATION

## **Wall preparation**

- 1.1 Vena screw-on panel is installed on a 1/2-in plywood or over or a 7/16-in OSB substrate or over (III. A).
- **1.2** Determine the space between the studs (usually 16 in. or 24 in. c/c).
- 1.3 Install a weather water resistant membrane in accordance with the installation instructions provided by the manufacturer as well as the requirements of the local building codes to ensure proper sealing of the surface to be covered.

#### 1.4 Install the starter strip

- The product must maintain a minimum ground clearance of 6 in. if the ground is a solid surface such as concrete, asphalt or paving stone and 8 in. if the ground is an organic surface such as dirt or grass.
- Install the starter strips at level. Put one screw in each framing stud when installing the starter strip. Install a starter strip along the entire length at the base of the area to be covered (III. B).
- Leave a 1/4" gap between starter strips when placed next to each other due to normal expansion in temperature changes.







## General rules and installation tips

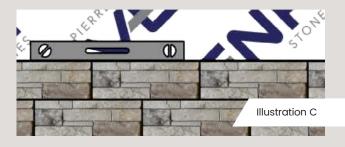
- 1.1 The Vena screw-on panels are always installed from bottom to top.
- 1.2 Always start your installation with a wall end or with an outside corner.
- **1.3** The panels must be staggered from one row to another to break the alignment of the vertical joints (III. A, B).
- **1.4** It is important to use all the pieces provided in the boxes and pallets to ensure an accurate reproduction of natural stone.
- **1.5** A minimum of 2 galvanized steel clips must be used for each Vena screw-on panel. Slide the clips in the grooves on the back of the stone.
- **1.6** Installations exceeding 30 feet in height must be approved by a design professional.
- 1.7 Drainage and ventilation must be done at all ends.
- **1.8** Make sure your panels are running level at each row (III. C).

#### **Corner panels**

- **1.1** Corner panels are not grooved to the end of the textured side.
- **1.2** Only One (1) of the two (2) ends of the corner panel is textured.
- **1.3** Corner panels are available in a box of 4 units (32 linear inches per box which covers 5 square feet of surface).
- **1.4** Each box has two (2) left corner panels and two (2) right corner panels.
- **1.5** When cutting a corner panel, keep aside the unused section for future use.
- **1.6** Corner panel applications:
- Outside corners;
- · Columns.

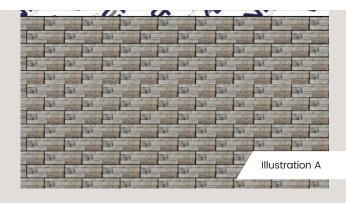




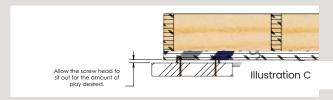


#### Wall with no corners

- **1.1** Install a complete row of Vena screw-on panels by starting with a full-length panel.
- **1.2** Start the second row of your installation with a panel whose length has been cut to avoid vertical alignment of the joints (III. A).
- 1.3 The other section of the panel can be used later in your project. Ideally, you will need to cut various lengths to maximize the aesthetics of your installation.
- **1.4** Continue installing the rows alternating the length of the first panel installed to break the vertical alignment of the joints until the last row (III. B).
- 1.5 For the last row, the Vena screw-on panel may have to be cut on the horizontal and it is likely that the groove at the back of the panel is lost. In that event, the clips can't be used and the 10 mm air gap must be kept.
- 1.6 The 10 mm air gap must be created by screwing 2 screws on the OSB or plywood to reproduce the air gap (mechanical stop) such as the drawing below (III. C).
- As you have lost the groove in the panel, simply drill a hole in the stone, ideally in one of the false joints at the surface, and create a slight bevel with a countersink bit to conceal the screw (III. D).
- Sink the screw into the hole drilled.
- Hide the screw head with caulking of a matching colour with the stone.
- Plan to install the last two rows at the same time to have enough space to slide in the panels (III. E).





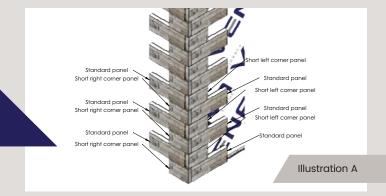






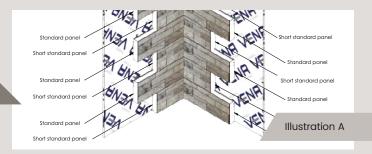
#### **Installing outside corners**

- 1.1 Start by applying an elastomeric waterproofing membrane directly over the weather water resistant membrane. The elastomeric membrane must have a minimum overlap of 4" at the outside corner.
- **1.2** Select a left corner panel and install it on the starter strip on one of the walls forming the outside corner.
- **1.3** Select a flat panel and cut it in half. You will have a section A and a section B.
- **1.4** Install the half panel A of the Vena stone on the starter strip on the other wall forming the outside corner.
- **1.5** Slide the corner panel to extend past the wall edge and slide the half panel A to intersect with the corner panel.
- 1.6 When the corner panel and the half panel section A are well aligned and make a great corner appearance, affix the panels with the rust-resistant screws through the Vena clips.
- 1.7 For the second row, use a right corner panel. The half panel section B must be installed on the wall adjacent to the right corner panel.
- **1.8** Continue the installation of your outside corner by alternating from one row to another the left and right corner panels (III. A).



#### Installing an inside corner

- 1.1 Start by applying an elastomeric waterproofing membrane directly over the weather water resistant membrane. The elastomeric membrane must have a minimum overlap of 4" at the outside corner.
- 1.2 Select a screw-on Vena panel and cut it in half. You will have a section A and a section B.
- 1.3 To ensure an aesthetic finish of your inside corner, you may have to use a hand grinder to flatten the surface of your screw-on Vena panel.
- 1.4 Install the screw-on Vena half-panel section A on the starter strip of one of the walls forming the inside corner. The edge of the half-panel section A must meet the joint of the inside corner.
- 1.5 Place a screw-on Vena panel on the starter strip on the wall adjacent to the wall where the half-panel section A is installed.
- 1.6 Slide the screw-on Vena stone panel on the adjacent wall until it touches the half-panel section A installed on the other wall forming the inside corner.
- 1.7 When the screw-on Vena panel and the half-panel section A meet and make a nice looking corner, affix the panels with the rust-resistant screws through the Vena clips.
- **1.8** For the second row, use the screw-on Vena half-panel section B. The half-panel section B must be installed on the wall adjacent to the half-panel section A.
- **1.9** Continue the installation of your inside corner by alternating from one row to another the half-panel section A and B (III. A).



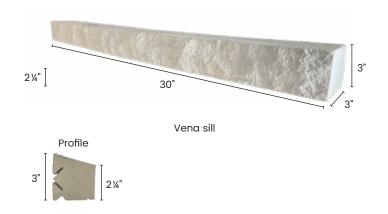
## **ACCESSORIES AND COLUMNS**

## Window and door sill caps

- 1.1 To ensure watertightness of the wall, caulking and corrosion-resistant flashing must be properly installed around doors and windows with respect to regional building codes.
- 1.2 Install the sill caps below the window or door.
- Slide two (2) Vena clips into the groove on the back of the sill cap.
- Align the clips toward the bottom.
- Screw the sill cap into place.
- 1.3 Complete the installation of screw-on Vena panels around the opening. You may have to remove a section of the screw-on Vena panel so that it can be properly inserted. A portion of the groove on the back of the panel may be removed. To screw the panel to the wall, please follow the same procedure as explained on pg. 8, in section 1.5 (III. A).

#### **Transition sill caps**

- 1.1 When the last row of screw-on Vena panel is installed and you wish to proceed with the installation of another siding above the stone, a transition sill can be used.
- Slide two (2) Vena clips into the groove on the back of the sill cap.
- Align the clips toward the top.
- Screw the sill cap into place.
- **1.2** Continue your project by installing the siding.

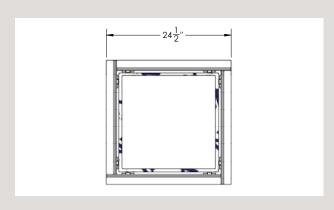


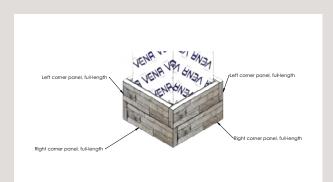




#### Column

1.1 The screw-on Vena panel measures 22.5 inches and its thickness is 2 inches. The optimal dimension for a column that avoids any cutting is 24.5 inches. You can still make a column of another dimension but cuts will be necessary.





- **1.2** To build a column, only corner panels can be used since the ends are always visible.
- 1.3 To ensure watertightness, start by applying an elastomeric waterproofing membrane directly on the water weather-resistant membrane. The elastomeric waterproofing membrane must cover a minimum of 4 in. on each side of the outside corner.
- **1.4** Starting at the base of the column, place a left corner panel on the starter strip on one of the wall.
- **1.5** Place a left corner panel on the starter strip of the column wall adjacent to the wall section where the first left corner panel was installed.
- 1.6 Slide the first left corner panel so that it extends beyond the wall exterior. The extension of the first left corner panel must match the thickness of the left corner panel installed on the adjacent wall.
- **1.7** When the two left corner panels form an aesthetically pleasing outside corner, affix the panels with the rust-resistant screws through the Vena clips.
- **1.8** Complete the first row of the column by repeating steps 1.4 to 1.7 for the two column wall sections to be covered.
- **1.9** Complete your column installation by alternating left and right corner panels from one row to the next.





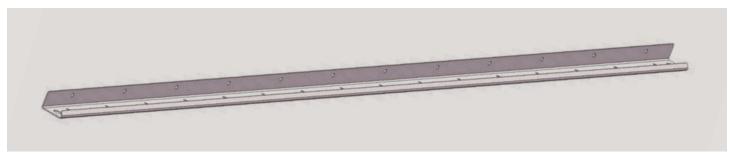
Vena stone panel (22.5"/length x 8"/height x 2"/thickness)

#### **Complementary products**

- **1.1** Finish your project with complementary products such as the finishing stone for an electrical outlet and the finishing stone for a light fixture.
- **1.2** Cut the the screw-on Vena panel to insert the complementary product.
- **1.3** Make the opening slightly larger (1/4") than the overall dimension of your complementary product.
- **1.4** A grinder with a masonry blade can be used to cut the opening in the screw-on Vena panel.

#### All accessories are available in 3 colours.

Charcoal • Iron • Cream



Vena starter strip (47.5"/length)



Vena electrical outlet cover (6" x 8")



Vena light fixture outlet cover (7.5" x 9.5")



Sill, available in 3 colours.

