

Carlisle SynTec VacuSeal™ Roof Vent Installation Instructions

1 Installation

- 1.1 Installation shall comply with the approved construction documents, the manufacturer installation instructions, TER 1401-02, and the applicable building code.
- 1.2 A copy of the published manufacturer installation instructions shall be available at all times on the jobsite during installation.
- 1.3 All contractors using the VacuSeal™ Roof Vent system must be certified by Carlisle SynTec Systems.
- 1.4 Installation of the roofing membrane shall be in accordance with the roofing membrane manufacturer specifications and the approved Construction Documents.
- 1.5 The roof shall have flashing installed in accordance with IBC Section 1503.2 and the flashing manufacturer installation instructions.
- 1.6 *Installation Procedure*
 - 1.6.1 Depending on the roof application, the roof surface may need to be sealed to ensure that air infiltration is minimized in all areas of the roof.
 - 1.6.1.1 All equipment, curb, and parapet wall penetrations in the roofing deck structure need to be sealed for optimal performance of the VacuSeal™ Roof Vent system.
 - 1.6.1.2 Openings in the deck shall be air sealed with appropriate materials to achieve the intended purpose.
 - 1.6.2 If two (2) layers of insulation are installed over the roof deck, the joints should be staggered in both directions to decrease air movement. Roof cover boards should be applied when appropriate.
 - 1.6.3 Distribution strips shall be installed over the roof deck or insulation board to create a pathway for airflow under the roofing membrane. The strips shall be tacked into position with bonding adhesive or fastened using plates and screws. The layout of the distribution strip shall be as shown on the drawings provided for the project.
 - 1.6.3.1 Around the roof perimeter, three (3) distribution strips shall connect each VacuSeal™ Roof Vent to the perimeter edge: one (1) distribution strip shall run perpendicular to the perimeter edge to the VacuSeal™ Roof Vent, and the other two (2) distribution strips shall run diagonally from the VacuSeal™ Roof Vent to the point on the perimeter edge midway between the VacuSeal™ Roof Vents.
 - 1.6.3.2 See Figure 1 for an example of the distribution strip layout for the perimeter VacuSeal™ roof vents.

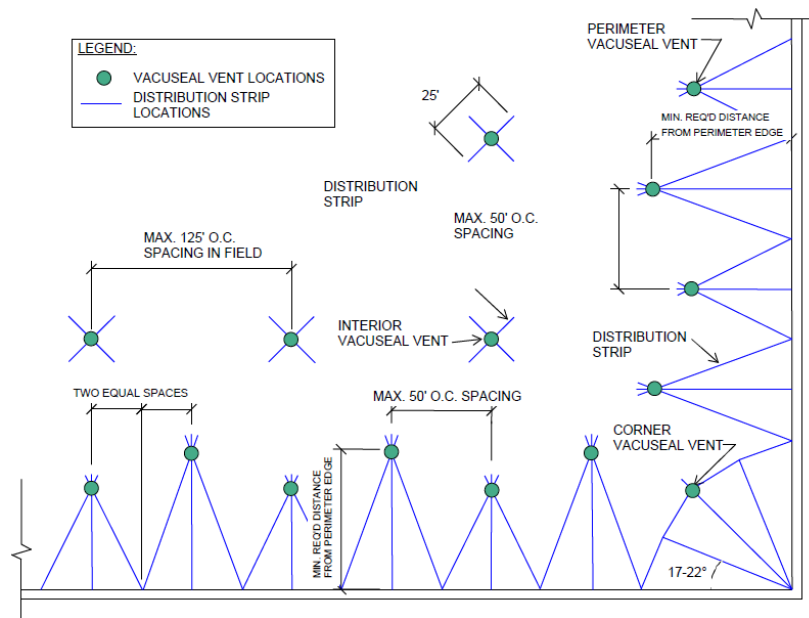


Figure 1. Distribution Strip Layout for VacuSeal™ Roof Vents

1.6.3.3 At re-entrant roof corners, three (3) distribution strips shall radiate from the corner.

1.6.3.3.1 The center strip shall be at an angle of approximately 45° to each of the perimeter edge and connect directly to the VacuSeal™ Roof Vent. The remaining two (2) distribution strips shall radiate from the corner at an angle of approximately 17° - 22° to the perimeter edge.

1.6.3.3.1.1 Where obstructions occur on the roof, such as HVAC equipment locations, place the vents and strips such that the angle of the center strip is as close to 45° to each of the perimeter edge as possible, and the angle of the remaining distribution strips are as close to 17° - 22° to the perimeter edge as possible.

1.6.3.4 At interior vent locations, two (2) 25' long distribution strips shall be laid out in an "X" pattern with the VacuSeal™ Roof Vent at the center, as shown in Figure 1.

1.6.3.5 The distribution strips shall be routed around any openings/obstructions in its path.

1.6.4 All intersections of the distribution strips where the VacuSeal™ Roof Vents are to be located shall be marked by placing an object at the intersection to create a rise in the membrane once it is rolled out.

1.6.5 The roofing membrane is loose laid on top of the roof deck or insulation boards and distribution strips. During placement, edges of the roofing membrane can be welded temporarily to keep rain or external elements from getting beneath the roofing membrane.

1.6.6 A 10" diameter opening is cut in the membrane at the locations identified by the markers, and the objects used as markers are removed.

1.6.7 VacuSeal™ Roof Vents are located over the intersection of distribution pathways at the openings cut in the membrane. A skirt on the VacuSeal™ Roof Vent is welded or adhered with pressure sensitive butyl adhesive to the roofing membrane.

1.7 In the event of a conflict between the manufacturer installation instructions and TER 1401-02, the more restrictive shall govern.