



INNOVATIONS FOR LIVING™

Installation Instructions

General VaporWick System Requirements

- A. VaporWick pipe insulation consists of:
- Owens Corning fiber glass pipe insulation
 - An inner wick material that is factory installed on the inner surface
 - A resilient, tough, soil-resistant polymer facing
 - Factory-applied adhesive mechanical closure for longitudinal jacket seams
- B. VaporWick pipe insulation is an innovative insulation product designed specifically for below ambient temperature applications in severe hot/humid operating environments. The heart of the system is a wick material that transports condensed water to the outside of the system for evaporation to the atmosphere. The wick keeps the fiber glass insulation dry, preventing dripping and allowing the insulation to perform effectively over the life of the project.
- C. The VaporWick system can be applied on new and replacement jobs. Unlike traditional insulation, this system may readily be installed on operating systems even if the pipes are wet and slightly corroded. Caution is needed on severely corroded sections as pipe diameters may exceed those listed in ASTM C585. This may cause an improper pipe fit and result in

overloading of the system and/or failure of the closure tape resulting in system failure. For severely corroded pipes, rust and scale should be removed before installation.

- D. Sufficient insulation thickness must be selected to minimize condensation on the outer surface. Please refer to the VaporWick Submittal Sheet for recommended thickness to prevent surface condensation.
- E. The VaporWick system is not recommended for outdoor, washdown or exposed piping where painting is required, or where additional jacket finish is required. Stickers, labels or colored tape are recommended for pipe service identification.

Application Requirements

- A. VaporWick pipe insulation is designed for installation on cold piping and dual temperature piping operating at temperatures from 32°F (0°C) to 220°F (104°C) in buildings and industrial facilities.
- B. Installation of VaporWick pipe insulation is similar to regular fiber glass pipe insulation. There are a few important differences and some common installation practices that must be followed.
- C. VaporWick pipe insulation can be cut with a sharp knife. Scissors are handy for cutting the wick material, facing and sealing tape. Short pieces of insulation can be cut without jacket loss; it won't come apart in handling.

D. Straight sections of VaporWick pipe insulation have factory-installed wick material. Hinged sections of VaporWick are opened, placed over the pipe, carefully aligned and sealed.

- E. Wick material must make a continuous connection (path) through all pipe, flanges, fittings, valves and hangers.

Flanges, fittings, valves and hangers must have field-applied VaporWick Wick Material wrapped in place to make the wick system continuous throughout the insulated system.

Horizontal and Vertical Runs

- A. The VaporWick system works by transporting moisture from the area around the pipe to the surface of the insulation. This is accomplished through the wick material but is aided by gravity. Therefore, horizontal runs must have the series of evaporating holes located in the down position. Please note, this is 180 degrees different than current fiber glass pipe covering installation practice.
- B. Care must be taken during installation to ensure wick material stays in place while sliding, twisting, turning and/or alignment of insulation sections.
- C. A sheet of loosely hanging polyethylene film on the pipe surface under the insulation may aid in installing insulation sections in and around confined locations and on wet



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and/or corroded pipe. When the insulation section is in place, hold the insulation and pull the polyethylene film out. The polyethylene film must be removed prior to final placement and closure of laps and joints.

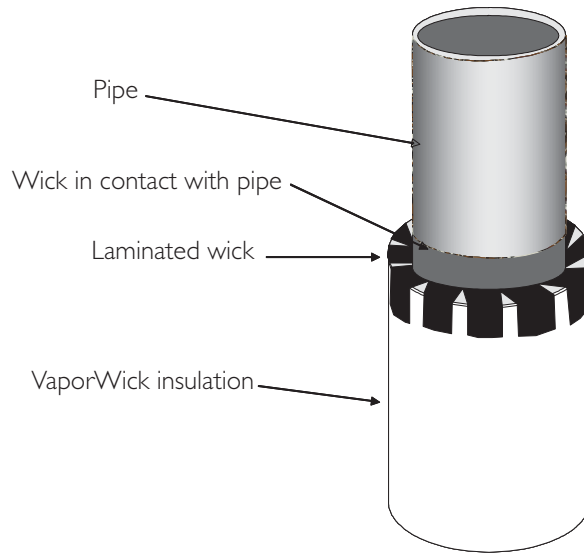
- D. Sections of pipe are tightly butted together and secured to each other as traditional fiber glass pipe insulation using VaporWick Sealing Tape.
- E. All VaporWick system terminations should be sealed with mastic. Terminations include end of run transition to other material.

Vertical Application

- A. Under severe conditions for any vertical piping insulation, moisture that enters the system will tend to accumulate at the bottom elbow. To ensure that vertical installations perform as designed, Owens Corning specifies the following:
- B. Install VaporWick sections and seal the lap strip as described in these instructions. Tape all vertical evaporating holes using two overlapping strips of VaporWick Sealing Tape. Seal all butt ends as described in these instructions. The wick will still transport any moisture that does enter the system to the nearest evaporator section where it can be evaporated.
- C. For vertical runs more than 9', a VaporWick® skirt should be installed within 3' of the bottom elbow or termination. Additional skirts should be

Figure 1

Installed skirt



- installed every forty feet of vertical run. The bottom skirt should be within three feet of the bottom elbow or termination.
- D. The skirt should be cut to length off a role of skirting material and installed between two sections of VaporWick pipe insulation.
- E. The lower section of pipe insulation should be installed before installing the skirt. After the lower section of pipe is installed, wrap the skirt around the pipe and then slide it down into place until the line printed on the skirt is even with the outside edge of the pipe insulation. A piece of tape may be used to hold the skirt in place so that it doesn't move when putting the rest of the insulation on. Illustrated in Figure 1.
- F. After the skirt is in place and all the fingers of the skirt are setting in place, then install the section of VaporWick above the wick to sandwich the skirt between the two sections of pipe.
- G. Lastly, wrap perforated tape around the exposed fingers sticking out from the skirt. Illustrated in Figure 2. For all cases, vertical perforations should be taped over.

Facing & Joint Sealing

- A. The lap and/or joint seal should be made on a clean dry surface, when the temperature is between 25°F and 110°F.
- B. Care should be taken to gently close the section and provide a wrinkle-free, smooth initial seal.



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Figure 2

Installed VaporWick with tape.



- C. Install VaporWick Sealing Tape snugly around joint of the insulation. Do not install so tightly that it will cause wrinkles or puckers in facing.
- D. Exposed end of sealing tape should be concealed from view or in an inconspicuous place wherever possible. Laps in joint seals should be installed in a downward position to minimize dust collection. Overlap should be 3".
- E. A hard plastic squeegee should be used to form the final seal. Starting at the center of the section, move the squeegee over the self-sealing lap adhesive to each end of the section using firm pressure.

- F. Butt ends of the section must be joined with VaporWick brand sealing tape only. The surfaces to be sealed should be clean and dry. Care should be taken not to introduce wrinkles into the facing or the sealing tape. Squeegee end seals with firm pressure to form a final seal.
- G. Stapling is not necessary with the VaporWick system and therefore is not recommended.

Pipe Bends, Valves, Flanges and Fittings

- A. Pipe bends, valves, flanges and fittings are to be wrapped continuously (100% coverage) with VaporWick Wick Material. The wrapped wick

must extend at least 1" past the nearest exposed evaporation holes to ensure a continuous wicking path with the adjacent piping.

- B. Standard site fabricated connections such as mitered, segmented or fish-mouth are recommended for bends and fittings. This practice will maximize the evaporation area. Standard PVC fittings with fiber glass blanket inserts or molded/preformed fittings can also be used. Insulation thickness must be the same as that of the adjacent piping. The fittings should be sealed to the insulation sections using VaporWick Sealing Tape.
- C. Standard over sizing practices with VaporWick insulation sections must be used for valves and flanges. Use standard VaporWick hole alignment as previously described.

Hangers

- A. Clevis Hangers are the recommended support system.
- B. The insulation should be cut away for the foam or high-density fiber glass insert (thickness equal to the insulation) as normal with the exception that the cutout will occur with the gap in the down position.
- C. Cover the evaporating holes with two overlapping strips of VaporWick Sealing Tape for the length of the metal hanger saddle.



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D. Some specifications may call for a short section of a ridged or dense insulation at hanger locations. Although not ideal, most materials may be used in this way provided that the pipe is wrapped with VaporWick Wicking Material and the section length is minimized. Porous insulations such as calcium silicate must not be used.

Cutting of Product

- A. Always cut VaporWick pipe insulation with a sharp knife or scissors.
- B. When cutting VaporWick pipe insulation to length, place wick on outside of insulation for ease and accuracy of cut.

Accessories

- A. VaporWick Wick Material – 3” or 12” widths, color in black
- B. VaporWick Sealing Tape – 3” width, color in white or black
- C. VaporWick Skirt for long vertical runs
- D. Perforated VaporWick Tape



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