PREPARATION

Prior to installation inspect both the piping and insulation to ensure both surfaces are clean, dry and free of dirt, scale, moisture, oil and/or grease. Piping should be inspected and verified that insulation is ready to be installed.

Finally, verify that it is physically possible for the insulation to be installed in accordance with project drawings, operation performance parameters and the limitations of this installation guide. The owner/end user specification should always be the controlling document, with exception to approved change orders.

INSTALLATION OF 4’ SECTIONS

• Install the insulation one section at a time. Straps may be needed for larger sections to hold the insulation in place until the insulation can be secured.
• Insulation is to be secured using either 16 (1.6mm) or 18 gauge (1.2mm) stainless steel wire, filament tape or ½” to ¾” aluminum or stainless steel bands, spaced a maximum of 12” on center.
• Ends should be butted together snugly, and longitudinal joints closed to ensure optimal thermal performance.
• All piping shall be supported in such a manner that the insulation is not compromised by the hanger or the effects of the hanger.
• Where pipe shoes and roller supports are required, insulation shall be inserted in the pipe shoe to minimize heat loss.
• For single layer applications, longitudinal joints shall be staggered. For multi-layer applications, stagger both longitudinal and circumferential joints, to reduce the impact of the thermal expansion and contraction.
• When cutting around pipe supports, shoes, pipes and other penetrations take care to cut the insulation such that it slightly compresses when installed to minimize heat loss.
• Do not insulate over nameplates or ASME stamps. Instead form a tight insulation seal around them.
• When equipment with insulation requires periodic opening for maintenance, repair or routine inspection, install the insulation in such a way that it can be easily removed and put back in place without damage.

JACKETING

Be sure to use the recommended thickness of jacketing as specified by ASTM C1729-19 / C1767-19 shown in the table below.

<table>
<thead>
<tr>
<th>INSULATION (OD) INCHES</th>
<th>ALUMINUM MIN THICKNESS (IN)</th>
<th>STAINLESS STEEL MIN THICKNESS (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>≤8</td>
<td>0.016</td>
<td>0.010</td>
</tr>
<tr>
<td>Over 8 thru 11</td>
<td>0.020</td>
<td>0.010</td>
</tr>
<tr>
<td>Over 11 thru 24</td>
<td>0.024</td>
<td>0.010</td>
</tr>
<tr>
<td>Over 24 thru 36</td>
<td>0.032</td>
<td>0.016</td>
</tr>
<tr>
<td>Over 36</td>
<td>0.040</td>
<td>0.020</td>
</tr>
</tbody>
</table>

If the insulation is to be installed in a high traffic area, a reinforcement sheet or crush resistant jacketing should be used.

• Install jacketing such that water sheds away from the assembly. The longitudinal seam should be at the 3 o’clock position or lower with the outer jacket edge facing down.
• Circumferential joints must be overlapped a minimum of 2” (51mm).
• The banding must be installed no more than 12” on center. A band must also be installed on each end of the jacket within 1” of the circumferential end joint.
• In order to reduce the potential for moisture and water intrusion, seal all laps, joints, screws and penetrations with sealant.

TEMPERATURE PARAMETERS AND HEAT-UP SCHEDULE

Thermafiber® Pro Section WR Mineral Wool Pipe Insulation has listed on its Product Data Sheet a temperature rating of 1200°F (650°C). Thermafiber® Pro Section WR Mineral Wool Pipe Insulation can be installed while the pipe is in-service/hot up to 1200°F (650°C). If pipe is being heated from ambient temperature when the pipe insulation is applied to an ambient temperature pipe, bring the system incrementally to operating temperature over a 24-hour period. Although this is not a requirement, it will help to minimize odors on start up.