**Thermal Blanket Insulation for the Steam Applications**  
Removable, reusable protective jacket

**Shannon Thermal Blanket Insulation** is specifically designed for “Steam Systems” applications. Shannon has partnered with numerous Steam Specialty Companies, developing cost effective, blanket insulation designs, specific to the steam specialty industry and to the application. The key to our success has been our ability to develop standardized, mass produced blanket systems derived from CAD/CNC production.

**Shannon** has well over 4 million CAD files including fittings and components directly related to the steam specialty market. The standards CAD file library will access a standard design on a specific fitting (Ex. Spence® “E” Main PRV) and then marry the field condition measurements to create the best possible fit and best possible match-up to existing insulation. This process is very efficient and very cost effective with a 25-year history of compiling CAD file designs on virtually every steam component manufactured. The ultimate goal is correct fit and finish, thereby increasing the probability of re-installation. It’s important to note that “Contractor Grade” blanket insulation has a very high probability of getting removed and discarded, so our goal is to increase the likelihood of a re-install.

**Energy Survey Services:**
We insulate steam fitting components every day, identifying opportunities through “Energy Surveys”, developing ECM’s (energy conservation measures) and saving valuable energy for our respected customers. Our highly professional staff are trained in the complex knowledge of steam systems. We have the ability, to dissect a steam system, identify all opportunities for savings and compile the field data into an easy to understand performance summary. We look at every aspect of the system and in most cases, what we do identify are steam fittings that otherwise will never see conventional insulation. In most cases, we define a steam system’s history of maintenance, service, repair and neglect and show the customer a comprehensive solution with compelling savings.
We Offer a Solutions Design:

- Removable & Truly Reusable (All Insulation is Removable)
- Custom Fit & CAD Designed to Match Fitting Geometry (Highest Probability of Re-Use)
- Excellent Thermal Insulation Performance (Backed by ASTM Testing)
- Easy Off & Easy On Integral Fasteners
- Self-Contained Insulation System
- Each Blanket Includes a Metal ID Tag
- Each blanket includes a Low Point Drain Grommet
- Double Sewn Construct to Last 15 Years and Beyond.
- Blanket Designs for each Site Condition:

Various Models are:

**LT450TT** (Boiler Rooms & Mechanical Rooms)

**LT500LFP** (Food Processing / Food Grade Exposure)

**LT450STF20** (Confined Space / Manhole Flood Conditions)

**MT800SGM** (HP Steam Supply / Steam Turbines to 800 F)

**HT1100MSGM** (HP Super-Heated Steam / Power Generation / Multi-Stage Steam Turbines)
Introduction: INSULTECH Blanket Insulation recently has introduced an insulation program, designed to improve insulation performance on existing steam systems, whereby the existing insulation has been removed and never replaced. INSULTECH Blankets are proposed for these problem insulation areas for the purpose of immediate energy savings, with the many benefits of quick installation, quick removal and quick reinstallation. These problem insulation areas can now be addressed with a highly functional insulation system.

A Unique Insulation System: INSULTECH Thermal Blanket Systems are now offered for the purpose of “Energy Savings” on steam valves and fittings. INSULTECH Thermal Blanket is a high quality insulation, custom fit to match Gate Valves, Pressure Reducing Valves, Flanges, Strainers, Steam Traps, Heat Exchanger Heads, Boiler Heads, PRV Stations, Condensate Pumps and similar equipment. This blanket system is CAD designed to match each and every fitting. We guarantee the fit and the blanket will carry an 18 month warranty.


Added Benefits: The INSULTECH Blanket System will improve your steam system efficiency. Also, consider the lowering of ambient temperature in mechanical rooms, tunnels, manholes and the general work environment. INSULTECH Blanket Systems will reduce the possibility of employee burns from steam fittings.

UNIV. CAMPUS – MECHANICAL ROOM
Steam Reducing Stations
Design: LT450TT - 1.5” thickness
Fastener: “D” Ring Straps

BUILDING MECHANICAL ROOM
Steam Condensate Tank
Design: LT450TT - 1.5” thickness
Fastener: Stainless Steel Wiretwists

BOILER HEAD
Design: Steam Drum Retrofitted with Blanket
Fastener: Stainless Steel Wiretwists
Re-install the blanket just one time and it has paid for itself: INSULTECH Blanket Systems are a practical solution to problem insulation areas. If the blanket once installed is removed just one time, the blanket cost is justified by the cost associated with reinstallation of other insulation materials. The blanket can be removed and reused numerous times. The blanket will also minimize down time associated with reinsulation and removal. Blankets can be removed and reinstalled in minutes vs hours, for other insulation materials.

How do we initiate an Energy Survey?: Your Project Representative will contact Shannon Enterprises to arrange a site visit. A Shannon Sales Engineer will meet with the customer and the Project Representative at the site to “Walk Through” the steam system. The Shannon Sales Engineer will tally a descriptive list of likely candidates for insulation. In essence, a “Shopping List” of fittings, valves, flanges and equipment. The survey may be 140 fittings or many many more depending on the extent of work required and the size of the system. Also, the survey may require added site visits to make sure that the proposal is inclusive of all the opportunities. We search for surface temperatures greater than 250 F.
**Installation:** The Energy Survey Proposal will include installation. This assures the customer a quality fit and a blanket system installed in a timely fashion. The blanket system may be installed by an outside field service mechanic or by Shannon Enterprises. Either way, the blanket system will be retrofit to match to the existing insulation system with good thermal performance.

**What do we cover?** The Energy Survey Proposal will include every opportunity on the steam system which represents a realistic payback, usually within an 18 month period. Our sole interest is “Return on Investment.” The INSULTECH Blanket System allows insulation considerations on piping, valves and equipment where otherwise bare surface conditions would be the norm. Our approach to Energy Savings is tangible, with a minimum 15 year service life and virtually no maintenance associated with the investment. The blanket is designed, manufactured and installed. All this can be completed as a “Turn-Key” Project. The INSULTECH Blanket can be removed and reused for an estimated 15 year service life.

**STEAM PRESSURE REDUCING STATIONS**
- **Design:** LT450SS - 1” thickness
- **Fastener:** Stainless Steel Wiretwists

**HIGH PRESSURE STEAM EXPANSION JOINT & PIPING**
- **Design:** LT450STF20 (Wet Manhole Design)
- **Fastener:** Side Release Buckle Straps

**BOILER STEAM SUPPLY**
- **8” 250# Gate Valve and Elbow**
  - **Design:** LT450SS - 1.5” thickness
  - **Fastener:** Stainless Steel Wiretwists

**STEAM BOILER HEAD**
- **Design:** LT450TT (GREEN PTFE) - 1.5” thickness
- **Fastener:** Side Release Buckle Straps
**Energy Survey Sample**

### INSULTECH Thermal Blanket Insulation - "Sample" Energy Survey Proposal

**Represented By:** Regional Representative  
**Project Name:** SAMPLE-Steam System  
**Fuel Cost($/mmBTU):** 3.52/63  
**Design:** LT450TT (Thermal)  
**Amb. Temp:** 80  
**Wind Speed:** 0 MPH

**Main Boiler Room**

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Description</th>
<th>Area (Ea.) (Sq.ft)</th>
<th>Surface Temp.</th>
<th>Bare Heat Loss (BTU/Hr/SF)</th>
<th>Insulated Heat Loss (BTU/Hr/SF)</th>
<th>Heat Loss (BTU/Hr)</th>
<th>Bare Heat Loss ($/Year)</th>
<th>Insulated Heat Loss ($/Year)</th>
<th>Total Heatloss ($/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>10&quot; 250# Stop Check Valve</td>
<td>18.2</td>
<td>350</td>
<td>386.00 60.28 31,449.97</td>
<td>3,754.27</td>
<td>$1,214.16</td>
<td>$261.93</td>
<td>$2,476.09</td>
<td>$3,754.27</td>
</tr>
<tr>
<td>2</td>
<td>10&quot; 150# Gate Valve</td>
<td>15.9</td>
<td>350</td>
<td>386.00 60.28 27,475.20</td>
<td>3,279.83</td>
<td>$1,196.17</td>
<td>$228.83</td>
<td>$1,425.00</td>
<td>$3,279.83</td>
</tr>
<tr>
<td>4</td>
<td>17 x 20 - Steam Drum</td>
<td>6.4</td>
<td>350</td>
<td>386.00 60.28 22,118.40</td>
<td>2,640.37</td>
<td>$1,543.14</td>
<td>$184.21</td>
<td>$1,727.35</td>
<td>$2,640.37</td>
</tr>
<tr>
<td>2</td>
<td>17 x 20 - Mud Drum</td>
<td>6.4</td>
<td>350</td>
<td>386.00 60.28 11,059.20</td>
<td>$1,320.18</td>
<td>711.57</td>
<td>$92.11</td>
<td>$1,412.68</td>
<td>$1,320.18</td>
</tr>
</tbody>
</table>

**Steam Tunnel**

<table>
<thead>
<tr>
<th>Qty.</th>
<th>Description</th>
<th>Area (Ea.) (Sq.ft)</th>
<th>Surface Temp.</th>
<th>Bare Heat Loss (BTU/Hr/SF)</th>
<th>Insulated Heat Loss (BTU/Hr/SF)</th>
<th>Heat Loss (BTU/Hr)</th>
<th>Bare Heat Loss ($/Year)</th>
<th>Insulated Heat Loss ($/Year)</th>
<th>Total Heatloss ($/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>8&quot; 150# Gate Valve</td>
<td>11.8</td>
<td>350</td>
<td>386.00 60.28 61,171.20</td>
<td>$7,302.17</td>
<td>4,267.76</td>
<td>$509.46</td>
<td>$5,777.62</td>
<td>$7,302.17</td>
</tr>
<tr>
<td>4</td>
<td>6&quot; 150# Gate Valve</td>
<td>8.8</td>
<td>350</td>
<td>386.00 60.28 30,412.80</td>
<td>$3,630.51</td>
<td>2,121.82</td>
<td>$253.29</td>
<td>$2,374.81</td>
<td>$3,630.51</td>
</tr>
<tr>
<td>2</td>
<td>12&quot; 150# Flange Cap</td>
<td>5.9</td>
<td>350</td>
<td>386.00 60.28 10,195.20</td>
<td>$1,217.04</td>
<td>711.29</td>
<td>$64.91</td>
<td>$1,281.95</td>
<td>$1,217.04</td>
</tr>
</tbody>
</table>

**PRV Station tp Deaerator (120 psi to 30 psi)**

<table>
<thead>
<tr>
<th>Area (Ea.) (Sq.ft)</th>
<th>Surface Temp.</th>
<th>Bare Heat Loss (BTU/Hr/SF)</th>
<th>Insulated Heat Loss (BTU/Hr/SF)</th>
<th>Heat Loss (BTU/Hr)</th>
<th>Bare Heat Loss ($/Year)</th>
<th>Insulated Heat Loss ($/Year)</th>
<th>Total Heatloss ($/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; 150# Slip Expansion Joint</td>
<td>13.4</td>
<td>350</td>
<td>386.00 60.28 69,465.60</td>
<td>$8,292.41</td>
<td>4,846.44</td>
<td>$578.54</td>
<td>$3,414.95</td>
</tr>
<tr>
<td>4&quot; 150# Gate Valve</td>
<td>8.8</td>
<td>350</td>
<td>386.00 60.28 30,412.80</td>
<td>$3,630.51</td>
<td>2,121.82</td>
<td>$253.29</td>
<td>$2,374.81</td>
</tr>
<tr>
<td>6&quot; 150# Flange Cap</td>
<td>2.8</td>
<td>350</td>
<td>386.00 60.28 7,257.60</td>
<td>$866.37</td>
<td>506.34</td>
<td>$60.44</td>
<td>$1,423.05</td>
</tr>
</tbody>
</table>

**PRV Station to HW Tank (30 psi to 15 psi)**

<table>
<thead>
<tr>
<th>Area (Ea.) (Sq.ft)</th>
<th>Surface Temp.</th>
<th>Bare Heat Loss (BTU/Hr/SF)</th>
<th>Insulated Heat Loss (BTU/Hr/SF)</th>
<th>Heat Loss (BTU/Hr)</th>
<th>Bare Heat Loss ($/Year)</th>
<th>Insulated Heat Loss ($/Year)</th>
<th>Total Heatloss ($/Year)</th>
</tr>
</thead>
<tbody>
<tr>
<td>6&quot; 150# Flanged Strainer</td>
<td>8.8</td>
<td>350</td>
<td>386.00 60.28 7,630.20</td>
<td>$907.63</td>
<td>530.46</td>
<td>$63.32</td>
<td>$1,191.38</td>
</tr>
<tr>
<td>4&quot; 150# Control Valve</td>
<td>6.1</td>
<td>275</td>
<td>624.00 43.53 3,804.60</td>
<td>$454.39</td>
<td>265.56</td>
<td>$31.70</td>
<td>$327.85</td>
</tr>
<tr>
<td>6&quot; 150# Gate Valve</td>
<td>8.8</td>
<td>350</td>
<td>386.00 60.28 7,630.20</td>
<td>$907.63</td>
<td>530.46</td>
<td>$63.32</td>
<td>$1,191.38</td>
</tr>
<tr>
<td>4&quot; 150# Globe Valve</td>
<td>6.1</td>
<td>350</td>
<td>386.00 60.28 5,270.40</td>
<td>$629.15</td>
<td>367.70</td>
<td>$43.89</td>
<td>$411.54</td>
</tr>
<tr>
<td>6&quot; 150# Gate Valve</td>
<td>8.8</td>
<td>275</td>
<td>624.00 43.53 5,491.20</td>
<td>$655.51</td>
<td>383.11</td>
<td>$45.73</td>
<td>$438.84</td>
</tr>
</tbody>
</table>

**Energy Saving Summary:**

- Total Heatloss - Bare (BTU/Hr): 2,050,589  
- Total Heatloss - 1.5" Insulation (BTU/Hr): 2,050,589  
- Total Annual Operating Cost - 1.5" Insulation: $2,813.50  
- Total Heatloss - Bare (BTU/Hr): 345,264  
- Total Heatloss - 1.5" Insulation (BTU/Hr): 2,345,325  
- Total Annual Operating Cost - 1.5" Insulation: $2,813.50  
- Blanket Cost (INSULTECH Blanket System): $18,490  
- Installation (All of the Above): $2,160  
- Total Cost w/Material & Installation Cost: $20,650  
- Payback (Months): 32.1  
- Horse Power Reduction: 9.6 Horse Power

**Energy Survey Sample**

- **GHG Greenhouse Gases - Emissions Reductions:**
  - **INSULTECH Thermal Blanket Insulation** will have a direct impact on emissions reduction.
  - By reducing annual BTU loss, less energy is expelled, thereby reducing usage.
  - The Annual Savings (mm BTU):
    - **321,175.81 BTU/HR**
    - 2,813.50 mm BTU
  - The values in the below presentation are derived from Abrasas Energy Consulting.
  - Emission Factors were calculated in 1999 in a federal study done by the Leonardo Academy.
  - Emissions values here are calculated for your information only.

**Emissions Emissions Emissions Emissions**

<table>
<thead>
<tr>
<th>Description</th>
<th>Emissions (Tons)</th>
<th>Emissions (mm BTU)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CO₂ (Tons)</td>
<td>164.74</td>
<td>2,813.50</td>
</tr>
<tr>
<td>NOx (Tons)</td>
<td>422.14</td>
<td></td>
</tr>
<tr>
<td>SO₂ (Tons)</td>
<td>6.10</td>
<td></td>
</tr>
<tr>
<td>PM10 (Tons)</td>
<td>1.58</td>
<td></td>
</tr>
<tr>
<td>VOC (Tons)</td>
<td>15.14</td>
<td></td>
</tr>
<tr>
<td>CO (Tons)</td>
<td>67.57</td>
<td></td>
</tr>
</tbody>
</table>

**Payback Calculation**

- Delta Ht = Combined Coefficients (300 Deg F. = 3.2)
- Boiler Load Reduction: 321.1 lb/Hour
- Horse Power Reduction: 9.6 Horse Power

**Heat Loss Calculation**

- **Q = K (Delta T) / L+(K/Ht)**
- **K = Insulated Thermal Conductivity (STL and C.I. = 26.9)**
- **L = Insulation Thickness**
- **Ht = Combined Coefficients (300 Deg F. = 3.2)**

**Contact Information:**

- **INSULTECH Thermal Blanket Insulation**
- 75 Main Street, P.O. Box 199 • North Tonawanda, NY 14120
- (716) 693-7954 • FAX (716) 693-1647
- www.blanket-insulation.com
...is the insulation solution
to problem insulation areas on all types of steam process equipment. The removable, reusable features of SHANNON insulation blankets drastically lower operation costs, shorten down time, save valuable energy, improve the work environment and reduce labor costs associated with installation, removal, and reinstallation.

...is a custom designed, self-contained insulation system
This means quality construction for specific application needs, quality designs retrofitted to field conditions and design features which make SHANNON insulation blankets user-friendly to the field mechanic.

...utilizes CAD technology
for maximum design accuracy. Through years of information gathering, standardized designs as well as custom designs are possible for all types of equipment. Our CAD file base includes standardized designs on gate valves, condensate pumps, pressure reducing valves, slip and bellows expansion joints, vall joints, strainers and steam traps. Even the most difficult geometric surfaces such as steam turbines can be engineered for blanket treatment.

...is self-contained insulation system
constructed of a high density insulation filler with a fully encapsulated outer jacketing. The outer jacketing is double sewn and bound at the closing seams. The jacketing and sewn construction ensure long lasting protection to the insulation filler.

...can withstand extreme conditions
such as steam tunnels and manholes. High chloride environments with high humidity and possible flooding have little or no effect on specific blanket designs. SHANNON offers a wide range of specialty designs to accommodate these extreme conditions.

...comes equipped with all necessary fastening hardware.
The fasteners are an integral part of the blanket design and become the dominant feature in making installs and removals quick and easy. All metal hardware is stainless steel for added strength and durability. Velcro can be sewn into both the belting system as well as to the outer jacketing flap.
FEATURES

- CAD/CNC produced for exact fit and finish
- Standard & custom designs (4 million CAD files to choose from!)
- Self-contained insulation system
- Integral fastener hardware (specifically designed for each service condition)
- Integral I.D. metal embossed tagging with ERP driven part number identification.
- Double sewn construction with bond edging.
- Stainless steel durable hardware
- High density fiberglass needled mat (11# CF)
- High density (USA Made) PTFE fabrics

BENEFITS

- Easy on & easy off within minutes
- Properly fits and matches the surface condition with high accuracy
- High quality durable construction
- Is truly "REMOVABLE & REUSABLE" (remember...all insulation is removable)
- Designed specific for the process condition for a 15-year service
- 18-month warranty
- Guarantee fit
**BIO-CHEMICAL PLANT**
Main Steam Supply Header - Post M&V Survey
Design: LT450TT - 1.5" thickness (Green PTFE Fabric)

**HEAT EXCHANGER HEAD & BODY**
Design: LT450TT - 1.5" thickness (white PTFE)
Fastener: Velcro Flaps / Stainless Steel Wiretwists

...is the insulation solution to problem insulation areas on all types of steam process equipment. The removable, reusable features of **INSULTECH** drastically lower operation costs, shorten down time, save valuable energy, improve the work environment and reduce labor costs associated with installation, removal and reinstallation.

...is a custom designed, self-contained insulation system. This means quality construction for specific application needs, quality designs retrofitted to field conditions and design features which make **INSULTECH** user friendly to the field mechanic.

...utilizes CAD technology for maximum design accuracy. Through years of information gathering, standardized designs as well as custom designs are possible for all types of equipment. Our CAD file base includes standardized designs on Gate Valves, Condensate Pumps, Pressure Reducing Valves, Slip and Bellows Expansion Joints, Ball Joints, Strainers and Steam Traps. Even the most difficult geometric surfaces such as Steam Turbines can be engineered for blanket treatment.

...is self-contained insulation system, constructed of a high density insulation filler with a fully encapsulated outer jacketing. The outer jacketing is double sewn and bound at the closing seams. The jacketing and sewn construction ensure long lasting protection to the insulation filler.

...can withstand extreme conditions such as steam tunnels and manholes. High chloride environments with high humidity and possible flooding have little or no effect on specific blanket designs. **INSULTECH** offers a wide range of specialty designs to accommodate these extreme conditions.

...comes equipped with all necessary fastening hardware. The fasteners are an integral part of the blanket design and become the dominant feature in making installs and removals quick and easy. All metal hardware is stainless steel for added strength and durability. Velcro can be sewn into both the belting system as well as to the outer jacketing flap.

**THERMAL BLANKET INSULATION**

**Thermal Efficiency . . . . . . Safety . . . . . . Noise Reduction**
APPLICATIONS

GATE VALVES AND FLANGED ENDCAPS
Design: MT800SGM - 2" thickness
Fastener: Stainless Steel Wiretwists

FOOD PROCESSING – COMMERCIAL BAKING OVEN
Design: LT500LFP – Food Grade
Fastener: 4” Wide Double “D” Ring Straps w/Stainless Steel Rod Supports

THERMAL BATH RESERVOIR
Design: LT450TT - 1" thickness
Fastener: Stainless Steel Wiretwists and Velcro® Flaps

PAPER MILL – HP STEAM SRV DISCHARGE PIPING
Design: LT450TT - 1.5” thickness
Fastener: Double “D” Ring Straps
Double Tagging w/ No Asbestos Tags

Thermal Efficiency . . . . . . Safety . . . . . . Noise Reduction

...includes a 3.5" x 1.5" identification tag for each blanket piece. The tag includes 1/8" embossed lettering for individual piece labeling. The tag is riveted directly or indirectly to the outer jacketing surface. The tag becomes an integral part of the blanket. In the event a blanket is removed, the tag will identify its rightful place at the time of installation. Tags come in both stainless steel and aluminum.

...will accommodate varying temperature extremes (Ambient to 1100ºF). With many design specifications established as industry standards, optimum service life can be expected with cost efficiency. Consult a factory representative for further information on specifying.

...is not just a product purchase. Our ultimate goal is problem-solving at many levels. Shannon Enterprises can offer "Energy Surveys" for steam and process systems, “Sound Surveys” for noisy equipment or “Engineering Services” for packaged systems. Our knowledge in the field of insulation is broad and our abilities as a full service blanket insulation manufacturer are unprecedented in the industry.
Energy Surveys – Shannon Enterprises will offer a calculated heat loss review of your steam system. With a number of survey formats to choose from, INSULTECH® Blanket Insulation can be proposed on flanged piping systems which lack proper thermal performance. Through the use of INSULTECH® proposed for all or any exposed areas (Valves, Flanges, Fittings, PRV’s, Strainers, etc.), heat loss calculations can be run and tallied. From the heat loss calculations, operating costs and eventually an overall payback period can be determined. The “Energy Survey” becomes a personalized heat loss summary of your steam system, with detailed descriptions of specific locations and fittings. Typical “Energy Surveys” show payback periods well within one year’s time. When calculating the economic benefit of the initial investment, gains are as high as 15 times the initial investment. Not many capital projects can match these economies.

Engineering Services – Shannon Enterprises is a market leader in design, product development and application. Product line catalogs are available for both INSULTECH® Thermal and INSULTECH® Acoustic. We are one of the few blanket manufacturers which bridges the gap between theory and application.

Support – Shannon supplies insulation systems not only to the domestic end user market but also the O.E.M. and international markets as well. With a strong representation network, Shannon will continue to emerge as an industry leader, progressive with the changing world.
Thermal Blanket Insulation

FOR THE PROCESS INDUSTRY

Performance Highlights...

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>250°F (121°C)</td>
<td>1&quot;</td>
<td>100.2°F</td>
<td>1.5&quot;</td>
<td>92.0°F</td>
<td>2&quot;</td>
<td>87.4°F</td>
</tr>
<tr>
<td>300°F (149°C)</td>
<td>1&quot;</td>
<td>108.6°F</td>
<td>1.5&quot;</td>
<td>98.2°F</td>
<td>2&quot;</td>
<td>92.3°F</td>
</tr>
<tr>
<td>350°F (177°C)</td>
<td>1&quot;</td>
<td>117.2°F</td>
<td>1.5&quot;</td>
<td>104.6°F</td>
<td>2&quot;</td>
<td>97.4°F</td>
</tr>
<tr>
<td>400°F (204°C)</td>
<td>1&quot;</td>
<td>126.0°F</td>
<td>1.5&quot;</td>
<td>111.2°F</td>
<td>2&quot;</td>
<td>102.7°F</td>
</tr>
<tr>
<td>450°F (232°C)</td>
<td>1&quot;</td>
<td>135.0°F</td>
<td>1.5&quot;</td>
<td>118.0°F</td>
<td>2&quot;</td>
<td>108.0°F</td>
</tr>
<tr>
<td>550°F (288°C)</td>
<td>1&quot;</td>
<td>154.0°F</td>
<td>1.5&quot;</td>
<td>132.0°F</td>
<td>2&quot;</td>
<td>120.0°F</td>
</tr>
<tr>
<td>650°F (343°C)</td>
<td>1&quot;</td>
<td>175.0°F</td>
<td>1.5&quot;</td>
<td>148.0°F</td>
<td>2&quot;</td>
<td>133.0°F</td>
</tr>
<tr>
<td>750°F (399°C)</td>
<td>1&quot;</td>
<td>197.0°F</td>
<td>1.5&quot;</td>
<td>165.0°F</td>
<td>2&quot;</td>
<td>147.0°F</td>
</tr>
<tr>
<td>850°F (454°C)</td>
<td>1&quot;</td>
<td>221.0°F</td>
<td>1.5&quot;</td>
<td>184.0°F</td>
<td>2&quot;</td>
<td>163.0°F</td>
</tr>
</tbody>
</table>

- The above reference cold face surface temperatures should be used as guidelines for blanket thickness design.
- The cold face surface temperature of the blanket should approach ambient temperature conditions.
- The economic thickness of the blanket should consider blanket cost to thermal performance.
- Heat loss calculations are based on a 70°F ambient using a flat surface condition.

Design Features...

- Overlapping 1-1/2" Fabric Flap at Closing Seams
- Stainless Steel Lacing Hardware with Featured Wiretwist Fastener
- Double Sewn and Binded Seams
- Two-piece Construction (Separate Body and Bonnet)
- Low Point Stainless Drain Grommet
- Stainless Steel or Aluminum Embossed Identification Tag (Riveted to Outer Jacketing)
- (Optional) Wind Flap with Draw Chord
- Durable Silicone Impregnated Fiberglass Cloth
- (Optional) “D” Ring Strap with Velcro® Tab (Double Sewn)

Representation By:

Shannon Enterprises of W.N.Y. Inc.

75 Main Street, P.O. Box 199, North Tonawanda, NY 14120 • (716) 693-7954 • FAX (716) 693-1647 • www.blanket-insulation.com