

## SECTION XXX

### REMOVABLE INSULATION JACKETS for ANTI-FREEZE

#### 1.1 WARRANTY

- A. Warranty all materials and labor for a period of Five Years

#### 1.2 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Company specializing in manufacturing the products specified in this Section with minimum Ten years documented experience.
- B. Made in USA

#### 1.3 PREFORMED THERMAL JACKETS

A. Manufacturers:

1. Thermaxx, LLC. 14 Farwell Street, Bldg. 2B, West Haven CT 06516

B. Heat Trace Cable:

1. Heat Trace cable and thermostats shall be supplied and installed by others

C. Insulation:

1. All insulation materials shall be non-asbestos
2. All Freeze Protection Insulation jackets shall have the following insulation core
- flexible aerogel insulation with an integral vapor barrier
  - Insulation blanket formed of silica Aerogel and reinforced with a non-woven, glass-fiber batting.
  - Insulation must be Hydrophobic
  - Estimated Temperature use: Minimum -328°F, Maximum 194°F
  - Cryogel-Z as Manufactured by Aspen Aerogels Inc.
  - Other materials as needed for fillers and dead air space.
  - Insulation thickness calculation shall be part of the submittal.

D. Jacket:

1. Hot Side

- Silicone Fiberglass Composite Jacketing, 17 oz/sq. yd. minimum
- Estimation of Maximum Use Temperature 450°F (232°C) To -65°F (-109°C)

2. Cold Side

- Silicone Fiberglass Composite Jacketing, 17 oz/sq. yd. minimum
- Estimation of Maximum Use Temperature 450°F (232°C) To -65°F

(-109°C)

1.4

A. Thread:

1. Mold and Mildew resistant
2. Does not melt
3. Commercial size #92
4. Break Point – 35LBS

B. Construction:

1. Sewn with lock stitch at a minimum of 4 to 6 stitches per inch. Jackets shall be sewn using specified thread in section 1.3D. The thread must be able to withstand the skin temperatures without degradation.
2. Hog rings, staples, lacing anchors and wire are not acceptable methods of closure.
3. No raw cut jacket edges shall be exposed after install.
4. Jackets shall be fastened using a combination of hook and loop (Velcro) with straps and D-rings depending on application temperature.
5. Provide a permanently attached Laser Etched Anodized Aluminum nameplate (2" x 3.5") SLATE tag on each jacket to identify its location and item number. Each nameplate must have a Laser Etched QR code linking to a website that contains the following information about each individual jacket:
  - Item Number
  - Location Details
  - Application Type
  - Operating Pressure
  - Component Type
  - Component Size
  - Jacket Min and Max Temp
  - Insulation Thickness
  - ANSI Class or NPT
  - Install Date
  - Install Photo
  - Component Maintenance History
  - Jacket O&M History
6. An iPod or IOS App must be submitted, and training provided, upon project completion to display the website and items listed in section 5 above.
7. The insulation shall be designed to minimize the convection current in the

space between the hot metal surface and the inner layer of insulation.

8. All jacket pieces which match mating seams must include an extended 2" flap constructed from the exterior fabric (or equivalent) and shall be secured using hook & loop closure (i.e. Velcro®) parallel to the seam or straps with double D-Rings depending on application temperature.
9. Insulation must be sewn as integral part of the jacket to prevent shifting of the insulation. Insulation pins are NOT an allowable method of preventing the insulation from shifting and shall NOT be used. ThermaXX may change the design if the application warrants. (Extreme low temperature applications)

#### 1.5 COMPONENTS TO BE JACKETED

- A. As per client request

#### 1.6 JACKET PERFORMANCE & INSULATION THICKNESS

Insulation thickness: As required for anti freeze protection as specified.

END OF SECTION