

Buckaroos, Inc.
9635 Park Davis Drive
Indianapolis, Indiana 46235
Toll Free (800) 969-3113
Phone (317) 899-9100
Fax (317) 899-0775
Website www.tru-balancesaddles.com
E-mail jrebholz12@msn.com

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Product Guide Specification

Specifier Notes: This product guide specification is written according to the Construction Specifications Institute (CSI) 3-Part Format, including *MasterFormat*, *SectionFormat*, and *PageFormat*, as described in *The Project Resource Manual—CSI Manual of Practice, Fifth Edition*.

The section must be carefully reviewed and edited by the Architect or Engineer to meet the requirements of the project and local building code. Coordinate this section with other specification sections and the Drawings. Delete all “Specifier Notes” after editing this section.

Section numbers and titles are from *MasterFormat 1995 Edition*, with numbers and titles from *MasterFormat 2004 Edition* in parentheses. Delete version not required.

SECTION 15083 (22 07 19)

INSULATED PIPING SADDLES

Specifier Notes: This section covers Buckaroos, Inc. “Tru-Balance 2550FS” insulated piping saddles at hanger locations for insulated piping operating from minus 290 degrees F to plus 250 degrees F. Consult Buckaroos, Inc. for assistance in editing this section for the specific application.

The section number in parentheses (22 07 19) is the *MasterFormat 2004 Edition* number for Plumbing Piping Insulation. Use *MasterFormat 2004 Edition* number (23 07 19) for HVAC Piping Insulation.

PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Insulated piping saddles at hanger locations for 1/2-inch to 30-inch iron-pipe-size insulated piping operating from minus 290 degrees F to plus 250 degrees F.

1.2 RELATED SECTIONS

Specifier Notes: Edit the following list of related sections as required for the project. List other sections with work directly related to this section.

- A. Section 15060 (22 05 29) – Hangers and Supports (Hangers and Supports for Plumbing Piping and Equipment).
- B. Section 15060 (23 05 29) – Hangers and Supports (Hangers and Supports for HVAC Piping and Equipment).

1.3 REFERENCES

Specifier Notes: List standards referenced in this section, complete with designations and titles. This article does not require compliance with standards, but is merely a listing of those used.

- A. ASTM C 209 – Standard Test Methods for Cellulosic Fiber Insulating Board.
- B. ASTM C 518 – Standard Test Method for Steady-State Thermal Transmission Properties by Means of the Heat Flow Meter Apparatus.
- C. ASTM C 1136 – Standard Specification for Flexible, Low Permeance Vapor Retarders for Thermal Insulation.
- D. ASTM D 1621 – Standard Test Method for Compressive Properties Of Rigid Cellular Plastics.
- E. ASTM E 84 – Standard Test Method for Surface Burning Characteristics of Building Materials.
- F. ASTM E 96 – Standard Test Methods for Water Vapor Transmission of Materials.

1.4 SUBMITTALS

- A. Comply with Section 01330 (01 33 00) – Submittal Procedures.
- B. Product Data: Submit manufacturer's product data, including installation instructions.

Specifier Notes: Delete submittal of samples if not required.

- C. Samples: Submit manufacturer's samples of insulated piping saddles.
- D. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- E. Warranty: Submit manufacturer's standard warranty.

1.5 QUALITY ASSURANCE

- A. Manufacturer's Qualifications: Manufacturer regularly engaged, for preceding 5 years, in manufacture of insulated piping saddles of similar type to that specified.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Delivery: Deliver materials to site in manufacturer's original, unopened containers and packaging, with labels clearly identifying product name and manufacturer.
- B. Storage: Store materials in clean, dry area indoors in accordance with manufacturer's instructions.
- C. Handling: Protect materials during handling and installation to prevent damage.

PART 2 PRODUCTS

2.1 MANUFACTURER

- A. Buckaroos, Inc., 9635 Park Davis Drive, Indianapolis, Indiana 46235. Toll Free (800) 969-3113. Phone (317) 899-9100. Fax (317) 899-0775. Website www.tru-balancesaddles.com. E-mail jrebholz12@msn.com.

2.2 INSULATED PIPING SADDLES

- A. Insulated Piping Saddles: "Tru-Balance 2550FS" insulated saddles.
 - 1. Pre-assembled and pre-insulated.
 - 2. Water resistant.
 - 3. Insulation:
 - a. Material: Rigid phenolic foam with vapor retarder jacket and self-seal, acrylic, pressure-sensitive, adhesive tape.
 - b. Does not contain nutrients to contribute to mold or fungus.
 - c. Does not contain CFC and HCFC.
 - d. Withstands weight of commercial piping.
 - e. Length: Based on iron pipe size.
 - 4. Vapor Retarder Jacket:
 - a. Compliance: ASTM C 1136, Type III and IV.
 - b. Non-yellowing.
 - c. Does not contain nutrients to contribute to mold or fungus.
 - d. Puncture resistant.
 - e. Surface Burning Characteristics, ASTM E 84:
 - 1) Flame Rating: Less than 25.
 - 2) Smoke Rating: Less than 50.
 - 5. Saddle:
 - a. Material: Galvanized steel, G-90.
 - b. Gauge: Based on iron pipe size.
 - c. Length: Based on iron pipe size.
 - d. Arc: 180 degrees.
 - e. Flared edge to protect vapor retarder jacket and insulation.
 - f. Center partial rib on bottom of saddle to properly secure saddle inside clevis hanger or strut system and to prevent saddle from sliding.
- B. Technical Data for Insulation: 1/2-inch to 8-inch iron pipe size.
 - 1. Density: 2.5 pounds per cubic foot.
 - 2. Thermal Conductivity, ASTM C 518: 0.13 Btu-in/hr-ft sq-degrees F at 75 degrees F.
 - 3. Service Temperature: Minus 290 degrees F to plus 250 degrees F.
 - 4. Compressive Strength, ASTM D 1621:

- a. Parallel to Rise: 29 psi.
 - b. Perpendicular to Rise: 17.5 psi.
 - 5. Water Absorption, by Volume, ASTM C 209: 0.5 percent.
 - 6. Water Vapor Permeability, ASTM E 96: 0.117 perm-inch.
 - 7. Specific Heat: 0.45 Btu/lb-degrees F.
 - 8. Closed Cell Content: Minimum 92 percent.
 - 9. Surface Burning Characteristics, ASTM E 84:
 - a. Flame Rating: Less than 25.
 - b. Smoke Rating: Less than 50.
- C. Technical Data for Insulation: 9-inch to 30-inch iron pipe size.
- 1. Density: 5 pounds per cubic foot.
 - 2. Thermal Conductivity, ASTM C 518: 0.21 Btu-in/hr-ft sq-degrees F at 75 degrees F.
 - 3. Service Temperature: Minus 290 degrees F to plus 250 degrees F.
 - 4. Compressive Strength, ASTM D 1621:
 - a. Parallel to Rise: 90 psi.
 - b. Perpendicular to Rise: 70 psi.
 - 5. Water Absorption, by Volume, ASTM C 209: 0.5 percent.
 - 6. Water Vapor Permeability, ASTM E 96: Maximum 0.02 perm-inch.
 - 7. Specific Heat: 0.45 Btu/lb-degrees F.
 - 8. Closed Cell Content: Minimum 95 percent.
 - 9. Surface Burning Characteristics, ASTM E 84:
 - a. Flame Rating: Less than 25.
 - b. Smoke Rating: Less than 50.

PART 3 EXECUTION

3.1 EXAMINATION

- A. Examine piping to receive insulated piping saddles.
- B. Notify Architect of conditions that would adversely affect installation.
- C. Do not begin installation until unacceptable conditions are corrected.

3.2 INSTALLATION

- A. Install insulated piping saddles in accordance with manufacturer's instructions at locations indicated on the Drawings.
- B. Secure and seal vapor retarder jacket in place with self-seal adhesive tape.
- C. Center insulated piping saddle inside clevis hanger.

3.3 PROTECTION

- A. Protect installed insulated piping saddles from damage during construction.

END OF SECTION