

FOAMED-IN-PLACE PANELS

General Specifications

WALK-IN REFRIGERATED ROOMS

1 WALK-IN COOLERS/FREEZERS:

- A Walk-in refrigerated rooms shall be as manufactured by Arctic Industries, Inc.
- B Supply prefabricated walk-in refrigerated rooms, all metal clad, sectionally constructed in nominal widths, with inside finish height to suit requirements, designed for easy and accurate field assembly with provisions to facilitate disassembly for relocation, and for addition of extra sections to increase size.
- C Foamed-in-place wall panels are available in 12" increments. Maximum single foamed-in-place panel height 13' 10 ¼". Standard foamed-in-place wall panel widths are 11 ½", 23", 34 ½" and 46". Foamed-in-place corners are available in same heights as foamed-in-place wall panels with outside widths of 12" x 12", 23 ½" x 23 ½".

2 SHOP DRAWINGS:

Shall be submitted for approval prior to fabrication.

3 MATERIALS:

A Section Construction:

Insulated panels shall be UL listed and approved with UL certifying label on each panel. Panels shall be of foamed-in-place urethane insulation "sandwiched" between interior and exterior metal covering to suit project specifications. Standard foamed-in-place finish is 26 gauge stucco embossed galvalume steel with a clear acrylic coating to enhance brightness and maintain durability.

Optional metal finishes are as follows:

- » Stucco embossed aluminum
- » Pre-painted white stucco embossed aluminum
- » Stainless steel
- » Painted any color

B Panel Seams:

Panel edges shall be foamed-in-place tongue and groove with locking mechanisms foamed in- place at time of fabrication. Gasket shall be resistant to oil, fats, water, detergents and sunlight and must be NSF approved. Panel gaskets shall incorporate a double 90 degree return formed behind the metal edge of the panel to ensure permanency of gasket. Stapled or glued gaskets shall not be accepted. The use of caulking compound to seal panel seams shall not be accepted

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C Section Insulation:

Each panel shall be filled with rigid "foamed-in-place" urethane with a minimum density of 2.2 lbs per cu. ft. Urethane shall be poured, not frothed. Non CFC's shall be used as the expanding agent in the manufacturing process. Urethane insulation shall have thermal conductivity for freezer ("K" factor) of not more than .125 BTU per hour per square foot per degrees Fahrenheit per inch. "R" factor is 32. For cooler urethane insulation shall have thermal conductivity ("K" factor) of not more than .137 BTU per hour per square foot per degrees Fahrenheit per inch. "R" factor is 28.8. Overall thickness shall be 4". Insulation shall be 97% closed cell structure. Insulation core shall have 25 Flame Spread Rating with Average Smoke Rating less than 150, conforming to ASTM E-84 (U.L. 723). Test results are not intended to reflect hazards presented by this or any other material under actual fire conditions.

D Floors:

- 1 Where prefabricated floors are called for, floor sections shall be similar to wall sections, but the inside shall be 16 gauge galvanized steel for non NSF floors and .080 aluminum for N.S.F. approved floors. Floors are capable of supporting distributed floor load of 700 lbs per square ft.
- 2 Where mass insulation is called for, floors shall consist of rigid polystyrene or rigid urethane placed in two layers, with thickness to suit unit requirements, set dry with staggered joints, over Visqueen (0.004) vapor barrier. Insulation shall be placed on recessed concrete sub-slab, as shown on shop drawings. Finish floors inside all walk-ins shall be by others. Finish floors shall be set over protective barrier of Visqueen on top of insulation. Lap Visqueen up walls two feet to protect walls. Visqueen shall be trimmed clean, after concrete is poured, by others. All concrete shall be placed after walk-ins are installed. Concrete work and perimeter grouting shall be installed by others.

4 ENTRANCE DOOR AND DOOR PANEL:

Standard door openings shall be 34" x 78". Door shall be swing-type, in fitting, flush mount.

Finish of doors and door panels shall match adjacent wall panels. Doors shall be UL listed and approved; UL listing label shall be affixed to each door. Doors and door panels shall be insulated with foamed-in-place urethane insulation. Wood framing shall not be used in door or door panel. Doors shall be equipped with the following:

- A Perimeter of door jamb (opening) shall be constructed of high impact, reinforced plastic, foamed-in-place. Material shall be non-conductive, corrosion-proof, impactresistant and will not absorb moisture. Material shall be coved to facilitate easy cleaning. Protective material shall return 1 ¾" on the inside of door frame.
- B Door jamb shall be trimmed with a strip of magnetically attracting stainless steel. This strip shall provide perfect sealing of magnetic gasket to prevent frost and condensation build-up. No visible fasteners shall be used to secure the stainless cover strip. Stainless strip shall be snap-on type and shall be easily removable and replaceable.

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- D Freezer door only shall include a low wattage heater beneath the stainless steel cover strips on door jamb. Heater cable to be connected to SEPARATE CIRCUIT. Heater amperage equals 0.5 amps, 115 volts, 60 cycles. Door heater shall consist of a molded heater harness assembly. Lead connectors shall be machine applied, with water-tight silicone insulated over-mold. A butt splice, hand applied connector shall not be accepted. All door heater assemblies shall be factory wired to an energy-efficient heat sensing disk thermostat. This device will interrupt door heater operation when the room temperature is above 55 degrees Fahrenheit and resume operation of the heaters when the room temperature is below 35 degrees Fahrenheit.

- E Doors hardware shall include one pair of strap self-closing hinges, cam lift design, mounted onto ¼" aluminum plates with stainless steel bolts, hydraulic door closer and door latch. Door latch shall be pull type to break the force of the magnetic gasket. Latch shall include a keyed cylinder lock mechanism. An inside safety release handle shall be included which will operate to prevent entrapment by overriding the cylinder key lock. Each door shall include 36" high aluminum diamond tread kick-plates, interior and exterior.

- F Each door panel shall include an interior vapor proof light with globe, and flush mounted switch with pilot light on the exterior. The vapor proof light shall include a night light. When the light switch is set to the "off" position a three-watt light bulb, factory installed in the vapor proof light fixture, will provide a continuous glow of light. Concealed wiring within conduit shall be used between light and switch.

- G One NSF approved digital thermometer shall be flush mounted in door panel.

- H Door threshold plates, where required, shall be .100 aluminum for NSF approved application (Optional aluminum gauges or Stainless steel if required); 16 gauge galvanized steel for non NSF application.

5 SPECIAL PROVISIONS:

- A National Sanitation Foundation: Walk-ins shall be fabricated to comply with National Sanitation Foundation Standard #7. The NSF listing label shall be affixed to each door.
- B Pressure Relief Port: A pressure relief port shall be provided for each freezer to equalize pressure differences caused by door openings and the defrosting of coils. The relief port shall be heated to prevent frost accumulation..
- C Section Construction: White stucco embossed aluminum, galvalume, acrylume, galvanized steel, white smooth or stucco galvanized steel, paint prep galvanized steel or stainless steel, optional colors are also available.
- D Closure and Trim Strips: Supply only closures or trim strips, as required. Closures or trim strips shall be of the same material as the walk-in. Closures or trim strips shall be installed, by others, to the finish walls and/or ceilings of the adjacent areas.
- E Weatherproof Roof: For outdoor installation, a membrane roof cap shall be provided to protect ceiling panels from water accumulation.

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F Shelving and Supports:

Shelving shall be adjustable modular type furnished in the length, width, and tiers as required.

- 1 General: Shelving and uprights shall be approved by the National Sanitation Foundation under Standard #2

G Refrigeration:

- 1 Remote refrigeration systems include all accessories excluding refrigeration lines and refrigerant.
- 2 Pre-assembled remote.
- 3 Pre-assembled remote with pre-charged quick connect lines.
- 4 Top & side mount straddle
- 5 Package unit with top or side flush mount coils.

6 INSTALLATION INSTRUCTIONS:

A complete set of installation instructions shall be included with the walk-ins. These instructions shall cover the erection and assembly of the walk-in. A floor plan print shall be included.

7 WARRANTIES:

- A Walk-in coolers and freezers shall have fifteen (15) year panel and door warranty, one (1) year original parts replacement warranty, excluding labor. See warranty statement for complete text.
- B Refrigeration systems shall have (5) year compressor warranty, one (1) year parts warranty and one (1) year refrigeration labor warranty. See warranty statement for complete text.

8 WORK BY OTHERS:

All electrical work, roof penetrations for refrigeration lines, condensate piping shall be by others. Floor areas to receive walk-ins are to be level and prepared by others.