



# General Specifications

## GENERAL

1.1 Walk-In Coolers and Freezers shall be designed with modular panels to facilitate easy assembly and disassembly for relocation and for the expansion of the coolers or freezers if required by customers. The prefabricated, sectional constructed panels shall be metal clad.

## 2.0 PREFABRICATED PANEL CONSTRUCTION

2.1 The panels shall consist of interior and exterior metal skins precisely formed with steel dies and roll-form equipment and thoroughly checked with gauges for uniformity and accuracy. The insulation shall be "Foamed-In-Place" rigid urethane and when completely heat cured, shall bond tenaciously to the metal skins and form a ridged four (4) inch thick insulated panel. The urethane insulation must also adhere to the cam-action locking devices. All panels shall have 100% "Foamed-In-Place" urethane insulation and have no internal wood, metal, or high-density urethane structural members. To insure that all joints are airtight and vapor proof all panel edges must have a "Foamed-In-Place" double tongue and groove edge on all sides which are of the same density as the rest of the panel. A flexible vinyl gasket which is also "Foamed-In-Place" shall extend around the interior and exterior perimeter of each male edge. This gasket shall not be glued or stapled in place. Gaskets shall be resistant to damage from oil, grease, water, detergents and sunlight, and must be NSF Approved and shall be flame retardant.

2.2 Wall panels shall be made in 11-1/2", 23", and 46" widths.

2.3 Door panels shall be in 46", 57½", or 69" widths.

2.4 Corner panels shall measure 11 ¾" X 11 ¾", 11 ¾" X 23 ½", or 23 ½" X 23 ½". The corners shall be a precise 90-degree angle to assure maximum strength and perfect alignment.

2.5 Floor panels shall measure 23", 35", 46", or 46 ½" wide. The floor sections shall be made to support a uniformly distributed load up to and including 750 lbs. per square foot.

2.6 When a floor is not specified, the walk-in shall be supplied with an extruded PVC insulated floor screed. This screed shall match the double tongue and groove design of the wall panels and must cam and lock securely. A PVC panel track is also used for Quick Set applications.

2.7 All panels are to be interchangeable for fast and easy installation.

## 3.0 CAM LOCKS

3.1 Cam-action locking devices shall be accurately and precisely positioned in the panels to assure a positive joint. Where wall panels are joined together there shall be a minimum of three (3) locking devices. These locking devices shall consist of a cam-action rotating locking arm in the tongue edge. This locking arm shall engage a steel rod which is firmly anchored in the groove edge. This action will draw all tongue and groove joints firmly and tightly together. Each section of the locking device shall have sufficient surface to assure rigid anchoring. The locking device shall be bonded in the urethane foam without need of additional anchorage arrangements. Both the locking arm and the steel rod shall be housed in steel pockets and "Foamed-In-Place". The steel pockets shall have a flange on each side to give additional binding strength.

3.2 All locking of standard sections shall be performed from the interior by means of a hex wrench which is furnished by the manufacturer with the cooler or freezer. The wrench holes shall be recessed and covered with a stainless steel or white plug button. The plug buttons shall be flush with the metal skin of the panels. Surface mounted steel or plastic buttons will not be accepted.

## 4.0 INSULATION

4.1 Insulation shall be rigid urethane "Foamed-In-Place". The thermal conductivity factor (K) shall not exceed 0.135 BTU per hour, per square foot, per degree Fahrenheit, per inch. Overall coefficient of heat transfer (U-factor) shall not be more than .033 for 4" walls. The R-factor shall have a value of R32. Insulation shall have a 98% closed cell structure and average in-place density of 2.25 lbs. per cubic foot.

4.2 The insulation must retain dimensional stability in an operating temperature range of -40 degrees F. (-40.0C) to 250 degrees F. dry heat (121.2C).

## 5.0 WALK-IN DOORS

5.1 Manufacturer's standard door shall be flush mounted. Both door and leaf shall be of similar construction and finish as wall panels.

5.2 A heavy duty 14 gauge steel "C" channel of "ADDISON POWER H BRACE" style construction shall be "Foamed-In-Place" around entire door opening to secure hardware and prevent racking and warping. This steel structure when used in conjunction with the FRP door jamb shall form a rigid frame that eliminates thermal transfer from the exterior to the interior of the panel thus reducing the requirement for additional anti-condensate heaters.

5.3 The door leaf shall consist of heavy 4" wide, .250" thick, thermally fused and polished PVC perimeter into which the interior and exterior metal skins are secured and shall create a thermal break between metal facings. In addition, the PVC frame shall include a "RIBBED" channel around the inside perimeter into which the magnetic gasket shall mate and be firmly held. Each door leaf must also include interior 14 gauge steel "C" channels across the entire face of the door at the hinge and latch stress points. Additional "C" channels are to be "Foamed-In-Place" behind the interior face to accept protector plates when required and to increase strength and rigidity. Interior steel plates for securing additional hardware (i.e. Foot treadles, door closers, etc.) shall be a standard part of door construction. Securing hardware into wood blocks will not be accepted.

5.4 The door sections shall have a frame which is made of a pultruded FRP (Fiberglass Reinforced Plastic) material that provides both strength and durability. This FRP frame shall have a channel molded into it which will accept the anti-sweat heater and allow easy replacement of the heater.

5.5 Each freezer door shall have a single anti-condensate heater and shall be concealed behind the stainless steel edge of the door jamb on all sides to prevent condensation and frost formation. This heater shall be easily accessible for replacement or service.



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No heater shall be required around the perimeter of the door leaf. Applications of 35 degrees F. and above shall not require a door heater.

5.6 When a threshold is required it shall be made of 12 gauge stainless steel and must be an integral part of the door section. The threshold must be installed by the factory and shall be of universal design which will allow the door section to be moved from one location to another without any preparation by installers.

5.7 A dial thermometer shall be mounted on the door panel. It shall provide temperature reading in a minimum range of -40 degrees F. to +99 degrees F. and be accurate to + or - 1 degree F.

## 6.0 DOOR HARDWARE

6.1 The door hinges shall be of cam-lift design and shall be heavy duty chrome plated with steel pins and nylon bushings. Hinges shall have a minimum 9" strap and shall be installed in sufficient numbers to carry twice the weight of the door.

6.2 The door latch shall be constructed of similar materials and finish as the door hinges. The latch shall be designed to open the door easily. The inside safety release features shall comply with OSHA standards.

## 7.0 GASKETS FOR WALK-INS

7.1 A vinyl gasket with a magnetic core using "Christmas Tree Type Construction" shall mate with the top edge and along both sides of the door. The magnetic force of the gasket shall be ample enough to keep the door in a closed position and form a tight seal. The bottom edge of the door shall contain a flexible double wiper gasket.

## 8.0 LIGHTING

8.1 Each entrance door shall be provided with an incandescent vapor-proof light on the interior of the door section. The light shall have a coated glass shatterproof globe. A neon pilot light and toggle switch shall be flush mounted on the exterior of the door section and shall have a stainless steel cover. The door panel and door leaf shall be UL approved in its entirety, including all mounted accessories.

8.2 A vapor proof light shall be capable of accepting up to a 100 watt appliance bulb (not furnished by manufacturer).

## 9.0 HOUSEKEEPING AND SAFETY PROCEDURE

9.1 Each door panel shall have a metal housekeeping and safety release procedure placard and shall be attached with pop-rivets to the metal skin of the door leaf. This placard will be in a highly visible location.

## 10.0 INSTALLATION AND MAINTENANCE INSTRUCTIONS

10.1 A complete set of instructions covering both the maintenance and the installation of the cooler shall be provided.

## 11.0 N.S.F. APPROVAL

11.1 Construction shall be of a design approved by the National Sanitation Foundation and shall carry the N.S.F. Label of Approval mounted on each door section.

## 12.0 UL ELECTRIC APPROVAL

12.1 All door sections shall be wired electrically in such a manner and design so as to be approved by Underwriters Laboratories and each door section shall carry the UL Listing Mark.

## 13.0 UL 25 FLAME SPREAD CLASSIFIED\*\*

13.1 Each individual panel shall have a flame spread rating of 25 or less, and have a smoke development of 400 or less. Each section shall have affixed to it a label stating the above ratings. (Class I composite panel).

\*\*This rating is not intended to reflect hazards presented by this or any other material under actual fire conditions. (See UL Classified Building Materials index)

## 14.0 FIFTEEN YEAR PANEL WARRANTY

14.1 W.A. Brown & Son, Inc. warrants to the original purchaser, the full foamed-in-place aluminum and stainless steel panels manufactured and sold by it, to be free from defects in material and workmanship under normal use and service for fifteen years from the date of original installation by an authorized representative. All other panels manufactured by W.A. Brown & Son, Inc. shall be warranted against delaminating and/or insulation separation for life from the date of original installation by an authorized representative. Oxidation of panels, and panel aesthetics are expressly excepted from this warranty.

14.2 This warranty shall not apply to equipment when in the manufacturer's opinion, has been subjected to abuse, misuse, misapplied, or improperly installed. See warranty detail packed with each walk-in unit shipped.

## 15.0 CEILING PANEL SUPPORT SYSTEMS

15.1 When the dimensions of an insulated room are such that a single span top panel is not applicable, it must be supported using an interior or exterior beam or must be supported by all thread rods (not furnished by manufacturer) attached to the building superstructure. Wood and steel structures which cause added maintenance shall not be acceptable.

## 16.0 REFRIGERATION

16.1 Pre-assembled hermetic or semi hermetic systems are available. This system includes the condensing unit, unit cooler, expansion valve (loose), dehydrator, sight glass, pre-wired control panel, liquid line solenoid (loose), high and low pressure control, room thermostat (loose) & suction line filter. It will also include the weatherproof housing, head pressure control and crankcase heater.

Since product improvement is a continuing effort at W.A. Brown & Son, we reserve the right to make changes in specifications without notice.