Arctic®
WALK-IN COOLERS AND FREEZERS

Product Information

01 General Specifications

a. Walk-in coolers and freezers shall be of a modular design and construction utilizing prefabricated insulated panels with metal skins. The panels shall allow for rapid, easy field assembly, disassembly, and modification by adding or exchanging for like panels.

b. Assembly shall be accomplished by use of a standard hexagonal (Allen) wrench rotating a cam-action hook-arm on the tongue side of the panel over the pin on the groove side of the adjacent panel which pulls and locks the panels together creating an airtight and vapor proof joint. Access ports for rotating the hook-arm shall be on the inside of the cooler and these access ports shall be sealed with vinyl snap-in plugs after walk-in construction.

c. Standard wall, ceiling, and floor panels shall be 46", 34-1/2", 23", and 11-1/2" wide. Standard corner panels shall be 13" x 13" at 90°. Standard 4" wall and ceiling panels shall be available in any length from 1' 0" to 16' 0". Standard 5-3/8" wall and ceiling panels shall be available in any length from 1' 0" to 24' 0". Panels can be manufactured in increments of 1" to meet customers design specifications.

d. Arctic is certified and labeled to NSF Standard 7 and UL Standard 471. Arctic conforms to all EISA requirements and standards. Arctic is an approved manufacturer for the State of Oregon, City of Houston and LARR.

02 Panel Construction

a. Panels shall be constructed with interior and exterior metal skins formed to precise dimensions to ensure proper fit. Metal finish shall be as specified.

b. Wall panel frames shall be molded of high density urethane with mating tongue and groove profiles. Standard 4" panels shall have a wide 2-1/2" tongue throat and standard 5-3/8" panels shall have a wide 4-1/4" tongue throat to ensure vapor proof and airtight joints.

c. Floor and ceiling panel frames should be molded of high density urethane U-Channels to ensure structural strength and durability. Standard 4" panels shall have a wide 2-1/2" tongue throat and standard 5-3/8" panels shall have a wide 4-1/4" tongue throat to ensure vapor proof and airtight joints.

d. Panels shall have heavy-gauge steel panel fasteners constructed of a precisely located camlock and mating steel pin.

e. Panels shall have NSF approved vinyl gasket on the tongue edge of the panel. Gasket color shall be either gray, white, or black to most closely match the metal skin color.

f. Panel core foam shall be UL Listed, Class 1 fire rated, urethane foam permanently bonded to the interior and exterior metal skins. Each walk-in shall have a label on the door frame assembly indicating certification to ASTM STD E84/UL STD 723.

g. Standard panels shall be interchangeable. Special panels shall be sized to meet specific requirements.

h. Corners shall be constructed of a corner panel which incorporates the corner in the panel providing superior strength and structural integrity over butted corners.

i. Panels shall meet NSF STD 7 and be EISA compliant.

j. Panels can meet customer's specifications with angled walls, notches, corner cut outs and sloped ceilings.

03 Insulation

a. Insulation shall be 4" or 5-3/8" thick and shall be "foamed-in-place" to form a rigid insulation block that is permanently bonded to the interior and exterior metal skins.

b. Panel core insulation shall be CFC-free Class 1 fire rated urethane. The core insulation shall be classified to UL 723 (ASTM E84) with a flame spread ≤25 and a smoke density of <450.

c. Insulation shall have a K factor ≤0.125 BTU/hr/sq.ft. per °F/inch at 20°F and ≤0.138 BTU/hr/sq.ft. per °F/inch at 55°F in accordance with ASTM C518-2004. The R factor for 4" thick cooler panels is 28 and for freezers is 32. The R factor for 5-3/8" thick cooler panels is 39 and for freezers is 43.

04 Finish

a. Interior and exterior wall and ceiling finish options are virtually limitless and are tailored to the functional and artistic needs of each customer and project. The most common finishes are: 26 gauge stucco embossed galvalume, 26 gauge stucco embossed bright G-90 galvanized steel, 26 gauge white stucco embossed galvalume, 26 gauge white stucco embossed G-90 galvanized steel, 26 gauge smooth galvalume, 26 gauge smooth bright G-90 galvanized steel, .032" stucco embossed aluminum, .040" smooth white aluminum, and 22 gauge #4 finish 304 stainless steel. Please contact your Arctic Sale Representative for additional information on the wide variety of custom materials, finishes and embossments available.

05 Electrical

a. Wiring shall be concealed in the interior of the door frame and foamed-in-place to eliminate internal conduit runs and provide a more sanitary and aesthetically look.

b. Standard electrical services requirements are 120 volt, 60 cycle, 1-phase, 15 amp circuit. Please contact your Arctic Sales Representative for accommodation of other electrical service requirements.

c. The interior wiring shall extend out the top of the door frame for the primary electrical power connection. For indoor applications the ceiling panel will have a corresponding hole to align with the door frame electrical power. For applications with auxiliary lighting a switched auxiliary wire shall also extend out the top of the door frame.

d. Field wiring of the primary electrical power connection and auxiliary lighting shall be the customers responsibility and be performed by a qualified electrician to the National Electric Code and all applicable local standards. Field wiring typically involves mounting a junction box on the roof of the cooler and routing the provided interior wiring into the junction box. Auxiliary lighting is typically wired from the outside of the cooler with penetrations made by the electrician into the cooler interior for connection to the auxiliary lighting. All field wiring must be properly sealed to prevent air leakage and condensation inside of the conduit and auxiliary light fixtures.

e. Door frames shall be provided with an integral ultra-bright LED temperature display and light switch.

f. Door frames shall be provided with a vapor proof light fixture on the interior centered above the door. This fixture shall be either a LED fixture or an Edison style base socket.

g. Arctic can install concealed electrical wiring with receptacles mounted flush within the interior/exterior of panels for specific customer needs.

h. Arctic can install concealed copper cold water lines up to ½" diameter pipe for specific customer needs.

06 Hinged Doors

a. Doors shall be of in-fitting and of flush construction and bear a label indicating electrical certification to UL STD 471.

b. Doors available in bi-parting if requested.

c. Walk-in cooler door jambs shall be constructed of structural FRP pultrusions with mitered corners that are foamed-in-place to provide superior rigidity and prevent twisting and door sag.

d. Walk-in freezer door jambs shall be constructed of structural aluminum extrusions for freezers that are foamed-in-place to provide superior rigidity and prevent twisting and door sag.

e. Door plug frames shall be constructed of structural FRP pultrusions that are foamed-in-place to provide a flat door plug of accurate dimensions.

f. Door frame and plug insulation shall be the same as specified for the panels.

g. Door thresholds shall be 1/8" aluminum unless otherwise specified.

h. Standard door size shall provide for a 34" wide x 78" tall clear opening provided with two cam rise, spring loaded, chrome hinges. Hinges are fastened to two layers of 14 gauge galvanized steel backing foamed-in-place in the door frame and door plug.

i. Hinged door sizes of widths up to 6' 0" and heights up to 20' 0" can be provided. Additional hinges are provided as requested by the customer and as dictated by engineering requirements for larger doors.

j. Doors shall be provided with an NSF approved one-piece magnetic gasket for a positive seal.

k. Doors shall be provided with a butyl rubber gasket mounted to the bottom edge of the door.

l. Door handles shall be provided with a cylinder lock and an inside release. Multiple options available on request.

m. Doors that access ambient air conditions shall be provided with a vinyl strip curtain.

n. Freezer doors shall be supplied with a frame and threshold heater.

o. Freezer doors shall be supplied with a heated air vent.

p. In applications that require a kickplate, the plate shall be flush with the door metal and not include an overlay.

q. Optional features are available to meet customer and project requirements. Common optional features are heated and non-heated viewports, internal and external aluminum diamond plate or stainless

07 Sliding Doors

a. Doors shall be overhead mounted with two layers of ¾" exterior grade plywood backing foamed-in-place to provide a structural mounting location for sliding door hardware.

b. Door core foam shall be UL Listed, Class 1 fire rated, urethane foam permanently bonded to the interior and exterior metal skins. Each walk-in shall have a label indicating certification to ASTM STD E84/UL STD 723.

c. Doors shall be of a finish material selected by customer.

d. Door plug frames shall be constructed of treated 2" lumber.

e. Door gaskets shall be resilient flexible vinyl tested to ASTM STD E4257. Walk-in cooler floor gasket shall be of the single bulb sweeper type. Walk-in freezer gasket shall be of the dual sweeper type mounted in a "U" channel. Side and top gaskets shall be of the large bulb type and mounted to the inside perimeter of the door.

f. Pre-assembled one-piece trolley assembly features heavy extruded aluminum chassis with heavy-duty 3-1/2" diameter nylon-clad stainless steel ball bearing rollers. Built-in anti-lift feature and deep-seated rollers prevent derailing and provide stability.

g. Rail and track are rugged, corrosion resistant extruded aluminum for quick response and straight, sure tracking even with maximum door load.

h. Track ramps are tough, smooth acetal for long wear and easy sliding. "Down-and-in" action provides easier door operation, yet ensures a tight door seal in combination with the lower guide.

i. Micro-leveling feature allows for vertical door adjustment to maintain door seal, even where floors are uneven or after sweeper gasket is worn. Adjustment nuts are located up front for easy access.

j. Large exterior pull-handle of chrome plated, die-cast zinc and steel recessed inside pull handle shall be provided.

08 Floors

a. Floors are optional and when provided floor construction and insulation shall be the same as specified for wall panels.

b. Floors are rated to withstand a uniformly distributed stationary load of 1,200 per square foot. Heavy duty structural floors are available when specified. Please contact your Arctic Sale Representative for additional information.

c. Floor wear surface shall be smooth aluminum. Other floor wear surfaces are available and include but are not limited to 16 gauge 304 #4 finish stainless steel and aluminum diamond tread plate. Please contact your Arctic Sale Representative for additional information.

d. Ramp wear surfaces are 16 gauge stainless steel or aluminum diamond treadplate with a ½" wood backer foamed-in-place to structural cross supports.

e. NSF cove to be formed and foamed-in-place in floor panels.

f. Floorless walk-in coolers shall be provided with steel "U" channel and integral NSF 6" cove for field installation by customer both inside and out.

g. Cooler floor panels are available in thicknesses ranging from 2" to 5-3/8".

09 Closures and Trim

a. Matching ceiling closure panels and vertical trim strips for finishing between walk-in walls and building walls and building ceiling shall be supplied when specified and noted on the approved project drawings. Customer may select any style of custom configuration to meet job site needs.

10 Accessories

A wide array of optional accessories are offered to meet the exact customer and project requirements. Some of the more common accessories provided are:

a. Viewports (windows) on doors

b. Windows on walls

c. Reach-In doors; solid or glass

d. Aluminum and stainless steel bumper rails and hat channels.

e. 3-way light switches

f. A wide range of LED lighting options

g. Outdoor roof membrane packages, multiple colors.

h. Alarm systems (temperature, door ajar, panic alarm, etc.)

i. Alarm systems can be wired to multiple boxes, to a remote communicator for a connection to a customer is monitoring system.

j. Clear View single or bi-parting swing doors.

k. Foamed-in-place backing for attachment of shelving or other structural requirements

l. Doors positioned right up against the adjacent wall with zero jamb clearance.

m. Wide variety of glass reach-in doors in sizes and colors to meet customer specifications. Shelving and LED lights included.

n. Diamond Treadplate or Stainless Steel, 36" -48" wainscoting for interior or exterior installation to protect walls.

o. Cooler floor panels as thin as 2".

p. Corners at an angle ranging from 0 - 180°

q. Seismic engineered stamped drawings and seismic mounting components

r. Please contact your Arctic Sales Representative for accessories to meet your unique requirements.

11 Refrigeration

a. A comprehensive selection of refrigeration systems, air and water-cooled, in top mount self-contained, pre-assembled remote, and remote configurations are available to meet the exact customer and project requirements.

b. Evaporators that are of low profile, center mount, or medium profile with a maximum 70' throw. Coils can be manufactured with rust proof coating to meet customer's specific product needs.

12 Warranty

a. Panels shall include a 15-year performance warranty, doors and door assemblies shall include a 5-year materials and workmanship warranty, and refrigeration shall include a 1-year parts and labor warranty.

c. Warranty is only valid if walk-in and refrigeration is installed by a factory authorized installer incorporating ASHRAE standards and practices.

d. This is a warranty summary only. The actual walk-in warranty is governed by our complete warrant document which may be found at https://www.arcticwalkins.com/literature-3/miscellaneous/.

Please note that we have a continuous product development and improvement program which may result in change without notice to this specification.