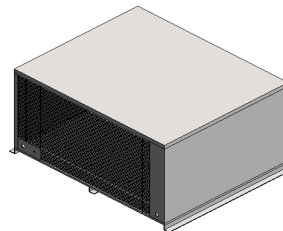
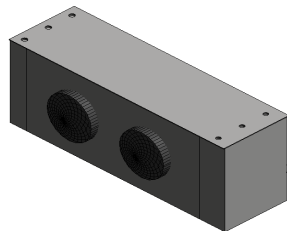
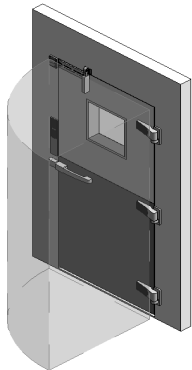


## Specifying Kolpak Walk-Ins



### I. General

Walk-in coolers, freezers, or dry storage provided under this portion of the specifications shall be prefabricated, of modular design and construction. They shall be designed to allow convenient, quick, and accurate field assembly and future enlargement by the addition of panels.

## II. Panel Construction

All panels shall consist of foamed-in-place polyurethane insulation, sandwiched between interior and exterior metal "skin" which has been die-formed and gauged for uniformity in size. Edges of panels shall be foamed-in-place tongue and groove with locking facilities foamed-in-place at time of fabrications.

### a. Sizes

Nominal/standard wall, ceiling, and floor panels shall be 11-1/2", 23", 34-1/2", and 46" in width and shall be interchangeable with like panels. Corner panels shall be 90-1/4° angles with actual 12' exterior horizontal measurements. Hold-to sized panels shall be used if required to meet job site conditions. Ceilings and floors edge caps to be foamed-in-place.

### b. Configurations

Walls, door sections (frames and plugs), tee panels, ceilings, floors, and corners

### c. Insulation

- HFO blowing agent, 100% foamed-in-place rigid closed cell polyurethane (4" thick is standard, 5" and 6" is optional thickness)
- CFC and HCFC Free (Chlorofluorocarbons, hydrochlorofluorocarbons)
- Zero ozone depleting potential
- R-Values results for 4" thick panels, meeting or exceed energy codes
  - Coolers – wall panels R-29
  - Freezers – wall panels R-32/floor panels R-29
- Contact the factory for "*Regulatory Letter*" full details

### d. Locking Assemblies

Assembly of walk-in shall be accomplished by Posi-Locs. Posi-Locs shall be foamed-in-place and activated by a hex wrench provided by the manufacturer. Access ports to locking devices shall be covered by snap caps. Access ports shall be on interior to allow assembly of walk-in from the inside.

### e. Panel gaskets

Panel gaskets shall be foamed-in-place to the male side of all panels, on both interior and exterior. Gaskets shall be impervious to stains, greases, oils, mildew, etc.

### f. Partitions

Fabrication and finish of partition walls shall be the same as the walk-in walls and shall lock into wall, ceiling, and/or floor panels, with Posi-Loc assemblies. Tongue and groove foam fabrication shall provide the thermal break between cooler and freezer compartments. Wall "T" panels shall be 23" x 12" symmetrical tee. Heater wires not required.

## g. Nominal Sizes

| Nominal<br>Chart | Single Compartment |             | Multiple Compartments |                        |                     |
|------------------|--------------------|-------------|-----------------------|------------------------|---------------------|
|                  | Actual             | Actual      | Actual                | Actual                 | Actual              |
|                  | O.D.               | I. D.       | O.D. left<br>comp.    | O.D. middle<br>comp(s) | O.D. right<br>comp. |
|                  |                    | CNR///CNR   | CNR /// TEE           | TEE /// TEE            | TEE /// CNR         |
| 4'               | 3'-11"             | 3'3"        | 3'-10 1/2"            | 3'-10"                 | 3'-10 1/2"          |
| 5'               | 4'-10 1/2"         | 4'-2 1/2"   | 4'-10"                | 4'-9 1/2"              | 4'-10"              |
| 6'               | 5'-10"             | 5'-2"       | 5'-9 1/2"             | 5'-9"                  | 5'-9 1/2"           |
| 7'               | 6'-9 1/2"          | 6'-1 1/2"   | 6'-9"                 | 6'-8 1/2"              | 6'-9"               |
| 8'               | 7'-9"              | 7'-1"       | 7'-8 1/2"             | 7'-8"                  | 7'-8 1/2"           |
| 9'               | 8'-8 1/2"          | 8'-0 1/2"   | 8'-8"                 | 8'-7 1/2"              | 8'-8"               |
| 10'              | 9'-8"              | 9'-0"       | 9'-7 1/2"             | 9'-7"                  | 9'-7 1/2"           |
| 11'              | 10'-7 1/2"         | 9'-11 1/2"  | 10'-7"                | 10'-6 1/2"             | 10'-7"              |
| 12'              | 11'-7"             | 10'-11"     | 11'-6 1/2"            | 11'-6"                 | 11'-6 1/2"          |
| 13'              | 12'-6 1/2"         | 11'-10 1/2" | 12'-6"                | 12'-5 1/2"             | 12'-6"              |
| 14'              | 13'-6"             | 12'-10"     | 13'-5 1/2"            | 13'-5"                 | 13'-5 1/2"          |
| 15'              | 14'-5 1/2"         | 13'-9 1/2"  | 14'-5"                | 14'-4 1/2"             | 14'-5"              |
| 16'              | 15'-5"             | 14'-9"      | 15'-4 1/2"            | 15'-4"                 | 15'-4 1/2"          |
| 17'              | 16'-4 1/2"         | 15'-8 1/2"  | 16'-4"                | 16'-3 1/2"             | 16'-4"              |
| 18'              | 17'-4"             | 16'-8"      | 17'-3 1/2"            | 17'-3"                 | 17'-3 1/2"          |
| 19'              | 18'-3 1/2"         | 17'-7 1/2"  | 18'-3"                | 18'-2 1/2"             | 18'-3"              |
| 20'              | 19'-3"             | 18'-7"      | 19'-2 1/2"            | 19'-2"                 | 19'-2 1/2"          |
| 21'              | 20'-2 1/2"         | 19'-6 1/2"  | 20'-2"                | 20'-1 1/2"             | 20'-2"              |
| 22'              | 21'-2"             | 20'-6"      | 21'-1 1/2"            | 21'-1"                 | 21'-1 1/2"          |
| 23'              | 22'-1 1/2"         | 21'-5 1/2"  | 22'-1"                | 22'-0 1/2"             | 22'-1"              |
| 24'              | 23'-1"             | 22'-5"      | 23'-0 1/2"            | 23'-0"                 | 23'-0 1/2"          |
| 25'              | 24'-0 1/2"         | 23'-4 1/2"  | 24'-0"                | 23'-11 1/2"            | 24'-0"              |
| 26'              | 25'-0"             | 24'-4"      | 24'-11 1/2"           | 24'-11"                | 24'-11 1/2"         |
| 27'              | 25'-11 1/2"        | 25'-3 1/2"  | 25'-11"               | 25'-10 1/2"            | 25'-11"             |
| 28'              | 26'-11"            | 26'-3"      | 26'-10 1/2"           | 26'-10"                | 26'-10 1/2"         |
| 29'              | 27'-10 1/2"        | 27'-2 1/2"  | 27'-10"               | 27'-9 1/2"             | 27'-10"             |
| 30'              | 28'-10"            | 28'-2"      | 28'-9 1/2"            | 28'-9"                 | 28'-9 1/2"          |

## III. Metal Finishes

Panels are available with interior and/or exterior metal finishes of galvalume, aluminum, galvanized steel, and stainless steel

- 26-gauge embossed/stucco galvalume (standard)
- 26-gauge embossed/stucco galvalume prepainted white
- 26-gauge embossed/stucco galvalume prepainted beige
- 26-gauge embossed/stucco galvalume prepainted “bittersweet” beige
- 26-gauge embossed/stucco galvalume prepainted brown
- 26-gauge embossed/stucco galvanized prepainted black
- 24-gauge smooth galvanized white
- 20-gauge smooth galvanized
- 20-gauge smooth galvalume white
- 22-gauge paint grip galvanized (paintable)
- .040 stucco aluminum
- .040 stucco aluminum white
- .040 smooth aluminum
- .040 smooth aluminum white
- 20- or 22-gauge 430 stainless steel (mag)
- 20- or 22-gauge 304 stainless (non-mag)
- 20-gauge embossed 304 stainless steel (non-mag)

## IV. Floor Types

- a. Era Floor:** Panels shall be fabricated similar to other panels including the new patented Era Bracket technology, designed to readily withstand uniformly distributed loads of 1000 lbs. per square foot and be suitable for light rolling cart traffic without the use of wood. Floor (will/will not) be recessed. Floor (will/will not) be covered by the tile and grout, or concrete wearing floor.
- .100 smooth aluminum (standard finish)
  - .100 treadplate aluminum
  - 16-gauge stainless steel
  - 16-gauge galvanized steel (field installed finished floor, i.e., tile and grout required)
- b. Era Structural Floor:** Panels shall be fabricated like other panels including the new patented Era Bracket technology, designed to readily withstand uniformly distributed loads of 5000 lbs. per square foot and be suitable for rolling traffic without the use of wood. Floor (will/will not) be recessed. Floor requires 3/16" overlay and base cove
- 3/16" treadplate aluminum overlay (standard finish)
  - 3/16" smooth aluminum overlay
- c. Floorless u-shaped, 1-1/2" high or 4" high vinyl screeds:** Screeds must be coved on both sides and sit flat on the floor. Screeds shall be secured with provided fasteners shall be allowed. Supplied with profiled bottom wall.
- d. Floorless metal screeds:** Screeds must be coved on interior and sit flat on the floor. Screeds shall be secured with provided fasteners shall be allowed. Supplied with interior base cove.
- e. Floorless Flat-bottom walls:** Walls must be coved on interior and sit flat on the floor with interior base cove or can be supplied with u-shaped screed.

| <u>FLOOR TYPE</u>                        | <u>10'-0"</u> | <u>9'-0"</u> | <u>8'-0"</u> | <u>7'-0"</u> | <u>6'-0"</u> |
|------------------------------------------|---------------|--------------|--------------|--------------|--------------|
| Nominal wall panel heights               | (118.25")     | (106.25")    | (94.25")     | (82.25")     | (70.25")     |
| 4" floor                                 | 10'-6 1/4"    | 9'-6 1/4"    | 8'-6 1/4"    | 7'-6 1/4"    | 6'-6 1/4"    |
| 4" vinyl or metal screed                 | 10'-6 1/4"    | 9'-6 1/4"    | 8'-6 1/4"    | 7'-6 1/4"    | 6'-6 1/4"    |
| 1 1/2" vinyl screed                      | 10'-3 3/4"    | 9'-3 3/4"    | 8'-3 3/4"    | 7'-3 3/4"    | 6'-3 3/4"    |
| U-shaped screed with profile bottom wall | 10'-2 3/4"    | 9'-2 3/4"    | 8'-2 3/4"    | 7'-2 3/4"    | 6'-2 3/4"    |
| U-shaped screed with flat bottom wall    | 10'-2 3/8"    | 9'-2 3/8"    | 8'-2 3/8"    | 7'-2 3/8"    | 6'-2 3/8"    |
| Flat-bottom wall                         | 10'-2 1/4"    | 9'-2 1/4"    | 8'-2 1/4"    | 7'-2 1/4"    | 6'-2 1/4"    |

## V. Entrance Door Construction and Standard Accessories

Each walk-in shall be flush, fitted with standard 34" x 78" swing-type entrance door. Finished in and out to match the wall in which located. Doors and door section shall be listed by Underwriters Laboratories and equipped with the following:

- Door shall be equipped with magnetic gasket, adjustable bottom door sweep, door closer, and handle. Hardware has provisions for locking and a glow in the dark inside safety release which prevents entrapment of personnel within the box.
- Door shall be self-closing with a minimum two field adjustable, cam-lift hinges.
- Door jamb shall be made of Fiberglass Reinforced Plastic. An isolated, low wattage heater strip covered by magnetically attracting stainless steel shall be fitted onto this jamb (required in freezers). This strip shall provide perfect sealing of magnetic gasket and prevent frost and condensation build-up.
- Each entrance door section shall be provided with an LED type vapor-proof light with low wattage consistent burn nightlight (OSHA complaint) and safety pilot light that stays on when light switch is turned off, light switch and conduit between switch box and outlet box. Concealed wiring shall be standard on each entrance door section.
- Heater wires supplied with Pepi for automatic heat adjustment to avoid overheating (required on freezers)
- A threshold with non-skid striping shall be provided with each door section unless floorless cooler application. Heater wire shall continue beneath the threshold (required in freezers). Floorless with heater wire or floor applications with interior ramps require a stainless-steel threshold.
- 2" dial thermometer shall be included with each door section to indicate inside temperature.
- Heated air vent shall be provided to equalize pressure between the interior and exterior, caused by sudden temperature changes due to door openings and evaporator defrosting. The vent shall be heated to prevent moisture and/or frost accumulation (required for freezers).
- Optional door widths: 26", 30", 36", 42", 48", 54", and 60". Optional door heights: 66", 84", and 96" (Oversized doors may require additional hinges or large style).



## VI. Hardware Packages

### a. Standard Door Package

- K1094 hydraulic door closer brushed
- Radius style K1346 door hinges brushed (height 66"-78" qty 2; height 79"-84" qty 3; height 85"-96" qty 4)
- K28C Deadbolt locking handle with glow-in-the-dark twist off inside release
- Standard accessories

### b. Polished/Brushed Door Package

- K1094 hydraulic door closer
- Radius style K1346 door hinges (height 66"-78" qty 2; height 79"-84" qty 3; height 85"-96" qty 4)
- K27C deadbolting locking handle with glow-in-the-dark twist off inside release
- Standard accessories

### c. Performer Advantage Door Package (available in brushed or polished)

- K1094 hydraulic door closer
- Radius style K1346 door hinges (height 66"-84" qty 3; height 85"-96" qty 4)
- K27C deadbolting locking handle with glow-in-the-dark twist off inside release
- Exterior stainless steel door plug
- 36" high exterior kickplate .063 aluminum treadplate
- Standard accessories with K1967 combo digital switch/thermometer, in lieu of dial and switch

### d. Prison Door Package (provided with tamperproof fasteners)

- K1094 hydraulic door closer
- Strap style K1278S door hinges (qty 2)
- K57 SecureGuard™ locking handle with glow-in-the-dark twist off inside release
- Standard accessories with K1808NM door section light in lieu of standard light
- Concealed locking bar
- Thru-ceiling electrical

### e. Oversized Door Package <43"-60" widths

- K1094 hydraulic door closer
- Strap style K1278S door hinges (height 66"-78" qty 3; 79"-96" qty 4)
- K27C deadbolting locking handle with glow-in-the-dark twist off inside release
- Standard accessories
- One set of two slam braces
- Oversized Reinforced steel door jamb
- 60" width requires a toe-caster

## VII. Optional Door Accessories

- Heated viewports –
  - 14"x14" or 14"x24"
- Kickplates –
  - Heights 18", 24", 36", 48", 60" or full height
  - .063, .100, .125, .187 aluminum or 16-gauge stainless
- Interior or Exterior Ramp
- Alarms
- Monitoring system
- Digital thermometer
- Air shield
- Strip curtain
- Strip door
- Motion sensor (OSHA Switch)
- Deadbolt lock
- Concealed locking bar
- Thru-ceiling electrical
- 2" door bumper
- Foot Treadle
- Oversized Dial Thermometer (4-1/2")

## VIII. Optional Compartment Accessories

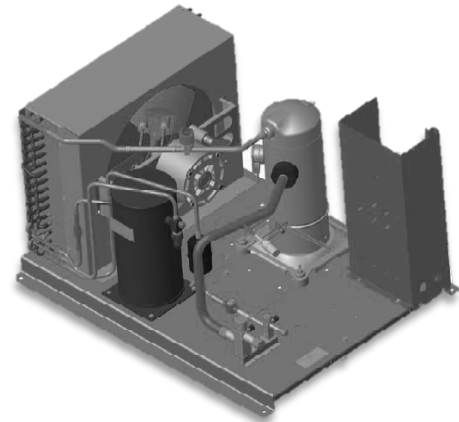
- LED Lighting –
  - Jelly jar style fixture
  - 18" compact fixture
  - 48" fixture
- Trim – flat or angle
- Closure panels
- Louvers
- Base cove
- Bumper rails (wall protectors)
- Wainscot (wall protectors)
- Corner guards

## IX. Outdoor Accessories

- Roof caps
  - Sloped or Flat
  - Freestanding or flashed
- Weatherproof light switch
- Weatherproof thermometer
- Rain hood
- Ceiling support systems
  - Era Super ceilings
  - Era ClearSpan ceilings
  - Interior post and beam

## X. Refrigeration Units

Condensing units shall be Hermetic or Scroll type. Refrigerant shall be EPA compliant and align with U.S. Climate Alliance compliant for installed state. Available in R404A or R448A refrigerants. Condenser shall be air-cooled or optional water-cooled. Condensing units shall be factory assembled and UL or ETL listed and DOE/AWEF complaint. Evaporators shall be forced air type. Air discharge shall be parallel to the walk-in ceiling. Fan motors, guards' multi-fin



and tube-type coil, shall be housed in heavy gauge aluminum. Unit shall have drain pan with suitable drainpipe fitting. All evaporators will be provided with digital temperature controls. Coolers will have ArcticFox Digital Temperature Control with built-in time clock for air-defrost control. Freezer evaporators shall have an digital temperature control system, heater, time clock, fan delay control, and heated drain pan. Defrost shall be time initiated and temperature terminated with built-in fail-safe control. All evaporators shall be UL listed. All systems include pump down cycle to provide additional protection against unwanted refrigerant flow.

- a. **Remote Refrigeration:** consists of the condenser or high-side, the evaporator or low-side, all necessary controls for proper operation of the condensing unit and evaporator.
  - PC – Pre-Charged System (refrigerant charge suitable for 50' line run)
  - PCL – Pre-Charged Line System (refrigerant charge suitable for 50' line run)  
Line sets available in 10', 20', 30', 40' and 50'
  - PR – Pre-assembled Remote (6 HP & above)
  - Polar-Pak Series Refrigeration is R448A refrigerant only, top-Mount, drop-in/self-contained style (2 HP & below for low temp/1 HP & below for medium temp)
- b. **Large System Refrigeration:** custom designed per project
- c. **Rack Series Refrigeration:** custom designed per project
  - Multi-Pak – multi-circuit rack refrigeration, one point electrical
  - Horizontal Rack – individual condensers mounted on heavy-angle iron, welded together. Available in galvanized or stainless-steel housing.

## **XI. Refrigeration Packages**

### **a. Standard Package (-E) high side assembly**

- Includes condenser unit with compressor, liquid line filter/drier, fan cycle, sight glass/moisture indicator, pressure controls (high and low), oversized receiver tank, refrigerant charge suitable for up to 50' line run, insulated suction line, PSC fan motors, base valves, weatherproof housing, valve at receiver

### **b. Standard Plus (-EP) Only addition is headmaster in lieu of fan cycle**

### **c. Premium (-P)**

- Medium temp – headmaster in lieu of fan cycle, add suction filter.
- Low temp – headmaster in lieu of fan cycle, add suction filter, suction accumulator, time clock mounted

### **d. Canadian (-C)**

- Medium temp – headmaster in lieu of fan cycle, add adjustable low-pressure control, heated & insulated receiver tank, suction filter, suction accumulator
- Low temp - headmaster in lieu of fan cycle, add adjustable low-pressure control, heated & insulated receiver tank, suction accumulator, mounted time clock, suction filter

All evaporators shall be provided with installed components installed for proper operation and include EC fan motors.

### **e. Kol-Flo: standard low-profile evaporator**

### **f. Center-Flo: low-profile/center-mount evaporator**

### **g. Low-Flo: low-profile/low velocity evaporator**

Kol-Flo, Center-Flo, and Low-Flo are available with the Tru-Dmnd by ArcticFox controller

## XII. Refrigeration Accessories/Options

- a. **Single- or 2-tier condensing unit rack:** used to mount condensing unit assembly.  
Units can be installed separately, stacked, or side-by-side.
- b. **Low ambient kit:** For air-cooled condensing units installed outdoors (to -20°F) where sub-zero ambient temperatures prevail for sustained periods - include crankcase heater, head pressure control, and rainproof housing.  
For below -20°F ambient temperatures, consult factory.
- c. **Drain lines:** Installing contractor shall provide suitable drain lines from all evaporators. Drains shall be trapped outside the walk-in. Freezer drains shall be copper tubing and shall be heated and insulated to prevent freeze-up. All plumbing to be in accordance with local codes. Drain line heater kits available from Kolpak in 6', 12' or 18' lengths.
- d. **Condensate evaporator:** Required if job site does not have a floor drain near the walk-in. An optional electric condensate evaporator may be provided for wall mounting on exterior of the walk-in. 115-60-1 AC continuous service voltage required.
- e. **Tru-Dmnd by ArcticFox:** a defrost controller that takes the place of the digital temperature controls. Tru-Dmnd mounts on evaporator that initiates defrost on need. Includes electric expansion valve (EEV), data logging, and remote mounting capability with CAT-5 cable connectivity. Provided with 1<sup>st</sup> year free access to ArcticFox SmartAccess for Dashboard and remote alarming via e-mail or test message alerts.

## XIII. Testing/Certifications/Approvals

Walk-ins comply with regulatory requirements including:

- Underwriters Laboratory (UL/cUL)
- International Building Code (IBC)
- City of Houston
- City of Los Angeles (LARR)
- Department of Energy (DOE)
- State of Oregon
- Miami Dade County
- City of Los Angeles (LARR)
- U.S. Dept of Agriculture
- National Sanitation Foundation (NSF7)
- California Air Resources Board (CARB)
- Energy Independence and Security Act (EISA)
- International Energy Conservation Code (IECC)
- Significant New Alternatives Policy (SNAP)
- California Code of Regulations Title 20
- ASTM E-84 (frame spread) and C518 (R-Valves)
- Environmental Protectional Agency (EPA)

## **XIV. Warranty**

- a. 10-year panel warranty
- b. 1-year parts and labor warranty on refrigeration
- c. 1-year compressor parts and labor warranty
- d. Optional 5-year compressor warranty (parts only)
- e. Full warranty information available at [www.kolpak.com/Service#Kolpak-Warranty](http://www.kolpak.com/Service#Kolpak-Warranty)

## **XV. Revit Submittal Drawings**

Stamped PE Drawings available, additional charge per walk-in. Contact the factory for additional details

## **XVI. Engineering Calculations**

Stamped PE Drawings available, additional charge per walk-in. Contact the factory for additional details

## **XVII. Installation/Site Conditions/Maintenance**

Installation, maintenance, and cleaning guidelines accompany all panel structures in an Installation/Operation Manual, located in small parts box and located on [www.kolpak.com](http://www.kolpak.com). All necessary working as-built drawings with dimensional details shall be supplied to illustrate exact information of specific panels. Drawings clearly indicate inside and outside dimensions to facilitate “square” layout of regular shaped structures. Panels must be installed on level slab.