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# WALK - IN COOLERS & FREEZERS



**COLDSTREAM**  
PRODUCTS CORP.

# WALK-IN COOLER & FREEZER ROOMS

## STANDARD FEATURES

- Polyurethane foamed in place insulation providing superior insulating efficiency. Thermal conductivity k factor is 0.12 Btu\*ft/h\*ft\*\*F (0.017 W/m\*\*C).
- The exterior and interior surfaces are steel-die formed for strength and good fit. The panels are finished with a baked polyester enamel over zinc coated steel for a finish that is resistant to marring and is easy to clean with a damp cloth.
- Optional finishes are stainless steel, aluminum and galvanized steel. Colours other than white and embossed finishes can also be provided.
- The joints are tongue and groove polyurethane.
- Panels are light in weight for reduced shipping and installation costs.
- The modular construction allows for future expansion any time. The rooms are easy to assemble, dismantle, and reassemble.
- Over 300,000 rooms in use in Canada, U.S.A. and overseas.

## INSULATION

Foamed in place polyurethane with an average density of 2.4 lb./cu. ft. (38 kg/cu. m) and 97% closed cell structure.

### Thermal resistance R (RSI):

R8 per inch

3" thick R24  
RSI 4.22

4" thick R32  
RSI 5.63

### Heat transfer coefficient U:

3" thick - 0.04 Btu/ft\*\*h\*\*F  
- 0.24 W/m\*\*C

4" thick - 0.03 Btu/ft\*\*h\*\*F  
- 0.18 W/m\*\*C

## STANDARD 3" CAMLOCK SIZES

Length / Width					
Nominal		Actual	Nominal		Actual
ft.	ft.in.	mm	ft.	ft.in.	mm
4	3 - 10	1169	31	30 - 8	9350
5	4 - 9.5	1461	32	31 - 7.5	9642
6	5 - 9	1753	33	32 - 7	9934
7	6 - 8.5	2045	34	33 - 6.5	10226
8	7 - 8	2337	35	34 - 6	10518
9	8 - 7.5	2630	36	35 - 5.5	10810
10	9 - 7	2922	37	36 - 5	11103
11	10 - 6.5	3214	38	37 - 5	11395
12	11 - 6	3506	39	38 - 4	11687
13	12 - 5.5	3798	40	39 - 3.5	11979
14	13 - 5	4090	41	40 - 3	12271
15	14 - 4.5	4383	42	41 - 2.5	12563
16	15 - 4	4675	43	42 - 2	12856
17	16 - 3.5	4967	44	43 - 1.5	13148
18	17 - 3	5259	45	44 - 1	13440
19	18 - 2.5	5551	46	46 - 0	14024
20	19 - 2	5843	47	46 - 11.5	14316
21	20 - 1.5	6136	48	47 - 11	14609
22	21 - 1	6428	49	48 - 10.5	14901
23	23 - 0	7012	50	49 - 10	15193
24	23 - 11.5	7304	51	50 - 9.5	15485
25	24 - 11	7596	52	51 - 9	15777
26	25 - 10.5	7889	53	52 - 8.5	16070
27	26 - 10	8181	54	53 - 8	16362
28	27 - 9.5	8473	55	54 - 7.5	16654
29	28 - 9	8765	56	55 - 7	16946
30	29 - 8.5	9057	57	56 - 6.5	17238

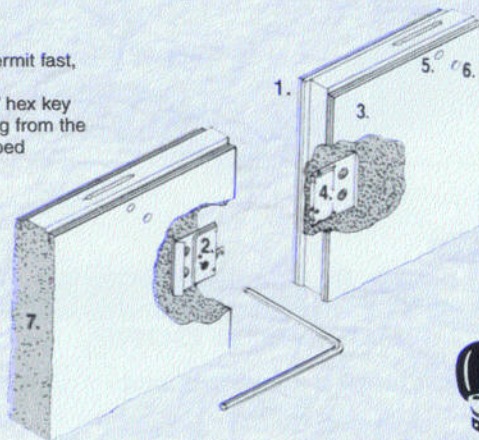
## Height

Nominal Heights	7'	8'	10'
Actual Wall Panel heights	6'-11"	7'-11"	9'-11"
Outside Total Height of Box			
With & Without floor	7'-5"	8'-5"	10'-5"

## CAM-LOCKS

Eccentric locking camclamps permit fast, simple, strong assembly. The clamp is operated by a 1/4" hex key inserted through a small opening from the inside of the room and is equipped with a camlock closure. (3 locks per 7' height panel)

1. Exterior Skin
2. Cam Latch Assembly
3. Interior Skin
4. Cam Strike Assembly
5. Access Hole
6. Plug
7. Urethane Insulation

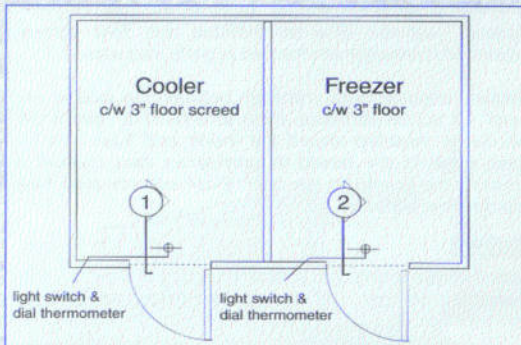


TYPICAL CAM-LOCK DETAIL

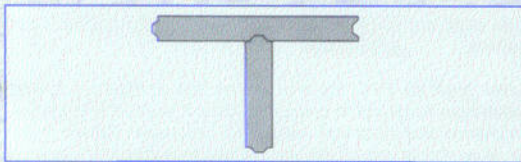


## COMBINATION COOLER / FREEZER

Standard panels are used to provide all sizes of combination cooler-freezer rooms.

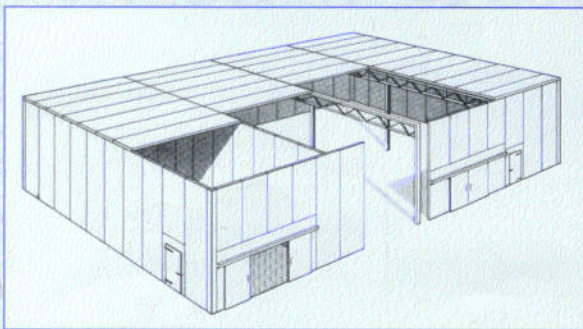


## 3' TEE WALL PANEL



## CUSTOM SIZE ROOMS

In addition to the standard size panels, Coldstream can produce panels to fit any application. Wall panels are available in single lengths up to 28 ft. (8.5 m) and panels may be stacked for wall heights beyond. Ceiling and floor panels are available up to 14 ft. (4.25 m) single lengths and can be joined to cover any area.



## WALK-IN DOORS STANDARD FEATURES

Doors are 100% foamed in place polyurethane for superior insulation. The balloon type PVC gasket is not affected by fats or food acids and contains a fungicide to prevent mildew. The gasket is impervious to moisture and is cleanable with soap and water.

The doors are available in 3" or 4" thickness to match the wall panels.

Doors are available as **infitting** and **overlap** mounted and as left or right hand swing.



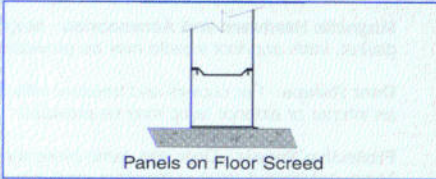
WALK-IN DOORS

## FREEZER DOORS

Freezer doors are equipped with stainless steel clad heater strip 1/8" x 3/4" (3mm x19mm) installed on the outside of the door frame adjacent to the gasket. The heater cover is removable should the heater require service. The heater is prewired into the lamp junction box. Sill heaters are also available to suit any application.

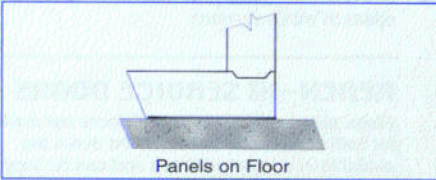
## FLOORS

A variety of floor options are available to suit any application. Coolers operating above 32°F (0°C) no floor is required and the wall is installed on a screed as illustrated.



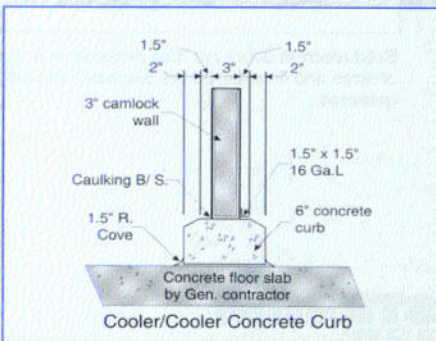
Panels on Floor Screed

For a freezer application where the operating temperature is below 32°F (0°C) then a floor is required. The floor can be installed above grade or below grade depending on the application.



Panels on Floor

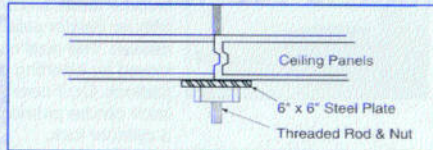
The maximum stationary floor load is 300 lb/sq.ft. (14.5 kPa). If heavy rolling carts are to be used on the floor then steel or aluminum tread plate must be installed over the camlock floor. If motorized pallet jacks or fork lift trucks are used then the floor must be protected with at least 4" (100 mm) of reinforced concrete.



## CEILING

The Coldstream ceiling is manufactured to the same standard of quality and durability as the walls. The ceilings lock to the walls providing an insulated and vapor proof joint

In rooms over 14' (4.25 m) in both length and width it is necessary to use two or more ceiling panels joined end for end and supported at the join. This joining and supporting can be accomplished in any number of ways but the most economical and popular method is illustrated here.



In addition to being suspended the ceiling join can be supported by a beam and columns.

## TOP DROP REFRIGERATION FEATURES

- Top mounted compressor & fan coil gives increased storage capacity in both freezer & cooler.
- Self-contained condensate evaporator eliminates drain lines. (no plumber required)
- Electronic defrost clock provides proper number & length of defrosts.
- All controls are pre-set at factory for proper temperature & pressure settings
- All systems are pre-charged and factory tested to specifications. (no need for refrigeration technician)
- Environmentally friendly CFC free refrigerants conforming to Montreal Protocol
- 1/2 H.P. to 3 H.P. medium & low temperature systems available

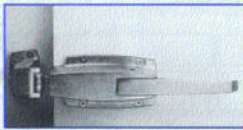
## SHELVING

Shelving can be supplied in 3' and 4' lengths (915 and 1220mm) and widths of 14" or 18" (355 or 455mm). The shelves are heavy galvanized steel and can be painted with a baked white enamel if desired. Meat rails, sausage rails and stainless steel shelving are also available.

## DOOR STANDARD FEATURES



**Self-closing hinges** are brushed chrome with stainless steel bearing support pin and heavy duty self-closing nylon cams.



**Latch and strike** are brush chrome finish and complete with an interior safety release. The door can be locked by inserting a padlock. Or, if desired the latch can be provided with a cylinder lock.



**Dial thermometer** accurately indicates temperature from -30°F to +60°F (-34°C to +15°C). Digital Thermometer available as option.



Each standard door is provided with an incandescent vapor proof lamp on the interior. It is controlled by a switch with a red neon signal light.

## DOOR STANDARD SIZES

WIDTH		HEIGHT	
Imp.	Metric	Imp.	Metric
30"	760 mm	78"	1930 mm
34"	865 mm	84"	2135 mm
52"	1320 mm		
60"	1525 mm		

Other widths and heights are available as special orders

## DOOR OPTIONS

**Door Closers** - Optional door closers or snubbers are available to ensure the door is always positively latched to save energy and prevent frost build-up.

**Magnetic Hardware and Accessories** - Magnetic gasket, latch and foot treadle may be provided.

**Door Ramps** - For coolers and freezers with floors, an interior or exterior ramp may be provided.

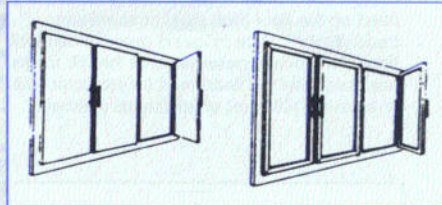
**Protective Panels** - Door and Jamb protectors of heavy galvanized steel or stainless steel may be provided.

**Windows** - Cooler windows 12"x12" (305 x 305 mm) or 18"x24" (455 x 610 mm) and freezer windows 14"x14" (355 x 355 mm) may be provided.

**Meat Track and Trolley Ports** - The track port is stainless steel finish with neoprene seals and opens in either direction.

## REACH-IN SERVICE DOORS

Glass sliding and glass hinged doors are available for both coolers and freezers. The doors are available in a variety of sizes and can be supplied complete with display shelves and lights.



Solid reach-in doors are also available in a variety of sizes and finishes. All are insulated and fully gasketed.



# SPECIFICATIONS

## ARCHITECTURAL / ENGINEERING SECTIONAL POLYURETHANE INSULATED

Prefabricated Walk-in Coolers and Freezers shall consist of factory manufactured floor, wall and ceiling panels properly designed and engineered to meet the highest refrigeration standards and for easy erection to the manufacturer's recommendations. Each walk-in shall have a complete set of installation instructions accompanied by an erection drawing and identification for all panels. Shop drawings will be provided on request.

## PANEL CONSTRUCTION

Wall panels shall consist of interior and exterior 26 gauge zinc coated, die formed steel panels. Finish shall be white baked enamel, or stainless steel where specified. Insulation shall be urethane foamed in place with 3" (4") minimum thickness. The urethane insulation shall securely bond the inner and outer panels and shall have a minimum density of 2.2 lb/cu.ft. (35 kg/cu.m) and a k factor not exceeding 0.12 Btu\*in/h\*ft<sup>2</sup>\*F (0.017 W/m<sup>2</sup>\*C) after aging. All panels shall be manufactured with die formed urethane tongue and groove edges.

Structural wood or metal members between the interior and exterior panels will not be permitted.

All panels shall be equipped with a cam action locking clamp to draw and hold sections tightly together operable from the interior of the walk-in by the use of 1/4" hex key. Access to the locking device shall be through an opening on the interior steel panel. After erection, it shall be sealed with a snap-in type white button. Cams shall be provided on centers not to exceed 48" (1220 mm). In Dairies and Packing Plants exposed walls will require an additional flush Silicone seal for Sanitary reasons.

## CEILING PANELS

Ceiling panel construction shall be as above except the exterior steel panel shall be 26 gauge galvanized steel.

## FLOOR PANELS

Floor panels shall be constructed with 3" or 4" foamed in place urethane insulation with 16 gauge galvanized steel interior, 26 gauge galvanized exterior.

## FLOOR SCREEDS

Floorless walk-ins shall be provided with floor screeds insulated with polyurethane foamed in place insulation.

Structural wood or metal members between the exterior and interior will not be permitted. Floor screeds shall have a 5/8" wide flange mounted toward the inside and flush with the bottom edge of the screed to provide an easy method of anchoring the screed to the floor. Floor screeds shall have rustproof vinyl surfaces.

## DOORS

Doors shall be infitting type or flush equipped with two brushed chrome cam lift type cold storage door hinges operating on nylon bearings.

Latch shall be lever type closing on an adjustable strike with facility for padlocking. Latch shall have a brushed chrome finish.

Inside push rod shall be capable of opening door when door is locked.

Gasket shall be PVC not affected by fats or food acids and containing a fungicide to prevent mildew. It shall be impervious to moisture and cleanable with soap and water. Where inner and outer floors are flush an adjustable wiper gasket shall be provided.

Freezer doors shall be equipped with a 22 ohm resistance wire anti-condensation heater in a 1/8" x 3/4" aluminum channel adjacent to the door gasket. The wire shall be easily accessible for replacement if required.

Where freezers are installed on floors by others a threshold heater assembly complete with stainless steel threshold plate is available.



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