ICC ENERGY
COOL AIR, COOL LIFE

PRESENTATION

Modular Cold Room Storage Solutions



Reefer cold rooms, support systems, unit specifications and installation

ICC Energy Inc. · www.iccenergy.ca
mnerval@nervalcorp.com · September 2026

OVERVIEW

Cold storage that installs in days, not months

Three cold room sizes

10 ft, 20 ft and 40 ft reefer cold rooms — as single units or combined into larger multi-cold room rooms.

Fresh and frozen

Set-point range from −30 °C to +30 °C with a high-efficiency scroll-compressor reefer unit.

Three support systems

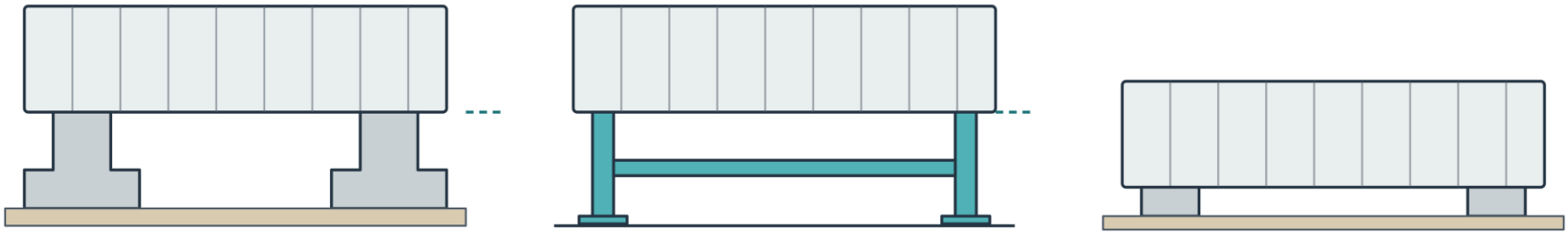
Elevated concrete or elevated steel for loading-dock height, or ground-level concrete supports.

Sealed modular joints

Combined rooms are joined on site with sealing strips, corner connectors, PE blocks and aluminum cover plates.

SUPPORT SYSTEMS

Three ways to set the cold room



1 · Elevated concrete

- Precast inverted-T footings raise the floor to loading-dock height. Permanent and robust.
- Fast to set, relocatable.
- Leveling screw jacks.

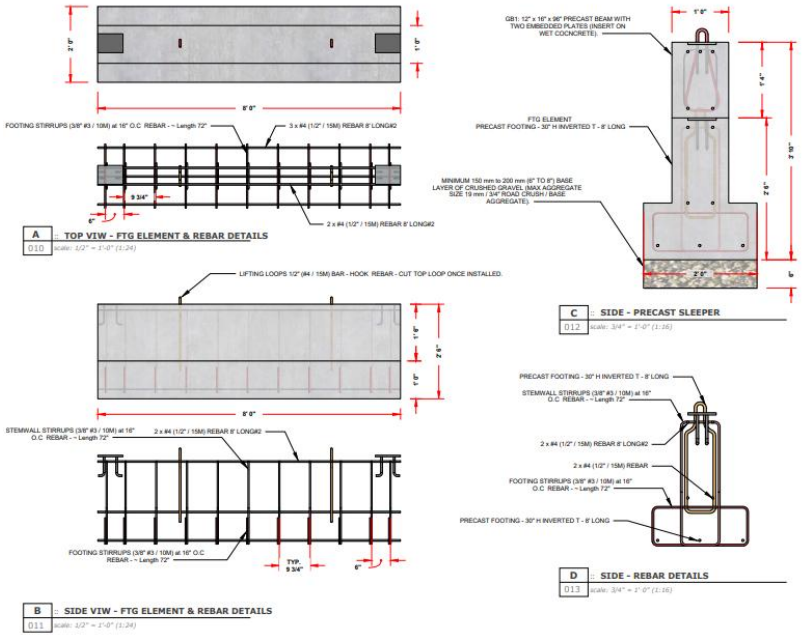
2 · Elevated steel

- Welded HSS steel structure per unit.
- locked at the ISO corner castings.
- Fast to set, relocatable.
- Leveling screw jacks.

3 · Ground concrete

- Precast grade beams and sleepers on compacted gravel for at-grade access.
- Fast to set, relocatable.
- Leveling screw jacks.

Elevated concrete support

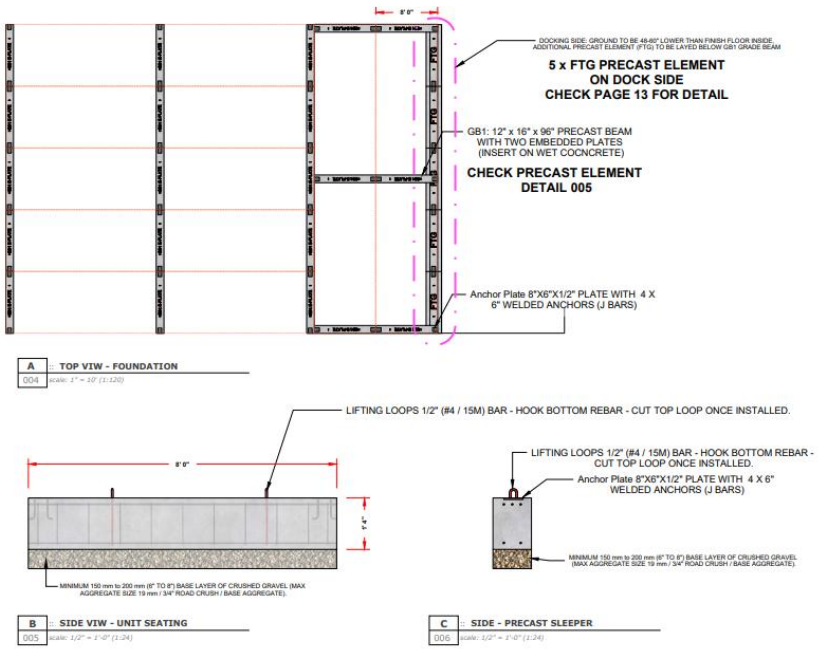


Key details

- Precast footing: 30” inverted-T, 8’ long
- GB1 precast beam 12” × 16” × 96” with two embedded plates
- #4 (15M) rebar with #3 (10M) stirrups at 16” o.c.
- Lifting loops — top loop cut once installed
- Base: 150–200 mm (6–8”) crushed gravel, 19 mm max aggregate.
- Fast to set, relocatable.
- Leveling screw jacks.

OPTION 3 · AT GRADE

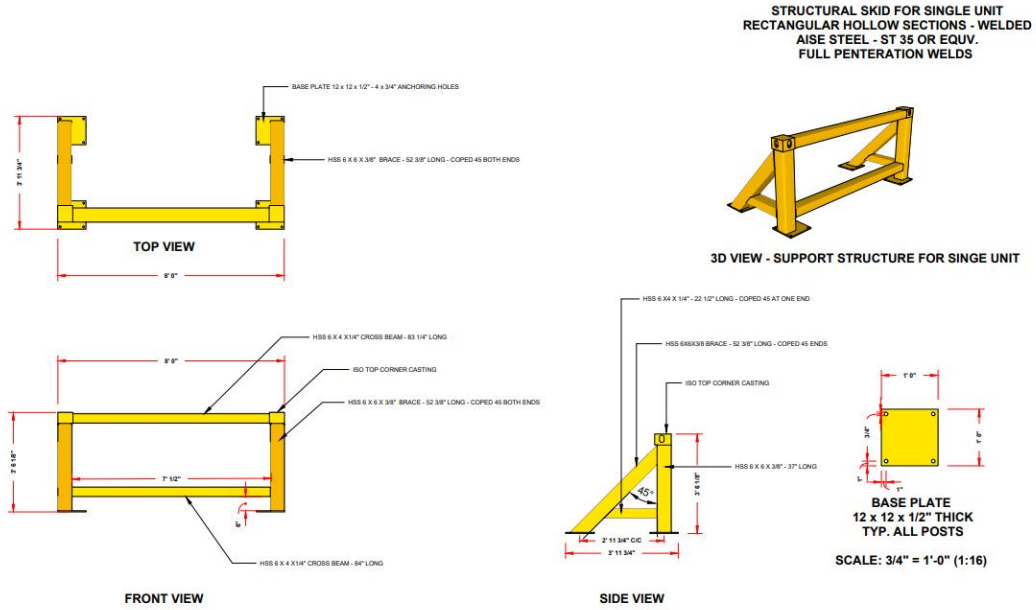
Ground concrete support



Key details

- GB1 precast grade beams 12″ × 16″ × 96″
- Anchor plates 8″ × 6″ × 1/2″ with 4 × 6″ welded J-bar anchors
- Precast sleepers on crushed-gravel base.
- Dock side: add 5 FTG precast elements where grade is 48–60″ below floor
- Lifting loops for crane placement.
- Fast to set, relocatable.
- Leveling screw jacks.

Elevated steel support



Key details

- Welded skid per unit, 8’ wide × approx. 3’-6” high
- HSS 6×6×3/8” posts and 45° braces
- HSS 6×4×1/4” cross beams
- Leveling jack
- ISO top corner castings lock the container
- Base plates 12×12×1/2” with 4 × 3/4” anchor holes
- Steel ST 35 or equivalent; full-penetration welds
- Easy to set-up & relocate

CONFIGURATIONS

From a single unit to a multi-unit cold rooms

ELEVATED · LOADING DOCK

Multi-unit cold room with truck docks



Open view: combined cold room with drive-up dock access.
1600 sqft. Mid-temp / low-temp cold room.
Led lighting can be added as required.



Rear view: Reefer units along the service side.
640 sqft. Holding area.
Shipping office can be added in holding area.

ELEVATED · LOADING DOCK

Finished, sealed and ready to load



Sealed roof joints across five combined cold room.



Dock-side view with two truck bays.
Exterior led lighting is optional.

GROUND CONCRETE SUPPORT

Single units in three sizes



10 ft reefer

Compact storage for small sites and retail.



20 ft reefer

Mid-size storage for restaurants and distributors.

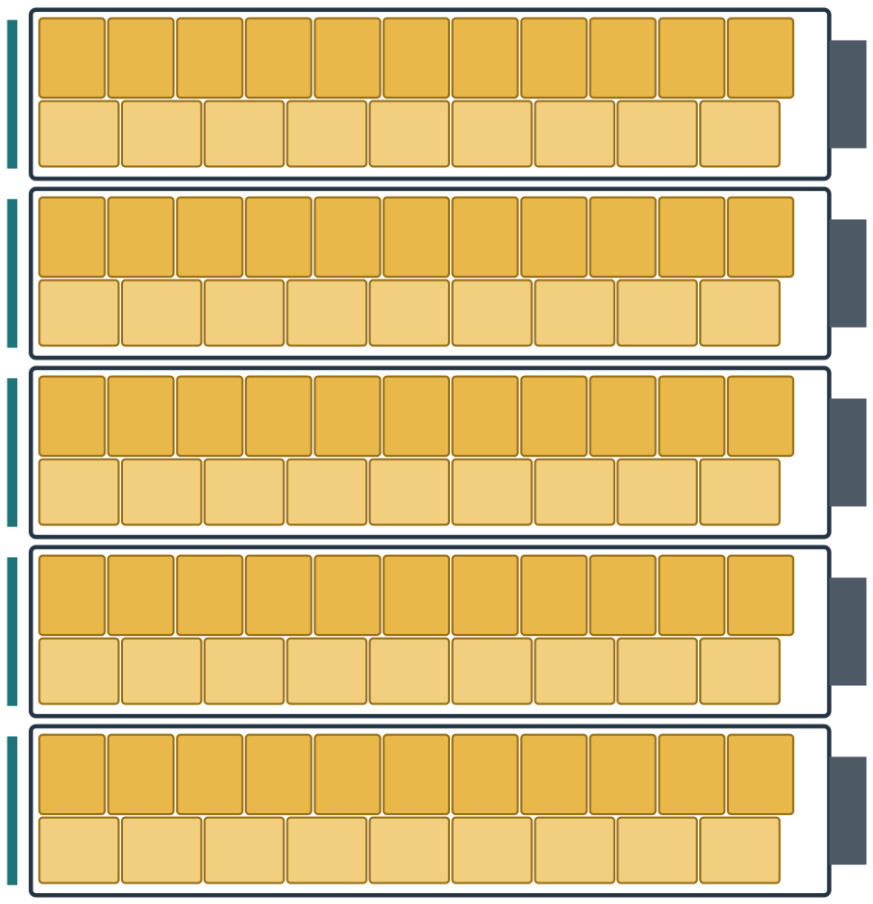


40 ft reefer

Maximum capacity for warehouses and growers.

STORAGE CAPACITY

How many pallets fit in five 40ft cold storage



20 pallets per container

100

standard pallets (48” × 40”) — 20 per cold room

115

Euro pallets (1200 × 800 mm) — 23 per cold room.

Single tier, floor-loaded. Double-stacking, where product height allows, can increase capacity.

DOOR OPTIONS

Swing or sliding cold room doors



Swing door

- Hinged, insulated door with heavy-duty 3 hinges, handle & self closing.
- Dimension: W48”x H78” for pallet.
- Steel 36”x 84” man door.



Sliding door

- Insulated panel on a top-mounted track.
- No swing area — saves floor and dock space.
- Wide opening for pallet jacks and forklifts.
- Dimension: W72”x H96”

REEFER UNIT

Unit specifications

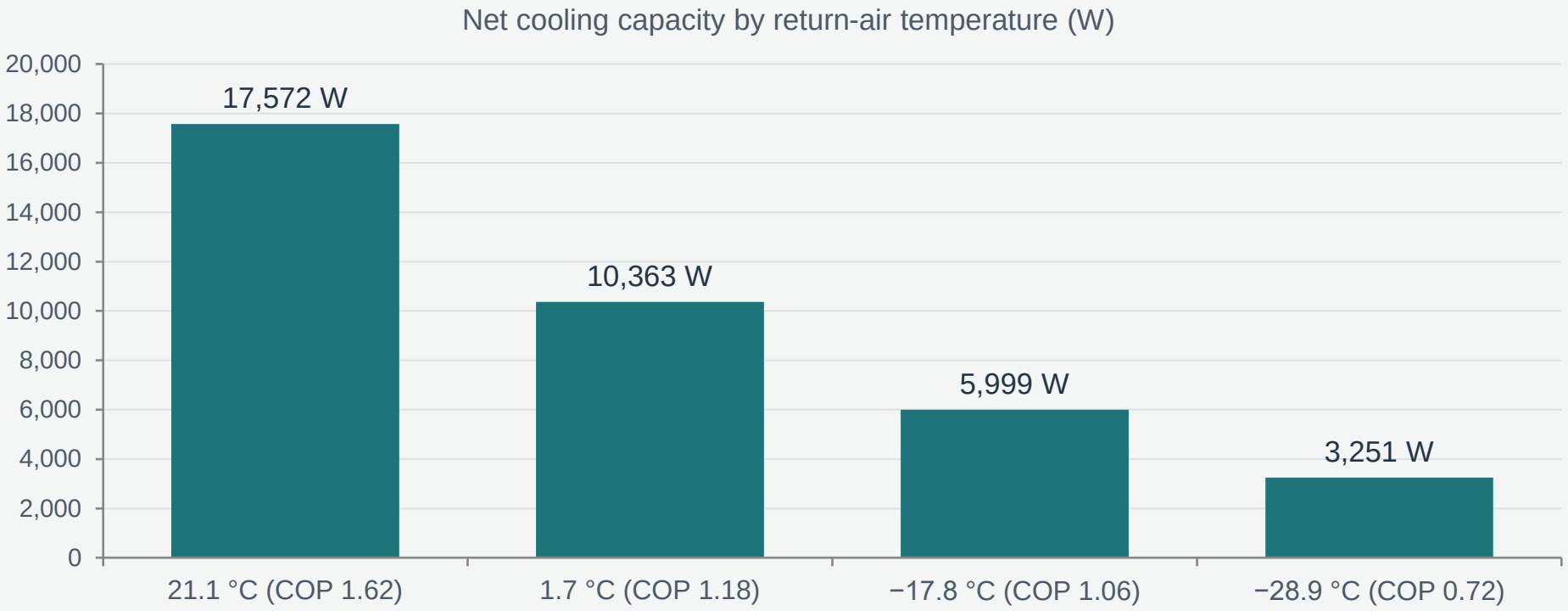
Specification	Value
Model	Thermo King CFF — Chilled, Fresh & Frozen
Set-point range	−30 °C to +30 °C (−22 °F to +86 °F)
Refrigerant	R-134a (R-513A or R-1234yf as drop-in)
Compressor	Scroll, ZMD27 (larger displacement)
Power supply	460 V / 60 Hz / 3-phase
Net heating capacity	5,250 W (17,914 BTU/hr)
Unit weight	360 kg (794 lb)

Built on proven design

- Same proven controller, condenser, evaporator, motors and fans
- Re-designed pressure switches, expansion valves and receiver tank
- Aluminized coating for harsh environments
- Software tuned for temperature accuracy and reliability

REEFER UNIT

Net cooling capacity at 37.8 °C ambient



60,011

BTU/hr net cooling at 21.1 °C (70 °F) return air

Air-cooled condensing, full cool, 460 V / 60 Hz / 3-phase. Higher efficiency at partial load, especially in chilled mode.

REEFER UNIT

Lower energy use in every temperature range

7%

less annual energy than the previous-generation Magnum Plus unit

Set-point range	Share of life	Magnum+ kWh	CFF kWh	Change
+14 to +30 °C	12%	254	247	**–3%**
+6 to +13 °C	32%	987	896	**–9%**
–10 to +5 °C	33%	1,484	1,407	**–5%**
–11 to –20 °C	18%	678	613	**–10%**
–21 to –40 °C	5%	289	271	**–6%**
Total	**100%**	**3,692**	**3,434**	**–7%**

Basis: 4 trips per year of 30 days each, 25 °C average ambient, UA = 42 W/K, steady state, no pull-down.

INSTALLATION

Combined storage: nine steps on site

1 Positioning plates

Corner plates and side-beam backing plates set on the base

2 Sealing strips

Outer 18 m × 2 and inner 12 m × 2 pressed into the gaps

3 Corner connectors

S4H-CA-0225A-01 locks top and bottom corner fittings

4 Bottom PE blocks

PE blocks between containers, grey glue on seams

5 Aluminum cover plate

BL-T02 (11,245 mm) fixed with ST4.8×25 screws

6 Top panels & foam

Foam 15×130 and aluminum panel (11,825 mm)

7 PVC profile — horizontal

2,560 mm PVC fixed with ST4.8×20 screws

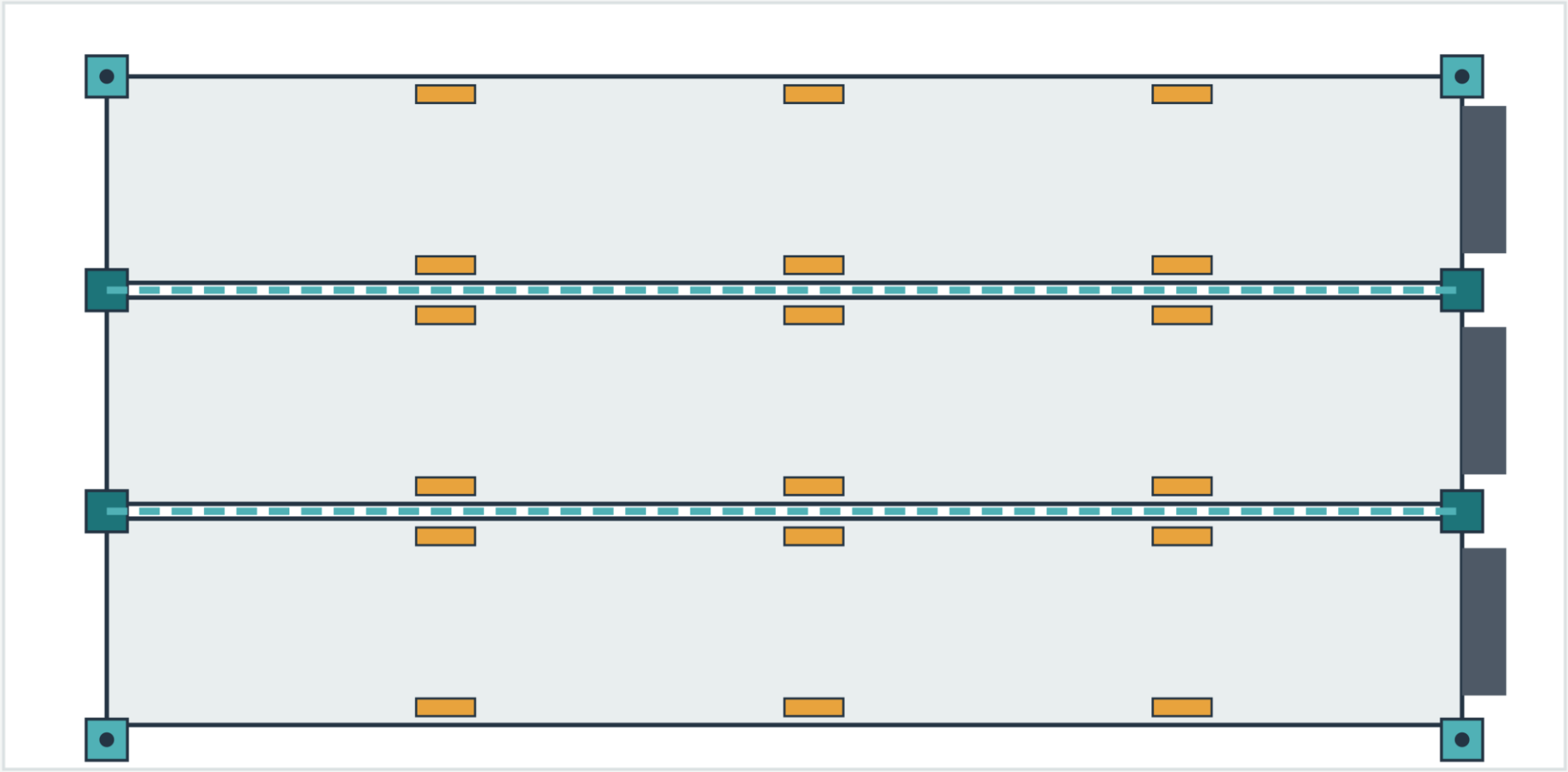
8 PVC profile — vertical

2,365 mm PVC fixed with ST4.8×20 screws

9 Glue, clean, inspect

Seal joints, test reefer units and circuits

Plan view: positioning the cold room



Side corner positioning plate (with hole)

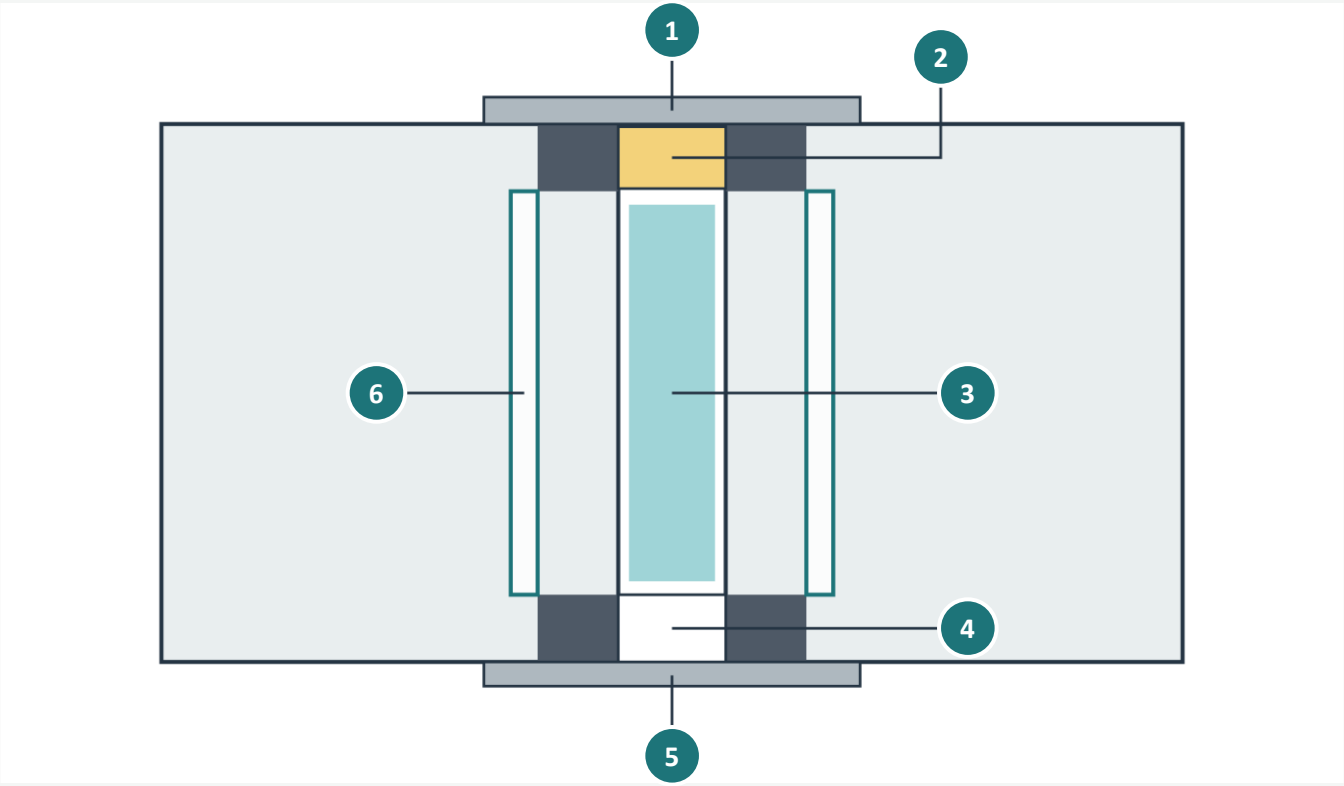
Middle corner positioning plate

Side-beam backing plate

Reefer unit end

Seam: sealing strips + connectors

Section: sealing the joint between the cold rooms



1. Aluminum top panel, 11,825 mm
2. Foam block 15 × 130
3. Sealing strips (outer 18 m, inner 12 m)
4. Bottom PE block + grey glue
5. Aluminum cover plate BL-T02, ST4.8×25 screws
6. PVC profiles, ST4.8×20 screws

SCOPE

Exclusions

The following items are **not included** in the standard ICC Energy quotation and are priced separately or arranged by the client.

- On site welding
- Electrical hook-up
- Delivery
- Crane
- Setup
- OLA

Ask your ICC representative for a quote on any excluded item.

ICC ENERGY™

COOL AIR, COOL LIFE

Let's plan your cold room

www.iccenergy.ca · mnerval@nervalcorp.com