

MECHANICALLY COOLED INDUSTRIAL FREEZERS

Russells CBM series cryogenic freezers are capable of achieving temperatures of -120°F (-85°C) and can repeatedly withstand this extreme temperature. Russells has incorporated special construction techniques in addition to welded structural steel framing and heavy duty welded stainless steel liners.

If a standard product design does not fit your requirements, Russells engineers will work with you to design a freezer to meet your exact needs, thus maximizing your throughput.

Let Russells give you the competitive edge!



TEMPERATURE RANGE: AMBIENT TO -120°F (-85°C)

model	cubic feet	H.P.	lid style	Dimensions (in) W x D x H	cooling capacity*	voltage	shipping weight
CBM15	15	3 X 3	top opening	int.: 30x30x30 ext.: 90x52x43	100 lbs in 60 min	230 / 3 / 60 460 / 3 / 60	2,000 lbs
CBM25	25	6 X 6	top opening	int.: 48x30x30 ext.: 115x55x48	500 lbs in 90 min	230 / 3 / 60 460 / 3 / 60	2,300 lbs
CBM45	45	6 X 6 (7 ½ X 7 ½)	top opening	int.: 54x40x36 ext.: 117x65x56	500 lbs in 90 min 500 lbs in 60 min	230 / 3 / 60 460 / 3 / 60	3,600 lbs
CBM60	60	7 ½ X 7 ½	top opening	int.: 60x48x36 ext.: 114x83x53	1,000 lbs in 120 min	230 / 3 / 60 460 / 3 / 60	4,400 lbs
CBMF60	60	15 X 15	front opening	int.: 42x55x46 ext.: 88x69x170	1,000 lbs in 90 min	230 / 3 / 60 460 / 3 / 60	5,000 lbs

*Standard models are water cooled (air cooled models are available)

*Notes 1. Cooling capacity is based on using mechanical cooling and forced air convection for rapid cooling.

2. Prechilled freezers have sufficient cooling capacity to return the air temperature to -120°F (-85°C) in the stated times with the steel loads shown (load at +75°F (+24°C)).

3. The production capacity of the freezer may vary with the size, shape, of load geometry, and temperature of the load when entering the freezer. Varying ambient temperatures may also affect the capacity.

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Standard Features:

- Continuous Tig welded type 304 stainless steel liner is vapor tight. Standard freezer floors are capable of supporting 300 PSF (or higher) of uniform static load.
- Insulation is high density, non-settling, and non-hygroscopic.
- Pressure equalization vents.
- Freezer workspace drain plumbed to freezer exterior FPT coupling.
- Welded structural frame with removable access panels.
- Base of freezer is designed for fork lift handling, (in most cases).
- Gas shock assisted lift for lid, with toggle latch on 15 and 25 cu. Ft. models.
- Air/Hydraulic lift lid mechanism, with safety system on 45 and 60 cu. ft. models.
- Special neoprene gaskets.
- Heated mullion to eliminate frosting around the lid perimeter.
- Durable blue enamel finishes (custom colors available).

Cooling:

- Copper tube / aluminum fin cooling coil.
- Water cooled condenser (air cooled available).
- Dual high / low pressure limit switches.
- Inherent compressor overload(s) protection.
- Refrigeration system pressure gauges.
- Air circulation by propeller type fan(s), or heavy duty reverse inclined aluminum blower wheel(s), both types with externally mounted circulator motor(s).
- Hermetic compressors, (semi-hermetic available).

Controls:

- Temperature control provided by a microprocessor based controller.
- Programmable controller with profile(s) ramping capability available.

Electrical:

- All Wiring meets N.E.C. standards.
- Systems branch circuits individually fused.
- 115 volt control circuits.
- System function switches and indicating lights.
- All wiring color coded and labeled.
- High temperature fail safe.

Optional Accessories:

- Electric heat to 350°F (176°C).
- Recorders and or, data loggers.
- Cycle timer with beacon
- Load temperature monitor.
- Access ports.
- Running time meter.
- LN₂ Assist.
- Air lifted lids on 15 and 25 cubic foot models.
- Electric defrost.
- Compressed air conditioning unit.
- Main power disconnect switch, with tag-out lock-out option.
- Casters.
- Conveyor systems.
- Industrial electrical and control systems per NFPA 79.

Note: Certain accessories may not available on all models. Please contact a Russells Application Engineer for assistance.