

FARRAR® CYCLONE™

A PURPOSE-BUILT FREEZE/STORE CHAMBER FOR PRE-CLINICAL TO PRODUCTION-SCALE NEEDS



FARRAR® CYCLONE™ is a high performance, purpose-built, freeze/store chamber that uses forced air convection to deliver the powerful cooling performance of a chest freezer with the convenience of an upright.

By combining forced-air convection, natural hydrocarbon refrigerants, and innovative refrigeration engineering, CYCLONE provides unprecedented pull-down, door-opening recovery, and temperature uniformity when compared to conventional cold wall freezers.

CYCLONE features a self-contained, quick-change refrigeration system that can be swapped out at point-of-use without welding, brazing, or cutting for enhanced serviceability. Heat rejection on top of the unit helps eliminate clearance requirements, increasing density without impacting performance.

KEY FEATURES

- Flexible temperature set point (-20°C to -80°C) and tight uniformity (+/-3.0°C across the entire temperature band)
- Powerful performance and chest freezer-like temperature recovery with the convenience of an upright
- Near zero GWP refrigerants and ultra-low energy consumption to support sustainability goals without sacrificing performance or flexibility
- Maximum storage for the footprint
- Quick-change refrigeration system enables quick swap with minimal impact on operations
- Integration-ready with BMS/BAS systems and monitoring programs via Modbus TCP/IP and BACnet IP

ENGINEERED FOR PHARMA OPERATIONS

- Fast temperature recovery from door openings
- Sustainable performance
- Flexible storage configurations
- Unmatched uniformity
- Designed for freezing and storing bulk and finished pharma materials in a single unit



CUSTOMER BENEFITS

- Nearly unrestricted access to contents with fast door recovery
- Extremely tight uniformity allows full utilization of chamber at all set points
- Wide temperature set point range for process flexibility and can replace multiple pieces of specialized cold storage equipment
- Minimal down time when servicing with quick-change, packaged refrigeration system
- Purpose built for freezing and storage operations with 3x freezing capacity over standard ULTs
- Maximum storage volume for bags, bottles, and boxes
- Integrated system status interfaces with most BAS/monitoring solutions
- Automatic evaporator defrost helps ensure system level cooling capacity remains at peak performance
- Powered by near zero GWP refrigerants that are electronically metered to maximize performance, reduce energy consumption and boost sustainability

APPLICATION AND ELECTRICAL REQUIREMENTS

Application	Freezing & Storage, Frequent Access Storage, Bulk Drug Storage, CGMP Cold Storage Operations, Biobanking
Chamber Volume	934 L (33 cu. ft.), 630 2" Boxes
Temperature Range	-20°C to -80°C
Electrical	Global 220-240 VAC, 50/60Hz
Ambient Operating Temperature	10°C to 32°C

PERFORMANCE DATA

Uniformity Air Temperature	+/-3.0°C – Across All Temperature Bands (+4°C/-1°C at -80°C during defrost cycle)
Temperature Control	Adjustable in 1°C increments
Warranty	North America and Direct - 2 Years Parts and Labor
	Outside North America and Distribution - 2 Years Parts Only
Energy Consumption	0.35 kWh/day/cubic ft.

CONTROLLER

Display	12" (304mm) touchscreen
Communication Protocol	Modbus TCP/IP and BACnet IP
Alarms	High/low temperature, door ajar, power failure, remote alarm contacts
External Communications	Dry Contacts Standard (C, NO, NC)
	Data Stream-Modbus TCP/IP and BACnet IP

STORAGE CAPACITY DIMENSIONS

Total Interior Volume	934 L (33 cu. ft.)
Interior Dimensions	749.3mm x 965.2mm x 1295.4mm (29.5" x 38" x 51")
Exterior Dimensions	1187.5mm x 1168.4mm x 1968.5mm (46.75" x 46" x 77.5")
Unit Weight	950 lbs. / 430.91 kg estimated
Shipping Weight	1,110 lbs. / 566.99 kg estimated

Note: Trane Technologies has a policy of continuous product and product data improvement and reserves the right to change design and specifications without notice.

Life Science Solutions

A business unit of Trane Technologies

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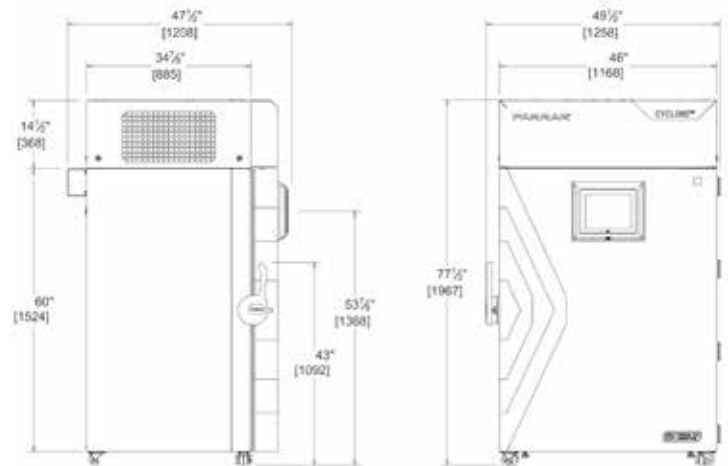
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REFRIGERATION SYSTEM

Evaporator Type	Forced-Air
Condenser Cooling	Air
Metering Device	Electronic
High Stage/Low Stage Refrigerant	R-290 / R-170

ORDERING INFORMATION

Model	CYCLONE 900
Description	Air-Cooled, 934L, 3 Inner Doors, Includes 3 Shelves
Voltage	220-240 VAC, 50/60Hz
Amps/Breaker	1 x 5A / 15A
Additional Shelves	Up to 9 additional shelves available (Part #: 4090136-1, Qty. 1 Shelf)
Rack Options 2" Boxes	≤ 18 side access racks (3 rows of 6) Each rack holds 35 boxes (7H x 5D) (Part #: 6700768)



ADDITIONAL SERVICES OPTIONS

- White Glove Delivery and Install
- Validation IQ/OQ and Temperature Mapping
- Service Agreements and Maintenance Contracts Available