Environmental Specialties
An EMCOR Company

ES PowerCore ULT

Ultra-Low Temperature Blast Freezer Storage System

Where Capacity Meets Performance.

The ES PowerCore ULT Blast Freezer delivers rapid cooling and dependable ultra-low temperature performance for pharmaceutical, biotechnology, and life science applications, helping protect valuable temperature-sensitive materials.

Designed for high-volume storage environments, it combines large-capacity storage, intelligent controls, OverShield® by Predictive Monitor®, and a modular design to support efficient operations and long-term reliability.



-40°C to -70°C TEMPERATURE RANGE

530 ft³ STORAGE CAPACITY

+ / - 3°C UNIFORMITY

ALLEN-BRADLEY COMPACTLOGIX CONTROLS

FACTORY TESTED

WHY ES POWERCORE ULT?

RELIABILITY WITH REDUNDANT COOLING

A & B systems provide enhanced protection for critical inventory.

MODULAR & SCALABLE

Modular platform allows future expansion and replication to meet growing needs.

LOW FROST OPERATION

Optional dry-air injection minimizes frost buildup and preserves usability.

FAST RECOVERY PERFORMANCE

Designed for frequent access, pre-staging, and storage environments.

FACTORY BUILT & TESTED

Delivered as a complete solution with factory acceptance testing for quality assurance.

SERVICE-FRIENDLY DESIGN

Critical components are accessible outside of the storage environment.

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919-829-9300

eschambers.com

PRODUCT SPECIFICATIONS

Temperature Range (Standard)	-40°C to -70°C
Temperature Uniformity (Volumetric)	±3°C
Refrigerants (High and Low Stage)	R-744 (CO2) & R-473A
Cooling / Airflow Method	Forced Air / Blast
Redundancy (Mechanical)	100% - A/Primary & B/Backup
OD (W x D x H)	17’ x 5’ -4” x 12’- 4”
ID (W x D x H)	16’ x 4’ -4” x 8’
Storage Capacity	530 ft^3
Weight	4,500 lbs
Ambient Conditions	65°F to 90°F, <60% RH
Electrical Utilities Required (Per System)	460 V / 3 PH / 50 A
Dry Air Utility (Optional)	2 CFM @ -120°F dewpoint min.
Cooling Water Required (Standard)	2 GPM @ 42°F, 6 GPM @ 85°F
Air Cooled Heat Rejection (Optional) (Per System)	31 MBH
Controls & User Interface	Allen-Bradley CompactLogix, PLC & 10” Touchscreen
Predictive Analytics & Diagnostics	OverShield by Predictive Monitor

ES POWERCORE ULT KEY FEATURES

- **Fast Pulldown for Door Openings & Pre-Staging**
- **Large Storage for Large Applications**
- **Low GWP Refrigerant**
- **Efficient Cooling Performance**
- **24/7 Visibility with OverShield by Predictive Monitor**
- **100% Refrigeration Redundancy**
- **Low Frost Operation**
- **Suitable for Trolleys & Pallets**
- **Factory Built & Tested**

BUILT FOR CRITICAL APPLICATIONS



Biobanking



Cell & Gene Therapy



Pharmaceutical Manufacturing



Research Laboratories



Clinical Trial Storage

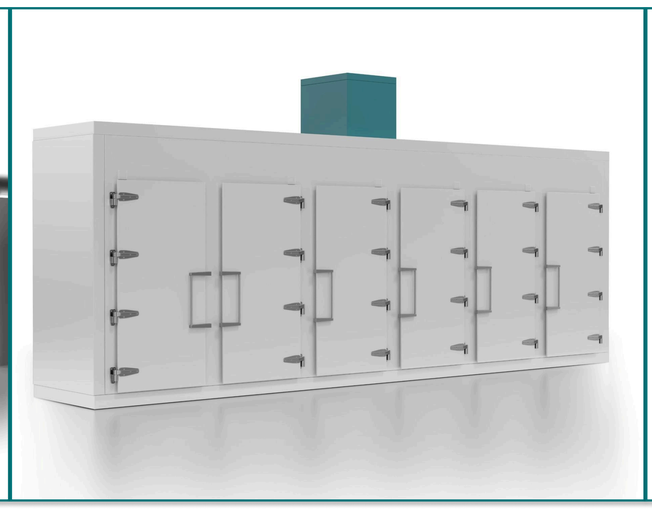


Advanced Material Storage

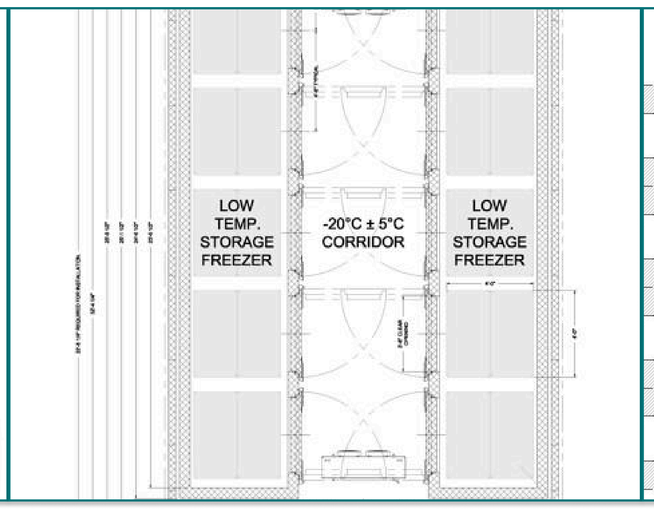
ULT PRODUCT FAMILY



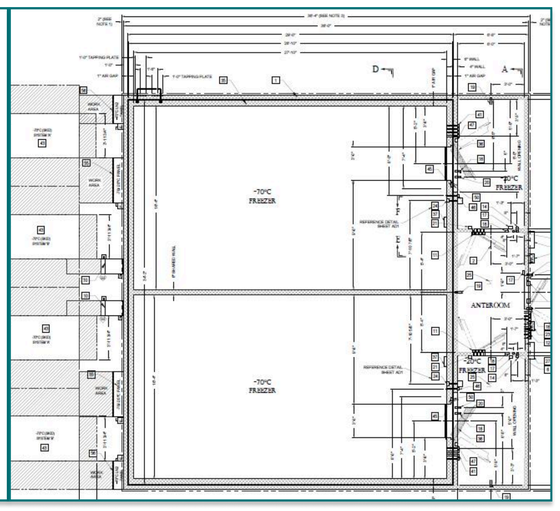
ES MULTICORE ULT



ES HERDMAN ULT



ULTRA-LOW SUITES



-70°C/-80°C OPEN ROOM

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