

CONTROLLED CABINETS

Series 5538

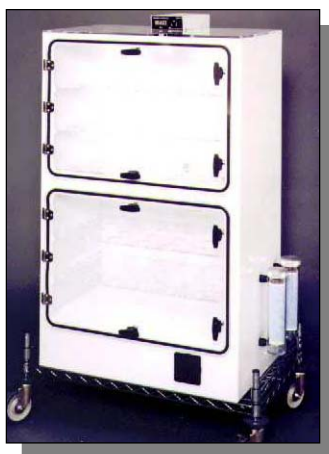
Series 5538 are high quality, custom acrylic storage cabinets up to 125 ft³ that can be configured as single or multi-door DRY NITROGEN STORAGE CABINETS or CONTROLLED HUMIDITY and/or TEMPERATURE ENVIRONMENTS. Use for storage and conditioning of raw material or product in automotive, aerospace, electronic, electrostatic, biomedical, pharmaceutical, DOD and other applications.

Features:

- Up to 125 ft³ (3539 l)
- Single or multi-door access
- PS30 welded seams
- 3/8" (9mm) doors with 1/2-turn latches
- 3/8" (9mm) clear and white acrylic fabrication
- Available humidity & temperature control
- Optional static dissipative acrylic
- Static dissipative acrylic panels & shelves mechanically bonded to ground
- Optional cart with ESD casters



NOTE: All 5538 Series Chambers are custom configurations.



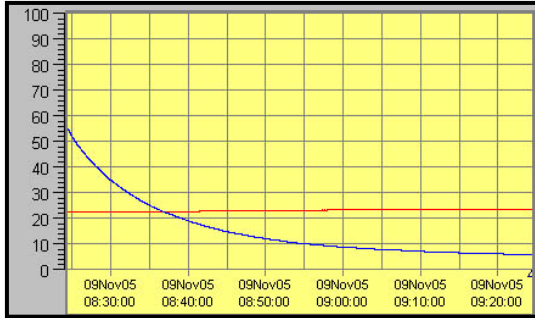
electro-tech systems, inc.

www.electrotechsystems.com

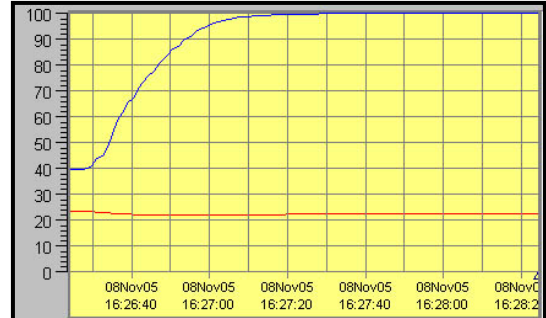
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Performance Characteristics:

The ability of a storage cabinet to reach and then hold a given humidity level is a function of cabinet design (size, shelves and doors), frequency of access, temperature, operating systems and controllers used. The following charts show the time typically required to decrease and increase humidity in a 13 ft³ enclosure (Blue = RH, Red = T °C) using an ETS humidity control system with CALCOMMS software.



Rate of humidity decrease



Rate of humidity increase

Available Humidity/Temperature Control Packages:

Series 5538 Storage Cabinets may be ordered as a freestanding enclosure, equipped with customer selected controllers and operating systems or with one of the following configurations.

- Dual purge N₂ gas valve with or without control
- Single point (5% RH, N₂, etc.) controlled low humidity system
- Adjustable dehumidification system (desiccant/pump or gas valve)
- Adjustable ultrasonic humidification system
- Microprocessor humidity control systems (optional software package)

Refer to ETS Series 5000, 5400 and 5500 brochures for additional controller, operating systems and chamber information.

Specifications:

Material:

3/8" (9mm) clear & white acrylic
3/8" ESD Acrylic: R_s = 10⁶ - 10⁹ Ω

Construction:

Acrylic: PS30 welded seams
ESD Acrylic: solvent cement seams
all panels bonded to GND

RTG: <1x10⁹ Ω

Doors: 3/8" (12mm) clear acrylic, 1/2-turn latch(es)

Seal: 1/4" (6mm) Poron, non-setting gasket

Storage Range (Function of operating systems):

Humidity: <5→80%

Temperature: 68–86°F (20-30 °C)

Fans (As required):

32 or 110 cfm (900 or 2700 l/min) ea.
(specify 115 or 230 VAC)

Access Ports: (As required)

1/4" (6mm) hose barbs
1/4" (6mm) quick disconnects
1" (25.4mm) hose barbs
3/8" & 1/2" NPT compression fittings
1 1/2" (31.4mm) cable pass-through

Dimensions: (Max)

47"x47"x119" (120x120x302 cm)

Weight: Determined by cabinet size

Warranty: One (1) year

Specifications subject to change without notice

Custom Chamber Design Form:

Use the following form to create a custom chamber specification. Provide a sketch if necessary. **Note:** Glove and access ports, fans, doors, power outlets and operating systems utilize a portion of the workspace. It should be taken into account when specifying size and configuration.

All custom chambers will be assigned a Drawing **5500-8xxx** Number. Drawings must be approved prior to fabrication.

Chamber:

Material: Standard Acrylic _____ ESD Acrylic (see below *) _____ Other _____

External Dimensions: Length _____ Width _____ Height _____

No Glove Ports _____ 8" Glove Ports _____ 6" Glove Ports _____ (For small chambers only)

Port Options: Accordion Sleeves w/Replaceable Hands _____ Hypalon _____ Iris Port (8" only, >20%RH _____ Other _____

Door(s)*** Qty _____ Size of Opening _____ Location(s) _____

Shelves ___ Quantity ___ Spacing ___ Type: Acrylic ___ Wire ___ Stackable wire frame, 18"W x 6"D x 2.5"H) Qty: _____

Chamber support: Floor _____ Table _____ Cart _____ Cart required? _____

* ESD Acrylic is *significantly* more expensive than standard material. It is recommended that this material be used only when necessary for the intended application.

**2" of material normally required around door openings for support. Access door should be at least 2" larger than opening for gasket and latch. Alternatives to doors include removable side panel or lift-off-from base designs.

Control Systems:

Humidity Control Only: _____ Temperature Control Only: _____ Both Hum & Temp: _____

Other Controlled Parameter (O₂, Pressure, etc.): _____

Operational Range: Humidity: _____%; Temperature: _____ °F (°C)

List the highest Humidity/Temp combination needed: _____

List the lowest Humidity/Temp combination needed: _____

(Examples: 10-95% RH @ 100°F, 50% RH @ 72°F, 80% RH @ 50°C, 20% RH @ 5-50°C).

Operating Systems (Check all that are required):

Humidification: _____ Dehumidification: _____ Heating: _____ Cooling: _____

NOTE: Several choices are available for dehumidification (dry gas, desiccant, molecular sieve, house air) and cooling (liquefied gas, refrigeration, thermoelectric). These vary greatly in cost. ETS will quote the most appropriate system based on customer input. Heating (resistive) and humidification (ultrasonic) do not require selection by the end user.

Computer Interface (Includes software, communication boards, cables and interface):

Required: _____ Not Required: _____

Misc:

Fluorescent Lighting: _____ AC Outlet: _____ Cable Pass-through: _____ Drain: _____

Availability of: Dry Nitrogen: _____ Liquid Nitrogen: _____ Dry House Air: _____ Liquid CO₂: _____