

ARCHIVAL STORAGE ROOMS

Darwin Chambers Company's NFPA, GSA, and NARA Directive 1571-compliant Archival Storage Chambers are engineered to provide maximum value, efficiency and conformance with all applicable standards and codes. Archival chambers provide environmental controls for storing records and materials (including paper documents and items with high fibrous content, various films, microfiche, and photographic materials) that require permanent protection for storage and preservation. Our high-performance systems are offered with nearly unlimited operational fail safes, including full system and control redundancy. In addition to keyed entry, numerous security options are also available, due to the often irreplaceable nature of the materials to be stored and preserved in this type of chamber. Our chambers are engineered to accommodate the loads and unique requirements of the specific materials to be stored, with industry-leading control and uniformity of both temperature and humidity variables. Design considerations include both functional and operational efficiencies and reliability, the safety and comfort of operating personnel, and the ongoing protection of the archived materials from fire, water, light degradation, pests, mold and natural contaminants, pollutants and other man-made threats.

Benefits

- Desired set-points can be achieved depending on the nature of the preserved media.
- Books, papers, and paintings: 10°C (50°F), 30% RH
- Film, photographs, microfilm: 1.7°C (35°F), 35% RH
- Allows exceptional temperature control anywhere within the range of 0°C to 21°C (32°F to 70°F)
- The standard chambers do not include humidification but it can be added as an option for unusual applications.
- We incorporate an innovative dryer control system that maximizes performance while lowering energy requirements and increasing reliability
- In contrast to existing control systems that cycle dehumidification systems on and off, decreasing life span and causing erratic control, the Darwin solution accurately modulates the dryer output, maximizing reliability and producing tight control
- Supplied with LED lights which emit significantly more light per unit of input energy than fluorescent bulbs. They also produce less radiant heat, and with less heat used, the cooling requirement for the controlled environment is diminished and the total energy used by an LED-equipped chamber is substantially reduced.



Standard Features

- 4" to 6" Polyurethane Foam Insulated Panels, R- Value 31+ or Higher
- Embossed White Aluminum Interior Surface Finish
- Embossed White Galvanized Steel Exterior Surface Finish
- Exceptional Temperature And Humidity Uniformity
- Temperature Control At Sensor / Set-Point: $\pm 0.2^{\circ}\text{C}$
- Humidity Control At Sensor: $\pm 0.5\%$.
- High / Low Alarms
- Flexible Configurations
- Complies With LEED Standards
- Energy Efficient Offering Lowered Maintenance Costs
- Pre-tested, Pre-charged Refrigeration Systems
- Non-proprietary Controls
- Corrosive Resistant Equipment
- Precision Sizing
- Diurnal Cycling Temperature
- Regenerating Desiccant Dryer ??

Optional Features

- Added Ultrasonic Humidification
- Extended Temperature And Humidity Ranges
- Stainless Steel / Special Surfaces
- Ethernet / Remote Monitoring / Alarming
- Corrosive Resistant Equipment
- Added Redundancy in Controls and/or Conditioning system
- Data Logging
- Water-Cooled Or Air-Cooled Condensers
- Custom Lighting Systems
- High Density Shelving
- Unlimited Door / View Window Sizing
- Insulated Glass View ports
- High Weight Capacity Flooring
- Calibration / Validation / Maintenance Services
- Touchscreen Control Interface
- Vestibules and Intermediate Conditioning Spaces Available
- Decontamination Options ??
- UV Filtration of Interior Lighting ??
- Desiccant Dehumidification Redundancy Options ??

The Darwin Advantage

All installed instrumentation is calibrated to NIST traceable standards and provided with a calibration form. In-house, factory calibrations are performed using state-of-the-art equipment with great accuracies. These reports are three-point verifications, traceable calibration documents.