

CDH Series™

Climatic Testing
Temperature
and Humidity
Control Equipment



Controlled Dehumidification IMS (CDIMS)

INTRODUCING Controlled Dehumidification IMS

Controlled Dehumidification IMS is an engineering and manufacturing company supplying both pre-engineered and custom-engineered dehumidification, ventilation, heating, and cooling air handling units to commercial, industrial and OEM markets.

Our customers come from a diverse range of industries, such as automotive, food and beverage, pharmaceutical, petrochemical, pulp and paper, as well as schools, hospitals, rental companies and contractors. Our ability to provide integrated dehumidification systems including a wide range of optional components can address specific customer requirements for discharge air or room conditions.

Special attention is paid to unit casing construction. For example, standard double-wall casing thicknesses from 1½” to 4” are available. Completely sealed interior metal liners prevent exposed insulation.

We endeavor to provide our customers with high quality, energy-efficient products at competitive prices, and strive to insure that each Controlled Dehumidification IMS product meets our customer’s needs and expectations. Furnished with each unit is complete technical data intended to allow customers an understanding of unit construction, features and principles of operation.

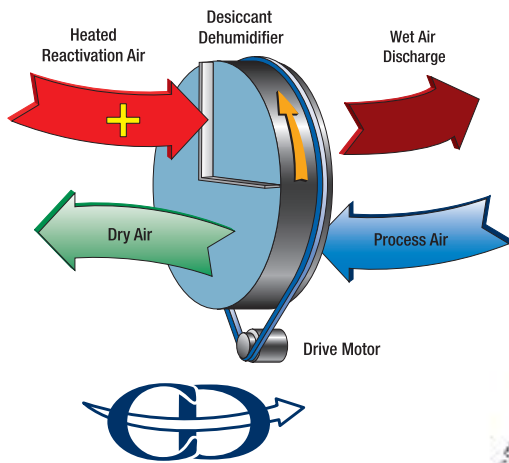
Our goal is to maintain the highest ethical standards and professionalism in order to best satisfy our customers.

Typical component options include:

- 30% through 99.97% HEPA filtration
- Washable and drainable casing construction
- G-90 Galvanized, Aluminum or Stainless-Steel Casing Construction
- Chilled-Water, Direct-Expansion or Ammonia Cooling Coils
- Steam, Thermal-Liquid or Hot-Water Heating Coils
- Desiccant Dehumidifier Rotor with Stabilized Silica Gel Media
- Indoor or Outdoor Mounting
- Integrated Microprocessor Control Systems
- Steam Humidification Systems

Units are designed with custom configurations of components with standardized manufacturing techniques that support competitive pricing.

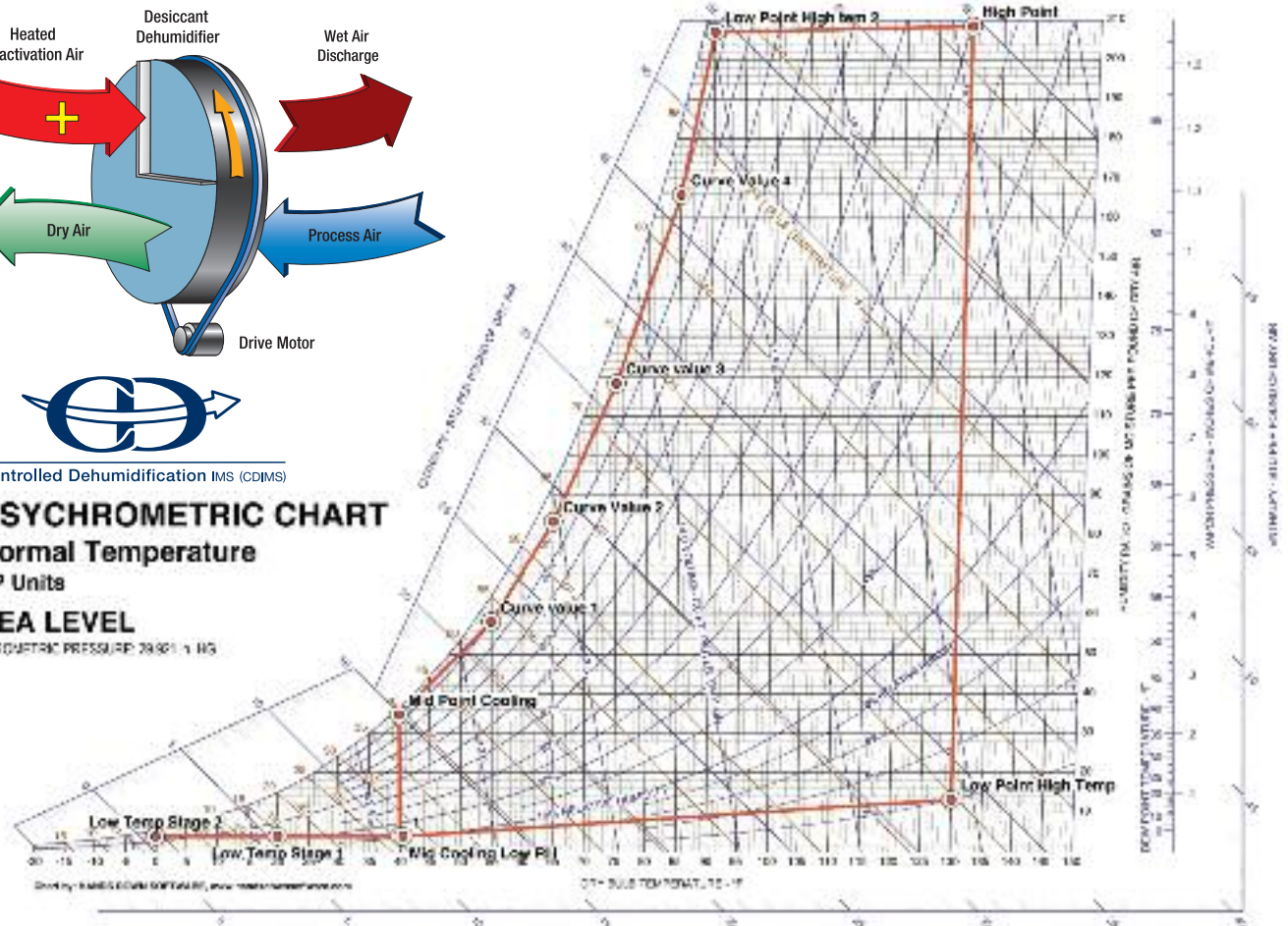
Desiccant Technology



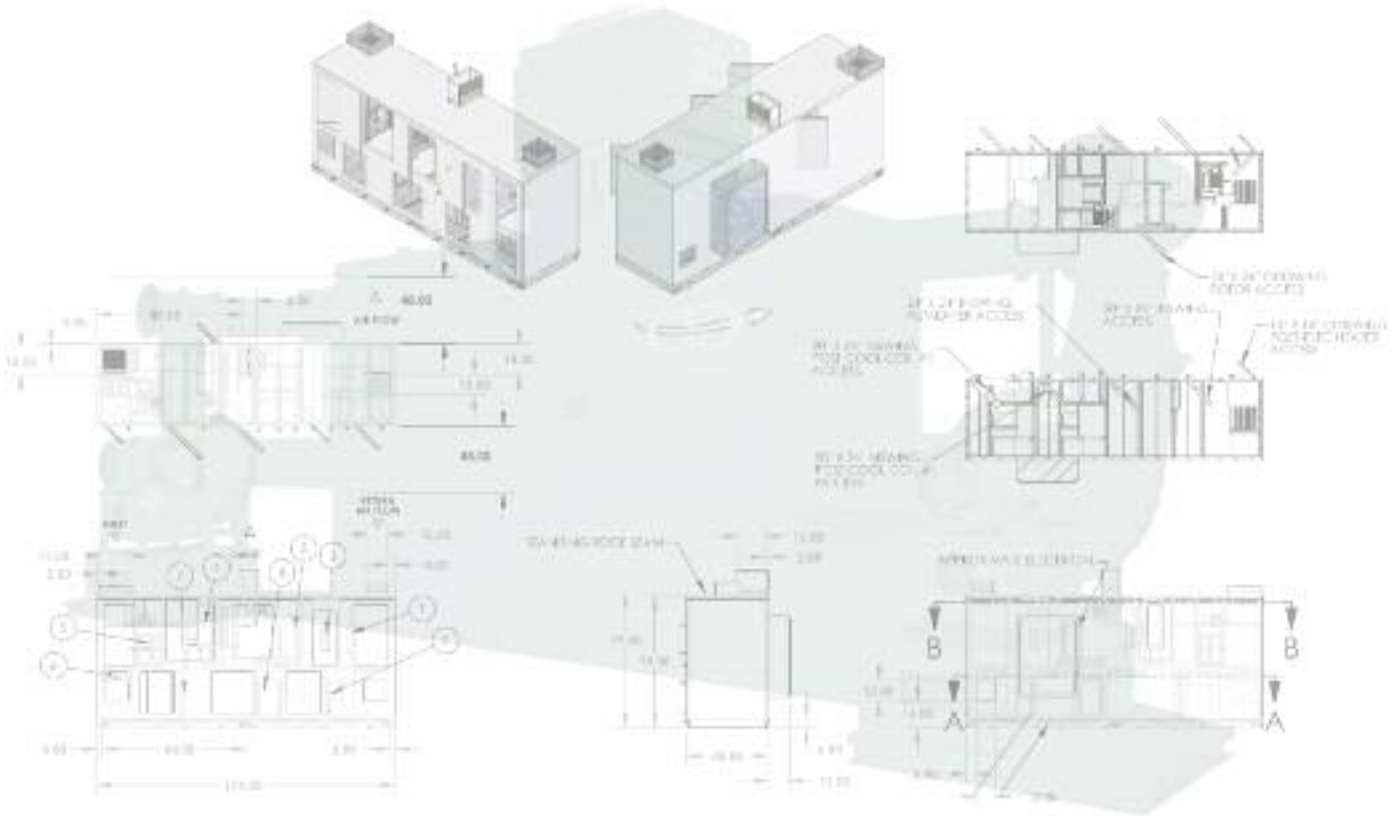
Controlled Dehumidification IMS (CDIMS)

PSYCHROMETRIC CHART
Normal Temperature
I-P Units
SEA LEVEL
BAROMETRIC PRESSURE: 29.921 in HG

Typical Operating Range



CONSISTENT TEMPERATURE AND HUMIDITY CONTROL FOR TESTING APPLICATIONS



Packaged Dehumidification Air Supply

Packaged combustion air supply units are designed to provide consistent supply conditions engine testing and other applications requiring a consistent source of conditioned supply air. This air is conditioned from outside design conditions for your location. Optional equipment includes package steam generation, water-cooled chiller and unit-mounted controls.

Combustion air supply units and variable volume cooling systems are designed to provide consistent temperature and humidity control for testing. Each unit is specifically designed to meet your needs.

Test Cell Air Supply

Low dewpoint air supply units are designed to provide consistent supply conditions for engine testing and other applications requiring a consistent source of conditioned supply air. These units are currently being used for dilution tunnel make-up air, soak rooms, and combustion air supply. The air is conditioned from outside design conditions for your location. Equipment comes complete with packaged dehumidification system, coils, heat exchangers, and unit-mounted controls. Units are fabricated in Controlled Dehumidification IMS double-wall housing with thickness and insulation matched to the application.



Variable Volume Cooling Systems

Air supply units are designed to provide consistent supply conditions for brake dyno testing and other applications requiring a consistent source of conditioned supply air at variable wind speeds. The air is conditioned from outside design conditions for your location. Equipment comes complete with packaged dehumidification system, coils, heat exchangers, blowers, humidification and unit-mounted controls. Units are fabricated in Controlled Dehumidification IMS double wall housing with thickness and insulation matched to the application.

Environmental Testing & Process Enclosures

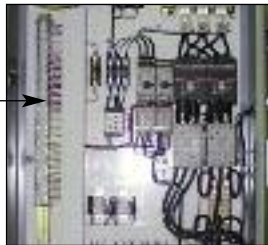
Environmental control systems and chambers can be manufactured to house specific processes or tests using Controlled Dehumidification IMS Climatic Test Equipment. Enclosures can be designed for your specific applications. The conditioned air supply comes complete with packaged dehumidification system, coils, heat exchangers, blowers, humidification and unit-mounted controls. Units are fabricated in Controlled Dehumidification IMS double wall housing with thickness and insulation matched to the application. Access doors, ports and viewing windows can be placed to match test requirements.

FEATURES AND BENEFITS

- Our standard is a microprocessor controller for reactivation rate and safeguard functions, and also for heating and cooling functions if these options are present. Terminal-strip connection points are included for customer use for alarming, monitoring, and for communication with a building management system. (Our microprocessor is a BAC-Net compatible device, and requires a gateway device to communicate.)
- Each unit is ETL Listed and approved as a unit. Every item shipped carries a full ETL approval including all options in compliance with the current mechanical code. We also have the ETL-C listing for Canadian projects. On European projects, we can provide country-specific C-E approvals.



- A communication port mounted to the unit exterior is standard for use with a diagnostic "View Port." Our service personnel carry this Viewport for start-up and troubleshooting, and a customer version is available to assist site personnel.
- The microprocessor reactivation controller maintains a constant burner-output temperature, so burning the desiccant rotor is unlike other manufacturers. In addition, modulating via a reset schedule minimizes energy use. Full-rated performance is available in cool weather because it is not necessary to limit the firing rate as other manufacturers do.
- Our units use combination circuit breaker/overload/ starters for fan motors. This eliminates the need for spare power fuses, and saves the customer downtime because, if an upset occurs, a simple reset will bring the unit back online.
- Wiring to industrial terminal strips makes for easier connection and troubleshooting.



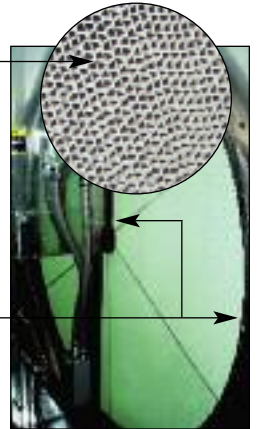
- Our reactivation burner flame safeguard system is an industrial Honeywell R7895A instead of a commercial- or residential-style "ignition module."
- Reactivation temperature sensors are 500°F rated Platinum thermistors.
- Our standard gas train on gas-fired units is an ANSI type, and includes inlet regulator, automatic main and pilot valves, an electronic modulating valve, in addition to safety manual valves.



- A full-perimeter sprocket with a #40 molly chain drives our desiccant rotor. This is more durable than any other system on the market.
- Standard filters provided are minimum 30% efficient industrial pleated-style to insure a clean desiccant rotor. Additional filtration is available.



- Stabilized silica gel is permanently bonded to a low specific-heat substrate for long-lasting dehumidification performance at maximum efficiency. The desiccant rotor rim and cassette are Stainless Steel for durability and strength.
- Our desiccant rotor seals are dual-contact, Viton extruded seals, designed to extend the life of the unit. This is the most durable seal in the industry.



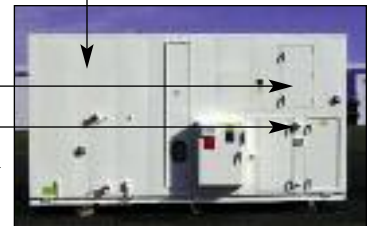
- Graphic Function Display annunciation panel to provide indication of operation status.



- Standard Blowers are backward inclined, nonover-loading rated for total static pressure. Wherever possible, blowers are directly coupled to fans to eliminate belts and external bearings.



- Our standard unit construction is G-90 galvanized Steel, double-wall, and insulated. It is very rugged, and includes airtight, gasketed access doors for access to components.
- 2" standard or 4" standard, no-through metal wall with thermal break doors.
- All doors are equipped with locking handles with common keyed access to prevent unauthorized access.
- Multiple components and configurations provide a versatile unit to meet every application requirement.



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