



Climate by Design
INTERNATIONAL

DH Dehumidification Series



Keep it Dry with CDI

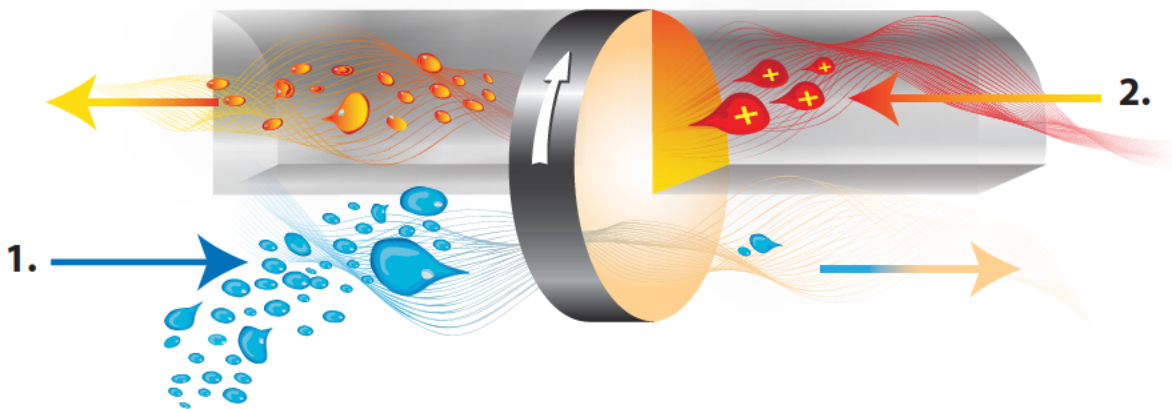
Keep it Dry with CDI

Why Use Desiccant Technology?

- Very dry air can be achieved (-0° F dewpoint).
- **Thermodynamic efficiency:** Achieved because no change of phase (condensation) is necessary.
- **Better construction:** Double-wall insulated casing suitable for indoor or outdoor mounting.
- **Simple maintenance:** Simply replace filters regularly and performance is assured. A yearly inspection by our service technicians is recommended to head off unscheduled outages.

Desiccant Technology

Creating the climate you need to achieve your critical mission



Dedicated desiccant air-supply units provide low-humidity conditions necessary to maintain a dry environment. It's a simple solution to an old problem.

The solid desiccant rotor adsorbs moisture from process air [1]. The moisture is taken out of the rotor by a second and separate reactivating airstream [2]. This process enables the rotor to continually take moisture out of the airstream without interruption.



DH Dehumidification Series

- **More Sizes:** Process air flow range of 1,500 to 18,000 SCFM.
- **More Support:** Application engineering assistance, start-up and owner training, and preventative maintenance programs offered by CDI.



Configurable Components *Match Your Critical Process*

Typical Components:

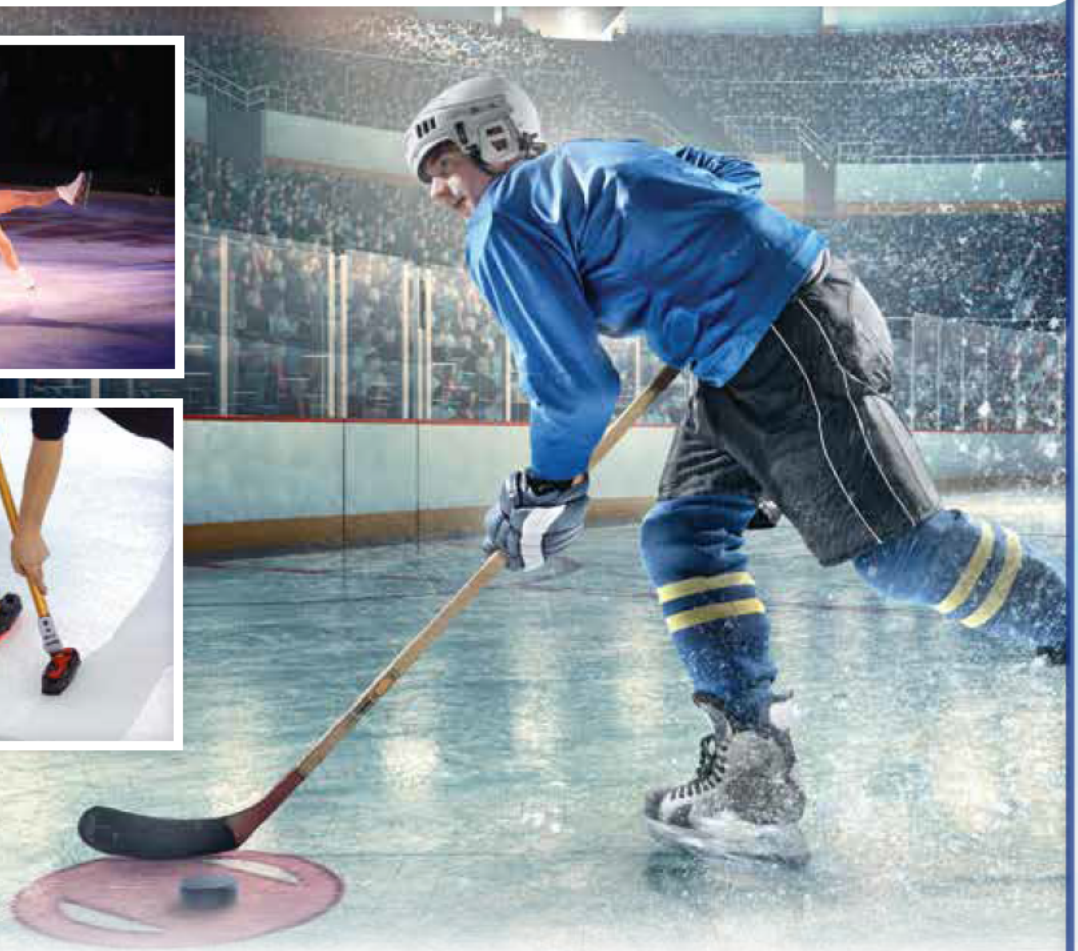
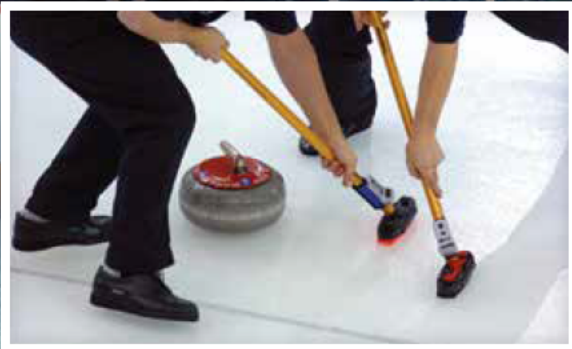
- Process and reactivation MERV 8 filters.
- Direct gas fired, steam, hot water, or electric reactivation.
- Heat Recovery.
- 2" double wall insulated casings.
- Standard intelligent microprocessor controllers with "Fail Capable" mode and full building integration capable of using BACnet™, Modbus®, or LonWorks®.

Desiccant Technology at Work

DH Dehumidification Series

Uncontrolled humidity does not need to be a problem. By providing dry air, you can control threats to health, safety, product and a myriad of costs. Dry air is a solution to corrosion, bacteria, and mold. By using a CDI DH Dehumidification Series Unit, you can have independent control of humidity and temperature. Now you can be as dry as you want at whatever temperature you want.

Ice Arenas



- Controls humidity to stop fog, mold growth, and dripping ceilings.
- Skaters appreciate improved ice conditions and spectators are more comfortable.
- Minimizes the cost of running rink refrigeration systems while eliminating humidity concerns.
- Most efficient and economical solution to ice arena humidity.
- Resurfacing is needed less frequently.
- Low dewpoint capability provides the best method to dehumidify indoor ice arenas for hockey, figure skating, speed skating and curling.

Water Treatment Plants



- Controls humidity of air surrounding cold pipes, eliminating condensation to prevent rust, mold, mildew, and poor reliability of electronic devices.
- Actively reduces the space dew point to prevent sweating.
- Prevent room humidity from exceeding a set value with CDI's proprietary microprocessor, virtually eliminating corrosion.

Museums, Libraries & Archival Storage



- Preserve artifacts, books, collections, and artwork.
- Keep relative humidity level low and stable.
- Prevent decay from mold.

Industrial Manufacturing



- Eliminate condensation which results in a higher quality part, reduce the cycle time, allowing parts to be produced faster.
- Stabilize manufacturing consistency.
- Applications include industrial painting booths, glass laminating, electronics, and plastic injection blow molding.

Other Applications:



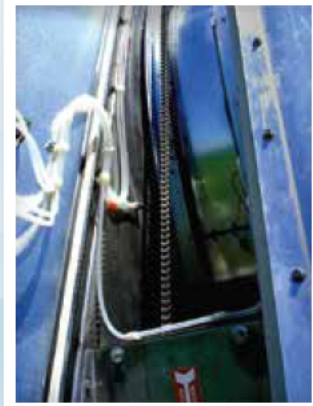
- Bulk Product Handling
- Clean Rooms
- Commercial Buildings
- Grocery Stores
- Hygroscopic Materials Manufacturing
- Pharmaceutical
- Pneumatic Conveying
- Spiral Freezers
- Silo Blanketing
- Suspension Bridge Corrosion Prevention

Why Buy CDI?

Desiccant Rotor System Built to Last

Stabilized silica gel permanently bonded to low specific-heat substrate for long-lasting dehumidification performance at maximum efficiency.

- Industry leading 7 year prorated rotor and cassette warranty.
- Desiccant cassette is stainless steel.
- Washable desiccant rotor.
- Desiccant Rotor Seals: dual-contact, Viton.
- Seals designed to last the life of the unit.
- Full-perimeter sprocket with a #40 Molly Chain drives desiccant rotor.



Quality Construction

Standard unit construction is G-90 galvanized steel, double wall, and insulated.

Doors

- Easy open quarter turn latch doors, not bolted panels.
- Single point latch for tall doors for easy opening.
- Door holder restraint to hold electrical and gas doors open.
- Thermal break doors.
- Roller latches.



ETL Certification

- Complete unit is ETL listed and approved.
- ETL-C listings are provided for Canada.
- CE approvals.





Circuitry Designed for Ease and Safety



Combination circuit breaker/overload starters for fan motors - eliminates the need for spare power fuses and saves downtime. If an upset occurs, a simple reset will bring the unit back online.

- Wiring to industrial terminal strips makes for easier connection and troubleshooting.
- All doors are equipped with locking handles; keyed access prevents unauthorized entry.

Microprocessor Safeguards



- Microprocessor standard controller for temperature, humidity, flow control, and safeguard functions.
- Terminal strip connection points for alarming, monitoring, and building management system communications.
- User interface standard equipment integral to the controller.
- User-friendly display is kept in the unit control panel to protect from tampering.
- Interface is an excellent tool for start-up, troubleshooting, and monitoring unit operation.



- Optional, remotely located, user interface panel is available when increased accessibility is important.

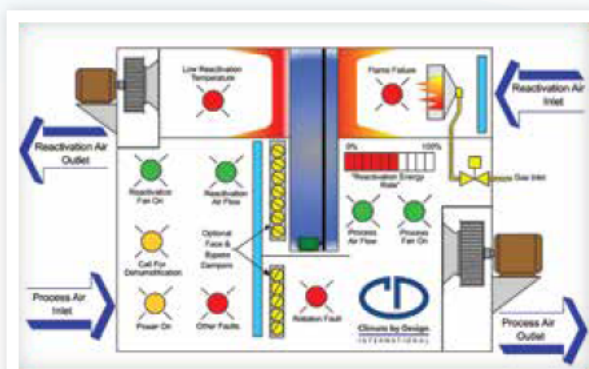
Blowers



- Airfoil, non-overloading rated for total static pressure.
- Direct drive fans to eliminate belts and external bearings wherever possible.
- Piezometer Ring to measure flow.

Annunciator Panel

- Provides quick assessment of unit operation and fault status.





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Why Buy CDI?

Configurability

Simply put, have it your way!

Quality

Our goal is to provide our customers with superior, energy-efficient solutions for indoor air quality.

Service

With our trained and equipped field service technicians there is always someone near you to assist. Services range from preventative maintenance to prescriptive plans for a specific application. 24/7 customer service hotline available.



Who We Are

Climate by Design International, Inc., formerly Concepts and Designs, Inc. (CDI) was founded in 1991 in Owatonna, Minnesota.

CDI provides customers with a broad array of custom HVAC options. Years of HVAC industry experience established the foundation for today's thriving company.

Our products offer indoor air quality solutions for numerous markets: Hospital Surgical Suites, Food Processing, Ice Arenas, Water Treatment Plants, Pharmaceuticals, Automotive, Rental, Aviation and all types of facilities requiring controlled air climates. We have provided climate control products to numerous countries including: USA, Canada, Mexico, Australia, Guinea, Russia, China, India, and Israel.

We offer catalogued standard product for application specific projects, as well as configurable or custom built solutions.

We serve our customers well by producing quality products and services while building and maintaining relationships based on honesty and integrity.

Contact our application specialists to learn how you can benefit from Desiccant Dehumidification.

sales@cdihvac.com

