HCD Series

Modular Desiccant Dehumidifiers





The Munters HCD series modular dehumidifier provides end users the essential dehumidification function in capacities of 600 to 12,000 scfm. Along with the basic HoneyCombe® rotor-drive-and-seal assembly, HCD offers your choice of process and reactivation fan and either gas, steam or electric reactivation.

Customers can integrate the desiccant dehumidifier into their own processes or air conditioning systems, or additional modules can be combined to make an HCD Plus. The HCD Plus provides additional process air filtration, cooling, heating and mixing functions that many end users require. The HCD Plus arrangment is skid-mounted, providing a single source, factory assembled package.

These modular dehumidifiers are used in a wide variety of applications from clean room humidity control to chocolate coated candy and central dry air systems for pharmaceutical manufacturing.



BENEFITS

- Weather-tight construction for indoor or outdoor use
- Low profile cassette design
- Quick access for easy maintenance
- Easy duct connections
- Modulating electric, gas or steam reactivation
- Multiple blower orientations
- Optional built-in bypass
- Add-on post-/pre-air treatment options



HCD Series Standard Technical Specifications and Advanced Features

Nominal	Moisture Removal	General Dimensions	General Weight	Typical ESP (in. W.G.)		Utilities: 208, 230, 460 or 575 volts
SCFM	(lbs/hr) at 75°F, 50% RH	L x W x max H (in.)	(lbs.)	Process	React	Reactivation Heaters:
600	16	76 x 31 x 56	400	3.5	2.75	EA-Electric: 208-575 volts SA-Steam: 10-150 psig GA/DGA-Gas: Natural or propane 4.5 to 14" W.G. pressure Reactivation Filter: Permanent and washable Electric Controller: NEMA 4 Installation: Indoor or outdoor Options: On/off or modulating humidity control, internal or external bypass, skids, weatherhoods, pre- and post-air treatment modules can include filtration, cooling and heating
1125	30	130 x 37 x 72	925	3.5	1.4	
2250	60	146 x 47 x 80	1150	3.75	1.65	
4500	120	146 x 66 x 98	2050	2.5	2.3	
9000	240	169 x 85 x 112	3100	1.9	0.8	

^{*} Dimensions and weight are approximate.

Contact Air Seals:

Separate process and reactivation air at pressures up to 8" W.G. with a five year life expectancy.

Process & Reactivation Fans:

Centrifugal, direct drive with totally enclosed fan cooled motors.

Electrical Controls:

Continuous automatic operation including motor starters, overload protective devices, microprocessor with indicating lights and fault circuits. All wiring to NEC codes.

Drive System:

Simple, self-tensioning drive belt arrangement, few moving parts.

Reactivation Utility:

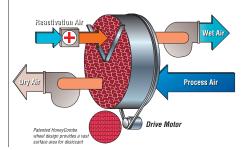
Electric with solid state proportioning control, steam with proportional air volume control or gas (direct/indirect) with modulating gas valve.

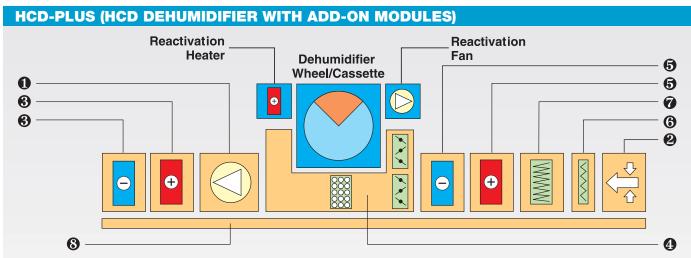
Dehumidifier Housing:

Process and reactivation air flow insulation. Durable air-dry polyurethane paint. All welded aluminum cabinet.

Desiccant Rotor:

In the 1950s, Munters invented modern industrial dehumidification when it introduced the self-regenerating desiccant rotor, the heart of the dehumidifier.





Process Air Blower Plenum

The process air blower plenum is insulated to avoid condensation when process air temperature is below the dewpoint of surrounding air. Also, the process air blower plenum provides in-line airflow to the mixing box, coil module or ductwork.

Mixing Plenum

The mixing plenum allows incoming air to be mixed with up to four other incoming air streams. Manual dampers are provided to balance the airflows. The mixed air stream can then be further conditioned by downstream modules.

Post-Heat/Cool Coil PlenumPre-Heat/Cool Coil Plenum

The coil plenum is designed to house a maximum of 10 rows of coils for direct expansion refrigeration, chilled water, hot water, steam or combinations to provide pre- or post-cooling or heating. Alternatively, electric heating elements can also be housed in this plenum. The maximum face velocity is 500 fpm for cooling coils and 900 fpm for heating coils/elements.

4 Face and Bypass Plenum

The face and bypass plenum provides 100% bypass capabilities. Face and bypass dampers of low leakage design are operated by proportioning actuators.

6 Filter Plenum, 30%

Filter Plenum, High Efficiency

A disposable filter of 30% efficiency has slide rails that provide easy access for maintenance. A disposable, high efficiency filter of up to 95% (combined with disposable 30% efficiency pre-filter) has slide rails that provide easy side access for maintenance. Consult factory for HEPA filters and plenums.

3 Skid

A structural aluminum skid of "C" channel design is between 6" to 10" in height. On smaller units, with shorter lead times, formed steel can be utilized.



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