

HC-150 Desiccant Dehumidifier

Munters compact dehumidifier combines state-of-the-art desiccant technology in a self-contained unit to provide dependability and long operating life for humidity control at virtually any temperature. The HC-150 is perfect for product drying, mold and mildew control, corrosion protection, storage and condensation control, while providing an industry leading 1.7 lb water/kWh* moisture removal efficiency.

Process air: Flow rate of 75-150 SCFM. 4.8 lb/hr^{*} moisture removal. Capable of processing saturated, conditioned or outside air. Industry leading 1.7 lb water/kWh^{*} moisture removal efficiency.

Contact air seals: Separate process and reactivation air streams to minimize leakage and improve performance.

Electrical controls: Simple automatic control system monitors and controls unit functions. Automatic restart after power failure. Visual indicators and contacts for remote run and fault status. Elapse time meter. Auto/Manual selection switch with humidistat connection kit and optional low voltage humidistat.

Drive system: Continuous rotation, with simple drive belt arrangement and few moving parts.

Reactivation utility: Solid-state energy modulation of heater reduces energy consumption that optimizes desiccant media regeneration. Includes independent reactivation fan and high temperature protection.

Dehumidifier housing: Light and durable weld aluminum cabinet with hinged front access panel. Process and reactivation airflow insulation to reduce heat loss and condensation risk. Blower motors and control isolated from air streams, and fan guards provided for safety. Volume control dampers for adjusting process and reactivation air streams. Compact size for minimal space requirements and easy installation.

* 75°F and 85 gpp entering air conditions using actual running power of reactivation heater.



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

Today, Munters offers rotors with multiple desiccant formulations and is the acknowledged expert in the integration of rotors into dehumidification systems and air handlers.



Model HC-150



Suggested Specification Guide

Dehumidifier shall be of a type proven in satisfactory operation for a minimum of 10 years. Dehumidifier shall be of the non-cycling sorption type with a single desiccant rotary structure. The casing will be fabricated as a unitized body with welded aluminum construction for maximum strength and durability. Suitable access panel shall allow access for inspection or servicing without disconnecting ducting or electrical wiring. Airflow balancing dampers to be furnished.

The rotary structure shall be a monolithic fabricated extended surface consisting of inert silicates reinforced with uniform diameter glass fibers for maximum strength. The fabricated structure shall be smooth and continuous in the direction of airflow without interruptions or sandwich layers which restrict airflow or create a leakage path at joining surfaces. Desiccant shall not channel, cake or fracture due to repeated temperature and moisture cycling. The materials of construction shall be water washable, non-toxic and NFPA 255-ASTM E84 compliant.

Full face contact pressure seals shall be provided to separate the process and reactivation air streams and eliminate detrimental leakage of air or moisture with static pressure differentials of up to 3" of water gauge.

Dehumidifier shall be factory assembled; fully automatic, complete with HoneyCombe[®] desiccant wheel, reactivation heaters, reactivation energy control system, roughing filters, motors, fans, non-racheting desiccant drive unit, automatic controller and all components' auxiliaries. Reactivation energy modulation shall be stepless solid state proportioning type. Dehumidifier shall be functionally tested at the manufacturer's factory and shipped complete with all components necessary to maintain normal operation.

*Continual engineering and research for product improvement may result in design and specification changes. Consult factory for certified technical data.

Australia Phone +61 2 8843 1588, dh.info@munters.com.au Austria Phone +43 1 6164298-0, luftentfeuchtung@munters.at Belgium Phone +32 1528 5611, info@muntersbelgium.be Brazil Phone +55 41 3317 5050, munters@com.br Canada Phone +1 905 858 5894, dhinfo@munters.com China Phone +86 10 8041 8000, info@munters.com.cn Czech Republic Phone +420 544 211 434, info@munters-odvlhcovani.cz Denmark Phone +45 4495 3355, info@munters.dk Finland Phone +358 20 776 8230, laitemyynti@ munters.fi France Phone +33 1 3411 5757, dh@munters.fi Germany Phone +49 4087 96900, mgd@munters.de India Phone +91 20 668 18 900, info@munters.in Italy Phone +39 0183 52 11, marketing@ munters.it Japan Phone +48 1 3 5970 0021, mkk@munters.co.jp Korea Phone +82 2761 8701, munters@munters.co.kr Mexico Phone +52 722 270 40 49, munters@munters.com.mx Netherlands Phone +31 172 433231, vochtbeheersing@munters.nl Poland Phone +48 58305 3517, dh@munters.cn Singapore Phone +65 6744 6828, info@munters.com, South Africa Phone +27 11 997 2000, info@munters.co Spain Phone +34 91 640 09 02, marketing@munters.es Sweden Phone +46 8 626 63 00, avfuttning@munters.e Switzerland Phone +41 52 343 8886, info.dh@munters.ch Thailand Phone +66 2642 2670, info@munters.co.in Turkey Phone +90 216 548 1444, info@muntersform.com UAE +971 4887 6462, middle.ess@ munters.com United Kingdom Phone +41 480 432243, info@munters.co.uk USA Phone+1 978 241 1100, dhinfo@munters.com Vietnam Phone +88 8256 838, vietnam@munters.com

Technical Specifications*

Process volume: 75-150 SCFM Process E.S.P: 0.75" W.G.** Max reactivation volume: 55 SCFM Reactivation E.S.P: 0.15" W.G.** Max reactivation heater: HC-150-I = 2.9kW @ 230 VAC HC-150-R = 1.5kW @ 115 VAC Utilities: HC-150-I = 208-240V/1/60Hz $HC-150-R = 115V/1/60Hz/\pm10\%$ Maximum FLA: HC-150-I = 14.4A @ 240V/1/60Hz HC-150-R = 15.5A @ 115V/1/60Hz Max dBA: 75 (three feet from dehumidifier except in path of airflows) Filters: Washable metal roughing filters **Options:** Humidistat for on/off control Constant process blower

- Constant process blower
- Process inlet transitions for round duct

**Ducted application with fan guard removed

HC-150 Performance



Example:

Process air in at 35% RH and 70°F will hold space at 35% RH with a moisture load of 2.9 lb/hr. To find the temperature of process outlet air (T_{PO}) solve:

 $\begin{array}{l} T_{PO} = .9 \; (7.2W + T_{PI}) + 23 \; where \\ T_{PI} = temperature \; process \; inlet \; air \; ^\circ F \\ \hline \textbf{Example:} \\ T_{PO} = .9 \; (7.2 \; x \; 2.9 + 70) + 23 \\ T_{PO} = \; 105 \, ^\circ F \\ \hline \textbf{Note:} \; HC-150-R = 60\% \; of \; HC-150-I \; capacity \end{array}$

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Munters Corporation Tel: (800) 843-5360 E-mail: dhinfo@munters.com www.munters.com