



Leaders in Dehumidification...Worldwide



# BryCool™ 500

COMPACT DEHUMIDIFIER  
for Cool Dry Air



## Product Description and its Unique Advantages

The BryCool™ 500 Compact Dehumidifier is another energy efficient compact dehumidifier from Bry-Air. BryCool™ accomplishes the task of providing cool dry air for any enclosed facility which requires desiccant assisted drying capability in a compact package. The unit uses the heat dissipated in refrigeration cycle for regenerating the desiccant rotor. This leads to substantial savings as no additional heat source is required to regenerate the desiccant rotor. Most of the times, it also helps avoiding installing additional air-conditioning unit in the conditioned space as supply air is typically temperature neutral. BryCool™ operates very cost effectively because all the energy required for the operations of the desiccant dehumidifier cycle is coming from the integrated refrigeration unit which is cooling the inlet air. It is ideal for facilities where human comfort is also required along with dehumidification. BryCool™ incorporates the high performance EcoDry™ rotor and it comes with BryCare™ program which offers a highly cost effective after sales service.

## Operating Principle

BryCool™ uses two streams of air separated from each other to accomplish the task of providing cool dry air. The inlet air (Supply) passes through the evaporator coil for cooling and condensation of moisture. It then passes through the desiccant rotor where moisture is further adsorbed by the desiccant rotor. Thus process cool dry air is available for dehumidification. On the reactivation stream side, the heat dissipated by the condenser coil combined with heat dissipated by the refrigeration compressor is used to heat reactivation fresh air. The reactivation fresh air then passes through the desiccant rotor to expel out the moisture adsorbed by the desiccant rotor.

## Benefits

- Very energy efficient
- Compact size for installation in small spaces
- Comfortable environment
- No moulds and mildew



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## COMPACT DEHUMIDIFIER for Cool Dry Air

### Feature Highlights

#### High Efficiency and Reliability

- The Dehumidifier is manufactured in an ISO 9001 and ISO 14001 compliant work environment
- It provides dehumidification and energy free reheat
- Combination of refrigerant circuit and desiccant rotor for efficient drying
- Uses refrigerant R-410a for less harmful influence on the environment
- Compact size ideal for installation in area having space constraint
- CNC fabricated unit(s) with Precoated Steel Construction
- Rotor incorporates robust internal structure with GI sheet
- Rotor media has high performance metal silicates synthesised in situ
- Edge hard face coating on rotor ensures long life and good sealing for media and seals
- Rotor is non-flammable with organics < 2%
- Process and Reactivation air flow sectors are insulated
- Unique flat sponge silicone seal with teflon coated design, minimises air leakage
- Process and react with centrifugal AC motors

#### Necessary Control and Safety Features

- High Pressure and Low Pressure Switch in Refrigerant line
- Electrical interlocking of fan motors and rotor drive

#### Easy to Operate

- Suitable for continuous operation

#### Easy to Install

- Several mounting and installation options
- Small footprint; low volume/weight per CMH

#### Easy to Maintain

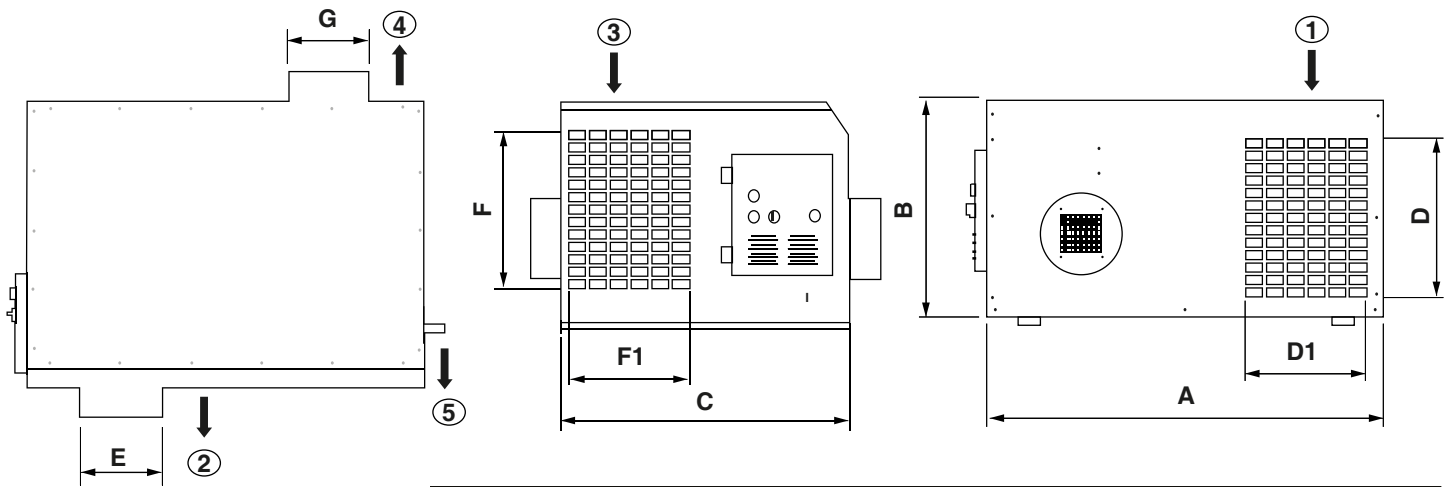
- Quick and easy to service
- Rotor is water washable

#### Option

- Humidistat for humidity control



# Dimensional Data & Duct Connection



- 1- Supply Air Inlet
- 2- Supply Air Outlet
- 3- Reactivation Air Inlet
- 4- Reactivation Air Outlet
- 5- Water Drain Pipe

MODEL	UNIT DIMENSIONS (mm)			Process Duct Connection (mm)			Reactivation Duct Connection (mm)		
				Inlet		Outlet	Inlet		Outlet
	A	B	C	D	D1	φE	F	F1	φG
BryCool™ 500	955	530	695	380	290	200	380	290	200

Note: All dimensions in mm

## Compact Dehumidifier – BryCool™ Specification

MODEL	PROCESS AIR FLOW CMH	PROCESS ESP Pa.	PROCESS MOTOR KW	REACT. AIR FLOW CMH	REACT. ESP Pa.	REACT. MOTOR KW	COMPRESSOR CAPACITY KW	POWER * REQD. v/Ø/Hz	APPROX. WEIGHT Kg
BryCool™ 500	500	450	0.25	500	450	0.25	2.67	230 /1/ 50	100

\* Note: Other voltages available are 200/220/240/380/440/460 VAC, 1Ph/3Ph, 50/60 Hz

All data subject to change without notice

## About Us



Leaders in Dehumidification, worldwide, Bry-Air is a global solution provider for humidity control, moisture removal, product drying, gas phase filtration and plastics auxiliaries. Bry-Air Dehumidifiers are designed to meet most stringent moisture/humidity control needs and are available from compact models to very complex engineered systems. The Airgeeners at Bry-Air have years of application engineering experience and are trained to provide solutions in moisture and humidity control in varied industrial applications. A Pahwa Group company, Bry-Air Asia has 2 state-of-the-art manufacturing facilities in India and fully owned subsidiaries in Malaysia, China, Switzerland and Brazil and an associate plant in USA, supported by a worldwide sales and service network. With installations in over 80 countries in almost every industry, Bry-Air touches your life round the clock!



Innovation, both in technology as well as business processes, is the driving philosophy of the Pahwa Group. The Group has filed 11 international patents in the last 5 years in energy smart technologies related to air engineering. The Group has almost 1400+ employees in 6 continents and 11 manufacturing plants. Bry-Air is one of the flagship companies of the Pahwa Group.



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### BRY-AIR (ASIA) PVT. LTD.

**Corporate Office:**  
21C, Sector-18, Gurgaon 122015  
Phone: +91-124-4091111  
Fax: +91-124-4091100  
E-mail: bryairmarketing@pahwa.com

**Registered Office:**  
20, Rajpur Road, Delhi 110054  
Phone: +91-11-23906666  
Fax: +91-11-23906600  
E-mail: enquire@pahwa.com  
Web: www.bryair.com  
CIN: U74210DL1981PTC012456

<b>City</b>	<b>Phone</b>
DELHI	+91-11-23906666
CHANDIGARH	+91-172-4678806/7
MUMBAI	+91-22-24935155/24947475
VADODARA	+91-265-2351493
KOLKATA	+91-33-22814841/22814877
BENGALURU	+91-80-25271232
HYDERABAD	+91-40-27154243
CHENNAI	+91-44-26163820/29/40
KOCHI	+91-484-2395940

<b>E-mail</b>
enquire@pahwa.com
bryairchandigarh@pahwa.com
bryairmumbai@pahwa.com
bryairbaroda@pahwa.com
bryairkolkata@pahwa.com
bryairbangalore@pahwa.com
bryairhyderabad@pahwa.com
bryairchennai@pahwa.com
bryairkochi@pahwa.com

**BRY-AIR (USA)**  
Phone: +1-740-965-2974  
Fax: +1-740-965-5470  
E-mail: bryair1@bryair.com  
Website: www.bryair.com

**BRY-AIR (CHINA)**  
Phone: +86-21-51591555  
Fax: +86-21-51591559  
E-mail: info@bryair.com.cn  
Website: www.bryair.com.cn

**BRY-AIR (MALAYSIA)**  
Phone: +60-3-89256622  
Fax: +60-3-89259957  
E-mail: bryair@bryair.com.my  
Website: www.bryair.com.my

**BRY-AIR (BRAZIL)**  
Phone: +55-41-36982222  
E-mail: contat@bryair.com.br  
Website: www.bryair.com.br

**Country**

**BRY-AIR (UAE)**  
**BRY-AIR (PHILIPPINES)**  
**BRY-AIR (INDONESIA)**  
**BRY-AIR (VIETNAM)**  
**BRY-AIR (NIGERIA)**  
**BRY-AIR (SWITZERLAND)**  
**BRY-AIR (BANGLADESH)**

**Phone**

+971-6-5574822  
+63-2-8078436  
+62-21-79199023  
+84-8-39956498  
+234-8097276772  
+41-91-6830971  
+880-1819409100

**E-mail**

support@bryair.ae  
mail@bryair.com.ph  
indomark@bryair.com.my  
vietmarketing@bryair.com.my  
bryairmarketing@pahwa.com  
msammaritini@pro-kon.ch  
bryairbangladesh@pahwa.com

**Website**

www.bryair.com/uae  
www.bryair.com/philippines  
www.bryair.com/indonesia  
www.bryair.com/my/vietnam  
www.bryair.com/nigeria  
www.pro-kon.ch  
www.bryair.com/bangladesh