

# DD900 DESICCANT DEHUMIDIFIER

## SPECIFICATIONS

SPECIFICATIONS	10520GR-US
Height (inch)	48
Width (inch)	28
Depth (inch)	23
Weight (lbs)	198
Voltage (V)	220
Current (A)	20
Phase	3
Frequency (Hz)	60
Power (kW)	7.6
Process Airflow Maximum – Dry Air (cfm)	883
Process Airflow Nominal – Dry Air (cfm)	530
Regen Airflow Nominal – Wet Air (cfm)	147
Process Air Outlet Dia (inch)	8
Regen Air Outlet Dia (inch)	6
Rotor Wheel Speed (rph)	13.6
Rotor Size dia X depth (inch)	17.7 X 3.9
High Extraction Setting @ 27°C 60% (ppd)	364
High Efficiency Setting @ 27°C 60% (ppd)	286
Deep Drying Settings @ 27°C 60% (ppd)	323
Typical Dry Air Off – High Extraction Setting (%)	12
Typical Dry Air Off – High Efficiency Setting (%)	14
Typical Dry Air Off – Deep Drying Settings (%)	6
Min Operating Temperature (°F)	-4
Max Operating Temperature (°F)	104

FEATURES	10520GR-US
On/Off Control	✓
Adjustable Thermostat	✓
Electronic Controls	✓
Manual / Automatic Mode Selection	✓
Remote Humidity Sensor Facility	✓
Hours Run Meter	✓
EC High Efficiency Fans	✓
Variable Fan Speeds	✓
High Capacity Resistive Heater	✓
Process / Regen Air Filter	✓
Rubber Anti-Vibration Feet	✓
Dual Air Inlet Design	✓
Free Standing	✓
Status Indicators	✓
Self Contained	✓
Stainless Steel Construction	○
Inlet Duct Attachments	○
High Temperature Safety Cut-outs	✓

## APPLICATION

Dehumidifiers are required wherever there is a need to lower the humidity level to prevent corrosion, mold growth and condensation or maintain a low humidity condition during manufacture, packaging or storing of hygroscopic products.

## METHODS OF DEHUMIDIFICATION

Dehumidification is possible using two possible principles, Condensation with refrigeration style dehumidifiers and Adsorption with desiccant dehumidifiers. Desiccant dehumidifiers perform exceptionally well when used in cooler climates, or when a low dew-point, deep drying or low humidity levels are required. Since desiccant dehumidifiers do not produce water, they will work effectively down to sub zero temperatures.

Their operation is simplistic yet extremely effective and reliable. Air (Process Air) is drawn into the dehumidifier, where it passes over a wheel impregnated with Silica Gel. As the air passes over this wheel, any moisture present in the air is absorbed into the Silica Gel wheel before leaving the dehumidifier as warm dry air.

The Silica Gel wheel is continually, slowly rotating, typically at three revolutions per hour. As the wheel rotates, a small portion passes through the regeneration segment. During this phase a second air stream (Regeneration Air) is heated to a high temperature before passing over the wheel. Any moisture present in the wheel is released into this air stream; this hot wet air is then exhausted outside the area being dried.

## KEY DESIGN FEATURES

- EC High Efficiency Forward Curve Fans
- Infinitely Variable Fan Speed



PHARMACEUTICAL, CONFECTIONARY, DEFENSE INDUSTRY,  
WATER DAMAGE, COLD STORES, POWER STATIONS, PLASTICS

# HOW A DEHUMIDIFIER WORKS

Process air is drawn into the dehumidifier.

Process air passes over a wheel impregnated with silica gel.

The silica gel absorbs the moisture from the air.

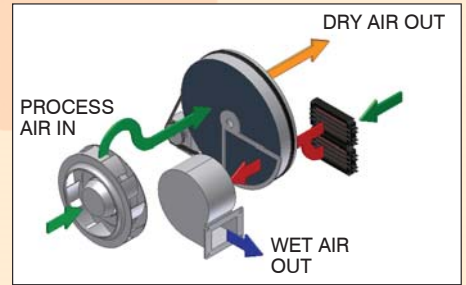
Process air leaves the dehumidifier as warm dry air.

The silica gel wheel continually rotates.

Regeneration air is heated to a high temperature and passed over a segment of the wheel.

Silica gel releases the moisture from the wheel into the regeneration air.

Regeneration air leaves the dehumidifier as warm wet air and exhausted outside.



Applications	DD900
Offices	✓
Shops	✓
Restaurants	✓
Warehouses	✓
Basements	✓
Factories	✓
De-Flooding	✓
Pharmaceutical	✓
Defense Industry	✓
Confectionary	✓

Applications	DD900
Laboratories	✓
Medical	✓
Food Industry	✓
Agriculture	✓
Cold Stores	✓
Hospitals	✓
Hotels	✓
Stadiums	✓
Ships	✓

## WHY CHOOSE EIPL

EIPL is Europe's leading manufacturer of dehumidifiers and is a name you can rely on. No matter how extreme the conditions EIPL's efficiency copes comfortably even at the coldest temperatures.

### DD900

The DD900 is the largest desiccant dehumidifier within the EIPL range. The unit incorporates a high capacity resistive heater ensuring maximum drying is immediately reached and constantly maintained while the unit is running. The DD900 incorporates two EC fans with variable speed allowing the unit to be easily installed, and commissioned in a wide variety of installations.

An electronic thermostat allows the user to select the desired drying level ie, high efficiency drying, deep drying, or high extraction, the following table provides an example of capacities.

80°F 60% - Example Settings			
	High Extraction	High Efficiency	Deep Drying
Process Airflow (cfm)	647	530	412
Regen Airflow (cfm)	206	147	206
Regen Temperature Rise (K)	110	90	110
Extraction (ppd)	364	286	323
Dry Air Off (%)	12	14	6

Facility for an external humidistat allows remote control of the drying cycle. All models incorporate a high efficiency patented PPS Rotor. This design incorporates an 82% active Silica Gel to ensure optimum performance over the equipments wide operating range of environments. All desiccant rotors supplied by EIPL are washable, and designed for high performance / long life.



Ebac Industrial Products Incorporated, 700 Thimble Shoals Blvd.  
Suite 109, Newport News, VA 23606-2575

Tel: (757) 873-6800 Fax: (757) 873-3632 www.ebacusa.com

