

THE MOST ADVANCED DESICCANT TECHNOLOGIES FOR PRECISE MICROCLIMATE CONTROL



Equipment designed to comply with all the applicable EU directives and regulations



**VAST EXPERIENCE** Practical experience in specialist desiccant

dehumidification systems

All components made exclusively by European manufacturers



**TECHNICAL DATASHEET** 

# Desiccant dehumidifier **DL15**

#### GENERAL INFORMATION

The DL Series has been designed for use across a wide range of process drying applications and rooms requiring precise humidity control. The compact design allows for ease of installation in spaces with restricted access. This advanced series features a user friendly touch screen HMI as standard, providing users an array of information on the health and performance of the unit. Units are low maintenance allowing for extending periods of continuous operation.

#### In addition to the above mentioned applications, desiccant dehumidifiers are also irreplaceable in:



Protecting against condensation



Reducing building construction drying



Flood damage building drying



Increasing shelf life of hygroscopic materials



Achieving product consistence and accelerated product drying



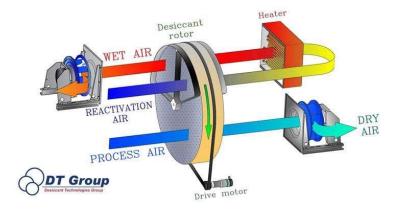
Humidity Control in storage facilities to maintain product and packaging quality



Reducing the growth of mould and bacteria

### METHOD OF OPERATION

Desiccant dehumidifiers operate by removing water vapour from the air via the process of adsorption. At the heart of the process is a high capacity, active silica gel rotor. As standard, the DL series also feature internal heat recovery as standard via a purge sector, this sector reclaims heat that would otherwise be transferred into the dry air stream. The water vapour is continuously removed via the "wet air" stream, allowing for continual drying operation. Precise drying is achieved through the regulation of the reactivation air heater. No desiccant carryover is experienced due to the unique composition of the rotor.



#### CONSTRUCTIONAL AND UNIT FEATURES

- Hermetic casing construction to exceed BSEN 1886—L1 leakage rate
- 20mm insulated panels
- Available in a range of casing materials (430SS, 304SS)
- Energy efficient EC fans.
- Single piece, compact design, allowing for rapid installation
- Pre and Post Treatment modules available
- Low maintenance design and long life seals
- High quality components made exclusively by European manufacturers
- User friendly touch screen HMI as standard

# TECHNICAL DATA (Standard unit, other configurations available)

Process air (Dry)		Control System	
Rated airflow	1500 m <sup>3</sup> /h	Controller	SIEMENS
Available static pressure	400 Pa	Display Type	Touch Panel
Reactivation air (Wet)		Communications (Options)	MODBUS
Rated airflow	500 m <sup>3</sup> /h		BACNET
Available static pressure	400 Pa		
Power Supply		Miscellaneous data	
(3x400V, 50 Hz)	13 kW	Weight (Subject to final configuration)	233 kg
Current	19 A	Operational temperature range	-30/+40°Cdb
<b>Dehumidification Capacity</b>		Panel Insulation	20mm
At 20.0°Cdb, 60% RH	8.4 kg/h	Filtration	EU4
		IEC protective class	IP54
		Max noise level (without ductworks)	78 dBA







### **DEHUMIDIFICATION CAPACITY**

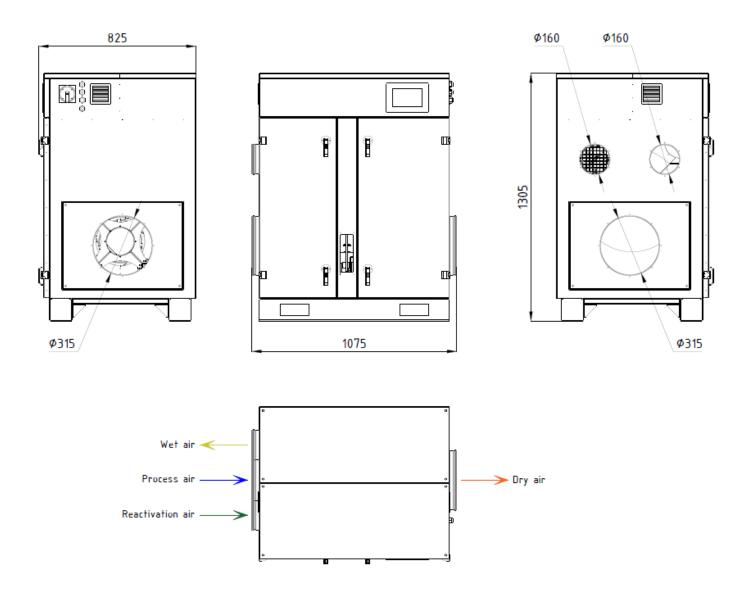
	50%	60%	70%	80%	90%
5.0°C	3.8	4.6	6.1	6.1	6.8
10.0°C	5.1	6.1	7.7	7.7	8.3
20.0°C	7.5	8.4	9.8	9.8	10.4
30.0°C	8.7	9.6	10.9	10.9	11.4

 $Approximate \ capacity \ in \ kg/h \ at \ different \ inlet \ process \ air \ relative \ humidity \ (\%) \ and \ temperature \ (^{\circ}Cdb): \ Reactivation \ air \ inlet \ +20.0^{\circ}Cdb, \ 60\% \ RH$ 

# **TECHNICAL DATASHEET**

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#### Dimensions (Standard Unit)



Dimensions are approximate and are subject to final unit configuration.

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