

THE MOST ADVANCED DESICCANT TECHNOLOGIES FOR PRECISE MICROCLIMATE CONTROL



EU STANDARDS The equipment comply to all of the applicable EU directives and regulations.



All components made exclusively by European manufacturers.



VAST EXPERIENCE

Practical experience in the desiccant dehumidification more than 15 years.



TECHNICAL DATASHEET

Desiccant dehumidifier MDC 250

www.destech.eu

GENERAL INFORMATION

The MDC 250 desiccant dehumidifier is designed to efficiently dehumidify air in open system applications. The unit could operate in recirculation mode too. In this case plate with spigots for ductwork connection has to be ordered as additional accessory. The compact construction allows extended periods of operation with a minimum of maintenance.

The design facilitates easy transport by one person. Dehumidifier is designed for drying-out buildings, new buildings as well as waterdamaged buildings. Furthermore, it is used for room air dehumidification, dry air storage, water works and pump stations, etc. Especially suitable for low temperature and low humidity operation.

In addition to above mentioned application, desiccant dehumidifiers are irreplaceable in:

Elimination

drying new

buildings.



Protecting against window condensation and glass ceiling in the administrative as well as residential buildings.

Improving the quality of the finishing works during apartment repairs due to drying without thermal movements in the covering products used for walls, floor and ceiling.



Increasing the of the effects shelf life of of the floods, hygroscopic materials: medicines, detergents, building materials and other bulk materials



Maintaining a low level of humidity during the production of food items as well as products made of wood, rubber and plastic, during the manufacture of furs.



items.



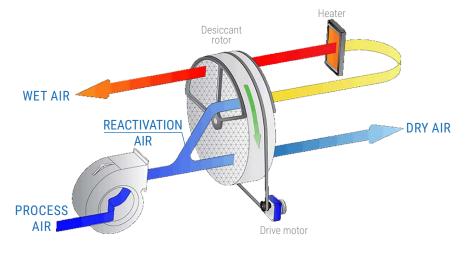
Maintaining the marketable condition of clothing and packaging

Reducing the growth of bacteria, etc.

METHOD OF OPERATION

A desiccant dehumidifier removes water from a flow of the air that passes through it. The heart of this process is an adsorption rotor coated with a special substance that absorbs the water molecules that make up the moisture in the passing air (Process air). When saturated, the rotor is rotated over to

a regeneration zone, where it is dried with heated air (Reactivation air). The warm, humid regeneration air is led away out of the unit (Wet air) and the rotor is once again ready to absorb water molecules.



CONSTRUCTIONAL FEATURES

- The casing has high resistance to atmospheric corrosion and made of 1,0 mm stainless steel sheet metal; some parts made of 1,5 and 2,0 mm stainless steel in order to achieve rigidity;
- Compact design and low weight of the unit;
- High performance at low temperatures and low relative humidity in a room;
- Optional humidistat is available as an accessory;
- Easy access to the internal components of the dehumidifier for the maintenance;
- PTC-heater;
- High efficiency of the washable silica gel rotor;
- The design facilitates easy transport by one person;
- All components made exclusively by European manufacturers.

TECHNICAL DATA

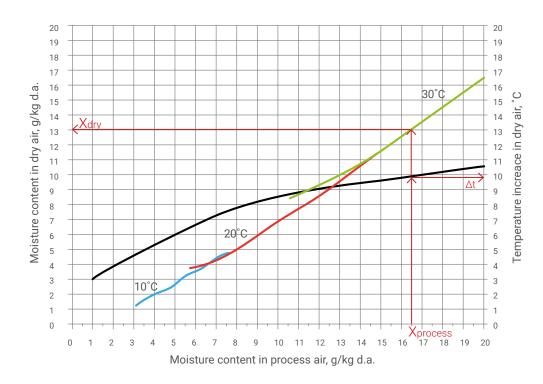
Process air		
Rated airflow	290 m³/h	
Available static pressure	160 Pa	
Reactivation air		
Rated airflow	80 m³/h	
Available static pressure	100 Pa	
Power supply		
(1x230V, 50 Hz)	1,4 kW	
Current	6,1 A	

Miscellaneous data		
Dehumidification capacity (at 20 °C, 60%RH)	1,1 kg/h	
Weight	18 kg	
Operating temperature	-30/+40°C	
Max noise level without ductworks	61 dBA	
Air filter	EU4	
IEC protective class	IP44	

DEHUMIDIFICATION CAPACITY

	50%	60%	70%	80%	90%
5°C	0,57	0,65	0,74	0,79	0,84
10°C	0,7	0,8	0,8	0,9	0,9
20°C	1,0	1,1	1,1	1,2	1,2
30°C	1,1	1,2	1,2	1,3	1,3

Approximate capacity in kg/h at different inlet process air relative humidity (%) and temperature (°C)



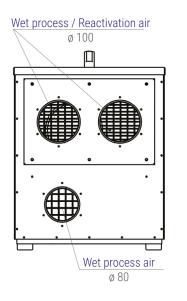
------Temperature increase in dry air

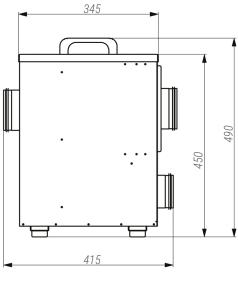
Example

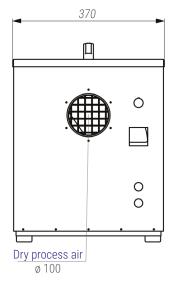
Xprocess=16,5g/kg d.a.; tprocess=30°C

Xdry=13g/kg d.a.; ∆t=9,7°C; tdry=30+9,7=39,7°C

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Changes are possible without notice.



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