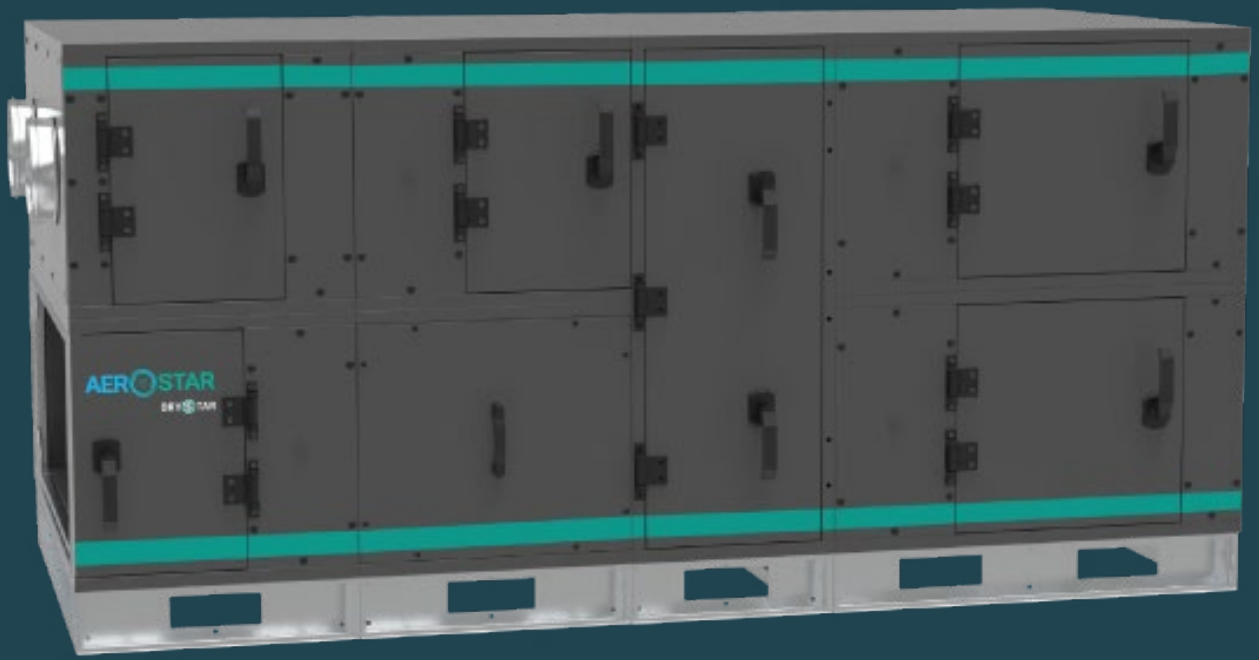
AEROSTAR

DryStar

Adsorption rotary air dryer

CAPACITY: 1 000 – 8 000 m³/hour



eco

Solutions that work

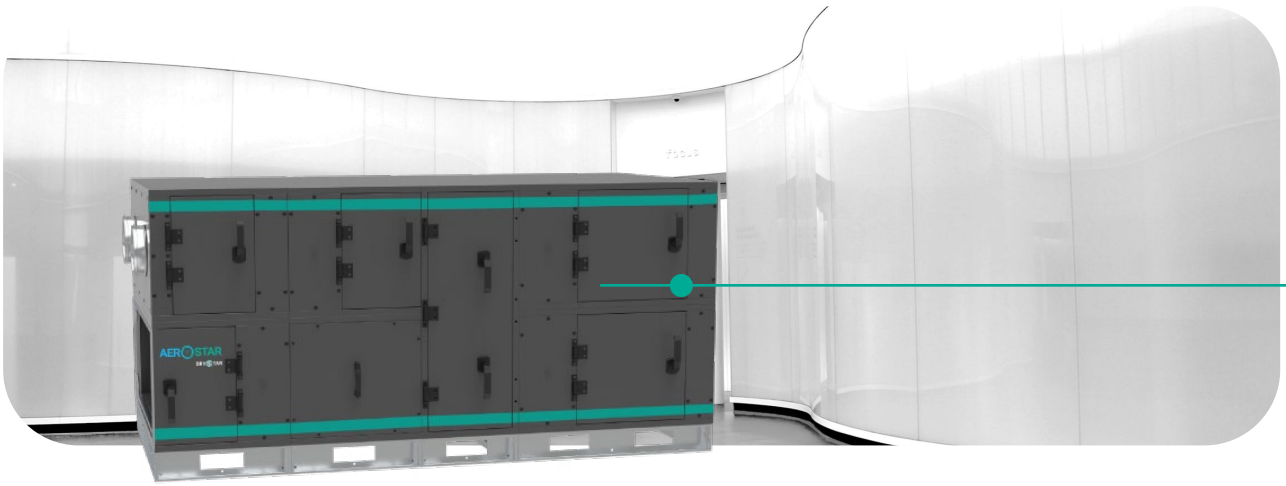
Increased moisture level causes the rapid growth of bacteria and mould. That is why moisture damages and destroys buildings, spoils different things, and is harmful for people's health.

According to researches, a person feels best at a relative humidity in the range **from 40% to 60%**.

In such conditions, the body most effectively fights against airborne spread infections.

Excessive water vapour content negatively affects the operation of residential buildings, comfort and well-being of people living in them.

Increased humidity causes irreparable damage to production facilities, public buildings, retail spaces and warehouse terminals, cultural and entertainment facilities.



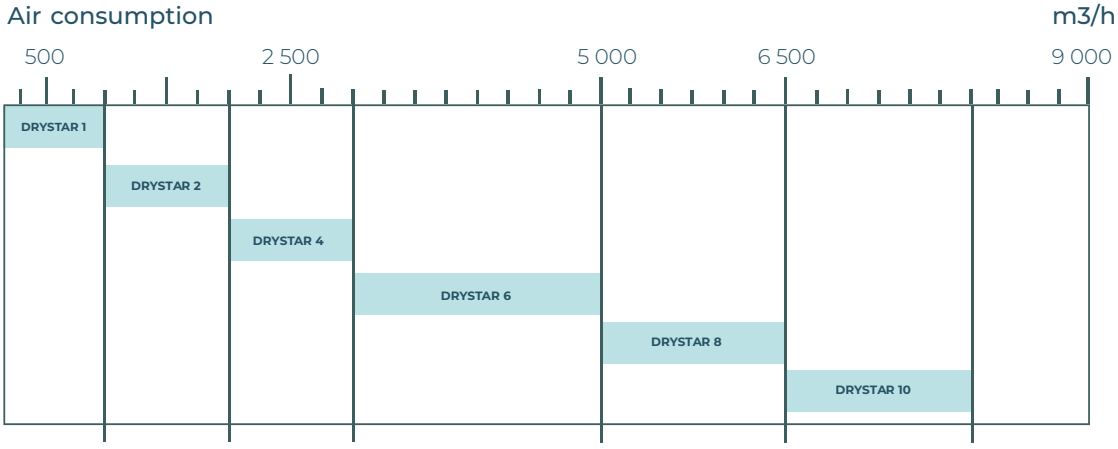
AREA OF USAGE

ice arenas, food industry, pharmacy, warehouses, museums, medicine.
Can be used both independently (indoors or outdoors), and in a complex with air-processing system.

- - Dehumidifiers reduce humidity without changing the temperature.
- - Support the creation of normatively necessary conditions for people who are indoors.
- - Control and maintain the required relative humidity for production technology in industrial buildings.
- - Protect from corrosion, provide electrical and environmental safety.
- - Reduce the humidity level to remove the load and increase the service life of refrigeration units.
- - The air is dried, preventing the formation of ice in refrigerators and freezers, transitional vestibules.
- - Intensively remove moisture after natural disasters, floods or waterfloods.
- - Dry the objects during building on the stages of finishing, concrete or repair works.
- - Remove the evaporations from the pool mirrors, preventing formation and dropout of condensate on equipment and surfaces.
- - Carry out dehumidification during complex air treatment.

Optionally: the unit can be equipped with sensors of air moisture.

Standard model range is presented with 6 standard sizes



Up-to-date parameters of equipment are available in the selection program AeroSelect. Don't forget to check them with your manager.

ADVANTAGES

Controls humidity level, prevents condensation and, as a result, prevents the formation of mould and bacteria growing, protects against corrosion;

Supports long-term storage of hygroscopic materials and bulk substances;

Unique sealed reinforced case ;

Equipped with a sorption rotor with ultra-high capacity to absorb the moisture;

Convenient maintenance of the unit due to the improved design;

Easily integrated into the scheduling system of the facility.

DIMENSIONS OF THE UNIT

Model	Rated consumption, m3/h	Static pressure	Rated consumption, m3/h	Static pressure	Reactivation air humidity	Power consumption
	Supply air		Reactivation air			
DryStar-1	1000	250	250	250	20°C/50%	11,8
DryStar-2	2000	250	500	250		14,2
DryStar-4	3000	250	750	250		27,3
DryStar-6	5000	250	1250	250		50,1
DryStar-8	6500	250	1625	250		69,9
DryStar-10	8000	250	2000	250		84,5

Model	Power supply	Filter type	Level of sound pressure (LW in the surrounding area)	Dehumidification, kg/h	Dimensions (W*H*L), mm	Weight, kg
DryStar-1	230/1/50	G4	38	6,3	11,8	603
DryStar-2	230/1/50	G4	39	13	14,2	603
DryStar-4	230/1/50	G4	39	19,8	27,3	701
DryStar-6	400/3/50	G4	55	33,4	50,1	1312
DryStar-8	400/3/50	G4	55	42,4	69,9	1312
DryStar-10	400/3/50	G4	48	50,8	84,5	1043

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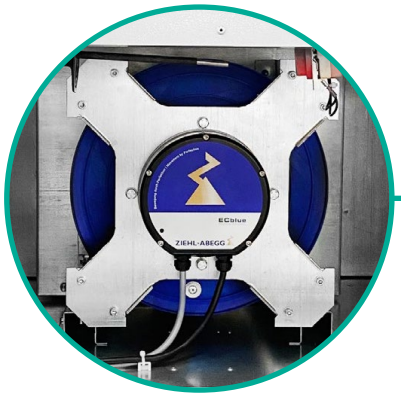
BASIC CONFIGURATION

POCKET FILER

The pocket design guarantees **the increase of filtration area** and provides maximum efficiency.

Made of a durable painted metal frame.

Filter material: polyester / micro-fibreglass. Filtration class acc. to ISO 16890: Coarse. ePM10. ePM2.5. ePM1
Working environment temperature: < 100 °C.
Humidity of the working environment: ≤100%.



EC-MOTOR

Brushless synchronous motor with electronic control highly reduces noise level.

High working pressure: up to 2500 Pa.
Wide range of nominal voltage: 200-277V and 380-480 V ±15%.
Long service life: more than 80000 hours of continuous work.

EC-electric motor with efficiency higher 90%

- Saves at least 30% more electricity than an AC motor.
- Complies with the ErP 2015 directive.
- Built-in EMC filter protects against phase loss and low voltage in the network.
- Protection against overheating of the motor and electronics, and protection against rotor lock.
- No starting currents.
- No service needed.
- The absence of the frequency converter saves installation space.
- Allows reduction of the fan capacity up to 10%.
- Optionally EC-motor is equipped with MODBUS RTU protocol.

Option. Application of the Flow Grid technology: air flow rectifier.

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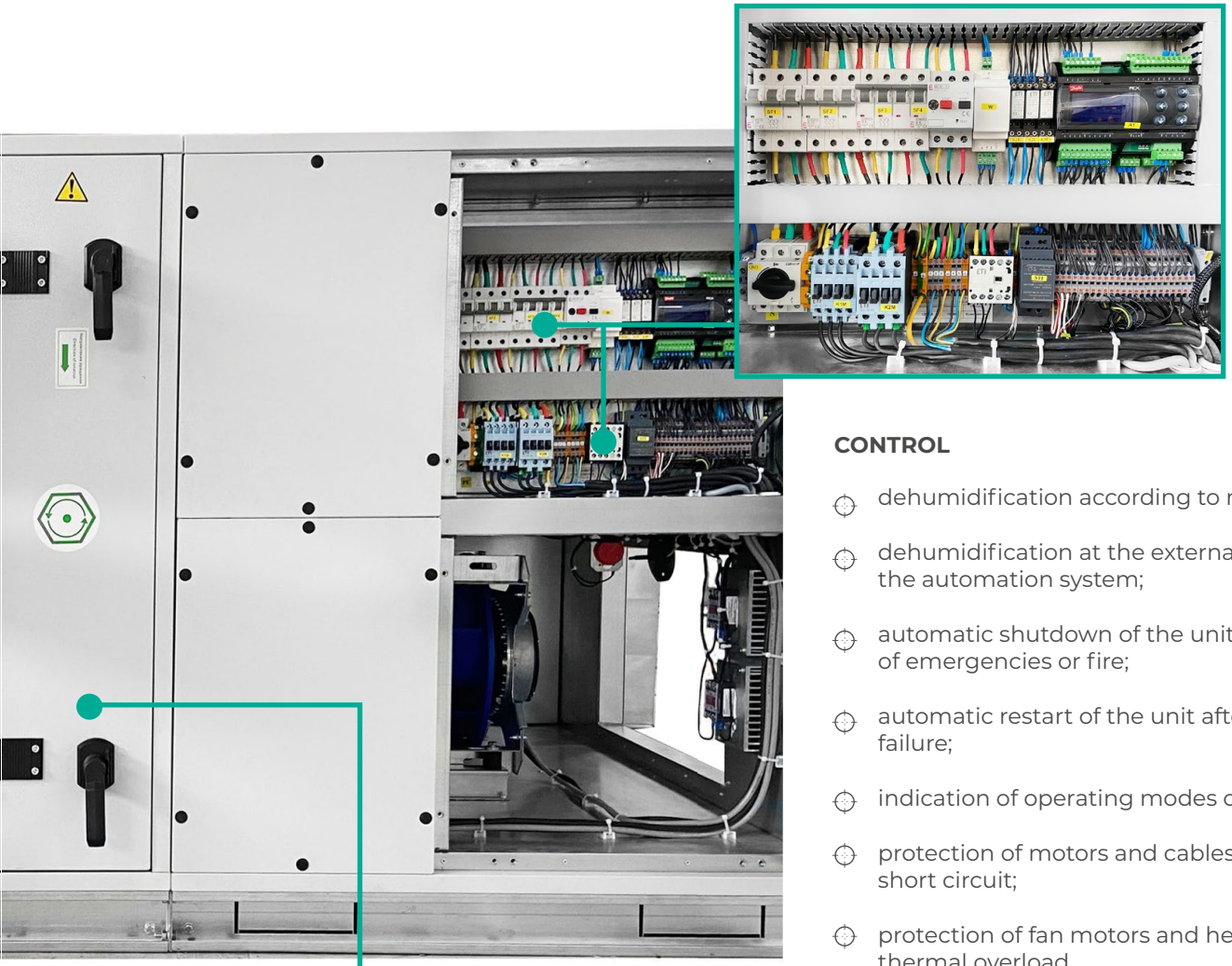

CONTROL

- dehumidification according to moisture sensor;
- dehumidification at the external signal from the automation system;
- automatic shutdown of the unit in case of emergencies or fire;
- automatic restart of the unit after a power failure;
- indication of operating modes of the unit;
- protection of motors and cables against short circuit;
- protection of fan motors and heaters from thermal overload.

SORPTION ROTOR

Adsorption dehumidifiers work at any temperatures and air humidity levels.

The rotor is the main element of the dehumidifier. Two isolated from each other air streams are passed through the rotor at the same time.

The first stream is dehumidified air.
The second stream is reactivation air.

Water molecules are absorbed by a special absorbent composition (based on silica gel) while passing through a rotary recuperator.

Moisture removal is accompanied by the air temperature increase. While rotating recuperator enters the reactivation zone, where it is dried by a second stream of heated air. This way, its moisture-absorbing properties are restored.

Convenient unit control from your smartphone with Aerostar APP

Makes it simple at any time and from anywhere in the world:

- control the parameter of equipment operation
- manage the settings
- receive notifications of emergencies
- consult customer service of AEROSTAR

- individual settings
- all settings on one screen
- individual schedule
- reports
- instant notifications of accidents or emergencies
- service support

FOR ANDROID DEVICES

FOR IOS DEVICES

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