



SINCE 1910

Reinders 10,000 series

Adsorption dehumidifier

Reinders Industrial

Reinders Industrial is the leading supplier of adsorption dehumidifiers since 1910. We offer you the most effective and technical solution for adsorption dehumidification currently available.



+ Reliable operation

Quality units developed by the world's leading experts in the field.

+ Robust & resilient

Designed to withstand constant use. Standard stainless-steel housing ensures robust and hygienic performance.

+ Full control

Wide range of controllers and sensors to control both humidity and dew point. The dehumidifier can be connected to all external controller types.

+ Easy to maintain

Designed for easy access, therefore simple and inexpensive to maintain.

+ Easy to operate

Through microprocessor-based control units and advanced sensors, with the right degree of automation you need.

+ Energy-efficient

Designed to consume as little energy as possible while at the same time achieving a maximum effect.

+ Low operational costs

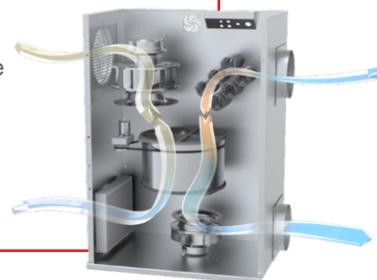
Long service life and remarkably inexpensive to operate.

+ Very easy installation

Place it, connect it and plug it in.

The principle

The adsorption air dehumidifier is designed to remove water vapor from the air. The whole process is autonomous and cyclic, therefore continuously providing dry air. The rotor is equipped with separated air flows which guarantees great precision and optimal functioning.





Adsorption dehumidifier

Reinders 10,000 series

The adsorption dehumidifier offered is the largest standard unit included in the range. An innovative large dehumidifier that enables any company to produce approximately 4,000 m³ to 10,000 m³ of dry air per hour with a moisture removal capacity of as much as 25 liters to 50 liters per hour.

This dehumidifier comes standard equipped with robust stainless-steel housing suitable for indoor installation, and is optionally equipped with high quality, energy-efficient EC fans.

The dehumidifier requires very little service, nevertheless, the dehumidifier is designed to be easily accessible so that the various components can be adequately checked and replaced quickly if necessary.

Due to its modular design, the dehumidifier can be expanded with heat recovery on the regeneration side or with air cooling that does not require refrigerants and F gases, so that no regeneration air duct is required at all. This is ideal for situations where regeneration is not possible. There are also options to expand with cooling and hot water blocks for optimal temperature control of the process air.

The adsorption dehumidifier is a complete unit that includes a rotor, a transmission motor, fans, a heater, air filters and an integrated electrical system with all components necessary for safe operation. The autonomous control system automatically adjusts the output to the requirements.

Specifications

	Reinders 10,000 series	Unit
Electrical connection capacity	67	kW
Connection voltage	400 / 50 / 3	V / Hz / Ph+N+PE
Dimensions D x W x H	1,320 x 2,090 x 2,152	mm
Weight	745	kg

The 10,000 series is available with several dehumidification capacities and varying specifications. Contact our product specialists for advice and exact specifications.

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Options

Heat recovery module

The dehumidifier can be equipped with a highly efficient aluminium cross-flow air heat exchanger. This allows you to recover heat from the regeneration air leaving the dehumidifier. This thermal energy can then be reused to preheat the incoming regeneration air. This provides immediate savings in dryer energy consumption, resulting in a short payback period.

Specifications

Dimensions D x W x H: 1,320 x 1,080 x 2,152 mm
Weight: 580 kg

Dew point controller

The dew point controller is equipped with a capacitive humidity sensor and digital readout. The combination of relative humidity [%RV] and dew point temperature [°Cdp], with the possibility of setting e.g. both a set point of 60%RV and a dew point of 10°C, makes the controller suitable for many process applications.

Process cooling module

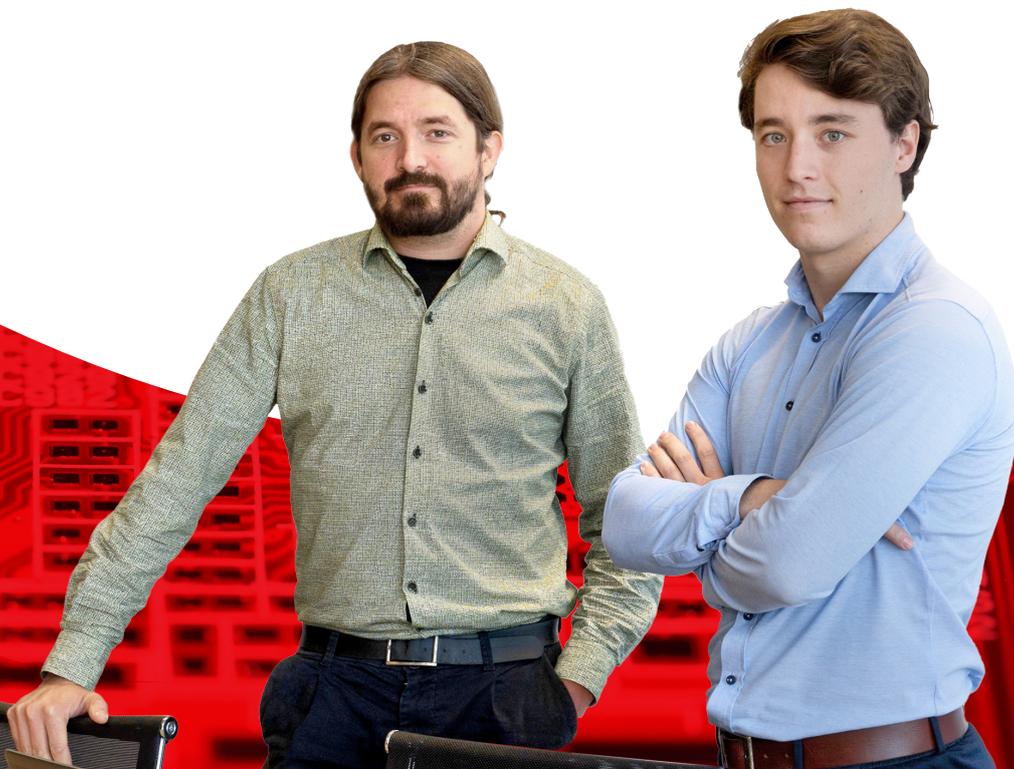
The dehumidifier can be equipped with a special module to reduce and/or control the temperature and humidity of the dry air. This is particularly beneficial when the peaks of incoming process air are allowed to have minimal influence. In this case, some of the water in the air condenses, increasing the efficiency of the dehumidifier. With this dehumidifier, you can also choose a cooling module that allows you to control the process exhaust temperature.

Specifications

Dimensions D x W x H: 1,320 x 1,080 x 1,020 mm
Weight: 350 kg

Hygrostat

The hygrostat switches the dehumidifier to the desired relative humidity [%RV] in the air.



Monitoring and execution control

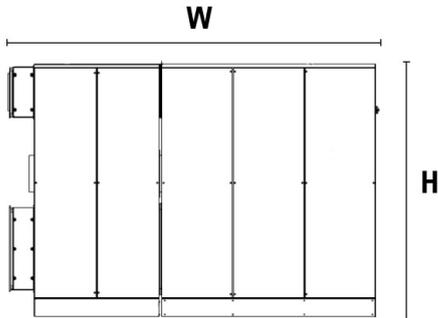
The adsorption dehumidifier is available in various versions to determine the optimal monitoring and control requirements, with or without a PLC touch screen.

- + Basic:** Simple no-nonsense control with basic control over the dehumidifier.
- + Functional:** PLC with touch screen and additional control functions.
- + Advanced:** Specific programs give you control over noise and energy consumption.
- + Complete:** The complete package gives you maximum control with highly accurate sensors.

	Basic	Functional	Advanced	Complete
Hour meter to monitor running time	✓	✓	✓	✓
High temperature alarm	✓	✓	✓	✓
Manually adjustable process EC fan	✓	✓	✓	✓
Manually adjustable regeneration EC fan	✓	✓	✓	✓
External humidity sensor connection (RH)		✓	✓	✓
Service indicator for maintenance period		✓	✓	✓
Tracking and tracing of air conditions		✓	✓	✓
PLC with 5.7" touch screen control panel		✓	✓	✓
Filter and rotor service alarm		✓	✓	✓
Measurement and control via dew point		✓	✓	✓
Timer for day/night and cycle		✓	✓	✓
Ethernet connection Modbus TCP/IP (option)		✓	✓	✓
Smartphone monitoring/control (option)		✓	✓	✓
Capacity control modular heating			✓	✓
Control over the regeneration EC fan			✓	✓
Control over the process EC fan			✓	✓
Automatic adjustment of air flows			✓	✓
Noise reducing module			✓	✓
Energy saving module			✓	✓
Extra-high quality process sensors				✓
Continuous measurement of drying capacity				✓
Capacity alarm				✓
Specific moisture (g/kg) measurement				✓

Sketch

The total dimension of the adsorption dehumidifier with air cooling is: 1,320 x 3,091 x 2,152 mm (D x W x H).



Maintenance

Annual maintenance is essential for the optimal functioning of your dehumidifier as well as to prevent malfunctions and premature aging. If a defect is detected, our technician can intervene immediately by checking the correct parameters and settings, by cleaning the parts and repairing or replacing them. It is also good to know that preventively maintained dehumidifier(s) last even longer and are also more economical to operate.

Reinders Industrial can provide you the following options:

Maintenance plan

If you opt for a maintenance contract, Reinders Industrial will provide a full maintenance service once a year, including replacement of the suggested parts.

Maintenance and breakdown plan

In addition to the annual maintenance service, you also benefit from our breakdown service. Our 24-hour technical service is available 365 days a year, including weekends and holidays. With our dedicated service team, we will try to solve your breakdown the same day.



Industrial

Reinders Corporation

Reinders Industrial is a proud member of Reinders Corporation. A private company in the 4th generation, operating in more than 100 countries across six continents. Since 1910, the name Reinders has come to be associated with a reputation for excellence in air and climate solutions worldwide.

Interested or questions?

Get in touch with us. The experts of Reinders Industrial are at your service!

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