AFIM® DRY

1000, 2000

Industrial Dehumidifiers

CE UL

Dehumidifying capacity at 20°C with 60% RH
10 - 20 kg/h

Dry air flow
1,000 – 2,000 m3/h

- Suitable for heavy industrial environments
- Ideal for the dehumidification of small (production) areas and as a stand-alone configuration
- Low maintenance costs by filters with up to 5 times higher dust holding capacity
- Suitable in the food and pharma industry and storage applications
- 15% More energy efficient then market standards
- Original Dutch design including option to 5 years warranty extension

AIR IN MOTION

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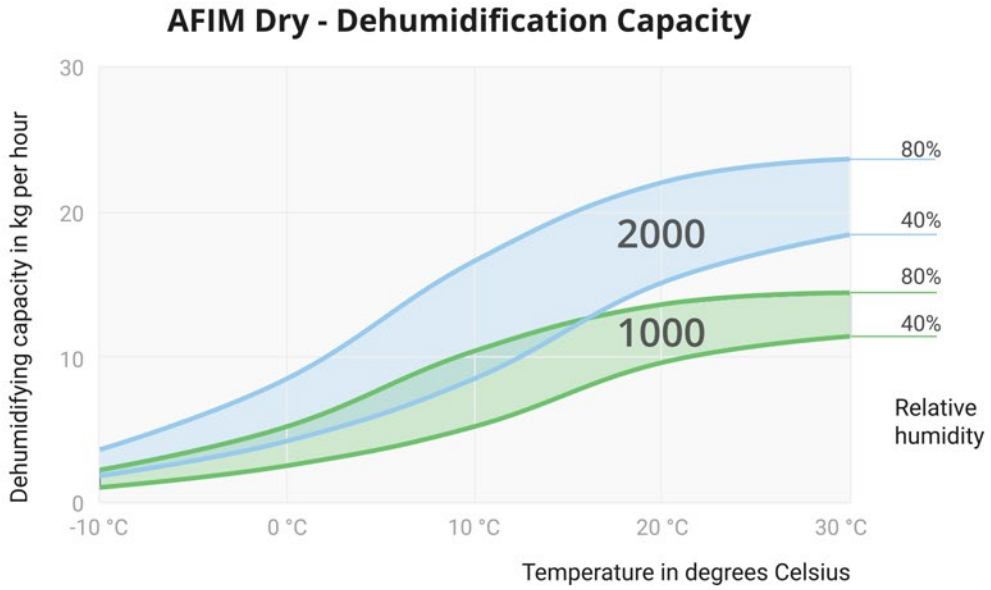
All standard:

- Bag filters prepared for heavy industrial environments
- High flexibility due to integrated EC-fan technology with a 0-100% speed controlled process fan
- Suitable for very low dew points (up to -60°C dp)
- Onboard 2-step controller (suitable for 0-100% heater capacity)
- Automatic restart function
- Operating hours counter

Optional:

- Filter alarm
- Stainless steel housing
- Online assistance



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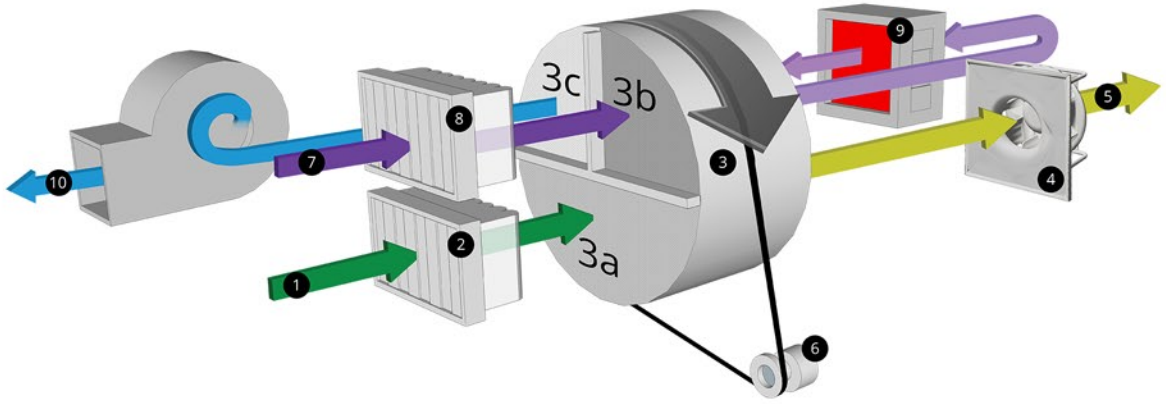
Industrial desiccant dehumidifier - Principles of operation

The process-air **(1)** is being sucked into the dehumidifier and blown through industrial bag filters **(2)**. To guarantee a stable and continuous operation, these filters have a minimum overcapacity of 30%. After the process-air has been filtered, it continues through the process section of the rotor **(3a)**. The surface of this rotor **(3)** is covered with small air channels that flow all the way through. These small channels contain a high amount of silica gel (>82% of the total surface). Because of the rotors unique composition, the moisture in the processed air is being adsorbed by the silica gel. When the process-air leaves the rotor, it's completely dry. The process-air is pushed through the rotor due to negative pressure. This negative pressure is created by an industrial and energy efficient EC-fan **(4)**. The dry air **(5)** is then expelled from the dehumidifier and ready for use. The rotor is continuously spun around slowly by the rotor motor **(6)**. This way the rotor is always ready to pick up moisture.

The advantages of an industrial desiccant dehumidifier include that the drying process is continuous. The process is never interrupted by, for example: defrosting/de-icing. Furthermore, extreme low moisture levels can be reached with an industrial dehumidifier.

The regeneration-air **(7)** is being sucked into the dehumidifier and blown through industrial bag filters **(8)**. To guarantee a stable and continuous operation, these filters have a minimum overcapacity of 30%. After the regeneration-air has been filtered, it continues through the heat recovery section of the rotor **(3b)**. The heat recovery section recovers a minimum of 30% of the heat. That heat is being re-used for pre-heating the regeneration-air of the dehumidifier. After passing through the heat recovery section, the air is heated to over 100°C by the internal heater **(9)**. The heated regeneration-air passes through the regeneration section of the rotor **(3c)**. When the regeneration-air passes through the rotor, the air absorbs all the moisture contained by the rotor. The regeneration-air, also known as "wet air", is then expelled out of the dehumidifier **(10)**.

1. Process-air
2. Filter class by ISO 16890: ePM1 50%
3. Rotor
4. Process fan (EC fan)
5. Dry air
6. Rotor motor
7. Regeneration-air
8. Filter class by ISO 16890: ePM1 50%
9. Heater
10. Wet air



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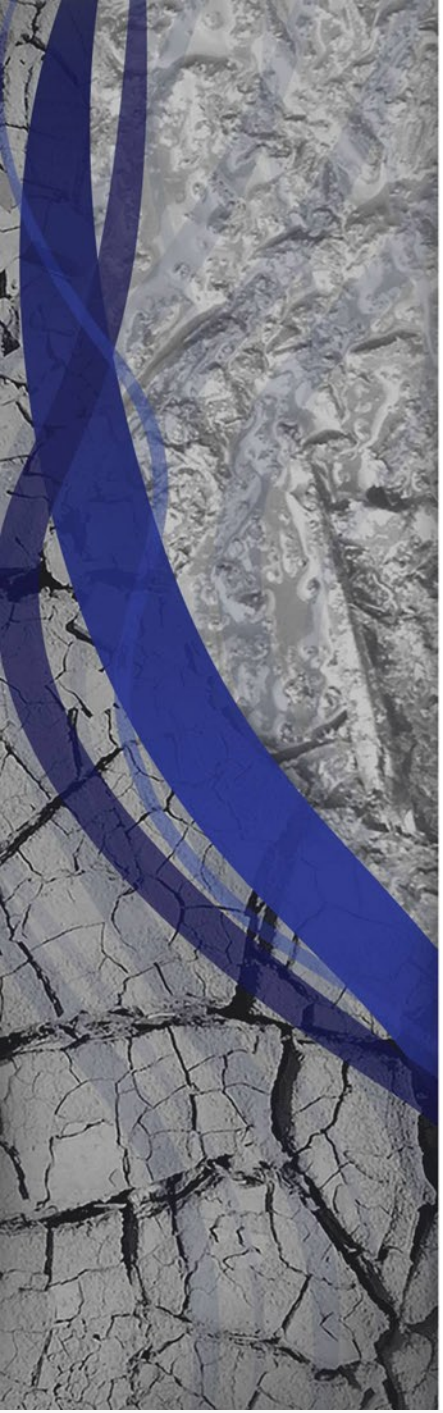


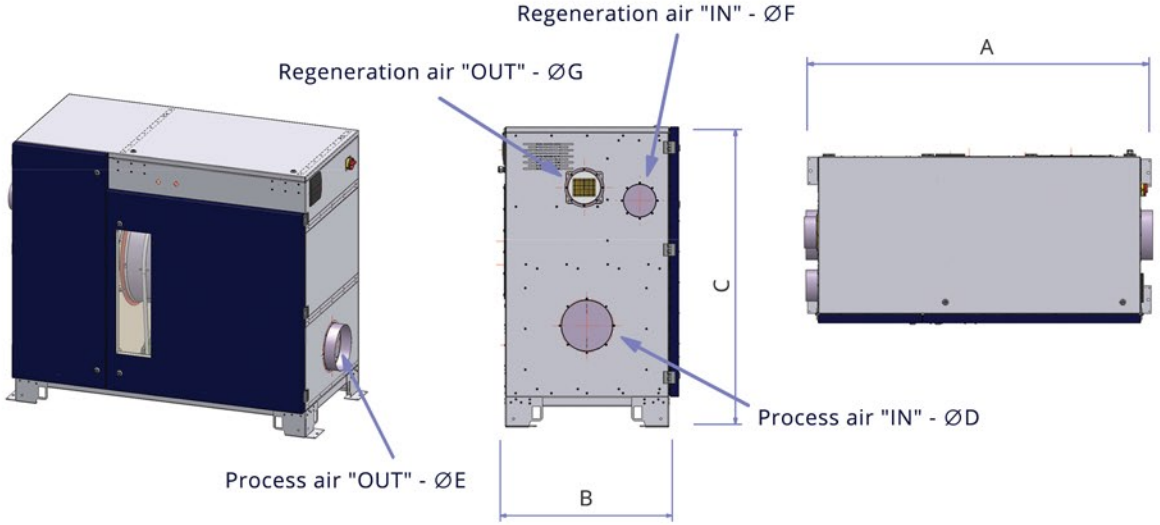
AFIM® DRY

Dehumidifier model	1000	2000
Nominal capacity[1]	10 kg/h	20 kg/h
Dry air flow[2]	1000 m3/h	2000 m3/h
Static pressure at disposal	500 Pa	500 Pa
Wet air flow[2]	400 m3/h	700 m3/h
Static pressure at disposal	500 Pa	1000 Pa
Heater power	13.5 kW	22.5 kW
Nominal electric consumption	14.8 kW	26 kW
Maximum electric consumption	17.0 kW	26.5 kW
Supply fuse 3x400 V, 50 Hz	32 A	50 A
Weight	450 kg	475 kg

[1] Valid for inlet conditions 20°C / 60% RH.
[2] Volume flow for density 1.20 kg/m3.

Model	1000	2000
A	1780	1845
B	865	1065
C	1470	1470
D	Ø 250	Ø 400
E	Ø 250	Ø 400
F	Ø 160	Ø 250
G	Ø 160	Ø 250

All sizes are in millimeters.



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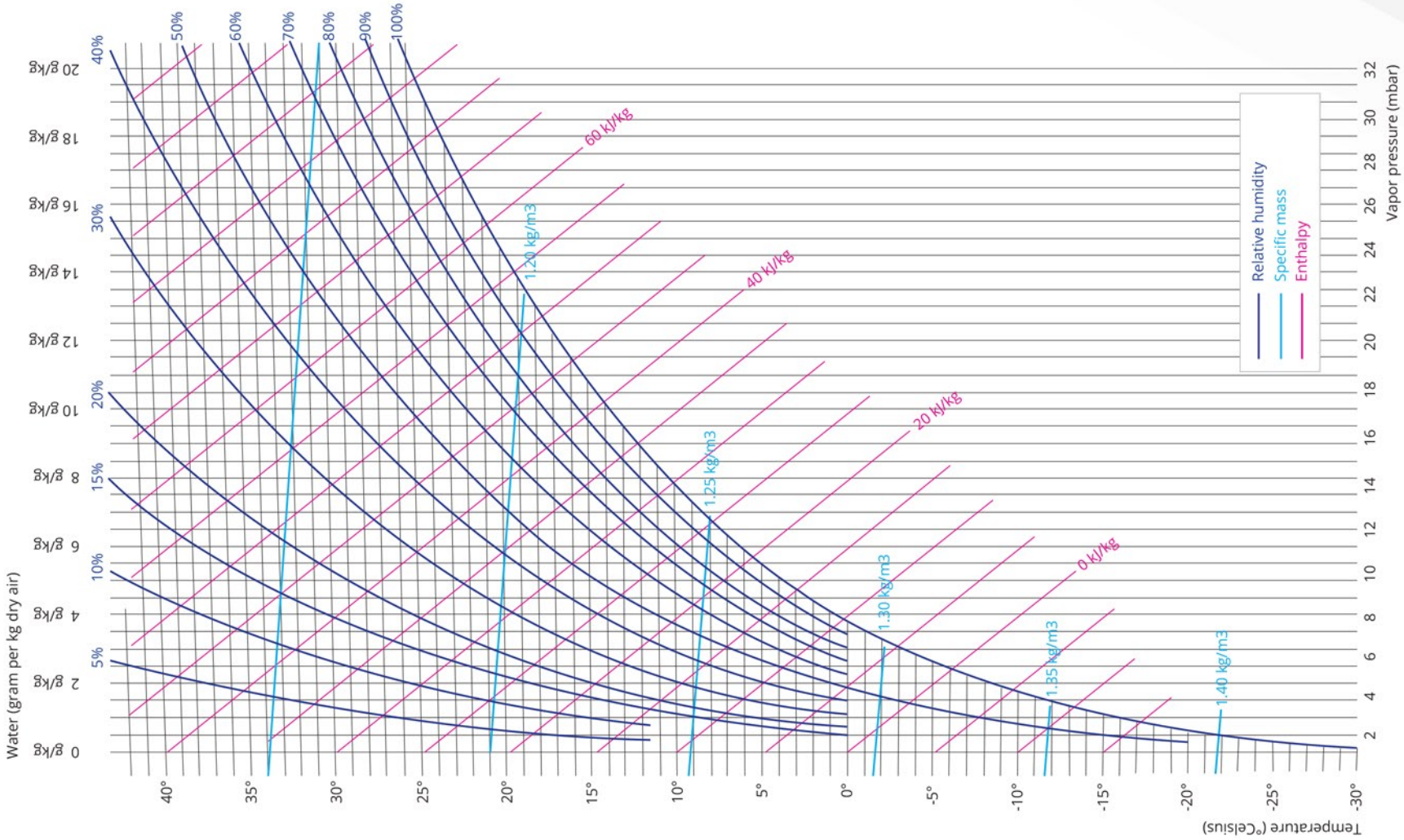
Mollier diagram



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AFIM® Dehumidifiers are sold, installed and maintained by: