

# NR-DH31 Desiccant Dehumidifier

NR-DH31

## Product Overview

**Desiccant rotor** – located at the heart of the machine the washable rotor is designed to absorb moisture without the need for a refrigeration circuit

**Robust construction** – complete with stainless steel chassis

**Digital controller** – possible for the user to set a desired set point using the integrated controller in conjunction with humidistat

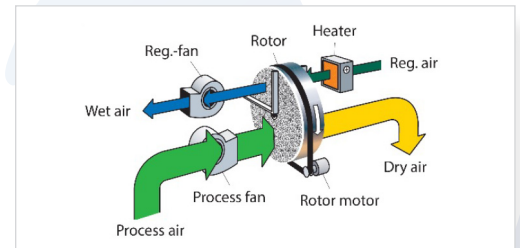
**Self-regulating heater** – providing heat for the 'regeneration' section – operation is fully managed by the unit's controller

**Filtration section** – can be easily accessed for cleaning & replacement of dirty filters when necessary



## Operating Principles

There are two air streams of differing flow rates – typically having a ratio of approximately 4:1. The greater 'process' flow is dried as it passes through the dehumidifier – while the smaller 'regeneration' flow is used to heat the rotor material to drive the absorbed moisture vapour from the desiccant. The moisture removed from the process air is transferred as the rotor slowly turns.



## Performance Data

Nominal Extraction Capacity (1) .....	2.1 kg/hr
Nominal 'Dry' Air Flow Rate .....	490 m <sup>3</sup> /hr
Nominal 'Wet' Air Flow Rate .....	85 m <sup>3</sup> /hr

### Operating Limits

Maximum Inlet Air Temperature.....	40 °C
Minimum/Maximum Ambient Temperatures .....	-20/50 °C

### Electrical Data

Power Supply .....	230/1/50 V/ph/Hz
Power Connection .....	16 A 3 Pin Plug

### Spigot Connections

'Process' Air Inlet .....	160 mm Ø
'Regeneration' Air Inlet.....	80 mm Ø
'Dry' Air Outlet.....	160 mm Ø
'Wet' Air Outlet.....	80 mm Ø

### Filtration - Process / Regeneration Circuits

Grade .....	G4
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### Physical Data

Length .....	520 mm
Width .....	455 mm
Height .....	464 mm
Operating Weight.....	32 kg

Performance data based on 'process' inlet air conditions of +20°C / 60% R.H.

## Still have a question?

Get in touch with one of our expert team today.

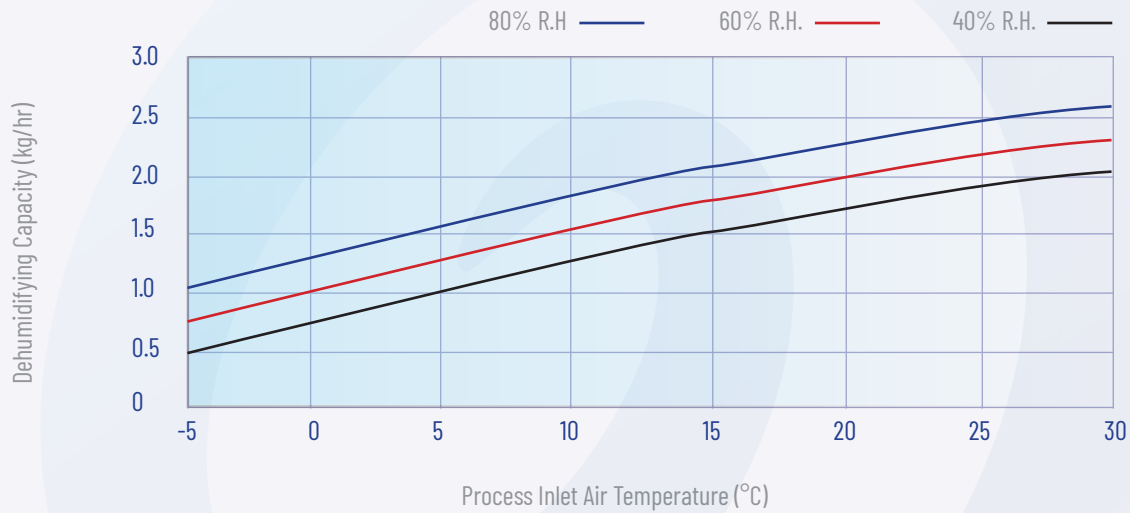
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## Dehumidifying Capacity



The level of performance provided by each machine depends on the conditions at which it is operating. The factors determining performance are the temperature & relative humidity (R.H.) of the inlet air. The above graph illustrates the dehumidifying capacity - at three different R.H. levels - based on differing inlet air temperatures.

