

# DESICCANT DRYAIR 50000 VRF



- > Lower footprint/weight per m<sup>3</sup>/hr
- > A unique triple point control on all machines over 1500 m<sup>3</sup>/hr, measuring the regeneration temperature onto the wheel, the wheel off temperature (wet air) and the RH or Dew point of the air being dried. This combination ensures the amount of energy input is relevant to the moisture being extracted. This can be applied to 500 m<sup>3</sup>/hr units as option extra.
- > Numerous options available, pre-heaters and coolers, post heaters and coolers, humidifiers and many other variations as special machines.
- > Filters up to F7 as standard with HEPPA & ULPA available.
- > Highly efficient Silica Gel Rotor for efficiency & durability, high moisture removal efficiency with the lowest energy costs.
- > Various regeneration options available on units above 1500 m<sup>3</sup>/hr.  
All options are fully modulating.

## APPLICATIONS

- |                   |                    |                      |
|-------------------|--------------------|----------------------|
| → SILOS           | → FOOD INDUSTRIES  | → PHARMACEUTICAL     |
| → TIMBER DRYING   | → MILITARY STORAGE | → PACKAGING          |
| → ARCHIVE STORAGE | → FREEZER STORAGE  | → POWDER MANUFACTURE |

## SPECIFICATIONS

<b>Process Airflow Nominal</b>	50000	m <sup>3</sup> / hr
Process Pre filter	15 x 600 x 600 pleated panel G4	No / Size / Grade
Process main filter	15 x 600 x 600 rigid bag F7	N / Size / Grade
High Perf Silica Gel Rotor	3300 x 200	mm
Desiccant Wheel Rotation Speed	10	RPH
Process Fan Model	DD SRER-13-01220	
Motor Power	22	kW
<b>Moisture Removal</b>		
20°C @ 40% RH	301.8	kg / hr
20°C @ 60% RH	412.8	kg / hr
25°C @ 60% RH	453.6	kg / hr
30°C @ 80% RH	520.2	kg / hr
Total Pressure / External Pressure	1154 / 465	Pa
<b>Regeneration Airflow Nominal</b>	18150	m <sup>3</sup> / hr
Regeneration Filter	8 x 600 x 500 pleated panel G4	No / Size / Grade
Heater Option	Electric Thyristor control	Electric PTC
Heater Power (on startup)	756.3	kW
Heater Power (after initial start)	453.8	kW
Heater option	Electric   Gas   Steam	***
Fan Model	DD SRER-15-0800	
Motor Power	7.5	kW
Total Pressure / External Pressure	1039 / 443.5	Pa
<b>Electrical Supply</b>	3p/N/E 50 / 60 Hz	1p/N/E
Voltage	380   415	V / Ac
Electrical Input Power (on start up)	29.5	kW
Amps per phase	44.87   41.09   -----	A/Phase **
ΔPa Process / Regeneration / Pre-purge	215 / 266 / 184	Pa
<b>Dimensions</b>	4000 x 3800 x 3900	L x W x H mm
Process Inlet	2000 x 900	mm
Process Outlet	1250 x 850	mm
Regeneration Inlet	1200 x 1000	mm
Regeneration Outlet	1000 x 500	mm
<b>Weight</b>	4200	kg

Process and regeneration fan supplied with a VSD control.

\* pressure readings at dirty filter condition

\* Electrical power consumption on electric

Please note this value does not include regeneration if electric.

\*\*\* Regeneration options.

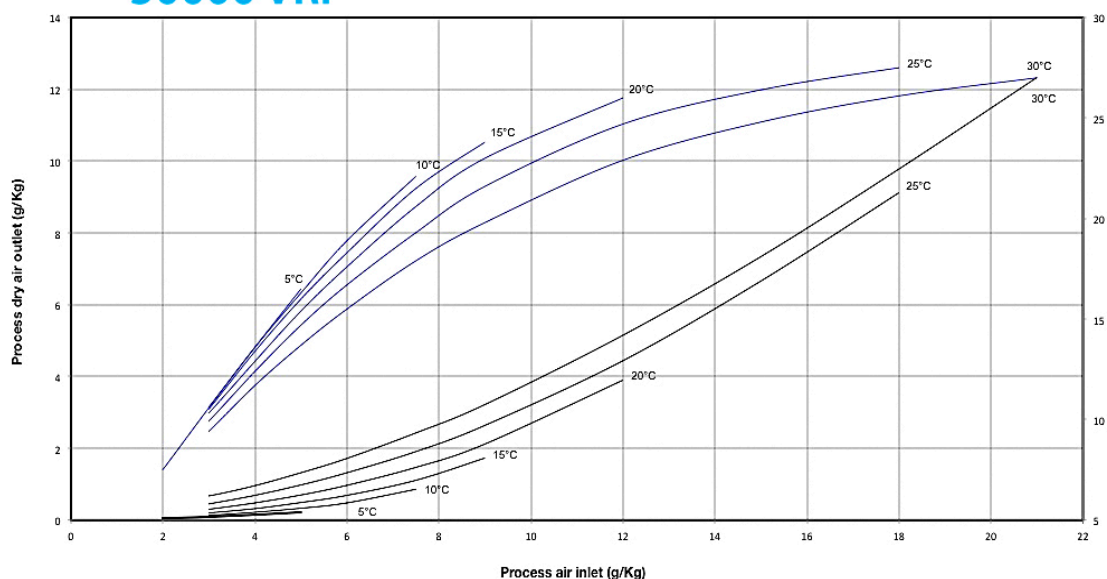
1. electric thyristor control fully modulating not available above Dryair !0000 VRF
2. Natural gas direct fired fully modulating
3. Liquefied petroleum Gas direct fired fully modulating
4. Steam minimum 5 Bar(g) fully modulating but dry steam must be supplied
5. HPHW High pressure hot water fully modulating.

## PERFORMANCE TECHNICAL DRAWINGS AVAILABLE UPON REQUEST

**DESICCANT  
DRYAIR  
50000 VRF**

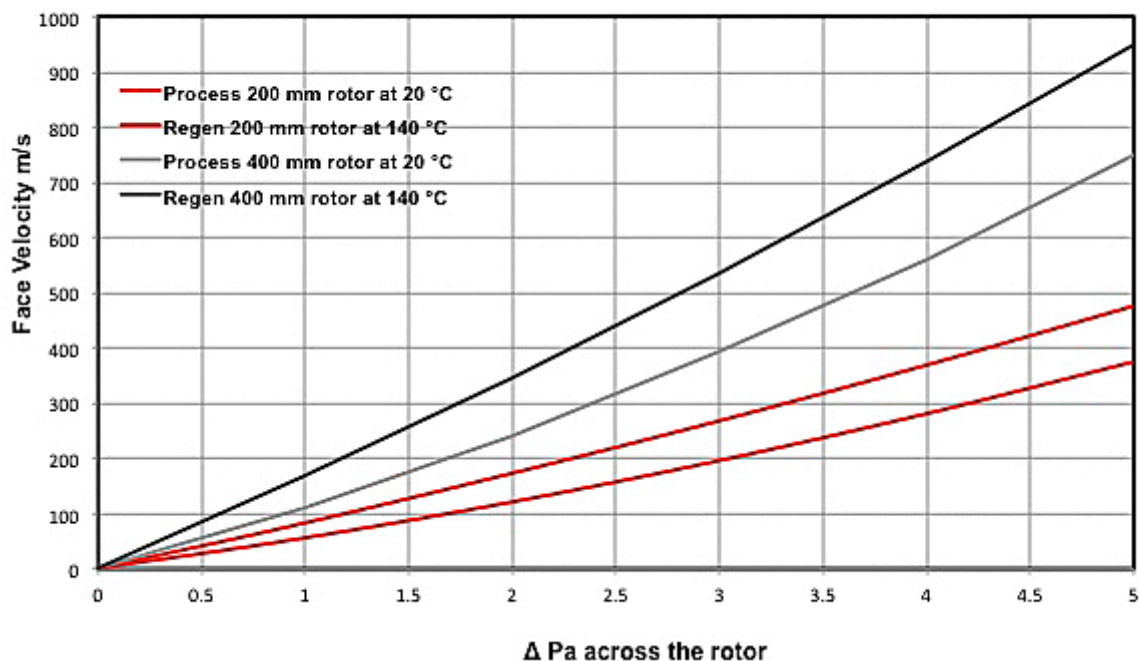
Dryair Performance Chart

234° process, 90° react. & 36° pre-purge  
rotor speed 10 RPH  
Regen temp. 140°C, rotor depth 200 mm.



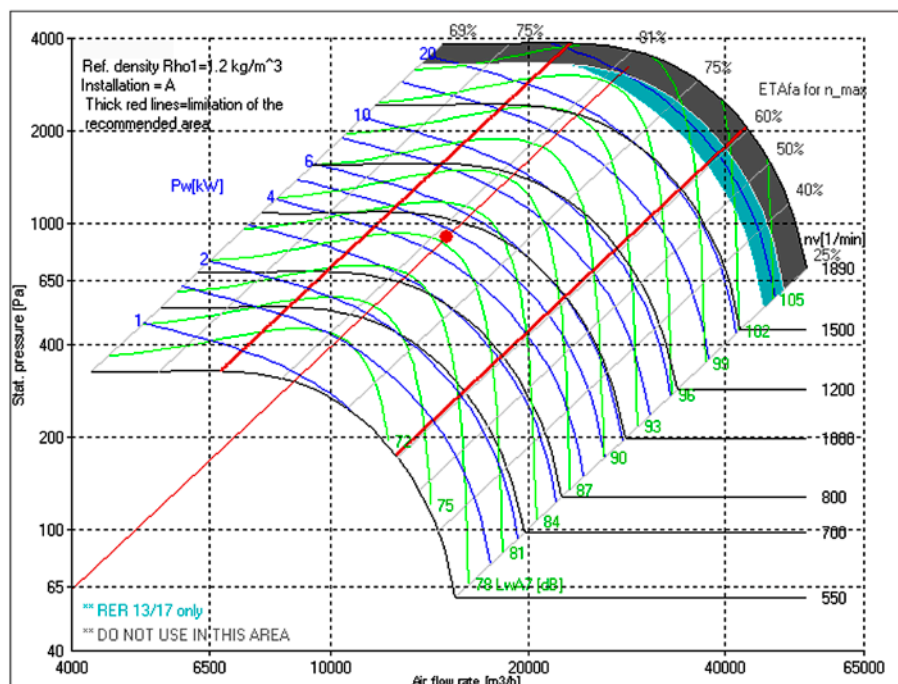
Dryair Performance Chart

Desiccant rotor pressure drop for the Process and regeneration sectors of 200 and 400 deep rotors



## PERFORMANCE TECHNICAL DRAWINGS AVAILABLE UPON REQUEST

Process Fan Curve for the 50000 VRF



Regeneration Fan Curve for the 50000 VRF

