

## APPLICATIONS

The RF units are suitable for applications requiring complete solutions for dehumidification, with moisture and temperature control. Seibu Giken DST offers rotors for environments with special requirements; during pharmaceutical manufacturing, plastics industry, the manufacture of food and confectionery, the automotive industry, and others.

**Some of our references:** Volvo Cars (Sweden), Borealis AB (Sweden), Nestlé (Spain), Rayhaneh Pharma (Iran), AstraZeneca (Sweden), Kaufland (Czech republic), Swedish Meats (Sweden), Nexans A/S (Norway), Exter (Thailand).



Automotive industry



Pharmaceutical industry



Food industry



Plastics industry

Seibu Giken DST AB has representatives in more than 40 countries worldwide



Seibu Giken DST AB  
Avestagatan 33 | SE-163 53 Spånga, Sverige  
Telefon +46 8 445 77 20 | Fax +46 8 445 77 39  
www.dst-sg.com | info@dst-sg.com

Seibu Giken DST  
is certified according  
to ISO 9001



GB 16.09

## RF DEHUMIDIFIERS

SEIBU GIKEN DST

Dehumidifying capacity  
at 20°C / 60%RH

19 – 198 kg/h

Dry air flow

3 200–27 000 m<sup>3</sup>/h



**DST**  
Seibu Giken

# Compact and energy efficient dehumidifiers

The RF range is a series of compact dehumidifiers from Seibu Giken DST which have been developed to meet the varying needs of the process industry. The Recusorb dehumidification principle involves integral heat recovery and hence low energy consumption. You can choose from electricity, steam or gas for rotor regeneration so that you can always make the most of all energy options open to you. Energy saving systems combined with various options allow you to create a dehumidifier to suit the specific needs of each and every project.

These units are constructed using an anodised aluminium frame. The smooth interior design, with no sills or pockets, and external locks on the hatches make the inside easy to wash so as to maintain good hygiene levels. Stainless steel panels are available as an optional extra for dehumidification in demanding environments. Our RF dehumidifiers are tested at our Swedish factory so as to keep the start-up time to a minimum when they are installed.

### Energy efficient controls

There are several different energy saving systems to choose from, such as binary or linear dehumidification capacity control (see our *Energy saving* brochure). A clear graphic display showing the dehumidification process, temperature and humidity is available as an optional extra. You also have the

option of keeping track of the entire process online, thereby saving on travel and facilitating monitoring.

### Filters for all environments

Integral bag filters, class F7, with centre latches fitted as standard. DST offers pre-filters for demanding environments and post-filters to HEPA class as optional extras.

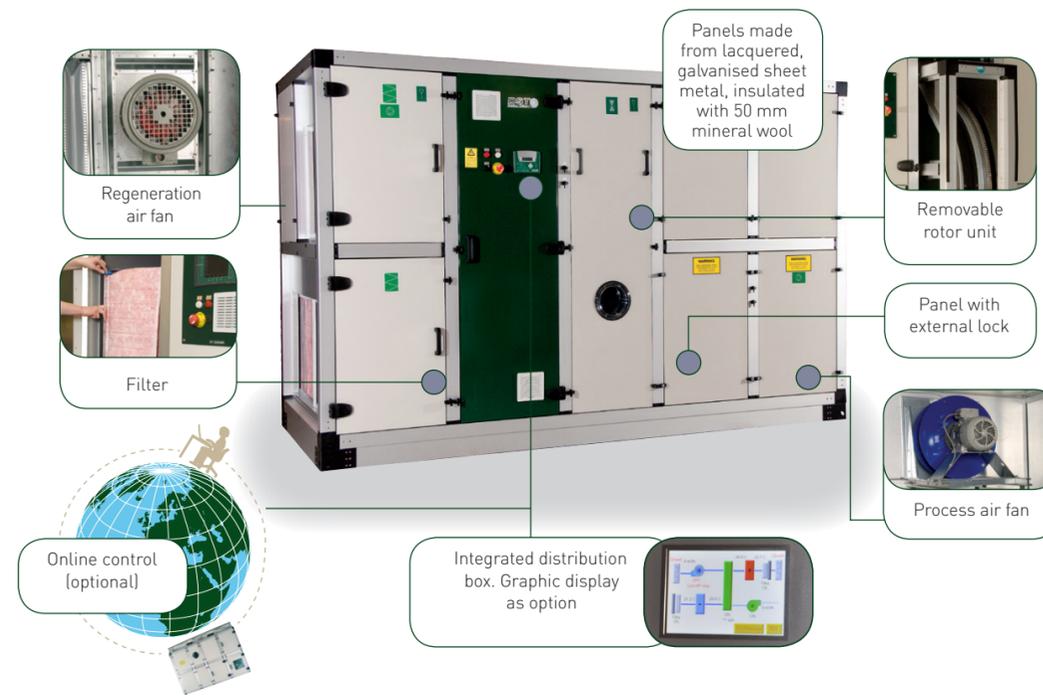
### Low-noise fans

Integral plug fans and panels with insulation between the sheets ensure low noise levels. Direct driven plug fans ensure low energy consumption with integral frequency inverters. Frequency inverters and integral measuring devices allow air flows to be altered and adjusted with ease. The frequency converters also save energy due to the fact that no dampers are required for adjustment.

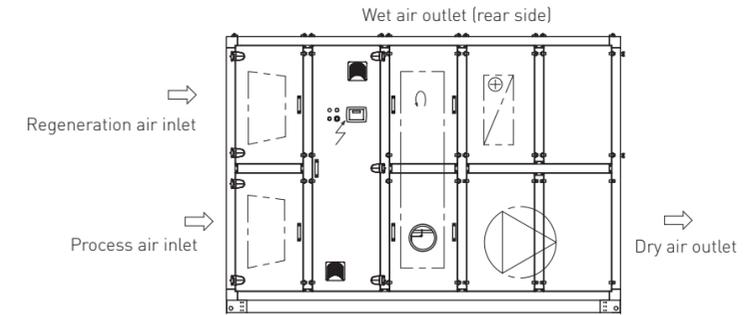
### Washable, highly efficient rotor

All DST dehumidifiers are fitted as standard with D-MAX, a high quality sorption rotor from DST's parent company Seibu Giken. These rotors offers a high dehumidification capacity and a long service life thanks to its hard surface and chemically bonded silica gel. The D-MAX rotor is washable and also non-flammable. A further three unique rotors (see table) are available as an option. The RF unit has a removable rotor cassette to facilitate cleaning and servicing.

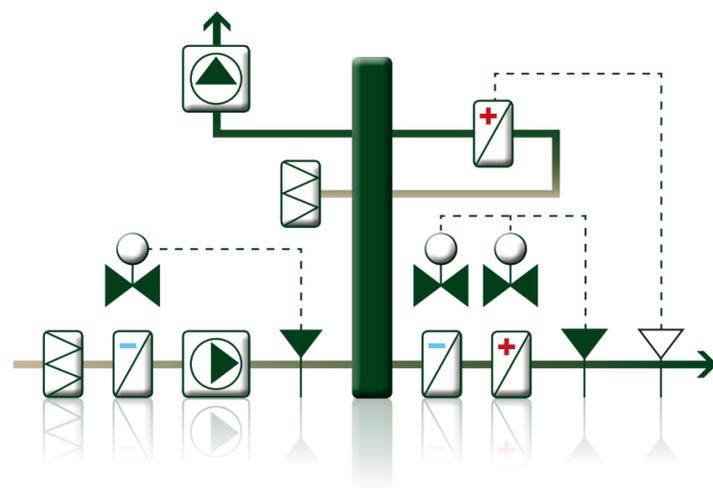
# Dehumidifier RF-102



The drawing shows the RF-102 standard



## Custom dehumidifiers



Example of configuration with optional extras  
DST provides control, plus temperature pre-treatment and post-treatment, all from a single supplier. Contact your representative for more information.

- Rotor
- Fan
- Heater
- Pilot valve
- Cooler
- Temp. sensor
- Filter
- Humidity sensor

| TECHNICAL DATA                                |       |        |        |        |        |        |        |
|---|-------|--------|--------|--------|--------|--------|--------|
|   | RF-81 | RF-101 | RF-102 | RF-122 | RF-152 | RF-172 | RF-192 |
| Nominal capacity <sup>1</sup> (kg/h)          | 19    | 33     | 54     | 90     | 124    | 160    | 198    |
| Dry air flow <sup>2</sup> (m <sup>3</sup> /h) | 3 200 | 7 000  | 9 500  | 15 600 | 16 800 | 21 500 | 27 000 |
| External static pressure (Pa)                 | 200   | 200    | 200    | 200    | 200    | 200    | 200    |
| Wet air flow (m <sup>3</sup> /h)              | 950   | 1 750  | 2 750  | 4 700  | 6 300  | 8 000  | 10 000 |
| External static pressure (Pa)                 | 200   | 200    | 200    | 200    | 200    | 200    | 200    |
| Heater power <sup>3</sup> (kW)                | 24    | 42     | 66     | 112    | 158    | 200    | 250    |
| Fan power <sup>3</sup> (kW)                   | 2     | 3      | 8      | 15     | 15     | 19     | 26     |
| Weight (kg)                                   | 850   | 1 000  | 1 100  | 1 800  | 2 000  | 2 400  | 2 700  |

<sup>1</sup> Valid at 20°C/60%RH, for other conditions contact your DST representative.  
<sup>2</sup> Air flow at density 1.2 kg/m<sup>3</sup>  
<sup>3</sup> Steam, electric or gas.

| ROTOR OPTIONS* |  |
|----------------|--|
|                | <b>D-MAX</b> – for rotors up to Ø122           |
|                | <b>D-MAX H</b> – bactericidal and hygienic     |
|                | <b>D-MAX CI</b> – 100% silicon free air        |
|                | <b>SZCR</b> – zeolite rotor for low dew points |

\* DST offers four unique rotors from Seibu Giken Co Ltd. D-MAX rotors are fitted as standard for rotors up to Ø122. Other rotors are available as an option. See the separate rotor brochure for more information.

| DIMENSIONS                      | RF-192      | RF-172      | RF-152      | RF-122    | RF-102    | RF-101    | RF-81   |
|---------------------------------|-------------|-------------|-------------|-----------|-----------|-----------|---------|
|                                 | Length      | 3 170       | 3 170       | 3 170     | 3 170     | 3 110     | 3 010   |
| Width                           | 2 330       | 2 120       | 1 930       | 1 610     | 1 330     | 1 330     | 1 030   |
| Height                          | 2 910       | 2 710       | 2 410       | 2 230     | 2 030     | 2 030     | 1 630   |
| Dim. process air in             | 2 270x1 355 | 2 000x1 150 | 1 800x1 000 | 1 470x960 | 1 190x860 | 1 190x860 | 890x660 |
| Dim. dry air out                | 2 270x1 355 | 2 000x1 150 | 1 800x1 000 | 1 470x960 | 1 190x860 | 1 190x860 | 890x660 |
| Dim. regeneration air in        | 1 310x1 270 | 970x965     | 1 000x1 170 | 850x960   | 570x860   | 570x860   | 570x660 |
| Dim. wet air out (30 mm flange) | 400x900     | 300x800     | 300x800     | 228x496   | 228x496   | 228x496   | 160x400 |

The table shows standard dimensions. Standard dimensions are not applicable to other configurations. Contact your DST representative for information.