

**30**  
YEARS  
EXPERTISE

# COMPACT DEHUMIDIFIERS



## COMPACT DEHUMIDIFIERS

### DewPac Series

Leading manufacturer of technologically  
Advanced Dehumidifiers  
Specifically designed and developed for  
high performance, reliability and energy efficiency.



**SAGAR AIR PVT. LTD.**

# Introducing DewPac Series

## Compact Desiccant Dehumidifiers

Highly compact Desiccant Rotor Wheel Dehumidifier specially integrated for high operational performance and differentiated through cutting edge technology and hassle-free service

**DewPac** Series Dehumidifier is an Industry grade Desiccant Rotor Wheel Dehumidifier. The Rotary Wheel is composed of highly impregnated Silica gel through which process and reactivation air flows pass. Thus, regulating humidity conditions.

**DewPac** Series can serve across a diverse range of applications and sectors. You name it, we have a solution! Some of the applications are listed below:

**Highly Compact**

**High Operational Performance**

**More Durable**

**Low Maintenance**

**Imported Desiccant Rotor**

**Easy-to-use Control Interface**



### Applications:

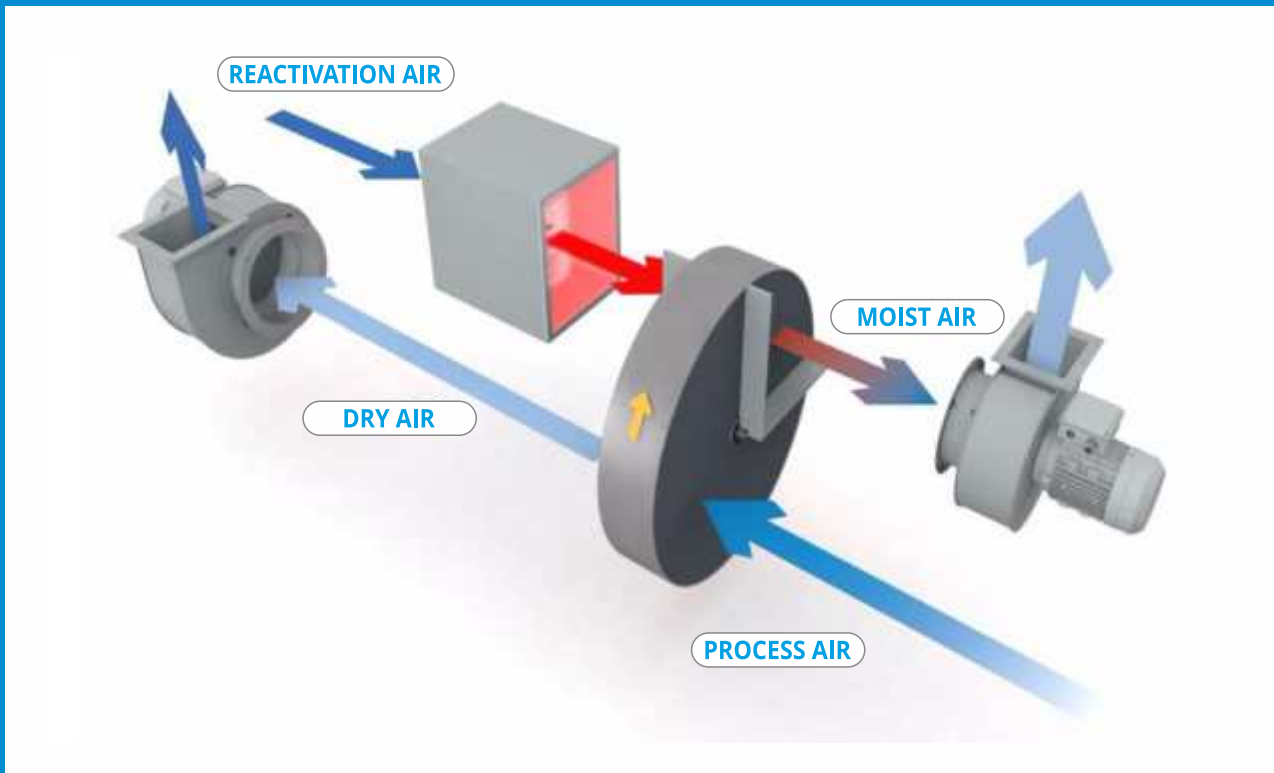
- Pharmaceuticals
- Clean Rooms
- Laboratories
- Food Industries
- Chemical
- Offices
- Hotels
- Process Solutions

### Sectors:

- Healthcare
- Industrial
- Commercial
- Defence
- Education

# Operating Principle

## Desiccant Rotor Wheel Dehumidification

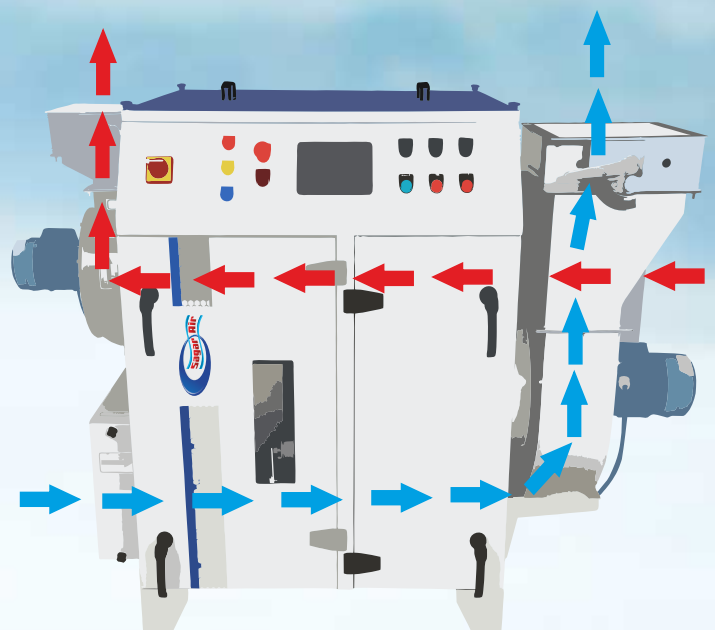
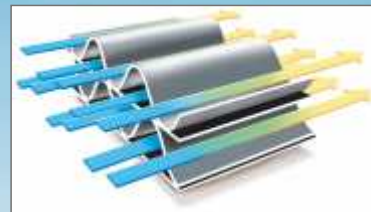


The **DewPac** Series Desiccant wheel dehumidifiers work on the principle of adsorption of moisture by Silica gel.

Silica Gel has the tendency to adsorb moisture from the flowing air in contact with it. Thus, this attribute of silica gel allows us to remove moisture from the process air.

The Silica gel is impregnated into high quality rotor wheel which rotates at a very low speed through which Process and Reactivation air flow.

The incoming air, on contact with the desiccant gives off its moisture to the desiccant thus, obtaining dry air. The moisture-laden wheel then rotates slowly into the reactivation chamber wherein, the humidity-laden part of the rotor is heated to shed off the adsorbed moisture thus, reactivating the desiccant for more moisture adsorption. Hence, the process is cyclic and continues.





# Construction Features

High Durability Guaranteed.

## Desiccant Rotor

Sagar Air **DewPac** Series is equipped with imported desiccant rotor wheel. The wheel has an approximate life of 8-15 working years on proper maintenance.

## Casing

The unit comprises of robust Single Skin 16 G GI Construction. The whole enclosure is CNC Machined for utmost precision. The casing is then Powder-Coated.

## Blower Sections

The unit majorly comprises of two blower sections - process and reactivation blowers. The blowers are of Sagar Air make and are carefully designed and manufactured in house. Forward Curved SISW Blowers are used. Branded and High Quality motors are offered.

## Easy-To- Interface and Electronics

At Sagar Air, we believe in functionality over frilliness. Thus, a GUI is developed to suit its operational functionality. It consists of 3.5 inch display with sufficient indications and alarms. Thus, making DewPac Series best in class. Sagar Air believes in quality and precision. The temperature and RH Sensors used in this unit are of high quality and imported from Europe for excellent performance and precision. Quality of switch gear used in this unit is never compromised.

Most important of all, The unit is equipped with a module which protects the unit from Phase failures, Over / Under Voltages, Phase unbalances. This ensures longer life of the unit.

## Filter and Damper units

High Quality Heat resistant filter is fitted onto the unit. The filter can endure up to 200 degrees C of heat. GI / Aluminium Volume Control Dampers are equipped at the Fan Discharge mouths.

## Heater Section & Insulation

Sagar Air **DewPac** Series utilizes high quality Air Finned heaters. Usually, two heater banks are provided for easy regulation of the React. Temperature. Temperatures as high as 130-140 degrees can be achieved. Heat resistant Silicon Rubber and Specialized seals are used which can resist heat up to 200 degrees C.



# DewSmart Controller

Experience Functionality to the fullest

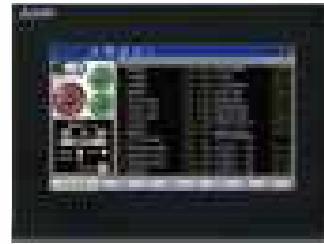
## DewSmart Controllers

Sagar Air **DewPac** Series is offered into two major controller options -Fully Functional DewFunc Controller or Highly sophisticated DewEx Controller. The control system comprises of high quality imported switchgear integrated with programmable logic Controllers. The whole unit is very well governed by such powerfully integrated Controllers.



**DewFunc Controller**

- Mitsubishi Branded.
- 3.5 inch display
- Fully functioning and illuminated keys
- Illuminated alarms & indications for added visibility
- Multi-function display
- All safety mechanisms are included.



**DewEx Controller**

- Mitsubishi Branded.
- 7 inch display
- Fully functioning Touch Screen
- Illuminated alarms and indications for added visibility
- Multi-function display
- Maintenance alarms are well programmed
- All safety mechanisms are well included.
- VFD integration



## Benefits

- Extensive Touch Graphic User Interface.
- Multi-functions are embedded
- Alarms are illuminated.
- Maintenance indications are well programmed.
- Superior Safety mechanisms and cutoffs
- Low power usage.



# Technical Specifications

Sophisticated Engineering Guaranteed.

SDM - Series	Units	70	100	150	200	250	300	350	425	500
Dehumidification Capacity	kg/h	4.6	7.4	12.1	13.9	17.3	19.6	23.6	29.7	35.8
	kg/24h	110.7	176.9	289.2	334.6	415.7	471.1	567.4	712.6	859.0
Specific Capacity	g/kg	5.2	5.57	6	5.75	5.7	5.72	5.73	5.5	5.8
Process air	20 deg C / 60 % RH									
Dry Air Flow	CMH	680	1020	1700	2040	2550	3060	3400	4250	5100
	CFM	400	600	1000	1200	1500	1800	2000	2500	3000
Dry Air Available pressure	Pa	340	400	575	830	835	580	200	440	670
	mm WC	34	41	58	84	85	62	20	45	68
Wet Air Flow	CMH	224	337	561	673	842	494	1122	1403	1683
	CFM	132	198	330	396	495	290	660	825	990
Wet Air available pressure	Pa	315	160	120	165	450	125	300	470	590
	mm WC	32	16	12	17	46	14	30	48	60
Pro.RH	%	4.5	3.2	3.5	4.4	4.5	5.6	4.0	3.9	3.8
Flow	kg/m2-s	3.83	2.7	3.06	3.68	3.84	4.61	3.43	3.35	3.27
Face Velocity	m/s	3.03	2.13	2.424	2.909	3.029	3.63	2.7	2.64	2.58
Heater Capacity	kW	7.2	14.4	13.5	18	22.5	27	31.5	40.5	45
Total Power	kW	10.4	19.7	20.3	27.8	33.9	40.0	47.5	59.7	65.7
Dimensions Approx (mm)	L	700	800	900	900	1000	1050	1100	1150	1250
	W	1450	1600	1900	1950	2000	2000	2100	2250	2350
	H	1100	1150	1250	1250	1325	1425	1425	1550	1650



**\*\*\*Please Note :** Technical Data are subject to change without any prior notice. For dimensions please contact **Sagar Air**  
The Technical Data presented above is purely theoretical. Electric Reactivation is used.

# Optional Accesories

Our Options. Your Choice.



Stainless Steel Construction



Optional VFD Control Module can be seamlessly integrated with the device.



Plug Fans can be provided



Electronic Damper Actuation Controls



High efficiency EC Fans can be offered



Optional Pre / Post -Cooling Coils can be provided for Process air



Flame Proof motors for critical applications



Highly precise Thyristor Control can be provided for seamless temperature regulation.



Optional Steam Coil can be provided for Pre-heating



Optional Airflow and Air Velocity Measuring Stations



Aluminum Dampers can be provided



Precise Speed Controlling of the Rotor Drive

## BRANDS WE TRUST

More than sensors automation

Sensing tomorrow™





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