

SD Series **Twin-desiccant** Dehumidifiers

The SD series of dehumidifiers are designed using the **twin-desiccant-tower** principle which utilises one only process blower to create both the drying process and the regenerating/cooling circuit simultaneously. Closed loop circuit design eliminates the risk of moisture re-absorption in the system. The continuous and effective dry air capacity range is from 60 to 110m³ per hour making the SD units particularly suitable for polymer drying applications involving hygroscopic materials.

Other features include:

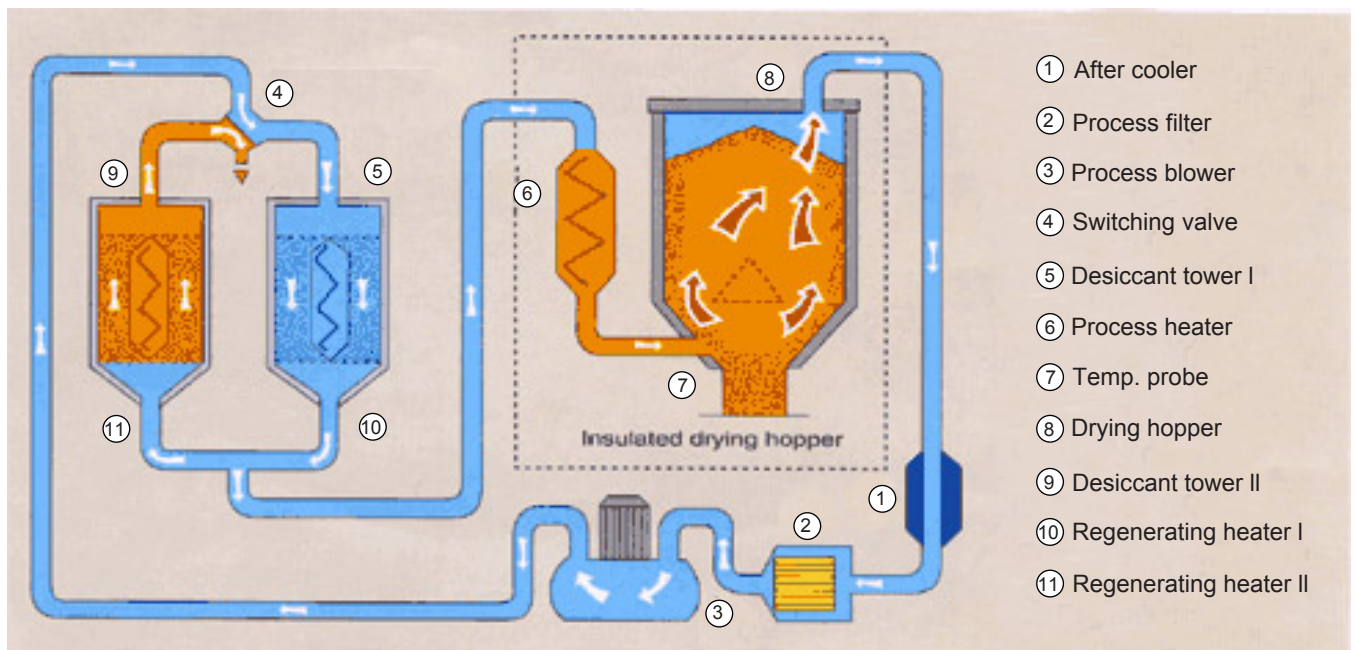
- Reduced use of moving parts means low maintenance and exceptional reliability.
- Process filter and after cooler fitted as standard.
- Adjustable desiccant-bed exchange timer.
- Flow-path indicator lamps.
- Motor overload protection.
- Dried air has a dew-point of down to -40°C.
- Designed to connect to any hopper dryer using heat-resistant hoses.
- Main isolator and 24-hour timer for auto start-up.
- Electrical circuit built to comply with **CE** Safety Requirements.

Options include:

- Built-in process heater. (denotes 'P')



The Dehumidifying Principle



Drying Capacities KG/hour

Material	Drying Temp. ⁽¹⁾ (°C)	Drying Time ⁽²⁾ (hr)	Moisture Content(%)	Specific Heat	Drying Capacity ⁽³⁾	
					SD60	SD110
ABS	80	2-3	0.2-0.6	0.34	25	50
POM	100	2	0.08-0.25	0.35	25	50
PMMA	80	3	0.1-0.7	0.35	25	50
IONOMER	90	3-4	1.4	0.55	20	36
PA6 / 6.6	75	4-6	1.2-5	0.40	20	36
PA11 / 12	75	4-5	1.0-1.5	0.58	17	30
PC	120	2-3	0.3-0.36	0.28	30	50
PU	90	2-3	0.2-0.9	0.45	30	50
PBT	130	3-4	0.08-0.34	0.3-0.5	20	36
PE	90	1	0.01	0.55	50	90
PET	160	4-5	0.08	0.3-0.5	15	25
PPO	110	1-2	0.13	0.40	25	50
PI	120	2	0.32	0.27	25	50
PP	90	1	0.02	0.46	50	90
PS (GP)	80	1	0.01	0.28	50	90
PSU	120	3-4	0.22	0.31	25	50
PVC	70	1-2	0.1-0.4	0.20	50	90
SAN (AS)	80	1-2	0.1-0.3	0.32	25	50

Specifications

SD model		60	110
Dry air flow rate ⁽³⁾	m ³ /hr	60	110
Blower drive power	W	375	750
Heating capacity	W	800	1000
Lowest dew-point	°C	-40	
In/outlet pipe diameter	inch	2"	
Required cooling water flow ⁽⁴⁾	L/min	4.7	8.5
Cooling capacity ⁽⁴⁾	Kcal/hr	1390	2550
Voltage (phase)	V	380 ~ 460 (3Ø)	
Width	mm	500	
Depth	mm	780	
Height	mm	1280	1480
Weight (approx.)	kg	110	150
Largest adaptable hot air dryer (hopper dryer)	litre	80 (SHD50)	160 (SHD100)

- Note: (1) In an independent drying hopper.
 (2) Base on relative humidity 65% with ambient temperature of 20°C, moisture content after drying can be 0.02% or less.
 (3) Capacities are based on 60hz operations.
 (4) Base on the condition of "before" air temp. at 100°C and "after" air temp. at 20°C, and using 10°C chilled water.

Illustration of Drying & Loading Combination



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internal view of the SD60