

Mold Dehumidifier

Comet's SMD Series Mold Dehumidifiers are designed to remove moisture on mold surfaces. Moisture on the mold surface occurs when chilled water is used to reduce the molding cycle time, particularly when molding PET preforms.

When the mold surface temperature is lower than the dewpoint temperature of the surrounding air, water vapor occurs and leads to mold corrosion. A corroded mold effects the quality of the molded part and decreases production productivity.

Comet's SMD Series uses a honeycomb rotor to dehumidify the air surrounding the mold. It generates a dry airflow with a dewpoint ranging from 14°F (-10°C) to 32°F (0°C) ensuring the air surrounding the mold remains at a low dewpoint temperature. The low dewpoint temperature of the surrounding air remains constant and is not impacted by seasonal changes.

Standard Features & Advantages

- PID control with display to accurately control the temperature.
- Honeycomb rotor ensures constant dehumidifying.
- Fitted microprocessor board indicates the machine's running status and diagnoses malfunctions.
- Motor overload and phase reverse alarm functions.
- Return air cooling and filtering.
- Air collector that collects return air from the back of the molding area forming closed-loop circulation back to the unit (practical in tropical climates).
- Air temperature is not impacted by seasonal changes (under normal conditions).
- Prevents corrosion, increases the service life of the mold, and reduces the cycle time.
- Prevents moisture condensation on the sight-glass window of the molding machine because the air temperature generated is approximately 85°F (30°C).

Options

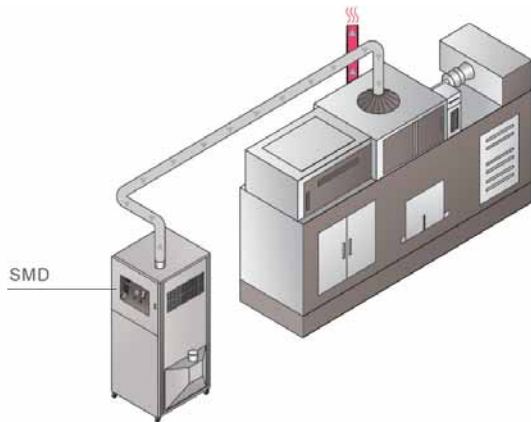
- Dewpoint monitor that can be fitted to detect dry air quality.



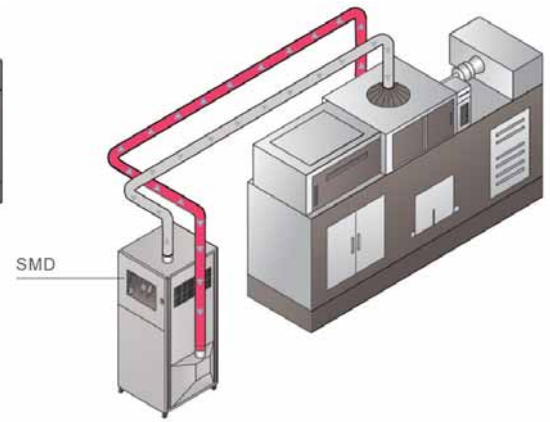
Dimensional Drawing



Application Illustration



Open-Loop Air Circulation



Closed-Loop Air Circulation

Model Selection Guide

Model	SMD-500H	SMD-1000H		SMD-1500H	SMD-2000H	
Cavity Number	12	16	24	32	48	56
Cavity Number	(2 x 6)	(2 x 8)	(4 x 6)	(4 x 8)	(4 x 12)	(4 x 14)
Cavity Distance	Standard	Standard	Standard	Standard	Standard	Standard
Max. Shot Wt. ~ (lbs/hr)	441	595	882	926	1,235	1,235
Dryer Model	SHD-1500U	SHD2000U	SHD-3000U	SHD-3000U	SHD-4000U	SHD-4000U
Dehumidifier Model	SD-750H	SD1000H	SD-1500H	SD-1500H	SD-2000H	SD-2000H
Hopper Loader Model	SAL-2HP-UG	SAL2HP-UG	SAL-3.5HP-UG	SAL-3.5HP-UG	SAL-5HP-UG	SAL-5HP-UG
Chiller	Water-Cooled	SIC-25W-HP	SIC-30W-HP		SICC-193SW-HP	SICC-223SW-HP
	Air-Cooled	SIC-25A-HP	SIC-30A-HP		SICC-180A-HP	SICC-210A-HP

Specifications

Model	Regen. Heater (kW)	Regen. Blower (kW) (50/60Hz)	Process Blower (kW) (50/60Hz)	Process Air Flow (m³/hr)	Process Pipe Dia. (inch)	Regen. Pipe Dia. (inch)	Water Connection	Avg. Process Air Temp. (°F)	Avg. Dewpoint (°F)	Process Air Pressure (Pa)	Cooling Water Flow (L/M)	Cooling Water Pressure (kgf/cm²)	Dimensions H x W x D (in)	Weight (lbs)
SMD-500H	5	0.4 / 0.5	0.75 / 0.85	500	4"	2"	3/4" PT	86°F (30°C)	14°F (-10°C)	3000	50	3 ~ 5	68" x 31.5" x 67"	573
SMD-1000H	7.2	0.75 / 0.85	1.5 / 1.8	1000	5"	2.5"	3/4" PT	86°F (30°C)	14°F (-10°C)	3000	50	3 ~ 5	70" x 38" x 31.5"	739
SMD-1500H	15	2.2 / 2.6	1.5 / 1.8	1500	8"	4"	3/4" PT	86°F (30°C)	14°F (-10°C)	1400	100	3 ~ 5	80" x 42" x 64.5"	772
SMD-2000H	24	2.2 / 2.6	3 / 3.6"	2000	8"	4"	2" PT	86°F (30°C)	14°F (-10°C)	3500	100	3 ~ 5	80" x 88" x 55.5"	992

Note: 1) Noise level is 70dB (A)
2) Power supply: 3φ, 230 / 400 / 460 / 575V, 50 / w

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