



## "All-in-One" Compact Dryer

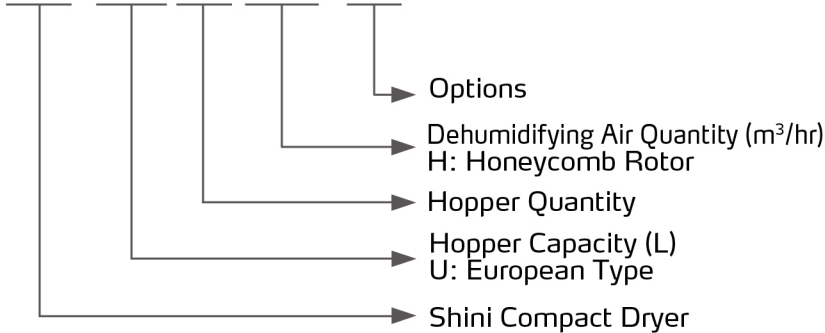
SCD-230U/120H



Refer carefully to this manual before operation.

## ■ Coding Principle

SCD- xxxU(x2)/xxxH - xxx



SCD-600U/400H-LC-D

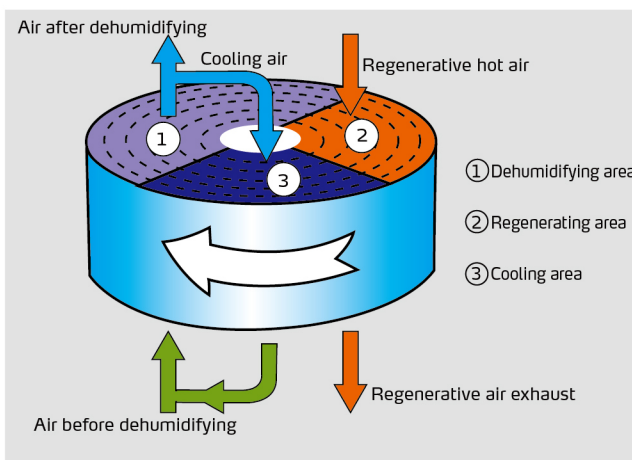
SCD-120U/80H-D-OP-M2

## ■ Features

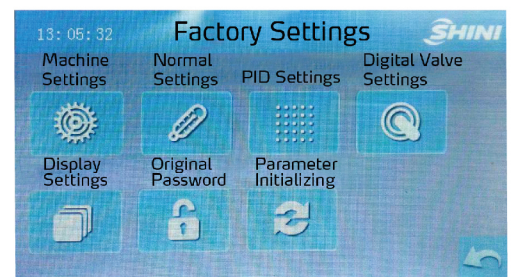
- Combine the function of dehumidifying, drying and two-stage conveying into a single unit.
- Adopt molecular sieve structure honeycomb, which provides low dew-point dry air. The honeycomb rotor structure is superior to double-barrel dehumidifier that will contaminate raw material due to damaged molecular sieve.
- Feeding system is equipped with shut-off valve to ensure no surplus raw material in hopper tubes and avoid raw material from regaining moisture.
- Equipped with microprocessor to accurately control drying temperature.
- Heat preserved drying hopper barrel adopts down blowpipe design and collocates with cyclone air exhaust to avoid heat lost and improve drying efficiency.
- SCD with two drying hoppers, the drying temperature of single hopper can be individually controlled. It mainly applied to double-shot molding machine, which can process dehumidifying and drying to two different drying materials.
- Equipped with weekly timer, machine can automatically operate.



SCD-80Ux2/100H



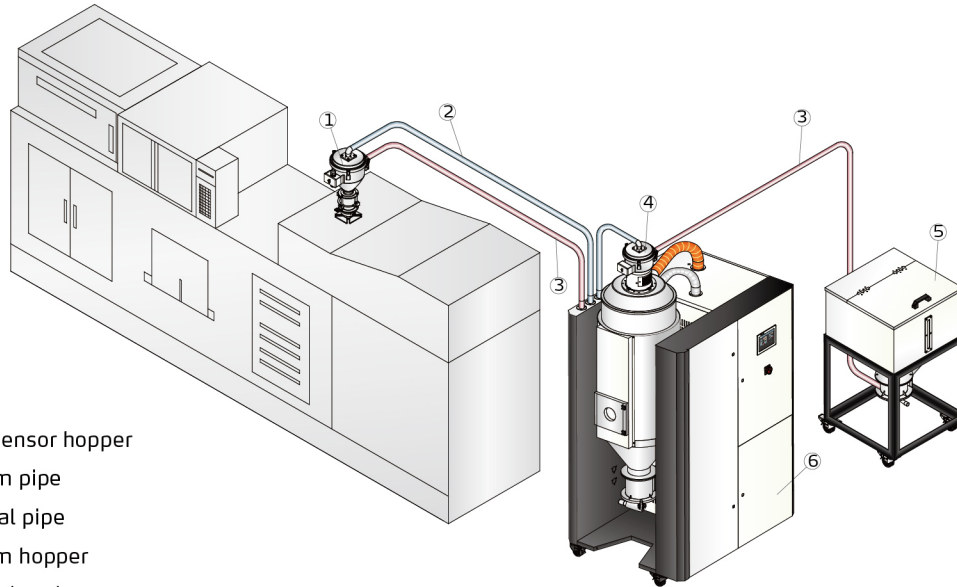
Honeycomb Rotor Working Principle



Control Panel

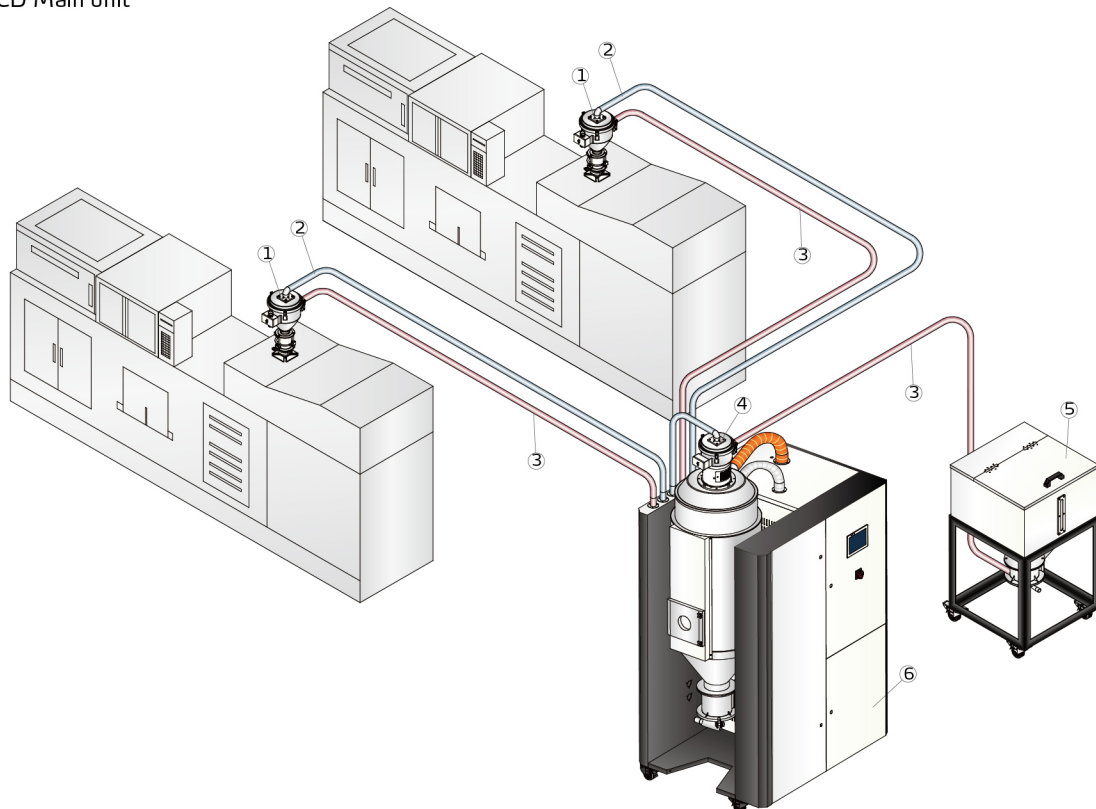
## Application

SCD "All-in-One" compact dryers are mainly used for drying, dehumidifying, and conveying hygroscopic plastics, such as PET, PA, and PC etc. This series of machines integrate drying, dehumidifying, and conveying into one unit. The concise structure makes it easy to move the machines. The one-to-one (for one set of IMM) or one-to-two (for two sets of IMMs) SCD compact dryers can be used according actual production demands. Besides, the double drying hoppers can be selected to meet the production demands of double-shot IMM. In addition, there're multiple options and accessories to meet various demands. If some dry materials are volatile, it must use the COF filter.



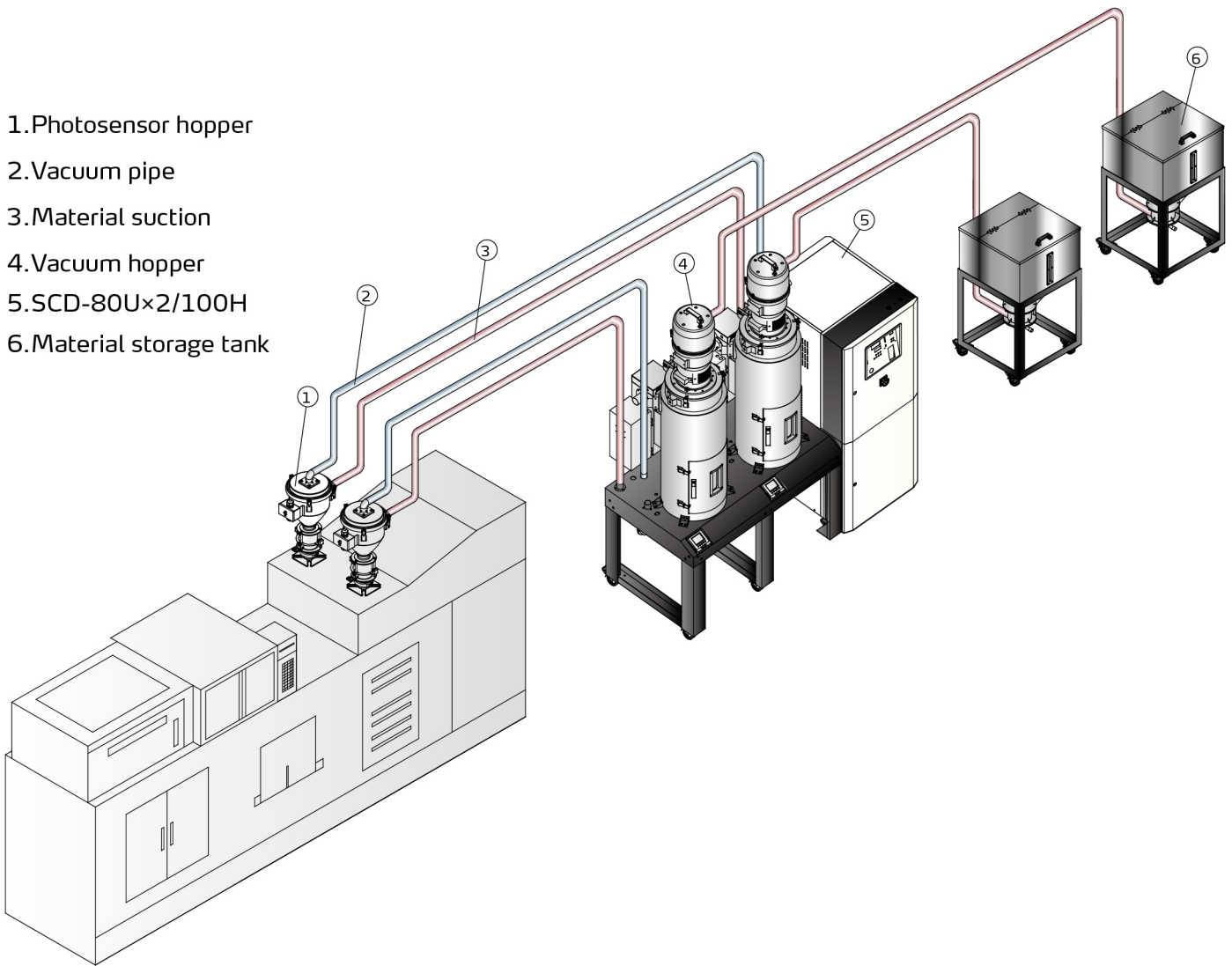
1. Photosensor hopper
2. Vacuum pipe
3. Material pipe
4. Vacuum hopper
5. Material tank
6. SCD Main unit

For Servicing One Machine: Two-stage Conveying System (Standard)



For Servicing Two Machines: Three-stage Conveying System (Optional)

1. Photosensor hopper
2. Vacuum pipe
3. Material suction
4. Vacuum hopper
5. SCD-80U×2/100H
6. Material storage tank



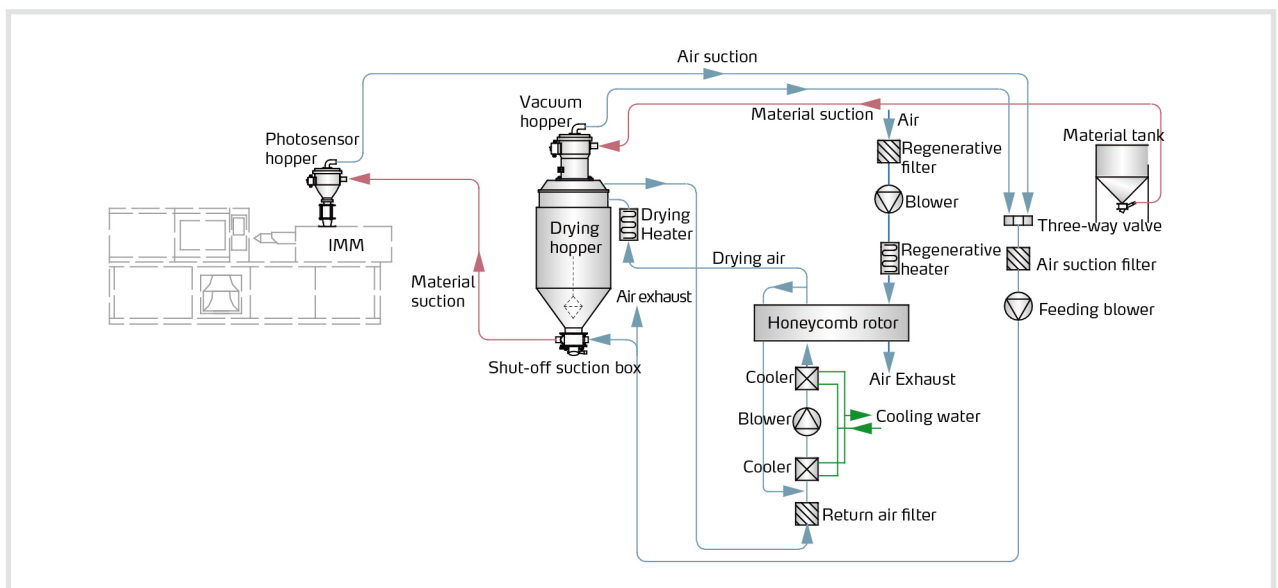
The diagram of "One-to-Two" Compact Dryer



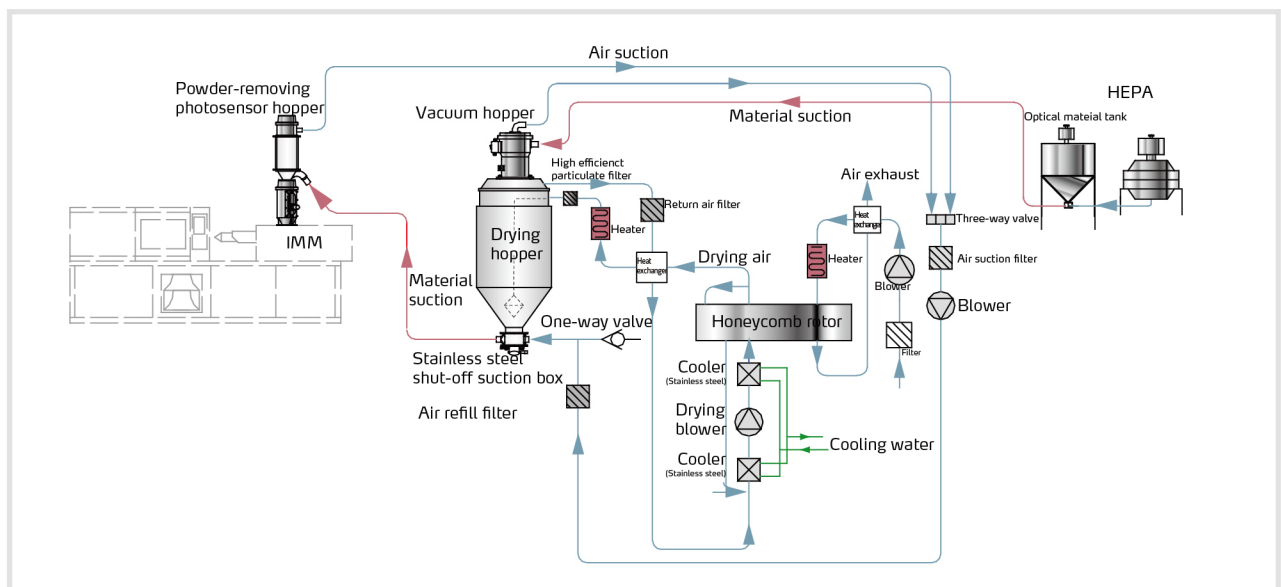
## Working Principle

**Dehumidifying:** damp and hot air from dry material barrel is blown into rotor after cooled. Moisture from the air is absorbed by rotor and is then adsorbed by regeneration heating air. Two strands of airflow function on the rotor. And with the rotation, moisture from the air is absorbed and expelled after absorbed regeneration air to form stable low dew-point air, which is dried to the drying temperature and then is blown into material barrel to closed circle to dry material.

**Suction:** material is absorbed into barrel from storage barrel or other storage containers. When the magnetic reed switch detects no material, suction motor runs to produce vacuum inside vacuum hopper. Raw material in storage barrels is absorbed into suction hopper due to air pressure difference. When material suction completes, motor stops. Raw materials drop into drying hopper barrel due to gravity. The dried raw material after dried is taken out to the hopper with photosensor installed on molding machine or other hopper from drying hopper barrel.



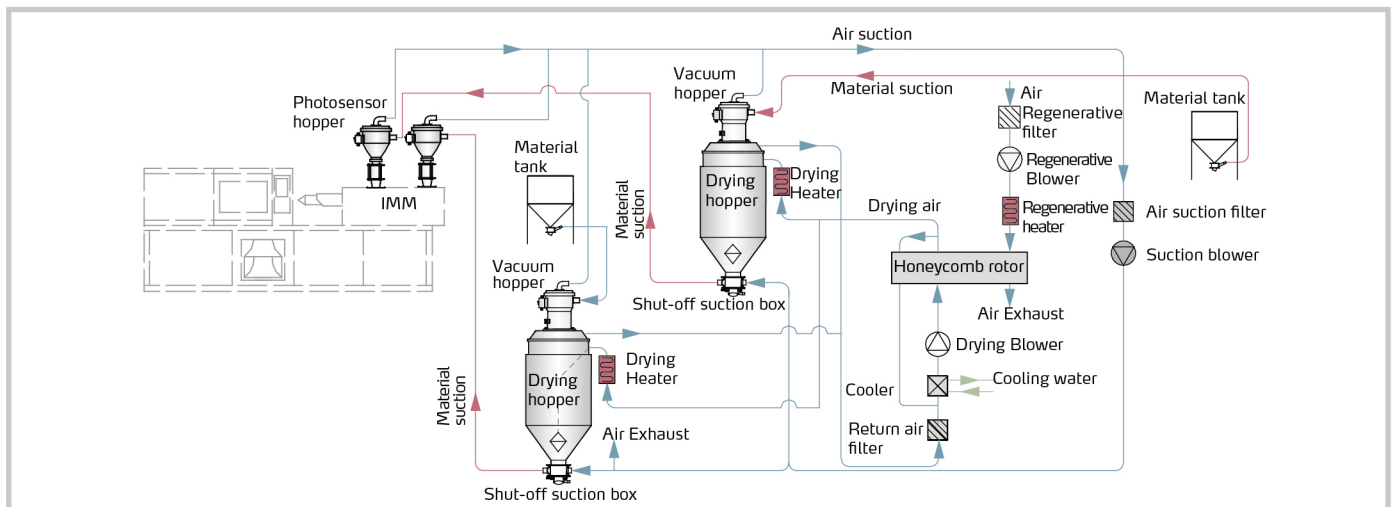
SCD Working Principle



SCD-OP-ES Working Principle

Dehumidifying: damp and hot air from two dry material barrels via the filter and condenser is blown into rotor. Moisture from the air is absorbed by rotor, then absorbed and expelled by regeneration heating air with rotor rotation. Two strands of airflow function on the rotor. And with the rotation, moisture from the air is absorbed and expelled after absorbed regeneration air to form stable low dew-point drying air. The low dew-point drying air through heater then get into the two storage barrels separately to dehumidify material in the barrels. The damp and hot air expelled by storage barrel after drying, return to the filter and condenser again to process dehumidifying in the rotor. Thus, the closed circle is formed to dry material.

Suction: material is absorbed into two drying hoppers from different storage barrels or other storage containers. When the magnetic reed switch detects no material, suction motor runs to produce vacuum inside vacuum hopper. Raw material in storage barrels is absorbed into suction hopper due to air pressure difference. When material suction completes, motor stops. Raw materials drop into drying hopper barrel due to gravity. As the same, the dried raw material after dried is taken out to the hopper with photosensor installed on the double-shot molding machine.



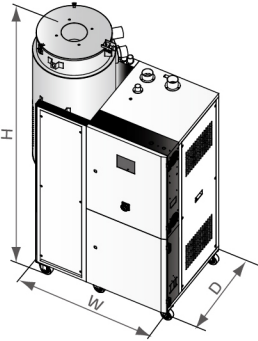
SCD-Ux2/H Working Principle

# SCD Series

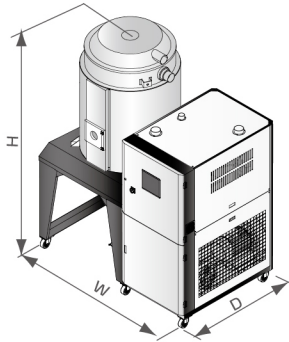
## Specifications (Hermetic)

Model		SCD-	20U/30H -OP	40U/30H -OP	80U/50H -OP	120U/80H -OP	40U/ 40H	80U/ 40H	120U/ 80H	160U/ 80H	160U/ 120H	230U/ 120H	300U/ 200H	450U/ 200H	
Drying System	Drying Heater Power (kW)		3	3	4	6	4	4	4	4	6	6	12	12	
	Drying Blower Power (kW)		0.4	0.4	0.4	0.75	0.12	0.12	0.75	0.75	0.75	0.75	1.5	1.5	
	Hopper Capacity	L		20	40	80	120	40	80	120	160	160	230	300	450
gal			5.3	10.6	21.1	31.7	10.6	21.1	31.7	31.7	42.3	60.8	79.3	119	
Dehumidifying System	Regenerative Heater Power (kW)		3	3	3	3	3	3	3	3	4	4	4	4	
	Regenerative Blower Power (kW)		0.4	0.4	0.4	0.4	0.12	0.12	0.4	0.4	0.4	0.4	0.4	0.4	
	Dehumidifying Air quantity (m <sup>3</sup> /hr)		30	30	50	80	40	40	80	80	120	120	200	200	
Feeding System	Feeding Blower Power (kW)		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
	Dia. of Material Pipe (inch)		1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	1.5	
	SHR-U-E	L		3*	3*	3*	3*	3	6	6	6	6	12	12	12
		gal		0.8*	0.8*	0.8*	0.8*	0.8	1.6	1.6	1.6	1.6	3.2	3.2	3.2
	SHR-U	L		3	3	6	6	3	6	6	6	6	12	12	12
gal			0.8	0.8	1.6	1.6	0.8	1.6	1.6	1.6	1.6	3.2	3.2	3.2	
Dimension	H	mm		1400	1500	1670	1710	1672	1751	1957	2102	2102	2012	2160	2350
		inch		55	59	65.7	67.3	65.8	68.9	77	82.8	82.8	82.8	85	92.5
	W (mm)	mm		1050	1050	1240	1240	1051	1066	1125	1125	1125	1223	1460	1460
		inch		41.3	41.3	48.8	48.8	41.4	42	44.3	44.3	44.3	48.1	57.5	57.5
	D (mm)	mm		900	900	1000	1000	734	734	734	734	734	734	1020	1020
		inch		35.4	35.4	39.4	39.4	28.9	28.9	28.9	28.9	28.9	28.9	40.2	40.2
Weight	kg		235	280	330	385	295	325	340	350	390	420	565	595	
	lb		518	617	728	849	650	1433	750	772	850	926	1246	1312	

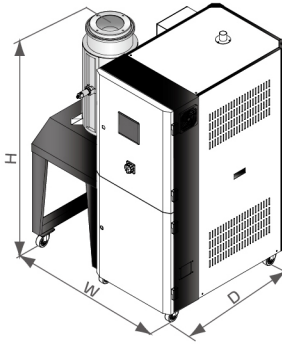
## Outline Drawings



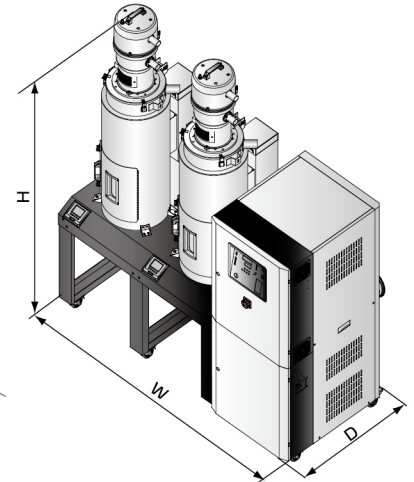
SCD Hermetic



SCD Semi-open



SCD-OP



SCD-U×2/H

## Specifications (Semi-open)

Model	SCD-	600U/400H	750U/400H	900U/700H	1200U/700H	80U×2/100H	160U×2/200H	
Drying System	Drying Heater Power (kW)	18	18	24	24	3.9×2	6×2	
	Drying Blower Power (kW, 50/60Hz)	3.75/4.5	3.75/4.5	7.5/8.6	7.5/8.6	0.4/0.46	1.5/1.72	
	Hopper Capacity	L	600	750	900	1200	80×2	160×2
gal		158.5	198	237.8	317	21.1×2	42.2×2	
Dehumidifying System	Regenerative Heater Power (kW)	7.2	7.2	10	10	3	4	
	Regenerative Blower Power (kW, 50/60Hz)	0.75/0.9	0.75/0.9	1.5/1.8	1.5/1.8	0.4/0.48	0.4/0.48	
	Dehumidifying Air quantity (m <sup>3</sup> /hr, 50/60Hz)	400/450	400/450	700/780	700/780	100/111	200/222	
Feeding System	Feeding Blower Power (kW)	1.5	1.5	3.75	3.75	1.5	1.5	
	Dia. of Material Pipe (inch)	1.5	1.5	2	2	1.5	1.5	
	SHR-U-E Hopper	L	12	12	24	24	6	6
		gal	3.2	3.2	6.4	6.4	1.58	1.58
	SHR-U Hopper	L	12	12	24	24	6	6
gal		3.2	3.2	6.4	6.4	1.58	1.58	
Dimension	H	mm	2380	2610	2640	3070	1866	2113
		inch	93.7	102.8	104	121	73.5	83.2
	W	mm	1745	1745	2140	2140	1886	2124
		inch	68.7	68.7	84.3	84.3	74.3	83.6
	D	mm	1255	1255	1380	1380	915	930
		inch	49.4	49.4	54.3	54.3	36	36.6
Weight	kg	640	690	850	900	400	565	
	lb	1411	1521	1874	1984	882	1246	

Notes: 1) Plastic materials can be fully dried by drying air with dew-point temperature ≤-20°C.

2) "\*" stands for hopper receiver SHR-CP-U.

3) Power: 3Φ, 230/400/460/575VAC, 50/60Hz.

We reserve the right to change specifications without prior notice.