



"All-in-One" Compact Dryer

SCD-160U/120H

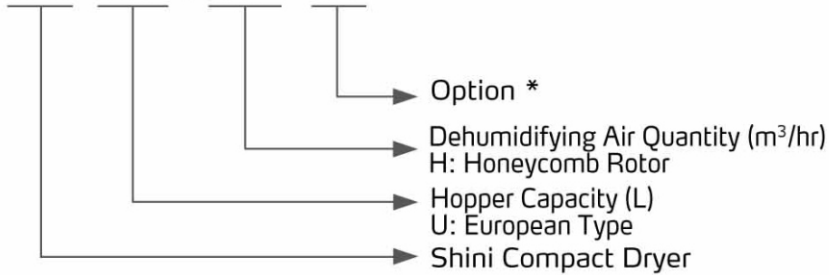


Refer carefully to this manual before operation.

SCD Series

Coding Principle

SCD-xxxU / xxxH-xxx



Note: *

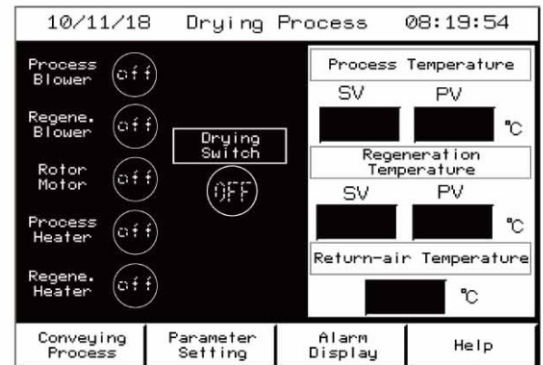
LC=PLC+HMI D=Dew-point Monitor OP=Optical Class
 P=Polished Hopper Inside M2=Three-stage Conveying
 CE=CE Conformity ES=Energy-saving
 DC=Dew-point Control



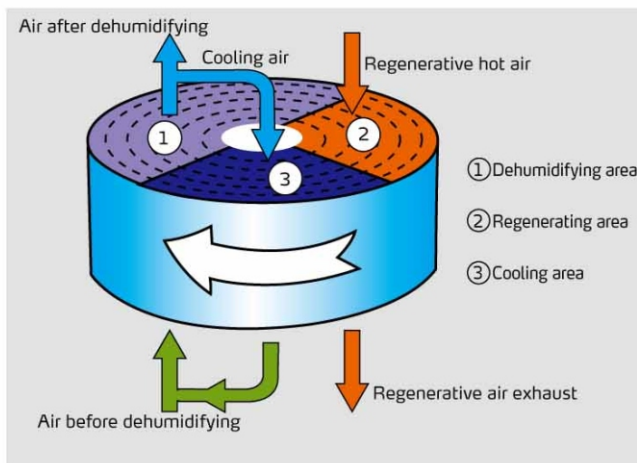
Features

Standard configuration

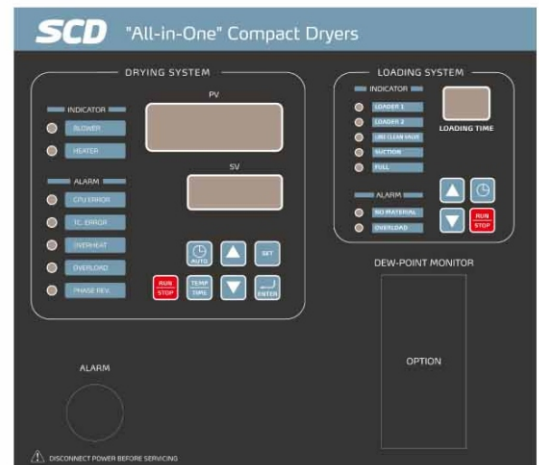
- Combine the function of dehumidifying, drying and two-stage conveying into a single unit.
- SCD dryers Loaders are equipped with honeycomb rotor to obtain stable low dew-point drying air. It has two models: semi-open and hermetic.
- Feeding system is equipped with shut-off valve to ensure no surplus raw material in hopper tubes.
- Microprocessor is standard equipment.
- Heat preserved drying hopper barrel adopts down blow-pipe design and collocates with cyclone air exhaust to avoid heat lost and improve drying efficiency.



Touch Screen (optional)



Honeycomb Rotor Working Principle



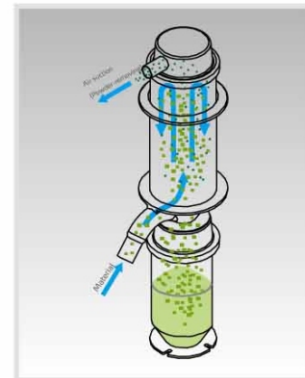
Control Panel with Dew-point Monitor

Accessory option

- PLC control and touch HMI are optional, making operation convenient for machine's automatic running
- HEPA and optical storage hopper are optional to ensure no air contamination to raw material.
- Optical SCD-OP series together with powder-removing hopper which can help avoid stain in the production; material contact surfaces are all mirror polished and collocates conveying system with closed loop to avoid contamination and moisture regain; system has standard configuration high efficiency particulate absorbing filter, which can filter tiny ion of 0.3 μ m with filter ratio of 99.995%.
- For models with energy-saving drying management, add "ES" at model behind, standard equipped with HMI touch control, which can save up to 41% of total power consumption. Volume used per hour is settable between 40~100% as drying capacity to save the totally power consumption of 35%~0; Standard equipped with heat regenerative recycler which recycles the regeneration air exhausted heat via plate heat exchanger and can save 3%~6% of total power consumption.
- For models optional with dew-point control, add "DC" at model behind. "ES" by setting if dew-point value to control the regeneration required temperature automatically and lowers power consumption of the regenerative heater; According to -40 $^{\circ}$ C~+10 $^{\circ}$ C of dew-point value, the total power consumption can save 0~10%.
- For models optional with drying heat recycler, add "HE" at model behind. Dehumidified low temperature air via plate heat exchanger to recycle the heat of hot-wet return air, which can higher the air temperature in drying heater and lower the power consumption of the heater, the total power consumption can save 0%~19%.



Powder-removing Hopper



Working Principle of Powder-removing Hopper



Dew-point Monitor



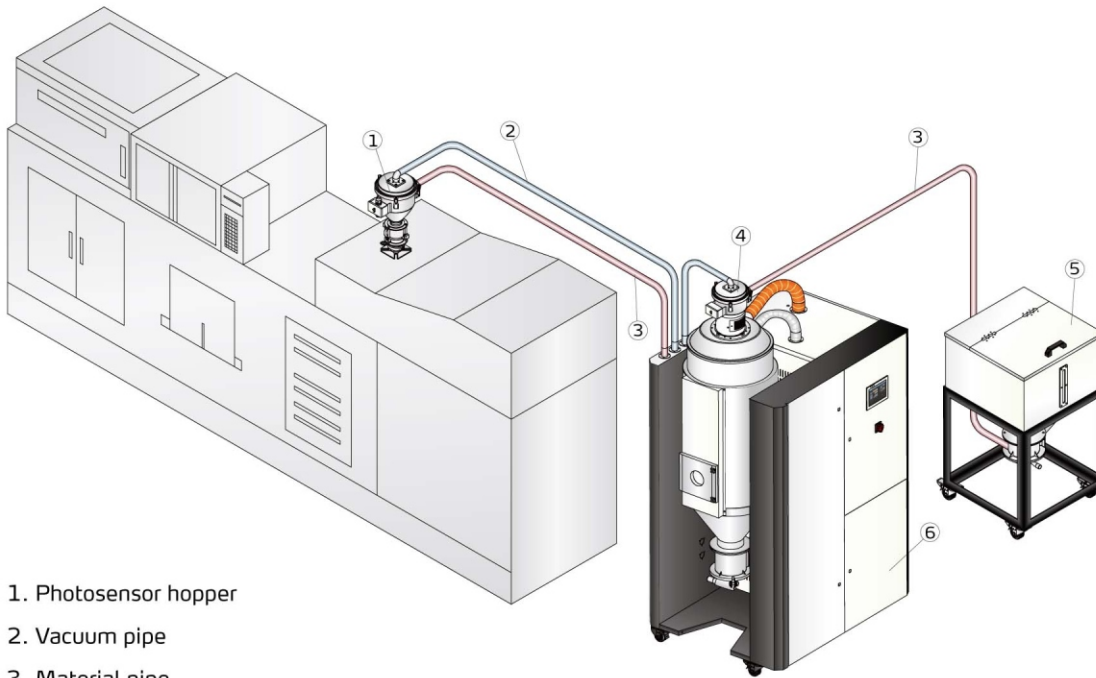
Shut-off Suction Box



SCD-OP High Efficiency Particulate Absorbing Filter

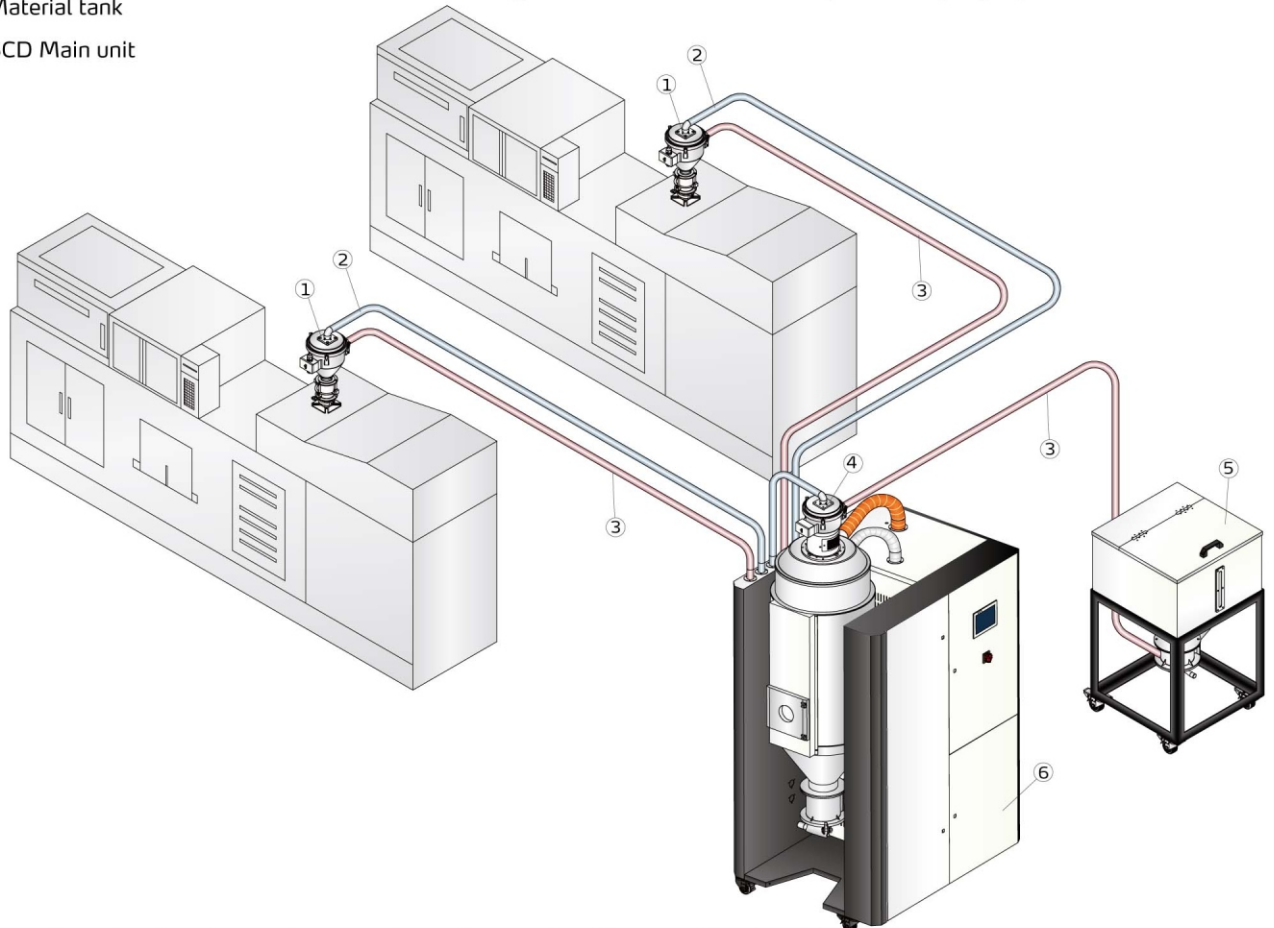
SCD Series

Application



- 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)

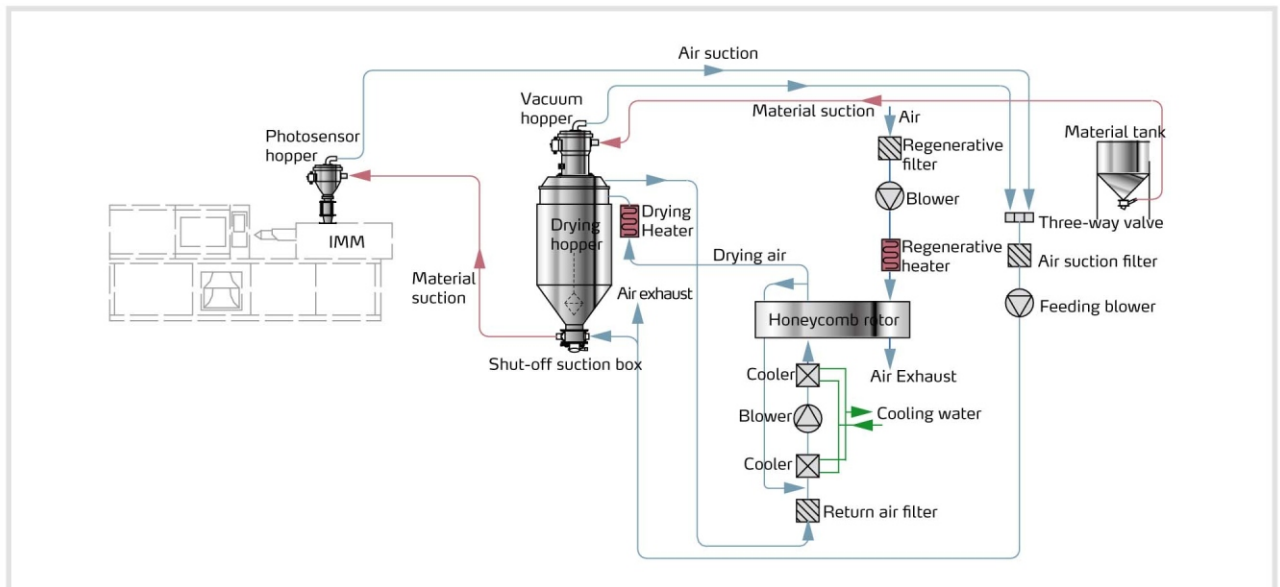


For Servicing Two Machines: Three-stage Conveying System (Optional)

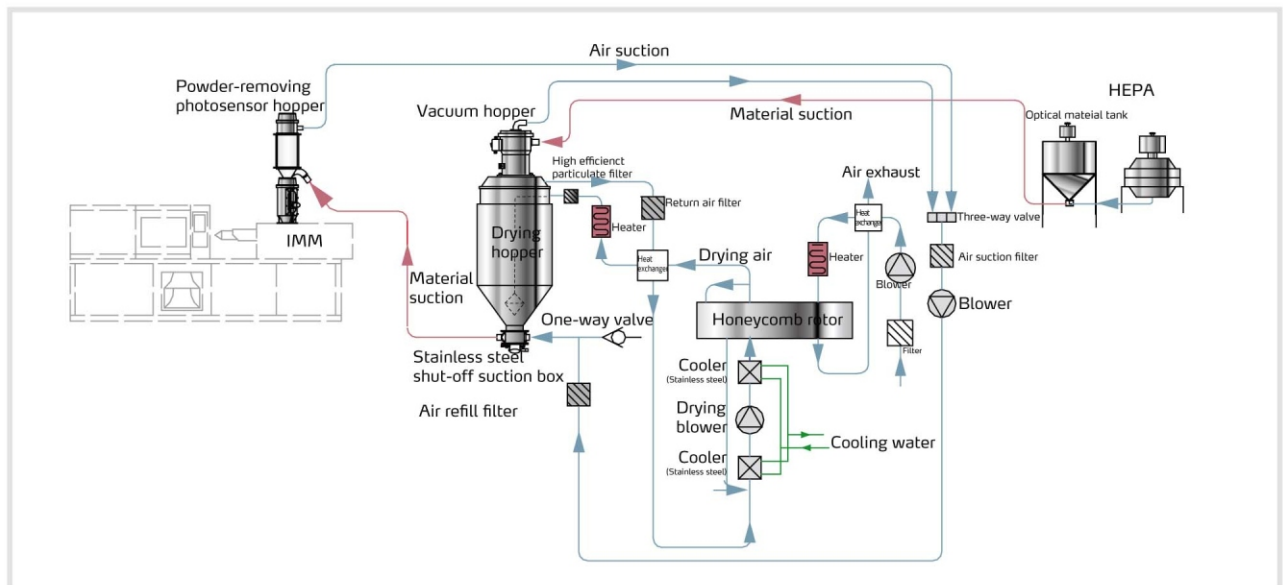
Working Principle

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

SCD Series

Options



High Efficiency Particulate Absorbing Filter HEPA(0.3µm)



Optical Material Tank (5µm)

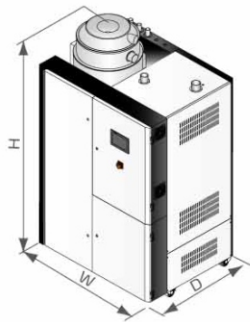


Optical Powder-removing Hopper

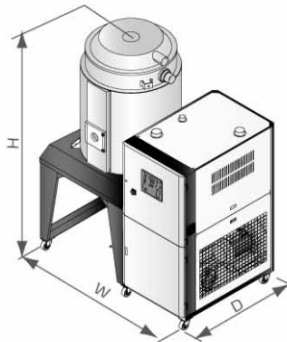
Specifications (Fully-integrated)

Model	SCD-	20U/30H -OP	40U/30H -OP	80U/50H -OP	120U/80H -OP	20U/40H	40U/40H	80U/40H	120U/80H	160U/ 80H	160U/ 120H	230U/ 120H	300U/ 200H	450U/ 200H	
Drying System															
Drying Heater Power (kW)		3	3	3.9	6	3.9	3.9	3.9	6	6	6	6	12	12	
Drying Blower Power (kW)		0.2	0.2	0.4	0.75	0.12	0.12	0.75	0.75	0.75	0.75	0.75	1.5	1.5	
Hopper Capacity	L	20	40	80	120	20	40	80	120	160	160	230	300	450	
	gal	5.3	10.6	21.1	31.7	5.3	10.6	21.1	31.7	42.3	42.3	60.8	79.3	119	
Dehumidifying System															
Regenerative Heater Power (kW)		3	3	3	3	3.9	3.9	3.9	3	3	3	3	4	4	
Regenerative Blower Power (kW)		0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0.4	
Dehumidifying Air quantity (m ³ /hr)		30	30	50	80	40	40	40	80	80	120	120	200	200	
Feeding System															
Feeding Blower Power (kW)		1.5													
Dia. of Material Pipe (inch)		1.5													
SHR-U-E Hopper	L	3*				3			6				12		
	gal	0.8*				0.8			1.6				3.2		
SHR-U Hopper	L	3		6		3			6				12		
	gal	0.8		1.6		0.8			1.6				3.2		
Dimension	H	mm	1400	1500	1670	1710	1490	1550	1645	1990	1860	1860	2070	2160	2350
		inch	55	59	65.7	67.3	58.7	61	64.8	78.3	73.2	73.2	81.5	85	92.5
	W	mm	1050	1050	1240	1240	1000	1040	1105	1105	1190	1190	1190	1460	1460
		inch	41.3	41.3	48.8	48.8	39.4	40.9	43.5	43.5	46.9	46.9	46.9	57.5	57.5
	D	mm	900	900	1000	1000	880	880	880	875	875	875	875	1020	1020
		inch	35.4	35.4	39.4	39.4	34.6	34.6	34.6	34.4	34.4	34.4	34.4	40.2	40.2
Weight	kg	235	280	330	385	220	295	325	340	385	505	515	565	595	
	lb	518	617	728	849	485	650	1433	750	849	1113	1135	1246	1312	

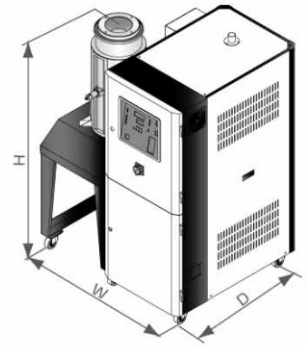
Outline Drawings



SCD Hermetic



SCD Semi-open



SCD-OP

Specifications (Semi-open)

Model	SCD-	600U/400H	750U/400H	900U/700H	1200U/700H	
Drying System						
Drying Heater Power (kW)		18	18	24	24	
Drying Blower Power (kW, 50/60Hz)		3.75/4.5	3.75/4.5	5.5/6.3	5.5/6.3	
Hopper Capacity	L	600	750	900	1200	
	gal	158.5	198	237.8	317	
Dehumidifying System						
Regenerative Heater Power (kW)		7.2	7.2	10	10	
Regenerative Blower Power (kW, 50/60Hz)		0.75/0.9	0.75/0.9	1.5/1.8	1.5/1.8	
Dehumidifying Air quantity (m ³ /hr, 50/60Hz)		400/450	400/450	700/780	700/780	
Feeding System						
Feeding Blower Power (kW)			1.5		2.4	
Dia. of Material Pipe (inch)			1.5		2	
SHR-U-E Hopper	L		12		24	
	gal		3.2		6.4	
SHR-U Hopper	L		12		24	
	gal		3.2		6.4	
Dimension	H	mm	2380	2610	2640	3070
		inch	93.7	102.8	104	121
	W	mm		1745		2140
		inch		68.7		84.3
	D	mm		1255		1380
		inch		49.4		54.3
Weight	kg	640	690	850	900	
	lb	1411	1521	1874	1984	

- Notes: 1) Plastic materials can be fully dried by drying air with dew-point temperature $\leq -20^{\circ}\text{C}$.
 2) For models that are equipped with dew-point monitor, add "D" at model behind.
 3) For models with the polished hopper inside, add "P" at model behind.
 4) For models of providing material for two IMMs with three-stage conveying function and adopt PLC control plus LCD touch screen, add "LC" at model behind.
 5) Power: 3 Φ , 230/400/460/575VAC, 50/60Hz.

We reserve the right to change specifications without prior notice.

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