FORMAX®

HERE BEGINS YOUR ULTIMATE VALUE

FCD Series

Heatless Compact Dryer

FCD-50HL

Please read the brochure carefully before operation.

FCD-HL Series Heatless Compact Dryer

Coding Principle

FCD - XXXHL - X

- X → Option*
- XXXHL → Hopper Capacity (KG); HL: Heatless
- FCD → Formax Compact Dryer

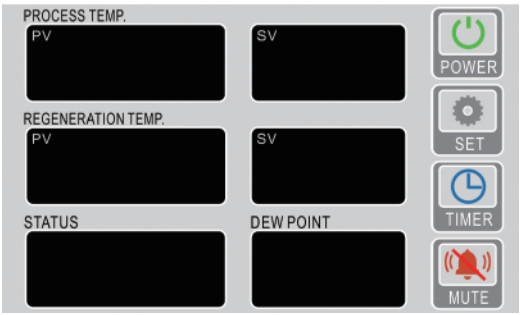
Note: *
DP= Dewpoint Meter HT=180℃ High Temperature
ES= Insulation Energy Saving Function P= Polish Internal Hopper

FCD-400HL

Features

Standard Configuration

- Combine the function of dehumidifying, drying, and two stage conveying into a single unit.
- Hot air recycler as standard for saving energy, no exhaust of hot air and dust, and environmental protection.
- Shut-off suction box ensures no residue in pipe.
- Heat preserved drying hopper adopts down blowpipe design to avoid of heat lost and improve drying efficiency.
- Closed-loop device eliminates the risk of moisture re-absorption and prohibits the air flowing inside.
- Heatless regeneration device can supply dry air with relative low dew-point to speed up material handling process.
- Standard PID temperature control saves energy cost.
- The multiple safety protection device.



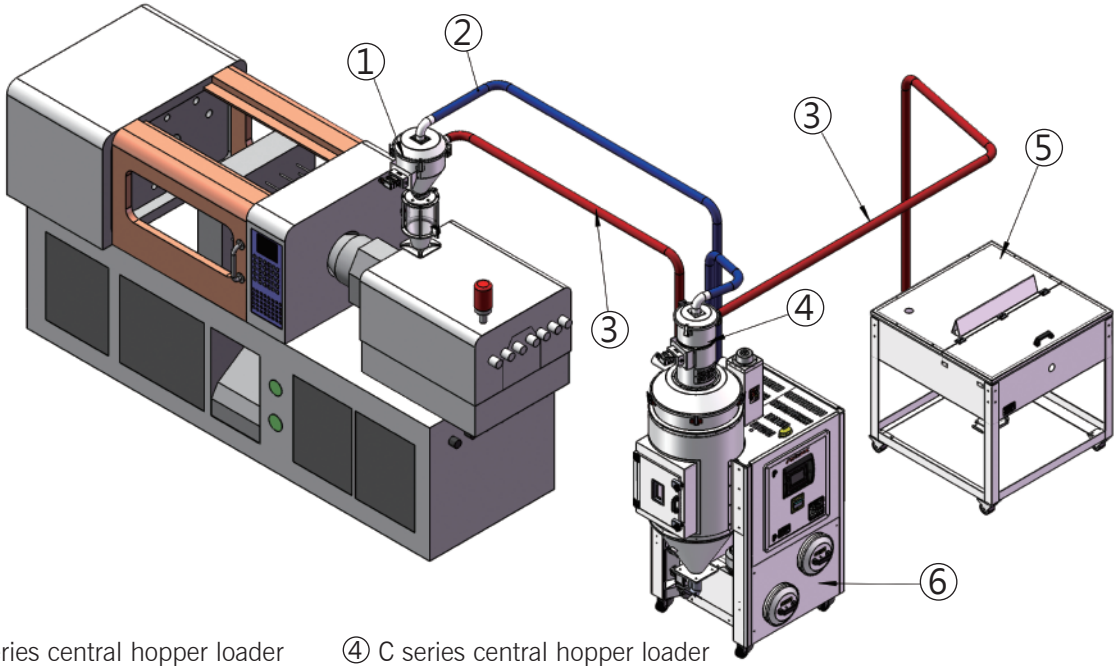
Control Panel

Options

Dewpoint Meter: range -60～+60℃, accuracy ±2C, output is adjustable. It also supports to detect the dew-point, temperature, humidity, and PPM and parameter can be chosen. The user can use it in up to 20bar environment

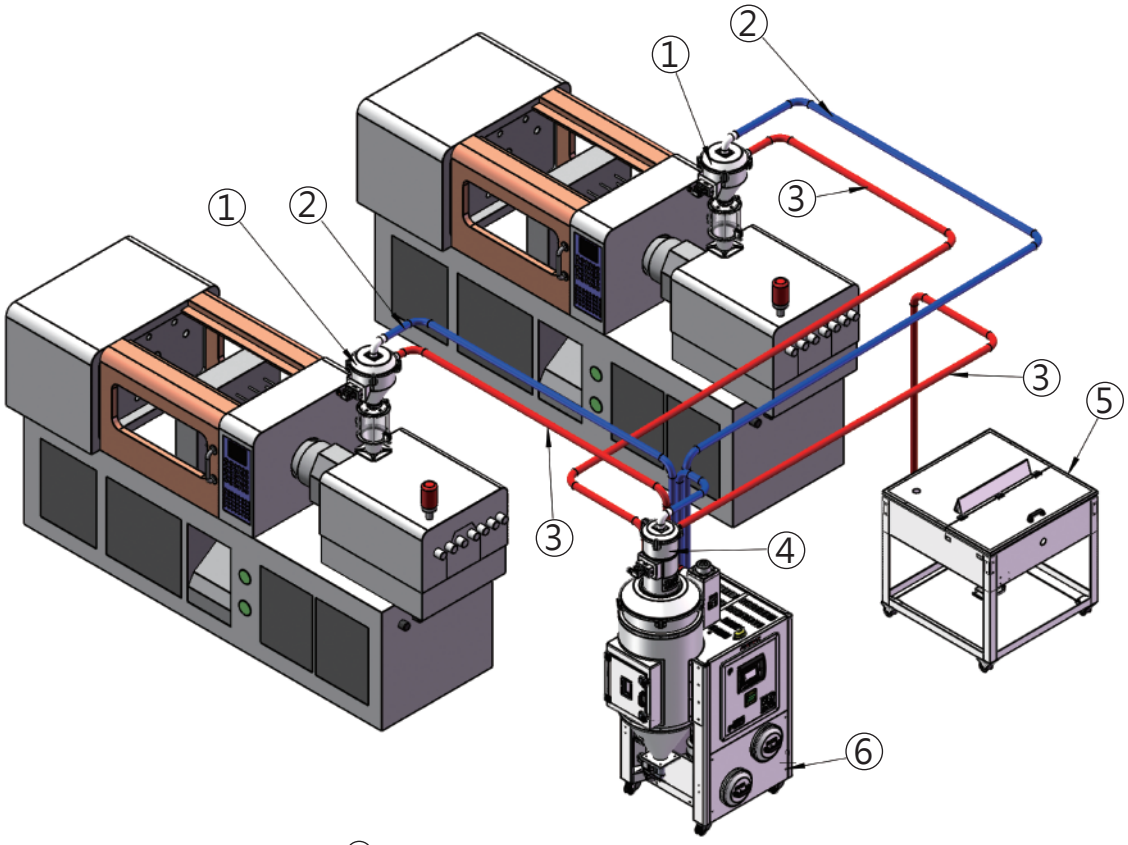
Dewpoint Meter Heatless Device

Application



①CV series central hopper loader
②Vacuum pipe
③Material pipe
④ C series central hopper loader
⑤ Material storage tank
⑥ FCD-HL heatless compact dryer

"One to One" Two stage Conveying Layout (Standard)



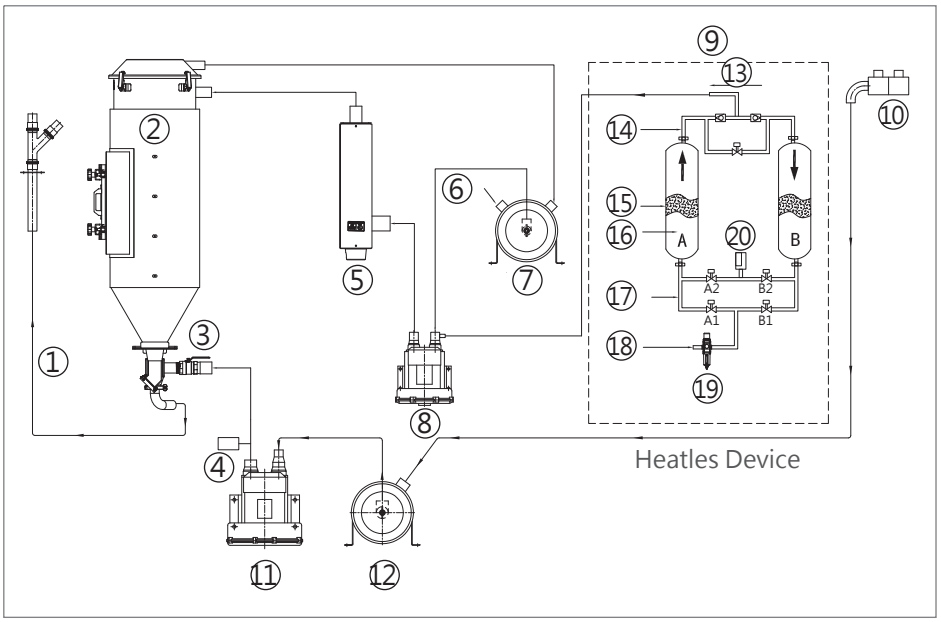
①CV series central hopper loader
②Vacuum pipe
③Material pipe
④ C series central hopper loader
⑤ Material storage tank
⑥ FCD-HL heatless compact dryer

"One to Two" Three stage Conveying Layout (Standard)

Working Principle

Dehumidifying and drying: the drying effect is through “pressure change” (Pressure Swing Adsorption). The capacity of water vapor in the air is inverse proportion from the pressure, so a portion of the dried compressed air (regenerative air) is expanded to near atmospheric pressure and allowed to purge through the regenerative tower. This low pressure, extremely dry air pulls water from the desiccant and carries it out of the dryer. Two towers work cycle without heating and continuously provide dried compressed air to the system.

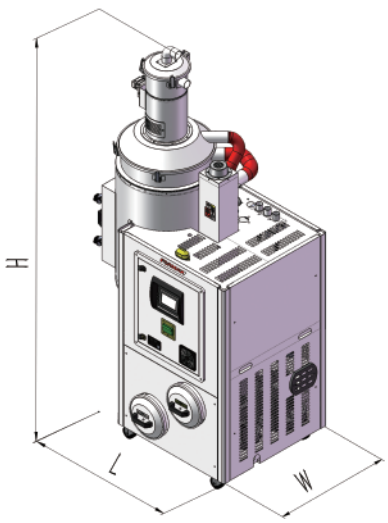
Suction: material is conveyed from the storage tank or other storage containers. When the magnetic reed switch detects no material, suction motor runs to produce vacuum inside vacuum hopper. Raw material in storage tank is fed into hopper loader due to air pressure difference. When material suction completes, motor stops. Raw materials drop into drying hopper tank due to gravity. The dried raw material is taken out to the hopper with CV hopper loader installed on molding machine or other hopper loader form hopper dryer.



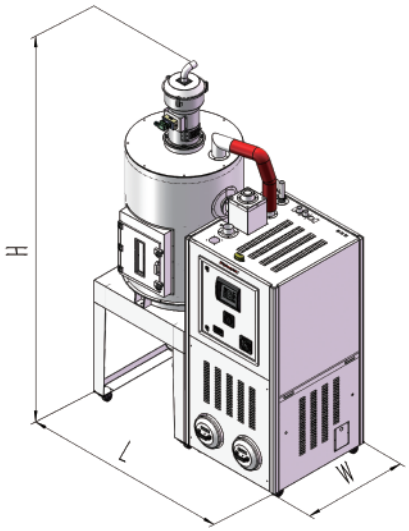
FCD-HL Working Principle

① Shut-off suction box
② Hopper dryer
③ Ball valve
④ Check valve
⑤ Dehumidifying heater
⑥ This hole be blocked
⑦ Dehumidifying filter
⑧ Dehumidifying blower
⑨ Heaterless device
⑩ Separation valve
⑪ Suction blower
⑫ Suction filter
⑬ Air to process
⑭ Top tube
⑮ Molecular sieve
⑯ Desiccant tower
⑰ Below tube
⑱ Air inlet
⑲ Pressure regulating valve
⑳ Regeneration air exhaust

Outline Drawings



FCD-30~150HL



FCD-200~1000HL

Specifications

Model	FCD-	30HL	50HL	75HL	100HL	150HL	200HL	300HL	400HL	600HL	800HL	1000HL
Hopper Capacity	kG	30	50	75	100	150	200	300	400	600	800	1000
	Ltr	50	80	120	160	230	300	450	600	900	1200	1500
Dewpoint	℃	-40										
Heatless	CMH	15		30		60		120		180		210
Drying Temperature	kW	150(180℃ as optional)										
Process Blower	kW	0.25	0.4	0.4	0.4	0.75	1.5	1.5	3.75	3.75	5.5	5.5
Process Heater	kW	2.7	4	5	6	8	10	13	18	18	18	24
Compressed Air	Bar	4~6										
Loading Blower	kW	0.75(up 2HP as optional)					1.5			2.7		
Loading Control	Ltr	Max.3 stations (2 stations on IMM · 1 station on Dryer)										
Loader on IMM		CV3*1			CV6*1			CV12*1			CV24*1	
Loader on Hopper Dryer		C3*1			C6*1			C12*1			C24*1	
Suction Box		Shut-off Suction Box and Closed-loop Drying Air										
Voltage	kW	3Ø · 220~460VAC · 50/60Hz										
Total Power	kW	3.7	5.15	6.15	7.15	9.5	13	16	23.25	23.25	25	31
Dimensions												
L	mm	980	980	1270	1270	1350	1350	1610	1880	2230	2300	2300
W		840	840	920	920	1000	1000	1050	1060	1410	1410	1560
H		1550	1760	1700	1930	2146	2200	2200	2390	2830	2760	3200
Net Weight	kG	210	230	250	335	420	470	490	510	530	550	570

Note: 1) Plastic materials can be fully dried by drying air with dew point ≤-20℃
2) We reserve the right to revise the product design, which is subject to revise without notice.

Specifications are subject to change without prior notice.

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