

**FORMAX**®

HERE BEGINS YOUR ULTIMATE VALUE

**FCD** Series  
Honeycomb Compact Dryer

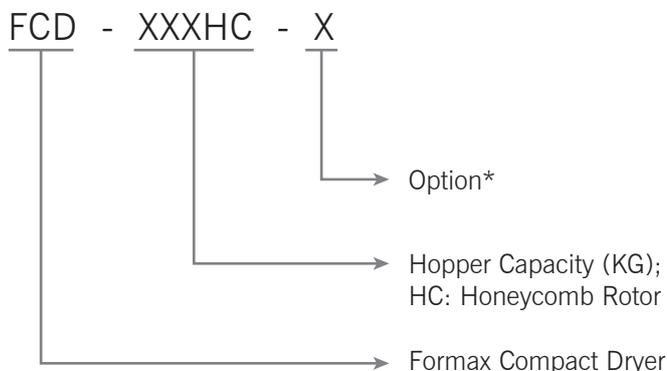
FCD-100HC



Please read the brochure carefully before operation.

# FCD-HC Series Honeycomb Compact Dryer

## ■ Coding Principle



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



FCD-400HC

## ■ Features

### Standard Configuration

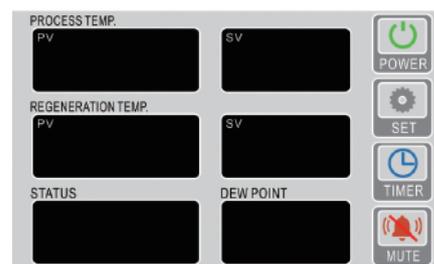
- Combine the function of dehumidifying, drying, and two stage conveying into a single unit.
- Hot air recycler as standard for saving energy, no exhaust of hot air and dust, and environmental protection.
- Shut-off suction box ensures no residue in pipe.
- Heat preserved drying hopper adopts down blowpipe 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.
- The honeycomb rotor service life is at least 6 years and can be cleaned by water.
- Standard PID temperature control saves energy cost.
- The multiple safety protection device.

### Options

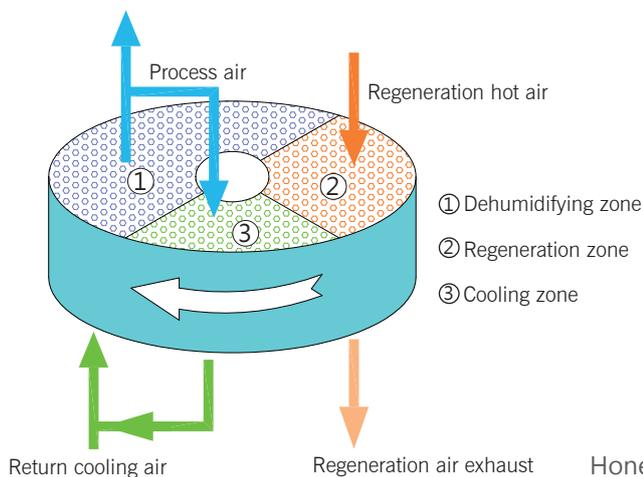
Dewpoint Meter: range -60~+60°C, accuracy ±2°C, output is adjustable. It also supports to detect the dew-point, temperature, humidity, and PPM and parameter can be chosen. The user can use it in up to 20bar environment.



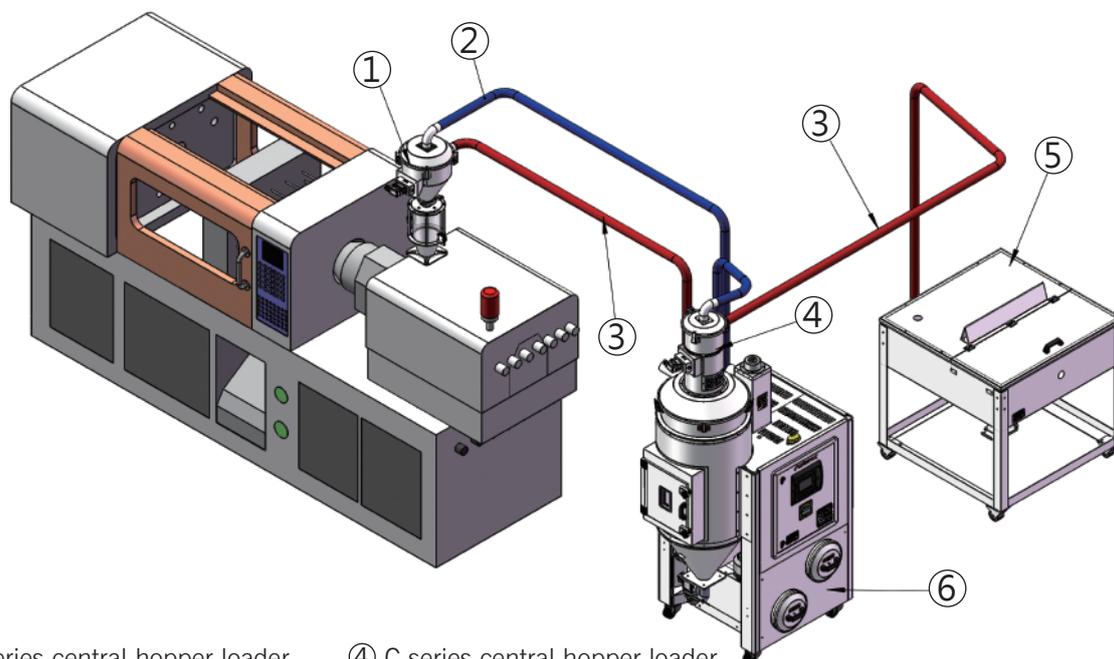
Dewpoint Meter



Control Panel



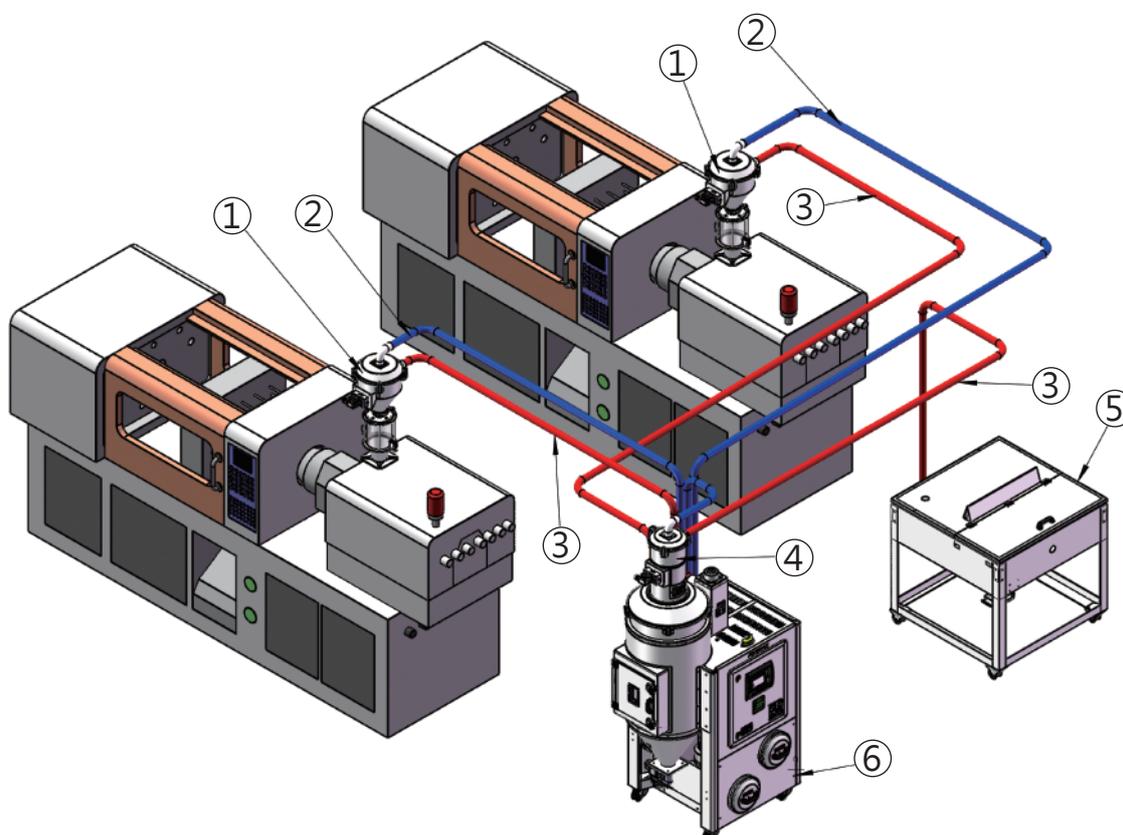
■ Application



- ① CV series central hopper loader
- ② Vacuum pipe
- ③ Material pipe

- ④ C series central hopper loader
- ⑤ Material storage tank
- ⑥ FCD compact dryer

“One to One” Two stage Conveying Layout (Standard)



- ① CV series central hopper loader
- ② Vacuum pipe
- ③ Material pipe

- ④ C series central hopper loader
- ⑤ Material storage tank
- ⑥ FCD compact dryer

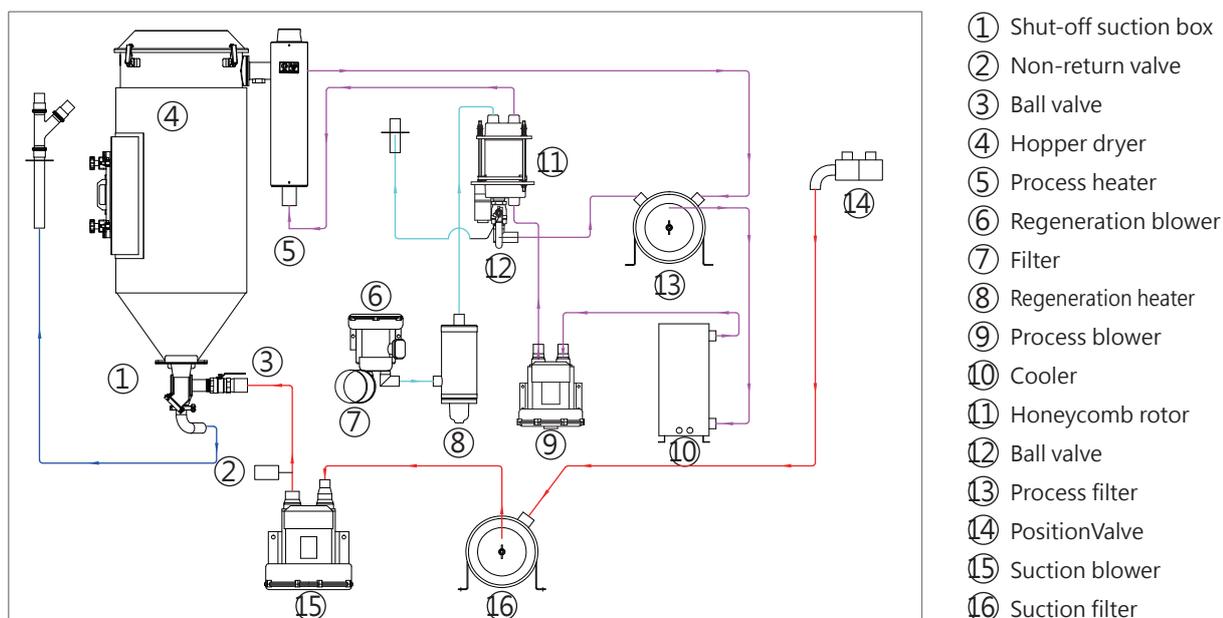
“One to Two” Three Stage Conveying Layout (Standard)

## Working Principle

Dehumidifying and drying: the honeycomb rotor is divided into a process, regeneration, and cooling zone by the casing structure and heat resistance air sealing. High moisture air is drawn into the honeycomb matrix of the rotor through the return air filter by the process blower. When the air is passing through the honeycomb matrix, moisture in the air is absorbed and dried air is discharged from the process outlet by the process blower. The rotor absorbed moisture is rotated into the process zone before it is saturated. At the same time, the cooling air is drawn from the counter side through the regeneration filter and is heated and enters the regeneration zone of the rotor and disturbs the moisture absorbed in the rotor and then is

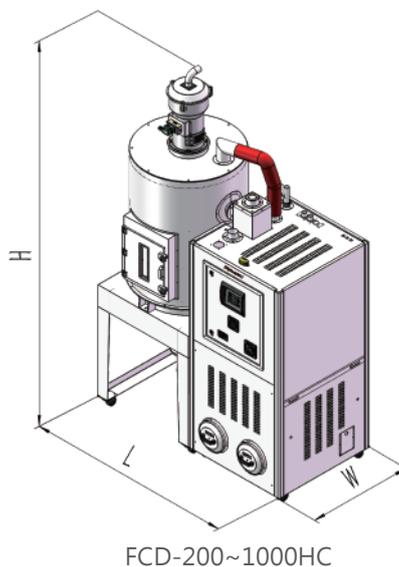
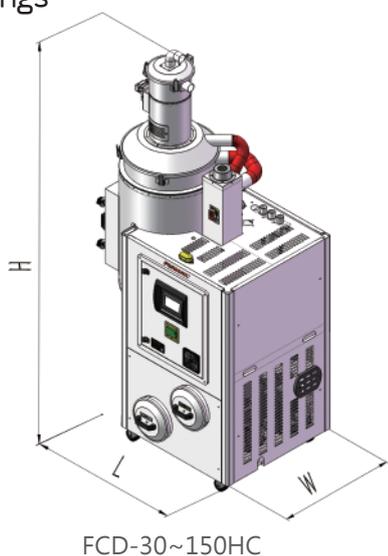
exhausted to the outside by a regeneration blower. This cycle of operation is continuously conducted.

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 from hopper dryer.



FCD-HC Working Principle

## Outline Drawings



## ■ Specifications

Model	FCD-	30HC	50HC	75HC	100HC	150HC	200HC	300HC	400HC	600HC	800HC	1000HC	
Dehumidifying Air	CMH	50	50	50	120	120	200	200	300	400	600	800	
Hopper Dryer	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	°C	-40											
Drying Temperature	°C	150(180°C as option)											
Process Blower	kW	0.55	0.55	0.55	0.75	0.75	1.5	1.5	2.6	3.75	7.5	7.5*	
Process Heater	kW	4	4	6	6	6	12	12	18	18	24	32	
Regeneration Blower	kW	0.25	0.25	0.25	0.4	0.4	0.4	0.4	0.75	0.75	1.5	3.75	
Regeneration Heater	kW	2.5	2.5	2.5	4	4	4	4	7.5	7.5	9	12	
Processing Way		Honeycomb Rotor											
Rotor Motor	kW	0.015						0.025					
Cooling Water Flow	Ltr/min	5		10		15	30	40	50	65	65	120	
Cooling Water Pipe	inch	1/2				3/4				1 1/4			
Compressed Air	Bar	4~6											
Loading Blower	kW	0.75(2HP above as option)						1.5		2.7			
Loading Control		Max.3 Stations ( 2 stations on IMM, 1 station on hopper dryer )											
Loader on IMM		CV3*1			CV6*1			CV12*1			CV24*1		
Loader on Hopper Dryer		C3*1			C6*1			C12*1			C24*1		
Suciton Box		Shut-off Suction Box and Closed-loop Drying Air											
Voltage		3Ø · 220~460VAC · 50/60Hz											
Total Power	kW	8.05	8.05	10.05	11.90	11.90	18.65	19.43	30.35	31.50	43.50	60.55	
Dimension													
L	mm	980	980	1270	1270	1270	1560	1610	1880	2230	2300	2300	
W		840	840	920	920	920	920	1050	1060	1410	1410	1560	
H		1550	1760	1760	1930	2146	2045	2200	2390	2830	2760	3200	
Net Weight	kG	230	250	270	335	375	490	530	550	570	590	610	

Note: 1) (\*)High pressure and High air blower

Specifications are subject to change without prior notice.

2) Plastic materials can be fully dried by drying air with dew point ≤-20°C

3) We reserve the right to revise the product design, which is subject to revise without notice.

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