

**FORMAX**®

HERE BEGINS YOUR ULTIMATE VALUE

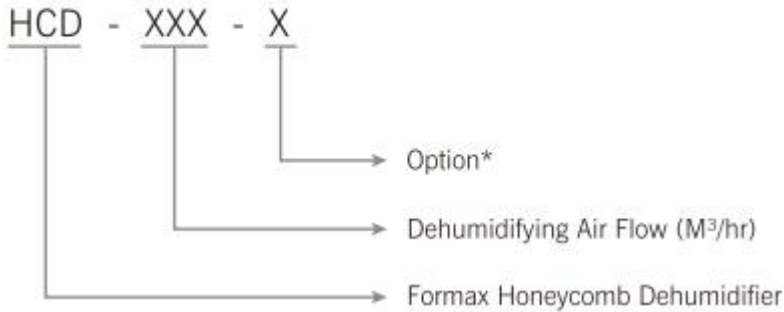
**HCD** Series  
Honeycomb Dehumidifier

HCD-200



Please read the brochure carefully before operation.

## ■ Coding Principle



## ■ Features

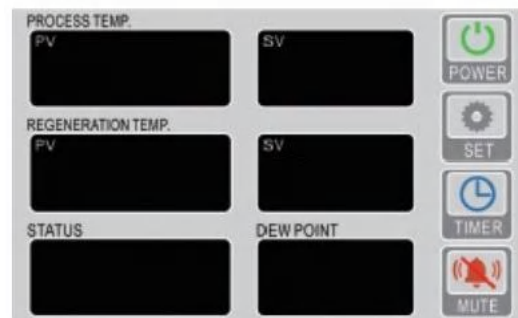
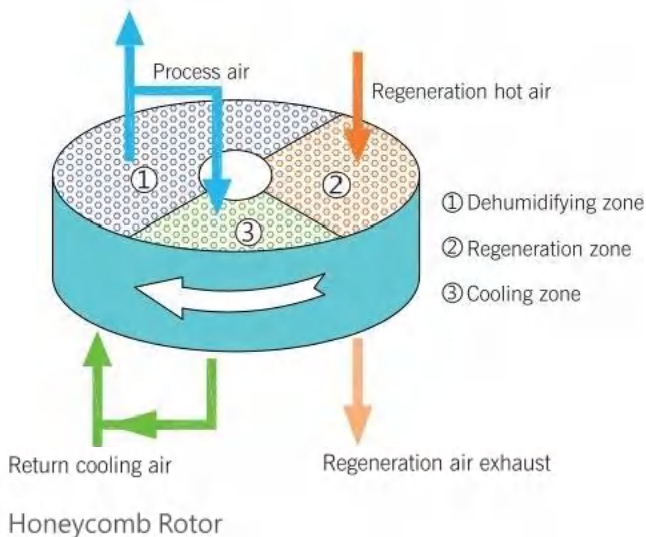
### Standard Configuration

- Microprocessor control board with LCD touch screen are easier to operate and control whole machine.
- The dehumidifying system of the HCD series features coolers to ensure a low return air temperature and low dew-point.
- Equipped with main power switch ensures safe operation and maintenance.
- Adopts the pump overload and reversal alarm function to ensure the life of pump.

- Inbuilt return air filter ensures no contamination to the honeycomb.
- It's better to adopt molecular sieve structure honeycomb than silica gel adsorption one in dehumidifying.

### Options

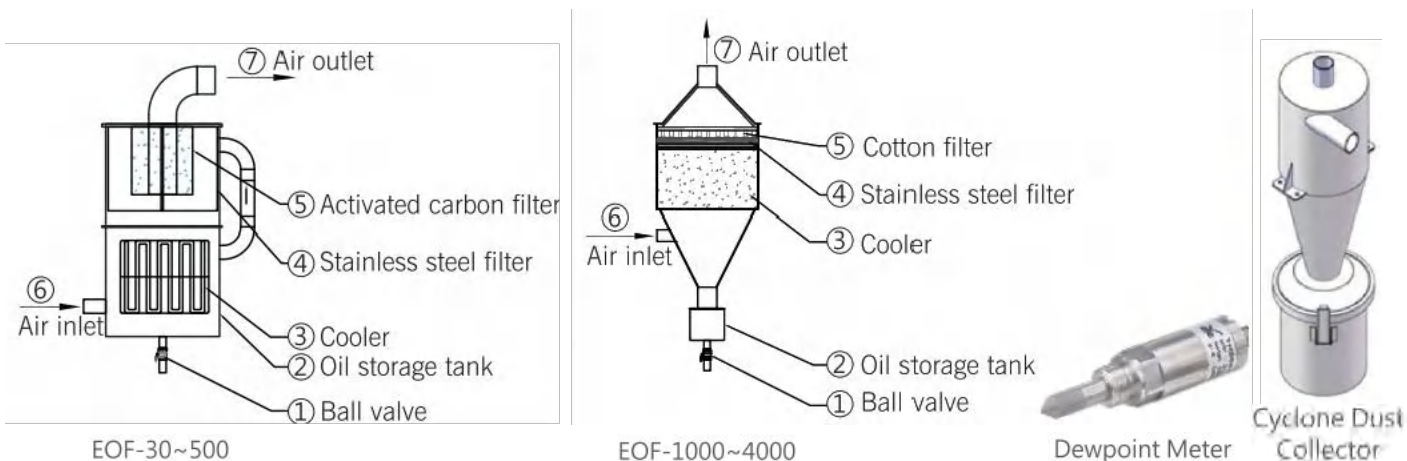
- The dewpoint meter is optional.
- Blower with High pressure and high air flow is optional for more effective dehumidifying situation.
- Processing heater is optional for using with hopper dryer.



Control Panel

### Options

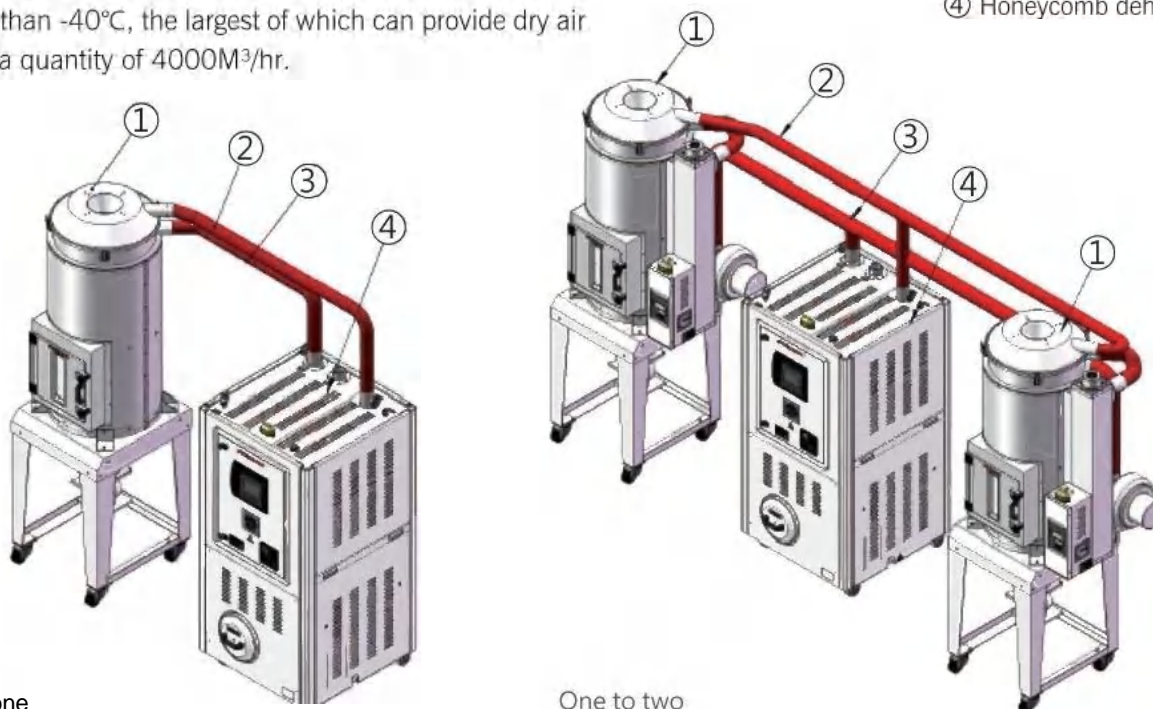
Equipped with explosion-proof as protection and it can withstand moisture erosion or contaminated by particles, most chemicals, oil, or gas. Also, it's insensitive to air flow rate characteristics. It's better to ensure the accuracy of the dewpoint.



### Application

HCD series honeycomb dehumidifiers are mainly used to dry hygroscopic engineering plastics. A honeycomb rotor is used to offer effective drying, which under ideal conditions, can supply dehumidified dry air with dew point lower than -40°C, the largest of which can provide dry air up to a quantity of 4000M<sup>3</sup>/hr.

- ① Double insulation hopper
- ② Return pipe
- ③ Outlet pipe
- ④ Honeycomb dehumidifier



One to one

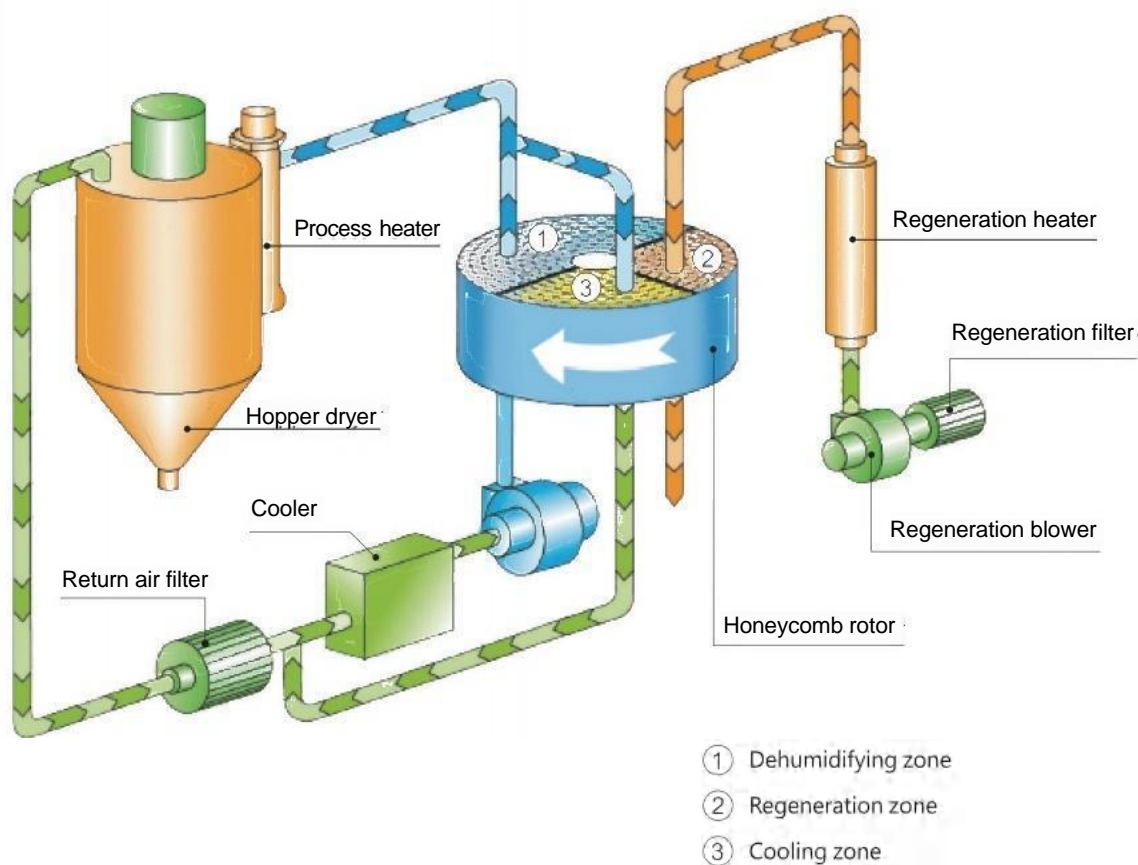
One to two

■ Working Principle

The main part of honeycomb rotor is made by ceramic fiber and organic additives, sintered under high temperature with molecular sieve or silica gel as basic material to bond together with inside of honeycomb to form the honeycomb like structure. Unlike common desiccant or rotary molecular sieve, then, when aging, will produce dust, followed by process air to drying hopper, to pollute plastic material. Honeycomb rotor offers unlimited long service life and can be cleaned and not like usual molec-

ular sieve which is easy to get saturated or requiring regular replacement. The moisture of return air is quickly absorbed by molecular sieves when passing through numerous holes within honeycomb rotor. So when coming out of rotor, can form low dew point dry air. Regenerating and dehumidifying have similar principle and run simultaneously. The only difference is that the two process winds are in opposite direction.

System Flow Chart





## ■ Drying Capacity (kg/hr)

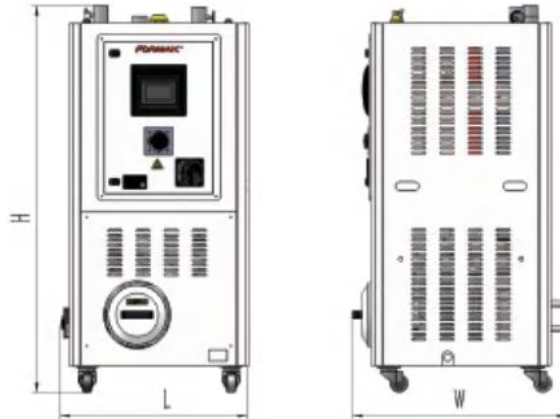
Material	Drying Temp- (°C)	Drying Time(hr)	Specific Heat (kcal/kg.°C)	Bulk Density (kg/L)	Moisture Content Before Drying (%)	Moisture Content After Drying (%)	Drying Capacity (Kg/hr) / Model: HCD-									
							50	100	200	300	400	600	800	1000	1500	2000
ABS	80	2-3	0.34	0.6	0.3	0.02	16	35	105	165	210	305	405	425	710	1065
CA	75	2-3	0.5	0.5	1	0.02	12	30	90	135	180	255	340	355	590	885
CAB	75	2-3	0.5	0.5	0.8	0.02	12	30	90	135	180	255	340	355	590	885
CP	75	2-3	0.6	0.6	1	0.02	16	35	106	165	210	305	405	425	710	1060
LCP	150	4	0.6	0.6	0.04	0.02	11	27	80	90	160	230	305	320	530	800
POM	100	2	0.35	0.6	0.2	0.02	24	53	160	180	320	455	605	640	1060	1600
PMMA	80	3	0.35	0.65	0.5	0.02	17	38	115	175	230	330	438	460	767	1150
LONOMER	90	3-4	0.55	0.5	0.1	0.04	10	22	66	120	133	190	252	265	442	663
PA6/6.6/6.10	75	4-6	0.4	0.65	1	0.05	9	19	58	87	115	165	220	230	383	575
PA11	75	4-5	0.58	0.65	1	0.05	10	23	69	104	138	200	263	275	460	690
PA12	75	4-5	0.28	0.65	1	0.05	10	23	69	104	138	200	263	275	460	690
PC	120	2-3	0.28	0.7	0.3	0.01	19	41	124	130	250	354	472	495	826	1238
PU	90	2-3	0.45	0.65	0.3	0.02	17	38	115	130	230	330	438	460	767	1150
PBT	130	3-4	0.3-0.5	0.7	0.2	0.02	13	31	93	100	186	265	355	372	620	930
PE	90	1	0.55	0.6	0.01	<0.01	47	106	318	477	637	546	728	1275	2125	3185
PEI	150	3-4	0.6	0.6	0.25	0.02	11	27	80	120	160	230	305	320	530	800
PET	160	4-6	0.3-0.5	0.85	0.2	0.05	11	25	75	100	150	215	285	300	500	750
PETG	70	3-4	0.6	0.6	0.5	0.02	11	27	80	135	160	230	305	320	530	800
PEN	170	5	0.85	0.85	0.1	0.05	13	30	90	135	180	260	343	360	600	900
PES	150	4	0.7	0.7	0.8	0.02	13	30	90	135	180	260	343	360	600	900
PMMA	80	3	0.65	0.65	0.5	0.02	17	38	115	173	230	330	438	460	765	1150
PPO	110	1-2	0.4	0.5	0.1	0.04	19	44	133	200	265	378	505	530	885	1330
PPS	150	3-4	0.6	0.6	0.1	0.02	11	27	80	120	160	230	305	320	530	800
PI	120	2	0.27	0.6	0.4	0.02	24	53	160	240	320	455	605	640	1060	1600
PP	90	1	0.46	0.5	0.1	0.02	39	88	265	400	530	760	1010	1060	1770	2655
PS(GP)	80	1	0.28	0.5	0.1	0.02	39	88	265	400	531	760	1011	1062	1770	2655
PSU	120	3-4	0.31	0.65	0.3	0.02	12	29	85	135	173	250	332	345	575	865
PVC	70	1-2	0.2	0.5	0.1	0.02	19	44	135	225	265	380	505	530	885	1330
SAN(AS)	80	1-2	0.32	0.5	0.1	0.05	19	44	135	180	265	380	505	530	885	1330
TPE	110	3	0.7	0.1	0.1	0.02	18	40	125	190	250	354	472	495	826	1238

Note:1)In an independent drying hopper.

Specifications are subject to change without prior notice.

2)Based on relative humidity 65%with ambient temperature of 20°C, moisture content after drying can be 0.01%or less.

## Outline Drawings



HCD-50~1000

## Specifications

Model	HCD-	50	100	200	300	400	600	800	1000	1500	2000
Air Flow	CMH	50	100	200	300	400	600	800	1000	1500	2000
Dew Point	°C	-40									
Process Blower	kW	0.55	0.75	1.5	2.6	3.75	7.5	7.5*	11.3*	7.5*2	11*2
Process Heater (optional)	kW	4	6	12	12	18	30	30	32	30*2	32*2
Regeneration.Blower	kW	0.25	0.4	0.4	0.75	0.75	1.5	1.5	3	1.5*2	3*2
Regeneration.Heater	KW	2.5	4	5	8.5	8.5	12	12	15	12*2	15*2
Rotor Motor	kW	0.006	0.015	0.015	0.025	0.025	0.025	0.025	0.090	0.025*2	0.090*2
Processing Outlet/Inlet	inch	2		2.5	3			4	5	6	8
Cooling Water Flow	Ltr/min	5	15	30	40	50	65	80	120	160	240
Water Pipe	inch	1/2	1								
Voltage		30,220~460VAC,50/60Hz									
Total Power	kW	3.31	5.17	6.92	11.88	13.03	21.03	21.03	29.39	42.05	58.18
Total Power (optional)	kW	7.31	11.17	18.92	23.88	31.03	51.03	51.03	61.39	102.05	122.18
Dimensions											
L	mm	745	910	1045			1400	1550	2700	3000	
W		650	765	900			1250	1250	1260	1520	
H		1280	1630	1930			2085	2085	2020	2400	
Net Weight	kG	150	200	250	300	320	380	400	420	800	900

Note:1)Plastic materials can be fully dried by drying air with dewpoint temperature  $\leq 20^{\circ}\text{C}$ .  
2)(\*)high pressure and High air flow blower

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