



Honeycomb Dehumidifiers



SD-300H-D

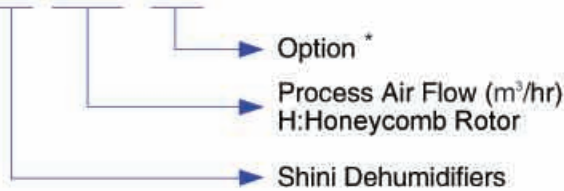


Refer carefully to the Manual before using products.



■ Coding Principle

SD- xxxH - xxx



Note: *

LC=Touch Screen

PHC=Process Heater and Temperature Controller are Optional

D=Dew-point Monitor

C=Add Temperature Controller

CE=CE Conformity

■ Features

Standard configuration

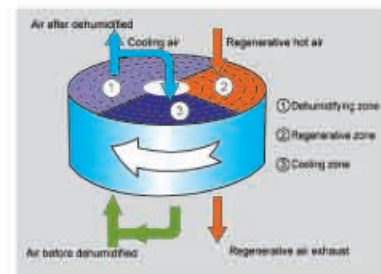
- Adopts P.I.D. temperature controller to accurately control regenerative temperature.
- The dehumidifying system of the SD-H series features two coolers to ensure a low return air temperature and low dew-point.
- Return air filter is mounted inside to ensure no contamination to the honeycomb.
- Adopt silica gel absorption honeycomb, with low regenerative temperature of 150°C, which can save more energy compared with molecular sieve structure with regenerative temperature of 200°C above.

Accessory option

- Centralized automatic control can be realized by optionally selected PLC touch screen controller.
- Optionally select dew-point monitor to realize dew-point real-time monitoring.
- Optionally select drying heater and its temp. controller to work with drying hopper for material dehumidifying and drying.
- Optional heat-resistant air pipe, cyclone dust separator with floor stand, oil filter are available.
- Molecular sieve honeycomb rotor is optional to reach -50°C dew-point.



SD-50H-D



Honeycomb Rotor Working Principle



Control Panel

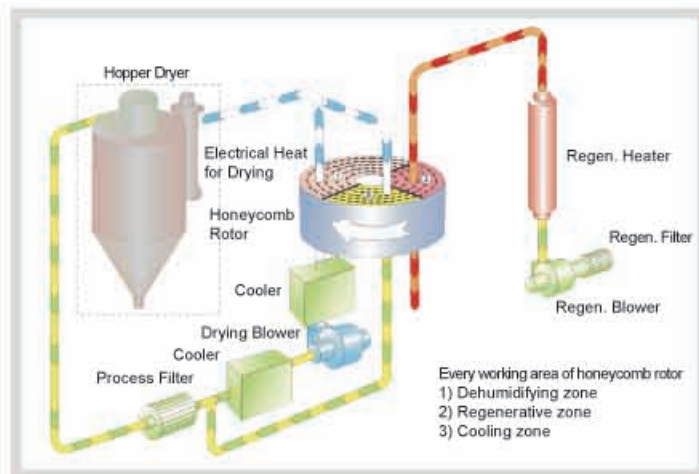
■ Application

SD-H 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 a dew-point lower than -40°C. This series comprises 15 models of honeycomb dehumidifiers, the largest of which can provide dry air up to a quantity of 4,000 m³/hr.

What is honeycomb rotor?

The main part of honeycomb rotor is made by ceramic fiber and organic additives, sintered under high temperature with molecular sieve and 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 molecular 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



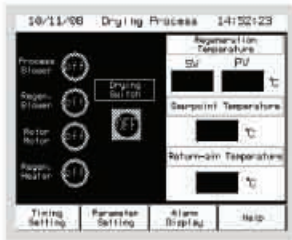
Drying Capacities

Raw 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)														
							SD-30H	50H	80H	120H	150H	200H	300H	400H	500H	700H	1000H	1500H	2000H	3000H	4000H
ABS	80	2-3	0.34	0.6	0.3	0.02	11	18	27	35	71	105	180	210	285	355	425	710	1065	1500	1600
CA	75	2-3	0.5	0.5	1	0.02	9	15	22	30	60	90	150	180	235	295	355	590	885	1200	1330
CAB	75	2-3	0.5	0.5	0.8	0.02	9	15	22	30	60	90	150	180	235	295	355	590	885	1200	1330
CP	75	2-3	0.6	0.6	1	0.02	11	18	27	35	71	106	180	210	285	355	425	710	1060	1500	1600
LCP	150	4	0.6	0.6	0.04	0.02	8	13	20	27	55	80	135	160	210	265	320	530	800	1150	1200
POM	100	2	0.35	0.6	0.2	0.02	16	27	40	53	105	160	265	320	425	530	640	1060	1600	1800	2400
PMMA	80	3	0.35	0.65	0.5	0.02	11	19	29	38	77	115	192	230	307	383	460	767	1150	1530	1730
IONOMER	90	3-4	0.55	0.5	0.1	0.04	7	11	17	22	44	66	111	133	177	220	265	442	663	750	1000
PAB66/610	75	4-6	0.4	0.65	1	0.05	6	10	14	19	38	58	96	115	153	192	230	383	575	960	1040
PA11	75	4-5	0.58	0.65	1	0.05	7	12	17	23	46	69	115	138	184	230	275	460	690	780	1150
PA12	75	4-5	0.28	0.65	1	0.05	7	12	17	23	46	69	115	138	184	230	275	460	690	780	1150
PC	120	2-3	0.28	0.7	0.3	0.01	13	21	31	41	83	124	206	250	330	413	495	826	1238	1400	1860
PU	90	2-3	0.45	0.65	0.3	0.02	11	19	29	38	77	115	190	230	307	383	460	767	1150	1530	2080
PBT	130	3-4	0.3-0.5	0.7	0.2	0.02	9	15	23	31	62	93	155	186	248	310	372	620	930	1100	1600
PE	90	1	0.55	0.6	0.01	< 0.01	32	53	80	106	212	318	531	637	850	1062	1275	2125	3185	3600	4800
PEI	150	3-4	0.6	0.6	0.25	0.02	8	13	20	27	53	80	133	160	212	265	320	530	800	1030	1370
PET	160	4-6	0.3-0.5	0.85	0.2	0.05	8	13	19	25	50	75	125	150	200	250	300	500	750	1150	1360
PETG	70	3-4	0.6	0.6	0.5	0.02	8	13	20	27	53	80	133	160	212	265	320	530	800	1030	1370
PEN	170	5	0.85	0.85	0.1	0.05	9	15	23	30	60	90	150	180	240	300	360	600	900	1150	1360
PES	150	4	0.7	0.7	0.8	0.02	9	15	23	30	60	90	150	180	240	300	360	600	900	1050	1400
PMMA	80	3	0.65	0.65	0.5	0.02	11	19	29	38	77	115	190	230	310	385	460	765	1150	1530	1730
PPD	110	1-2	0.4	0.5	0.1	0.04	13	22	33	44	88	133	220	265	355	440	530	885	1330	1730	2660
PPS	150	3-4	0.6	0.6	0.1	0.02	8	13	20	27	53	80	133	160	212	265	320	530	800	1030	1370
PI	120	2	0.27	0.6	0.4	0.02	16	27	40	53	105	160	265	320	425	530	640	1060	1600	1800	2400
PP	90	1	0.46	0.5	0.1	0.02	26	44	66	88	180	265	442	530	710	885	1060	1770	2655	3500	4000
PS(GP)	80	1	0.28	0.5	0.1	0.02	26	44	66	88	180	265	442	531	708	885	1062	1770	2655	3500	4000
PSU	120	3-4	0.31	0.65	0.3	0.02	8	14	22	29	60	85	145	173	230	290	345	575	865	1300	1485
PVC	70	1-2	0.2	0.5	0.1	0.02	13	22	33	44	90	135	220	265	355	442	530	885	1330	1730	2660
SAN(AS)	80	1-2	0.32	0.5	0.1	0.05	13	22	33	44	90	135	220	265	355	442	530	885	1330	1730	2660
TPE	110	3	0.7	0.7	0.1	0.02	13	20	30	40	85	125	205	250	330	413	495	826	1238	1650	1860

Notes: 1) Use separated drying hopper.

2) Moisture content lower than 0.005% after drying when in 20°C ambient temperature and 65% relative humidity.

Options



Touch Screen
(LCD with PLC control)



Process Heater Control



Cyclone dust collector ACF



Dew-point Monitor
(Random check)

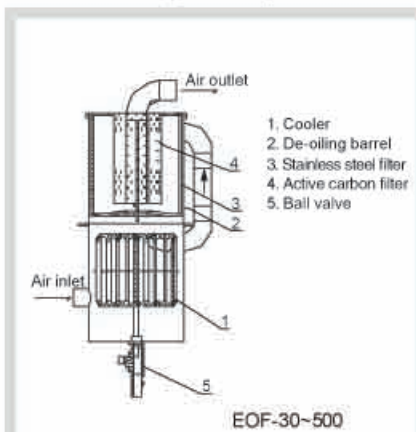


Dew-point Monitor
(Portable)

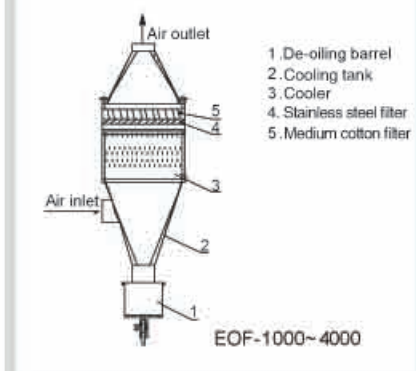


EOF-30~500

EOF Working Principle



EOF-1000~4000



Cyclone Dust Collectors

Model	Applicable Model
ACF-3"	SD-300H / 400H
ACF-4"	SD-500H / 700H
ACF-5"	SD-1000H
ACF-6"	SD-1500H
ACF-8"	SD-2000H / 3000H
ACF-12"	SD-4000H

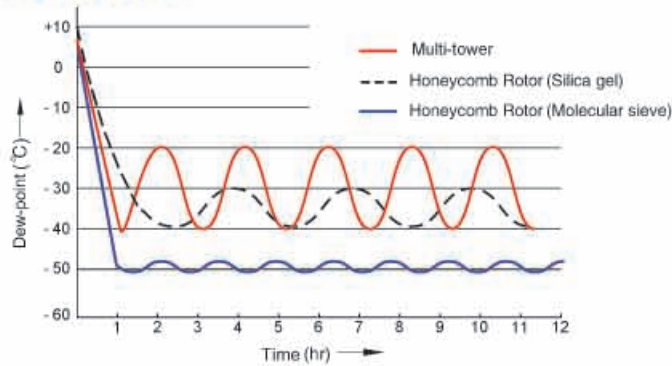
(Applicable for PET dust-removing system with much dust)

Oil Filters

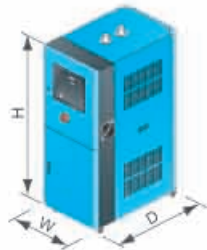
(Use When Drying Material has Plactical Catalyzer)

Model	Applicable Model
EOF-30	SD-30H~120H
EOF-150	SD-150H / 200H
EOF-300	SD-300H / 400H
EOF-500	SD-500H / 700H
EOF-1000	SD-1000H
EOF-1500	SD-1500H
EOF-2000	SD-2000H
EOF-3000	SD-3000H
EOF-4000	SD-4000H

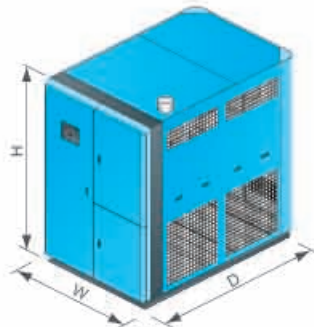
Dew-point Comparison



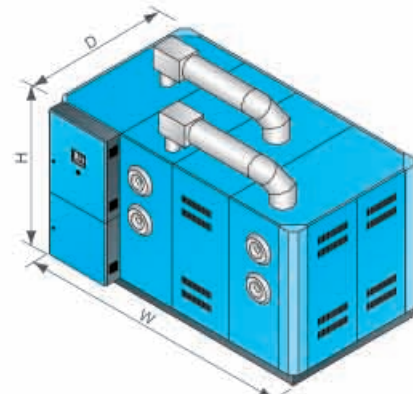
Outline Drawings



SD-30H~700H



SD-1000H~2000H



SD-3000H~4000H

Specifications

Model	SD-30H	50H	80H	120H	150H	200H	300H	400H	500H	700H	1000H	1500H	2000H	3000H	4000H	
Regen. Heater (kW)	3	3	3	3	4	4	7.2	7.2	10	10	15	20	20	32	40	
Regen. Blower (kW, 50 / 60Hz)	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.2 / 0.2	0.4 / 0.5	0.4 / 0.5	0.75 / 0.9	0.75 / 0.9	1.5 / 1.8	1.5 / 1.8	2.4 / 3	5.5 / 6.3	5.5 / 6.3	9 / 11	5.5×2 / 6.3×2	
Process Heater* (kW)	3	3.9	6	6	7.2	7.2	15	18	21	24	32	58	80	96	128	
Process Blower (kW, 50 / 60Hz)	0.2 / 0.2	0.4 / 0.5	0.75 / 0.9	0.75 / 0.9	1.5 / 1.8	1.5 / 1.8	2.4 / 3	3.75 / 4.5	5.5 / 6.3	5.5 / 6.3	9 / 11	9×2 / 11×2	13×2 / 15×2	13×3 / 15×3	13×4 / 15×4	
Dry Air Capacity (m ³ /hr, 50 / 60Hz)	30 / 35	50 / 60	80 / 95	120 / 130	150 / 170	200 / 220	300 / 340	400 / 450	500 / 570	700 / 780	1000 / 1150	1500 / 1750	2000 / 2300	3000 / 3400	4000 / 4500	
Pipe Dia. (inch)	2	2	2	2	2.5	2.5	3	3	4	4	5	6	8	8	12	
Dimensions																
H (mm)	1260	1260	1360	1360	1560	1560	1745	1745	1935	1935	2145	2060	2060	2240	2060	
W (mm)	480	480	530	530	660	660	700	700	900	900	1300	1410	1410	2035	2750	
D (mm)	755	755	820	820	1050	1050	1255	1255	1380	1380	1550	2150	2150	2160	2250	
Weight (kg)	145	145	170	170	260	265	320	330	470	480	700	1010	1300	1600	2200	

Note: 1) "*" Stands for drying heater is an optional equipment for working with "European type" hoppers.

2) Additionally mount temp. controller for drying heater add "P" at model behind (For example: SD-XXH-P).

3) Additionally mount temp. controller for SD-1000H above models, plus "C" at model behind (For example: SD-XXH-C).

4) Dew-point monitor for random check, add "D" at model behind.

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

We reserve the right to change specifications without prior notice.



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