

Honeycomb Dehumidifiers

The SD-H series honeycomb dehumidifiers are mainly used to dry hygroscopic engineering plastics. A honeycomb-rotor is used in this series to offer effective drying. We offer two types of honeycomb rotors: H4 and H5 models that, under ideal conditions, can supply dehumidified dry air with a dew-point down to -40°C and -50°C respectively. The SD-H series offers accurate P.I.D temperature control as standard, with LCD touch screen and dew-point monitor as optional features. This series comprises 14 models of honeycomb dehumidifiers, the largest of which can provide dry air up to a volume of $3000\text{m}^3/\text{hr}$.

Features:

- This series use P.I.D temperature control system, has regenerating temperature settings and real temperature display function.
- Two types of honeycomb rotor with different dehumidifying capacity and effect: H4 and H5 models available.
- Under ideal conditions, H5 models can supply dehumidified dry air with a dew-point down to -50°C .
- Equips with dehumidifying heater and temperature control gauge as options to dry and dehumidify the raw material.
- The dehumidifying system of the SD-H series features two condensers to ensure a low return air temperature and low dew-point.
- Main power switch with mechanical chain lock function (model above SD700H).



SD-300H5-LC-D

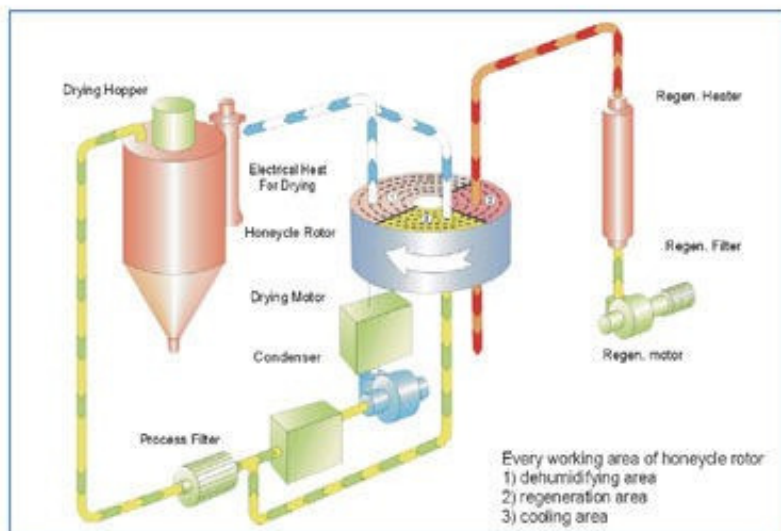


SD-50H

What is honeycyle?

The main part of honeycyle 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 honeycyle to form the honeycomb-like structure. Unlike common dessicant or rotary molecular sieve, then, when aging, will produce dust, followed by process air to drying hopper, to pollute plastics. Honeycyle rotor offers unlimited long 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 honeycyle rotor. So when coming out of rotor, can form low dew-point dry air. Regeneration and dehumidify have similar principle and run simultaneously. The only difference is that the two process winds are in opposite direction.

Working principle



Specifications for drying capacity

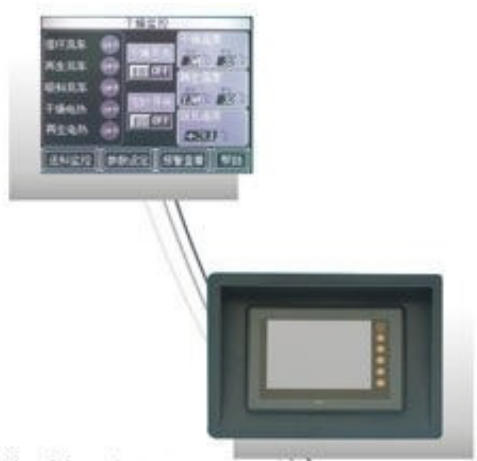
Raw Material	Drying Temp. (°C)	Drying Time (hr)	Specific Heat (J/kg °C)	Material Specific Gravity (kg/dm³)	Moisture Content Before drying (%)	Moisture Content After drying (%)	Drying Capacity (KG/HR)												
							SD50H	SD60H	SD120H	SD150H	SD200H	SD300H	SD400H	SD500H	SD700H	SD1000H	SD1500H	SD2000H	SD3000H
ABS	80	2-3	0.34	0.6	0.3	0.02	18	27	35	71	105	180	210	285	355	425	710	1065	1500
CA	75	2-3	0.5	0.5	1	0.02	15	22	30	60	90	150	180	235	295	355	590	885	1200
CAB	75	2-3	0.5	0.5	0.8	0.02	15	22	30	60	90	150	180	235	295	355	590	885	1200
CP	75	2-3	0.6	0.6	1	0.02	18	27	35	71	106	180	210	285	355	425	710	1060	1500
LCP	150	4	0.6	0.6	0.04	0.02	13	20	27	55	80	135	160	210	265	320	530	800	1150
POM	100	2	0.35	0.6	0.2	0.02	27	40	53	105	160	265	320	425	530	640	1060	1600	2400
PMMA	80	3	0.35	0.65	0.5	0.02	19	29	38	77	115	192	230	307	383	460	767	1150	1530
IONOMER	90	3-4	0.55	0.5	0.1	0.04	11	17	22	44	66	111	133	177	220	265	442	663	1000
PA6,6/6,10	75	4-6	0.4	0.65	1	0.05	10	14	19	38	58	96	115	153	192	230	383	575	960
PA11	75	4-5	0.58	0.65	1	0.05	12	17	23	46	69	115	138	184	230	275	460	690	1000
PA12	75	4-5	0.28	0.65	1	0.05	12	17	23	46	69	115	138	184	230	275	460	690	1000
PC	120	2-3	0.28	0.7	0.3	0.01	21	31	41	83	124	206	250	330	413	495	826	1238	960
PU	90	2-3	0.45	0.65	0.3	0.02	19	29	38	77	115	190	230	307	383	460	767	1150	1530
PBT	130	3-4	0.3-0.5	0.7	0.2	0.02	15	23	31	62	93	155	186	248	310	372	620	930	1100
PE	90	1	0.55	0.6	0.01	<0.01	53	80	106	212	318	531	637	850	1062	1275	2125	3185	4000
PEI	150	3-4	0.6	0.6	0.25	0.02	13	20	27	53	80	133	160	212	265	320	530	800	1200
PET	160	4-6	0.3-0.5	0.85	0.2	0.05	13	19	25	50	75	125	150	200	250	300	500	750	1150
PETG	70	3-4	0.6	0.6	0.5	0.02	13	20	27	53	80	133	160	212	265	320	530	800	1200
PEN	170	5	0.85	0.85	0.1	0.05	15	23	30	60	90	150	180	240	300	360	600	900	1300
PES	150	4	0.7	0.7	0.8	0.02	15	23	30	60	90	150	180	240	300	360	600	900	1300
PMMA	80	3	0.65	0.65	0.5	0.02	19	29	38	77	115	190	230	310	385	460	765	1150	1530
PPO	110	1-2	0.4	0.5	0.1	0.04	22	33	44	88	133	220	265	355	440	530	885	1330	1730
PPS	150	3-4	0.6	0.6	0.1	0.02	13	20	27	53	80	133	160	212	265	320	530	800	1200
PI	120	2	0.27	0.6	0.4	0.02	27	40	53	105	160	265	320	425	530	640	1060	1600	2400
PP	90	1	0.46	0.5	0.1	0.02	44	66	88	180	265	442	530	710	885	1060	1770	2655	3500
PS(GP)	80	1	0.28	0.5	0.1	0.02	44	66	88	180	265	442	531	708	885	1062	1770	2655	3500
PSU	120	3-4	0.31	0.65	0.3	0.02	14	22	29	60	85	145	173	230	290	345	575	865	1300
PVC	70	1-2	0.2	0.5	0.1	0.02	22	33	44	90	135	220	265	355	442	530	885	1330	1730
SAN(AS)	80	1-2	0.32	0.5	0.1	0.05	22	33	44	90	135	220	265	355	442	530	885	1330	1730
TPE	110	3	0.7	0.7	0.1	0.02	20	30	40	85	125	205	250	330	413	495	826	1238	1650

Remark : (1) Use separated drying hopper.
 (2) Moisture content lower than 0.005% after drying when in 20 °C atmosphere temperature and 65% relative humidity.

We reserve the right to change specifications without prior notice.

Optional Assosaries

- Touch screen (LCD with PLC control)



- Electrical heater (With temperature controller)



- Dew-point detecting display



(Portable)



(Install with machine style)

- Oil filter (Use when drying material has plastical catalyzer)

Model	Applicable Model
EOF-80	SD-80H~200H
EOF-300	SD-300H~400H
EOF-500	SD-500H~700H
EOF-1000	SD-1000H~1500H



- Castor style cyclone dust collector (Applicable to PET system with lots of dust)

Type	Applicable Model
ACF-3"	SD-300H~400H
ACF-4"	SD-500H~700H
ACF-5"	SD-1000H
ACF-6"	SD-1500H
ACF-8"	SD-2000H



Specifications

Model	SD30H	SD50H	SD80H	SD120H	SD150H	SD200H	SD300H	SD400H	SD500H	SD700H	SD1000H	SD1500H	SD2000H	SD3000H
Dry Air Capacity (m ³ /hr)	30	50	80	120	150	200	300	400	500	700	1000	1500	2000	3000
Process Heater* (kw)	3	3.9	6	6	7.2	12	15	18	21	24	32	58	80	96
Process Blower (kw,50/60Hz)	0.2/0.2	0.4/0.5	0.75/0.85	0.9/1.1	1.75/1.9	1.75/1.9	2.2/2.6	3.4/3.7	5.5/6.3	5.5/6.3	9/11	9 × 2/11 × 2	13 × 2/15 × 2	13 × 3/15 × 3
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	0.75/0.85	0.75/0.85	1.75/1.9	1.75/1.9	2.2/2.6	3.4/3.7	3.4/3.7	7.5/8.6
Regen. Heater (kw)	3	3	3.5	3.5	4	5.4	7.2	7.2	10	10	15	20	20	30
Pipe Dia. (inch)	2"	2"	2"	2"	2.5"	2.5"	3"	3"	4"	4"	5"	6"	8"	8"
Voltage (V)	3 Ø, 230/400/460/575V, 50/60Hz													

Dimensions														
H (mm)	1150	1150	1250	1250	1450	1450	1600	1600	1890	1890	2000	2000	2300	2500
W (mm)	480	480	530	530	660	660	700	700	900	900	1300	1300	1400	1600
D (mm)	750	750	820	820	1050	1050	1255	1255	1380	1380	1550	1910	1910	2160
Weight (kg)	80	80	120	140	215	225	240	280	290	300	400	510	630	760

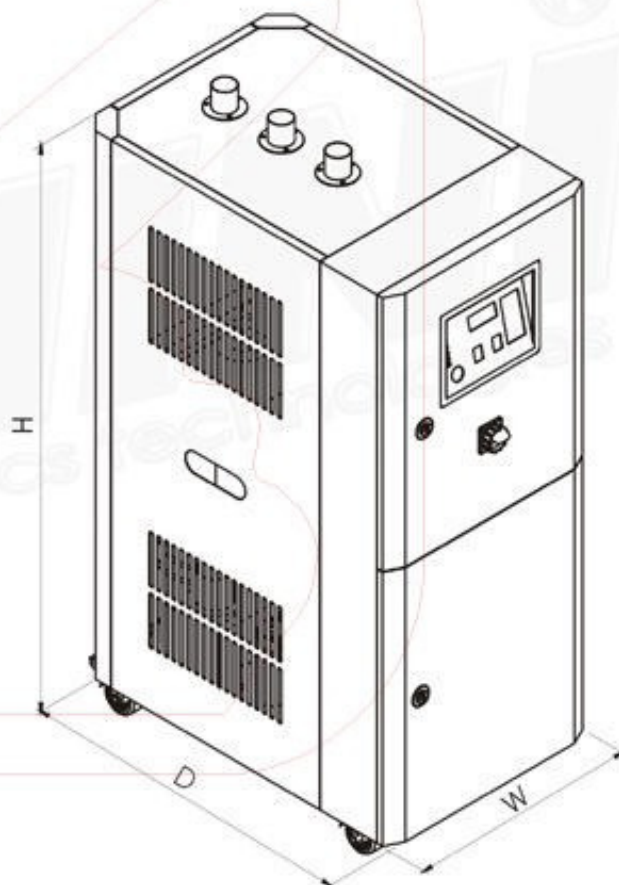
* Process heater is optional to be used with a Europe-style drying hopper.

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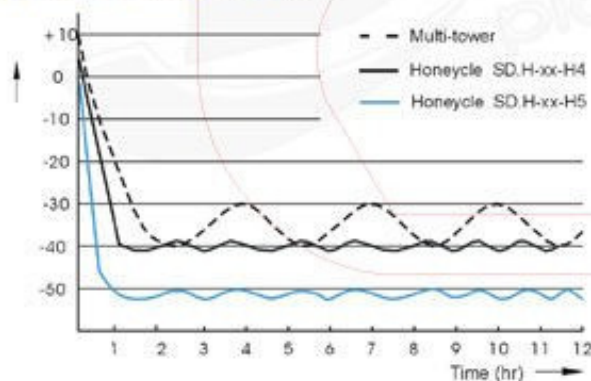
Humidity and Moisture Content

Dew-point (°C)	Relative Humidity (%)	Moisture Content	
		PPM	%
+20	100	23,072	2.307
+10	52.50	12,117	1.212
0	26.10	6,027	0.603
-10	11.20	2,574	0.257
-20	4.40	1,025	0.103
-30	1.60	378	0.038
-40	0.60	128	0.013
-50	0.20	39	0.004

Outline Drawing



Dew-point Comparison



SIEPLA

MAQUINARIA
PARA SOPLADO,
INYECCIÓN
Y EXTRUSIÓN
DE TERMOPLÁSTICOS

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