# Peritek 普瑞泰

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HANGZHOU PERITECH DEHUMIDIFYING EQUIPMENT CO.,LTD

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- Edition CE

杭州普瑞除湿设备有限公司

HANGZHOU PERITECH DEHUMIDIFYING EQUIPMENT CO., I



### **CORPORATE CULTURE**

#### Enterprise vision

Be the first brand of dehumidification equipment in China.

#### Enterprise value

Quality and innovation

#### Enterprise spirit

Integrity, professionalism, unity and innovation.

#### Business philosophy

Create products professionally, explore market honestly.

#### Service concept

All our efforts are for customers' satisfaction.

Mainly participate in the development of China's first desiccant rotor dehumidifier.

Research and development dehumidifier for China's military.

Responsible for drafting the national military standard and industry standard of

dehumidification equipment.

China's space industry partners.

Operators of systematic solutions to humidity problems

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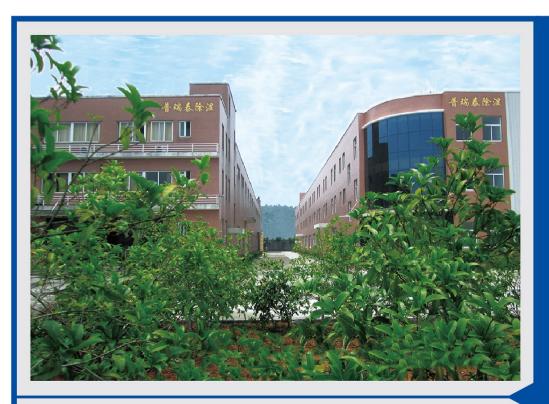
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#### **P**eritek 普瑞泰

# COMPANY PROFILE





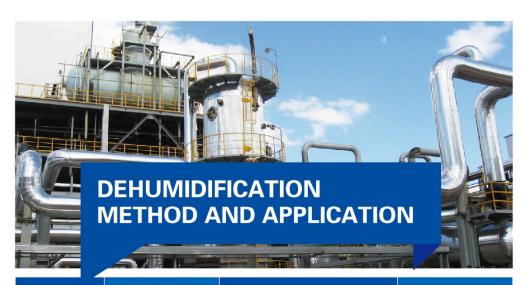
Hangzhou Peritech Dehumidifying Equipment Co., Ltd was established in January 2004 with the registered trademark "peritek" .Peritek specializes in research and development, manufacturing and servicing of air dehumidification equipment and systems. Users are widely in lithium battery, chemical, pharmaceutical, food, bioengineering, electronics, glass, rubber and shipbuilding, nuclear power plants, aviation, aerospace, military and other industries, and products are also exported for foreign markets in batches.

Peritek is one of the largest industrial dehumidifier manufacturers in China, covering an area of more than 10,000 square meters and a factory building of more than 10,000 square meters, with a complete and advanced product production line and quality performance testing device. Peritek's technicians account for 30% of the total number of employees, and have decades of experience in the dehumidifier industry. We have been responsible for national dehumidifier development projects and passed the appraisal; we have won the provincial and ministerial science and technology progress award of dehumidifier development project, and also been responsible for a number of ers, and ZDW low-temperature dehumidifilarge-scale satellite launch centers, fighter aircraft drying maintenance projects, large-scale lithium power plant dehumidification and drying projects, and get praise from users. Peritek holds a number of national patents for dehumidifiers. It is also responsible for drafting the industry standards for desiccant rotor dehumidifiers and for dehumidifiers in China.

Based on a deep understanding of the air dehumidification and drying mechanism and rich experience in the manufacture of machinery and equipment, Peritek has strong development design, production, engineering installation and high-quality and efficient after-sales service capabilities. It can be specially designed and customized according to the actual needs of users. Peritek specializes in dehumidifiers. By now, Peritek has developed series of dehumidifiers, including: ZL series rotor dehumidifiers, ZLB series combined dehumidifiers, ZHL series low-dew point dehumidifiers for lithium battery production environments, ZRB series heat pump dehumidifi- ous industries.

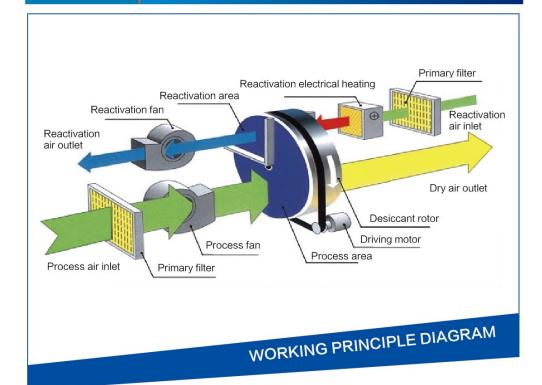
China and foreign large-scale projects such ers. ZHD and ZHX series special dehumidias dehumidification and drying projects for fiers for lithium battery glove boxes, PRI series special dehumidifiers for lithium battery workshop environmental modification, ZLF closed cycle rotary dehumidifier, ZLLY series four-season type dehumidifier. According to the different needs of users, the dry air supply temperature after processed is 5 ~ 120 °C, the dew point of normal pressure supply air can reach ≤-80 °C, and the drafting the only national military standard relative humidity at ambient temperature can be controlled below 0.5%.

> Peritek's dehumidifier products have passed ISO9001: 2008 quality management system certification; Peritek has been rated as a science and technology enterprise in Zheijang Province and a high-tech enterprise in Hangzhou; after years of development and efforts, the company's products are in the forefront of the national peers in terms of technology and quality. Peritek is committed to the research, development, production and sales of dehumidification equipment with the concept of "Manufacture products professionally, explore market honestly", and strives to provide first-class products and high-quality services for vari-



LTEM	DEHUMIDIFY PRINCIPLE	CHARACTERS	APPLICATION
Atmospheric cooling dehumidification	Cool atmospheric air to below dew point temperature and remove it after condensation.	1.General dew point is above 6 ~ 10 °C. 2. If the surface of the cooling coil is at 0 °C, the condensed water freezes on the surface, reducing the dehumidification efficiency, and the humidity of the processing air is unstable. 3. Complex equipment and high maintenance costs.	Dew point requirements are not strict, more than $6 \sim 10  \text{C}$ , mostly used for comfort dehumidification.
Compression cooling dehumidification.	The air is compressed and then cooled, and the water vapor in the air is condensed into water and removed.	Suitable for small air volume dehumidification.     Compressed power is expensive.	Dehumidification of compressed air with small air volume such as instruments and controls.
Liquid absorption	Dehumidify the air by spraying with a water-absorbing agent solution.	1. Dew point can reach -20 °C. 2. Large equipment. 3. Need to change the absorption liquid. 4. The absorption liquid is easily taken away from the device and adversely affects the use occasion.	Occasions need a large airflow with dew point higher than −20°C.
Desiccant rotor dehumidification	Dehumidify the air with a large—area rotor containing adsorbent material.	Can get low humidity air with dew point below −70 ℃.     Obtain stable low−humidity air.     Easy to control humidity.     Easy maintenance.	Particularly suitable for occasions that require dehumidification at low temperature and low humidity and stable humidity. Combined with cooling and dehumidification, it can be applied to any occasion with practical needs

# WORK PRINCIPLE AND TECHNIQUE



The core part of the dehumidifier is a desiccant rotor with dense honeycomb holes rotating at 8–16 revolutions per hour. There are high–sealing silicone rubbers on both sides of the rotor, dividing the entire surface into two parts,  $270\,^\circ$  process zone and  $90\,^\circ$  reactivation zone.

When the humid process air enters the process zone, the moisture in the air is absorbed by the desiccant rotor and becomes dry air. The dry air is sent to the place where it needs to be dried or the production process by the processing fan .

In the process of moisture absorption, the desiccant rotor gradually loses its ability to absorb moisture.

In order to maintain a constant moisture absorption capacity, the rotor needs to be reactivation. For this reason,

the rotor that tends to saturate is slowly turned into the reactivation zone under the drive of the transmission motor, the reactivation air heated to 100−140°C enters the reactivation zone in the opposite direction of the processing air, and adsorbs the moisture in the rotor and is taken away by the reactivation fan to the outside. The desiccant rotor restores the moisture absorption ability, and is driven into the processing zone to re−adsorb the moisture in the processing air under the driving of the transmission motor.

The desiccant rotor is continuously rotated, and the dehumidification and reactivation process is continuously performed, thereby continuously outputting dry air with constant humidity.

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# CHARACTERISTICS OF PERITEK DEHUMIDIFIER

#### PRODUCT CHARACTERISTICS

- The cabinet of the dehumidifier adopts a double-layer structure separated by thermal insulation materials, high-pressure polyurethane foam, high strength, and good anti-cold bridge effect.
- Super silica gel / molecular sieve rotor with excellent performance, high dehumidification efficiency, can reach more than 80%.
- The key structure adopts the self-lubricating balance rotor seal technology independently developed by Peritek, which improves the performance of the rotor, and the minimum dew point after special processed can reach below −80 °C.
- Using Perirek's patented technology and independently developed advanced dehumidification process and PID control technology, the equipment has good energy saving effect and low production cost.
- Serialization, standardization, refined production and more than 30 years of professional experience make Periek's products have higher stability and reliability.
- Periek provides users with system solutions for humidity problems.

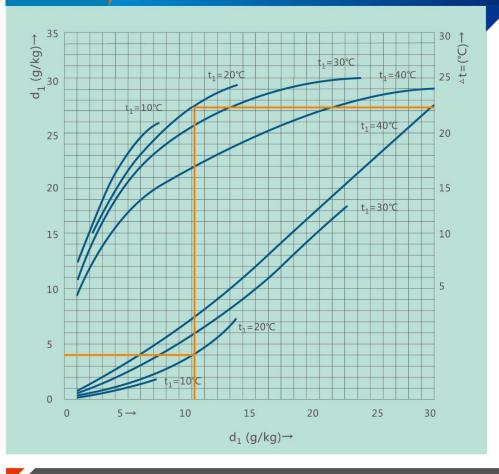


Starting from the research and development of the first rotor dehumidifier in China, after decades of hard work, Peritek has become one of the most advanced and largest suppliers in the industry.

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#### **P**eritek 普瑞泰

#### PRODUCT PERFORMANCE CURVE UNDER **TYPICAL WORKING CONDITIONS**



Known: Temperature of air inlet t1=20℃, relative humidity RH1=70%, moisture content d1=10.35g/kg,ask for the air condition after processing.

Solve: According to the chart, d1=10.35g/kg, through dehumidification curve t1=20℃, we can find out **EXAMPLE** the moisture content of the processed air outlet d2=4g/kg, and then go up through t1 = 20 °C temperature rise curve to find the temperature rise  $\triangle t = 22.3 \, ^{\circ}$ C, then processed air temperature t2 = 42.3  $^{\circ}$ C, the processed air RH = 8% can be found on the id chart.

For more detailed specification, please contact with us.

**P**eritek 普瑞泰 **PRODUCT SERIES** 

### **ZLMD SERIES MINI DESICCANT ROTOR DEHUMIDIFIERS**



			ZLM	D Technic	al Parame	ters Table				
Data Model	Process airflow	React. airflow	Process air inlet( Φa)	Process air outlet( Φb)	Reactivation air inlet( $\Phi$ c)	Reactivation air outlet( Φd)	Power supply	Installed power	Approx size (L*W*H)	Approx weight
ZLMD-1	120 CMH	40 CMH	Φ 151	Φ 151	Φ103	Φ 70	220V/50Hz	1.21 kW	525×172×382	30 kg
ZLMD-2	300CMH	100CMH	Φ 151	Φ 151	Φ 103	Ф 103	220V/50Hz	2.22 kW	565×512×438	40kg

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## **ZL SERIES DESICCANT ROTOR DEHUMIDIFIERS**



#### **PRODUCT CHARACTERISTICS**

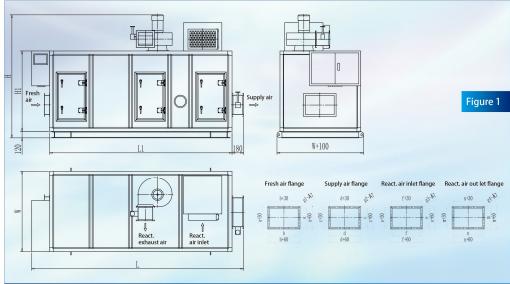
- It can quickly and conveniently process the moisture in humid air, especially suitable for the occasions of low temperature and humidity or normal temperature and low humidity.
- Super silica gel dehumidifying rotor, high reliability of chain transmission.
- The rigid aluminum alloy frame is light in weight and good in strength.
- Insulation box, thermal insulation and energy saving
- High-efficiency centrifugal fan.
- Reactivation select stainless steel fin electric heating tube or copper tube aluminum fin steam heat exchanger.
- Electrical control, multiple safety protection.
- Manual / automatic control switching, easy to use.

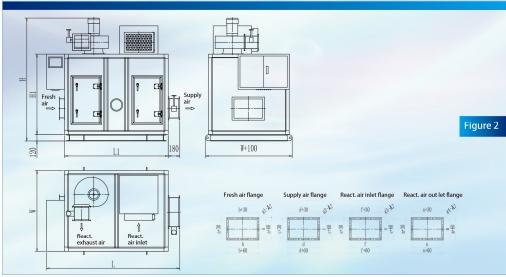
									ZL S	eries	Rotor I	Dehumi	difie	r Teo	hnical	Parame	eters	Tab	le											
Data	Proces	ss air	React.	air	React.	Mode	Dehumidity capacity	Rotor	Installe	d power							Ap	prox.	size											
Model		Fan power		Fan power	Fler. power	Steam reqd	2010 70%	Driving power	Flec. heatin	Steam heating	I with filter	I without filter	w	н	I with filter	I without filter	н	d	ь	c	d	е	r	m	n	91	y2	93	94	Approx Weight
Woder	m3/h	kW	m3/h	kW	kW	kg/h	kg/h	kW	kW	kW	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	kg
ZLK-D(Z)-1000	1000	1	330	0.37	8.4	14	7.2	0.04	8, 81	0.41	2100	2100	970	1530	1640	1640	970	200	300	200	250	200	200	75	72	6	6	4	4	150
ZLK-D(Z)-2000	2000	1	670	0.75	18	30	14.5	0.04	18.79	0.79	2100	2100	970	1530	1640	1640	970	300	400	250	380	300	300	75	100	8	8	8	4	350
ZLK-D(Z)-3000	3000	1	1000	1.5	30	50	21.7	0.06	31.56	1.56	3340	2110	1260	1940	2880	1650	1260	300	500	300	450	350	350	200	227	8	8	8	12	450
ZLK-D(Z)-4000	4000	1	1330	1.5	36	60	29.0	0.09	37. 59	1.59	3340	2110	1260	1940	2880	1650	1260	350	600	400	450	400	500	200	227	10	8	8	12	550
ZLK-D(Z)-5000	5000	1	1670	2.2	42	70	36. 2	0.09	44. 29	2. 29	3340	2110	1260	1980	2880	1650	1260	400	630	400	550	400	500	228	260	10	10	8	12	650
ZLK-D(Z)-6000	6000	1	2000	2.2	54	90	43.5	0.12	56.32	2.32	3340	2110	1260	1980	2880	1650	1260	450	630	400	630	450	500	228	260	10	10	8	12	800
ZLK-D(Z)-8000	8000	1	2670	3	66	110	58.0	0.2	69. 2	3. 2	3340	2110	1550	2300	2880	1650	1550	630	800	500	700	500	630	256	291	14	10	10	12	900
ZLK-D(Z)-10000	10000		3330	3	84	140	72.5	0.2	87. 2	3. 2	3350	2120	1550	2380	2890	1660	1550	630	800	630	700	630	700	256	291	14	12	12	12	1000
ZLK-D(Z)-15000	15000	1	5000	5.5	126	210	108.7	0.2	131.7	5.7	3650	2420	1880	2580	3190	1960	1880	800	1000	700	900	700	900	286	324	18	14	14	16	1200
ZLK-D(Z)-20000	20000	1	6670	5.5	168	280	145.0	0.2	173.7	5.7	3650	2700	2170	3050	3190	2240	2170	800	1200	800	1000	800	1000	286	324	20	18	18	16	1450
ZLK-D(Z)-25000	25000	1	8330	7.5	210	350	181. 2	0.4	217.9	7.9	3650	2700	2460	3380	3190	2240	1980	1000	1200	1000	1000	1000	1000	321	364	20	18	18	16	1700
ZLK D(Z) 30000	30000	1	10000	7.5	252	420	217. 4	0.4	259. 9	7.9	3650	2700	2780	3700	3190	2240	2300	1200	1300	1000	1200	1000	1200	321	364	22	20	20	16	2000
1. This configur 2. When steam																														

**P**eritek 普瑞泰 **PRODUCT SERIES** 

# **ZL SERIES DESICCANT ROTOR DEHUMIDIFIERS**

ZL Series Dehumidifier Interface And Outline Drawing





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### **ZLB SERIES COMBINED DEHUMIDIFIER**



#### PRODUCT CHARACTERISTICS

- and desiccant rotor deep dehumidification to output dry air with constant tempera- foam double-layer color steel plate cabinet, cold-proof bridge treatment. ture and humidity. It is especially suitable for occasions where the environment or production process has double requirements on temperature and humidity.
- Inlet bag filter, cooling coil for fresh air, super silicone rotor, high efficiency It can realize host computer joint control or remote control. centrifugal fan, pre and post cooling coil.
- Using the combination dehumidification method of freezing dehumidification 🔳 New type aluminum alloy structure frame, high-pressure polyurethane
  - and good safety performance.

# Desiccant rotor

ZLB Series Process Flow Chart

significance

ZLB-D-3000-Z ZLB: Basic code of combined dehumidifier D: Rotor regeneration type. D for electricity, Z for steam.

3000: Rated process airflow m3/h

**P**eritek 普瑞泰 **PRODUCT SERIES** 

### **ZLB SERIES COMBINED DEHUMIDIFIER**

				Z	LB Se	ries C	ombii	ZLB Series Combined Dehumidifier Performance Parameters Table	ehum	idifie	r Perf	orma	nce P	aram	eters	Table							
ltem/	Model	ZLB-D/Z- 2000	ZLB-D/Z- 3000	ZLB-D/Z- 4000	ZLB-D/Z- 5000	0009 -2/G-97Z	ZLB-D/Z- 7000	2LB-D/Z- 8000	0006 -Z/R-B/Z	ZLB-D/Z- 2 10000	ZLB-D/Z- 1	ZLB-D/Z- 12000	ZLB-D/Z- 13000	ZLB-D/Z- 14000	ZLB-D/Z- 15000	ZLB-D/Z- 17500	ZLB-D/Z- 20000	ZLB-D/Z- Z5000	30000 ZTB-D/Z-	00098 -2/0-872	40000	ZLB-D/Z- 45000	2LB-D/Z- 50000
Process airflow	Process airflow (m3/h)	2000	3000	4000	2000	0009	7000	8000	0006	10000	11000	12000	13000	14000	15000	17500	20000	25000	30000	35000	40000	45000	50000
External stat pressure(Pa)	External static pressure(Pa)	≥700	≥700	≥700	≥700	>700	>700	≥700	≥700	008≪	≥800	008≪	008≪	008≪	008≪	008≪	008≪	008≪	008≪	008≪	008≪	008≪	008≪
Return	Return air data	Techr are se	ical conc lected by	litions:1.	Indoor te	mperatur ir speed o	e = 23 °C on the ro	Technical conditions:1. Indoor temperature = 23 °C; 2. Relative humidity = 20% RH; 3. 90% return air volume; 4. The dehum are selected by software; 5. The air speed on the rotor surface is 2.7-2.8m / 5; 6. Supply air temperature difference is 1g / kg.	ve humid e is 2.7-2	lity = 20% .8m / s; 6.	6 RH; 3. 9 Supply a	0% retur air tempe	n air volu erature di	ıme; 4. Th	ne dehum is 1g / kg.	idify capa	city of the	e rotor an	d rotor te	rechnical conditions:1. Indoor temperature = 23 °C; 2. Relative humidity = 20% RH; 3. 90% return air volume; 4. The dehumidify capacity of the rotor and rotor temperature rise are selected by software; 5. The air speed on the rotor surface is 12.72-28m / s; 6. Supply air temperature difference is 1g / kg.	re rise		
React.	React. airflow(m3/h)	110	170	220	280	340	390	450	200	260	620	029	730	880	940	980	1120	1400	1680	1960	2240	2520	2800
u o Ab	Steam reqd. (kg/h)	7	10	13	16	20	23	26	56	32	36	39	42	20	54	99	64	08	96	112	128	144	160
t. ene i	Steam pipe diameter	DN15	DN20	DNZO	DN20	DN20	DN20	DN20	DNS0	DN25	IN25	DN25	DN25	DN25	DN25	DN32	DN32	DN32	DN32	DN32	DN32	DN32	DN32
Read	Matching power(kW)	7.2	12	14.4	18	24	24	30	36	36	45	42	48	48	54	09	72	06	102	120	138	156	174
Chilled	Chilled water temperature(°C)	≥7	1≥	≥7	≥7	2≥	2≥	≥7	<7	- ≥2	. ≥7	≥/	-2≥	≥/	<i>l</i> ≥	≥7	≥2	≥ 2	≥ 2	<b>₩</b>	≥7	- ≥2	≥7
Chilled water volume(t/h)	water (t/h)	1.8	2.8	3.7	4.6	5.5	6.5	7.3	8. 2	9.3	10.1	11	11.9	12.8	13.7	16	18.3	22.9	27.5	32	36.6	41.2	45.8
Process fan power(kW)	fan cW)		4	4	5.5	5.5	7.5	7.5	11	11	11	11	15	15	15	15	18.5	22	30	30	30	37	37
React. Fan power(kW)	an (W)	1.1	1.1	2.2	2.2	2.2	2.2	2.2	2.2	2.2	60	60	65		60	60	00	5.5	5.5	5.5	5.5	7.5	7.5
Rotor driv (K)	Rotor driving power (kW)	0.04	0.04	0.06	0.06	0.09	0.09	0.09	0.12	0.12	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.2	0.4	0. 4	0.4	0.4	0.4
Installed	Steam mode (KW)	4.14	5.14	6.26	7.76	7.79	9.79	9. 79	13. 32	13. 32	14.2	14.2	18.2	18.2	18.2	18.2	21.7	27.7	35.9	35.9	35.9	44.9	44.9
power	Elec. mode (kW)	11.34	17.14	20.66	25.76	31.79	33. 79	39. 79	49.32	49.32	56.2	56.2	66.2	66.2	72.2	78.2	93.7	117.7	137.9	155.9	173.9	200.9	218.9
Approx. weight (kg	(kg	1500	1800	2000	2500	2500	3000	3000	3000	3500	3500	3500	3500	4000	4000	4500	4500	4500	2000	2200	5500	0009	6000

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# ZLB SERIES COMBINED DEHUMIDIFIER

### ZLB series combined dehumidifier interface and outline drawing React. air inlet Fresh Ξ Supply air Figure 1 L1 Drain DN25 Drain DN25 Drain DN25 Supply air cooling coil First return air Fresh air flange Supply air flange (0)React. air outlet d+60 n1+60 Supply air HO | First return air HO Process fan section (L3) Fresh air section (L4) 150 Drain DN25 Supply air cooling coil Q3 Drain DN25 Mixed air cooling coil Q2 Figure 2 Drain DN25 W2 f+30 &

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# ZLB SERIES COMBINED DEHUMIDIFIER

					Z	LBS	erie	s Co	mbi	peu	Deh	E I	difie	r Ö	men	sion	Tal	ole												
1	W	±	5	77	13	14	LW1	W2	W3	H	H2	£	H	е	q	U	ъ	a	-	m -	10	m2	n2 g	_	_	_	56 t	10	05	63
3780	1440	2480	3401	_	_	_	1262	_	\	1944	_	_	\	150	200	300	300	120	190		200	150 2	250	4	8	4	4	DN20	DN15	DN20
3780	1440	2480	3401	\	\	\	1262	_	_	1944	_	/	_	200	200	300	450	120	190		250	200	250	4	8	4	4	DN20	DN15	DN20
3780	1440	2480	3401	/	/	\	1262	_	/	1944	/	_	/	200	250	350	200	150			300		300	4 8	8 6	9	4	DN25	DN20	DN25
8270	1550	2050	2819	1623	1613		1552	682	1262	1262	972	972	1552	200	300	450	200	150	_		300		300	9	00	00	4	DN32	DN20	DN25
8270	1550	2050	2819	1623	1613		1552	972	1262	1262	972	972	1552	250	250	450	009	228	-		350	300	350	4		00	12	DN32	DN20	DN32
8270	1550	2180	2819	1623	1613		1552	972	1262	1262	972	972	1552	250	300	450	700	228			350		100	9		00	12	DN32	DN20	DN32
8270	1550	2180	2819	1623	1613		1552	972	1552	1262	972	972	1552	300	300	200	700	228	_		400		200	8		∞	12	DN32	DN25	DN32
8270	1550	2180	2819	1623	1613		1552	972	1552	1552	972	972	1552	300	300	929	700	228	_	350	450	350	200	8		∞	12	DN40	DN25	DN32
ZLB-D-10000 8270	1880	2180	2819	1623	1613		1878	972	1552	1552	972	972	1552	350	350	200	800	228			2009		200	8		00	12	DN40	DN25	DN40
ZLB-D-11000 8270	1880	2620	2819	1623	1613			972	1552	1878	972	1262	1877.5	300	350	650	650	256	_	_	450	_	250	8		00	12	DN40	DN25	DN40
ZLB-D-12000 8270	1880	2670	2819	1623	1613			972	1552	1878	972	1262	1877.5	300	400	650	750	256	291		200	400	900	00		10	12	DN40	DN25	DN40
ZLB-D-13000 8270	1880	2850	2819	1623	1613		1878	972	1552	1878	972	1262	1877. 5	300	450	650	750	256	291		2009	400	900	8		10	12	DN50	DN32	DN40
ZLB-D-14000 8540	1970	2620	2819	1623	1903	1913	1878	972	1552	1878	972	1262	1877.5	300	450	750	750	256		_	220		200	8		10	12	DN50	DN32	DN40
ZLB-D-15000 8540	1970	2620	2819	1623	1903		1878	972	1552	1878	972	1262	1877. 5	300	200	750	750	256	291	_	009	400	200	8		0 10	12	DN50	DN32	DN40
ZLB-D-17500 9130	2300	2770	3109	1623	2203	1913			1878	2168	972	1262	2167.5	350	200	800	800	256			200		750	8		0 10	12	DN50	DN32	DN50
ZLB-D-20000 9130	2300	2770	3109	1623	2203	1913			1878	2168	972	1262	2167.5	400	200	850	850	256	291		008		850	8			12	DN50	DN40	DN50
ZLB-D-25000 9130	2300	2770	3109	1623	2203	1913	2168	1262	2168	2168	972	1262	2167.5	400	009	1000	1000	286	324			450 1		10 2		4 14	16	DN65	DN40	DN50
ZLB-D-30000 9420	2300	3060	3399	1623	2203				2458	2458	1262	1552	2457.5	400	730	1100	1100	286	_					10 2		91 9	16	DN65	DN40	DN65
ZLB-D-35000 9420	2590	3060	3399	1623	2203		2458	1262	2458	2458	1262	1552	2457.5	400	850	1100	1200	286				450 1	350	12 2	-		16	DN65	DN50	DN65
ZLB-D-40000 9710	2590	3060	3689	1623	2203	1913	2458	1552	2458	2458	1262	1552	2457.5	450	006	1200	1200	286	324	450 1			300	12 2			16	DN80	DN20	DN65
ZLB-D-45000 9710	2880	3350	3689	1623	2203				2458	2748	1262	1878	2747.5	450	1000	1300	1300	321						14 2	-		16	DN80	DN50	DN65
ZLB-D-50000 9710	2880	3350	3689	1623	2203					2748	1262	1878	2747.5	450	1100	1400	1400	321						14 2		0 20	16	DN80	DNS0	DN65
e height water is t r units wi thout not	H of the u the cold s ith proces	unit in th ource, ar ssing air	e param nd the w volume tioned sp	eter tab idth is d < 4000n pecificat	le is the ecrease n3 / h, re ions cha	height o d by 130 fer to F inged.	of the un omm whe igure 1; a	it that is en refrige nd for u	reactivat erant is ti nits with	ion heat ne cold s process	ted for ef ource. ing air w	ectriche olume >	ating, and 5000m3 ,	I the he	ight of tf r to Figu	ne unit tha	at is hea	ted by:	steam		sed by a	bout 35	Omm.	The wid	th W is					
	3780 3780 3780 8270 8270 8270 8270 8270 9270 9130 9130 9130 9130 9130 9130 9130 9110 9710	L W 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 1440 3780 3780 3780 3780 3780 3780 3780 378	Name	Name	National Properties   National Properties	National Property   Nati	National Property   Nati	National Property   Color   Color	Color   Colo	National Profession   Company   Co	Carrier Combined   Carrier Com	Carrier   Country   Carrier   Carr	Carrier   Carrier   Carrier   Carrier   Cambined Dehum:   Carrier   Cambined Dehum:   Carrier   Cambined Dehum:   Carrier   Cambined Dehum:   Carrier   Ca	Carrier Combined Dehumidifie   Carrier Combined Dehumidifie   Carrier Combined Dehumidifie   Carrier	Character   Char	The color of the	Carrier   Carr	L W H LI LS 280 3401 / 7 / 7   1262 / 7   1944 / 7   7   1502 200 300 300 300 300 300 300 300 300 3	THE SCHOLAR STATES COMPINED Dehumidifier Dimension Table 1878 1440 2480 3401 7 7 7 7 1262 7 7 1344 7 7 7 7 10 10 10 10 10 10 10 10 10 10 10 10 10	L W H LI LS	L W H LI	THE STATE ST	THE SECRET LINE LINE LINE LINE LINE LINE LINE LINE	THE SECRET LISES AND IN IN INTERPRETATION OF THE NAME AND IN INC. WIS NOT THE NAME AND INC. WIS	THE THE STREET S	L W H H L L L L L L L L L L L N N W W H H H L H H L H L L L L D D D D D D D D	Table   Tabl	THE SCRIPPING SHAPE AND HELP IN THE STREET COMPINED CHIMING THE PROPERTY OF THE STREET CHIMING SHAPE AND HELP IN THE STREE	Carbon   C	The color   The

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### **ZHL SERIES LOW DEW POINT DEHUMIDIFIERS**



#### PRODUCT CHARACTERISTICS

According to the working principle and process characteristics of various batteries, the production of some batteries must be completed in a very dry environment, such as lithium batteries, lithium-ion batteries, thermal batteries and lithium materials. Therefore, low dew point dehumidify equipment is indispensable in the production of the above batteries and materials, and its dehumidification and drying effects directly affect the electrical performance and safety of the battery. The ZHL series low dew point dehumidifier has been used in the above production processes for many years and has been proved to meet the needs of these production processes. It has been widely used in the lithium battery industry and various occasions with low dew point requirements.

ZHL series dehumidifier is mainly composed of compression and condensation unit (or centralized cooling water supply), direct evaporative heat exchanger or water-cooled heat exchanger, super silica gel or molecular sieve runner group, microcomputer control system, etc.

# **ZHL Series Process Flow Chart** Pre-cooling Supply fan Rotor First desiccant Second react, heating Second desiccant rotor

significance : ZHL-D-3000-Z

D: Rotor regeneration type. D for electricity, Z for steam.

Z: indicates the position where the air enters, Z is left, Y is right.

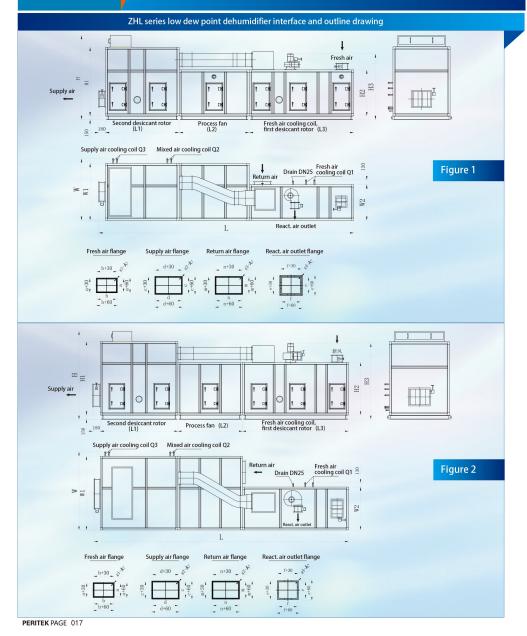
**P**eritek 普瑞泰 **PRODUCT SERIES** 

### **ZHL SERIES LOW DEW POINT DEHUMIDIFIERS**

	ZHL	. Serie	es Lov	v Dew	/ Poir	ıt Del	numic	lifier	Tech	nical I	Paran	neters	Tabl	e				
Item	Model	ZHL- D/Z- 1500	ZHL- D/Z- 1700	ZHL- D/Z- 2000	ZHL- D/Z- 2500	ZHL- D/Z- 3100	ZHL- D/Z- 3800	ZHL- D/Z- 4700	ZHL- D/Z- 6000	ZHL- D/Z- 7900	ZHL- D/Z- 10000	ZHL- D/Z- 13200	ZHL- D/Z- 16600	ZHL- D/Z- 21200	ZHL- D/Z- 26200	ZHL- D/Z- 33200	ZHL- D/Z- 37000	ZHL- D/Z- 41000
Process air	flow (m3/h)	1500	1700	2000	2500	3100	3800	4700	6000	7900	10000	13200	16600	21200	26200	33200	37000	4100
External st pressure (I		≥600	≥600	≥600	≥600	≥600	≥600	≥600	≥600	≥600	≥800	≥800	≥800	≥800	≥800	≥800	≥800	≥800
Supply air	data	Temper dry roo	rature = ' m return	16 °C, de air 90% ,	ew point return a	tempera ir tempe	ture = -6 rature23	5 ° C (b ° C, ret	ased on urn air de	35 ° C, 8 w point	0% fresh ≤-32° C	air parai	neters, fr	esh air c	ooling te	mperatu	re14°C,	
React. Airf	low (m3/h)	150	170	200	250	310	380	470	600	790	1000	1320	1660	2120	2620	3320	3700	4100
_	Steam reqd. (kg/h)	14	15	17	21	26	32	39	50	65	82	109	136	174	215	271	302	335
React. energy consumption	First steam pipe diameter	DN15	DN15	DN15	DN15	DN20	DN20	DN20	DN20	DN20	DN25	DN25	DN25	DN32	DN32	DN40	DN40	DN40
gy cons	Second steam pipe diameter	DN15	DN15	DN15	DN15	DN20	DN20	DN20	DN20	DN20	DN25	DN25	DN32	DN32	DN32	DN40	DN40	DN40
ct. energ	Summary steam pipe diameter	DN20	DN20	DN20	DN20	DN20	DN20	DN25	DN25	DN25	DN32	DN32	DN40	DN40	DN50	DN50	DN50	DN50
Rea	Electric heating react. power (kW)	8. 4	9.6	10.8	13. 2	16.8	20. 4	23. 6	32	40	52	66	82	106	130	164	182	202
	Temperature (°C)	≤7	≤7	≤7	≤7	≤7	≤7	€7	€7	≤7	≤7	€7	≤7	≤7	≤7	≤7	€7	≤7
	Water volume (t/h)	3. 1	3. 5	4. 1	5. 1	6. 4	7.8	9. 7	12. 4	16. 3	20. 6	27. 2	34. 2	43. 7	54	68. 4	76. 2	84. 4
Chilled water	Fresh air cooling coil diameter	DN20	DN20	DN20	DN20	DN25	DN32	DN32	DN32	DN40	DN40	DN50	DN50	DN65	DN65	DN65	DN80	DN80
Chilleo	Mixed air cooling coil diameter	DN20	DN20	DN25	DN25	DN32	DN32	DN40	DN40	DN50	DN50	DN50	DN65	DN65	DN80	DN80	DN100	DN100
	Supply air cooling coil diameter	DN20	DN20	DN20	DN20	DN20	DN20	DN20	DN20	DN25	DN32	DN32	DN40	DN40	DN50	DN50	DN50	DN50
	Summary pipe diameter	DN32	DN32	DN32	DN40	DN40	DN50	DN50	DN50	DN65	DN65	DN80	DN80	DN100	DN100	DN125	DN125	DN125
Process fan <sub>I</sub>	power (kW)	2.20	3.00	3.00	3. 75	4	4	5. 5	7. 5	11	11	15	18. 5	30	30	37	45	45
React. Fan p	ower (kW)	0. 25	0, 25	0.37	0. 37	0. 55	0.75	0. 75	1. 1	1. 1	1. 1	1. 1	1. 5	2. 2	2. 2	3	3	3
Rotor drivin	g power (kW)	0.065	0.065	0. 085	0. 115	0. 15	0.16	0. 24	0. 24	0. 26	0. 29	0. 29	0. 52	0.6	0.6	0.6	0.6	0.6
Installed	Steam mode (kW)	2. 365	3. 065	3. 205	4. 235	4. 7	4. 91	6. 49	8.84	12. 36	12. 39	16. 39	20. 52	32.8	32.8	40.6	48.6	48. 6
power	Elec. mode (kW)	10. 765	12. 665	14. 005	17. 435	21.5	25. 31	30. 09	40.84	52. 36	64. 39	82. 39	102. 52	138. 8	162. 8	204. 6	230. 6	250. 6
Approx. We	eight (k= g)	2000	2000	2300	2300	2500	2500	3000	3000	3500	3500	4000	4500	4500	5500	6500	7500	8000

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# ZHL SERIES LOW DEW POINT DEHUMIDIFIERS



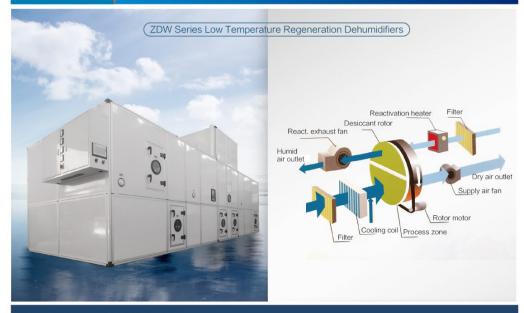
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# ZHL SERIES LOW DEW POINT DEHUMIDIFIERS

		63	DN20	DN25	DN32	DN32	DN40	DN40	DN50	DN50	DN50	DN50								
		70	DN20	DN20	DN25	DN25	DN32	DN32	DN40	DN40	DN50	DN50	DN50	9NG	DN65	DN80	08NG	DN100	DN100	
ı		10	DN20	DN20	DN20	DN20	DN25	DN32	DN32	DN32	DN40	DN40	DN50	DN50	DN65	DN65	9NG	DN80	DN80	
		94	4	4	4	4	4	4	4	4	4	4	4	12	12	12	12	12	12	
		93	9	9	∞	œ	∞	8	∞	10	10	12	12	16	91	18	20	20	22	
		92	9	∞	œ	80	œ	8	10	10	10	12	14	16	18	22	22	24	24	<u>م</u> ح
		16	4	4	4	4	4	4	4	9	8	8	8	10	10	10	12	12	14	t is heate 1 for uni
		+	52	52	52	52	75	7.5	7.5	190	190	190	190	227	260	260	291	291	291	ınit thar e 1; and
		a	7.2	72	100	100	7.2	100	100	120	120	120	120	200	228	228	256	256	256	. The height H of the unit in the parameter table is the height of the unit that is reactivation heated for electric heating, and the height of the unit that is heated by about 350mm.  by stam is increased by about 350mm.  when when the intervent cold water is the cold source, and the width is decreased by 130mm when refrigerant is the cold source.  Why the dimensions in the table do not include the size of the control cabinet. For units with processing air wolume < 13200m3 /h, refer to Figure 1; and for units with processing air wolume > 1660m3 /h, refer to Figure 1; and for units with processing air wolume > 1660m3 /h, refer to Figure 1; and for units with processing air wolume < 1320m3 /h, refer to Figure 1; and for units with processing air wolume > 1660m3 /h, refer to Figure 1; and for units with processing air wolume > 1660m3 /h, refer to Figure 1; and for units with processing air wolume > 1660m3 /h, refer to Figure 1; and for units with processing air wolume > 1860m3 /h, refer to Figure 1; and for units with processing air wolume > 1860m3 /h, refer to Figure 1; and for units with processing air wolume > 1860m3 /h, refer to Figure 1; and for units with processing air wolume > 1860m3 /h, refer to Figure 1; and for units with processing air wolume > 1860m3 /h, refer to Figure 1; and for units with processing air wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h, refer to Figure 1; and for units wolume > 1860m3 /h
	a	c	300	350	300	350	400	450	450	200	630	100	700	1000	1000	1200	1100	1100	1200	he heigh the cold / h, refe
-	ZHL Series Low Dew Point Denumidifier Dimension Table	ε	200	200	300	300	300	350	400	450	200	920	700	630	700	700	1000	1100	1100	ng, and t gerant is 3200m3
	noist	P	350	300	300	350	400	400	200	630	700	800	850	1000	1200	1300	1300	1300	1400	ric heatii ten refrii ume ≤1
	ımer	,	200	250	300	300	350	400	400	400	200	200	630	630	630	700	006	1000	1000	or electi Omm wh g air vol
,	Tier L	q	150	150	150	200	200	250	250	300	300	400	200	200	009	630	800	800	800	heated i ed by 13 rrocessin
	lbimidi	e	150	150	150	150	200	200	250	250	300	300	300	400	400	450	450	450	550	tivation decreass is with p
-	Den	£	1455	1455	1455	1455	1465	1490	1780	1800	1860	1860	2190	2630	2630	2630	2860	2860	2860	at is read width is . For uni
	oint	H2	972	972	972	972	972	972	1262	1262	1262	1262	1552	1878	1878	1878	2170	2170	2170	e unit th and the I cabinel
	Jew	H	1552	1552	1552	1552	1552	1552	1878	1878	1878	1878	2168	2783	2783	2783	3400	3400	3690	ght of th d source, e contro ; ed.
	NO	WZ	972	972	972	972	972	972	972	972	1262	1262	1262	1262	1552	1552	1878	1878	1878	the hei the colk ize of th Figure 2
	ries l	LW1	972	972	1262	1262	1262	1262	1552	1552	1878	1878	2168	2458	2748	2783	3400	3400	3690	r table is water is de the s refer to l
	Z H	13	2854	2854	2854	2854	2854	2854	2854	2854	3144	3144	3144	3144	3144	3434	3434	3434	3434	aramete Omm. hen cold not inclu Om3 / h,
<b>'</b>	7	71	1913	1913	1913	1913	1588	1588	1913	1913	1913	1913	1913	2203	2203	3108	3108	3108	3108	t in the pabout 35 about 35 width w able do e ≥ 166 -mentio
		11	1723	1723	1723	1723	1723	1723	2013	2013	2013	2013	2303	2303	2303	2303	2593	2593	2593	f the unit ased by a the unit is in the t ir volum if above
		I	1980	1980	1980	1980	1980	1980	2300	2300	2300	2300	2615	3360	3360	3400	4100	4100	4350	ight Ho i is incre dth W is mension cessing a it notice
		W	1100	1100	1390	1390	1390	1390	1680	1680	2010	2010	2300	2590	2880	2915	3530	3530	3820	. The height Hof the unit in the parameter table is the height of the unit that is rectivation heated for electric heating and the height of the by steam is increased by about 350mm.  2. The width is the unit which when rold water is the cold source, and the width is decreased by 130mm when refrigerant is the cold source.  2. The width is the unit which which when rold water is the cold source, and the width is decreased by 130mm when refrigerant is the cold source.  3. The dimensions in the lack do not include the size of the control cabinet. For units with processing air volume < 15200m3 / n, refer to Figure 2, with processing air volume < 15200m3 / n, refer to Figure 2, with processing air volume < 15200m3 / n, refer to Figure 2.  4. Without notice if above mentioned specifications changed.
		-	0299	0299	0299	0299	6345	6345	0969	0969	7250	7250	7540	8150	8150	9030	0896	0896	0896	-20074
		Data	ZHL-1500	ZHL-1700	ZHL-2000	ZHL-2500	ZHL-3100	ZHL-3800	ZHL-4700	ZHT-6000	ZHL-7900	ZHL-10000	ZHL-13200	ZHL-16600	ZHL-21200	ZHL-26200	ZHL-33200	ZHL-37000	ZHL-41000	Note:

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# ZDW SERIES LOW TEMPERATURE REGENERATION DEHUMIDIFIERS



#### PRODUCT CHARACTERISTICS

ZDW series low-temperature reactivation defundifier uses the waste heat of steam condensate as the reactivation heat source. The reactivation temperature is between 45 ~ 75 °C, which is much lower than the reactivation temperature of ordinary desiccant rotor dehumidifier. Under such low-temperature reactivation conditions, it can still make the humidity in the place of use is between 20 and 60%, meeting the requirements of environmental control and production processes. The use of waste heat significantly reduces production costs.

	ZDW Serie	s Low Temperatur	e Reactivation Dehu	ımidifier Technical	Parameters Table	
Data Model	Rated process airflow, m3/h	React. airflow, m3/h	Process fan power, kW	React. fan power, kW	React. heating power, kW	Steam condensate flow,t/h
ZDW-3000	3000	3000	3.0	1.5	35	2.2
ZDW-5000	5000	5000	4.0	2.2	58	3.6
ZDW-7500	7500	7500	7.5	4.0	88	5.5
ZDW-10000	10000	10000	11.0	5.5	116	6.7
ZDW-15000	15000	15000	15.0	7.5	175	11

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# ZHL-RB SERIES LOW DEW POINT DEHUMIDIFIERS



#### PRODUCT CHARACTERISTICS

ZHL-RB series low dew point dehumidifier is a new type of energy-saving dehumidifier.

It uses low-temperature regeneration heat pump technology to regenerate the rotor, making full use of energy, and cooperating with the new advanced rotor technology. Under normal temperature, the air supply dew point of the equipment can reach  $\leq -65$  °C, which can fully meet the requirements of the lithium battery industry for low dew point environments. ZHL-RB series low dew point dehumidifier has a good energy saving effect, which is  $20 \sim 40\%$  less energy than ordinary low dew point dehumidifier, no need for supporting refrigeration system and no chilled water, the system is simple and convenient to install.

	ZHL-F	RB Series Low [	Dew Point Dehur	midifier Technica	al Parameters T	able	
Data Model	Rated process airflow, m3/h	External static pressure, Pa	Supply air temperature, ℃	Supply air dew−point, °C	Return air temperature, ℃	Return air dew−point, ℃	Installed power, kW
ZHL-RB-3000	3000	700	16~18	≤-65	21~25	≤-32	26
ZHL-RB-5000	6000	750	16~18	≤-65	21~25	≤-32	57
ZHL-RB-10000	10000	800	16~18	≤-65	21~25	≤-32	90
ZHL-RB-15000	15000	800	16~18	≤-65	21~25	≤-32	135
ZHL-RB-20000	20000	800	16~18	<-65	21~25	<b>≤</b> −32	190

Note: It can be designed and customized according to the actual needs of users, and the installed power is the power including refrigeration.

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# ZLF SERIES CLOSED-CYCLE ROTOR DEHUMIDIFIERS



This unit has the characteristics of compact structure, stable and reliable performance, convenient operation, easy maintenance, easy to move, no CFC problems and so on. The unit can use conventional electrical control or advanced microcomputer control technology. Perfect safety protection, and can be connected with the humidity measurement and control instrument to achieve automatic control of the constant temperature of the controlled space.

#### PRODUCT CHARACTERISTICS

ZLF series closed-cycle rotor dehumidifier is a convenient and efficient air dehumidifier. The key component is a special honey-comb-shaped rotor loaded with a hygroscopic agent. The moisture exchange effect is good and the dehumidification ability is strong. Closed cycle is used to cool the water vapor in the regeneration air by using the natural air in the room, so that it becomes condensed water to separate out. which solves the trouble that the common unit needs to lead the regeneration air inlet and outlet pipes out of the room.

	ZLF Se	ries Closed-cycle Roto	r Dehumidifiers Technic	cal Parameters Table	
Item		ZLF200	ZLF400	ZLF600	ZLF1000
Rated process airflow	m3/h	200	400	600	1000
Rated react.airflow	m3/h	70	135	200	340
Process fan power	kW	0.08	0.2	0.25	0.37
React. heating power	kW	2.4	4.8	7.2	10.8
React. heating temperature	$^{\circ}$	120	120	120	120
Dehumidify capacity	kg/h	0.8	1.6	2.4	4
Process air pressure drop	Pa	180	185	190	200
Installed power	kW	2.62	5.57	8.25	12.2
Power supply		220V 50Hz	220V 50Hz	220V 50Hz	220V 50Hz
Size (L × W × H)	mm	500 × 450 × 850	600 × 500 × 1250	650 × 550 × 1350	700 × 600 × 1750
Approx. weight	kg	60	100	220	300
Note: 380V/ 50Hz power supply	/ is option	al.			

P@ritek 普瑞泰 PRODUCT SERIES

# PRI-1 MODULAR DEHUMIDIFIER

The PRI-1 modular dehumidifier is designed and developed using our company's patented technology. It is a combined rotor dehumidifier specially developed for the workshop which has already been operated and needs to increase the humidity control function. The machine can be used without a foundation or air duct. It is light in weight and easy to move. It can be used on the ground, which greatly facilitates the technical transformation of users and saves investment.

#### **Product characteristics**

- 1. It completely breaks the process and structural mode of the traditional rotor dehumidifiers, with advanced technology and good dehumidification performance. Each module dehumidifier can be used in a drying room with a height of 2.6m and a size of about 25m2, controlling the temperature and humidity parameters within 25°C and within 20°RH. It can meet the temperature and humidity requirements of most production processes.
- 2. It is convenient to combine, if the drying room area increases, multiple units can be used to quickly expand the dehumidification capacity. When the area of the drying room is unchanged, increasing the number of dehumidifiers can further reduce the drying room parameters, which can be as low as 25°C and within 10%RH. Therefore, it is widely used in various environmental control with low humidity process requirements.

### PRI-1 Modular Dehumidifiers Technical Parameters Table

Model		PRI-1
Supply airflow	m3/h	1000
Supply air temperature	$^{\circ}$ C	18-26
Relative humidity	%	15-24
React. temperature	$^{\circ}\!\mathbb{C}$	100±10
Process fan power	kW	0.38
React. Fan power	kW	0.16
Refrigeration unit power	kW	3.57
Rotor motor power	kW	0.025
React. PTC power	kW	2
Condensate drain pump power	kW	0.045
Cooling water circulating pump	kW	0.37
Cooling tower fan power	kW	0.12
Installed power	kW	6.67
Overall dimensions	mm	803×667×1650
Approx. weight	kg	200

- 3. Low energy consumption, the rated power of the modular dehumidifier is 6.5kW, and the actual operating power after stable operation is 4kW, which is 1/2 of the similar dehumidifiers.
- Compact structure and cover a small area, modular dehumidifier adopts advanced technology and technology design, each unit occupies an area 0.5 m2, does not affect the original layout of the workshop, easy to implement.
- 5. There is no need to arrange air ducts in the drying room, which can save a lot of engineering support.
- 6. The regeneration of the rotor is heated by a new PTC heater, which is highly efficient, safety and long service life.



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### **ZLLY SERIES MOBILE FOUR SEASONS DEHUMIDIFIERS**



#### PRODUCT CHARACTERISTICS

ZLLY series mobile four seasons dehumidifier adopts the inorganic fiber paper, and processed by corrugated molding, this combination of freezing and honeycomb rotor dehumidification method. It is suitable for special coating operations in temporary locations in four seasons. In summer, freeze dehumidification is the main, and rotor dehumidification is the supplement, mixed dehumidification in transition season, dehumidification by rotor in winter or electric heating adjustment.

The refrigeration system of this dehumidifier adopts air-cooled condensing refrigeration unit. The processing air is first dehuthe adsorbing material silica gel build-in the isotopic carries of

greatly improves the dehumidifying capacity.

This dehumidifier can reach the technical index of temperature 20-32 °C and relative humidity ≤ 45% under the air inlet condition of temperature - 5-40 °C and relative humidity 50-99%. The condenser of the unit adopts air-cooled steel tube aluminum fins, and the evaporator adopts direct evaporation type steel tube aluminum sheet. The unit provides four working states for the user to midified by cooling coil, and then further dehumidified by a rotor choose, which are full refrigeration, refrigeration and rotor mixing, according to the working conditions. Desiccant rotor the key full rotor and rotor mixed with heating. The dehumidifier has 4 ~ 8 part of the unit is made through the special process to make air outlets, which are connected with air supply pipes respectively.

	ZLL'	Y Series Four	r Seasons Mo	bile Dehumid	lifiers Technic	al Parameter	s Table	
Model		7111100000	7111/40000	7111//10000	7111/44000	7111/47000	7111/01000	7111/04000
Rated process airflow	m3/h	ZLLY8000 8000	ZLLY10000 10000	ZLLY12000 12000	ZLLY14000 14000	ZLLY17000 17000	ZLLY21000 21000	ZLLY24000 24000
Compressor power	kW	40	50	60	75	90	104	120
Elect. Heating power	kW	116	148	192	228	265	332	388
Installed power	kW	169.26	211.06	281.06	336.06	422.06	481.06	567.06
Cooling capacity	kcal/h	10.2 × 104	12.8 × 104	15.3 × 104	19.2 × 104	23.0 × 104	26.6 × 104	30.7 × 104
Dimensions (L × W × H)	mm	430 × 210 × 260	450 × 210 × 260	485 × 220 × 270	485 × 220 × 280	580 × 230 × 275	600 × 240 × 300	600 × 240 × 320
Inlet air data				Temperature -5	-40℃, RH	50-99%		
Outlet air data				Temperature 20	0-32℃, RH	≤ 45%		
Power supply				3pt	nase, 380V, 50H	z		
Note: Larger dehumidifie	rs can be	customized accor	ding to user needs.					

**P**eritek 普瑞泰 **PRODUCT SERIES** 

### **GLOVE BOX DEDICATED DEHUMIDIFIERS**





#### PRODUCT CHARACTERISTICS

The dehumidifier adopts the R-DD optimized design technology independently developed by our company. The ambient temperature and humidity can be set. When the humidity index is reached, the equipment enters the keep running state and automatically adjusts the energy to achieve the purpose of energy saving.

This dehumidifier is composed of two parts: a dehumidifier main unit and a refrigerator, which are connected into a complete system by pipeline valves.

The supply and return air of the dehumidifier are connected to the glove box through hoses or PVC pipes.

	Glove Box Dedicated Dehumidifiers Technical Parameters Table												
	Pro	cess air	D	Donat						Dimensions			
Model	Airflow, m3/h	Fan power, kW	React, fan power, kW	React. heating power,kW	heating power,kW	Rotor motor power,kW	Installed power,kW	Cooling capacity,kW	L, mm	W, mm	H, mm	Approx. weight,kg	Working station
ZHD - D - 180	180	0.74	0.18	1.8	0.6	0.03	3.35	2.5	1900	780	1500	200	6~8
ZHD - D-360	360	1.12	0.18	3.0	0.6	0.04	4.94	4.9	1900	780	1500	250	12~16
ZHD - D-500	500	1.12	0.18	3.6	1.2	0.04	6.14	6.9	2100	1030	1650	300	16~22
ZHD - D-750	750	1.47	0.18	6.0	1.2	0.06	8.91	10.3	2100	1030	1650	350	20~30
ZHD - D-1000	1000	1.65	0.18	7.2	1.8	0.06	10.89	13.7	2300	1180	1800	400	24~36
ZHD - D-1500	1500	2.25	0.25	10.8	3.0	0.09	16.39	20.6	2300	1180	1800	500	32~44
Note: The dew	point tem	perature in th	e glove box c	an be ≤-40	~ -50 °C, acc	ording to the	different conf	igurations of t	he system.				

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# GLOVE BOX DEDICATED FRESH AIR DEHUMIDIFIERS





#### PRODUCT CHARACTERISTICS

For the glove box specially used for liquid injection, due to the concentration of the organic solvent gas volatilized by the electrolyte is too large, when the return air is not allowed, a full exhaust or fresh air process is used. At this time, a full fresh air dehumidifier for glove box is selected.

This dehumidifier is composed of two parts: the dehumidifier main unit and the refrigerator. They are connected by pipelines and valves to form a complete system.

					Tech	nnical P	aramete	rs Table	•				
	Proce	ss air	-	React.	Supply	Rotor				Dimensions		Approx.	
Model	Airflow, m3/h	Fan power, kW	React. fan power, kW	heating power, kW	elect. heating power, kW	motor power, kW	Installed power, kW	Cooling capacity, kW	L, mm	W, mm	H, mm	weight, kg	Working station
ZHX-D-100	100	0.55	0.18	1.8	0.6	0.03	3.16	4.8	1800	910	1400	200	1~2
ZHX-D-200	200	0.55	0.18	3.6	0.6	0.50	5.43	9.7	2000	1010	1535	250	6~8
ZHX-D-300	300	0.75	0.18	5.4	1.2	0.50	8.03	14.5	2000	1010	1535	300	12~16
ZHX-D-500	500	1.10	0.25	8.4	1.8	0.80	12.35	24.2	2200	1200	1750	400	16~22
ZHX-D-800	800	1.10	0.37	13.8	3.0	1.00	19.27	38.7	2500	1350	1900	500	20~30
ZHX-D-1000	1000	1.10	0.37	16.2	3.6	1.20	22.47	48.3	2500	1350	1900	550	24~36
ZHX-D-1500	1500	2.20	0.75	24.0	5.4	1.50	33.85	72.5	2700	1500	2100	600	32~44

普瑞泰 PRODUCT SERIES

**P**eritek

### PERITEK DESICCANT ROTOR

#### Desiccant rotor

The dehumidifying desiccant rotor is a key component of the dehumidifier. It is mainly made of a hygroscopic carrier with corrugated pores and a hygroscopic agent through a special process. Peritek use world–class super silicone/composite molecular sieve rotor, this rotor has the following advantages:

#### Advantages

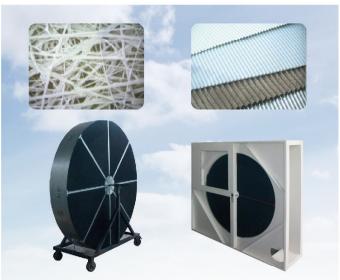
(1). High gluing rate of hygroscopic agent: The rotor contains up to 82% of hygroscopic agent, which has strong hygroscopic ability under low humidity and low temperature environment, and can be used in the dehumidifying field where the dew point temperature is as low as -65 °C

(2). Excellent fire performance: The rotor is tested by the E-84 standard of the authoritative testing organization (ASTME), and the smoke index is 0.

(3). Excellent moisture absorption capacity: the dry weight of the rotor is 240 kg / m3, and the moisture absorption in a humid environment can reach about 40% of its dry weight.

(4). The rotor is cleanable: when the rotor is used for some time, it can be cleaned with a special solution.

(5). Good medium strength: the carrier of the rotor is ceramic fiber, and the compressive strength of the rotor surface exceeds 200kPa, so the strength is good and the service life is long.



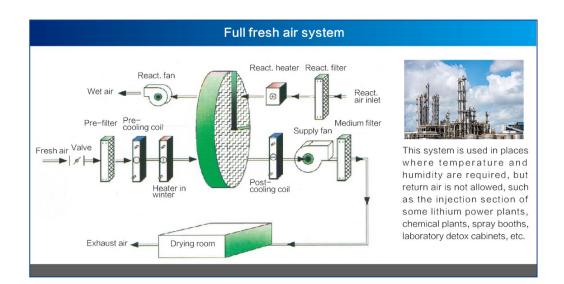
Main Specifications of The Desiccant Rotor						
Model	Diameter, (mm)	Thickness, (mm)	Model	Diameter, (mm)	Thickness, (mm)	
ф 200 × 200	200	200	ф 1000 × 300	1000	300	
ф 250 × 200	250	200	ф 1050 × 400	1000	400	
ф 300 × 200	300	200	ф 1200 × 300	1200	300	
ф 500 × 200	500	200	ф 1200 × 400	1200	400	
ф 500 × 300	500	300	ф 1370 × 300	1370	300	
ф 600 × 300	600	300	ф 1370 × 400	1370	400	
ф 600 × 400	600	400	ф 1500 × 300	1500	300	
ф 800 × 300	800	300	ф 1500 × 400	1500	400	
ф 800 × 400	800	400	ф 1800 × 300	1800	300	
			ф 1800 × 400	1800	400	
Note: It can be customized acc	ording to the special require	ments of users.				

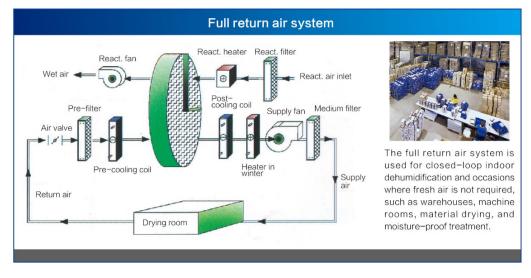
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Peritek 普瑞泰 APPLIED TECHNOLOGY

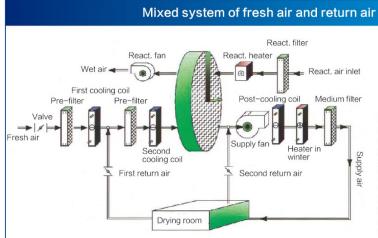
# APPLICATION TECHNOLOGY OF PERITEK DEHUMIDIFIERS





### Peritek 普瑞泰 APPLIED TECHNOLOGY

# APPLICATION TECHNOLOGY OF PERITEK DEHUMIDIFIERS





In order to save energy and reduce the operating cost of the system, a fresh air and return air mixing system, such as food, pharmaceutical, electronics, lithium battery production workshops, etc., is adopted on the premise of ensuring the proportion of fresh air, room positive pressure and process air exhaust requirements.



cooling coil

cooling coil

Drying room

Return air

environmental humidity is very strict, such as some sections of lithium battery production and high-end laboratory systems, Peritek low dew point dehumidifiers always use low dew point return air systems.

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Valve

First cooling coil

#### P@ritek 普瑞泰

Application cases

# PARTS OF APPLICATION CASES



Peritek has a professional installation team, especially has accumulated rich experience in dehumidifier installation, we can undertake dehumidification and drying projects in various industries, and provide customers with a series of comprehensive services such as design, manufacturing, installation, commissioning, maintenance, and undertake "turnkey" projects.



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# FDH SERIES FREEZING TYPE HOUSEHOLD DEHUMIDIFIER

#### **Product characteristics**



	FDH Technical Parameters Table					
Model	Dehumidify capacity	Power supply	Input power,W	Size,mm	Weight,kg	Applied size,m <sup>2</sup>
FDH - 218BC	18L/D	220V/50Hz	320	582 × 378 × 185	15	15 – 25
FDH - 252BC	25L/D	220V/50Hz	360	572 × 390 × 286	18	25 - 35
FDH - 235BC	35L/D	220V/50Hz	850	450 × 350 × 620	35	40 – 55
FDH - 250BC	50L/D	220V/50Hz	950	450 × 350 × 620	45	55 - 70

P⊜ritek 普瑞泰 PRODUCT SERIES

# FDH SERIES FREEZING TYPE INDUSTRIAL DEHUMIDIFIERS

#### Product characteristics



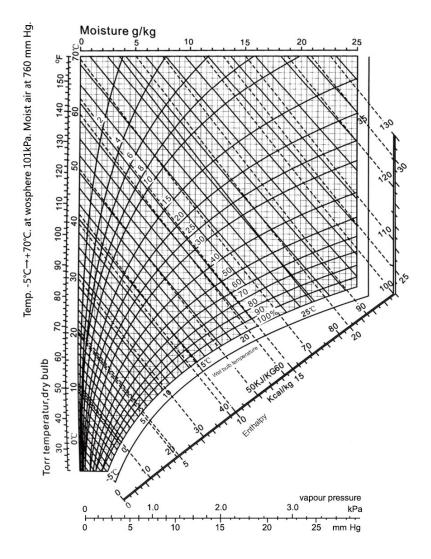
FDH Technical Parameters Table						
Model	Dehumidify capacity	Power supply	Input power, W	Size, mm	Weight, kg	Applied size, m <sup>2</sup>
FDH -290BC	90L/D	220V/50Hz	1650	542 × 642 × 1017	60	80 -120
FDH -2138BC	138L/D	220V/50Hz	1850	542 × 462 × 1117	70	120 - 160
FDH -2168BC	168L/D	380V/50H	3600	620 × 420 × 1650	120	150 -200
FDH - 2200BC	200L/D	380V/50H	4200	760 × 520 × 1650	150	200 -250
FDH - 2400BC	240L/D	380V/50H	5000	760 × 520 × 1650	180	250 -300

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### **ENTHALPY WET FIGURE**



#### P⊜ritek <sup>普瑞泰</sup>

# OCCASIONS AND PRODUCTION OF TEMPERATURE AND HUMIDITY REQUIREMENTS

		Air co	nditions
Industries	Application process	Temperature ℃	Relative humidity %
	Sugar storage	27	35
	Caramel cooling	16	40
	Frosting sugar	27	35
	Macaroni	21-27	38
	Cheese	10-21	35-40
	Dessert raw material storage	-1-4.5	80-85
	Pie drying	18	20
	Biscuits, shortbread packaging	16-18	50
	Potato chips	24-27	20
	Food drying oven	32-35	2 gr/lb
	Chocolate coating	32	13
	Chocolate sugar cooling tunnel	5-7	Below 40
	Chocolate sugar packaging	18	55
ω,	Chocolate storage	16-24	40-50
Food Process	Hard candy production	24-27	30-40
<u>e</u>	Hard candy mix	24-27	40-50
P P	Hard candy cooling tunnel	13	Below 55
9	Hard candy package	18	55
	Concentrate molasses		Below 25
	Candy store	18-24	45-50
	Candy dry storage	10-13	50
	Honey		Below 25
	Coffee powder packaging	27	20
	Orange essence packaging	27	15
	Flour packaging	18-24	50-65
	Flour storage	18-27	50-65
	Chewing gum cooling	15-22	50
	Chewing gum manufacturing	25	33
	Chewing gum rolling	20	63
	Chewing gum slice	22	53
	Gum material stirred	23	47
	Cereal packaging	24-27	45-50
	Shell storage	16	13 below
	Seed drying and storage	10	30

		Air cor	nditions
Industries	Application process	Temperature ℃	Relative humidity %
Wood	Wood drying	35-52	6-8
Industry	Low temperature drying of woo discoloration a		formation,
Plywood industry	Process of cold pressure joint	32	15-30

		Air cor	nditions
ndustries	Application process	Temperature ℃	Relative humidity %
	Powder pre-processing storage	21-21	30-35
	Storage of powder after processing	24-27	15-35
	Powder grinding	27	35
	Dry powder	54-71	20
	Antibiotic packing room	26-28	5-15
	Liver essence taking room	21-27	20-30
	Tableting room	21-27	40
>	Tablet coating room	27	35
str	Subcutaneous injection	24-27	30
ngr.	Micro analysis	24-27	50
	Serum	23-26	50
Pharmaceuticals Industry	Glass bottle manufacture	37	35
ET.	Foaming agent	32	15
ace	Stimulants	32	15
E	Colloid	21	35
P	Cough syrup	27	40
_	Gland refining agent	26-27	5-10
	Liver refining agent	20-27	20-30
	Animal capsule	26	40
	Capsule storage	24	35-40
	Soft capsules drying	23	≤35
	Penicillin packaging	27	5-15
	Antitussive tablets	21	30
	Biological cultivate room	27	35
	Glass injection	27	35

		Air cor	nditions
Industries	Application process Temperature  C Paper processing 27 Paper or fibre model 27	Relative humidity %	
	Paper processing	27	20
	Paper or fibre model	27	20
Plywood industry	Printing and binding	32	30
,	Color printing	24-27	46-48
	Color printed base paper storage	23-27	49-51

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# OCCASIONS AND PRODUCTION OF TEMPERATURE AND HUMIDITY REQUIREMENTS

	I management	Air cor	nditions
ndustries	Application process	Temperature ℃	Relative humidity 9
	Special battery manufacturing	20-25	2 below
	Lithium battery drying room	20-25	1 below
	Electronic parts assembly	20-30	40-45
	Photoelectric tube vacuum tube assembly	20	40
	Instrument manufacturing and correction	21	50-55
stry	Elect. appliance (seal storage)	22	15
Indu	Lightning arresters	16	20
onic	Electrical control appliances	20	20-40
ectro	Hygrothermostat	24	50-55
E	Precision Instruments	22	40-45
Electrical Electronic Industry	Instrument correction	23-24	60-63
Ele	Fuse link chain	23	50
	Capacitor manufacturing	23	50
	Super capacitor manufacturing	23	1
	Insulation paper storage	23	50
	Solar light stabilizer	20	20-40
	NFB switch group testing	25	30-60
	Rectifier manufacturing	23	30-40%
	High voltage wire and cable manufacturing	27	1

		Air cor	nditions
Arms Industry	Application process	Temperature °C	Relative humidity %
	Ammunition stockpiles	2-24	10-50
Arms	Internal rocket clearance	2	35
Industry	Rocket installation	27	25
	Gunpowder storage	16-17	50
	Manufacturing	22-23	50
Match	Dry drying	21-24	40
Industry	Storage	16-17 50	
	Fuse storage	21	40

	7.0		
		Air co	nditions
Industries	Application process	Temperature ℃	Relative humidity %
	Dip products		25-30
	Adhesive products		25-30
Rubber Industry	Vulcanization		25-30
76	Tyre line storage		7
Rubb	Steel spindle room		35
	Storage of rubber raw materials		40-50
	ASIM of product testing		50
	Constant temperature blending process	27	25-30
stry	Plastic nylon molding machine	80-110	-30℃DP
Plastic Industry	Raw material drying and storage	27	3-15
	Plastic heating molding room	27	25-30
	Plastic sheet processing	21	20

Industries	Application process	Air conditions		
		Temperature ℃	Relative humidity %	
Refrigerator	Refrigerant control	24	40	
	Such as solenoid valves, expansion valves, etc.			
	Compressor combination	21-24	20-45	
Tobacco and alcohol Industry	Wine hops storage	-1-0	60	
	Grain (beer) storage	27	60	
	Distiller's yeast (beer) storage	0-2	75	
	Beer short storage	0-2	75	
	Barley wine	5-7	75	
	Hops storage	2	60	
	Fermented wine cellar - beer	5-7	75	
	Barley wine	13	75	
	Shelf type wine cellar	0-2	75	
	Wheat (wine) storage	16	35-40	
		0-2	00 40	
	Distiller's yeast storage	16-24	45-60	
	Brewery process  Repeat distillation	18-22	50-65	
	1910	20-22	55-65	
Fur	Cigars, cigarette manufacturing	5-10	55-65	
	Fur storage	5-10	40-60	
	Leather storage	-6-52	40-80	
	Paper drying	18-24	40-70	
	Paper cutting and packing	21-24	40-65	
Photography Equipment Industry	Storage of film, paper, etc.			
E	Storage of safe film	16-27	40-50	
	Storage of nitrate film	7-10	40-50	
	Parchment storage	21	35	
	Coating and spray paint room	27 Room	Below 50	
	Fertilizer storage	temperature	40-50	
>	Chipmuck fodder	0-2	18-25	
Other Industry	Supply air from coke steel making furnace		40 gr/lb	
	Mosquito incense drying	38	3	
	Spray tanks	27	1	
	Storage of ceramic clay	17-7	35-65	
	Optical appliance room	45-50	45-50	
	Melting chamber	24	45	
	Glass lamination	20-25	15-20	
		Air conditions		
Industries	Application process	Temperature	Relative	

Clock combination

Industrial precision keyhole

Gear machining & assembly

Precision components

Precision assembly

General inspection room

Precision inspection room

### **INQUIRY OF PROJECT DESIGN**

		Mobile	
g room(L×W×H), <b>m²</b>			
floor type:			
Plastic floor □	Self-flowing floor □		Others
or/ total floors	/		
ace dehumidifier (L×W×H)m²		Location floor	
orking in drying room			1
f other equips., kW			
on of other equips., g/h			
f materials, kcal/h			
on of materials, g/h			
uired in drying room, ℃			
in drying rooms, %			
Yes □	Steam pressure,Mpa		
No □			
Yes □	Temperature,℃		
No □			
uirements:			
	floor type:  Plastic floor   P	floor type:  Plastic floor  Self-flowing floor   or/ total floors  ace dehumidifier (L×W×H)m²  orking in drying room  f other equips., kW  on of other equips., g/h  f materials, kcal/h  on of materials, g/h  iired in drying rooms, %  Yes  Steam pressure,Mpa  No  Yes  Temperature, °C  No	floor type:  Plastic floor   Plastic floor   Self-flowing floor   /  Location floor  forking in drying room  f other equips., kW  on of other equips., g/h f materials, kcal/h on of materials, g/h sired in drying rooms, %  Yes   Yes   Yes   Temperature,   No   Temperature,   No   Temperature,   No   Temperature,   Temper

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humidity %

35-40 45-50

35-45

35-40 45-55

35-40 45-50

45-50

45-50

24-27

24 24-26

20-24

24