



Foshan Tiandiyuanyi Purification Equipment Co.,Ltd

Tel:0757-86418828
Fax:0757-86418910
E-mail: yytec2008@126.com
Add: No.8, Shapu Road, Shapu Village, Xiaotang, Shishan Town,
Nanhai District, Foshan City, Guangdong Province, P.R. China



The recorded content in this catalog may change due to technological improvements. The actual product's color may differ from the color shown in this manual. There could be slight differences in details. The copyright of this catalog (including text and images) belongs to Foshan Tiandi Yuanyi Purification Equipment Co., Ltd. Reproduction without permission from the company is prohibited and will be legally pursued.



Foshan Tiandiyuanyi Purification Equipment Co.,Ltd

- ★ National High-Tech Enterprise
- ★ ISO9001: 2015、ISO14001: 2015、ISO45001: 2018
- ★ Licence of Pressure Vessel and Piping Manufacturing & Installation
- ★ CE Certificate
- ★ International Patent Protected
- ★ Whole Catenary of Compressed Air Purification System, Researching, Producing and Service.

ABOUT US

YY Purification Company was founded in 2005 in Foshan, China. It is dedicated to the research, production, and service of compressed air drying, purification, and separation equipment. It has obtained ISO9001:2008 quality system certification and operates strictly according to this quality management system. Since its establishment, YY Purification Company has adhered to the development concept of 'Absolute Originality, Never Following,' continuously innovating, and possessing multiple core technologies with national patents. Standard products include refrigerated dryers, adsorption dryers, filters, aftercoolers, oil-water separators, nitrogen and oxygen generators, waste oil collectors, drains, heat recovery units, IFC, air receivers, etc., providing customers with a one-stop service for the entire industry chain of compressed air purification systems. Currently, these products have been widely used in well-known enterprises in electronics, automotive, chemical, home appliances, and defense industries both domestically and internationally.

Business philosophy: Integrity builds trust, precision builds strength.

In 2005, 'YYITEC' was established in Foshan, China, engaging in the research, production, and service of refrigerated dryers, adsorption dryers, chillers and air-source heat pump equipment.

In 2006, 'YYITEC' products obtained EU CE certification.

In 2007, 'YYITEC' established a nitrogen and oxygen generation project department, engaging in the research, production, and service of refrigerated dryers, adsorption dryers, refrigeration and heating equipment.

In 2008, 'YYITEC' successfully developed the heated blower purge and heat of compression adsorption dryers.

In 2008, 'YYITEC' was the first in China to engage in the research, production, and service of residual heat recovery from air compressors and air compressor interlocking projects, saving customers over 20 million yuan in energy costs.

In 2009, the company obtained a 'Production License.'

In 2010, 'YYITEC' pioneered the successful development of stainless steel modular adsorption dryers and obtained a national patent.

In 2010, 'YYITEC' pioneered the successful development of the three-in-one stainless steel refrigerated dryer and obtained a national patent.

In 2011, the company passed the ISO9001 quality system certification.

In 2012, 'YYITEC' low dew point combined dryers (-75° C) passed customer acceptance.

In 2015, 'YYITEC' successfully developed and provided second-generation four-in-one stainless steel refrigerated dryers for customers.

In 2016, 'YYITEC' successfully launched a stable pressure and flow control system and applied it to multiple listed companies in China.

In 2018, the company formulated enterprise standards that exceed national industry standards.

In 2019, 'YYITEC' successfully entered the premium markets of Europe and the Americas with its stainless steel refrigerated dryers and stainless steel modular adsorption dryers.

In 2019, 'YYITEC' successfully launched the cold storage air dryer in the market.

In 2019, 'YYITEC' was awarded the Guangdong Provincial High-tech Enterprise Certification.

In 2022, 'YYITEC' obtained pressure vessel manufacturing and piping installation licenses.

**Integrity builds trust,
precision builds strength.**



CONTENTS



P03-12

Stainless Steel Refrigerated Air Dryer
Chilled Water Air Dryer



P13

Cold Storage Air Dryer



P14-16

Heated Blower Purge Desiccant Dryer



P17-20

Heat of Compression Desiccant Dryer



P21-24

Stainless Steel Module
Desiccant Dryer



P25-28

Heatless, Heated Purge
Desiccant Dryer



P29-34

Modular Combined Air Dryer



P35-41

Nitrogen Generator
Oxygen Generator
Nitrogen Purification Unit
Nitrogen & Hydrogen Mixer



P42

Hot Water Supply Unit
from Waste Heat of Compression



P43-48

Air-Water Separator
Filters
Degreaser
Waste Oil Collector
Self-Clean Suction Filter
Aftercooler



P49

Air Receiver Tank
Customization of Pressure
Vessel, Heat Exchanger

STAINLESS STEEL REFRIGERATED DRYER

Energy saving No evaporator leakage High efficiency Stable

Patent No: ZL201921345291.2

Patent No: ZL201921553246.6

Patent No: ZL201921270877.7

Why choose YY stainless steel refrigerated dryer

★ Thoroughly solve the problem of evaporator leakage

Evaporator corrosion leakage is the most common cause of failure in traditional refrigerated dryers. Water, oil and other impurities in compressed air will enter the refrigeration system due to evaporator leaks, causing damage to the refrigeration compressor and other refrigeration accessories, and seriously causing the entire refrigerated dryer to be scrapped.

★ The dew point is more stable

Since the heat exchanger, evaporator and gas-water separator are made of stainless steel, they will not be corroded and deteriorated due to long-term use, the effect is more stable.

High-quality refrigeration accessories, optimized refrigeration system design.

Combining high-efficiency cyclone gas-water separator and automatic separation, the gas-water separation effect reaches 99.99%.

★ More energy efficient

1. Low pressure drop: The compressed air channel adopts a large-diameter design, which has a larger flow channel cross-sectional area and smaller pressure drop than traditional refrigerated dryers.

2. Efficient heat exchange, no condensation at the air outlet of the refrigerated dryer, reducing the load of the refrigeration system.



YY REFRIGERATED DRYER PATENTED WATER REMOVAL STRUCTURE

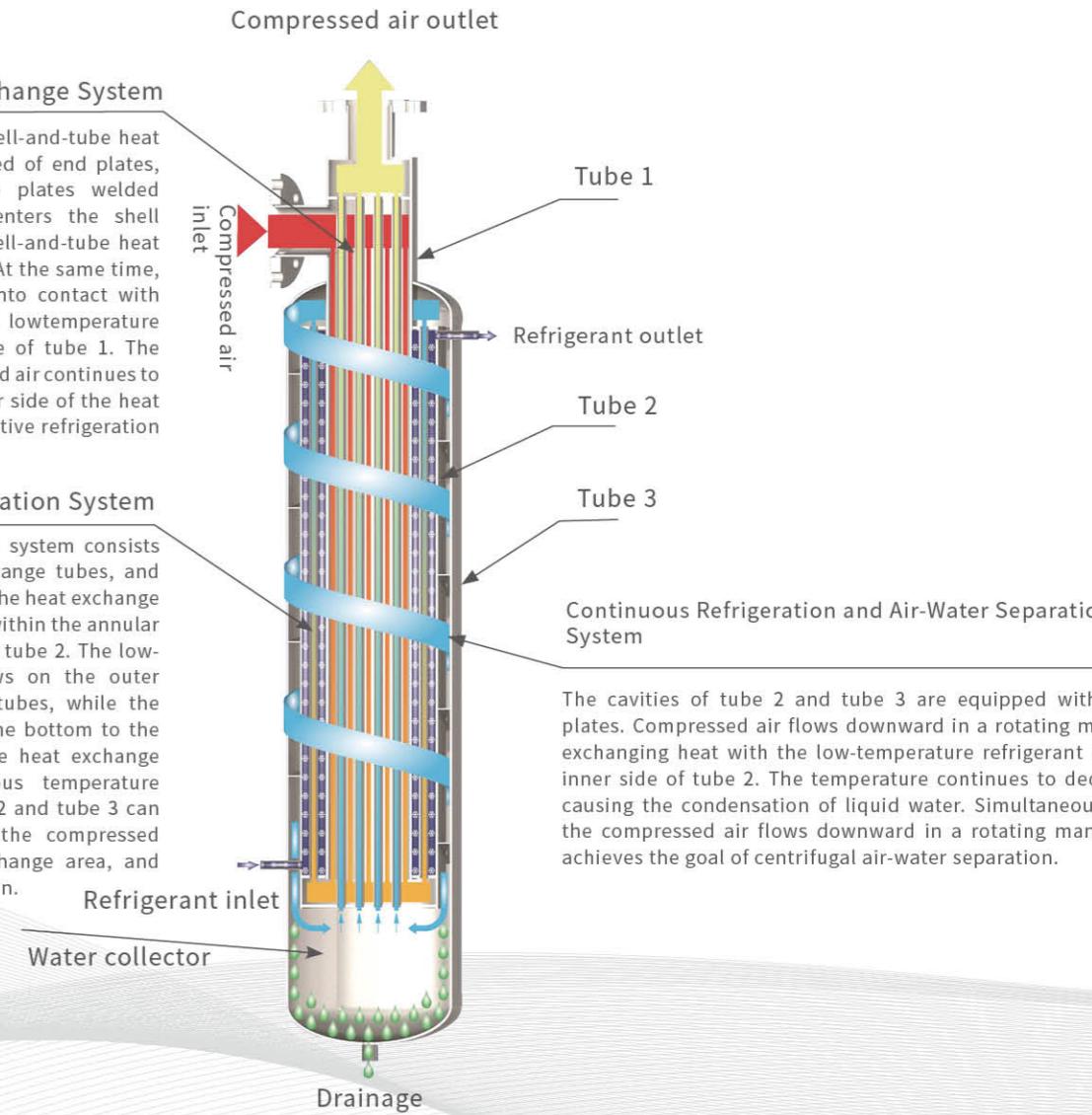
Energy saving No evaporator leakage High efficiency Stable

Patent No: ZL201921345291.2

Patent No: ZL201921553246.6

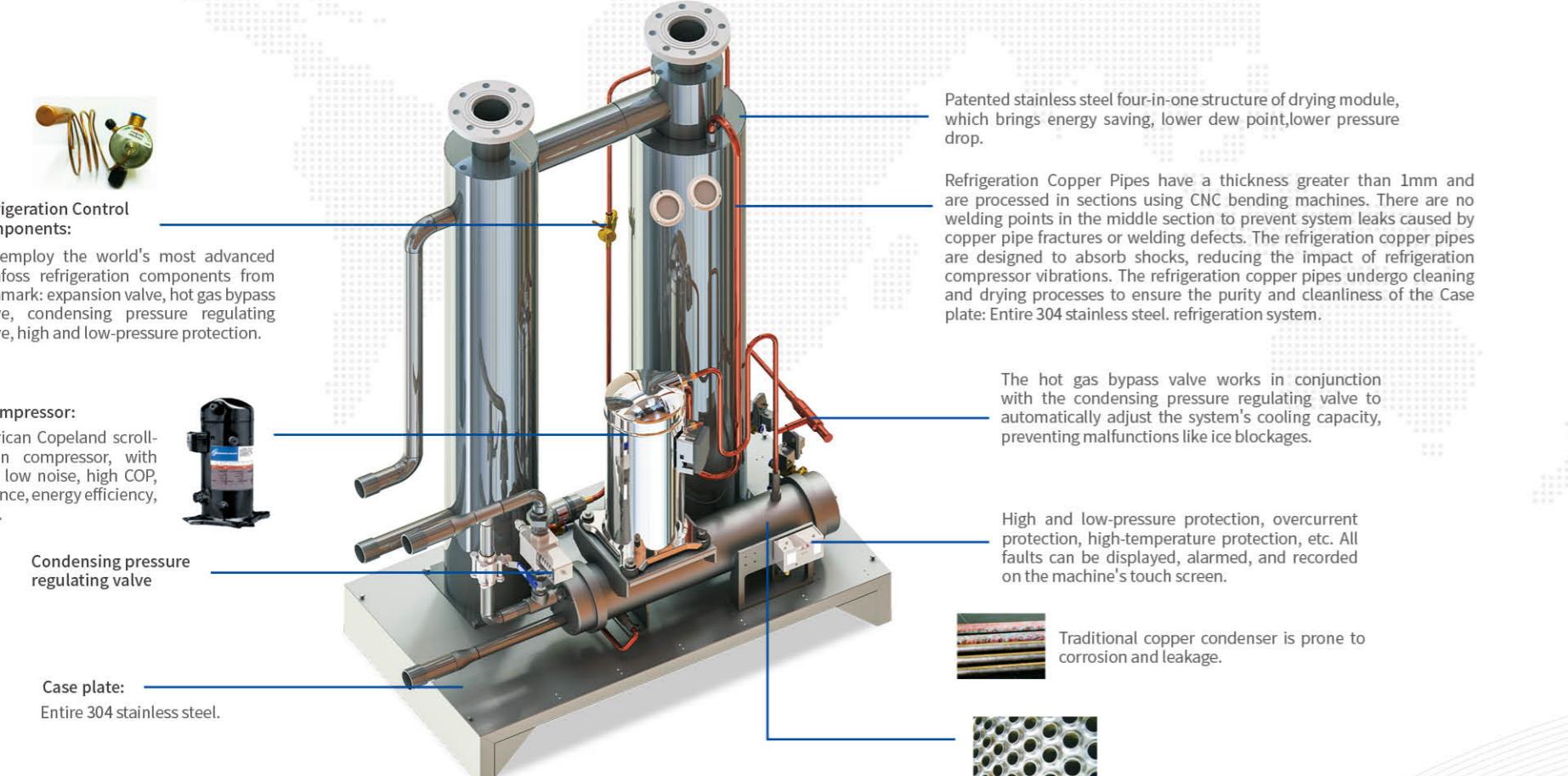
Patent No: ZL201921270877.7

(World's first)



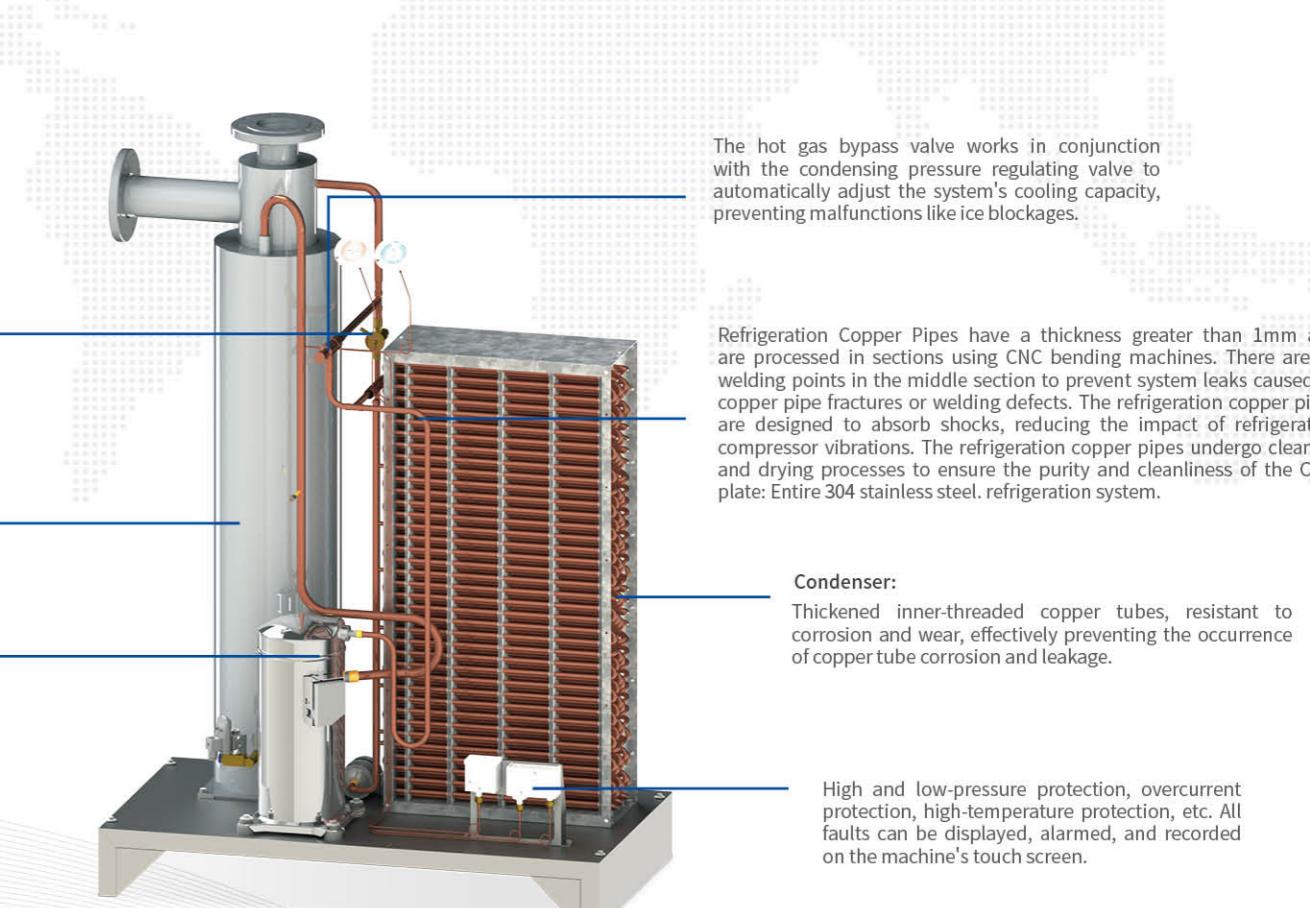
YY REFRIGERATED DRYER DETAILED INTRODUCTION

Energy saving No evaporator leakage High efficiency Stable



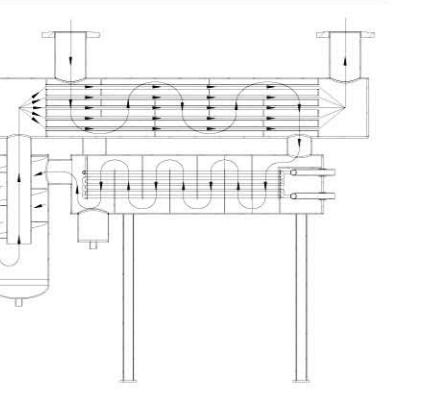
YY REFRIGERATED DRYER DETAILED INTRODUCTION

Energy saving No evaporator leakage High efficiency Stable



COMPARISON OF YY REFRIGERATED DRYER AND TRADITIONAL REFRIGERATED DRYER

Dryer 1: Finned tube heat exchanger



*Complex structure, large volume.

*High pressure drop.

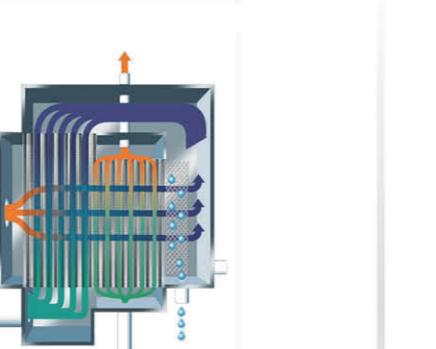
*Shell made of carbon steel, secondary pollution.

*Copper tube fin evaporator, prone to corrosion and leakage.

*Compressed gas is prone to bypass in the evaporator, resulting in poor cooling efficiency.

*Limited and insufficient air-water separation, resulting in poor air-water separation efficiency.

Dryer 2: Plate fin heat exchanger



*Compact structure.

*Smaller airflow passage, resulting in a high pressure drop.

*Small gaps between the plates, prone to ice blockage or dirt blockage.

*Plate design uses brazing, which is prone to leaks, especially vulnerable to cracking and irreparable damage during ice blockage.

*Inadequate air-water separation efficiency.

YY dryer

(Patented structure, international patent protection)



*Combining heat exchange, evaporator, air-water separation, and liquid collector into one unit, with a compact and vertical installation structure.

*Made entirely of stainless steel material, no secondary pollution, corrosion-resistant, and leak-proof.

*Larger airflow passage, resulting in a low pressure drop.

*Extremely long air-water separation combined with vertical installation, leading to effective air-water separation.

*Equipped with a full-liquid evaporator structure, providing excellent cooling efficiency.

*The heat exchange tubes use stainless steel corrugated tubes, ensuring efficient heat exchange, reducing the load on the refrigeration compressor, and preventing condensation at the outlet.

AIR-COOLED NORMAL-TEMPERATURE REFRIGERATED DRYER

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
							Length	Width	Height
YDB-5A		0.5	220V/1PH/50Hz	0.15	G1/2"	46	380	250	490
YDB-7.5A		0.9	220V/1PH/50Hz	0.2	G3/4"	60	680	340	770
YDB-10A		1.5	220V/1PH/50Hz	0.3	G3/4"	65	700	340	790
YDB-15A		2	220V/1PH/50Hz	0.5	G3/4"	85	740	380	840
YDB-20A		2.8	220V/1PH/50Hz	0.65	G1"	88	740	380	840
YDB-30A		3.8	220V/1PH/50Hz	0.9	G1"	98	785	400	880
YDB-50A		7	220V/1PH/50Hz	1.3	G1-1/2"	130	1000	400	1010
YDB-75A		10	220V/1PH/50Hz	2.1	G2"	155	1040	480	1210
YDB-100A		14	380V/3PH/50Hz	2.5	G2-1/2"	240	1120	560	1370
YDB-125A		17	380V/3PH/50Hz	3.5	DN65	280	1160	610	1515
YDB-150A		21	380V/3PH/50Hz	4.1	DN65	300	1160	610	1515
YDB-175A		25	380V/3PH/50Hz	4.7	DN65	360	1160	610	1600
YDB-200A		29	380V/3PH/50Hz	5.2	DN80	385	1160	610	1600
YDB-250A		35	380V/3PH/50Hz	5.8	DN80	410	1260	660	1660
YDB-300A		42	380V/3PH/50Hz	6.5	DN100	430	1260	660	1660
YDB-350A		49	380V/3PH/50Hz	7.5	DN100	480	1530	680	1720
YDB-400A		56	380V/3PH/50Hz	8.5	DN100	495	1530	680	1720
YDB-500A		70	380V/3PH/50Hz	10.5	DN125	560	1880	1000	1790
YDB-600A		85	380V/3PH/50Hz	13.5	DN125	715	1880	1000	2020
YDB-700A		100	380V/3PH/51Hz	15.5	DN150	825	1880	1000	2020

Designed conditions: PDP: 2-8° C, pressure drop<0.1bar, inlet temperature:1-45° C, ambient temperature: <38° C, operating pressure: 4.5-10bar.

Correction Factors for ambient temperature

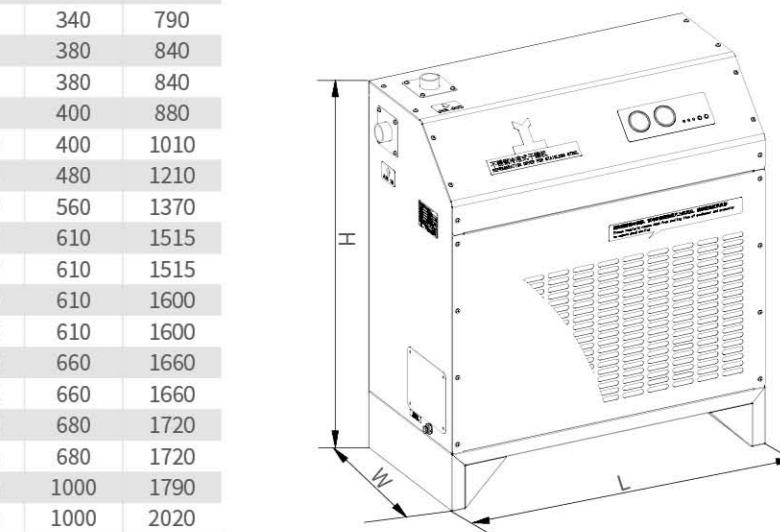
Ambient temperature(° C)	30	35	40	45
Correction Factor	1	0.91	0.81	0.72

Correction Factors for inlet air temperature

Inlet air temperature(° C)	30	35	40	45	50	55
Correction Factor	1	1	1	0.82	0.69	0.58

Correction Factors for inlet pressure

Inlet pressure(bar)	5	6	7	8	10	13
Correction Factor	0.9	0.96	1	1.03	1.08	1.13



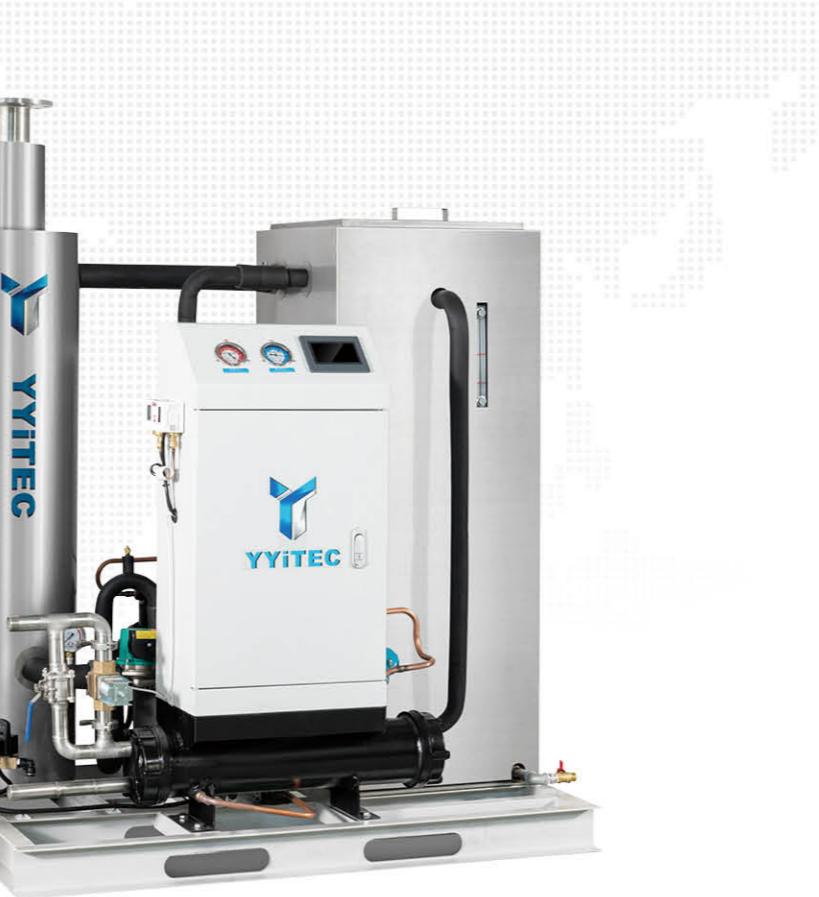
COLD STORAGE DRYER

Era of Cold Storage, Extreme Energy Saving

- ★ Low PDP to 0°C (PDP adjustable)
- ★ Low pressure drop <0.006MPa (Full working condition)
- ★ Difference of inlet/outlet air temperatures less than 6°C
- ★ International patent protected stainless steel four-in-one structure of drying module.
- ★ Professional design of refrigeration system, extreme efficiency.
- ★ High efficiency, environmental cold storage agent.

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Water in/out connections	Water flow-rate (m³/h)	Dimensions(mm)			
								Length	Width	Height	
YDS-50W		50	380V/3PH/50Hz	6	DN100	DN40	5.5	2170	1860	1300	2205
YDS-100W		100	380V/3PH/50Hz	11	DN150	DN50	10.4	3880	2060	1400	2905
YDS-150W		150	380V/3PH/50Hz	16	DN150	DN50	15	5580	2460	1600	3035
YDS-200W		200	380V/3PH/51Hz	20	DN200	DN65	20	6200	2761	1700	3035
YDS-250W		250	380V/3PH/50Hz	24	DN200	DN80	25	7180	2970	1750	3070
YDS-300W		300	380V/3PH/50Hz	30	DN250	DN80	30	8500	3200	1900	3070
YDS-350W		350	380V/3PH/50Hz	35	DN250	DN80	35	9180	3300	2000	3070
YDS-400W		400	380V/3PH/50Hz	40	DN300	DN80	40	10080	3400	2000	3270



HEATED BLOWER DESICCANT DRYER

Product features and advantages

- * Large-sized diffuser and the bottom of the adsorption tower use ceramic balls to ensure more even airflow distribution, stable dew point, and reduced pressure loss.
- * The large-sized tower body and flow control minimize wear on the desiccant.
- * Specially customized high-performance desiccant achieves excellent dew point results.
- * Utilizing well-known brand blowers for reliable performance and low energy consumption.
- * High-temperature pneumatic valves are equipped with dual solenoid pneumatic control valves, significantly enhancing reliability and lifespan.
- * Instrument air source is equipped with oil removal, filtering, and pressure-reducing valves to ensure the lifespan of the execution structure, while stainless steel control air pipelines reduce leakage.

*PLC touch screen control:
Displays and records operational status and faults.
Provides local/remote control and monitoring.

Can fulfill various communication requirements for users, from RS485/I/O, PROFIBUS, MODBUS, to Ethernet connections, and more.

*Energy management, reducing operating costs (optional):
Dew point control ensures the premise of dry air, with efficient utilization of regeneration air.
Synchronized operation with air compressors.

*Industrial IoT, control and monitoring through terminals like smartphones and computers (optional).



HEAT OF COMPRESSION ZERO PURGE DESICCANT DRYER

Technical data

Model	Specifications	Air flow-rate (m ³ /min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Water flow-rate (m ³ /h)	Water in/out connections	Air in/out connections	Net weight(kg)	Dimensions(mm)		
									Length	Width	Height
YDXYL-20		20	220V/1PH/50Hz	0.25	7.2	G1-1/2"	DN65	1760	1830	1100	2480
YDXYL-25		25	220V/1PH/50Hz	0.25	9	G1-1/2"	DN65	2060	1960	1050	2510
YDXYL-30		30	220V/1PH/50Hz	0.25	10.8	G1-1/2"	DN80	2460	1960	1050	2600
YDXYL-35		35	220V/1PH/50Hz	0.25	14.4	G1-1/2"	DN80	2890	2040	1150	2650
YDXYL-40		40	220V/1PH/50Hz	0.25	15.3	G1-1/2"	DN100	3300	2150	1200	2700
YDXYL-50		50	220V/1PH/50Hz	0.25	16	G2"	DN100	4125	2275	1300	2800
YDXYL-60		60	220V/1PH/50Hz	0.25	22	G2"	DN125	4950	2600	1350	2900
YDXYL-80		80	220V/1PH/50Hz	0.25	25	G2"	DN125	6600	2800	1500	3075
YDXYL-L100		100	220V/1PH/50Hz	0.25	33	DN65	DN150	8220	3200	1650	3200
YDXYL-120		120	220V/1PH/50Hz	0.25	44	DN65	DN150	9790	3600	1850	3250
YDXYL-150		150	220V/1PH/50Hz	0.25	50	DN80	DN150	12350	4200	2000	3350
YDXYL-180		180	220V/1PH/50Hz	0.25	65	DN80	DN200	14800	4200	2200	3400
YDXYL-200		200	220V/1PH/50Hz	0.25	75	DN100	DN200	16500	4600	2300	3500
YDXYL-250		250	220V/1PH/50Hz	0.25	85	DN100	DN200	20600	4800	3800	3600
YDXYL-300		300	220V/1PH/50Hz	0.25	108	DN100	DN250	24690	5800	3800	3800
YDXYL-350		350	220V/1PH/50Hz	0.25	130	DN100	DN250	28820	6600	4200	3600
YDXYL-400		400	220V/1PH/50Hz	0.25	145	DN125	DN300	32950	6600	4200	3800

Designed conditions: operating pressure: 7 bar, inlet temperature: 90-130° C, cooling water temperature: 32° C, PDP: -20° C.

HEAT OF COMPRESSION ZERO PURGE DESICCANT DRYER

Technical data

Model	Specifications	Air flow-rate (m ³ /min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Water flow-rate (m ³ /h)	Water in/out connections	Air in/out connections	Net weight(kg)	Dimensions(mm)		
									Length	Width	Height
YDXYL-20E		20	380V/3PH/50Hz	12	7.2	G1-1/2"	DN65	1850	1830	1100	2480
YDXYL-25E		25	380V/3PH/50Hz	15	9	G1-1/2"	DN65	2160	1960	1050	2510
YDXYL-30E		30	380V/3PH/50Hz	18	10.8	G1-1/2"	DN80	2500	1960	1050	2600
YDXYL-35E		35	380V/3PH/50Hz	21	14.4	G1-1/2"	DN80	3040	2040	1150	2650
YDXYL-40E		40	380V/3PH/50Hz	24	15.3	G1-1/2"	DN100	3465	2150	1200	2700
YDXYL-50E		50	380V/3PH/50Hz	30	16	G2"	DN100	4300	2275	1300	2800
YDXYL-60E		60	380V/3PH/50Hz	36	22	G2"	DN125	5200	2600	1350	2900
YDXYL-80E		80	380V/3PH/50Hz	45	25	G2"	DN125	6950	2800	1500	3075
YDXYL-L100E		100	380V/3PH/50Hz	60	33	DN65	DN150	8630	3200	1650	3200
YDXYL-120E		120	380V/3PH/50Hz	72	44	DN65	DN150	10300	3600	1850	3250
YDXYL-150E		150	380V/3PH/50Hz	87	50	DN80	DN150	12950	4200	2000	3350
YDXYL-180E		180	380V/3PH/50Hz	105	65	DN80	DN200	15540	4200	2200	3400
YDXYL-200E		200	380V/3PH/50Hz	120	75	DN100	DN200	17320	4600	2300	3500
YDXYL-250E		250	380V/3PH/50Hz	150	85	DN100	DN200	21630	4800	3800	3600
YDXYL-300E		300	380V/3PH/50Hz	180	108	DN100	DN250	25900	5800	3800	3800
YDXYL-350E		350	380V/3PH/50Hz	200	130	DN100	DN250	30200	6600	4200	3600
YDXYL-400E		400	380V/3PH/50Hz	240	145	DN125	DN300	34500	6600	4200	3800

Designed conditions: operating pressure: 7 bar, inlet temperature: 90-130° C, cooling water temperature: 32° C, PDP: -40° C.

STAINLESS STEEL MODULE DRYER

More energy-efficient and durable

(Patent No: ZL201420335088.8) / (Patent No: ZL201430360287.X) / (Patent No: ZL201921487356.7)

- ★ High quality air
- Able to obtain ISO8573-1:2010 standard 1.1.1 quality compressed air, which is clean, dry and oil-free.
- ★ Totally avoid corrosion and damage
- The service life of the unit can reach more than 30 years, and it is made of 304 stainless steel to ensure that it will not rust for 20 years.
- ★ Effective regeneration, energy saving and high efficiency
- It can save energy to the greatest extent, and the operating cost can be saved by more than 60%.
- ★ Low noise
- Reduce noise pollution and provide a quiet operating environment.



STAINLESS STEEL MODULE DRYER

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
					Length		Width	Height	
YKX-0.3	0.3	220V/1PH/50Hz	0.3	G1/2"	20	230	200	720	
YKX-0.5	0.5	220V/1PH/50Hz	0.3	G1/2"	35	250	220	780	
YKX-1	1	220V/1PH/50Hz	0.3	G1/2"	52	330	322	912	
YKX-2	2	220V/1PH/50Hz	0.3	G3/4"	65	330	322	1320	
YKX-3	3	220V/1PH/50Hz	0.3	G1"	76	400	360	1350	
YKX-5	5	220V/1PH/50Hz	0.3	G1-1/4"	96	474	506	1600	
YKX-10	10	220V/1PH/50Hz	0.3	G2"	192	400	660	1540	
YKX-15	15	220V/1PH/50Hz	0.3	G2"	288	400	845	1540	
YKX-20	20	220V/1PH/50Hz	0.3	G2-1/2"	300	400	1015	1557	
YKX-25	25	220V/1PH/50Hz	0.3	G2-1/2"	480	400	1200	1557	
YKX-30	30	220V/1PH/50Hz	0.3	G3"	576	400	1380	1557	
YKX-35	35	220V/1PH/50Hz	0.3	DN100	768	720	1116	1880	
YKX-40	40	220V/1PH/50Hz	0.3	DN100	960	720	1286	1880	
YKX-50	50	220V/1PH/50Hz	0.3	DN100	1152	720	1356	1880	
YKX-60	60	220V/1PH/50Hz	0.3	DN125	1440	720	1356	2200	

1. Select the minimum inlet pressure correction factor(CFP) of the dryer. When determining the minimum working pressure of the dryer, the pressure loss of the pre-equipment in the system must be considered.
2. Select the correction factor (CFT) for the maximum inlet temperature of the dryer
3. Select the dew point correction factor (CFD)
4. Calculate the flow rate that the dryer should satisfy as follows:

Maximum working pressure:	10bar
Minimum working pressure:	4bar
Maximum inlet temperature:	50°C (122 °F)
Minimum inlet temperature:	2°C (35 °F)
Noise level:	< 60dB(A)
Voltage:	220V/1PH

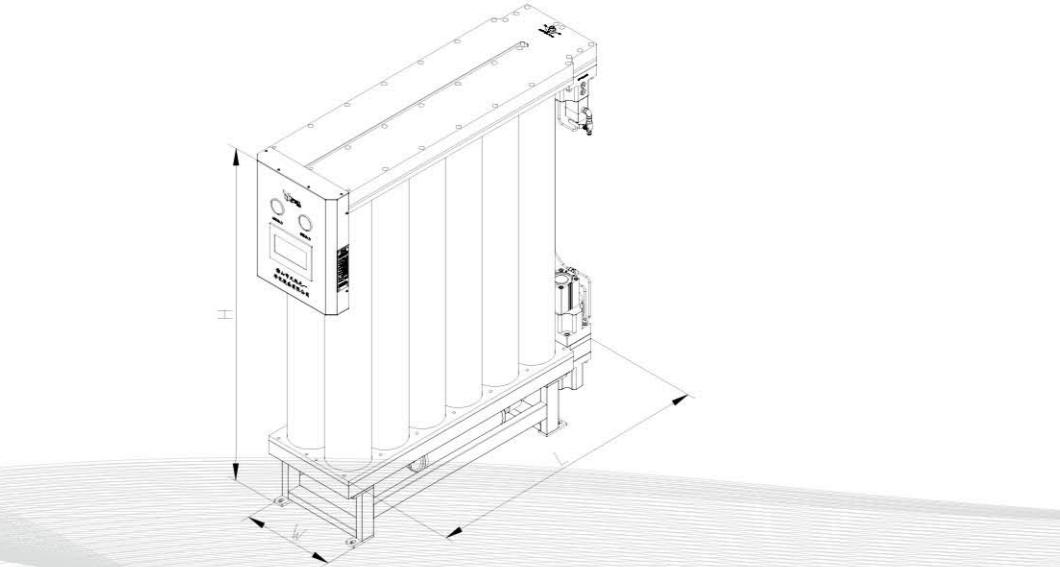
Inlet temperature:	°C	25	30	35	40	45	50
CFT	1	1	1	0.97	0.88	0.73	

Correction Factors for inlet pressure CFP

Operating pressure	bar	4	5	6	7	8	9	10	11	12	13
CFP	0.63	0.75	0.88	1.00	1.13	1.25	1.38	1.50	1.63	1.75	

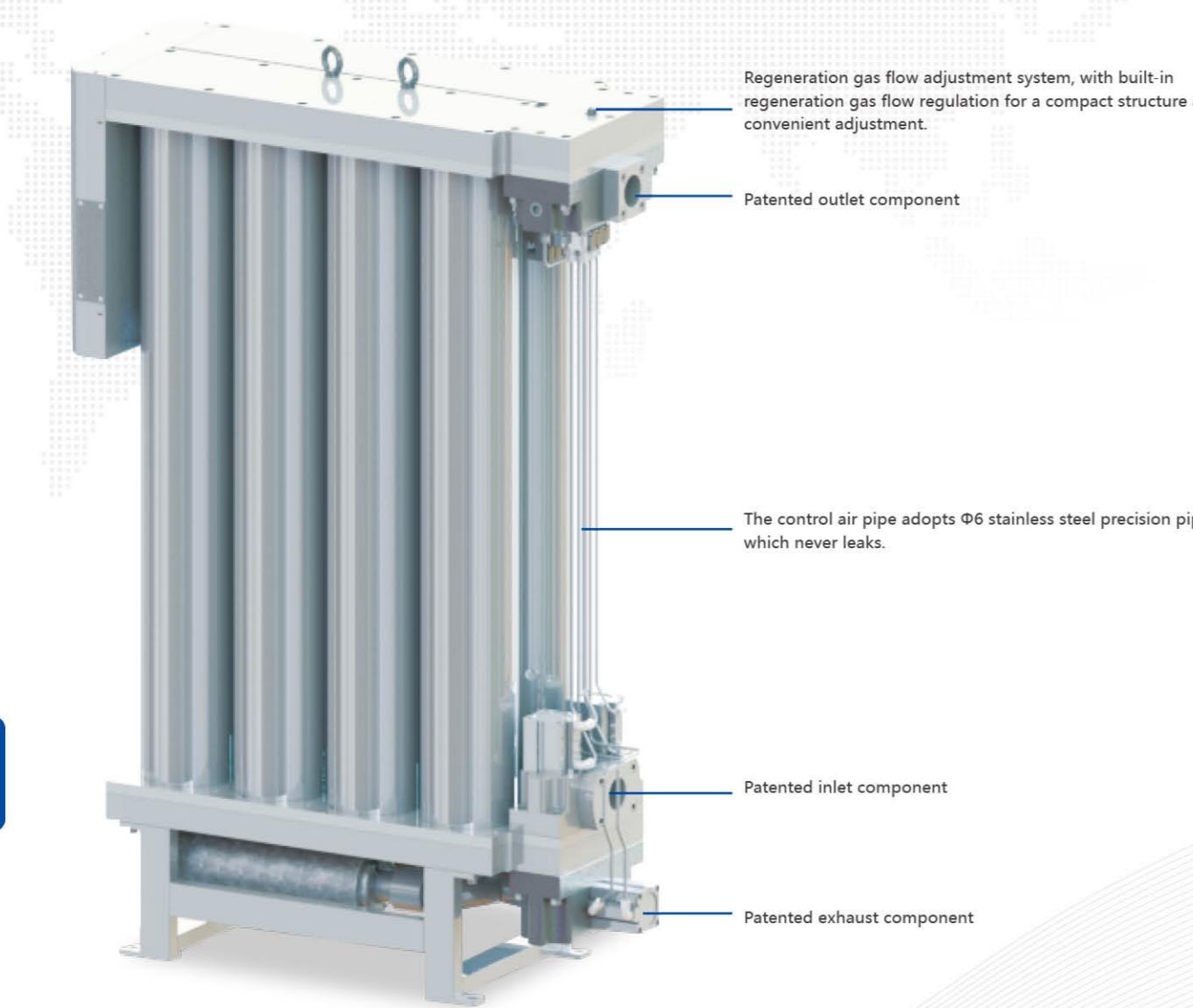
Inlet air flow-rate = Minimum air flow-rate of dryer

$$\text{CFP} \times \text{CFD} \times \text{CFD}$$



STAINLESS STEEL MODULE DRYER

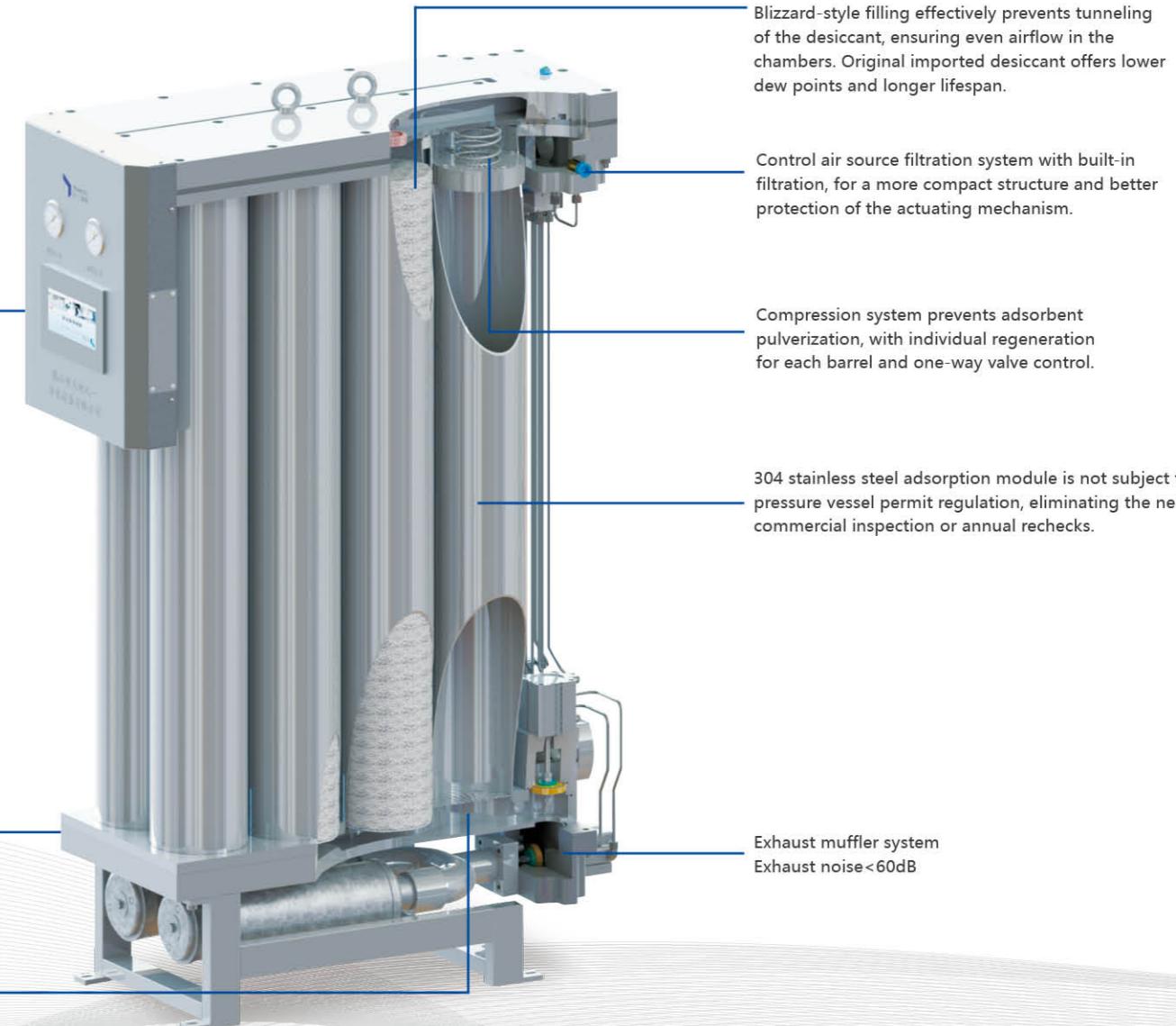
Energy saving
High efficiency
Stable



(Patent No: ZL201420335088.8)
(Patent No: ZL201430360287.X)
(Patent No: ZL201921487356.7)

STAINLESS STEEL MODULE DRYER

Energy saving
High efficiency
Stable

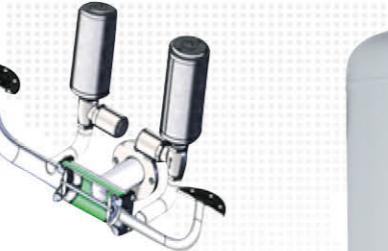


HEATLESS DESICCANT DRYER

(Patent No: ZL201921487308.8)

Product features and advantages

*Patented inlet and outlet valve structure:



Made entirely of stainless steel material.

Compact structure with sensitive open/close actions.

Reliable quality, safe and stable for use over 1 million cycles or more.

*Large-sized diffuser and the bottom of the adsorption tower use ceramic balls to ensure more even airflow distribution, stable dew point, and reduced pressure loss.

*The large-sized tower body and flow control minimize wear on the desiccant.

*304 stainless steel control air pipelines, longer lifespan.

*Instrument air source is equipped with oil removal, filtering, and pressure-reducing valves to ensure the lifespan of the execution structure, while stainless steel control air pipelines reduce leakage.

*PLC touch screen control:

Displays and records operational status and faults.

Provides local/remote control and monitoring.

Can fulfill various communication requirements for users, from RS485I/O, PROFIBUS, MODBUS, to

Ethernet connections, and more.

*Energy management, reducing operating costs (optional):

Dew point control ensures the premise of dry air, with efficient utilization of regeneration air.

Synchronized operation with air compressors.

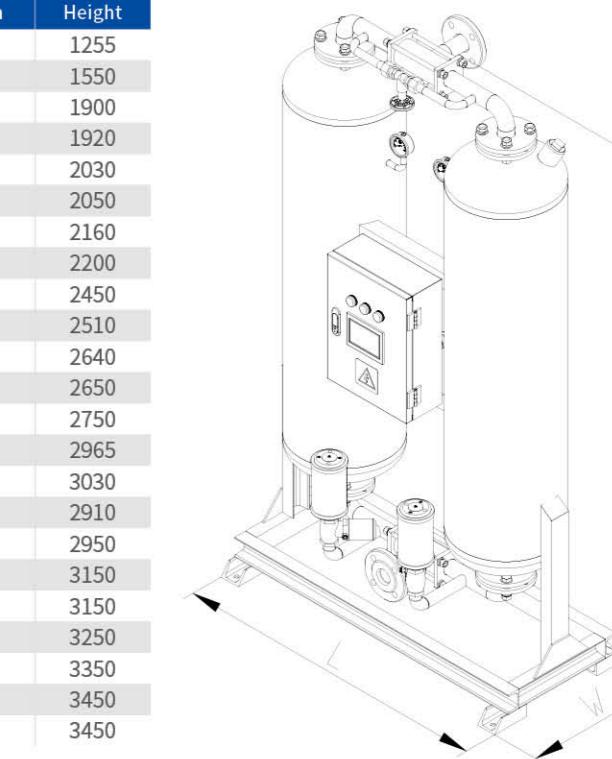
*Industrial IoT, control and monitoring through terminals like smartphones and computers (optional).



HEATLESS DESICCANT DRYER

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Heater (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
							Length	Width	Height
YDWX-1		1	220V/1PH/50Hz	0.25	G3/4"	120	820	320	1255
YDWX-3		3	220V/1PH/50Hz	0.25	G1"	185	920	370	1550
YDWX-5		5	220V/1PH/50Hz	0.25	DN40	240	970	370	1900
YDWX-8		8	220V/1PH/50Hz	0.25	DN40	350	1060	440	1920
YDWX-10		10	220V/1PH/50Hz	0.25	DN50	400	1050	425	2030
YDWX-12		12	220V/1PH/50Hz	0.25	DN50	465	1170	490	2050
YDWX-15		15	220V/1PH/50Hz	0.25	DN65	515	1215	515	2160
YDWX-20		20	220V/1PH/50Hz	0.25	DN65	780	1320	580	2200
YDWX-25		25	220V/1PH/50Hz	0.25	DN65	860	1330	565	2450
YDWX-30		30	220V/1PH/50Hz	0.25	DN80	1100	1410	625	2510
YDWX-40		40	220V/1PH/50Hz	0.25	DN100	1330	1600	730	2640
YDWX-50		50	220V/1PH/50Hz	0.25	DN100	1685	1915	775	2650
YDWX-60		60	220V/1PH/50Hz	0.25	DN125	2170	1920	830	2750
YDWX-80		80	220V/1PH/50Hz	0.25	DN125	2950	1920	830	2965
YDWX-100		100	220V/1PH/50Hz	0.25	DN150	3500	2250	950	3030
YDWX-120		120	220V/1PH/50Hz	0.25	DN150	4100	2400	1050	2910
YDWX-150		150	220V/1PH/50Hz	0.25	DN150	4760	2500	1120	2950
YDWX-180		180	220V/1PH/50Hz	0.25	DN200	5600	2850	1260	3150
YDWX-200		200	220V/1PH/50Hz	0.25	DN200	6200	3010	1360	3150
YDWX-250		250	220V/1PH/50Hz	0.25	DN200	7250	3010	1420	3250
YDWX-300		300	220V/1PH/50Hz	0.25	DN250	8700	3000	2080	3350
YDWX-350		350	220V/1PH/50Hz	0.25	DN250	10150	3600	2580	3450
YDWX-400		400	220V/1PH/50Hz	0.25	DN300	11600	3800	3000	3450



Correction Factor

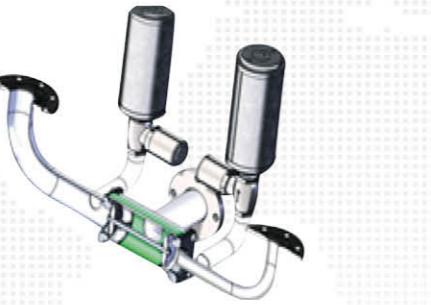
Inlet temperature °C	Inlet pressure(bar)						
	4.5	5	6	7	8	9	10
≤ 35	0.67	0.74	0.86	1.00	1.09	1.21	1.33
40	0.51	0.56	0.65	0.74	0.83	0.93	1.02
45	0.40	0.43	0.50	0.57	0.64	0.71	0.78
50	0.31	0.34	0.93	0.45	0.50	0.55	0.61

PDP	-40°C
Inlet temperature	1-45°C
Operating pressure	4.5-10bar (10-45bar can be provided according to customer requirements)
Ambient temperature	1-45°C
Power supply	220V/1PH/50Hz
Nominal electric power	10W

HEATED PURGE DESICCANT DRYER

Product features and advantages

*Patented inlet and outlet valve structure:



Made entirely of stainless steel material.

Compact structure with sensitive open/close actions.

Reliable quality, 5 years warranty.

*304 stainless steel control air pipelines, longer lifespan.

*Large-sized diffuser and the bottom of the adsorption tower use ceramic balls to ensure more even airflow distribution, stable dew point, and reduced pressure loss.

*The large-sized tower body and flow control minimize wear on the desiccant.

*Instrument air source is equipped with oil removal, filtering, and pressure-reducing valves to ensure the lifespan of the execution structure.

*Dual temperature protection:

-PID proportional control of electric heating temperature ensures stable regeneration gas temperature.

-Dry heating protection to prevent dry burning.

*PLC touch screen control:

Displays and records operational status and faults.

Provides local/remote control and monitoring.

Can fulfill various communication requirements for users, from RS485I/O, PROFIBUS, MODBUS, to Ethernet connections, and more.

*Energy management, reducing operating costs (optional):

Dew point control ensures the premise of dry air, with efficient utilization of regeneration air.

Synchronized operation with air compressors.

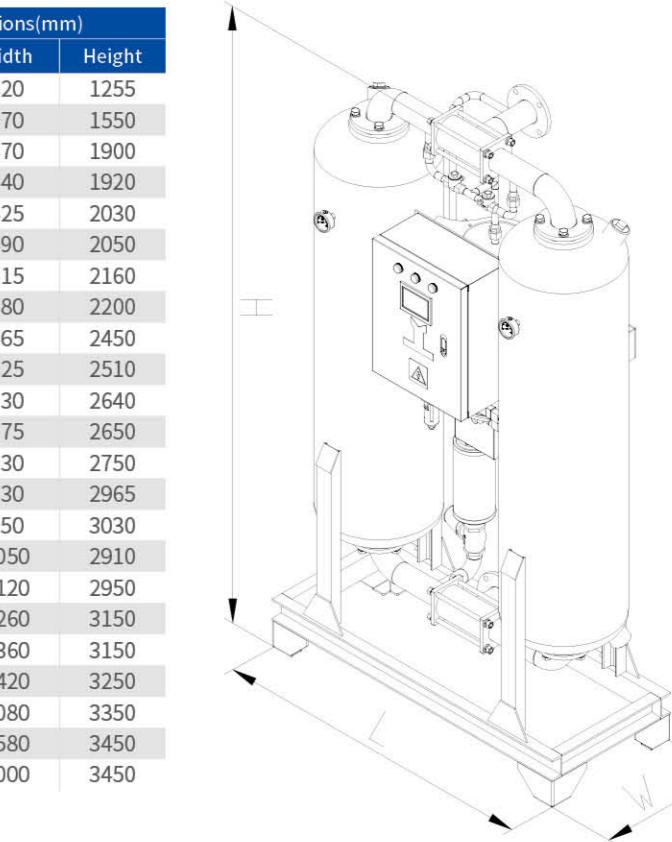
*Industrial IoT, control and monitoring through terminals like smartphones and computers (optional).



HEATED PURGE DESICCANT DRYER

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Heater (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
							Length	Width	Height
YDX-1		1	220V/1PH/50Hz	0.5	G1"	198	820	320	1255
YDX-3		3	220V/1PH/50Hz	1.4	G1"	255	920	370	1550
YDX-5		5	220V/1PH/50Hz	2.1	DN40	330	970	370	1900
YDX-8		8	220V/1PH/50Hz	3.2	DN50	440	1060	440	1920
YDX-10		10	220V/1PH/50Hz	4	DN50	495	1050	425	2030
YDX-12		12	380V/3PH/50Hz	4.8	DN50	580	1170	490	2050
YDX-15		15	380V/3PH/50Hz	6	DN65	782	1215	515	2160
YDX-20		20	380V/3PH/50Hz	7.2	DN65	835	1320	580	2200
YDX-25		25	380V/3PH/50Hz	8.1	DN65	915	1330	565	2450
YDX-30		30	380V/3PH/50Hz	12	DN80	1045	1410	625	2510
YDX-40		40	380V/3PH/50Hz	16	DN100	1435	1600	730	2640
YDX-50		50	380V/3PH/50Hz	18	DN100	1600	1915	775	2650
YDX-60		60	380V/3PH/50Hz	24	DN125	2070	1920	830	2750
YDX-70		70	380V/3PH/50Hz	28	DN125	2260	1920	830	2965
YDX-80		80	380V/3PH/50Hz	32	DN125	2710	2250	950	3030
YDX-100		100	380V/3PH/50Hz	40	DN150	3720	2400	1050	2910
YDX-120		120	380V/3PH/50Hz	48	DN150	4300	2500	1120	2950
YDX-150		150	380V/3PH/50Hz	60	DN150	4440	2850	1260	3150
YDX-180		180	380V/3PH/50Hz	72	DN200	5300	3010	1360	3150
YDX-200		200	380V/3PH/50Hz	80	DN200	5960	3010	1420	3250
YDX-300		300	380V/3PH/50Hz	120	DN250	8700	3000	2080	3350
YDX-350		350	380V/3PH/50Hz	140	DN250	10150	3600	2580	3450
YDX-400		400	380V/3PH/50Hz	160	DN300	13600	3800	3000	3450



Correction Factor

Inlet temperature °C	Inlet pressure(bar)						
	4.5	5	6	7	8	9	10
≤ 35	0.67	0.74	0.86	1.00	1.09	1.21	1.33
40	0.51	0.56	0.65	0.74	0.83	0.93	1.02
45	0.40	0.43	0.50	0.57	0.64	0.71	0.78
50	0.31	0.34	0.39	0.45	0.50	0.55	0.61

PDP	-40°C
Inlet temperature	1-45°C
Operating pressure	4.5-10bar
Ambient temperature	1-45°C

MODULAR COMBINED DRYER

Product features and advantages

YY patented stainless steel refrigerated dryer + stainless steel module adsorption dryer

*The compressed air pipeline is made of stainless steel

- No secondary pollution.
- Long service life and stable performance.

*Compact structure, small footprint

*Energy saving

- Low pressure drop.
- Less air consumption.

*PLC touch screen control:

Displays and records operational status and faults.

Provides local/remote control and monitoring.

Can fulfill various communication requirements for users, from RS485I/O, PROFIBUS, MODBUS, to Ethernet connections, and more.

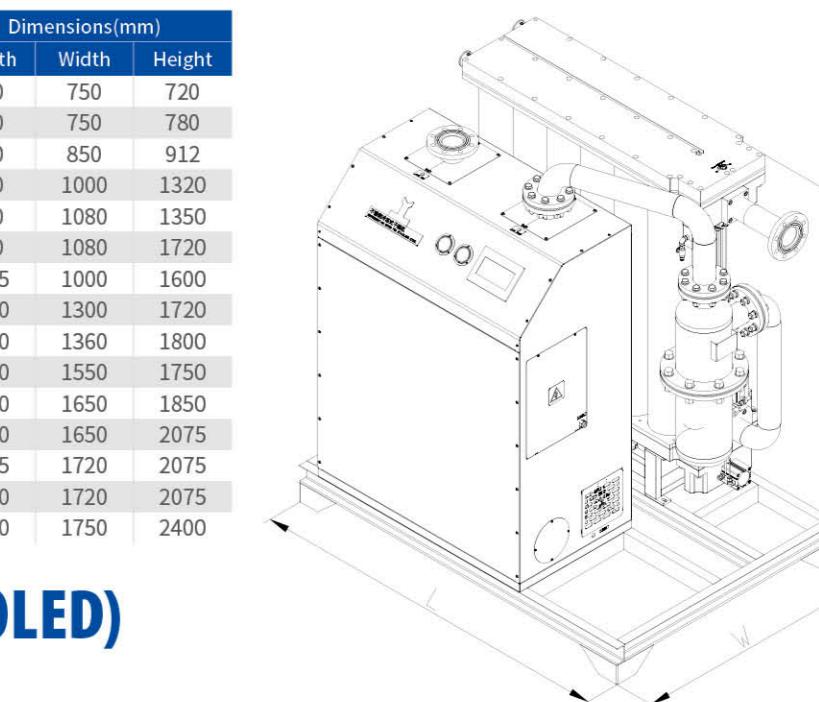
*Industrial IoT, control and monitoring through terminals like smartphones and computers (optional).



MODULAR COMBINED DRYER (AIR-COOLED)

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
							Length	Width	Height
YZMA-0.3		0.3	220V/1PH/50Hz	0.3	G1/2"	102	500	750	720
YZMA -0.5		0.5	220V/1PH/50Hz	0.4	G1/2"	180	500	750	780
YZMA -1		1	220V/1PH/50Hz	0.5	G1/2"	215	720	850	912
YZMA -2		2	220V/1PH/50Hz	0.65	G3/4"	250	800	1000	1320
YZMA -3		3	220V/1PH/50Hz	0.9	G1"	283	800	1080	1350
YZMA -5		5	220V/1PH/50Hz	1.8	G1-1/4"	343	960	1080	1720
YZMA-10		10	220V/1PH/50Hz	2.5	G2"	518	1135	1000	1600
YZMA -15		15	380V/3PH/50Hz	2.8	G2"	552	1100	1300	1720
YZMA-20		20	380V/3PH/50Hz	4.4	DN65	990	1300	1360	1800
YZMA-25		25	380V/3PH/50Hz	5.6	DN65	1032	1310	1550	1750
YZMA-30		30	380V/3PH/50Hz	5.5	DN80	1390	1360	1650	1850
YZMA-35		35	380V/3PH/50Hz	6.2	DN80	1510	1400	1650	2075
YZMA-40		40	380V/3PH/50Hz	6.8	DN100	1572	1475	1720	2075
YZMA-50		50	380V/3PH/50Hz	8.8	DN100	2045	1550	1720	2075
YZMA-60		60	380V/3PH/50Hz	10.8	DN125	2570	1680	1750	2400



MODULAR COMBINED DRYER (WATER-COOLED)

Technical data

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Water in/out connections	Water flow-rate(m³/h)	Net weight(kg)	Dimensions(mm)		
									Length	Width	Height
YZMW-5		5	220V/1PH/50Hz	1.5	G1-1/4"	G1"	1.2	340	960	1080	1720
YZMW-10		10	220V/1PH/50Hz	2.3	G2"	G1"	1.8	580	1020	1150	1720
YZMW-15		15	380V/3PH/50Hz	2.5	G2"	G1-1/4"	2.4	690	1150	1290	1720
YZMW-20		20	380V/3PH/50Hz	4.2	DN65	G1-1/4"	3.4	980	1300	1360	1800
YZMW-25		25	380V/3PH/50Hz	4.5	DN65	G1-1/4"	4.2	1180	1350	1360	1800
YZMW-30		30	380V/3PH/50Hz	4.9	DN80	G1-1/2"	4.5	1410	1500	1360	1800
YZMW-35		35	380V/3PH/50Hz	5.8	DN80	G1-1/2"	5.2	1630	1400	1650	2080
YZMW-40		40	380V/3PH/50Hz	6.6	DN100	G1-1/2"	5.8	1870	1400	1720	2080
YZMW-50		50	380V/3PH/50Hz	7.7	DN100	G2"	6.8	2050	1500	1720	2080
YZMW-60		60	380V/3PH/50Hz	9.5	DN125	G2"	8.5	2580	1800	1990	2100

PDP	-40°C
Inlet temperature	1-45°C
Operating pressure	4.5-10bar
Ambient temperature	1-45°C
Cooling water temperature	1-38°C

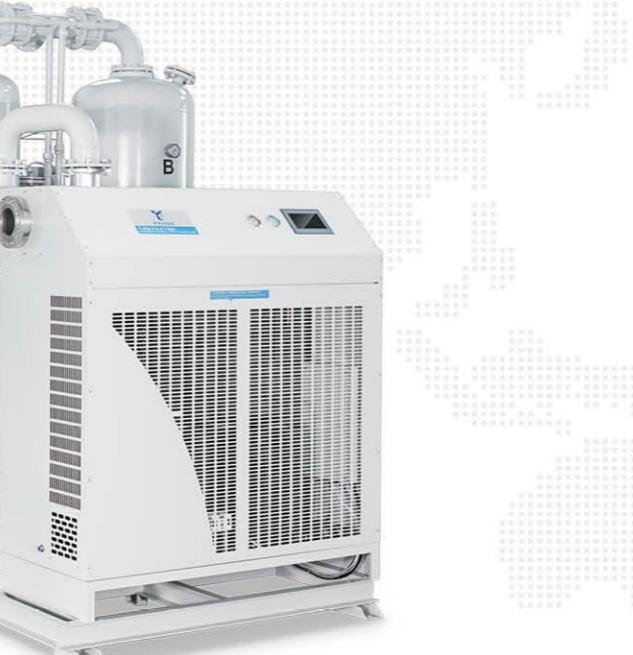
HEATED PURGE COMBINED DRYER (AIR-COOLED)

Technical features

The combined low dew point dryer combines the dual advantages of a refrigerated dryer and an adsorption dryer. Through well-designed piping connections and capacity matching, it maximizes the benefits of both, resulting in optimal cost-effective operation and the production of high-quality low dew point finished air.

Technical data

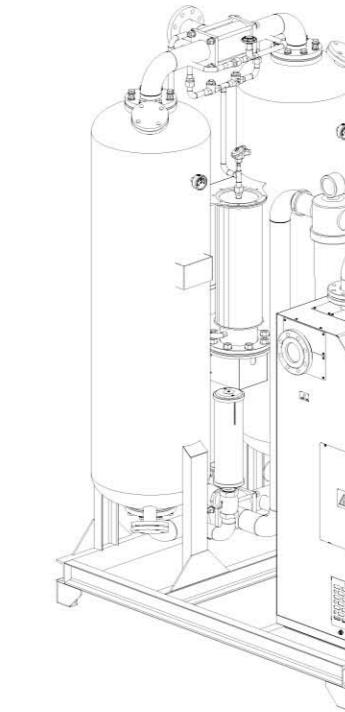
Inlet temperature	0 ~ 45°C
Operating pressure	0.6 ~ 1.0MPa
Pressure loss	≤ 0.02MPa
PDP	-20°C~ -70°C
Regeneration consumption	≤ 5%
Desiccant	Activated alumina/Molecular sieve



HEATED PURGE COMBINED DRYER (WATER-COOLED)

Technical data

Inlet temperature	0 ~ 45°C
Operating pressure	0.6 ~ 1.0MPa
Pressure loss	≤ 0.02MPa
PDP	-20°C~ -70°C
Regeneration consumption	≤ 5%
Desiccant	Activated alumina/Molecular sieve



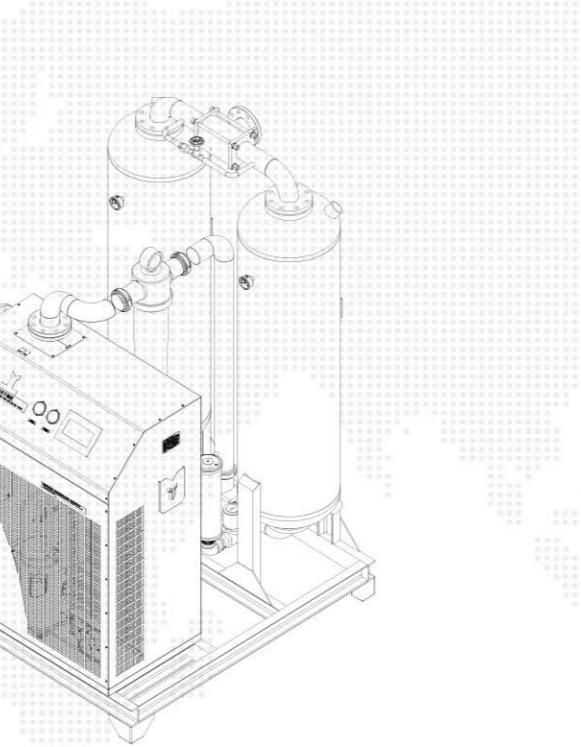
Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
							Length	Width	Height
YZA-3		3	220V/1PH/50Hz	2	G1"	377	920	1150	1550
YZA-5		5	220V/1PH/50Hz	3	G1-1/2"	470	970	1170	1900
YZA-8		8	220V/1PH/50Hz	4.5	G2"	630	1060	1240	1920
YZA-10		10	220V/1PH/50Hz	6	G1-1/2"	715	1050	1310	2030
YZA-15		15	380V/3PH/50Hz	8.5	DN65	1130	1215	1475	2160
YZA-20		20	380V/3PH/50Hz	11	DN65	1250	1320	1640	2200
YZA-25		25	380V/3PH/50Hz	13	DN65	1380	1330	1625	2450
YZA-30		30	380V/3PH/50Hz	17	DN80	1570	1410	1685	2510
YZA-35		35	380V/3PH/50Hz	20	DN80	1840	1410	1735	2510
YZA-40		40	380V/3PH/50Hz	22.5	DN100	2050	1600	1840	2640
YZA-50		50	380V/3PH/50Hz	32.5	DN100	2305	1915	1905	2650
YZA-60		60	380V/3PH/50Hz	32.5	DN125	2860	1920	1960	2750
YZA-70		70	380V/3PH/50Hz	38.5	DN125	3100	1920	2280	2965
YZA-80		80	380V/3PH/50Hz	45.5	DN125	3770	2250	2400	3030

Model	Specifications	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Water in/out connections	Water flow-rate(m³/h)	Net weight(kg)	Dimensions(mm)		
									Length	Width	Height
YZW-8		8	220V/1PH/50Hz	4.5	G2"	G3/4"	1	585	1060	1240	1920
YZW-10		10	220V/1PH/50Hz	6	G2"	G1"	1.8	750	1050	1310	2030
YZW-15		15	380V/3PH/50Hz	8.5	G2-1/2"	G1"	2	1120	1215	1480	2160
YZW-20		20	380V/3PH/50Hz	11	DN65	G1"	3.4	1230	1320	1590	2200
YZW-25		25	380V/3PH/50Hz	12.5	DN65	G1"	3.9	1330	1330	1580	2450
YZW-30		30	380V/3PH/50Hz	16.5	DN80	G1"	4.5	1500	1410	1680	2510
YZW-35		40	380V/3PH/50Hz	20	DN100	G1-1/2"	5.2	1795	1410	1740	2510
YZW-40		40	380V/3PH/50Hz	22.5	DN100	G1-1/2"	5.8	2100	1600	1840	2640
YZW-50		50	380V/3PH/50Hz	25	DN100	G1-1/2"	6.3	2305	1915	1880	2650
YZW-60		60	380V/3PH/50Hz	31.5	DN125	G1-1/2"	6.8	2870	1920	2000	2750
YZW-70		70	380V/3PH/50Hz	37	DN125	G1-1/2"	8.5	3365	1920	2180	2965
YZW-80		80	380V/3PH/50Hz	43.5	DN125	G2"	10.5	3950	2250	2250	3030

HEATLESS COMBINED DRYER (AIR-COOLED)

Technical data

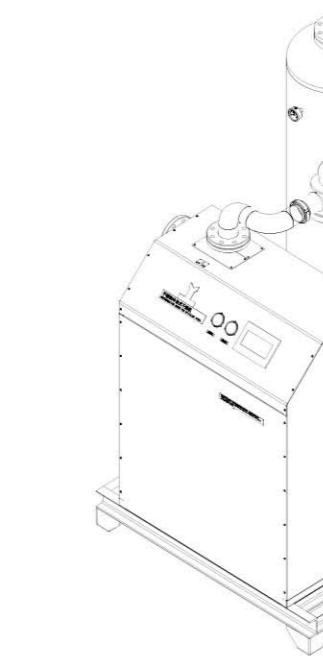
Inlet temperature	0 ~ 45°C
Operating pressure	0.6 ~ 1.0MPa
Pressure loss	≤ 0.02MPa
PDP	-20°C~ -70°C
Desiccant	Activated alumina



HEATLESS COMBINED DRYER (WATER-COOLED)

Technical data

Inlet temperature	0 ~ 45°C
Operating pressure	0.6 ~ 1.0MPa
Pressure loss	≤ 0.02MPa
PDP	-20°C~ -70°C
Desiccant	Activated alumina



Specifications Model	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Net weight(kg)	Dimensions(mm)		
						Length	Width	Height
YZWA-3	3	220V/1PH/50Hz	0.75	G1"	300	920	1150	1550
YZWA-5	5	220V/1PH/50Hz	1	G1-1/2"	370	970	1170	1900
YZWA-8	8	220V/1PH/50Hz	1.4	G2"	530	1060	1240	1920
YZWA-10	10	220V/1PH/50Hz	2.2	G2"	610	1050	1310	2030
YZWA-15	15	380V/3PH/50Hz	2.6	G2-1/2"	830	1215	1475	2160
YZWA-20	20	380V/3PH/50Hz	4.2	DN65	1190	1320	1640	2200
YZWA-25	25	380V/3PH/50Hz	4.8	DN65	1320	1330	1625	2450
YZWA-30	30	380V/3PH/50Hz	5.3	DN80	1635	1410	1685	2510
YZWA-35	35	380V/3PH/50Hz	6	DN80	1780	1410	1735	2510
YZWA-40	40	380V/3PH/50Hz	6.5	DN100	1940	1600	1840	2640
YZWA-50	50	380V/3PH/50Hz	7	DN100	2395	1915	1905	2650
YZWA-60	60	380V/3PH/50Hz	8.6	DN125	2970	1920	1960	2750
YZWA-80	80	380V/3PH/50Hz	10.6	DN125	3290	1920	2280	2965

Specifications Model	Air flow-rate (m³/min)	Power supply (V/Ph/Hz)	Nominal electric power (kW)	Air in/out connections	Water flow- rate(m³/h)	设备净重 (kgNet weight(kg))	Dimensions(mm)		
							Length	Width	Height
YZWW-8	8	220V/1PH/50Hz	1.3	G2"	1	485	1060	1240	1920
YZWW-10	10	220V/1PH/50Hz	2	G2"	1.8	650	1050	1310	2030
YZWW-15	15	380V/3PH/50Hz	2.4	G2-1/2"	2	825	1215	1480	2160
YZWW-20	20	380V/3PH/50Hz	4	DN65	3.4	1165	1320	1590	2200
YZWW-25	25	380V/3PH/50Hz	4.3	DN65	3.9	1270	1330	1580	2450
YZWW-30	30	380V/3PH/50Hz	4.7	DN80	4.5	1560	1410	1680	2510
YZWW-35	35	380V/3PH/50Hz	5.7	DN80	5.2	1740	1410	1740	2510
YZWW-40	40	380V/3PH/50Hz	6.4	DN100	5.8	1990	1600	1840	2640
YZWW-50	50	380V/3PH/50Hz	6.8	DN100	6.3	2395	1915	1880	2650
YZWW-60	60	380V/3PH/50Hz	7.5	DN125	6.8	2980	1920	2000	2750
YZWW-70	70	380V/3PH/50Hz	9.3	DN125	8.5	3550	1920	2180	2965
YZWW-80	80	380V/3PH/50Hz	12	DN125	10.5	4215	2250	2250	3030

YN NITROGEN GENERATOR

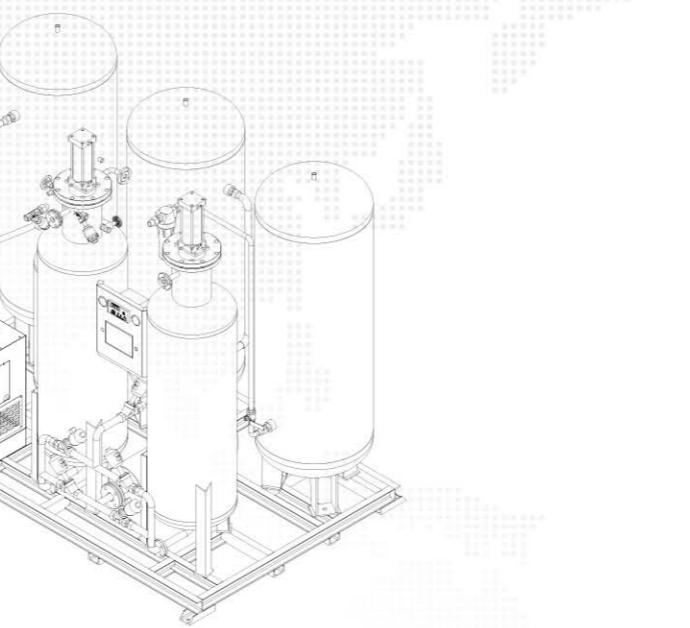


Product features

- ★ Compressed air is equipped with air purification and drying equipment. Clean and dry air ensures the prolonged use of the molecular sieve.
- ★ Rational structural design enhances the adsorption efficiency of the molecular sieve, and a special airflow diffusion device prevents molecular sieve pulverization caused by high-speed flow impact.
- ★ The equipment is compact, occupying a small footprint. A PSA nitrogen production system can be installed on the same base, creating an integrated structure.
- ★ PLC control technology is utilized, adjustable based on nitrogen purity, and a reserved interface allows for remote computer control.
- ★ The internally balanced automatic tightening system with nationally patented technology and unique molecular sieve filling technique enhances the long-term operational reliability of the entire unit.

Working Principle

The YN series nitrogen generator operates based on the principle of pressure swing adsorption, utilizing high-quality carbon molecular sieves as the adsorbent to produce nitrogen gas from the air at a certain pressure. Compressed air, purified and dried, undergoes pressure swing adsorption within the adsorber. Due to aerodynamic effects, oxygen diffuses through the micropores of the carbon molecular sieve at a significantly faster rate than nitrogen. As a result, oxygen is preferentially adsorbed by the carbon molecular sieve, while nitrogen is enriched in the gas phase, forming the final nitrogen product. Subsequently, the pressure is reduced to atmospheric pressure, allowing the adsorbent to desorb impurities such as oxygen, achieving regeneration. Typically, the system includes two adsorption towers: one tower adsorbs to produce nitrogen, while the other tower desorbs to regenerate. PLC program controllers control the opening and closing of pneumatic valves, facilitating alternating cycles between the two towers to achieve continuous production of high-quality nitrogen gas.



YN NITROGEN GENERATOR

Technical data

Model	Nitrogen production	Power supply	Nominal electric power (kW)	Nitrogen purity%	Nitrogen pressure MPa	PDP °C
YN-3	3					
YN-5	5					
YN-10	10					
YN-20	20					
YN-30	30					
YN-40	40					
YN-50	50					
YN-60	60					
YN-70	70					
YN-80	80					
YN-90	90					
YN-100	100					
YN-120	120					
YN-150	150					
YN-160	160					
YN-180	180	220V/1PH/50Hz	0.25	96-99.999	0.6	≤ -48 (Atmospheric pressure)
YN-200	200					
YN-230	230					
YN-250	250					
YN-280	280					
YN-300	300					
YN-350	350					
YN-400	400					
YN-500	500					
YN-600	600					
YN-700	700					
YN-800	800					
YN-900	900					
YN-1000	1000					
YN-2000	2000					
YN-3000	3000					

Note:

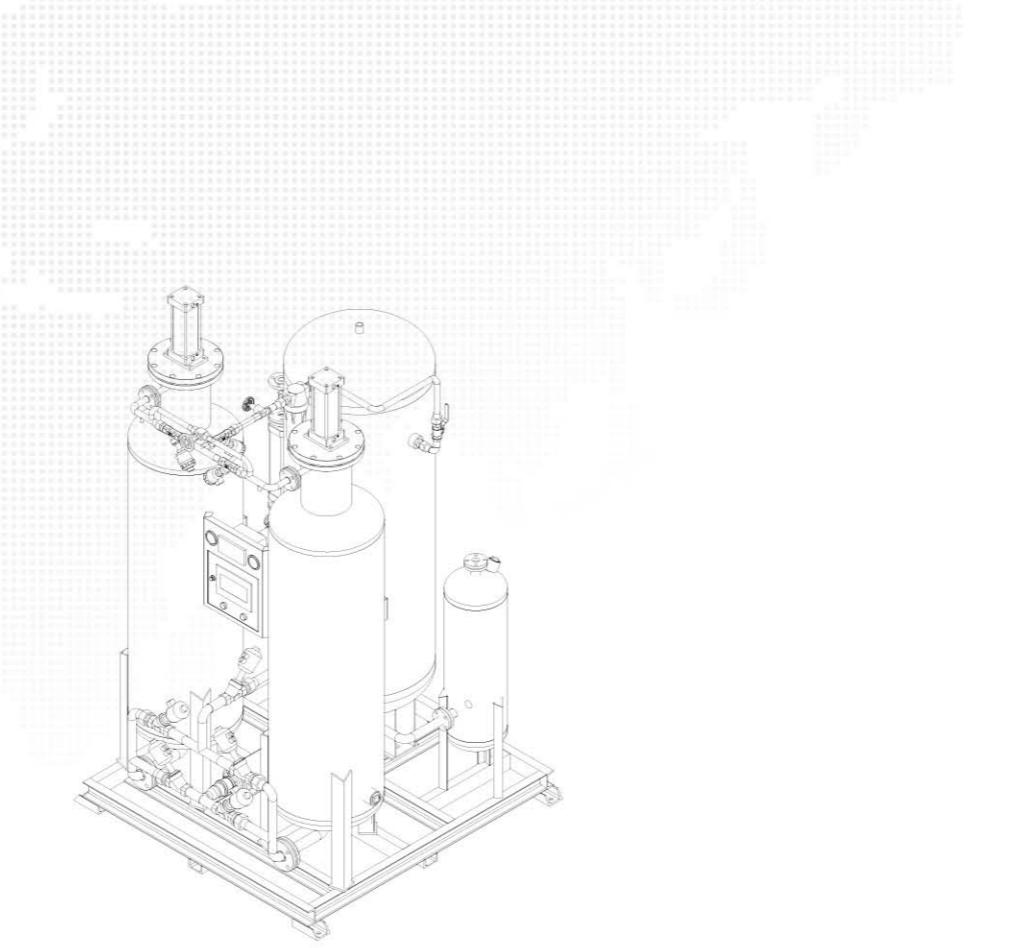
- ★ Model designation explanation: Type A - Purity 96%, Type B - 98%, Type C - 99%. Standard Type - 99.5%, Type D - 99.9%. Type E - 99.99%, Type G - 99.999%.
- ★ Type D nitrogen generators are available in capacities ranging from 3 to 1200 Nm³/h, Type E ammonia generators can be chosen within 3-600 Nm³/h, and Type G nitrogen generators can be selected within 3-100 Nm³/h.
- ★ Data for nitrogen purity within 99.9% is based on raw compressed air at 0.8 MPa (gauge pressure), 20 °C ambient temperature, 0-meter elevation, and 80% relative humidity as the design reference.
- ★ Data for nitrogen purity above 99.99% is based on raw compressed air at 0.9 MPa (gauge pressure), 20 °C ambient temperature, 0-meter elevation, and 80% relative humidity as the design reference.
- ★ When selecting an air compressor, users should consider the difference between the compressor's volume flow rate and the actual discharge, as well as the influence of ambient temperature and humidity on the air compressor's exhaust.
- ★ For nitrogen gas with pressures above 0.8 MPa and a dew point of ≤ -48° C, special designs are available.
- ★ When placing an order, indicate whether a cabinet-type machine or non-cabinet-type machine is required in the contract.
- ★ If there are any changes to the data, the information provided later will prevail.

YO OXYGEN GENERATOR



Product features

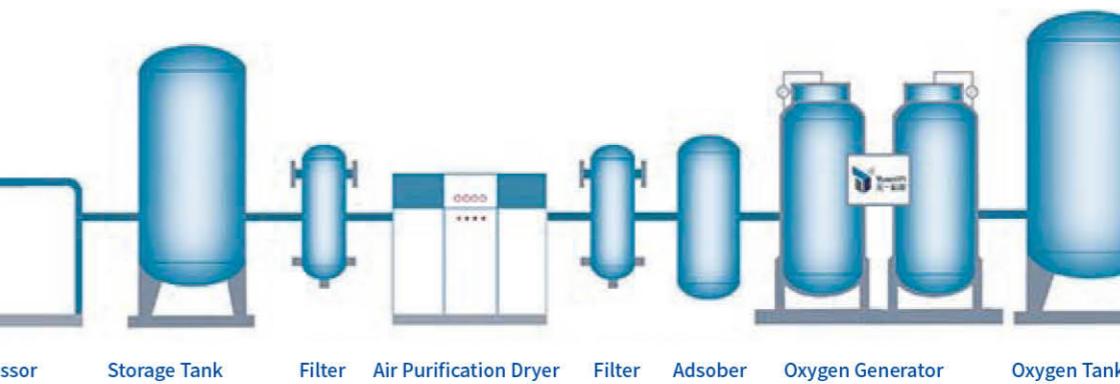
- ★ Compressed air is equipped with air purification and drying equipment. Clean air contributes to extending the molecular sieve's lifespan.
- ★ Well-refined process design and the utilization of new types of molecular sieves.
- ★ Using an advanced oxygen production process, continually optimizing equipment design to reduce energy consumption and capital investment.
- ★ The equipment features a compact structural design, minimizing its footprint.
- ★ Stable equipment performance, utilizing PLC control to achieve fully automated operation, resulting in a low annual failure rate.
- ★ Oxygen production and purity can be adjusted within appropriate ranges.



Working Principle

The YO oxygen generator employs the "PSA" pressure swing adsorption principle, utilizing innovative technology to separate air. Purified and dried compressed air enters the bottom of the adsorption tower, where zeolite molecular sieves are filled. These sieves adsorb a majority of nitrogen. Through the action of pressure swing adsorption, oxygen and nitrogen are separated. Due to the selective adsorption characteristics of the molecular sieves, nitrogen is adsorbed within the zeolite molecular sieves, while oxygen becomes enriched in the gas phase, serving as the product output. The system incorporates two adsorption towers: one for oxygen production through adsorption, and the other for desorption and regeneration, operating in alternating cycles to achieve continuous production.

INDUSTRIAL PRESSURE SWING ADSORPTION OXYGEN PRODUCTION PROCESS FLOW CHART



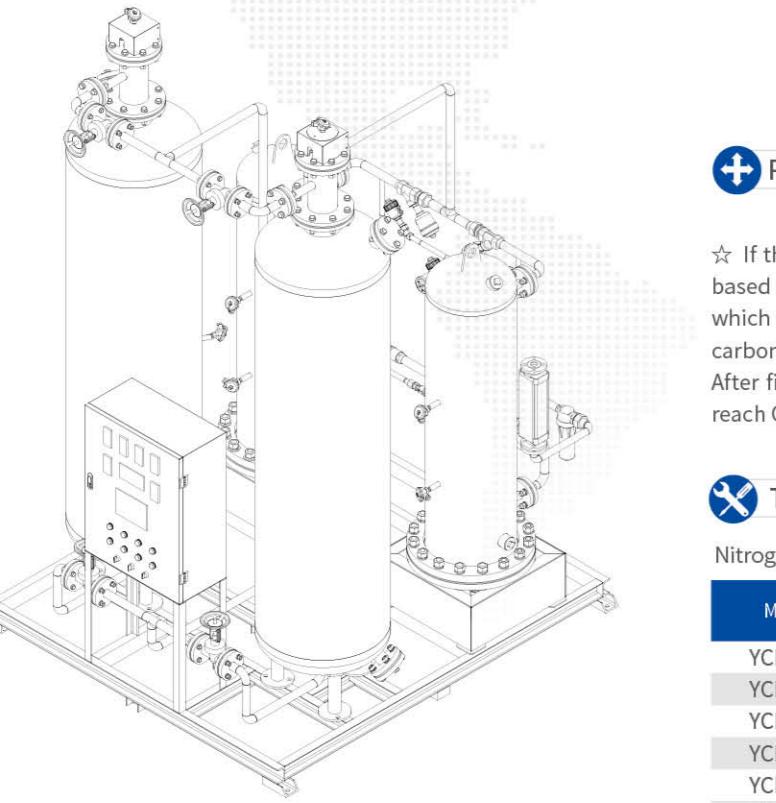
Technical data

Model	Oxygen production (Nm ³ /h)	Power supply	Nominal electric power (kW)	Oxygen purity %	Oxygen pressure MPa	PDP ° C
YO-3	3					
YO-5	5					
YO-6	6					
YO-10	10					
YO-15	15					
YO-18	18					
YO-20	20					
YO-25	25					
YO-30	30					
YO-35	35					
YO-40	40					
YO-45	45	220V/1PH/50Hz	0.25	90-93	0.3-0.5	≤ 43 (Atmospheric pressure)
YO-50	50					
YO-60	60					
YO-70	70					
YO-80	80					
YO-90	90					
YO-100	100					
YO-120	120					
YO-150	150					
YO-160	160					
YO-180	180					
YO-200	200					

Note:

- ★ The data listed in this table are based on raw compressed air at 0.6 MPa (gauge pressure), 20 ° C ambient temperature, 0-meter elevation, and 80% relative humidity as the design reference.
- ★ Installation site is indoors in a non-explosive zone, with an ambient temperature range of 3-45 ° C and good ventilation.
- ★ The equipment requires a power supply of 220V/380V, 50Hz. Oxygen pressure should be higher than 0.3 MPa and can be pressurized to the desired user pressure.
- ★ If there are any changes to the data, the information provided later will prevail.

YCNC CARBON-BASED NITROGEN PURIFICATION UNIT



Note:

- ★ The data in this table is based on an ambient temperature of 32° C, nitrogen inlet purity of 99.9%, and cooling water temperature of 25 ° C. Carbon catalyst should be replenished every two to three months based on actual operating conditions.
- ★ Standard nitrogen purity can be selected within the range of 99.7% to 99.9%. Different parameters such as catalyst consumption can be adjusted based on the nitrogen source's purity.
- ★ If there are any changes to the data, the information provided later will prevail.

Product features

★ If the user requires nitrogen purity greater than 99.99%, purification equipment should be configured based on the SCM nitrogen generation system. This series of products utilize carbon deoxidation catalysts, which do not require a hydrogen source. Carbon reacts with residual oxygen in the nitrogen gas to produce carbon dioxide. The pressure swing adsorption process is then used to remove carbon dioxide and water. After filtration, high-purity nitrogen gas is obtained. The technical indicators for high-purity nitrogen can reach O₂ ≤ 3 ppm, CO₂ ≤ 4 ppm, and dew point ≤ -60° C.

Technical data

Nitrogen purity: ≥ 99.9995% PDP: ≤ -60°C

Model	Flow-rate Nm ³ /h	catalyst Kg	Cooling water t/h	Nominal electric power (kW)	Actual power consumption
YCNC-10	10	30	0.6	6	1.6
YCNC-20	20	55	1.3	8	2.8
YCNC-30	30	75	1.8	10	4.3
YCNC-40	40	100	2.5	14	5.6
YCNC-50	50	125	3	18	6.7
YCNC-80	80	210	4.8	27	11
YCNC-100	100	240	6.3	32	14
YCNC-180	180	420	10.8	58	26
YCNC-200*	200	480	12	63	29
YCNC-250*	250	590	15	76	35
YCNC-300*	300	700	18	93	42
YCNC-350*	350	810	21	110	49.6
YCNC-400*	400	920	25	126	56
YCNC-500*	500	1180	30	160	70
YCNC-600*	600	1230	35	190	83
YCNC-700*	700	1360	42	220	96

YHNC HYDROGENATION NITROGEN PURIFICATION UNIT



Product features

★ Employing a purification process that combines two highly efficient catalysts, hydrogen deoxidation is conducted at room temperature to remove excess oxygen. This is followed by purification through adsorption and drying, precision filtration to eliminate impurities, water, and dust in the nitrogen gas, resulting in high-purity nitrogen. The technical indicators for high-purity nitrogen can achieve O₂ ≤ 2 ppm, H₂ ≤ 3 ppm, and dew point ≤ -60° C.

Technical data

Model	Flow-rate Nm ³ /h	catalyst Kg	Cooling water t/h	Nominal electric power (kW)	Actual power consumption
YHNC-10	10	0.22	0.8	2.5	1.0
YHNC-20	20	0.5	1.3	4.0	2.0
YHNC-30	30	0.73	2.4	7.5	3.8
YHNC-40	40	1.0	3.0	8.0	4.0
YHNC-60	60	1.5	5.0	11.0	5.5
YHNC-80	80	2.0	6.5	16.0	8.0
YHNC-100	100	2.2	8.0	20.0	10.0
YHNC-150	150	3.3	12.0	30.0	15.0
YHNC-180	180	4.0	14.5	36.0	18.0
YHNC-200	200	4.5	15.0	38.0	19.0
YHNC-300	300	6.6	24.0	60.0	30.0
YHNC-400	400	9.0	32.0	68.0	40.0
YHNC-500	500	11.0	40.0	90.0	52.0
YHNC-600	600	13.0	48.0	108.0	58.0
YHNC-800	800	18.0	64.0	140.0	78.0
YHNC-1000	1000	22.5	80.0	180.0	95.0
YHNC-2000	2000	45.0	160.0	350.0	180.0
YHNC-3000	3000	66.0	240.0	500.0	270.0

Note:

★ The data listed in this table is based on an ambient temperature of 32° C and nitrogen inlet purity of 99.5%.

★ Standard nitrogen purity can be selected within the range of 99% to 99.5%. Different parameters such as nitrogen consumption and cooling water consumption should be adjusted accordingly based on the nitrogen source's purity.

★ If the process requires hydrogen content to be around 3500 ppm, a dehydrogenator may not be necessary. In such cases, the power usage would be around 25% of the installed power, and cooling water consumption should be adjusted accordingly.

★ For equipment without a dehydrogenator (hydrogen content between 2500-3500 ppm), an automatic hydrogen addition system needs to be added.

★ If there are any changes to the data, the information provided later will prevail.

YNH AUTO PROPORTIONAL NITROGEN&HYDROGEN MIXER

Product features

The PLC operation controller automatically adjusts the hydrogen flow based on parameters collected from the trace hydrogen analyzer, pressure transmitter, and flowmeter, according to the set nitrogen mixing ratio. This is achieved using a mass flow controller to achieve effective mixing.

Technical data

- ★ The adjustment accuracy is ± 500 ppm or a nitrogen-hydrogen mixture gas with a content ranging from 0.1% to 8%.
- ★ Operating pressure is 0.3-1.3 MPa (as required).
- ★ Gas processing capacity is within 3000 Nm³/h.
- ★ This equipment can be used for an automatic nitrogen-hydrogen mixing system, as well as for nitrogen hydrogenation purification, achieving oxygen content in nitrogen below 10 ppm.

YH AIR COMPRESSOR WASTE HEAT RECOVERY HOT WATER MACHINE

Product features

★ **Green and Environmentally Friendly:** This unit utilizes the heat generated by the air compressor to obtain hot water. During the operation of the unit, there is no emission of exhaust gases, smoke, harmful gases, or pollutants. It operates quietly and does not pollute the environment.

★ **Safe and Reliable:** The operation of this unit does not generate toxic or harmful gases, and it does not affect the normal operation of the air compressor. As long as the air compressor is running normally, hot water can be generated for the use of company employees. The maintenance is simple, convenient, and durable. It is suitable for various brands of air compressor units.

★ **Highly Efficient and Energy-Saving:** Installing a heat recovery system for hot water on the air compressor unit can increase air production by 8% and extend the lifespan of the air compressor. Moreover, by utilizing the waste heat from the air compressor to generate hot water, there is no need for additional electricity costs, resulting in significant savings on operational expenses for the company.

Technical data

Model	YH-30A	YH-50A	YH-75A	YH-100A	YH-150A	YH-200A	YH-300A
Rated heat load	kW	13.2	20.8	33.6	44.5	68	92
Input power	W					50	
Outlet water temperature	°C					50-70	
Maximum flow	L/min	7.5	12.5	19	29	41	55
Maximum hot water output	m ³ /h	0.46	0.75	1.16	1.7	2.4	3.3
Applicable number of people	人	120-180	180-240	240-360	360-480	480-720	720-960
Oil connections	mm	DN25	DN25	DN25	DN25	DN32	DN40
Water connections	mm	DN25	DN25	DN25	DN25	DN32	DN40
Dimensions	mm	750×480×850			850×500×880		1000×520×950
Weight	Kg	70	80	95	105	120	370
							155



GAS-WATER SEPARATOR

Product features

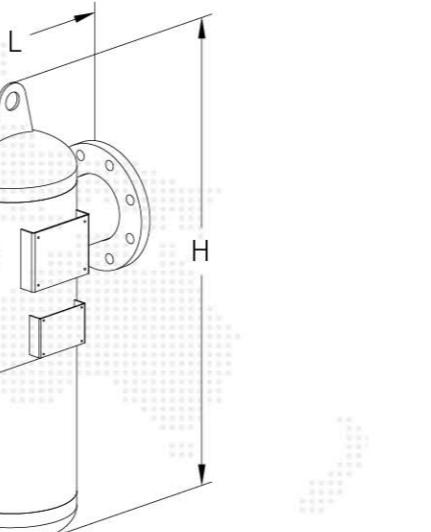
The gas-water separator is a compressed air purification product that does not require an internal filter element. It is installed at the front end of the compressed air filter to protect the filter from a large amount of liquid contamination coming from storage tanks and pipelines.

Technical data

Model	Flow-rate (m ³ /min)	In/out connections	Weight(kg)	Dimensions(mm)		
				Length	Width	Height
YFQ-010	1	G3/4"	9	135	113	320
YFQ-020	2	G3/4"	17	135	113	380
YFQ-060	6	G1-1/2"	21	169	180	503
YFQ-090	9	DN50	33	220	220	575
YFQ-120	12	DN50	37	345	285	721
YFQ-150	15	DN65	41	390	285	730
YFQ-210	21	DN65	44	390	285	862
YFQ-290	29	DN80	46	390	285	990
YFQ-360	36	DN80	51	390	285	1127
YFQ-420	42	DN100	60	440	230	830
YFQ-500	50	DN100	65	450	285	1050
YFQ-600	60	DN125	73	450	285	975
YFQ-700	70	DN125	76	450	285	780
YFQ-800	80	DN125	82	463	285	1060
YFQ-1000	100	DN150	98	463	285	1060
YFQ-1200	120	DN150	135	615	335	1085
YFQ-1500	150	DN150	147	665	455	1135
YFQ-1800	180	DN200	165	665	455	1150
YFQ-2100	210	DN200	210	770	500	1150
YFQ-2500	250	DN200	285	900	580	1620
YFQ-3000	300	DN250	350	1000	750	1700
YFQ-3500	350	DN250	400	1050	750	1700
YFQ-4000	400	DN300	450	1120	840	1750

Product benefits

- Reduces water-induced corrosion in pipelines, cylinders, electronic components, and other equipment.
- Protects filters from heavy liquid contamination.
- Improves air quality.
- Safeguards the pre-filters of refrigerated dryers and adsorption dryers.
- Efficiently removes liquids from all fluids.
- Reduces operational and maintenance costs.



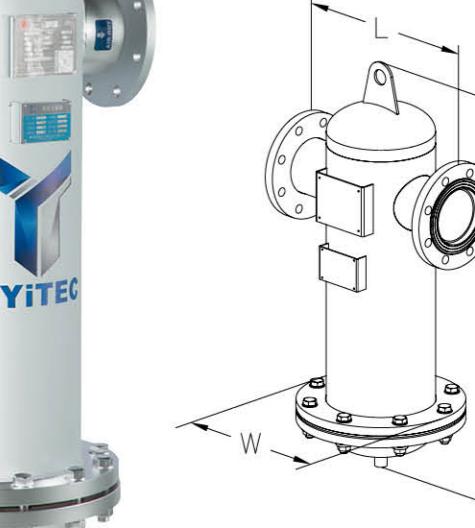
FILTER

Product features

This product series features high efficiency and low pressure drop. The filtration precision can be categorized into four levels: Q, P, S, and H, suitable for various dryers. Q-level filters can remove 99.9% of free water in a gaseous state, with a filtration particle size of $\leq 3\mu\text{m}$; P-level filters can remove 99.99% of free water and oil in a gaseous state, with a filtration particle size of $\leq 1\mu\text{m}$; S-level filters can remove 99.999% of free water and oil, with a filtration particle size of $\leq 0.01\mu\text{m}$; H-level, with an activated carbon oil vapor filter element, can remove 99.9999% of free water and oil, with a filtration particle size of $\leq 0.001\mu\text{m}$.

Technical data

Specifications Model	Flow-rate (m ³ /min)	Qty of filter element	In/out connections	Weight(kg)	Dimensions(mm)		
					Length	Width	Height
YFB-010	1	1	G3/4"	9	135	113	320
YFB-020	2	1	G3/4"	17	135	113	380
YFB-060	6	1	G1-1/2"	21	169	280	503
YFB-090	9	1	DN50	33	220	220	575
YFB-120	12	1	DN50	37	345	285	721
YFB-150	15	1	DN65	41	390	285	730
YFB-210	21	1	DN65	44	390	285	862
YFB-290	29	1	DN80	46	390	285	990
YFB-360	36	1	DN80	51	390	285	1127
YFB-420	42	2	DN100	60	440	340	830
YFB-500	50	2	DN100	65	450	395	1050
YFB-600	60	3	DN125	73	450	395	975
YFB-700	70	3	DN125	76	450	395	877
YFB-800	80	3	DN125	82	565	445	1100
YFB-1000	100	4	DN150	98	565	445	1100
YFB-1200	120	4	DN150	135	565	505	1259
YFB-1500	150	5	DN150	147	665	565	1285
YFB-1800	180	6	DN200	165	665	565	1285
YFB-2100	210	7	DN200	210	770	620	1285
YFB-2500	250	8	DN200	285	900	700	1620
YFB-3000	300	10	DN250	350	1000	870	1700
YFB-3500	350	11	DN250	400	1050	870	1700
YFB-4000	400	13	DN300	450	1120	970	1750



Operating pressure	0.6~0.8 MPa (0.8~3.0 MPa can be provided according to customer requirements)
Inlet temperature	0~50°C
Applicable medium	Air, nitrogen, oxygen

EFFICIENT DEGREASER

Product features

This product series integrates spiral separation, initial filtration, and fine filtration into a three-level system, effectively removing water, oil, and dust. The discharged wastewater is continuously expelled through a drainage system. The equipment's filtration precision can reach $0.1\mu\text{m}$, and the residual content of the outlet gas is less than $0.1\text{mg}/\text{m}^3$, ensuring reliable purification quality of the air source.

Technical data

Model	Specifications	Dimensions(mm)					
		Flow-rate (m ³ /min)	In/out connections	Drainage connection	Weight(kg)	Length	Width
YFY-009	0.9	3/4"	1/2"	15	285	285	740
YFY-015	1.5	3/4"	1/2"	18	285	285	760
YFY-020	2	3/4"	1/2"	11	285	285	780
YFY-028	2.8	3/4"	1/2"	25	285	285	800
YFY-038	3.8	1"	1/2"	28	285	285	840
YFY-070	7	1-1/2"	1/2"	32	285	285	855
YFY-100	10	DN50	1/2"	48	350	285	1100
YFY-150	15	DN65	1/2"	60	350	285	1105
YFY-210	21	DN65	1/2"	80	400	340	1430
YFY-290	29	DN80	1/2"	120	510	445	1230
YFY-360	36	DN80	1/2"	135	510	445	1380
YFY-420	42	DN100	1/2"	150	510	445	1530
YFY-500	50	DN100	1/2"	155	510	445	1530
YFY-600	60	DN125	1/2"	160	510	445	1530
YFY-700	70	DN125	1/2"	170	510	445	1530
YFY-800	80	DN125	1/2"	190	565	505	1540
YFY-1000	100	DN150	1/2"	210	565	505	1560
YFY-1200	120	DN150	1/2"	225	630	565	1560
YFY-1500	150	DN150	1/2"	270	700	615	1750
YFY-1800	180	DN200	1/2"	280	700	615	1750
YFY-2100	210	DN200	1"	320	760	670	1800
YFY-2500	250	DN200	1"	340	760	670	1800
YFY-3000	300	DN250	1"	370	820	730	1880
YFY-3500	350	DN250	1"	430	850	730	1880
YFY-4000	400	DN300	1"	470	880	770	1950

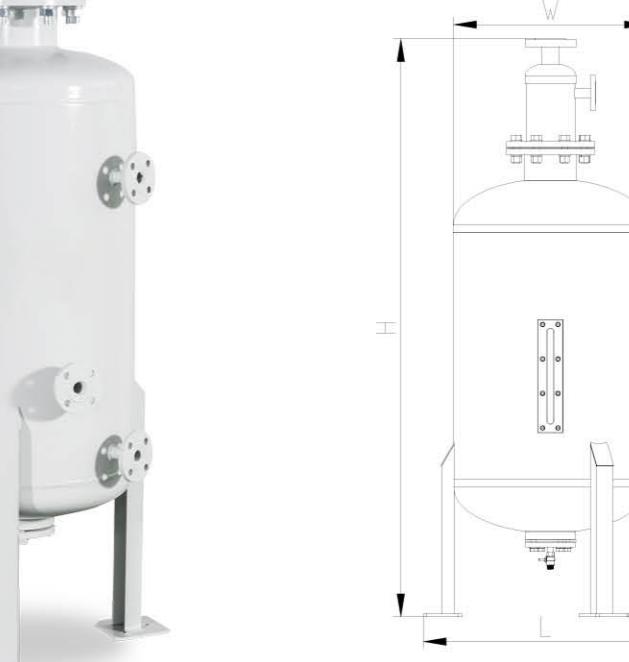


Operating pressure	0.6-0.8MPa(0.8-3.0MPa can be provided according to customer requirements)
Inlet temperature	0 ~ 50°C
Oil content of outlet gas	<0.1mg/m ³ (0.1-0.001mg/m ³ can be provided according to customer requirements)
Initial pressure drop	≤ 0.007MPa
Water removal rate	≥ 99.9%

WASTE OIL COLLECTOR

Product instruction

The waste oil collector is used to collect the waste oil-water mixture of all stages of post-processing equipment (including: cooler, oil- water separator, filter and air storage tank, etc.) of the air compressor. The waste oil collector is an industrial equipment that separates water and oil by utilizing the different densities of water and oil, through centrifugal separation, gravity separation, and long -term standing. Built-in waste oil collector, there is activated carbon, which can absorb impurities in oily waste water and prevent oily waste water impurities from polluting the internal and external environment of the compressed air station, and is equipped with a glass sight observation port, which can observe the liquid level of water and oil through the glass sight, and then regularly discharges water or oil for treatment and recycling.



Technical data

Model	Specifications	Dimensions(mm)								
		Internal volume (m ³)	Muffler connection	Water inlet	Overflow,water drain, oil drain	Sewage Outlet	Activated carbon fill weight (kg)	Weight(kg)	Length	Width
YOS-15	0.15	DN50	DN25	DN20	1/2"	25	116	645	645	1755
YOS-03	0.3	DN50	DN25	DN20	1/2"	42	165	795	770	1885
YOS-05	0.5	DN50	DN25	DN20	1/2"	65	220	795	768	1878
YOS-08	0.8	DN50	DN25	DN20	1/2"	95	280	885	845	2135
YOS-10	1	DN50	DN25	DN20	1/2"	120	320	1088	1024	2510
YOS-20	2	DN50	DN32	DN25	1/2"	235	505	1318	1248	2812
YOS-30	3	DN50	DN32	DN25	1/2"	340	670	1530	1460	3080
YOS-40	4	DN50	DN32	DN25	1/2"	380	752	1530	1460	3660

SELF-CLEANING AIR COMPRESSOR SUCTION FILTER

Product instruction

Compared to traditional air filters, the self-cleaning air filter features advantages such as a simple structure, convenient filter replacement, and long filter lifespan. During operation, the self-cleaning air filter automatically performs cyclic backwashing of the filter elements in a preset sequence. This process uses a minimal amount of compressed air for backwashing, resulting in a significant cleaning effect. Additionally, the air filtration precision can be adjusted according to actual needs. The filter unit boasts a large filtering area, high flow capacity, and minimal pressure loss. Its compact, aesthetically pleasing, and sturdy design allows for easy installation, making it the preferred choice for air filtration devices.

Product features

- ★ The system utilizes a PLC controller and a LCD display with a user-friendly interface in Chinese.
- ★ It performs automatic backwashing cycles based on the set pressure differential value and time period to maintain the cleanliness of the filter cartridges. A manual backwashing function is also provided for easy debugging.
- ★ Initial pressure loss: ≤ 270Pa.
- ★ Equipped with a pressure loss digital display controller, the display can be placed indoors. The parameters for pressure loss at the start of backwashing can be set, and it includes an alarm output.
- ★ The pressure loss display controller can provide a 4mA-20mA DC signal to the compressor control system.

Technical data

Model	Specifications Filtered air volume(Nm ³ /min),suction state	Initial resistance (Pa)	Filtration Efficiency/ Diameter	Blowback pressure (MPa)	Air consumption m ³ /min)	Electric power(W)	Length	Width	Height	Weight(kg)
YJF-40	40	≤ 150			0.1	60	930	830	1600	330
YJF-80	80	≤ 150			0.1	60	930	1230	1600	405
YJF-120	120	≤ 200			0.1	100	1320	1230	1600	440
YJF-160	160	≤ 200			0.1	100	1350	1630	1750	475
YJF-180	180	≤ 270			0.1	100	1400	1755	2200	540
YJF-240	240	≤ 270	99.96%/1μm	0.5-0.8	0.1	100	1400	2155	2200	640
YJF-300	300	≤ 270	99.99%/2μm		0.2	200	1800	2155	2200	680
YJF-400	400	≤ 270	100%/3μm		0.2	200	1800	2555	2200	1010
YJF-500	500	≤ 270			0.2	200	2200	2555	2200	1320
YJF-600	600	≤ 270			0.2	200	2200	2955	2200	1870
YJF-720	720	≤ 270			0.2	200	2600	2955	2200	2120
YJF-840	840	≤ 270			0.2	200	2600	3355	2200	2860



REAR COOLER (WATER COOLED)

Product instruction

Shell and tube rear cooler, utilizing high-efficiency stainless steel heat exchange tubes. Compressed air flows through the tube side, while cooling water flows through the shell side. Cooling water flows between the tube columns, and baffle plates in the middle cause the cooling water to flow in a zigzag pattern. The cooling effect is enhanced by employing double-pass or four-pass flow configurations.

Product features

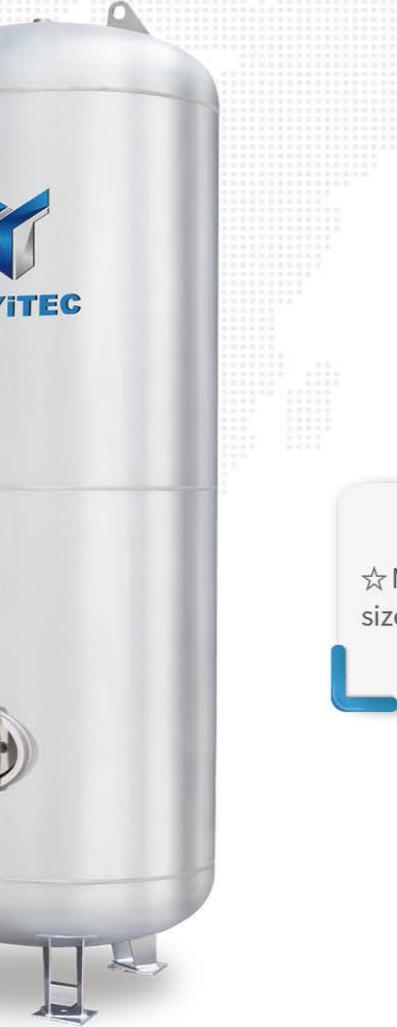
- 1.Cooling water temperature ≤ 32° C.
- 2.The processed gas quantity in the table is based on the condition where the difference between outlet air temperature and inlet water temperature is 5° C.
- 3.Pressure drop on the gas side: ≤ 0.01 MPa; pressure drop on the water side: 0.02-0.03 MPa.
- 4.Maximum inlet air temperature: 180° C; maximum operating pressure: 10.0 MPa.



Technical data

Model	Specifications	Capacity (m ³ /min)	Cooling water circulation (m ³ /h)	In/out connections	Cooling water connections	Net weight(kg)	Dimensions(mm)		
							Length	Width	Height
YFYL-20		20	5.8	DN65	G1-1/2"	180	332	288	1730
YFYL-25		25	7.5	DN65	G1-1/2"	220	332	288	1730
YFYL-30		30	8.5	DN80	G1-1/2"	280	383	339	1800
YFYL-35		35	10.5	DN80	G2"	310	473	377	1990
YFYL-40		40	11.5	DN100	G2"	320	473	377	1990
YFYL-50		50	14.5	DN100	G2"	340	473	377	1990
YFYL-60		60	17.5	DN125	DN65	370	527	420	2010
YFYL-80		80	23	DN125	DN65	400	527	420	2010
YFYL-100		100	29	DN150	DN65	480	684	637	2280
YFYL-120		120	35	DN150	DN80	520	684	637	2280
YFYL-150		150	44	DN150	DN80	560	704	637	2290
YFYL-180		180	52	DN200	DN80	580	716	663	2705
YFYL-200		200	58	DN200	DN100	660	766	713	2765
YFYL-250		250	73	DN200	DN100	720	766	713	2850
YFYL-300		300	87	DN250	DN100	760	815	760	2850
YFYL-350		350	102	DN250	DN125	885	815	760	2935
YFYL-400		400	116	DN300	DN125	1020	860	810	3050

AIR STORAGE TANK



★ Customized non-standard pressure vessels and heat exchangers are available

★ Meeting customer requirements for various sizes and different materials.

ISO8573.1

«Compressed air for general use Part 1, Contaminants and quality classes»

→ Classified compressed air quality classes

Solid Particle Grade	Maximum particle size μm	Maximum particle concentration mg/m ³	Moisture level	Maximum pressure dew point ° C	Total Oil Grade	Maximum oil (oil droplets, suspended droplets and steam) mg/m ³
1	0.1	0.1	1	-70	1	0.01
2	1	1	2	-40	2	0.1
3	5	5	3	-20	3	1
4	15	8	4	3	4	5
5	50	10	5	7	5	25
			6	10		
			7	不规定		

(1)Particle size based on a filtration ratio $\beta=20$.
(2)Particle concentration corresponds to an absolute pressure of 1 bar, temperature of 20 ° C, and relative steam pressure of 0.6. Note that when the pressure is higher than atmospheric pressure, the concentration of pollutants will increase accordingly, and this should be indicated in the measurement method.

(1)When a lower dew point is required, it must be specified.
(2)The allowable maximum moisture content varies according to the intended use of the compressed air.
(3)The minimum accuracy of the measurement method is as defined in ISO 7183.

(1)Oil content corresponds to an absolute pressure of 1 bar, temperature of 20° C, and relative steam pressure of 0.6.
(2)The air quality discharged by oil-free lubricated compressors is influenced by the quality of the intake air and the compressor's structure.
(3)The minimum accuracy of the measurement method is defined by the specified grade and is 20%.

Corresponding data between pressure dew point and atmospheric dew point

→ Check atmospheric dew point by pressure dew point and air pressure

PDP ° C	Air pressure MPa (absolute pressure)						
	0.4	0.5	0.6	0.7	0.8	0.9	1
-70	-78.8	-80.2	-81.3	-82.2	-83.0	-83.7	-84.3
-60	-69.7	-71.2	-72.4	-73.4	-74.3	-75.0	-75.7
-50	-60.6	-62.2	-63.6	-64.7	-65.6	-66.4	-67.1
-40	-51.6	-53.3	-54.7	-55.9	-56.9	-57.8	-58.6
-30	-42.5	-44.4	-46.0	-47.3	-48.4	-49.3	-50.2
-20	-33.6	-36.6	-37.3	-38.7	-39.8	-40.9	-41.8
-10	-24.6	-26.8	-28.6	-30.1	-31.4	-32.5	-33.5
0	-15.7	-18.1	-20	-21.6	-23.0	-24.2	-25.2
10	-7.70	-9.50	-12.5	-14.2	-15.7	-16.9	-18.0

→ Check the corresponding pressure dew point from the atmospheric dew point and air pressure

Atmospheric dew point ° C	Air pressure MPa (absolute pressure)						
	0.4	0.5	0.6	0.7	0.8	0.9	1
-100	-93.0	-91.8	-90.8	-90.0	-89.3	-88.6	-88.0
-90	-82.2	-81.5	-79.7	-78.8	-78.0	-77.2	-76.6
-80	-71.3	-69.8	-68.6	-67.5	-66.6	-65.8	-65.0
-70	-61.7	-58.7	-57.3	-56.1	-55.1	-54.2	-53.4
-60	-49.4	-47.2	-46.0	-44.7	-43.5	-42.5	-41.6
-50	-38.3	-36.3	-34.6	-33.2	-31.9	-30.8	-29.8
-40	-27.2	-25.0	-23.3	-21.6	-20.2	-19.0	-17.9
-30	-16.1	-13.6	-11.6	-9.9	-8.10	-7.00	-5.7
-20	-4.80	-2.20	0.00	2.20	4.00	5.70	7.20
-10	7.30	10.6	13.4	15.8	17.9	19.8	21.5
0	20.5	24.2	27.2	29.9	32.2	34.3	36.2
10	32.3	36.3	39.7	42.4	45.2	47.5	49.6