SUPERIOR
QUALITY
INTELLIGENT
FUTURE

GESO SYSTEMS

AFTER PURIFICATION
TREATMENT
EQUIPMENT

Shanghai Geso Systems Industrial PLC

ISO9001

GESO SYSTEMS

Shanghai Geso Systems Industrial PLC
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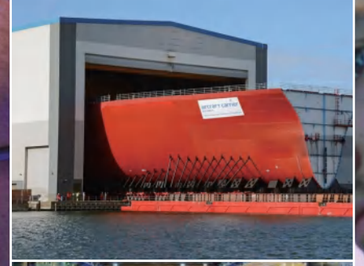
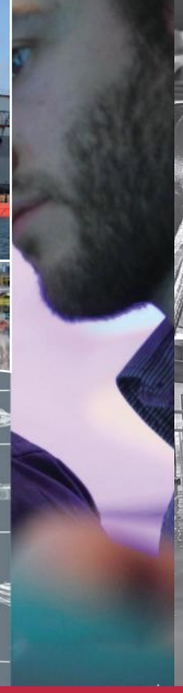
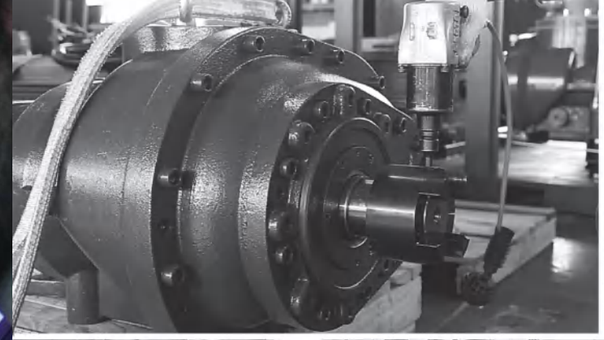






Company Profile

Superior Quality and Intelligent Future

Geso is a global aerodynamic systems group of companies,wholly owned by BAE GESO SYSTEMS,headquartered in London,United Kingdom,and a leader in the European gases sector.

BAE Systems,the parent company of Geso Group,was founded in 1871 and is committed to the research,development and production of industrial gases.In 2002,BAE Systems set up a representative office in China,importing products from the United Kingdom to China and deploying after-sales service offices in China. in 2018 BAE Systems established a wholly-owned company "Shanghai Geso systems Industrial PLC and invested 11 million U.S.dollars to build an intelligent production and manufacturing center.committed to R&D,production and market expansion.Our products include energy-saving screw air compressors,nitrogen/oxygen generators,dry oil-free air compressors,water-injected oil-free air compressors,mobile air compressors,process gas compressors,medium and high pressure screw air ompressors,centrifugal air compressors,etc,which are widely used in various industrial production.The group has three companies, "Shanghai Geso systems Industry PLC","Jiangsu Geso Equipment Co.Ltd.","Shangahi Geso Energy Equipment Co.Ltd."with over 30 branches and offices and more than 200 distributors nationwide,providing high-quality intelligent and energy-saving air compressor system solutions for various industries energy-saving programs to reduce users'cost to ensure their satisfaction with our energy-saving effect.We have been selected as one of the top ten brands for three consecutive years by third-party organizations such as China Brand Network.As a global aerodynamic system provider, we continue to lead the industry.

GESO SYSTEMS

Inheriting the advanced technology and production management mode of BAE Systems and combining the demands of the Chinese market to ensure users' production safety, Geso Group strictly Geso Group adhere to the group's product development process, with each new product undergoing 40 test projects and 3,000 hours of durability test to ensure quality from the source. Selecting IE5 energy-saving motors, ABB electronic control system, and threestage frequengy conversion energy-saving system to reduce energy consumption and CO2 emissions, meanwhile, through the optimized design and lowering the speed of the machine, it saves the cost for the customers and realizes small investment and big power. Self-developed intelligent technology(IoT) enables convenient interconnection and management of air compressors via computers, smartphones, and iPads, achieving automatic precise supply and meeting the demand for an unattended automation experience.

As a wholly foreign-owned enterprise, it is also the base authorized by British BAE Systems to produce and assemble screw compressors. We have obtained 1SO9001 quality system certification, ISO45001 occupational health and safety management system certification, ISO14001 environmental management system certification, certificate 0 oil-free certification, EU CE certification, energy efficiency certification of air compressors, 3A integrity system certification and other certificates, which fully guarantee the safety of users.

Through years of high-speed development, Geso Group has service outlets in more than 200 cities across the country, 24-hour service hotline response and internet warranty service, and thirteen direct spare parts warehouses to provide customers with repair services in a more rapid and timely manner. After-sales service is not limited to the

product itself, but also includs compressed air system testing and optimization, air compressor intelligent air supply control, waste heat recovery, frequency conversion, energy-saving piping, cables, construction of turnkey projects and a series of complete set of systematic services. Based on our service concept,

we promise lifelong exemption from labor charges, providing free training services for customers, regularly testing the data of users' energy efficiency reports, and developing energy-saving plans to reduce users' costs. As a group of companies, we carry the mission of innovation, quality, and service. Whether it is energy saving and environmental protection or intelligence, we always adhere to customer experience and the recognition of hardworking individuals as our core focus. Geso aims to build a globally recognized brand of fluid machinery and continue to be the industry leader in high-end energy-saving products.

Milestones

1871

The British head office was established as “BAE Marconi Electronic Systems” ,located in London, United Kingdom. In the same year, the first reciprocating compressor product was developed and produced, dedicated to research and development in the field of industrial gases.

1910

The company's main business has expanded to multiple fields: air compressors, nitrogen/oxygen air separation equipment, and integrated electronic products, while focusing on the research and development of its core product, the single-cylinder reciprocating air compressor, and mass production.

1999

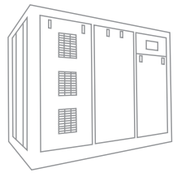
"BAE GESO SYSTEMS LTD." was established and developed the first twin-screw air compressor. Geso Systems became the brand name for shrinking machines. In 2000, the company developed and produced the first dry oil-free screw air compressor to the market, widely used in the medical, food, and electronics industries in Europe.

2000

The company developed and produced the first dry oil-free screw air compressor into the market,and is widely used in the European medical,food and electronics industries.

2002

BAE Group established a representative office in China, importing complete machine equipment originally produced in the United Kingdom for the Chinese market expansion. We have successfully entered the Chinese aerospace and high-precision manufacturing sectors.



2006

A total of 26 after-sales service operation networks have been established in China's provincial capital cities, fully deploying an after-sales service system to ensure rapid response and protect the user's experience and production safety.

2016

A warehousing and logistics center was established in Shanghai, China, to ensure the timely supply of complete machines and spare parts for the Chinese market.

2018

The British BAE Group registered and established "Shanghai Geso Systems Industrial PLC" in China and simultaneously set up a compressor assembly plant in Shanghai, China, with a registered capital of 11 million US dollars.

2021

Shanghai Geso Systems Industrial PLC. invested in and established "Jiangsu Geso Equipment Co., Ltd." and set up a nitrogen/oxygen air separation equipment sales company in Suzhou. In the same year, the second phase of the project to produce 300 sets of nitrogen/oxygen equipment was initiated at the Shanghai factory, along with the R&D and production of nitrogen/oxygen control equipment.

2022

Investment was made to establish "Shanghai Geso Energy Equipment Co., Ltd." and register some of the original offices in provincial capitals as branches, completing the separation of production and sales, and achieving efficient and convenient national market development and service.

Certificates

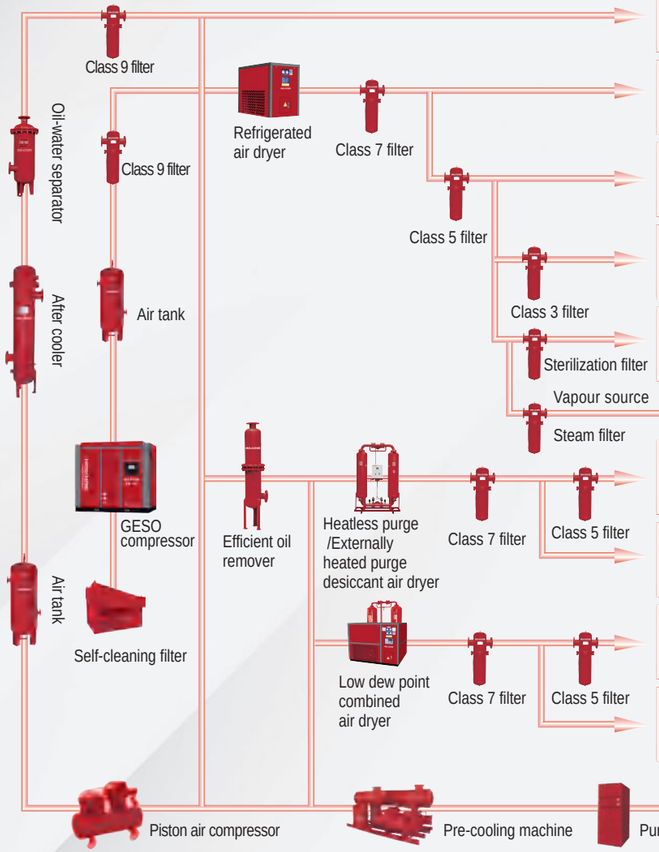
CE certfiate-EMC

CERT IND-PC-C2108017

CE certfiate-MD

CERTIFICATES

Compressed Air Purification System Configuration



Removed moisture:99% Oil content:5ppm Dusty particle diameter:<3um	Air tools,pneumatic chuck,general clean air gun
Atmospheric dew point:-23℃ Oil content:1ppm Dusty particle diameter:<1um	Pneumatic machinery,electroplating spray painting and other process that needs compressed air
Atmospheric dew point:-23℃ Oil content:0.01ppm Dusty particle diameter:<0.01um	Advanced spraying, pneumatic transmission, pneumatic bearing,gauges
Atmospheric dew point:-23℃ Oil content:0.003ppm Dusty particle diameter:<0.01um	Pharmacy,food,industry, breathing air,deodorization, degermination
Atmospheric dew point:-23℃ Oil content:0.01ppm Dusty particle diameter:<0.01um	Dairy product,dental instruments, biological engineering,food processing,pharmaceuticals industry
Pressure dew point: 20-70℃ Oil content:0.01ppm Dusty particle diameter:<0.01um	Electricity power, chemical engineering, precision machinery
Pressure dew point: 20-70℃ Oil content:0.01ppm Dusty particle diameter:<0.5um	Pneumatic instrument, textile and chemical fiber, environmental protection industry
Pressure dew point:-40-70℃ Oil content:0.01ppm Dusty particle diameter:<0.01um	Rubber sheet,electronic components air drying
Pressure dew point:-40-70℃ Oil content:0.01ppm Dusty particle diameter:<1um	Biological engineering,advanced spraying,electronic industry
Oxygen production,ammonia production industry	

Note

- The above chart is for reference only; it can be adjusted according to actual conditions.
- According to the actual situation, the dryer is generally installed after the aftercooler or buffer air storage tank to avoid its overload work and its impulse airflow impact.
- Dryer compressed air inlet and outlet should be installed with a bypass valve.
- A space of not less than l meter should be left around the dryer for ventilation, heat dissipation, and maintenance.
- The driver will operate continuously under rated operating conditions (i.e.inlet temperature 38°C, inlet pressure 7kg/cm² ,relative humidity 100%, and maximum load 100%), and the outlet dew point will be guaranteed to be at the original set value.

The correct choice of a refrigerated dryer must consider the actual flow of compressed air, pressure, temperature, ambient temperature, and the required pressure dew point temperature. When the pressure dew point of compressed air is below zero, the suction dryer is the first choice of equipment to deal with compressed air.

Compressed Air
Purification Equipments

High temperature air-cooled refrigeration dryer

High temperature water-cooled refrigeration dryer

Compression Waste Heat Suction Dryer

Low Dew point Combination Dryer

Zero hir Consumption Blast Heat Dryer

Wodule Dryer

Heatless adsorption dryer

Heated purge adsorption dryer

Waste oil collector

oil-water separator

High efficiency degreaser

Precision filters

Solutions To Reduce
Energy Consumption

- The dryer is a reliable and low-energy compressed air treatment solution: In order to prevent condensate precipitation in the compressed air and the resulting corrosion and equipment damage, we must dry the compressed air to remove the moisture from the compressed air, thus reducing the hazards to the air piping system.
- Increase filtration equipment to improve the compressed air purification system installation: Adding filtration equipment to the compressed air system will further improve the quality of compressed air, and at the same time reduce the possibility of damage to pneumatic tools and air piping.

01

Hidden Hazards in Untreated Compressed Air

Compressed air is an important power source widely used in all areas of industry. When natural air is compressed, the amount of water vapor and dust contained per unit volume rises dramatically. At the same time, the compression process makes the water vapor in the air condense with the oilmist into small droplets, and then mixed with a high concentration of dust to form a mostly acidic sludge. If there is no compressed air after treatment equipment, these acidic sludge will enter the air pipeline, corrode the pipeline material, damage pneumatic tools and equipment, and ultimately cause product quality to decline, production to stagnate, maintenance costs to increase, and pose health and safety threats.

02

Poor Compressed Air Quality Will Increase The Cost Of Use

If acidic sludge gets into the compressed air lines, the following problems it causes will soon appear:

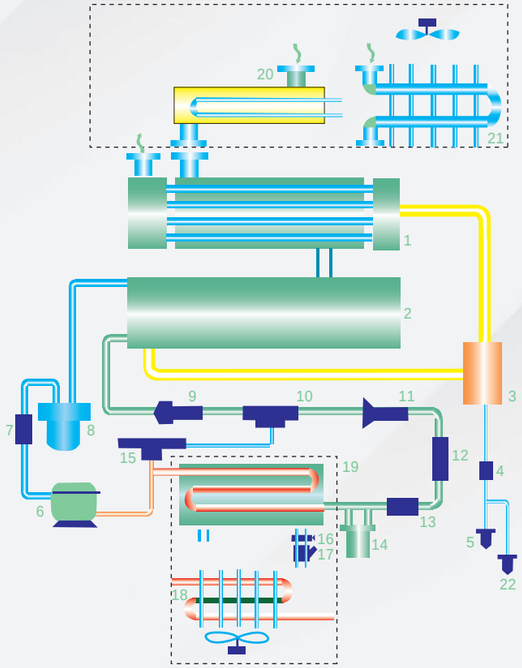
- Pneumatic tools and equipment have a reduced service life,accelerating the frequency of their damage.
- End products and other materials that may come into contact with compressed air will be damaged or have a lower quality rating.
- Compressed air lines are corroded and may leak, wasting compressed air and energy. In fact, a leak of only 3mm will lose 3.7kW of energy, which means an additional ¥18,000 per year in energy costs.

03

Qualified Drying System Should Have The Conditions

- Selection of purification systems is based on the rated air pressure and pressure Select the type of dryer based on the inlet temperature, rated gas volume, rated pressure value, and the surrounding ambient temperature.
- Based on the dryness, i.e., the dew point value, select what type of dryer to configure.
- Based on the level of oil content and dust content, select the number of stages of filtration and confirm the type of filter.
- Confirm the piping configuration and select the piping material based on the dew point, oil content, and dust content.
- In workplaces with a large amount of environmental dust, self-cleaning filters should be installed to protect the air compressor and ensure the purification effect.
- The process of compressed air drying and purification is mainly the process of drying and filtration, and it is also a process of decreasing temperature. Temperature plays an important role in purification, inlet temperature, ambient temperature directly affects the drying, purification effect.
- In the whole compressed air system, the setting of the storage tank also plays an important role.
- Because the storage tank has the role of stabilizing the airflow, cooling, sewage, and storing the gas, the storage tank should be set up between the compressed air and the drying and purifying equipment, and between the drying and purifying equipment and the terminal air point.
- Important systems add waste oil collectors to collect the oil and discharge the water that meets environmental requirements directly to the river.

Refrigerated
Air Compressor Dryer



Flow chart

1. Heat exchanger
2. Evaporator
3. Gas/liquid separator
4. Jam-prevent drain filter
5. Manual draining valve
6. Refrigerated compressor
7. Aspirating filter
8. Vaporization
9. Separator
10. Gas/liquid mixer
11. Thermal expansion valve
12. View monitor
13. Dry filter
14. Tank
15. Hot gas by-pass valve
16. Water adjustable valve
17. Water filter
18. Condenser (Air-cooling)
19. Condenser (Water-cooling)
20. Pre-cooler (Water-cooling)
21. Pre-cooler (Air-cooling)
22. Auto-drainer

Features of Refrigerated Dryer

To meet your needs in different working conditions

Refrigerated dryers are divided into air-cooled (room temperature, high temperature), water-cooled (room temperature, high temperature), low temperature, eco-friendly, and frequency conversion types.

01

Easy Installation

Single electrical interface, ready to install

02

Thorough gas-liquid separation

Adopting independent patented filtering gas-liquid separator with high separation efficiency.

03

Stable performance

Featuring threaded pipes (or light pipes) with a high heat transfer coefficient and using countercurrent heat return heat exchange, refrigerated dryers ensure efficient condensate separation. Through the drain valve, condensate is discharged outside the machine, preventing ice blocking and ensuring no moisture enters the compressed air pipeline.

04

Air Cooled Refrigerated Dryer

Intake temperature: ≤ 80℃
Cooling mode：Air cooling
Ambient temperature：≤ 38℃
Pressure dew point：2～10℃
Intake pressure：0.7～1.0Mpa
Pressure loss：≤ 0.02Mpa
Refrigerant：R22、R407、R134a

Technical parameter

Model	Capacity (Nm^3/min)	Power supply (V/Hz)	Whole achine power (kW)	Air connection	Net weight (kg)	Dimensions（mm）		
						L	W	H
GD015GF	1.5	220/50	0.85	Rp1"	60	750	400	700
GD020GF	2.6	220/50	1 .0	Rp1"	80	800	450	730
GD040GF	4.0	220/50	1.25	Rp1.5"	105	850	475	800
GD065GF	6.5	220/50	1.75	Rp1.5"	136	950	500	880
GD085GF	8.5	220/50	2.0	Rp2"	165	1060	560	983
GD115GF	11.0	380/50	3.0	Rp2"	195	1180	630	1092
GD138GF	13.8	380/50	3.5	Rp2"	255	1180	630	1086
GD175GF	17.0	380/50	4.0	DN65	300	1240	670	1188
GD230GF	23.0	380/50	5.0	DN80	385	1420	790	1340
GD270GF	27.0	380/50	6.0	DN80	400	1650	820	1370
GD300GF	30.0	380/50	8.0	DN80	550	1650	820	1370
GD350GF	35.0	380/50	8.0	DN80	550	1650	820	1370
GD450GF	45.0	380/50	10.0	DN100	630	1850	920	1550
GD550GF	55.0	380/50	12.0	DN125	680	1980	930	1826
GD650GF	65.0	380/50	13.5	DN125	720	2080	930	1834

Note: GD-015GF, where G stands for high temperature and F stands for air-cooled.

Water Cooled Refrigerated Dryer

Intake temperature：≤ 80℃
Pressure loss：≤ 0.02Mpa
Pressure dew point：2～10℃
Refrigerant：R22、R407、R134a
Intake pressure：0.7～1.0Mpa
Cooling mode：Water cooling
Cooling water inlet temperature：≤ 32℃

Technical parameter

Model	Capacity (Nm^3/min)	Whole achine power (kW)	Cooling water flow (Nm^3/min)	Air connection	Cooling water inlet and outlet diameter	Weight (kg)	Dimensions（mm）		
							L	W	H
GD175GW	17	4	3.7	DN65	Rp1"	360	1240	670	1188
GD230GW	23	5	4.5	DN80	Rp1"	420	1420	790	1340
GD270GW	27	6	6.0	DN80	Rp1"	550	1650	820	1370
GD300GW	30	8	7.4	DN80	Rp1 1/2"	640	1650	820	1370
GD350GW	35	8	7.4	DN80	Rp1 1/2"	640	1650	820	1370
GD450GW	45	10	9.0	DN100	Rp1 1/2"	730	1850	920	1550
GD550GW	55	12	11.0	DN125	Rp1 1/2"	830	1980	920	1816
GD650GW	65	13.5	12.5	DN125	Rp2"	1020	2080	930	1834
GD850GW	85	20	14.5	DN125	Rp2"	1600	2480	1350	2070
GD1100GW	110	25	16.5	DN150	Rp2"	2400	2480	1440	2070
GD1200GW	130	30	18.5	DN150	Rp2 1/2"	2560	2450	1440	1900
GD1500GW	150	37	21.5	DN200	Rp2 1/2"	2750	2650	1550	2193
GD1800GW	180	45	24.5	DN200	Rp2 1/2"	3250	2720	1650	2260
GD2000GW	210	50	36.0	DN200	DN80	3600	3450	1725	2380
GD3000GW	300	80	48.0	DN250	DN80	4250	3800	1980	2580
GD4000GW	400	100	60.0	DN300	DN100	4560	4200	2150	2670

Note: GD-015GW, where G stands for high temperature and W stands for water-cooled.

Adsorption
Compressed Air Dryer

The features of adsorption compressed air dryers

01 With stable outlet pressure and dew point： 30% additional adsorbent is used to compensate for the natural aging of the adsorbent, thus stabilizing the pressure dew point.

02 Diverter design eliminates gutter flow: an excellent performance diverter is adopted, ensuring that the compressed air contacts the adsorbent uniformly, eliminating gutter flow.

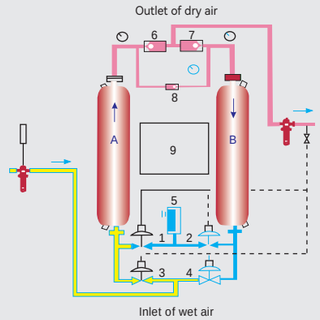
03 Reliable performance of the valve parts: using a nationally patented combination of valves, with a control system using a single-chip microcomputer for automatic control, ensuring stable performance.

04 Unique layering technology: based on the adsorption characteristics of alumina and molecular sieves, a layering technology is developed. The air first passes through the alumina for preliminary drying, reducing the water content, and then through the molecular sieve for in-depth drying, achieving air quality with a low dew point.

Working principle

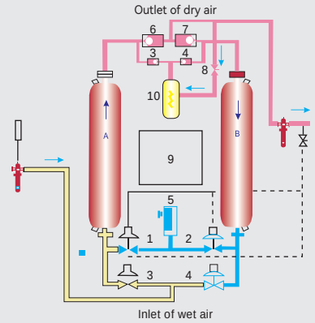
Adsorption compressed air dryer achieves the drying effect through pressure change (variable pressure adsorption principle). The two towers work in cycles, continuously providing dry compressed air to the user's air system. it can be divided into non-thermal regeneration adsorption dryer and micro-thermal regeneration adsorption dryer.

Heatless adsorption dryer process flow



A, B Adsorption tower	1, 2, 3, 4 switching valves	5 Muffler
6, 7 Check valves	8 Throttle Valves	9 Program controller

Process flow of micro heat adsorption dryer



A, B Adsorption tower	1、2、3、4 Switching Valves	5 Muffler	8 Throttle Valves
3, 4, 6, 7 Check valves	9 Program controller	10 Electric heaters	

Heatless regeneration adsorption dryer

The heatless regenerative adsorption dryer utilizes variable pressure adsorption" to achieve the drying effect. As the ability of air to hold water vapor is inversely proportional to the pressure, a portion of the air after drying (called regeneration air) undergoes decompression and expansion to atmospheric pressure. This pressure change makes the expanded air become drier, and then let it flow through the desiccant layer that needs to be regenerated without connecting to the airflow (i.e., the desiccant tower that has absorbed enough water vapor), The dry regeneration air will extract the moisture from the desiccant and discharge it, thus achieving dehumidification.

Regenerated gas volume： ≤ 8～14%
Working pressure： 0.6～1.0Mpa
Inlet oil content： ≤ 0.1mg/m^3
Pressure dew point： -20℃～-40℃
Work cycle： T=4～20 Minutes
Intake temperature： 0℃～40℃
Desiccant： Activated alumina or molecular sieve

Technical parameter

Model	Capacity (Nm^3/min)	Air connection	Net weight (kg)	Dimensions（mm）		
				L	W	H
GD15WR	1.5	ZG1"	125	755	355	1455
GD26WR	2.6	ZG1"	180	755	355	1645
GD40WR	4	ZG1.5"	285	1005	505	1523
GD65WR	6.5	ZG1.5"	420	1005	455	1985
GD85WR	8.5	ZG2"	550	1105	505	1915
GD110WR	11	ZG2"	650	1105	505	2055
GD138WR	13.8	ZG2"	750	1205	555	2105
GD170WR	17	DN65	860	1255	505	2105
GD230WR	23	DN80	965	1405	555	2225
GD250WR	25	DN80	1250	1455	555	2485
GD320WR	32	DN80	1575	1505	605	2555
GD400WR	40	DN100	1758	1905	885	2715
GD500WR	50	DN125	2300	1985	1055	2771
GD600WR	60	DN125	2500	1985	1155	2785
GD800WR	85	DN125	2800	2185	1285	2825
GD1100WR	110	DN150	3650	2655	1505	2935
GD1400WR	140	DN200	5200	2805	1805	3005
GD2100WR	210	DN250	7250	2905	2005	3205

Note: WR in GHEt15WR stands for heatless

Heated purge regenerated dryer

The heated purge regeneration adsorption dryer combines the advantages of pressure swing adsorption and temperature swing adsorption. It adsorbs water at room temperature and high partial pressure of water vapor. The adsorbent captures water during the adsorption process and removes it during regeneration through a combination of thermal diffusion from heated purge air (heated by dry air) and high pressure difference.

Regenerated gas volume：≤ 4～6%
Working pressure：0.6～1.0Mpa
Inlet oil content：≤ 0.1mg/m³
Pressure dew point：-20℃～-70℃

Work cycle：T=60～180 Minutes
Intake temperature：2℃～40℃
Desiccant：Activated alumina or molecular sieve

Technical parameter

Model	Capacity (Nm³/min)	Heat power (kW)	Air connection	Net weight (kg)	Dimensions（mm）		
					L	W	H
GD15MR	1.5	1.2	ZG1”	145	755	355	1455
GD26MR	2.6	1.5	ZG1”	195	755	355	1645
GD40MR	4.0	2.1	ZG1.5”	285	1005	505	1523
GD65MR	6.5	3.0	ZG1.5”	420	1005	455	1985
GD85MR	8.5	4.0	ZG21.10”	550	1005	505	1915
GD110MR	11	4.5	ZG21.10”	650	1155	505	2055
GD138MR	13.8	5.0	ZG21.10”	750	1205	555	2105
GD175MR	17.5	5.5	DN65	860	1255	505	2105
GD230MR	23	6.0	DN80	965	1405	555	2225
GD250MR	25	8.0	DN80	1250	1455	555	2485
GD300MR	32	10	DN80	1575	1505	605	2555
GD450MR	45	12	DN100	1758	1905	885	2715
GD550MR	55	15	DN125	2300	1985	1055	2771
GD650MR	65	18	DN125	2500	1985	1155	2785
GD800MR	85	24	DN125	2800	2185	1285	2825
GD1000MR	110	30	DN150	3650	2655	1505	2935
GD1400MR	140	45	DN200	5200	2805	1805	3005
GD2100MR	210	60	DN250	7250	2905	2005	3205

Note: MR in GHE15MR stands for heated purge

Modular adsorption dryer

Working principle	The modular adsorption dryer operates on the principle of pressure swing adsorption, using the capillary action of the adsorbent material to capture water vapor and achieve drying.

Features

1. The structure is reasonably designed with an attractive and generous appearance; it can flexibly accommodate large gas flows.
2. The cylinder is made of high-strength aluminum alloy, ensuring the gas remains free from secondary contamination.
3. The flexible and stable pneumatic valve ensures reliable operation and long service life.
4. The sufficient adsorbent filling volume ensures the stability of the outlet air dew point.
5. The high-quality muffler effectively reduces product noise.
6. Optimized program control ensures small airflow pulses and stable air pressure without fluctuations.
7. It is easy to operate and maintain, with low maintenance costs and simple installation.

Technical Parameters

S/N	Technical performance item	Unit	Technical parameters
1	Working pressure	MPa	≤ 1.0(1.6)
2	Regeneration gas volume	%	3~8
3	Pressure drop	MPa	≤ 0.03
4	Inlet temperature	℃	≤ 45
5	Exhaust temperature	℃	≤ 38
6	Pressure dew point	℃	-20~- 0
7	Inlet oil content	mg/M³	≤ 0.1
8	Power supply	V/Hz	220/50 或 380/50
9	Adsorbent	/	Molecular sieve
10	Adsorbent service life	Years	≥ 2
11	Switching time	min	1960
12	Controller function	Micro-heat type	It includes parameter settings, temperature display, switching time display, intelligent heating, dew point control, remote/local control, fault alarms, RS-485 communication, and other functions.

Select the model processing capacity
=
Actual processing capacity

Pressure correction factor x temperature correction factor x dew point correction factor

Pressure(MPa)	0.4	0.5	0.6	0.7	0.8	0.9	1	1.1	1.2	1.3	1.4	1.5	1.6
Pressure correction factor	0.62	0.75	0.87	1	1.12	1.25	1.37	1.5	1.62	1.75	1.87	2	2.12

Inlet temperature	20	25	30	35	40	45	50
Temperature correction factor data	1.07	1.06	1.04	1	0.88	0.78	0.55

Pressure dew point (℃)	-40	-70
Dew point correction factor	1	0.7

Note: The processing capacity is based on the operating conditions of 0.7MPa pressure and 35℃ temperature at the dryer inlet; for other operating conditions, please refer to the correction coefficient table to select the model.

Adsorption
Compressed Air Dryer

Heatless Module Dryer

Purge Air : ≤ 4～8%
Inlet pressured : 0.6～1.0Mpa
Inlet oil content : ≤ 0.1mg / M^3
Dew point : -20℃ ～ -40℃
Working periods : 5～15min
Inlet temperature : 0℃～45℃
Desiccant : activated alumina or molecular sieve

Technical Parameters

Model	Capacity (Nm^3/min)	Power supply (V/Hz)	Air connection	Dimensions(mm)			Weight (kg)
				L	W	H	
GM-001WD	0.1	220/50	Rp1/4″	145	145	555	9
GM-002WD	0.2		Rp1/2″	185	175	465	13
GM-004WD	0.4		Rp1/2″	185	175	645	16
GM-006WD	0.6		Rp1/2″	185	175	895	19
GM-008WD	0.8		Rp1/2″	185	175	1145	23
GM-010WD	1.2		Rp1/2″	185	175	1145	28
GM-020WD	2.4	220/50	Rp1″	380	360	1280	56
GM-030WD	3.5		Rp1″	380	360	1740	72
GM-060WD	6.5		Rp1.5″	385	475	1740	126
GM-100WD	10.7		Rp1.5″	385	610	1755	180
GM-125WD	12.5		Rp2″	385	740	1755	235
GM-150WD	15		Rp2″	385	875	1755	290
GM-200WD	20		DN65	385	1010	1755	345
GM-250WD	25		DN80	655	740	1755	475
GM-300WD	30		DN80	655	875	1755	585
GM-400WD	40		DN80	655	1010	1755	700

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Micro-heat module dryer

Purge Air : ≤3～5%
Inlet pressured : 0.6～1.0Mpa
Inlet oil content : ≤ 0.1mg / M^3
Dew point : -40℃ ～ -70℃
Working periods : 30～180min
Inlet temperature : 0℃～45℃
Desiccant : activated alumina or molecular sieve

Technical Parameters

Model	Capacity (Nm^3/min)	Power supply (V/Hz)	heating Power (kW)	Air connection	Dimensions(mm)			Weight (kg)
					L	W	H	
GM-010ED	1.2	220/50	0.5	Rp1"	380	360	925	50
GM-020ED	2.4		0.75	Rp1"	380	360	1325	62
GM-030ED	3.5		1	Rp1"	380	360	1785	92
GM-060ED	6.5		2	Rp1.5"	385	485	1785	153
GM-100ED	10.7	380/50	3	Rp1.5"	385	615	1785	215
GM-125ED	12.5		4	Rp2 ”	385	750	1785	275
GM-150ED	15		5	Rp2 ”	385	885	1785	340
GM-200ED	20		6	DN65	385	1020	1785	400
GM-250ED	25		7	DN80	655	750	1785	535
GM-300ED	30		8	DN80	655	885	1785	650
GM-400ED	40		9	DN80	655	1020	1785	770

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Compression Waste Heat Adsorption Dryer

Working principle

The high-temperature air discharged by the air compressor possesses high heat and high unsaturation properties. The waste heat series products effectively use this original compressed air to heat and regenerate the adsorbent, which saves the electric heating power consumption required by the micro-heat adsorption dryer series and consumes the gas consumption in this stage. After heating and regeneration, the original compressed air directly enters the water cooler for cooling and then enters the adsorption tower to obtain dry finished gas. We use 1.5% of the finished gas to regenerate the heated adsorbent through cold blowing. After the cold blowing is completed, the double towers are switched, and the cycle repeats.

Features

Use the waste heat from the compressor to heat and regenerate the adsorbent

The YR series waste heat adsorption dryer utilizes waste heat from oil-free air compressors to heat and regenerate the adsorbent, fully utilizing the waste heat in the compressed air system. Without using a heating device, it achieves the effect of a heated adsorption dryer, fully demonstrating its energy-saving and high-efficiency characteristics, and the dew point of the finished gas can reach -40°C.

More Stable and Reliable Performance

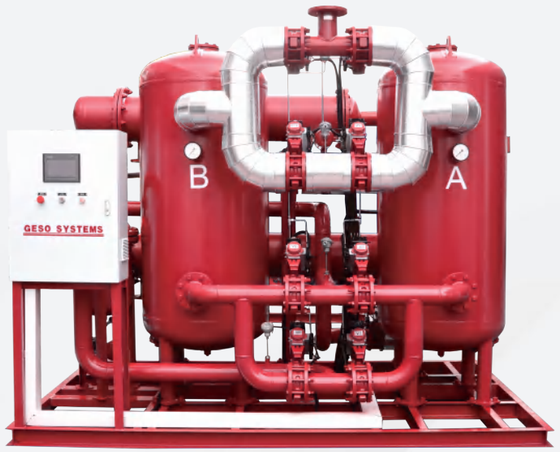
The self-developed PLC controller is more stable and reliable than the single-chip microcomputer. The control valve adopts a high-quality butterfly valve to ensure trouble-free switching for more than 1 million times.

Advanced Flow Divider Eliminates Channeling

The advanced splitter design enables the compressed air to contact the adsorbent evenly, completely eliminating the channeling phenomenon.

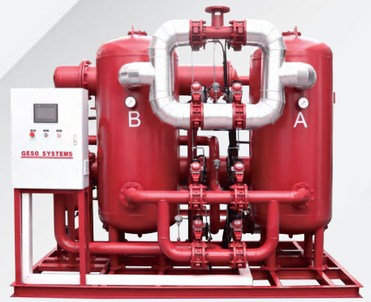
Unique Layering Technology :

Our company's unique layering technology allows the air to be initially dried by passing through alumina, reducing the water content in the air. It is then deeply dried by passing through a molecular sieve to achieve low dew point air quality.



Compression waste heat adsorption dryer

Power : 220V / 50Hz
Working pressure : 0.6～1.0Mpa
Pressure drop : ≤ 0.04Mpa
Inlet temperature : 110℃～140℃
Cooling water inlet pressure : 0.2～0.4Mpa
Cooling water inlet temperature : ≤ 32℃
Dew point : -12.2℃～-40℃
Purge air : ≤ 1%



Technical Parameters

Model	Capacity (Nm^3/min)	Weight (kg)	Power consumption (W)	Inlet/outlet diameter	Dimensions(mm)			Cooling water circulation (Nm^3/min)
					L	W	H	
GHE150YR	15	1000	150	DN65	2000	1400	2350	6
GHE180YR	18	1200	150	DN65	2000	1500	2450	7
GHE200YR	22	1650	150	DN65	2000	1500	2550	8
GHE250YR	25	1880	150	DN80	2300	1800	2650	10
GHE300YR	30	2000	150	DN80	2300	1800	2680	12
GHE350YR	35	2200	150	DN100	2300	1800	2750	13
GHE400YR	45	2350	150	DN100	2500	1900	2750	15
GHE500YR	55	2500	200	DN100	2500	2000	2780	18
GHE600YR	65	2800	200	DN100	2500	2000	2800	19
GHE800YR	85	3250	200	DN125	3000	2000	2900	23
GHE1000YR	110	4350	200	DN125	3200	2200	3200	31
GHE1200YR	130	5000	200	DN150	3500	2200	3200	35
GHE1500YR	160	6500	200	DN150	3900	2200	3200	45
GHE2000YR	200	7800	200	DN150	3900	2200	3300	58
GHE2500YR	250	9700	200	DN200	4500	2700	3400	75
GHE3000YR	300	12500	200	DN200	4800	2800	3500	88
GHE3500YR	350	13100	250	DN200	4800	2800	3600	100
GHE4000YR	400	13700	250	DN200	5100	3000	3700	120

Blast heat adsorption dryer

Working principle

Adsorption drying process

The water-laden compressed air flows through an adsorption tower equipped with high-efficiency desiccant. The desiccant absorbs and dries the water in the compressed air, which then flows to the gas terminal for use.

Features

PLC control

The controller uses a PLC developed independently by our company, enhancing the equipment's stability, reliability, and anti-interference capabilities.

Product advantages

Small amount of regeneration gas

The air introduced by a high-pressure blower is used for regeneration, with only 1% of the dry product's compressed air used for cooling. The air consumption is 1/15 of a heatless regeneration adsorption dryer and 1/6 of a micro-heat regeneration dryer.

Durable and reliable

Adopting high-pressure blower with high reliability, long life and low noise.

PLC control host

The high-performance PLC is used as the control host, featuring strong anti-interference capabilities to ensure smooth equipment operation. The operating status can be monitored both locally and remotely(communication interfaces is available for customers).

Low dew point

Based on the adsorption characteristics of alumina and molecular sieve, our company has developed a layering technology. This allows air to first pass through alumina for preliminary drying, reducing the water content, and then through a molecular sieve for deep drying, achieving low dew point air quality.

Blast heat adsorption dryer

Power : 380V / 50Hz
Inlet pressured : 0.6～1.0Mpa
Inlet oil content : ≤ 0.1mg / M^3
Dew point : -20℃～-40℃
Working periods : 8 hours
Inlet temperature : 0℃～45℃
Purge Air : ≤1～3%

Technical Parameters

Model	Capacity (Nm^3/min)	Blower (kW)	Heater rated output (kW)	Full lord (kW)	Dimensions(mm)			Net weight (kg)
					L	W	H	
GHE150GFR	17	1.5	12	12	1655	1670	1980	958
GHE200GFR	23	2.2	14	14	1760	1700	2010	1115
GHE250GFR	27	3.4	16	16	1800	1780	2105	1422
GHE300GFR	33	3.4	19	19	1865	1860	2120	1852
GHE400GFR	45	7.5	28	32	1980	1930	2165	2230
GHE500GFR	55	7.5	32	35	2080	1985	2200	2430
GHE650GFR	65	7.5	39	40	2150	2105	2320	2837
GHE800GFR	80	7.5	45	45	2245	2200	2380	3685
GHE1000GFR	90	13	53	50	2340	2320	3420	4233
GHE1200GFR	100	15	58	58	2385	2410	3525	4660
GHE1500GFR	120	15	70	70	2460	2520	3610	5602
GHE1800GFR	120	15	80	80	2460	2520	3610	5602
GHE2000GFR	120	24	100	100	2460	2520	3610	5602
GHE2500GFR	120	24	120	100	2460	2520	3610	5602

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Combined Low Dew Point Compressed Air Dryer

The combined low dew-point dryer is designed by integrating a refrigerating dryer and an adsorption dryer (either heatless or heated purge) through optimized pipeline connections and volume matching. The refrigerating dryer has a strong water removal capability, low energy consumption, and minimal gas loss. When combined with the low dew point characteristics of the adsorption dryer, it maximizes the advantages of both systems.

Working Principle

Before the compressed air enters the adsorption dryer, it undergoes pre-treatment in the refrigerating dryer, where a large amount of water is removed. It then enters the adsorption dryer for in-depth drying, achieving a low pressure dew point that can reach as low as -70°C.

Intake pressure：0.6～1.0Mpa
Pressure dew point：-40～-70℃
Pressure loss：≤ 0.05Mpa
Cooling water temperature：≤ 32℃
Cooling water pressure：0.2～0.4Mpa
Air inlet temperature：≤ 45℃
Regenerated gas volume：3～5%

Technical parameter

Model	Capacity (Nm^3/min)	Air connection	Power (kW)	Cooling water circulation (Nm^3/h)	Power supply (V/Hz)	Weight (kg)	Dimensions（mm）		
							L	W	H
GLE15ZH	1.5	ZG1”	0.65	Air cooled	220/50 380/50	295	980	750	1453
GLE26ZH	2.6	ZG1”	0.75	Air cooled	220/50 380/50	350	980	800	1653
GLE40ZH	4.0	ZG1½"	1.25	Air cooled	220/50 380/50	485	1200	1000	1535
GLE65ZH	6.5	ZG1½"	1.5	Air cooled	220/50 380/50	655	1200	1000	1994
GLE85ZH	8.5	ZG2"	1.5	Air cooled	220/50 380/50	800	1460	1100	1960
GLE110ZH	11	DN50	3	Air cooled	220/50 380/50	930	1460	1180	2065
GLE138ZH	13.8	DN50	3	3.0	380/50	1100	1680	1180	2140
GLE170ZH	17	DN80	4	3.0	380/50	1200	1800	1240	2100
GLE230ZH	23	DN80	5	3.5	380/50	1220	1830	1950	2150
GLE350ZH	35	DN80	7.5	6.0	380/50	1460	1650	2000	2480
GLE450ZH	45	DN100	10.5	7.4	380/50	1980	2480	1830	2717
GLE550ZH	55	DN125	12.5	8.0	380/50	2500	2580	1980	2750
GLE650ZH	65	DN125	15	10.0	380/50	2950	2750	2080	2680
GLE850ZH	85	DN125	20	12.0	380/50	3550	2900	2560	2920
GLE1100ZH	110	DN150	25	14.0	380/50	4200	2690	2600	2960
GLE1400ZH	140	DN150	25	16.0	380/50	4500	3000	2800	3000
GLE1600ZH	160	DN150	40	18.0	380/50	7690	3200	2950	3000
GLE2000ZH	210	DN200	50	24.4	380/50	8900	3000	2800	3200

High Efficiency Degreaser For Compressed Air

The high-efficiency compressed air oil remover uses microfiber as the primary material and employs a three-stage purification process: centrifugal separation, purification, and fine filtration. It removes oil, water, and dust from the compressed air, resulting in clean and dry air. The filtration precision reaches 0.01 micron, and the residual oil content is less than 0.1mg/m³.

Intake pressure：0.2 ~ 1.0Mpa
Intake temperature：5 ~ 65℃
Initial pressure drop：≤ 0.007Mpa
Filtration aperture：5μm
Water removal rate：≥ 99%
Outlet air oil content：≤ 0.01ppm

Technical parameter

Model	Capacity (Nm^3/min)	Air connection	Discharge caliber	Dimensions（mm）		
				A	B	H
BM15GR	1.2	ZG1”	ZG½"	195	133	646
BM26GR	2.4	ZG1”	ZG½"	270	133	660
BM40GR	3.8	ZG1-1/2"	ZG½"	270	133	660
BM65GR	6.5	ZG1-1/2"	ZG½"	300	159	1300
BM110GR	11	ZG2”	ZG½"	360	219	1555
BM150GR	17	DN80	ZG½"	425	273	1555
BM200GR	23	DN80	ZG½"	425	273	1555
BM300GR	33	DN80	ZG½"	425	273	1795
BM400GR	45	DN100	ZG½"	460	325	1665
BM500GR	55	DN125	ZG½"	529	377	1750
BM600GR	65	DN125	ZG½"	730	529	1750
BM800GR	85	DN150	ZG½"	730	529	1950
BM1000GR	100	DN200	ZG½"	730	529	2100
BM1500GR	160	DN200	ZG½"	840	630	2150
BM2000GR	210	DN200	ZG½"	840	630	2435

Compressed Air
Pipeline Filters

Compressed Air Pipeline Filter Introduction

Poor air quality raises production costs

After the air is compressed, the moisture and oil contained in the air will condense into liquid droplets and mix with dust particles to form acidic sludge, which will cause damage to the air pipeline network, air using equipment, and the quality of the end products. The immediate consequences are: longer downtime, increased material downtime, reduced productivity and product quality, with potential impacts on product reputation in the marketplace and environmental protection. **Only a complete air quality solution can reduce production costs and bring high returns.**

High returns from high quality precision filter

Duct filters are part of the air quality solution. A wide range of high-quality filters developed by Geso to eliminate possible contamination in the production process provide high precision filtration with only a small pressure drop which can significantly reduce the energy consumption of compressed air systems.

Pipeline Filter Features

01. Compact appearance, requiring small installation space

02. Simple monitoring ensures safe operation

03. Pressurized dismantling with audible alarm for safety

04. Drain valve can be manually relieved for maintenance

05. The filter element can be quickly disassembled and assembled for easy maintenance.

06. Differential pressure gauge (differential pressure indicator) indicates when it is time to change the filter cartridge.

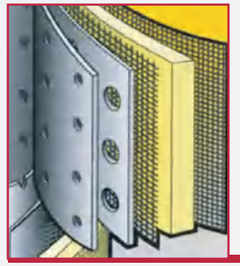
07. Economic operation with low pressure drop to save energy

Flow correction for filters with different operating pressures

Use pressure MPa	0.1	0.2	0.3	0.5	0.7	0.9	1.1	1.3	1.5	1.6
Correction factor β	0.38	0.53	0.65	0.85	1	1.13	1.25	1.36	1.46	1.51

Pipeline filter cartridge structure

9 Class Separation filter



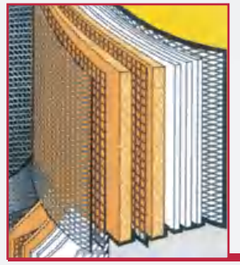
Two-stage filtration

Stage 1: two stainless orifice tubes for 10 micron mechanical separation
Stage 2: Deep fiber media filters out 3 micron solid and liquid particles

Suitable for removing large quantities of liquids and 3 micron size agglomerates (5ppm w/w maximum residual oil content).

7 Class Main line filter

Main line filter: inner/outer cartridges are corrosion-resistant



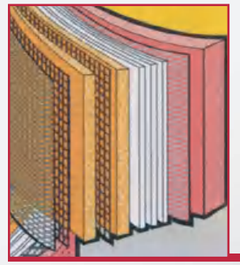
Two-stage filtration

Stage 1: Alternating layers of fiber media and media screens to filter out larger particles
Stage 2: Multi-layer epoxy resin bonded hybrid fiber media to agglomerate oil mist and filter out solid particles.

Suitable for removing large quantities of liquids and l micron size agglomerates (l.0 ppm w/w maximum residual oil content).

5 Class High-efficiency degreasing filters

High-efficiency degreasing filters: corrosion-resistant inner/outer with closed foam sleeves coated on the outside.

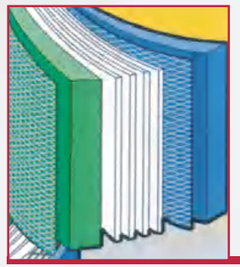


Two-stage filtration

Stage 1: Multi-layer fiber media and media screen to filter out larger particles andpre-filter the air before it enters the 2nd stage of filtration.
Stage 2: Multi-layer bonded hybrid fiber media to filter out fine agglomerates.

Suitable for filtration of large quantities of liquids and 0.0l micron size agglomerates (0.01 ppm w/w maximum residual oil content)

3 Class Ultra-high-efficiency degreasing filters



Ultra-high-efficiency degreasing filters: Corrosion-resistant **inner/outer cartridges with an external coated closed-cell foam sleeve**

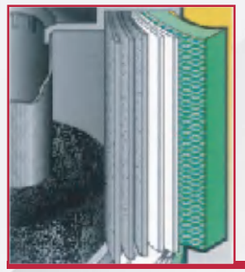
Two-stage filtration

Stage 1: Alternating layers of fiber media and media screens to filter out larger particles

Stage 2: Multi-layer epoxy resin bonded hybrid fiber media to agglomerate oil mist and filter out solid particles.

Suitable for removing large quantities of liquids and 1 micron size agglomerates (0.001ppm w/w maximum residual oil content).

1 Class Degreasing steam filter



Degreasing steam filter: Corrosion-resistant inner/outer cartridges with an external coated closed-cell foam sleeve.

Two-stage filtration

Stage 1: Extremely fine stabilizing layer of activated carbon powder to filter out most of the oil vapor.

Stare 2: Multi-layer fiber media, bonded micro-fine filtration of activated carbon powder to filter out residual oil vapor. Multi-layer fine media prevent contaminants from migrating. Under rated operating conditions, the design life is up to 1,000 hours.

Suitable for filtering out oil vapors and hydrocarbon vapors that are normally absorbed by activated carbon. Filters out solid particles down to 0.01 microns (0.003ppm w/w maximum residual oil content).

Note: Externally coated closed-cell foam sleeve prevents fiber migration.

Technical parameter

Model	Capacity (Nm^3/min)	Interface Size	Weights (Kg)
BM9/7/5/3/1-001	1.5	ZG3/4 or ZG1"	1.5
BM9/7/5/3/1-002	2.6	ZG1"	1.8
BM9/7/5/3/1-004	4	ZG1.5"	3.5
BM9/7/5/3/1-005	5	ZG1.5"	3.5
BM9/7/5/3/1-007	7	ZG1.5"	4
BM9/7/5/3/1-010	11	ZG2.0"	6
BM9/7/5/3/1-013	13.8	ZG2.0"	6.5
BM9/7/5/3/1-015	17	ZG2.5" or DN65	8.2/26
BM9/7/5/3/1-020	23	ZG2.5" or DN80	9.0/30
BM9/7/5/3/1-025	27	DN80	35
BM9/7/5/3/1-035	35	DN80	65
BM9/7/5/3/1-040	45	DN100	67
BM9/7/5/3/1-055	55	DN125	80
BM9/7/5/3/1-066	66	DN125	90
BM9/7/5/3/1-088	88	DN125	145
BM9/7/5/3/1-110	110	DN150	180

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Note:

1 Description of optional equipment codes

- Automatic Drainer → Model **D**
- Vifferential Pressure Indicator Gauge → Model **G**
- Differential Pressure Indicator → Model **P**
- Stainless Steel Housing → Model **B**
- For pressures > 1.6MPa, please specify the required pressure and model followed by "H", e.g. 3MPa, 1.2m3/min, model is 9H001/30.

2 Filter Replacement

- Cartridges of class 9/7/5 must be replaced every 6000 hours or annually at regular intervals, or when the differential pressure indicator enters the red zone (indicating a pressure drop of approximately 0.07 MPa).
- Class 1 activated carbon cartridges must be replaced after 1000 hours of use or upon detecting an odor to ensure optimal filter performance.
- Cartridges used under abnormal conditions are not covered by the quality life warranty.

3 Inlet temperature: 80℃

4 Oversize and special requirement filters accept customization