## **Domestic Office Locations in China**

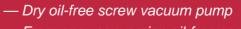
Region:	Province:	Address:						
Northeast	Heilongjiang Province	Intersection of Republican Road and Shijiao Road, Hulan District, Harbin City,						
Region	Liaoning Province	113 Nanjing North Street, Heping District, Shenyang City, Liaoning Province						
	Shanghai							
	Zhejiang Province	No. 15, Lane 38, Caoli Road, Jinshan District, Shanghai						
	Jiangsu Province	Room 8609, 6th Floor, Building 3, JinJulong Building, No. 9 Gaohu Road, Jiangning District, Nanjing City, Jiangsu Province  Room 307, No. 58 Huyang Road, Hushuguan Town, Huqiu District, Suzhou City, Jiangsu Province						
Eastern								
China	Anhui Province	No.1 Heping Road, Development Zone, Chizhou City, Anhui Province						
	Shandong Province	1912, East Unit, Building 4, Lemeng Center, Huaiyin District, Jinan City, Shandong Province						
	Jiangxi Province	Guangzhou Road East China International Industrial Expo City, Qingyunpu District, Nanchang City, Jiangxi Province						
	Fujian Province	G324 National Highway Qianjin Xijing Yili, Houxi Town, Jimei District, Xiamen City, Fujian Province						
	Beijing							
	Tianjin	Page 4004 Building 40 June Laterantianal Daving Biothick Building						
North	Shanxi Province	Room 1204, Building 10, Junyue International, Daxing District, Beijing						
China	Hebei Province							
	Inner Mongolia	Room 204, Unit 2, Building 11, Yurong Guandi, Shahe West Street, Jiuyuan District, Baotou City, Inner Mongolia Autonomous Region						
	Henan Province	No.39, 3rd Floor, Greenland Yuansheng International 3C, Jinshui District, Zhengzhou City, Henan Province						
Central China	Hubei Province	Room 1304, Unit 1, Building 16, Vision Cheng B, Jiangjun Road Street, Dongxihu District, Wuhan City, Hubei Province						
	Hunan Province	268 Wanjiali Road, Yuhua District, Changsha City, Hunan Province						
	Guangdong Province							
South China	Guangxi Province	Room 1504, Block B, Aoyuan Central Plaza, Jingang Avenue, Nansha District, Guangzhou City, Guangdong Province						
Omna	Taiwan Province	- Guangashig Fromino						
	Chongqing							
	Tibet	1801, Building 8, City Garden, Yubei District, Chongqing						
Southwest	Yunnan Province	Science and Technology Innovation Park, No. 3 Jingkai Road, Kunming Economic Development Zone						
of China	Guizhou Province	Building 2, Financial Street, Nanming District, Guiyang City, Guizhou Province						
	Sichuan Province	Building 9, Wanjingfeng Phase II, No. 8 Shangya Road, High tech West Zone, Chengdu City						
	Shanxi Province	Room 20707, Building 1, Lijun V, Fengcheng 1st Road and Weiyang Road, Weiyang District, Xi'an						
	Qinghai Province	City, Shaanxi Province						
Northwest of China	Gansu Province	Inside the Yongding Center Market in Anding District, Dingxi City, Gansu Province						
	Ningxia Province	Building 4, South District of Helan Red River Valley, Yinchuan, Ningxia						
	Xinjiang UygurAutonomous Region	556 Beijing South Road, Xinshi District, Urumqi, Xinjiang						

# **GESO SYSTEMS** GESO BLZ/BAZ SERIES 真空泵 vacuum pump GESO SYSTEMS BAZ-30VSP 上海格素实业有限公司 Shanghai Geso Systems Industrial PLC

## **GESO SYSTEMS**

## **Shanghai Geso Systems Industrial PLC**

Address:No.15,Lane 38,Cao Li Road,Jinshan District,Shanghai,China Website: www.gesosystems.net TEL: +86 21- 57895398



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— Frequency	conversion	oil-free	screw	vacuum	samua
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— Oil lubricated screw vacuum pumps

— Slide valve vacuum pumps

— Roots vacuum pumps

— Air-cooled Roots vacuum pumps

— Rotary Vane Vacuum Pumps



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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, and 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. In



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." more than 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 of use to ensure users'satisfaction and 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.

GESO SYSTEMS

Inheriting the advanced technology and production management mode of BAE Systems and combining it with China's market demand in order to ensure the production safety of users, Geso Group strictly follows the product development process of the Group, and each new product undergoes 40 test items and 3,000 hours of durability test to ensure the quality of the products 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 Internet of Things (IoT) technology realizes convenient interconnected management with air compressors through computers, cell phones and iPads to realize automatic and precise supply and meet the experience of unattended automation.

As a wholly foreign-owned enterprise, it is also the authorized production and assembly base of screw compressors for BAE Systems in UK. 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 We are exempt from labor charges, provide free training services for customers, regularly test the data of users' energy efficiency reports, and develop group of companies, we carry the mission of innovation, quality and service Whether it is energy saving and environmental protection or intelligent, always adhere to the praise of customer experience as the center of the hard working people. Geso, to build a globally recognized brand of fluid machinery, and continue to be the industry leader in high-end energysaving products.



## **GESO SYSTEMS**

## Milestones

## 1871

The British head office was established as "BAE MARCONI ELETRONIC SYSTEMS",located in the United Kingdom.London,the same year the development and production of the first reciprocating compressor products,dedicated to the field of industrial gases research and development.

## 1999

Established "BAE GESO SYSTEMS LTD" and developed the first twinscrew air compressor.GESO SYSTEMS was established as a brand name for shrinking machines.2000 The company developed and produced the first dry Type oil-free screw air compressor into the market,which was widely used in European medical treatment, Food,electronics industry.

## 2002

BAE Group set up a representative office in China, products from the United Kingdom production after the original import of the whole machine equipment for the Chinese market. We have expanded and successfully entered the Chinese aerospace.

## 2016

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

## 2021

Invested and established"Jiangsu Geso Equipment Co,Ltd."and set up a nitrogen/oxygen air separation equipment sales company in Suzhou,and in the same year,set up the second-phase annual output of 300 sets of nitrogen/oxygen equipment in the Shanghai factory,and set up the R&D and production of nitrogen/oxygen control and separation equipment.In the same year,we set up the second phase of the project of 300 sets of nitrogen/oxygen equipment in Shanghai factory to increase the R&D and production of nitrogen/oxygen control equipment.



## 1910

The company's main business was expanded to multiple fields:air compressors,nitrogen/oxygen air separation equipment,Integrated Electronic products,to the company's core products research and development of single-cylinder reciprocating air compressor technology and mass production.

## 2000

TUV NORD

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.

## 2006

China's provincial capital cities to build a total of 26 after-sales service operation network,the full deployment of aftersales service system,rapid response and to protect the user's experience.

## 2018

The British BAE Group registered and established "Shanghai Geso systems industrial PLC" in China and set up a compressor assembly plant in Shanghai, China at the same time, with a registered capital of 11 million US dollars.

## 2022

Invested in the establishment of "Shanghai Geso Energy Equipment Co,Ltd." and in the country's provincial capitals of the original part of the office was registered as a branch to complete the production of Separate sales and realize the efficiency and convenience of national market development and service.

## Certificates



CE certfiate-EMC



CE certfiate-MD

CE

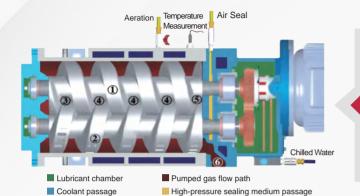
CERTIFICATE





**CERTIFICATES** 

## Dry Oil-free Screw Vacuum Pumps



- **1** Active Rotor
- 2 Driven Rotor
- ③ Suction Chamber (Connected To Air Inlet)
- 4 Delivery Chamber (Separate Enclosed Space)
- **⑤** Exhaust Chamber (Connected To The Exhaust Channel)

## **Dry Isopitch Screw Vacuum Pumps**

#### **Runtime process:**

During operation, the suction chamber (3) is enlarged as the active rotor (1) and the driven rotor (2) mesh and rotate, and the gas is continuously sucked in through the air inlet at the top of the pump body. When the active rotor and driven rotor turn to a certain angle, the suction chamber ③ volume reaches the maximum and the pump inlet isolation, the cavity into the delivery chamber ④, and re-form a new suction chamber ③.



When the rotor rotates to a certain angle, the delivery chamber 4 is connected to the exhaust channel, and the gas in the exhaust channel violently rushes back to the cavity, which raises the pressure and temperature of the gas in the cavity and emits the noise of airflow, and at this time, the cavity is transformed into the exhaust chamber 5.

As the rotor continues to rotate, the gas inside the delivery chamber ④ moves toward the exhaust end, and the gas pressure inside the delivery chamber ④ rises continuously due to the effect of gas return at the exhaust end.



As the rotor rotates, the volume of the exhaust chamber ⑤ begins to gradually decrease and the gas is discharged.

#### **Bearings And Lubrication**

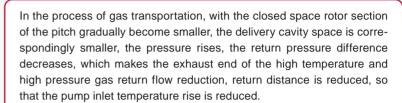
- Gearboxes are oil lubricated, thus avoiding frequent maintenance.
- Extended service life with high quality bearings and special oil with low vapor pressure
- Adoption of variable diameter and pitch screw rotor design to achieve continuous compression of gas along the entire rotor, improve temperature control and optimize pumping performance.
- Unique rotor and stator design with closed-loop water-cooled temperature control system to realize the ability to pump fluorine gas at full concentration (0-100%).
- Superb design and manufacturing processes ensure ultimate vacuum performance and low noise operation.
- Versatile profile options, with additional isometric and iso-pitch available.



## **Dry Variable Pitch Screw Vacuum Pumps**

#### **Runtime process:**

The suction process of a dry variable pitch screw vacuum pump is identical to that of an equal pitch screw vacuum pump.



1

The heat generated by the compression of the gas from the exhaust chamber is much less than that of the equal pitch, thus making the pump work with a lower temperature rise than that of the equal pitch screw vacuum pump.



When the delivery cavity is connected to the exhaust port, the return impulse is less, the airflow is slow and the noise is low because the space of the exhaust cavity and the return pressure difference is much smaller than the equal pitch.



The amount of gas discharged from the pump chamber is small, and the energy consumed is much less than that of equal pitch, so the variable pitch progressive cavity pump has better energy-saving effect.



## Dry Oil-free Screw Vacuum Pumps

## **Performance Characteristics**



- The rotor profile meshes evenly, good sealing, high pumping efficiency, the pump cavity parts use gap sealing, no contact friction, small parts loss, prolong service life.
- The temperature inside the pump cavity can reach more than 100°C during the working time, so that the condensable gas is not easy to condense, and the pump cavity is a straight-through structure, the debris inside the cavity can be easily discharged, which is suitable for pumping condensable gas.
- The rotor of the screw pump is tested with G1 level dynamic balance, so that there is little vibration during operation, and the surface of the working chamber and the screw rotor is coated with anticorrosion coating, so that it can be adapted to the harsh working conditions.
- Can be used alone or as a pre-stage pump in combination with Roots pumps, molecular pumps, etc.
- High ultimate vacuum, ultimate pressure up to 0.6MPA, no lubricating oil in the working chamber, clean vacuum can be obtained, avoiding the failure due to emulsification and deterioration of lubricating oil, improving the stability of the system and reducing the cost of use.

02

The pumped gas, process gas recovery and utilization rate is high, the exhaust gas treatment is convenient, and at the same time, it also avoids the emission of oil and grease, and reduces the environmental pollution.

04

The pump cavity is a gap seal structure, insensitive to a small amount of small particles of dust, and the pump cavity is straight through, no partition structure, dust is not easy to be deposited in the cavity, the use of explosion-proof configurations can be used for pumping out flammable and explosive gases.

- 06
  - The design of directly connecting multi-stage rotors in series by spiral way, canceling the structure of the middle partition, no intermediate stage suction and exhaust process, simple and continuous working process, high efficiency and stable operation.
- 80

Customized removable and washable mufflers are used for good muffling effect and low noise while easy to dismantle and wash for maintenance.

Adopting customized motor: fast startup, small startup current, normal pumping speed is reached after opening. Closed structure design between motor and pump oil chamber, canceling the motor end shaft extension dynamic seal, eliminating the problem of oil leakage from the shaft end.

#### **Technical Parameters**

	Model	Pumping Speed (50/60Hz)		ed	Ultimate Pressure (50/60Hz)		Power		Inlet Diameter	Outlet	Gear Cavity	ity Volume		Weight	
	model	m/Hr	L/min	L/S	mbar	Torr	Ра	KW	RPM	(mm)	(mm)	Volume (L)	L/min	gal/min	(kg)
	BLZ50	180/216	3000/3600	50/60				7.5/7.5	7.5/7.5	65	40	0.85	2.50	0.67	295
	BLZ70	250/300	4200/5000	70/84			2	7.5/7.5		80	40	0.85	2.60	0.70	350
/	BLZ110	400/480	6600/7920	110/132				11/15		100	65	1.40	2.80	0.75	480
/	BLZ150	540/650	9000/10800	150/180				18.5/18.5		150	65	2.00	3.00	0.80	520
/	BLZ200	720/850	2000/14400	200/240	0.02	0.015		22/22	2900	150	65	2.00	4.00	1.07	680
	BLZ70PM	250/300	4200/5000	70/84	0.01	0.01 0.0075	2	5.5/7.5	3550	65	40	0.85	2.50	0.67	295
	BLZ110PM	400/480	6600/7920	110/132	_				7.5/11		80	40	0.85	2.50	0.67
	BLZ160PM	580/700	9600/11500	160/192				11/15		100	65	1.40	2.60	0.70	480
	BLZ220PM	800/960	13200/15800	220/264	_			15/18.5		150	65	2.00	2.80	0.75	520
	BLZ330PM	1200/1440	9800/23700	330/396				22/22		150	65	2.00	3.50	0.94	680
	BLZ300PM	1080/1290	8000/21600	300/360	0.5/0.3	0.38/0.22	50/30	18.5/18.5		150	65	2.00	2.80	0.75	520

#### Notes:

- The oil quantities listed above are for reference only and are normally fluoride and mineral oils. The unit is shipped with pump oil and grease oil.
- The above cooling water quantity is based on the dosage of ambient temperature 30°C, cooling water inlet temperature 20°C, the use of circulating water will be different, water pressure 0.15~0.2MPa.
- BLZ screw vacuum pump is a series of screw vacuum pumps with equal lead; BLZ\*\*PM screw vacuum pump is a series of screw vacuum pumps with variable lead
- The inlet and exhaust diameters shown above are single-pump diameters, and the inlet and exhaust diameters of non-single-pump equipments are shown in the outline drawings of the equipments.
- The Company Has The Right To Change The Design For The Continuous Improve ment Of The Products, and The Parameters Will Be Changed Without Prior Notice

## Frequency Conversion Oil-free Screw Vacuum Pumps

#### High precision filtration design

The inlet filter cartridge has a large unfolding area, the initial resistance is less than 15 mbar, and the default filtration level is GB/T14295-2003 "medium efficiency", EU4 of European EUROVENT standard.

The filter cartridges are classified as M10 or M10 by ASHRAE standards, and are quick and easy to replace with a clogged cartridge indicator.

#### Converter

**Screw Air End** 

Frequency conversion design, both energy saving and voltage stabilization, frequency conversion start reduces the impact on the power grid and machinery, prolonging the life of the machine.

Precision 3+5 teeth yin and yang rotors, meshing with

each other and not touching the high-precision helical

gears, speeding up the yang rotor internally, and the

exterior of the screw rotor is treated with imported

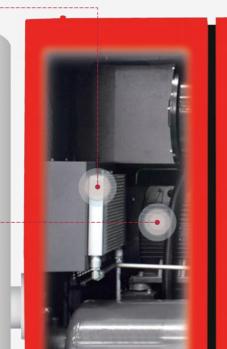
coatings for durability and longevity.

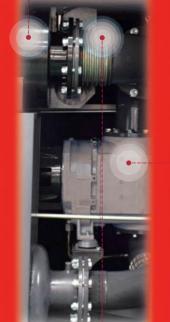
#### **Permanent Magnet Frequency Conversion Motor**

All series are equipped with frequency conversion permanent magnet synchronous motors as standard, with power ranging from 7.5kw-110kw, asynchronous motors and explosion-proof motors as options, and heat dissipation capacity is adapted for frequency conversion working conditions.

GESO SYSTEMS
Secondary Silencers

次级消音器







## Elastic Design

Designed with stainless steel elastic joints to avoid vibration noise when opening and closing.

#### **Dual Silencing Design**

Coolers

Double cooling design, the oil

ing the life of the rotor.

temperature is maintained within a reasonable range, greatly improv-

Dual exhaust noise reduction design with noise levels as low as 70 dB(A).

09

## Frequency Conversion Oil-free Screw Vacuum Pumps

## Frequency Conversion Oil-free Screw Vacuum Pump *VSPM* Series



## **High Efficiency And Energy Saving**

More energy efficient than water ring pumps 40%

- High flow rate, outstanding .
- Advantages stable and reliable, easy to install
- Frequency conversion fully automatic control, production without worry.
- Working vacuum range: 10KPA ~ -80KPA.



- High productivity: Reduced time required for process flow
- Low maintenance costs: no unanticipated sudden failures
- High productivity: long maintenance intervals
- Low installation costs: system integration reduces costs
- Safe operation and stable output: supports automatic control of the process flow
- Significant cost savings: low cost of water/gas and electricity usage
- Space saving: small footprint
- Low carbon footprint: no water, no oil and low power consumption
- Environmental protection: no waste oil emission

## **Technical Parameters**

Model	Nominal pumping speed	Ultimate Pressure	InletDiam (mm)	OutletDiam _ (mm)	Din	nensions (mi	n)	Speed - (50/60Hz)
	(m²/hr)	mbar(a)	(11111)	(11111)	L	W	Н	RPM
BAZ-11VPM	750	200	DN125	DN100	1400	1050	1140	11
BAZ-15VPM	900	200	DN125	DN100	1400	1050	1140	15
BAZ-22VPM	1200	200	DN125	DN100	1400	1050	1140	22
BAZ-22VSPM	1500	200	DN150	DN150	2200	1350	1600	22
BAZ-30VPM	1880	200	DN150	DN150	2200	1350	1600	30
BAZ-37VPM	1980	200	DN150	DN150	2200	1350	1600	37
BAZ-37VSPM	2550	200	DN200	DN150	2200	1350	1600	37
BAZ-45VPM	3050	200	DN200	DN150	2200	1350	1600	45
BAZ-55VPM	3500	200	DN200	DN150	2200	1350	1600	55
BAZ-55VSPM	4000	200	DN300	DN200	2660	1770	1950	55
BAZ-75VPM	5100	200	DN300	DN200	2660	1770	1950	75
BAZ-90VPM	6000	200	DN300	DN200	2660	1770	1950	90
BAZ-110VPM	7500	200	DN300	DN200	2660	1770	1950	110

If the above parameters are changed, no further notice will be given, the program parameters shall prevail, and customized special models are acceptable.

#### Notes:

VPM:for frequency conversion oil-free screw vacuum pump.

VSPM:for enhanced frequency conversion oil-free screw vacuum pump.

## Oil Lubricated Screw Vacuum Pumps

## **BAZ-PM+** Series

New generation of intelligent oil-lubricated screw vacuum pumps

Incorporating domestic and foreign frequency conversion drive technology, adopting plug-and-play design principle, excellent performance, ruggedness, energy saving and environmental protection, more convenient installation, is one of the products of energy-saving transformation advocated by the state.

## **Permanent Magnet Frequency Conversion Integrated Screw Air End**

Durable and reliable, 6 times longer life than rotary vane pumps.

#### **High-performance systems**

Automatic adjustment of the system according to production needs.

#### **High Pumping Speed**

Flow rate: 160m³/h~380m³/h Replacement of rotary vane pumps energy saving more than 30%.

#### **Lower Noise**

Noise less than 65db(A) is on-site type.

#### **Market Prospect**

Small investment cost, high market demand is the first choice of production manufacturers supporting.

## **Product Features**



- Hot and cold separation design to maximize the life of components.
- Superior oil retention.
- Simple disassembly and easy maintenance.
- The whole series of products do not need a pump to maintain oil pressure.
- Relative to competitors, the same power, high pumping speed, less fuel consumption, small floor space.
- Simple structure with finite element design.

## **Technical Parameters**

Model	Nominal pumping	Ultimate Pressure	Oil quantity	Operating temperature	Inlet Diam	Outlet Diam		Dimensions (mm)	S	_ Power
Wiedel	speed (m²/hr)	mbar(a)	(L)	(°C)	(mm)	(mm)	L	W	Н	¯ (kw)
BAZ-450PM+	450	0.35	12	0-46	DN80	DN50	1170	950	1060	5.5
BAZ-580PM+	580	0.35	12	0-46	DN80	DN50	1170	950	1060	7.5
BAZ-730PM+	730	0.35	16	0-46	DN80	DN50	1400	1050	1140	11
BAZ-900PM+	900	0.35	16	0-46	DN80	DN50	1400	1050	1140	15
BAZ-1300PM+	1300	0.35	40	0-46	DN150	DN100	1850	1600	1470	22
BAZ-1800PM+	1800	0.35	40	0-46	DN150	DN100	1850	1600	1470	30
BAZ-2200PM+	2200	0.35	40	0-46	DN150	DN100	1850	1600	1470	37
BAZ-3000PM+	3200	1.00	85	0-46	DN150	DN125	2250	1650	1689	45
BAZ-3800PM+	3800	1.00	85	0-46	DN150	DN125	2250	1650	1689	55
BAZ-4600PM+	4600	1.00	85	0-46	DN200	DN150	3000	2050	2000	75
BAZ-5400PM+	5400	1.00	90	0-46	DN200	DN150	3000	2050	2000	90
BAZ-6500PM+	6500	1.00	105	0-46	DN200	DN150	3000	2050	2000	110

Notes: If the above parameters are changed, no further notice will be given, the program parameters shall prevail, and customized special models are acceptable.

## Slide Valve Vacuum Pumps

## **Slide Valve Vacuum Pumps**

## **Single-stage H-type and double-stage 2H-type** two kinds of structure type

Two-stage pumps have an order of magnitude lower ultimate pressure (and an order of magnitude higher vacuum) than single-stage pumps.

Suitable for pumping out general gases. When using gas ballast valve, can also pumping a small amount of condensable vapors (such as water vapor). When pumping gases with high oxygen content, explosive and corrosive to ferrous metals, and chemical reaction of vacuum oil, additional devices should be added. It can be used alone or as a pre-stage pump for oil diffusion pump, oil vapor injection pump, Roots vacuum pump and other high vacuum pumps.



#### Applications:



















#### **Product Features**

Slewing parts are designed according to the dynamic balancing point of view of the counterweight, the pump vibration is small, stable operation.

Optimized design of core components with high degree of generalization

Examples include parts such as slide valves, eccentric wheels, guides and pump covers for pumps BH70G, B2H70G, BH150G, B2H120G, etc.

The oil-air separator is made of aluminum alloy (except BH150), which has beautiful appearance and is easy to install and disassemble.

GA type pump is bearing outwardly moved, separated from the pump cavity, separate oil supply, avoid impurities and harmful gases to enter. Extend service life.

As the pump moving parts to take a small eccentric distance, the rotational inertia is small, the selected motor power is also small.

For example: BH150G with the same pumping speed of 150L/s can be used in the coating industry.7.5kW motor, whereas the BH150 pump requires a 15kW motor.

Can be equipped with an oil mist eliminator to create a clean environment

GAP type pumps are bearing displacement, and add the oil supply pump, forced lubrication, suitable for long time high pressure working conditions.

Pump body and pump cover, oil tank and oil tank cover, the bonding surface has O-ring sealing groove, reliable sealing, easy to install and disassemble.

### **Technical Parameters**

Model -	Ultimate	Ultimate Pressure		Inlet Diam	Outlet Diam	Motor	Cooling Water	Speed
iviodei -	Pa	Torr	Speed (L/s)	(mm)	(mm)	Power(kW)	Consumption (kg/h)	(50/60Hz) RPM
B2H-15G	6×10 <sup>-2</sup>	4.5×10 <sup>-4</sup>	15	50	40	2.2	Air Cooling	175
B2H-30G	6×10 <sup>-2</sup>	4.5×10 <sup>-4</sup>	30	63	50	4.0	100	380
B2H-50G	6×10 <sup>-2</sup>	4.5×10 <sup>-4</sup>	50	76	56	5.5	100	375
B2H-70GA(P)	6×10 <sup>-2</sup>	4.5×10 <sup>-4</sup>	70	80	50	7.5	150	710
B2H-120GB	6×10 <sup>-2</sup>	4.5×10 <sup>-4</sup>	120	100	80	11.0	200	738
B2H-160GA	6×10 <sup>-2</sup>	4.5×10 <sup>-4</sup>	160	100	80	15.0	200	922
BH-70G(B)	1	7.5×10 <sup>-3</sup>	70	80	50	5.5	150	525
BH-150	1	7.5×10 <sup>-3</sup>	150	100	80	15.0	200	830
BH-150G	1	7.5×10 <sup>-3</sup>	150	100	80	7.5	200	970

If the above parameters are changed, no further notice will be given, the program parameters shall prevail, and customized special models are acceptable.

#### Notes:

- 1. G denotes basic type, GA denotes bearing outward, GAP denotes bearing outward with oil pump for forced oil supply, GB denotes small cylinder slide stick converted to guide rail assembly.
- 2. Ultimate pressures in the table are the values measured with a compression gauge (McKenzie).

## **New Generation Of**Slide Valve Vacuum Pumps

## **New Generation Of Slide Valve Vacuum Pumps**

British technology slide valve pump, the series of pumps for the single-stage single-cylinder vertical structure, the pump low center of gravity, small power, beautiful appearance, good stability, small footprint, smooth and reliable operation.

Its structure is quite different from that of domestic pumps, the oil tank is at the back of the pump, the oil layer on the exhaust valve is very thin, which reduces the amount of oil sprayed during large exhaust, and the cyclone oil-air separator is added at the side to further reduce the amount of oil sprayed when the pump is in large exhaust; in the working environment with high water content, the process of exhausting the oil has less contact with the vacuum oil, and the oil has a long time of antiemulsification, which improves the service life of the vacuum oil.



- The oil tank of the slide valve pump is placed at the back of the pump cavity to prevent the vacuum oil from returning to the pump cavity and causing starting difficulties, and there is a cleaning port on the side of the oil tank for easy cleaning of the oil tank.
- A, B pump cover interchangeable, and the pump body between the "O" ring sealing, sealing performance is reliable, easy to disassemble and maintenance.
- Increase the seal between the pump chamber and bearing to improve the service life of the bearing, and the vacuum oil of the slide valve pump is supplied separately from the bearing lubricant.
- Add shaft sleeve between shaft and seal to solve the later maintenance cost and improve the service life of the pump.
- The pump runs smoothly, basically without vibration, and the ultimate vacuum is higher than the domestic standard, and the single-stage pump reaches the vacuum degree of the double-stage pump.
- The air inlet is equipped with a strainer device to prevent foreign objects from entering the pump chamber.

## **Technical Parameters**

Model ·	Ultimate	e Pressure	Pumping	Inlet Diam	Outlet Diam	Motor Power	Cooling Water	Speed
iviodei -	(Pa)	(Torr)	Speed (L/s)	(mm)	(mm)	(kW)	Consumption (kg/h)	(50/60Hz) RPM
BH-30GK	0.6	4.5×10 <sup>-3</sup>	30	50	73	3.00	Air Cooling	250
BH-50GK	0.6	4.5×10 <sup>-3</sup>	50	80	73	4.00	100	335
BH-80GK	0.6	4.5×10 <sup>-4</sup>	80	80	80	7.50	150	580
BH-150GK	0.6	4.5×10 <sup>-3</sup>	150	100	100	11.0	200	825
BH-180GA	1.0	7.5×10 <sup>-3</sup>	180	160	100	15.0	450	1155
BH-200GA	1.0	7.5×10 <sup>-3</sup>	200	160	100	15.0	450	1155
BH-230GA	1.0	7.5×10 <sup>-3</sup>	230	160	100	18.5	450	1175
BH-300GA	1.0	7.5×10 <sup>-3</sup>	300	160	100	22.0	700	1525
BH-150GF	1.0	7.5×10 <sup>-3</sup>	150	100	100	11.0	200	905
BH-200GF	1.0	7.5×10 <sup>-3</sup>	200	160	100	15.0	450	1255
BH-300GF	1.0	7.5×10 <sup>-3</sup>	300	160	100	22.0	700	1650



## **Roots** Vacuum Pumps

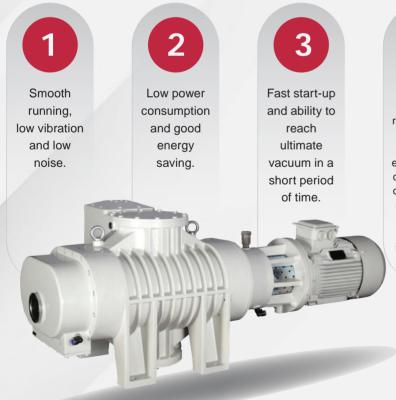
## **P**roduct **Overview**

Roots vacuum pump is equipped with a pair of synchronized reverse high-speed rotation of the 8-type rotor in the pump cavity, the work of the two rotors in the pump cavity to produce suction and exhaust role. This type of pump can not exhaust alone, must be used in series with the previous pump (such as slide valve pump, water ring pump, oil ring pump, etc.).

This type of pump is divided into two types: ordinary BZJ type and BZJP type with relief valve. It is widely used in vacuum coating, chemical industry, foodstuff, medicine, smelting, motor manufacturing and other industries. Especially when it adopts double-stage water ring pump in the front stage, it can pump out the gas containing a large amount of water vapor, so it is very suitable for the production process of distillation evaporation and freeze-drying.



## **P**roduct **Features**



No oil lubrication is required in the pump chamber, eliminating the contamination of the vacuum system by oil vapors and making it insensitive to

ZJP pumps are equipped with relief valves and have an automatic overload prevention function.

fine dust.

## **Technical Parameters**

Model	Ultimate	Pressure	Pumping Speed	Inlet Diam			rmissible ressure		60/60Hz) PM	Motor Power	Weight (kg)
	(Pa)	(Torr)	(L/s)	(mm)	(mm)	(Pa)	(Torr)	(Pa)	(Torr)	(kW)	
BZJP-70	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	70	80	80	/	/	8000	60	1.10	110
BZJP-150A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	150	100	100	/	/	4000	30	2.20	190
BZJP-300A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	300	150	150	/	/	4000	30	4.00	265
BZJP-600A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	600	200	200	/	/	2700	20	7.50	570
BZJP-1200C	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	1200	250	200	/	/	2700	20	11.0	770
BZJP-2500A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	2500	320	320	/	/	2700	20	18.5	1350
BZJ-150A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	150	100	100	6700	50	/	/	2.20	180
BZJ-300A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	300	150	150	5300	40	/	/	4.00	250
BZJ-600A	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	600	200	200	5300	40	/	/	7.50	550
BZJ-1200C	5×10 <sup>-2</sup>	3.7×10 <sup>-4</sup>	1200	250	200	4000	30	/	/	11.0	730

## **Air-cooled (Direct Atmosphere)** *Roots Vacuum Pumps*

## **Inline Atmospheric Roots Vacuum Pumps**

Also known as air-cooled Roots vacuum pumps, they operate at high differential pressures and high compression ratios and have the advantage of oil-free compression.



## **Technical Parameters**

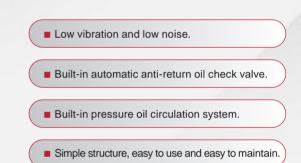
	Model	Ultimate Pressure		Pumping	Rotation	Inlet Outlet	The Cooling GasInletDiam	Max.Compression	Speed (50/60Hz)
	iviodei	Pre-stage pump	Direct discharge	- Speed (L/s)	Speed (RPM)	Diam (mm)	(mm)	At Zero Throughpu	RPM
	BLQ-450	5×10 <sup>-2</sup>	2.0×10 <sup>4</sup>	450	990	200	2×φ100	30	5.5 ~ 45
	BLQ-600	5×10 <sup>-2</sup>	1.3×10 <sup>4</sup>	600	1490	200	2×φ100	40	7.5 ~ 60
-	BLQ-900	5×10 <sup>-2</sup>	2.0×10 <sup>4</sup>	900	990	250	2×φ160	32	11 ~ 90
	BLQ-1200	5×10 <sup>-2</sup>	1.3×10 <sup>4</sup>	1200	1490	250	2×φ160	43	11 ~ 132
	BLQ-2500	5×10 <sup>-2</sup>	2.0×10 <sup>4</sup>	2500	990	400	2×φ160	35	18.5 ~ 250
	BLQ-3750	5×10 <sup>-2</sup>	1.3×10 <sup>4</sup>	3750	1490	400	2×φ160	45	30 ~ 250

## **Rotary Vane Vacuum Pumps**

Suitable for pumping air and other general gases.

- When a gas ballast valve is used, it is also possible to pump gases containing small amounts of condensable vapors (e.g., water vapor).
- When pumping gases containing too much oxygen, explosive, corrosive to ferrous metals, or chemically reactive to vacuum oil, additional devices should be added.
- This type pump can be used alone or as a pre-stage pump for high vacuum pumps such as oil diffusion pump and Roots vacuum pump.
- This type of pump is widely used in vacuum coating, vacuum heat treatment, electronics, semiconductor, lighting, food packaging, refrigeration and other industries.





## **Technical Parameters**

Madal	Ultimate	Pressure(Pa)	Pumping	Inlet	Outlet	Motor	Weight
Model	Partial pressure	Full pressure	— Speed (L/s)	Diam (mm)	Diam (mm)	Power (kW)	(kg)
B2XZ-2	6×10 <sup>-2</sup>	2	2	25	25	0.37	23
B2XZ-4	6×10 <sup>-2</sup>	2	4	25	25	0.55	30
B2XZ-8	6×10 <sup>-2</sup>	2	8	40	40	1.10	70
B2XZ-15	6×10 <sup>-2</sup>	2	15	40	40	1.50	80
B2X-30	6×10 <sup>-2</sup>	2	30	65	65	3.00	250
B2X-70	6×10 <sup>-2</sup>	2	70	80	80	5.50	338