



High efficiency

Energy saving

Reliability

Environmental protection



VACUUM SYSTEM SOLUTIONS



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The models, parameters and appearance of any products contained in this manual are subject to changes without prior notice. In case of any questions, please call the official number.

COMPANY PROFILE

Shanghai Kingair Industrial Co., Ltd., is the core technology solution provider for compressed air system solutions, with mature operation experience and excellent brand reputation in the three major areas : product system, core technology and solutions.

The company has strong comprehensive strength, the factory is located in Jiading, Shanghai, covers an area of 30000 square meters, has a strong equipment production capacity. In the course of 20 years of operation and development, we have always adhered to the enterprise spirit of "professionalism, innovation, energy saving and service", deeply implemented the strategic policy of environmental protection and low carbon, and realized the construction of high intelligent and efficient air pressure system industry chain.

In the field of compressed air system solutions, we strengthen technology research and development, expand the strength of enterprises, and ingeniously develop a series of energy-saving products such as high-pressure oil-free and micro-oil screw air compressors, centrifugal air compressors and screw vacuum pumps. In addition, we are committed to providing compressed air system solutions.

We have excellent technical strength and have been innovating continuously for many years under the guidance of the "environmental protection strategy". Relying on the regional advantages of Shanghai, China, we effectively open up the international Internet + Internet of things service chain, continue to open up foreign markets, and provide customers with OEM and personalized customized services. Each type of air compressor produced by us has novel style, advanced performance and quality assurance.

With the core technical force, perfect international brand supporting services, stringent quality management system, excellent after-sales service guarantee, our products have passed the European CE, ISO and other certification, and sold well in more than 50 countries and regions, such as Asia, Europe and the United States.

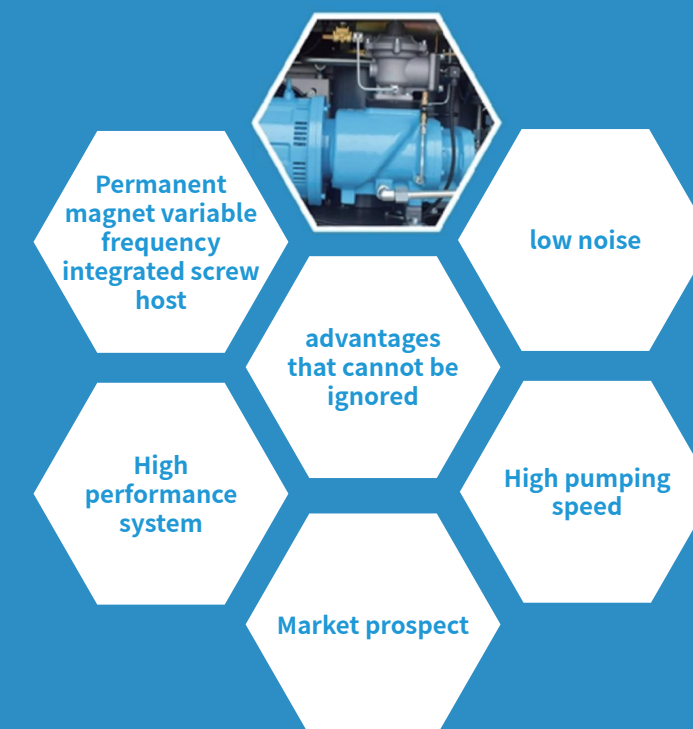
We pursue development with steadiness, growth with innovation, and future with excellent quality. We rely on the headquarters for construction. In the future, the company will adhere to the original idea, uphold the ingenuity, continue to persevere, to "create quality products, serve global customers" concept to provide international customers with high-quality air pressure products and high-efficiency air pressure system services!



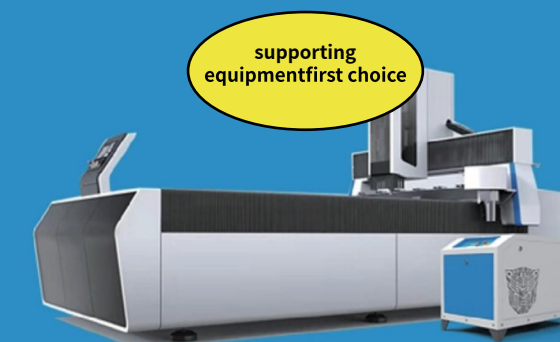
PRODUCT INTRODUCTION

KAB-VSD series——Variable frequency oil screw vacuum pump

KAB--VSD series is a new generation of intelligent oil lubrication screw vacuum pump, integrating domestic and foreign variable frequency drive technology, developed the cutting-edge VSD core technology, adopting the design principle of plug and play, convenient installation excellent performance, sturdy and durable, energy saving and environmental protection, it is one of the energy-saving transformation products advocated by the state.



Permanent magnet variable frequency screw vacuum pump
Dimensions: 1000*680*780mm
Power: 2.2kw~5.5kw
Tianhu is the world's smallest screw vacuum pump...



KAB-VSD series

permanent magnet variable frequency
oil screw vacuum pump

KAB-VSD series products



KAB--450VSD

Dimensions: 1170*1000*1051

Power: 5.5kw

KAB-580VSD

Dimensions: 1170*1000*1051

Power: 7.5kw



KAB-730VSD

Dimensions: 1410*1120*1134

Power: 11kw

KAB-900VSD

Dimensions: 1410*1120*1134

Power: 15kw



KAB-1300VSD

Dimensions:: 1965*1522*1455

Power: 22kw

KAB-1800VSD

Dimensions:: 1965*1522*1455

Power: 30kw

KAB-2200VSD

Dimensions:: 1965*1522*1455

Power: 37kw

structure design

- Field applications show that the cold and heat separation design can maximize the life of the components.
- Simple disassembly and easy maintenance.

- The oil circuit system of the whole range of products does not need the refueling pump to maintain the oil pressure.
- The full range of products and competitive products compared to, occupy a small area.

- Using finite element design, the structure is simple.
- High performance screw vacuum host, - Science of rotor line design, rotor life is significantly longer than other vacuum pumps.
- Using aerospace grade sound insulation cotton, the noise is lower than other vacuum pumps.



KAB-3000 ~ 3800VSD

Dimensions: 45~55kw

Power: 2410*1721*1700mm

KAB-4600 ~ 6500VSD

Dimensions: 75~110kw

Power: 2980*2171*2000mm

INDUSTRY APPLICATION

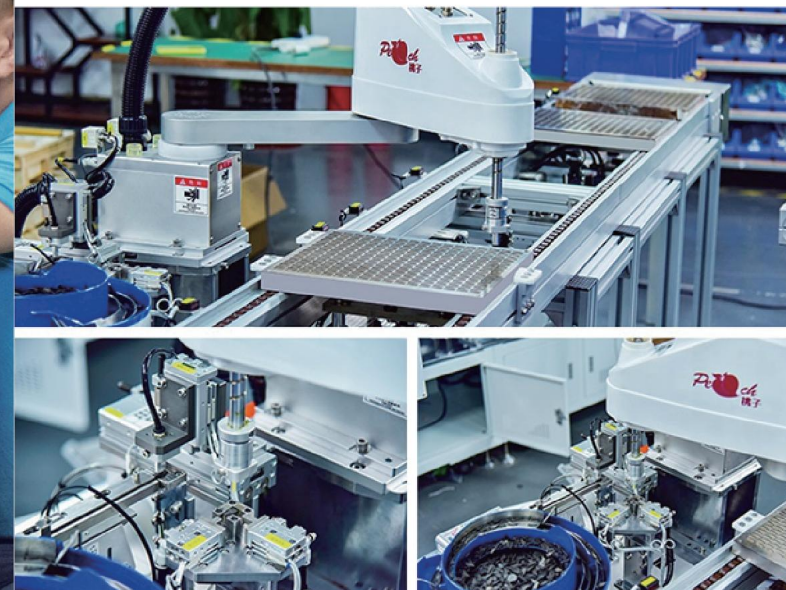
>> electron industry

Main application technology: handling, adsorption, immobilization, packaging

Case sharing: Huizhou xx Electronic Technology Co., Ltd
Original equipment: Equipped with 10 5.5kw sliding vane rotary vacuum pump

Energy saving select equipment: select two 22kw variable frequency oil screw vacuum pumps KAB-1300 VSD (one use and one standby)

energy saving key points: sliding vane rotary vacuum pump without and capacity adjustment, high energy consumption, high noise, and short service life, need to replace the rotary vane frequently, heavy maintenance workload, the energy-saving rate of the above cases can reach over 50%.



>> Woodworking industry in furniture

Main application technology: immobilization, clamp

Case sharing: Foshan : ** Furniture Co., LTD

Original equipment: Each engraving machine is equipped with a 5.5kw domestically sliding vane rotary vacuum pump, a total of 20 sets.

Energy saving key points: sliding vane rotary vacuum pump without and capacity adjustment, high energy consumption, high noise, and short service life, need to replace the rotary vane frequently, heavy maintenance workload, the energy-saving rate of the above cases can reach more than 50%.



>> Printing industry

Main application technology: adsorption, clamp, handling

Case sharing: Zhejiang * * Printing Co., LTD

Original equipment: Each printing equipment is equipped with a 4kw rotary plate composite pump, totaling 35 units.

Energy saving key points: Rotary blades of the rotary vane composite pump need to be replaced frequently has no capacity adjustment, resulting in high energy consumption and loud noise in the production workshop. After renovation and upgrading, the workshop temperature is reduced by 3-5 °C and the noise is reduced by 5-8dB (A),





>> The glass and ceramic industries

Main application technology: transportation , clamp

Case sharing:Fujian ** Glass Co., LTD

Original equipment: Use one 55kw air compressor to supply 20 sets of vacuum generators.

Energy saving select equipment: One 15kw frequency conversion oil screw vacuum pumpKAB-900 VSD.

Energy saving key points:Vacuum generator consumes a large amount of air, low efficiency and high energy consumption, so KAB-900 VSD to replace the vacuum generator can energy-saving effect can reach more than 73%.



>> Leather composites material industry

Main application technology: embossing molding, medium extraction, and transportation

Case sharing:Anhui ** Leather Co., LTD

Original equipment:Using one 55kw water ring vacuum pump

Energy saving key points: The customer feedback is that the vacuum degree of water ring pump is unstable and not high enough, often resulting in unclear patterns and defective products. It needs to be re embossed multiple times. By using the Kingair variable frequency screw vacuum pump to solve the customer's problem, the energy-saving rate can also reach over 35%.

>> PVC Plastics industry

Main application technology: extrusion molding ,degassing

Case sharing:Foshan ** Plastic Co., Ltd

Original equipment: five 18.5kw water ring vacuum pumps are used in the workshop.

Energy saving select equipment:One 37kw variable frequency oil screw vacuum pumps KAB-2200 VSD.

Energy saving key points: Water ring vacuum pump has without capacity the adjustment, high energy consumption, and serious water pollution, involving environmental problems, it requires a lot of time to clean the sewage pool every week, after switching to Kingair screw vacuum pump, the problems reported by the staff are solved, and more than 50% energy saving than water ring pump.



>> The battery industry of new energy

Main application technology: acid extraction, acid removal, and transportation

Case sharing: Jiangxi ** Power Supply Co., LTD

Original equipment:Four 11kw water ring vacuum pumps were used in the workshop.

Energy saving select equipment:Select two 11kw variable frequency oil screw vacuum pumps KAB-730VSD.

Energy saving key points: The water contains acidic electrolyte, and the water ring vacuum pump will corrode after being used for a period of time. Choosing a Kingair screw vacuum pump and equipped with special treatment device can effectively solve the problems reported by technical personnel. compared with the water ring pump energy saving rate of more than 50%.



>> Food industry

Main application technology: retain freshness, package, conveyer belt

Case sharing: Jiangxi ** Food Co., LTD

Original equipment: Each production line is equipped with two 4 kW sliding vane rotary vacuum pumps, with a total of 10 units.

Energy saving select equipment: select two 11kw, frequency conversion oil screw vacuum pump KAB-730 VSD is selected to meet the production requirements.

Energy saving key points:The rotary plate pump runs with high noise in the workshop,, and there is without capacity the adjustment, energy consumption is high,the Kingair variable frequency screw vacuum pump is selected and replaced with centralized gas supply to reduce workshop noise , energy-saving rate can reach more than 40%.



>> CNC industry

Main application technology: Clamping and fixing

Case sharing:Guangdong ** Precision Technology Co., LTD

Original equipment: Using five 55kw water ring vacuum pumps

Energy saving select equipment: Select three 55kw variable frequency oil screw vacuum pumps KAB-3800VSD (2 in use and 1 as backup) to meet production requirements.

Energy saving key points: During CNC machining, there is a large amount of cutting fluid, and using water ring pump can cause significant pollution and high energy consumption. Choosing a Kingair variable frequency screw vacuum pump and special treatment device can effectively solve customer problems, and the energy-saving rate can reach over 50% compared to the original equipment. .

>> Medical industry

Main application technology: clinical aspiration

Case sharing: Shenzhen * * University Hospital

Original equipment: Using six 7.5kw rotary vane vacuum pumps

Energy saving select equipment: Select six 5.5kw variable frequency oil screw vacuum pumps KAB-380VSD.

Energy saving key points: Selecting the Tianhu series products for application in the hospital industry, providing more stable and energy-saving solutions to meet the strict requirements of hospitals for vacuum systems.



>> The solar photovoltaic industry

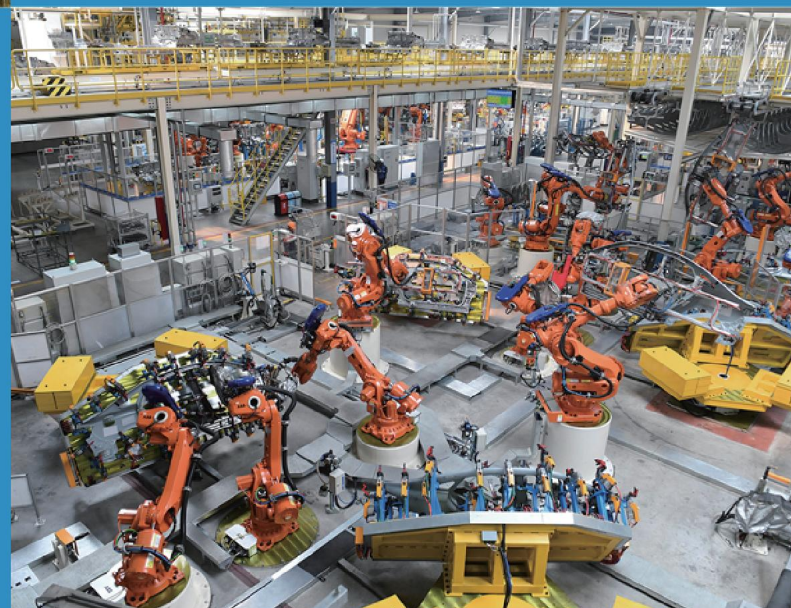
Main application technology: Immobilization transportation

Case sharing: Xinjiang Khorgos * * Energy Co., LTD

Original equipment: Use twenty 5.5kw imported rotary vane vacuum pumps

Energy saving select equipment: Select two 37kw variable frequency oil screw vacuum pumps KAB-2200VSD.

Energy saving key points: The rotary vane pump is placed on the production line and has a loud noise. It has been changed to centralized gas supply to solve the customer's noise problem in the workshop, with an energy-saving rate of over 35%.



>> Other manufacturing industries

Main application technology: Immobilization transportation clamp adsorption

In addition to the above cases, the application of vacuum systems also has a wider range of fields, currently permeating aerospace, vehicles, civil engineering, machinery, packaging, environmental protection, medicine and medical equipment, petrochemicals, food the industry, optics, electronics, home appliances, atomic energy, semiconductors, low-temperature, professional machinery, textiles, papermaking, civil industry, and military industry. As long as you observe carefully, Vacuum is everywhere.

TECHNICAL SPECIFICATIONS

permanent magnet variable frequency oil screw vacuum pump

model number	Rated pumping speed	ultimate pressure	Oil quantity	noise level	Operating temperature	Inlet Diameter	outlet diameter	Dimension (L*W*H)	power	
	(m3/hr)	mbar(a)	(L)	dB (A)	C°			(mm)	(kw)	(hp)
KAB-160VSD	160	0.35	10	50-60	0-46	DN50	DN50	1000*680*780	2.2	3
KAB-300VSD	300	0.35	10	50-60	0-46	DN50	DN50	1000*680*780	4	5.5
KAB-380VSD	380	0.35	10	50-60	0-46	DN50	DN50	1000*680*780	5.5	7.5
The above model number are parameters of the Tianhu series.										
KAB--450VSD	450	0.35	15	51-65	0-46	DN80	DN50	1170*1000*1051	5.5	7.5
KAB--580VSD	580	0.35	15	51-65	0-46	DN80	DN50	1170*1000*1051	7.5	10
KAB--730VSD	730	0.35	18	51-73	0-46	DN125	DN80	1410*1120*1134	11	15
KAB--900VSD	900	0.35	18	51-73	0-46	DN125	DN80	1410*1120*1134	15	20
KAB--1300VSD	1300	0.35	45	65-79	0-46	DN150	DN100	1965*1522*1455	22	30
KAB--1800VSD	1800	0.35	45	65-79	0-46	DN150	DN100	1965*1522*1455	30	40
KAB--2200VSD	2200	0.35	45	65-79	0-46	DN150	DN100	1965*1522*1455	37	50
KAB-3000VSD	3200	0.35	85	65-79	0-46	DN150	DN125	2410*1721*1700	45	60
KAB-3800VSD	3800	0.35	85	65-90	0-46	DN150	DN125	2410*1721*1700	55	75
KAB-4600VSD	4600	1	120	65-90	0-46	DN200	DN200	2980*2171*2000	75	100
KAB-5400VSD	5400	1	120	65-90	0-46	DN200	DN200	2980*2171*2000	90	120
KAB-6500VSD	6500	1	149	65-90	0-46	DN200	DN200	2980*2171*2000	110	150

*Note: If there are any changes to the above parameters, no further notice will be given. The scheme parameters shall prevail, and special models are acceptable for formulation.



Air-cooled type

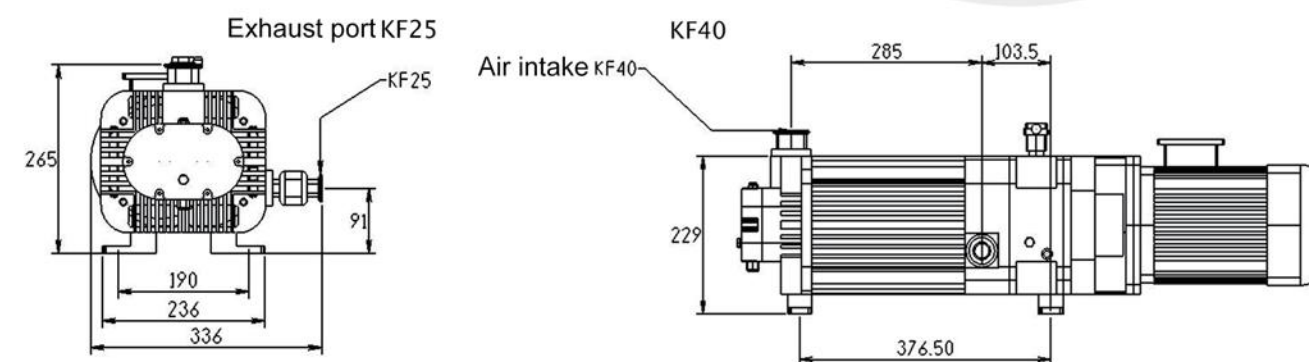
Product application areas

Petroleum, chemical, biopharmaceutical industry, solvent recovery, electronics, vacuum coating, aerospace, nuclear industry, textile, smelting and other industries.

KINGAIR Oil-free Screw Vacuum Pump

Product features

- Reliable and durable performance in the most demanding applications
- Among the competitive products,, we have a highly reliable gas extraction design
- Equivalent products, we have a highly reliable suction design
- Small appearance size, simple structure, and low failure rate
- Airborne intelligent control for easy operation
- Implementing environmental protection with low power consumption
- Fan cooling and heat dissipation, no need for water cooling



model number	pumping speed	power	ultimate pressure	Air intake	exhaust port	Dimension L*W*H(mm)
	m ³ /h	kw	pa			
KDV30	30	1	10	KF40	KF25	880*336*265
KDV60	60	1.5				
KDV80	80	2.2				

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PRODUCT INTRODUCTION

KDVS series ———Dry screw vacuum pump

• 节能 /ENERGY CONSERVATION

• 低噪音 /LOW NOISE

• 震动小 /LOW VIBRATION

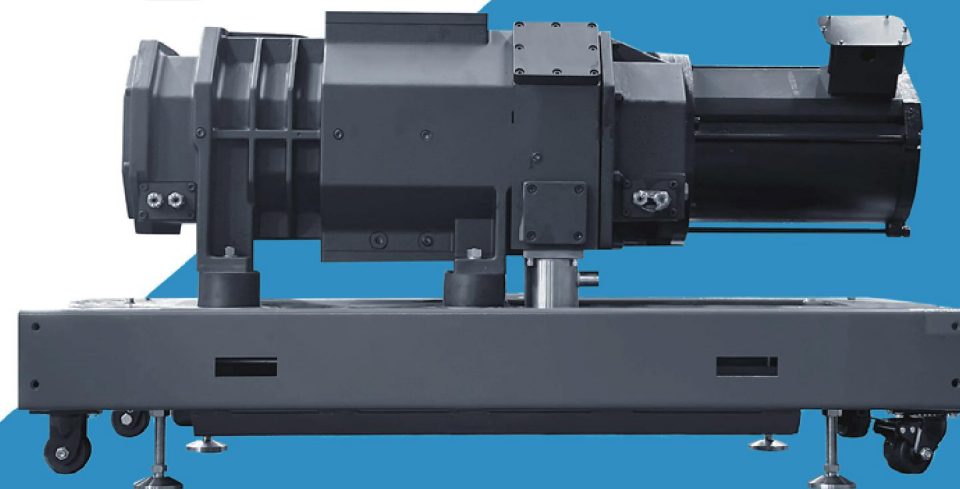
• 运行可靠 /RELIABLE OPERATION

• 低损耗 /LOW-LOSS



Advanced gas extraction structure design: With advanced screw rotor design, there is a certain gap among the screws, so the pump body operates without friction, runs smoothly, and has low noise. The chamber does not require lubricating oil.

- ♦ Energy saving - reduces power consumption by more than 30% compared to similar products
- ♦ Stable - dry structure pump chamber, mechanical variable volume compression, achieving stable vacuum process
- ♦ Intelligent - The built-in control system has strong communication and automatic control capability
- ♦ Easy to maintain - no need for special maintenance, save trouble and worry
- ♦ Environmental protection - zero sewage discharge, no pressure on environmental protection, saving sewage treatment costs.





KDVS SERIES DRY SCREW VACUUM PUMP UNIT

DRIVE TECHNOLOGY

World leading motor and drive technology

- Extremely efficient motor with variable frequency drive ,optimizing and torque performance under different technical requirements
- The integral sealed motor has no oil leakage, improving the reliability of pump operation
- Water cooled motors improve reliability, extend service life, and reduce maintenance costs

ADVANCED SCREW DESIGN

Advanced screw design

- Advanced variable pitch screw design ensures continuous compression of gas along the rotating axis
- Reduced temperature and power, while ensuring ideal ultimate vacuum
- The design of the bottom exhaust port ensures that any liquid can be emptied

SHAFT SEALING TECHNOLOGY

Advanced and reliable shaft sealing technology

- The KDVS series vacuum pump features multiple sealing designs, can make it suitable for harsh environments
- Even in corrosive, liquid, and dust environments, it can still ensure long-term service life and reliable performance

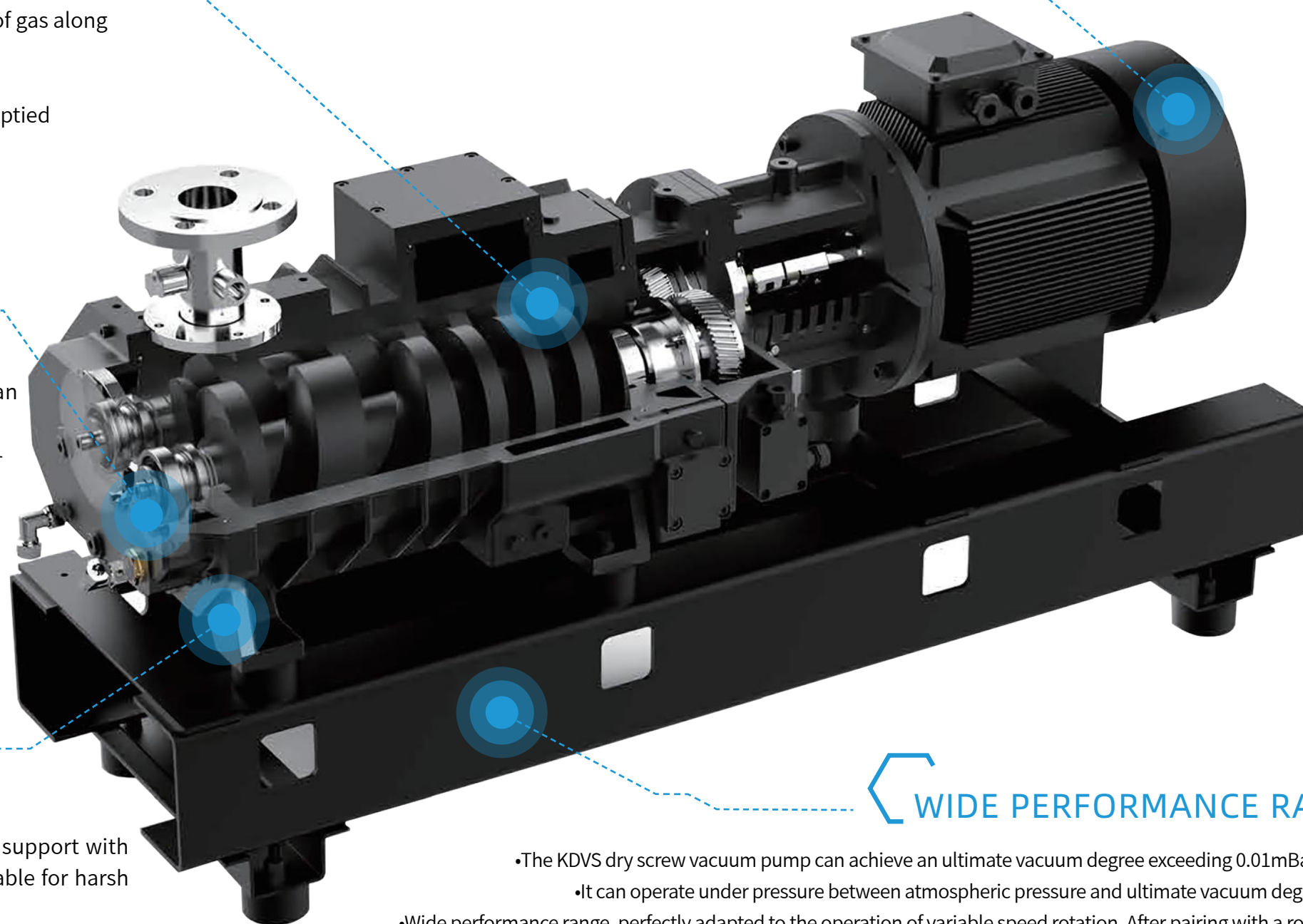
SHAFT SEAL TECHNOLOGY

shaft seal technology

- The dual end shaft support non cantilever design provides safe rotor support with extremely low vibration and excellent startup reliability, especially suitable for harsh application environments
- Has excellent liquid and dust processing capabilities

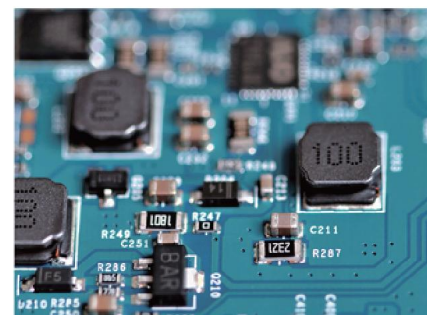
WIDE PERFORMANCE RANGE

- The KDVS dry screw vacuum pump can achieve an ultimate vacuum degree exceeding 0.01mBarA
 - It can operate under pressure between atmospheric pressure and ultimate vacuum degree
- Wide performance range, perfectly adapted to the operation of variable speed rotation. After pairing with a roots vacuum pump combination, the pump speed is significantly increased and the ultimate vacuum is improved



INDUSTRY APPLICATION

KDVS series



semiconductor



Photovoltaic industry



new energy



Chemical industry



The automotive industry



The pharmaceutical industry



Food industry



metallurgical industry



The electronics industry

Suitable for harsh application environments

Combining multiple advanced technologies to ensure better stability in demanding industrial applications. Advanced bearing technology, cooling management systems, shaft sealing systems, long-life lubrication systems, motors and electrical systems all contribute to the stability of vacuum pumps, with complete internal and external support, matching with many production process types.

TECHNICAL SPECIFICATIONS

Permanent magnet variable frequency dry screw vacuum pump

model numbe		unit	KDVS200	KDVS300	KDVS450	KDVS600	KDVS750
pumping speed		m³/h	200	300	450	600	750
Ultimate Pressure		Torr	≤ 7.5*10 ⁻³				
		Pa	≤ 1				
Water cooled sealed motor	frequency	Hz	50				
	voltage	V	220~380				
	power	KW	5.5	7.5	15	18.5	22
link	Air intake		NW50	ISO63	ISO100	ISO100	
	exhaust port		NW40		NW63	NW63	NW63
cooling water	pressure	kg/cm²	2.0~4.0				
	pressure	L/min	3~7		6~7		
	heat	°C	15~28				
	Interface		RC3/8 "		RC1/2 "		
N2 Nitrogen N2	pressure	kg/cm²	0.15~0.2				
	Dilute the flow	L/min	According to the process				
	Sealing flow rate	L/min	0~15				
	Interface		Swagelok1/4 " (6mm)				
weight		kg	380	440	1020	1060	1100
noise		db(A)	<70	<72	<75	<80	
Dimension	L×W×H	mm	910*420*760	910*420*760	1731*810*973	1731*810*973	1731*810*973

*Note: If there are any changes to the above parameters, no further notice will be given. The scheme parameters shall prevail, and special models are acceptable for formulation.

PRODUCT INTRODUCTION

KAB-VSP series - Variable frequency oil-free screw vacuum pump



- Great pumping speed and outstanding advantages
- Stable and reliable, easy to install
- Frequency conversion fully automatic control, worry free production
- Working vacuum degree range:-20kpa -80kpa

Advanced suction structure design: Advanced screw rotor design enables smooth and step-by-step compression of gas along the length direction of the rotor, thereby optimizing the thermal control of the rotor, optimizing the suction performance under intake pressure, and greatly improving the pumping speed.

■ Fast - Reduce the time of pumping air

- High productivity: reduce the time required for production processes

■ Reliable - able to maintain stable operation even under harsh industrial application conditions

- Low maintenance costs, no unexpected sudden failures
- High productivity: ultra long maintenance intervals

■ Intelligent - Equipped with a built-in control system, it has strong communication and automatic control capabilities

- Lower installation cost: Low system integration cost
- Safe operation and stable output: supporting automatic control of production processes

■ Economy - Affordable capital investment, low operating costs

- Significant cost savings: low water/gas and electricity usage costs
- Space saving: Small footprint

■ Environmental protection

- low noise operation
- low energy consumption



INDUSTRY APPLICATION

KAB-VSP series



Packaging industry



Printing and dyeing industry



Paper industry



Optoelectronic industry



Vacuum molding industry



Paper tray industry



CNC industry



Medical industry



The plastic industry

The advantages of oil-free screw vacuum pumps

As a new type of vacuum pump technology, oil-free screw vacuum pump has a wide range of applications and many advantages. Through its oil-free characteristics, it can provide a vacuum environment with high purity, environmental protection, low maintenance costs, safety and reliability, and silent operation. With the development of technology and the increasing demand, application prospects of oil-free screw vacuum pumps will be even broader.

TECHNICAL SPECIFICATIONS

Permanent magnet variable frequency oil-free screw vacuum pump

model number	Rated pumping speed	ultimate pressure	noise level	Inlet Diameter	outlet diameter	Dimension (L*W*H)	power
	(m3/hr)	mbar(a)	dB (A)			(mm)	(kw)
KAB-11VSP	750	200	60-65	DN125	DN100	1360*1036*1134	11
KAB-15VSP	900	200	60-65	DN125	DN100	1360*1036*1134	15
KAB-18VSP	1150	200	60-65	DN125	DN100	1360*1036*1134	18
KAB-22VSP	1300	200	65-70	DN125	DN100	1360*1036*1134	22
KAB-22VSP+	1500	200	75-80	DN150	DN150	2160*1366*1580	22
KAB-30VSP	1880	200	75-80	DN150	DN150	2160*1366*1580	30
KAB-37VSP	1980	200	75-80	DN150	DN150	2160*1366*1580	37
KAB-37VSP+	2550	200	80-83	DN200	DN150	2160*1366*1580	37
KAB-45VSP	3050	200	80-83	DN200	DN150	2160*1366*1580	45
KAB-55VSP	3500	200	80-85	DN200	DN150	2160*1366*1580	55
KAB-55VSP+	4000	200	80-86	DN300	DN250	2991*2066*2000	55
KAB-75VSP	5100	200	80-87	DN300	DN250	2991*2066*2000	75
KAB-90VSP	6000	200	85-90	DN300	DN250	2991*2066*2000	90
KAB-110VSP	7500	200	85-90	DN300	DN250	2991*2066*2000	110

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