



Suspended high speed centrifugal blower

High efficiency/energy saving/environmental protection
oil free/maintenance-free/low noise



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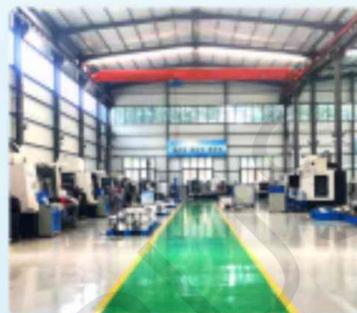
**Committed to becoming a Chinese and global manufacturer of
suspension equipment with the entire industry chain**



Company Profile

Shandong Huadong blower Co., Ltd. was established in 2010 and has been engaged in the blower business since 2007. It is located in Zhangqiu District, Jinan City, Shandong Province, with a registered capital of 100 million yuan, covers an area of 100,000 square meters, 60,000 square meters of standard factory buildings, more than 100 CNC processing equipment, and currently has more than 300 employees, including 60 technical R&D personnel with doctors and masters as the core.

The company's products are characterized by high efficiency, energy saving and green environmental protection, mainly including: HMGB magnetic suspension high-speed motor, magnetic suspension bearing and bearing control system, HMGB magnetic suspension high-speed centrifugal blower, HMC magnetic suspension high-speed centrifugal compressor, HMGB magnetic suspension turbine vacuum pump, HKB series air suspension high-speed motor, air suspension bearing, air suspension blower, MVR steam compressor, HDL, HDGR, HDR two-lobe series Roots blower, HDSR, HDLH, HG three-lobe series Roots blower.



Magnetic levitation series



High efficiency centrifugal impeller

- Using three-dimensional flow theory design and parameter optimization, the impeller efficiency is maximized and the working area is wide.
- The centrifugal impeller is made of high-strength forged aluminum or titanium alloy with strong deformation resistance.
- Each model of impeller we design has undergone long-term bench experiments to ensure its efficient and reliable aerodynamic performance. The impeller variable efficiency can reach 85%, and it has passed the 115% overspeed test. It adopts variable frequency adjustment mode, cancels the guide vane adjustment, and has a smaller starting current and a wider adjustable range of the blower.



High-power and high-speed permanent magnet synchronous motor

- Adopt high-speed and high-power permanent magnet synchronous motor.
- The motor is small in size, light in weight and has high power density.
- The motor has high speed, up to 60,000 rpm.
- Can achieve stepless speed control.
- The motor rotor and impeller are coupled to reduce intermediate energy consumption, low operating failure rate and high transmission efficiency.

Magnetic bearing

- No wear/no lubrication required, high-speed operation possible.
- Can monitor rotor status, can monitor bearing status.
- No lubrication required, reducing housing size and weight.
- Semi-permanent life, no maintenance required.
- Adopts 5-DOF active magnetic bearing technology, using electromagnetic force to achieve rotor suspension.



Motion detector

- The eddy current position sensor independently developed and produced by the company can achieve high-frequency and high-precision accurate detection.
- It has excellent performance of anti-interference, high temperature resistance, impact resistance, and can adapt to various harsh environments.

Magnetic suspension centrifugal blower



The magnetic levitation high-speed centrifugal blower is a new type of high-efficiency, energy-saving and environmentally friendly blower that integrates magnetic levitation bearing technology and high-speed motor technology into traditional blowers. It has the advantages of simple structure, high efficiency, intelligence, integration, simple operation and maintenance, and low operating costs. It can be widely used in sewage treatment (municipal, industrial and other), material transportation, food and medicine, textile printing and dyeing, leather and paper making, glass manufacturing, steel metallurgy, flue gas desulfurization and other projects, with significant energy saving effects.

Blower flow and pressure parameter table

Air suspension high speed aerator flow range										
Name	HMGB55 Flow range	HMGB75 Flow range	HMGB90 Flow range	HMGB110 Flow range	HMGB132 Flow range	HMGB150 Flow range	HMGB200 Flow range	HMGB250 Flow range	HMGB300 Flow range	HMGB400 Flow range
Pressure										
40kpa	11.5-66	11.5-85	28-110	28-135	28-150	40-186	52-216	69-204	82-210	87-420
60kpa	13.5-47	13.5-66	31-77	31-95	31-105	44-130	57-170	78-213	89-247	116-340
80kpa	15-36.5	15-45.5	35-60	35-75	35-80	47-103	62-135	86-170	97-203	145-260
100kpa	16.5-31	16.5-42.5	39-50	39-61	39-64.5	51-81	67-107	94-140	105-165	164-220
120kpa	/	30-37	40-44	40-47	40-47	54-70	75-80	100-121	113-140	148-183



Magnetic levitation centrifugal compressor



The magnetic levitation high-speed centrifugal air compressor is a new type of high-efficiency, energy-saving and environmentally friendly compressor that integrates magnetic levitation bearing technology and high-speed motor technology into traditional compressors. It has the characteristics of oil-free, friction-free, simple structure, high efficiency, intelligence, integration. With the significant advantages of simple operation and maintenance and low operating costs, it can be widely used in pharmaceutical, textile, glass, electric power, minerals, food, fermentation, papermaking and other industries. The energy saving effect is significant.



Magnetic levitation turbine vacuum pump



Shandong Huadong Magnetic Suspension Turbine Vacuum Pump is a non-contact, frictionless, high-efficiency and energy-saving intelligent environmental protection equipment. The products are widely used in papermaking, petroleum metallurgy, chemical industry, electricity, food, semiconductor, medicine and other fields. The average power saving efficiency is more than 40%. Magnetic suspension turbine vacuum pump consists of core components such as five-degree-of-freedom magnetic suspension bearings, high-speed permanent magnet synchronous motors, high-efficiency centrifugal impellers, high-precision rotors and high-efficiency dedicated control systems.

Compressor flow and pressure parameter table

Flow range of magnetic suspension centrifugal compressor										
Model	HMC 2.0-110	HMC 3.0-110	HMC 2.0-132	HMC 2.0-160	HMC 3.0-160	HMC 2.0-180	HMC 3.0-180	HMC 2.0-200	HMC 2.0-200	HMC 3.0-250
Rated flow	43.2	33.2	42	60.3	46.3	60.8	47.9	65.2	52.8	56.2
Rated pressure	2.0	3.0	2.0	2.0	3.0	2.0	3.0	2.0	3.0	5.0
Pressure range	1.0-2.0	1.5-3.0	1.0-2.5	1.0-2.0	1.5-3.0	1.0-2.5	1.5-3.5	1.0-2.5	1.5-3.5	2.0-5.0
Rated power	110	110	132	160	160	180	180	200	200	250

Vacuum pump flow and pressure parameter table

Magnetic levitation vacuum pump flow range										
Model	HMVB30	HMVB45	HMVB55	HMVB75	HMVB110	HMVB150	HMVB200	HMVB315	HMVB400	HMVB500
Vacuum degree kPa	10~70	10~70	10~70	10~70	10~70	10~70	10~70	10~70	10~70	10~70
Flow m ³ /min	36~53	49~74	62~92	84~129	125~190	167~256	222~337	350~535	446~681	525~800
Motor power kW	30	45	55	75	110	150	200	315	400	500

Air suspension series



Automatic intelligent control system

- Adopt motor and inverter speed control system, PLC automatically adjust the air volume and pressure, so that the fan within the working range to achieve the best economic operation.
- The control system self-checks the speed, wind pressure, air volume, temperature, etc., with anti-surge and alarm automatic shutdown functions. Panel control is easy to operate.



High efficiency centrifugal impeller

- Three-way flow theory design and parameter optimization are adopted to maximize impeller efficiency and wide working area.
- The impeller material is made of high-strength forged aluminum or titanium alloy, which has strong deformation energy resistance, is not only lightweight, but also consumes very little power.
- The impeller is precision machined by the five-axis CNC machining center. The precision manufactured impeller has the characteristics of high strength, high aerodynamic efficiency and low wear. The impeller is all treated with anti-corrosion.
- Each type of impeller designed by us has been subjected to long-term bench tests to ensure that its aerodynamic performance is efficient and reliable, the variable efficiency of the impeller can reach 85%, and has passed 115% overspeed test.
- Adopt frequency conversion adjustment mode, cancel guide blade adjustment, start current is smaller, blower adjustable range is wider.
- The impeller is directly connected with the shaft, and the power transmission efficiency is 100%.



Ultra-high speed permanent magnet motor

- Shandong Huadong Blower Co., LTD., the technology uses efficient permanent magnet motor, the efficiency is up to 95%, and the precision speed control can be carried out. With minimal design, fast speed and air cooling, motor efficiency is achieved. Air cooling has higher reliability than water cooling, easier operation and maintenance, and ensures the safe and continuous operation of the equipment.



Air suspension bearing

- Air suspension bearings use air buoyancy instead of lubricating oil, and use the surrounding air instead of lubricating oil, so it can operate at higher temperatures and high speeds. The advantages of air suspension bearings are flexible and low-cost operation, and no mechanical friction, no lubricating oil, no vibration, less sound and long life.
- When the blower starts, the bearing and the shaft are in contact, which is a frictional contact. When the take-off speed is reached, the bearing and the shaft are no contact, no friction, and the rotor is in suspension.

Air suspension high speed aerator



Magnetic levitation high-speed centrifugal blower is a new type of high efficiency, energy saving and environmental protection blower formed by integrating magnetic levitation bearing technology and high-speed motor technology into the traditional blower. It has the obvious advantages of simple structure, high efficiency and intelligence, integration, simple operation and maintenance, and low operating cost. It can be widely used in sewage treatment (municipal, industrial and other), material transportation, food and medicine, textile printing and dyeing, leather and paper making, glass manufacturing, iron and steel metallurgy, flue gas desulfurization and other items, energy saving effect is remarkable.

Air suspension high speed aerator flow range						
Flow rate (M3/min)	HKG7.5	HKG15	HKG22	HKG30	HKG37	HKG45
Pressure (kpa)						
15	22	39	57.5	78	95.5	121
20	20	37	52	74	89	115
25	16	30	43	60	74	95.5
30	14	26.4	38.3	51.3	62.3	76
35	12	23	33	45	58.5	69
40		19	29	38.5	48	58.5



Air suspension turbo blower



Air suspension centrifugal turbo blower adopts integrated compact design. Impeller, high-speed motor, frequency converter, air bearing and its control system are integrated with the control panel equipped with a CPU microprocessor, which improves the convenience of installation and operation. For customers to greatly save energy and daily maintenance costs, to provide a clean operating environment. Therefore, it has the characteristics of advanced technology, reliable performance, simple structure, small size, energy saving and easy maintenance.

Blower flow pressure parameter table

Air suspension turbo blower flow range												
Model	HKB15	HKB20	HKB30	HKB50	HKB75	HKB100	HKB125	HKB150	HKB200	HKB250	HKB300	HKB400
40kpa	3.4-11.6	5.8-15.6	7-25	12-41	20-63	24-83	28-78	34-124	44-158	46-130	65-235	85-320
50kpa	3.8-10.6	6.6-14.6	8-23	13.5-38	22-58	28-76	30-88	37-114	50-147	50-146	70-225	95-300
60kpa	4.2-9.8	7.4-13.4	8.5-21.3	15-35	24-53.5	30-70	33-82	40-106	54-136	54-164	75-208	00-275
70kpa	4.4-8.8	8.6-12.2	9-19.5	16-32	26-49	33-64	36-76	44-97	58-126	62-153	85-190	110-252
80kpa	4.8-8	9.4-11	10-18	17-29	28-44	35-58	38-70	48-88	64-114	66-142	90-173	120-230
90kpa		/		12-24	23-39	28-51	/	38-76	50-103	49-111	58-150	92-198
100kpa				13-22	24-36	30-47		42-70	52-96	51-106	62-140	96-184



Air suspension turbine vacuum pump



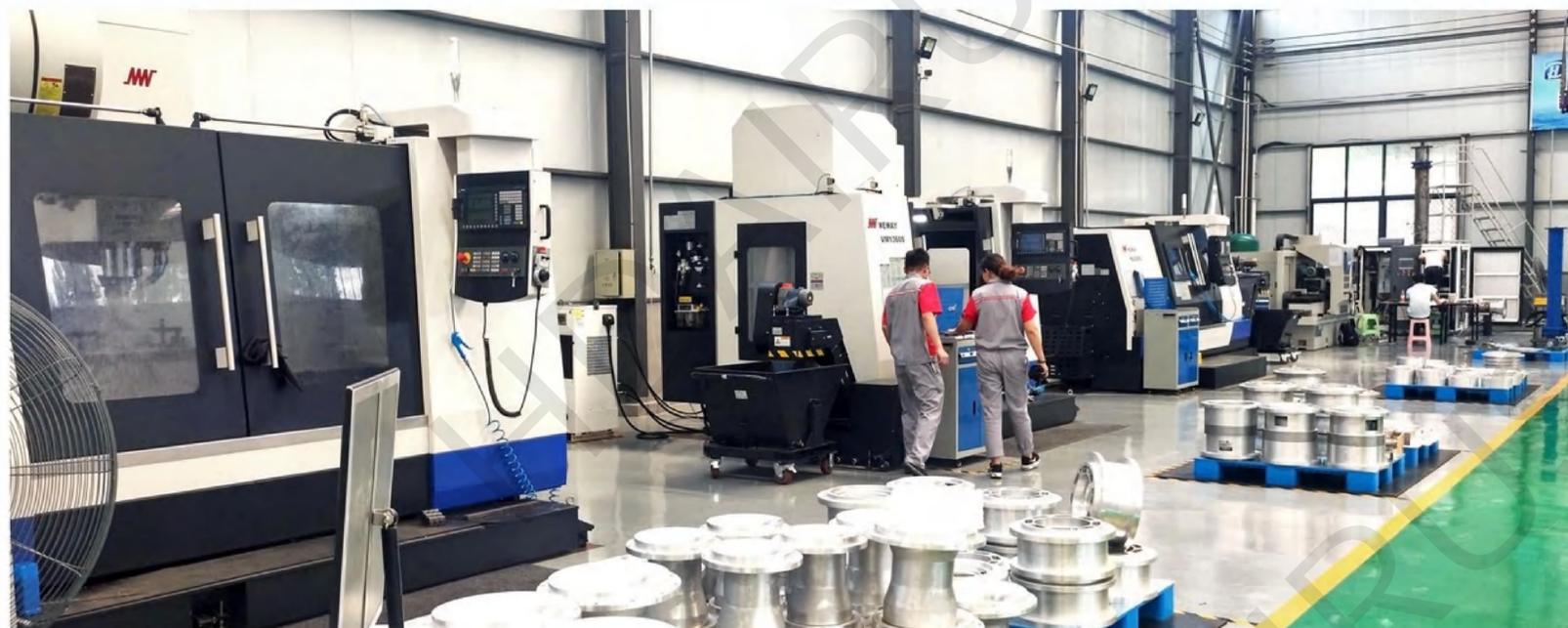
HKVB series air suspension vacuum pump is an efficient and energy-saving new environmental protection products, with power saving, low noise, intelligent control, stable and reliable, easy maintenance and other advantages.

Vacuum pump flow pressure parameter table

Model	HKVB15	HKVB22	HKVB30	HKVB37
vacuum degree (-Kpa)				
-20	43.5m ³ /min	63.8m ³ /min	85.6m ³ /min	106.3m ³ /min
-30	30.3m ³ /min	44.7m ³ /min	58.7m ³ /min	72.8m ³ /min
-35	27.8m ³ /min	37.2m ³ /min	52.6m ³ /min	63.3m ³ /min
-40				58.1m ³ /min
-50				49.5m ³ /min



Quality assurance



**TO WARDS HIGH TECH MANUFACTURING
PROMOTING HIGH END CNC DEVELOPMENT**

Airus has advanced testing and testing equipment, practicing the production and manufacturing concept of "design and development, test and verification, operation optimization, market and continuous innovation", and realizing all-round inspection and testing of key design results such as magnetic levitation bearings, high-power high-speed permanent magnet synchronous motors, and high-efficiency centrifugal impellers. Thus, the developed maglev blower has a strong guarantee in terms of stability and reliability.

Airus always insists that it is always better than customers expect; Create timely, professional, pleasant, thoughtful service concept; Everything to exceed customer needs.

For the mission, responsible for the results!





Qualifications and honors

The company has accumulated more than 100 honorary titles, and has more than 100 intellectual property rights related to leading products, including more than 30 invention patents. It has passed ISO9001 international quality management system certification, ISO24001 environmental management system certification, ISO45001 Occupational health and safety management system certification, two integration management system certification, intellectual property management system certification, EU CE certification and EAC certification.

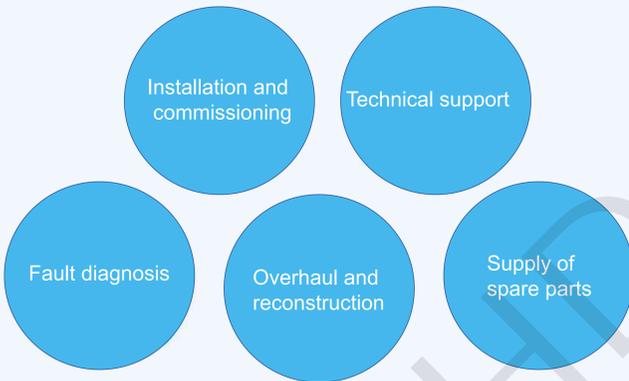


Cooperation case





After-sales Service



Service guarantee

24-hour uninterrupted service response, strong and orderly logistics system Ensure that spare parts can be quickly provided to customers in a timely manner, and provide comprehensive after-sales service.

7*24 professional services

After-sales service, 1 hour quick response, 48 hours on-site guidance installation service. Airus gratitude customers, enjoy lifelong service, lifelong free technical support





Key partners

The common choice of tens of thousands of customers, customer service is endless.



Application areas

Widely used in paper, petroleum, metallurgy, chemical, electric power, food, semiconductor, medicine and other fields.



paper industry



petroleum



metallurgy



chemical engineering



electricity



food



semiconductor



medicine