



Yixing Aipu Air System Equipment Co., Ltd

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## Industrial Suspension Centrifugal Blower with Suspension Design for Maximum Efficiency

Our Product Introduction

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### Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Certification: CE CCC SABS TUV RoHS
- Price: Negotiable
- Packaging Details: Standard Export Package
- Delivery Time: 6-8 workdays



### Product Specification

- Type: Centrifugal Blower
- Export Caliber: DN150/DN200/DN300/DN400
- Flow Range: 5-500m³/min
- Temperature: Up To 60°C
- Boost: 5-120kpa
- Weight: 300-2320kg

## Product Description:

Foil Bearing High-speed Centrifugal Blowers is a high-efficiency, energy-saving, green and environmentally friendly product, its mechanical structure is simple, the moving parts are few, the control robustness is good, and the maintenance is convenient. It adopts automotive-grade oil-free and high-reliability dynamic pressure foil bearing, which has no friction and small mechanical loss during operation. Using advanced permanent magnet synchronous motor technology, the maximum speed can reach 95000rpm, and it only takes 5s to run at full speed. The motor efficiency is as high as 97%, which meets the two-stage energy efficiency standard.

## Features:

### 1. Core Technology: Air Suspension Bearing

Contactless suspension: The impeller and bearing system designed with aerodynamics ensures that the rotor and bearings have no physical contact during operation, eliminating mechanical friction and achieving zero wear.  
High precision control: Real time adjustment of bearing film thickness through intelligent control system ensures stable operation and minimal vibration (usually  $\leq 1\text{ mm/s}$ ).

No lubrication required: eliminates the need for a lubricating oil system for traditional blowers, avoids oil pollution, and reduces maintenance costs.

### 2. High efficiency and energy-saving features

Permanent magnet synchronous motor: Paired with an efficient permanent magnet motor, the efficiency can reach over 95%, saving 30% to 50% energy compared to traditional Roots blowers.

Variable frequency speed regulation: Automatically adjust the speed according to the working conditions (usually within the range of 20000~50000 RPM) to achieve precise air volume/pressure control and avoid energy waste.

Low noise design: The operating noise is usually below 80dB (A), suitable for noise sensitive environments.

### 3. Intelligent control system

PLC/touch screen integration: Real time monitoring of parameters such as wind pressure, flow rate, temperature, and speed, supporting remote operation and fault diagnosis.

Automatic protection function: equipped with overload, overheating, and surge protection to ensure safe operation of the equipment.

IoT compatibility: Some models support cloud data access for intelligent management.

### 4. Product advantages

Long lifespan: No mechanical wear and tear, designed for a lifespan of over 15 years.

Maintenance free: eliminates the need for regular maintenance work such as changing lubricating oil and belts, and only requires regular replacement of the air filter.

Compact structure: The volume is 30%~50% smaller than traditional blowers, saving installation space.

Environmental compliance: No oil emissions, compliant with ISO 8573-1 Class 0 oil-free standard.

## Technical Parameters:

测试条件: 标准大气压, 湿度65%, 气温20℃, 空气密度1.20kg/m³(偏差: ±5%) Air Flow (m³/min): 1atm, 20℃, 65%RH, density=1.2kg/m³, Tolerance=±5%												
型号	出口压力(bar)									功率 kW	重量 kg	出口口径 国际 PN1.0 MPa
	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1.0	1.2			
	进口流量(m³/min)											
ZGK15	24	17	14	13	10	/	/	/	/	15	300	DN150
ZGK22	36	29	24	21	18	16	/	/	/	22	310	
ZGK30	49	39	33	28	25	22	/	/	/	30	330	
ZGK37	62	48	41	35	31	28	25	22	19	37	350	
ZGK45	78	62	51	45	39	34	32	28	23	45	550	DN200
ZGK55	94	76	60	54	47	40	38	34	28	55	630	
ZGK75	124	95	76	69	63	55	49	45	37	75	650	
ZGK90	157	120	95	86	79	69	62	56	46	90	830	DN300
ZGK110	190	150	115	104	93	85	72	67	57	110	880	
ZGK132	221	170	136	122	108	99	86	79	67	132	930	
ZGK150	252	190	156	140	122	112	99	90	77	150	1450	DN300
ZGK185	314	230	190	171	155	136	124	112	91	185	1720	
ZGK225	380	290	228	208	183	164	145	132	111	225	2140	DN400
ZGK300	504	378	312	276	243	220	198	181	150	300	2320	

When the atmospheric conditions and medium are varied, the relative performance conversion calculation will be different, we can re-designed in accordance with the requirement of users to adapt to different working condition. There are two cooling methods for air suspension centrifugal blower: self-circulating water cooling and forced air cooling, If you have special requirements on the cooling mode,

please tell us in advance.

## Applications:

### 1. Sewage treatment industry (core application)

Aeration oxygen supply:

Used in activated sludge processes (such as AAO, SBR, oxidation ditch, etc.) to provide oxygen to microorganisms and promote organic matter degradation.

Energy saving advantages: Compared to traditional Roots blowers, it saves 30% to 50% energy and significantly reduces the electricity consumption cost of sewage treatment plants.

Case: Municipal sewage treatment plant, industrial wastewater treatment (chemical, printing and dyeing, papermaking, etc.).

#### Air flotation device:

Provide a stable gas source for the dissolved air flotation (DAF) process to separate suspended solids in water.

### 2. Chemical and pharmaceutical industries

Pneumatic conveying:

Transporting powdered and granular raw materials (such as PVC powder, catalysts, etc.), ensuring material purity without oil pollution.

Fermentation gas supply:

Provide sterile compressed air for biological fermentation tanks (such as antibiotic and enzyme production) to avoid lubricant contamination.

Reaction kettle stirring:

Replace mechanical mixing to reduce the risk of seal leakage.

### 3. Electric power and metallurgical industry

Flue gas desulfurization (FGD):

Provide oxidizing air for the desulfurization tower to promote the conversion of calcium sulfite to calcium sulfate.

Blast furnace oxygen enriched blowing:

Improve combustion efficiency and reduce coke consumption.

Cooling system:

Used for circulating cooling towers or equipment heat dissipation.

### 4. Food and beverage industry

Clean compressed air:

Meets ISO 8573-1 Class 0 oil-free standard, used for packaging, filling, fermentation and other processes.

Pneumatic conveying:

### 5. Textile and electronics industry

Loom gas supply:

Provide stable airflow for jet looms, replace traditional screw fans, and reduce energy consumption.

Electronic Cleanroom:

Provide dust-free and oil-free compressed air for controlling the production environment of chips and LCD panels.

Transport food ingredients such as flour and sugar powder to avoid the risk of oil contamination.

### 6. Other emerging applications

Garbage incineration power generation:

Combustion air supply to improve combustion efficiency.

Aquaculture:

Aerobic aeration enhances water solubility and is suitable for high-density aquaculture ponds.

New energy batteries:

The drying process in lithium battery production provides oil-free hot air.

## Support and Services:

The Air Suspension Blowers product is designed to provide reliable and efficient performance in a variety of applications. Our technical support team is available to assist with any questions or issues you may encounter during installation or operation of the product. Our services include:

**Expert technical support via phone or email**

**On-site installation and maintenance services**

**Product training and educational resources**

**Warranty and repair services**

Our goal is to ensure that our customers are satisfied with the performance and reliability of our Air Suspension Blowers product. Please do not hesitate to contact us for any assistance or support needed.

## Packing and Shipping:

**Product Packaging:**

The Air Suspension Blowers product will be packed in a sturdy cardboard box to ensure safe delivery. The box will have the product name and description printed on it along with the company logo. Inside the box, the product will be securely wrapped in bubble wrap to avoid any damage during shipping. The package will also contain a user manual and warranty card.

**Shipping:**

The Air Suspension Blowers product will be shipped via a reliable courier service. The shipping cost will be calculated based on the destination and weight of the package. The estimated delivery time will depend on the location of the customer and the courier service used. Once the package is shipped, the customer will receive a tracking number to track the shipment. In case of any issues with shipping, the customer can contact our customer service team for assistance.

**FAQ:**

**Q: What is the brand name of this air suspension blower?**

A: The brand name of this air suspension blower is Aipu.

**Q: Where is this air suspension blower manufactured?**

A: This air suspension blower is manufactured in China.

**Q: What certifications does this air suspension blower have?**

A: This air suspension blower has CE, CCC, SABS, TUV, and RoHS certifications.

**Q: What is the price of this air suspension blower?**

A: The price of this air suspension blower is negotiable.

**Q: How is this air suspension blower packaged and delivered?**

A: This air suspension blower is packaged in a standard export package and delivered within 6-8 workdays.



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