



Industrial Dust Free Air Suspension Blowers Air Bearing Blower For Manufacturing Processes

Our Product Introduction

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Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Model Number: Air Suspension Blowers
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: Export Standard Packaging
- Payment Terms: T/T, L/C



Product Specification

- Flow Range: 5-500m³/min
- Boost: 5-120kPa
- Temperature: Up To 60°C
- Filter Density: F8
- Filtration Accuracy: PM2.5
- Filtration Efficiency: Up To 85 Per Cent
- Highlight: industrial air bearing blower,
industrial air foil bearing turbo blower,
dust free air bearing blower



More Images



Product Description

Industrial Dust-Free Air Suspension Blowers - for your clean processes

Product Description

Product Overview

Designed to deliver ultra-clean, contaminant-free airflow, these industrial dust-free air suspension blowers are the ideal choice for manufacturing processes that demand the highest levels of cleanliness and particle control. Leveraging advanced air bearing technology and comprehensive filtration systems, these blowers provide a reliable supply of purified air while maintaining a completely oil-free and vibration-free operation - making them essential equipment for applications in industries such as electronics, pharmaceuticals, and biotechnology.

Key Technical Features

Air Bearing Suspension

Frictionless air bearings eliminate the need for mechanical lubrication

Enables silent, vibration-free blower operation without any oil or grease

Supports use in ISO Class 1-5 cleanroom environments and other critical applications

High-Efficiency Airflow Delivery

Optimized aerodynamic flow path maximizes output while minimizing pressure losses

Variable frequency drive provides precise control and optimization of airflow rates

Ensures a strong, stable supply of clean air for demanding industrial processes

Advanced Filtration Systems

HEPA-grade filtration traps 99.97% of airborne particles 0.3 microns and larger

Totally enclosed, dust-tight construction prevents external contamination

Maintains ultra-clean airflow output that meets the most stringent cleanliness standards

Comprehensive Monitoring and Control

Integrated PLC and HMI provide real-time system oversight and predictive diagnostics

Remote access and cloud-based analytics enable 24/7 performance optimization

Ensures maximum uptime and reliable operation in critical clean processing environments

Key Advantages

Completely oil-free, vibration-free operation supports use in the cleanest facilities

Advanced filtration systems deliver ultra-pure, contaminant-free airflow

Intelligent control and monitoring features maximize productivity and uptime

Robust, industrial-grade design ensures reliable performance in demanding applications

Foil Bearing Technology

Foil bearing has physical contact between the rotor and the bearing before starting, then the relative movement of the rotor and the bearing generates air pressure when starting, when the rotor rotates, the speed of the air around the rotor can be converted into pressure energy, and the air pressure makes the rotor float when the rotor reaches a certain rotation speed and plays a lubricating role. Foil bearing technology effectively solves the problems of low efficiency, short life, and the need for regular maintenance and lubrication of the traditional mechanical support transmission system.



Air Suspension Bearing High Speed Centrifugal Blower Series Selection

Air Flow (m³/min): 1 atm, 20°C, 65% RH, density = 1.2 kg/m³, Tolerance = ±5%

model number	Outlet pressure (bar)										power	Weight	Outlet calibre	Dimension (mm)		
	0.3	0.4	0.5	0.6	0.7	0.8	0.9	1	1.2							
	Inlet Flow(m³/min)										kw	kg	PN1.0 MPa	elder	width	height
ZGK15	24	17	14	13	10	/	/	/	/	15	300	DN150	1300	800	1230	
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	31	34	32	28	23	45	550					
ZGK55	94	76	60	54	47	40	38	34	28	55	630	DN200	1500	1100	1580	
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	1500	1100	1580
ZGK110	190	150	115	104	93	85	72	67	57	11	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	1800	1500	2080
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	2300	1700	2140
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 conditions. 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.



Scope of application

It is suitable for sewage treatment industry, petrochemical industry, food and drug industry, textile industry, metallurgy industry, cement and construction materials industry, printing and dyeing industry and other industries.

Market Distribution

We have 42 offices throughout the country, in addition to Taiwan Province, 33 provinces in the country's administrative regions have a sound sales and service network. We can provide you with pre-sale, in-sale and after-sales service in a timely and convenient manner, understand your needs, and constantly improve the service and quality system while meeting the customized needs of customers.

High Performance Aerodynamic Design Methodology for Wide Service Conditions

By studying the influence of impeller and volute flow on efficiency and working stability, the R&D team proposed a flow control method and a pneumatic optimization design method to improve the performance of the main engine, which greatly improved the efficiency of the main engine.

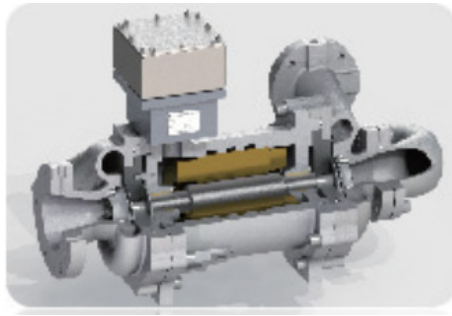
Manufacturing & Equipment Base

has built laboratories, R&D buildings, processing workshops, etc., with internationally advanced and China leading high-precision processing equipment.



High power density permanent magnet synchronous motor technology

Based on the thermal multiphysics coupling design technology of electro magnetic machine, the R&D team independently developed a permanent magnet synchronous motor (PMSM); Through the electromagnetic optimization design technology of high speed permanent magnet motor coordinated with the control strategy, the problems of large rotor heat, high torque ripple and large motor noise are solved, so that it has the advantages of high reliability, high temperature resistance and low wind resistance loss. The design and process of rotor structural integrity were overcome, and a permanent magnet synchronous motor with high power density, low cost and high efficiency was developed.



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