



## High Altitude Air Suspension Centrifugal Blower 5-500m³/Min Flow Range

### 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
- Filtration Efficiency: Up To 85 Per Cent
- Highlight: high altitude air suspension centrifugal blower ,  
500m³/min air bearing blower ,  
500m³/min air suspension centrifugal blower



## Product Description

### High Altitude Air Suspension Blowers - For Your High Altitude Applications

#### Product Description

##### Product Overview

Designed to excel in the challenging environments found at high altitudes, these specialized air suspension blowers deliver reliable, high-performance airflow output even in rarefied atmospheric conditions. By leveraging a custom-engineered compression system and motor design, these blowers are capable of maintaining their impressive air supply capabilities at elevations over 3,000 meters - making them an essential component for industrial processes operating in mountainous regions or other high-altitude settings.

##### Key Technical Features

###### High-Altitude Compression System

Optimized multi-stage compression architecture for low-density air environments

Reinforced components and materials withstand the rigors of high-altitude operation

Ensures stable, high-volume airflow output at elevated locations

###### Efficient Air Bearing Suspension

Frictionless air bearing technology eliminates the need for mechanical lubrication

Provides silent, vibration-free operation to support sensitive processes

Maximizes equipment reliability and service life in harsh conditions

###### \*\*Optimized Airflow Performance

\*\* - Advanced aerodynamic design maximizes output while minimizing pressure losses

Variable frequency drive enables precise control and optimization of air supply

Delivers consistent, high-quality airflow tailored to high-altitude process needs

###### Comprehensive Controls and Monitoring

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 productivity in remote, high-altitude installations

##### Key Advantages

Delivers reliable, high-performance airflow in challenging high-altitude environments

Efficient air bearing design ensures low-maintenance, vibration-free operation

Optimized compression system and aerodynamics maximize output and energy efficiency

Advanced controls and monitoring features support unattended, remote operation

#### Foil Bearing Technology

Foil bearing has physical contact between the rotor and the bearing before starting, 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 (m/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	7	7	7	7	15	300	DN150	1300	800	1230	
ZGK22	36	29	24	21	18	16	16	16	16	22	310					
ZGK30	49	39	33	28	25	22	22	22	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				
ZGK110	190	150	115	104	93	85	72	67	57	11	880	DN300	1500	1100	1580
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.

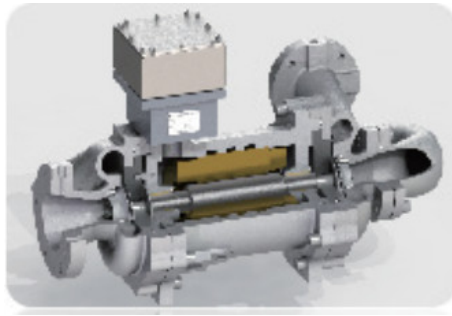
## Manufacturing & Equipment Base

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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