

# Advanced Magnetic Levitation Bearing Pump For Noise Sensitive Environments

### **Basic Information**

Place of Origin: China
Brand Name: Aipu
Model Number: GFV75
Minimum Order Quantity: 1

• Price: Negotiable

Packaging Details: Export Standard Packaging

• Payment Terms: T/T, L/C



## **Product Specification**

Models: Magnetic Levitation Pump

• Brand Name: Aipu

Flow Range: 25-290m³/minVaccuum Degree: -10~-70kpa

• Highlight: advanced magnetic levitation pump,

magnetic levitation bearing pump,

advanced magnetic levitation vacuum pump

### **Product Description**

Aipu is a leading manufacturer of fans and vacuum pumps in China. Its magnetic levitation vacuum pump adopts advanced magnetic levitation bearing technology and efficient fluid design, with advantages such as frictionless, maintenance free, high-efficiency energy-saving, and low noise. It is widely used in industries such as semiconductors, photovoltaics, lithium batteries, chemicals, pharmaceuticals, and food for high-purity vacuum demand scenarios.

### **Performance Features**

### (1) Magnetic levitation bearing technology

Adopting active magnetic levitation bearings (AMB) to achieve non-contact suspension of the rotor, no mechanical friction, no need for lubricating oil, and reduce maintenance costs.

High speed operation (up to tens of thousands of revolutions per minute) improves pumping efficiency and adapts to high vacuum requirements.

Zero pollution, suitable for industries with high cleanliness requirements (such as semiconductors and pharmaceuticals).

#### (2) Efficient and energy-saving

Compared to traditional mechanical bearing vacuum pumps, energy consumption is reduced by 30% to 50%, and long-term operation is significantly more economical.

Variable frequency speed regulation can intelligently adjust the speed according to working conditions and optimize energy consumption.

#### (3) Low vibration, low noise

No mechanical contact, smooth operation, low vibration ( $\leq 0.5 \ \mu$  m), low noise ( $\leq 70 dB$ ). Suitable for noise sensitive environments such as laboratories and hospitals.

#### (4) Intelligent control and monitoring

Equipped with PLC control system, real-time monitoring of parameters such as speed, temperature, vibration, etc. Fault self diagnosis, support remote monitoring, and improve equipment reliability.

#### (5) Long lifespan, maintenance free

No mechanical wear, the bearing life can reach over 100000 hours.

No need to regularly replace lubricating oil, reducing downtime for maintenance.

### Application

Semiconductor&Electronics Industry: Wafer Manufacturing, Vacuum Coating, LED Packaging Photovoltaic&Lithium Battery Industry: Production of Solar Cells, Vacuum Drying of Lithium Batteries

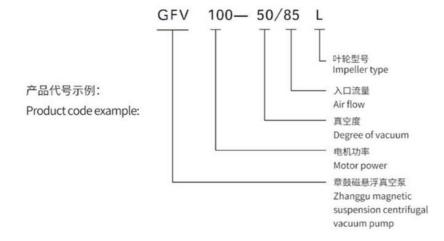
Chemical industry: vacuum distillation, gas recovery, petrochemical processes

Pharmaceutical&Food Industry: Aseptic Packaging, Freeze Drying Machines, Drug Production

Research&Laboratory: High Vacuum Experiment, Material Analysis

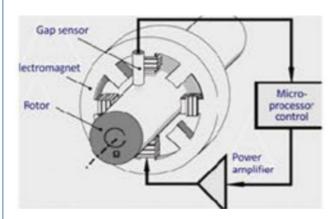
# Model Selection of Magnetic Suspension Centrifugal Vacuum Pump

IIMONAL I	Vacuum pump(kPa)	Air volume range	Power (kw)	Suction pipe diameter
GFV50	10-50	25-50	50	DN250
GFV75		44~91	75	DN250
GFV100	10-70	53~121	100	DN250
GFV150		75~182	150	DN350
GFV200		93~235	200	DN350
GFV300		112~290	300	DN450



## **Technology core**

Five-degree-of-freedom magnetic suspension bearing technology which have independentintellectual property rights can guarantee the rotor system is suspended by electromagneticforce when the equipment is powered on. The controller ensures that the signal is collectedmore than 10000 times per second and the stable suspension of high-speed rotor. Redundant power systems and spare bearings could provide multiple protection to avoid anydamage due to the sudden power failure or downtime.



## Bearing technology

Active Magnetic Bearing Technology is converted from the magnetic Suspension flywheel tech.nology in the field of space satellite. The high performance attitude control and high eficiencyenergy conversion of the satellite are realized from magnetic Suspension flywheel technology, which greatly improves the attitude control and operation level of the satellite and effectively solves the problems of low efficiency, short service life, routine maintenance requirement and lu-brication issues on mechanical support transmission system.

### First-class lean manufacturing and testing base

We has built laboratories, R & D buildings, processing work-shops, etc., with internationally advanced and China leading high-precision processingequipment.



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