Low Vibration Maglev Turbomolecular Pump For Precision Instruments And Manufacturing Equipment

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Model Number: GFV150
- Minimum Order Quantity: 1
- Price: Negotiable
- Packaging Details: Export Standard Packaging
- Payment Terms: T/T, L/C

Product Specification

- Models: GFV75
- Brand Name: Aipu
- Gas Volume Range: 75-182
- Power: 150KW
- Highlight: **maglev turbomolecular pump**, **Low vibration turbomolecular pump**, **maglev turbo molecular pump**

Low vibration maglev turbomolecular pumps - for precision instruments and manufacturing equipment

Product Description

Low Vibration Maglev Turbomolecular Pumps - for Precision Instruments and Manufacturing Equipment
Key Features:
Magnetic Levitation (Maglev) Technology:
Contactless operation with no mechanical wear and tear
Ensures exceptionally low vibration levels
Advanced Turbomolecular Design:
Multi-stage turbine architecture for high vacuum performance
Achieve vacuum levels down to 10^-9 Torr
Vibration Isolation:
Integrated vibration control and damping systems
Minimizes transmission of vibrations to sensitive equipment
Oil-Free Operation:
Completely dry vacuum pumping technology
Eliminates the risk of oil contamination
Automated Monitoring and Diagnostics:
Real-time monitoring of critical parameters
Predictive maintenance capabilities for maximized uptime
The low vibration maglev turbomolecular pumps are designed to deliver exceptional vacuum performance while minimizing vibration levels, making them the ideal choice for precision instruments and manufacturing equipment that require a stable and clean vacuum environment.
At the core of these pumps is the magnetic levitation (maglev) technology, which enables contactless operation and eliminates mechanical wear and tear. This innovative design approach not only ensures exceptional reliability and extended service life but also significantly reduces vibration levels, a critical requirement for many sensitive applications.
The advanced turbomolecular design, with a multi-stage turbine architecture, allows these pumps to achieve high vacuum performance down to 10^-9 Torr. This impressive vacuum capability makes them suitable for a wide range of applications, from semiconductor manufacturing and scientific research to medical equipment and advanced materials processing.
To further enhance the vibration-free operation, the low vibration maglev turbomolecular pumps are equipped with integrated vibration control and damping systems. These advanced systems effectively isolate and minimize the transmission of vibrations to the connected precision instruments or manufacturing equipment, ensuring a stable and consistent vacuum environment.
Adopting a completely oil-free and dry vacuum pumping approach, these pumps eliminate the need for oil, ensuring a clean vacuum environment free from any potential contamination. This oil-free operation not only contributes to the overall cleanliness of the vacuum system but also simplifies maintenance and reduces the environmental impact associated with oil disposal.
To maximize the reliability and uptime of the vacuum system, the low vibration maglev turbomolecular pumps are equipped with automated monitoring and diagnostic capabilities. Real-time monitoring of critical parameters, such as vibration, temperature, and pressure, enables predictive maintenance strategies, minimizing unexpected downtime and ensuring consistent vacuum performance.

Performance Features

Energy saving and High efficiency
Ternary flow Impeller is directly coupled with high-speed PMSM;
Save more than 30% energy than Water Ring Vacuum Pump,no not need circulating water,
Save more than 20% energy than Multi-stage Centrifugal Vacuum Pump;·
Save more than 10% energy than Single Stage High Speed Centrifugal Vacuum Pump;

Low Noise
With the self-balancing technology, the vibration level of Magnetic bearing is lower than traditionabearings, and there is no friction, Adopting the active vibration damping design, the blower can op
erate smoothly of less vibration.

Maintenance Free
Integrated design, skid mounted structure, convenient installation, one key to start and stop theblower, No need for mechanical maintenance during daily operation, only to replace the filter.

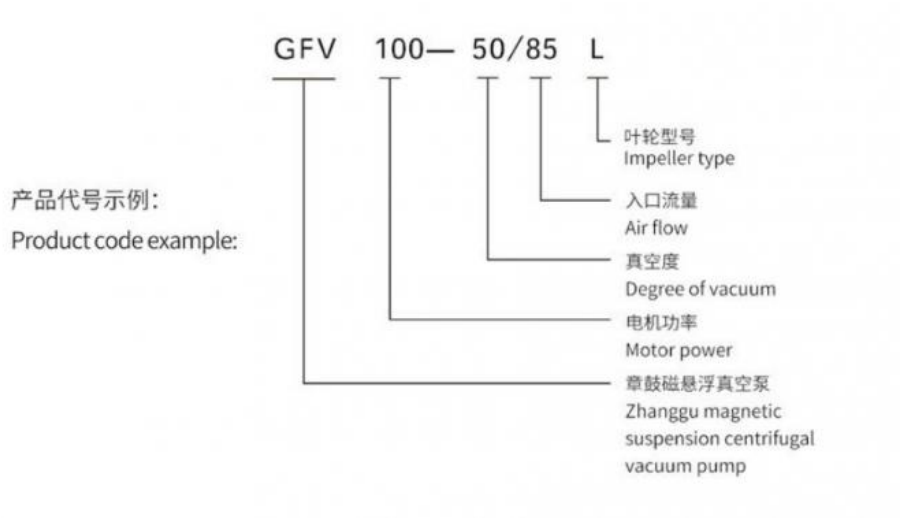
Intelligent Control
With PLC+GPRS/3G/4G, we can real time monitor the operation status of the Blower and controlflow, air pressure and speed by intelligently or manually mode. in case of failure, it can also be
repaired and debugged remotely.

Application

It is suitable for vacuum dehydration,post treatment of origami machine,material conveying,tailgas recovery,etc.

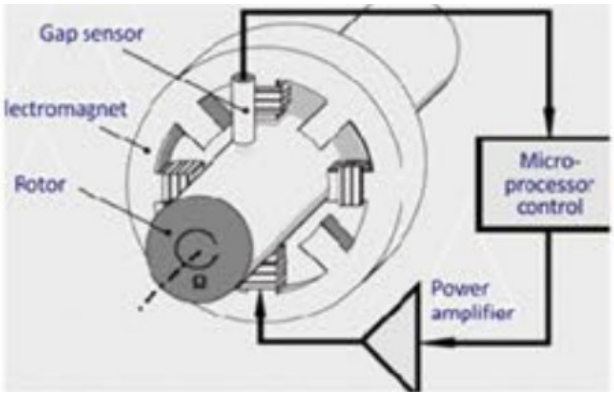
Model Selection of Magnetic Suspension Centrifugal Vacuum Pump

Model	Vacuum pump(kPa)	Air volume range	Power (kw)	Suction pipe diameter
GFV75	10-70	44~91	75	DN150
GFV100		53~121	100	DN200
GFV150		75~182	150	DN250
GFV200		93~235	200	DN300
GFV300		112~290	300	DN400



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 effectivelysolves 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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