Electric Process Gas Compressor 2-36bar 2000-48000m³/h

Our Product Introduction

Basic Information

- Place of Origin: China
- Brand Name: Aipu
- Minimum Order Quantity: 1PC
- Price: negotiable
- Packaging Details: container
- Delivery Time: 10
- Payment Terms: tt
- Supply Ability: 10t/y

Product Specification

- Pressure: 2-36bar
- Flow Range: 2000-48000m³/h
- Type: Process Gas Compressor
- Power Source: Electric
- Transport Medium: Nitrogen, Argon, Carbon Dioxide, Water Vapor, Synthesis Gas, Etc
- Highlight: **A Process Compressor**

Product Description:

Centrifugal compressor unit is an efficient, energy-saving, and reliable gas compression equipment that adopts advanced aerodynamic design and precision manufacturing processes. It is suitable for fields such as petrochemicals, electricity, metallurgy, air separation, refrigeration, and natural gas transportation. This unit has the characteristics of high flow rate, high pressure, low energy consumption, and intelligent control, which can meet the compression needs of different industrial scenarios.
In 2012, the company collaborated with universities to design and produce the first prototype centrifugal compressor unit. After years of development and continuous innovation and improvement, it has now developed centrifugal compressor units of dozens of models on 9 platforms from small to large. Compressible media such as air, argon, nitrogen, water vapor, etc. can be compressed in stages of one, two, three, four, five, and six.
With the continuous improvement of technological quality, relying on strong research and development capabilities, advanced manufacturing centers, and comprehensive after-sales service. Aipu centrifuge has confidence in becoming a world-class brand.

Core advantages:

The optimal inter stage compression ratio allocation, all pneumatic components are calculated and verified using advanced CFD software and verified through actual testing. The gas volume adjustment range is wide, and high efficiency can be achieved under both design and variable operating conditions.
Customizable design of impellers and diffusers to maximize aerodynamic efficiency
The operating efficiency of centrifuges is greatly affected by the environment, and there may be deviations between the design and actual operating conditions. The centrifugal compression components designed in batches through models cannot achieve the matching of design points with the actual working points of each user, resulting in the inability of users to achieve optimal efficiency and energy waste in actual use. Kaishan centrifuge can customize compression components for each user based on their on-site temperature, atmospheric pressure, humidity, and cooling water temperature conditions, combined with the actual compressed air flow rate and pressure required by the production process, to ensure that the design conditions fully match the on-site conditions. This design and manufacturing method greatly improves the practical operation of the centrifuge
Efficiency, saving energy consumption.

Diffuser

Adopting a low viscosity wing shaped blade diffuser design can improve the static pressure efficiency of the compressor and expand the range of flow regulation.

Inlet guide vane valve (IGV)

The electric actuator drives stainless steel precision cast blades, and the control system automatically adjusts the opening of the IGV according to the user's required air volume.

Impeller

Efficient design of three element flow bending blades, integrated milling with five axis CNC machining center, high precision, higher aerodynamic efficiency than cast impellers, and more fatigue resistant and durable. Each impeller undergoes strict dynamic balancing, 115% over rotation test, and non-destructive testing to ensure that the product is fully qualified.

Sealing System

Reliable sealing system design, providing 100% oil-free compressed air
Oil seal: oil blocking ring and labyrinth seal.
Gas seal: Adopting a specially designed floating carbon ring seal, the leakage is small, and there is no need for external sealing gas supply, which improves operational reliability.

Gear

Forged alloy steel, teeth surface carburized and finely ground, AGMA13 grade, unidirectional helical gear, uniform force, high bearing capacity, and low noise. The gearbox adopts a horizontal sectional structure for easy inspection and maintenance.

Thrust ring

The axial thrust of the impeller rotor adopts advanced thrust ring structure and high-precision hard face thrust ring, which minimizes mechanical losses to the greatest extent possible. Compared with thrust bearings, the energy efficiency can be improved by up to 3%, and the reliability of soft contact surfaces is higher.

Bearing

Adopting 5-piece tilting pad bearings, the shaft center is automatically adjusted according to load and temperature changes to adapt to shaft deformation and alignment errors, ensuring stable operation of the rotor under various working conditions.
Monitor the temperature of each bearing to ensure reliable operation of the compressor.

Coupling

Adopting stainless steel laminated flexible couplings, there is no need to add lubricating grease regularly, truly achieving maintenance free and equipped with safety protection covers.

Dual oil filter (optional)

A dual oil filter with a switching valve, which can continuously replace the filter element online without stopping the machine. It comes with a differential pressure transmitter, which alerts to replace the filter element when it becomes clogged or the pressure difference between the inlet and outlet is too large.

Design of Overflow Oil Pump

In the event of a sudden power outage in the factory, the main oil pump designed for oil flow can ensure the safe shutdown of the unit.

Cooler

The intercooler adopts a straight tube heat exchanger structure with easy disassembly and cleaning inside the water flow tube and outside the air flow tube. The water pipes are made of copper, nickel copper or stainless steel materials, and the fins are treated with anti-corrosion, with a long design service life.

The inner surface of the air flow channel of the cooler is treated with special anti-corrosion measures to ensure that the air is not contaminated.

Advanced Control System

Chinese operation interface, friendly PLC control, and user-friendly LCD touch screen design provide more intuitive panel display, easy operation, and real-time monitoring of parameters such as temperature, pressure, and vibration inside the unit.

Automatic alarm and interlock shutdown protection ensure the safety of the compressor.

Modbus standard communication method enables easy remote communication with the upper computer system.

Multiple machine interlock control system (option) can be provided to achieve centralized control of multiple compressors.

Constant voltage and automatic dual control

The centrifugal compressor adopts a standard constant pressure control method to keep the user system at a stable pressure point, preventing pressure fluctuations caused by changes in system gas demand.

Automatic dual control enables users to save energy and electricity to the maximum extent during intermittent gas usage.

Anti-Surge

The controller monitors the fluctuation of compressor pressure, and if the frequency and amplitude of the fluctuation exceed the preset values, the compressor will alarm and automatically protect. This method has a more direct anti surge effect and a faster response time.

Changes in external temperature and other conditions can cause changes in the compressor's surge characteristics, and the surge line drift automatic compensation technology can automatically compensate for changes in the compressor's surge characteristics. Therefore, the maximum possible range of compressor operation adjustment can be provided based on actual operating conditions, saving users a lot of power consumption.

Applications:

Support and Services:

Our Process gas compressor products provide comprehensive technical support and services to ensure that our customers are satisfied with their purchases. Our expert team can provide assistance for the installation, operation, and maintenance of the product. We also

provide repair and replacement services for any faulty parts or components. We have a strong inventory capacity for spare parts, including core components such as motors, casings, impellers, bearings, air seals, oil seals, valves, as well as conventional air filters, oil filters, lubricating grease, lubricating oil, etc. In addition, we also provide training and educational resources to help customers maximize the performance and lifespan of their centrifugal compressors.

Packing and Shipping:

Product Packaging:
The Process gas compressor comes in a sturdy cardboard box with the product image and specifications printed on the outside. Inside, the product is securely packaged with foam inserts to prevent any damage during transportation.
Shipping:
Our standard shipping time is 3-5 business days. For expedited shipping, please contact our customer service team. We ship via trusted carriers such as UPS, FedEx, and USPS and provide a tracking number for your convenience.

FAQ:

Q: What is the brand name of this product?
A: The brand name of this product is Aipu.
Q: What is the model number of this product?
A: The model number of this product is Process gas compressor .
Q: Where is this product made?
A: This product is made in China.
Q: Does this product have any certifications?
A: Yes, this product is certified by ce.ul.
Q: What is the minimum order quantity for this product?
A: The minimum order quantity for this product is 1pc.
Q: Is the price of this product negotiable?
A: Yes, the price of this product is negotiable.
Q: What is the packaging details for this product?
A: The packaging details for this product is container.
Q: How long is the delivery time for this product?
A: The delivery time for this product is 10 days.
Q: What are the payment terms for this product?
A: The payment terms for this product is tt.
Q: What is the supply ability of this product?
A: The supply ability of this product is 10000t/y.

Yixing Aipu Air System Equipment Co., Ltd

13771572002 183426306@qq.com aipukqdl.com

Yixing Yicheng Street Hardware Electromechanical City, Phase I, Block 5, District 3, 8071