

Industrial Centrifugal Compressor Unit

This industrial compressor unit is available in horizontal split, vertical split, and integrally-gearred configurations. Each type offers specific maximum discharge pressures to suit diverse application needs.



Product Overview

High-Performance Centrifugal Compressor Units

This industrial centrifugal compressor unit is engineered for demanding large-flow conditions and continuous gas transmission across the oil, gas, and petrochemical sectors. Designed in accordance with API617 standards, it offers a robust service life of at least 30 years with a continuous maintenance-free running time of up to 40,000 hours. The system provides stable, pulsation-free pressure and versatile driving options including motors, steam turbines, and gas turbines.

Performance Metrics

Key Performance Metrics

40000 h

Maintenance-Free Hours

30 years

Design Service Life

70 MPa

Max Discharge Pressure

Technical Specifications

TECHNICAL PARAMETERS

	Horizontal split type	Vertical split type	Integrally-Gearred type
Range of rotating speed	3000–20000rpm	3000–20000rpm	3000–50000rpm
Max. shaft power	60000kW	60000kW	30000kW
Max. discharge pressure	5MPa	70MPa	10MPa
Range of suction temperature	-110 C–190 C	-40 C–190 C	-40 C–220 C
Max. discharge temperature	250 C	250 C	280 C
Range of capacity	10-8000m ³ /min	10-8000m ³ /min	15-10000m ³ /min
Compression stages	2-11	2-11	2-11
Driving method	Steam Turbine/ Motor/ Gas Turbine		
Cooling method	Air cooling/Water cooling /Mixed cooling (Air + Water)		
Application	Oil & gas industry, Petrochemical industry, Air separation, Power generation, Environment protection, Coal chemical, etc.		

Detailed technical specifications for horizontal split, vertical split, and integrally-gearred units.

Technical Parameters by Type

Parameter	Horizontal Split	Vertical Split	Integrally-Gearred
Rotating Speed (rpm)	3000-20000	3000-20000	3000-50000
Max Shaft Power (kW)	60000	60000	30000
Max Discharge Pressure	5MPa	70MPa	10MPa
Suction Temp Range	-110°C to 190°C	-40°C to 190°C	-40°C to 220°C
Max Discharge Temp	250°C	250°C	280°C
Capacity (m ³ /min)	10-8000	10-8000	15-10000

Compression Stages

2-11 stages

Key Features

KEY PRODUCT FEATURES

- Design and manufacturing in accordance with API617 standard and specification;
- The continuous running time without maintenance can be up to 40,000 hours and at least 30-year service life, with less consumables and low maintenance cost
- Suitable for large flow condition, continuous gas transmission, pressure stable without pulsation which can bring more economical and environmental benefits for oil-free equipment operation
- The capacity can be controlled by methods of throttling, by-pass system and variable speed, and can be driven by motor, turbine, gas turbine and expander.

Engineered for 40,000 hours of maintenance-free operation and a 30-year service life.

Compliance Standards

API617

Operational Advantages

- Continuous gas transmission without pulsation
- Oil-free equipment operation
- Economical and environmental benefits
- Low maintenance costs and reduced consumables
- Capacity control via throttling, by-pass, or variable speed

System Configuration

Driving Methods	Motor, Steam Turbine, Gas Turbine, Expander
Cooling Methods	Air cooling, Water cooling, Mixed cooling

Applications

Target Industries	Oil & Gas, Petrochemical, Air Separation, Power Generation, Environment Protection, Coal Chemical
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