

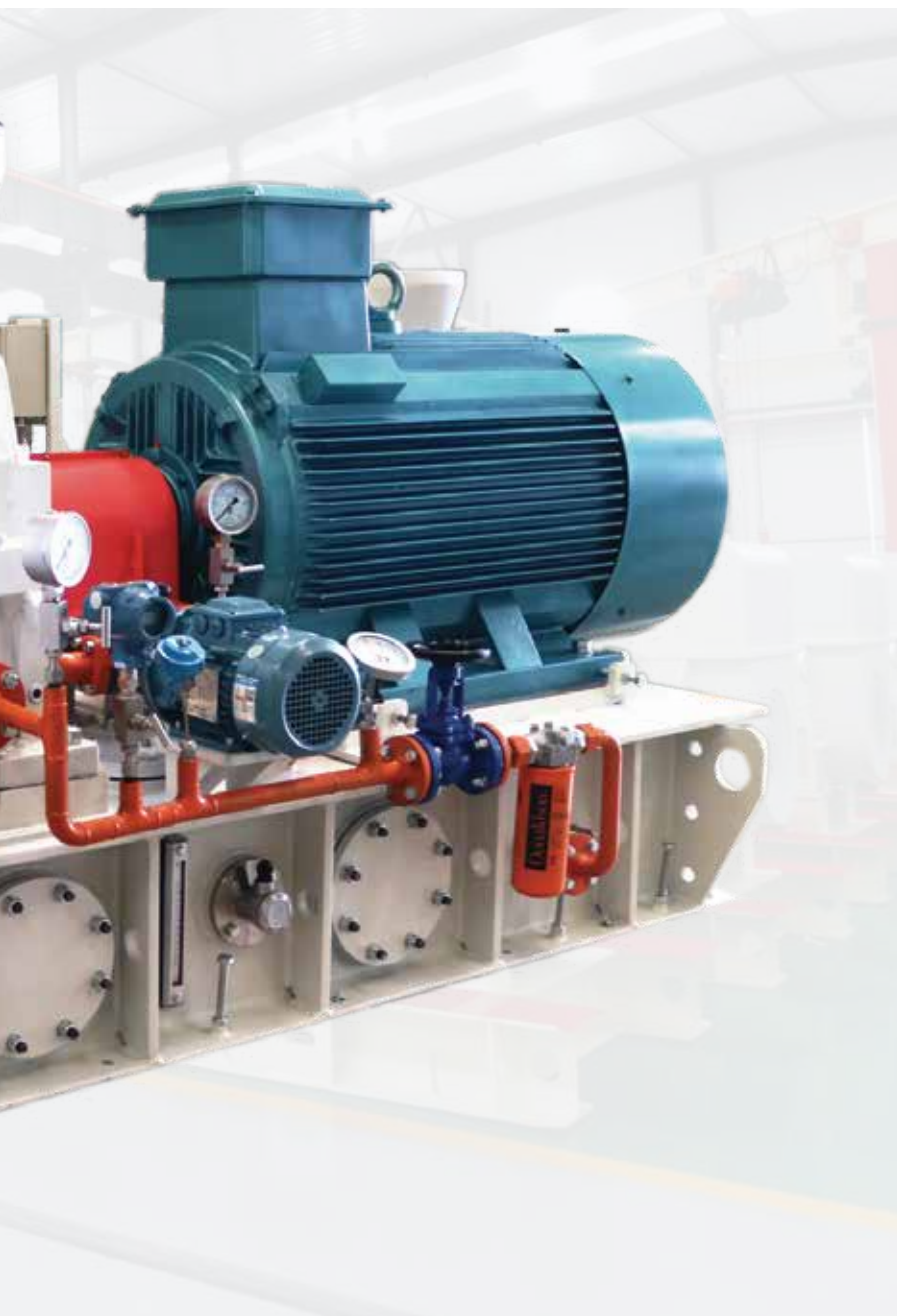
High-speed centrifugal compressors

High Speed Centrifugal Compressor is a high efficiency turbocompressor with significant advantages in terms of reliability and energy saving. Our high speed centrifugal compressors are designed using advanced AxStream software from the United States and are carefully manufactured in accordance with international standards to provide more choices for users around the world.

Areas of application

- Flue Gas Desulphurization - Oxidation Fans
Oxidizing fans are used in thermal power plants to supply air to the desulphurization plant to remove sulphur dioxide from the exhaust flue gas.
- Wastewater Treatment - Aeration Fans
Provides air for biological treatment of wastewater.
- Sulfur Recovery - Reaction Air Fans
Used in the petrochemical industry or in natural gas plants to provide reaction air for sulfur recovery units.
- Mining Industry - Flotation Fans
Supplies air to flotation machines.
- Furnace/Smelter/Reactor Air Supply
The fans mainly supply combustion or reaction air to petrochemical and metallurgical plants.
- Carbon Black - Combustion Air Blowers
Provides combustion air to the furnace.
- Sulfuric Acid Plant - Combustion Fans
The fan provides combustion air and cleans the gas mixture.





Performance range

Flow rate range: 4,000Nm³/h - 65,000Nm³/h;

Maximum pressure rise 1.8 barg for single stage, 4 barg for two stages;

Ternary flow high efficiency impeller, efficiency up to 95%.

Product Features

- High efficiency and low running cost
- Flow rate adjustment range: 40% – 100%
- Compact structure, small footprint
- Air-cooled/water-cooled units with low energy consumption
- Heavy duty design for continuous operation
- High reliability
- Convenient maintenance
- Easy installation and transportation due to skid arrangement.
- Air is completely oil-free
- Rigorous factory testing
- Cost-effective
- Flexible design for different working conditions

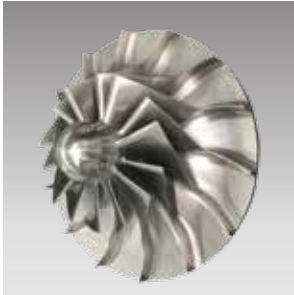
Mainframe Structure



Volute

Axial inlet, radial outlet.

Molded by welding or casting, high strength and long life.



Impeller

Aluminum alloy, stainless steel, titanium alloy material.

Customized semi-open type ternary flow high efficiency impeller.

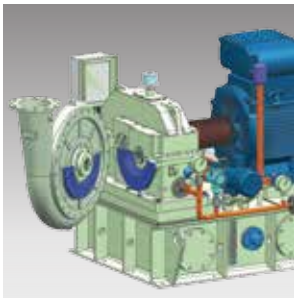
The clearance between impeller and worm shell is geometrically rationalized to ensure efficiency.



Gearbox

Horizontally dissected housing for easy installation and maintenance.

High-precision helical gears mesh left and right, and the tangential force is borne by the base. Low bearing requirements and long life.

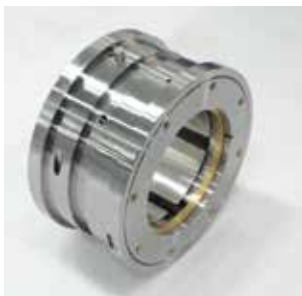


Half-flange connection

Half-flange connection between gearbox and compressor housing.

Both oil and gas seals are visible in working condition.

Replacement of the gas seal does not require disassembly of the impeller or gear box, convenient and quick. Post maintenance and maintenance workload is small, simple and reliable.



Bearing

High-speed bearings are tilting tile bearings, which automatically adjust the center of the drive shaft in accordance with load and temperature changes to accommodate shaft deformation and alignment errors, ensuring high compressor efficiency and reliability.



Shaft Seals

Super Labyrinth Shaft Seal.

Horizontal split structure with more than 3 carbon rings.

High operational reliability, low wear and easy maintenance.



Inlet Vane

Inlet Guide Vane (IGV) is a cost-effective solution for flow control from 100% to 50% at constant differential pressure.

The innovative design of the IGV enables the vanes to be driven with less torque.



Lubrication Oil System

Independent lubricating oil system to supply gears and bearings with the required lubricating oil. It includes oil tank, Y-filter, main oil pump, auxiliary oil pump, safety valve, oil heat exchanger, oil filter, pressure gauge, temperature gauge, pressure transducer, temperature transducer, flow indicator, liquid level meter and liquid level switch.

The main oil pump and auxiliary oil pump are imported from Germany. Oil heat exchanger, water-cooled or air-cooled can be selected according to the site conditions.