Single-Shaft, Multi-Stage Centrifugal Compressors
API 617

From standard processes to high-pressure applications, our single-shaft compressors are the ideal solution for a wide range of industries and process applications. They are designed to customer specifications and **API 617** standards. Compression solutions can be supplied in a variety of configurations from skid mounted, combining the compressor with its driver and auxiliaries, to single lift process modules where we can fully integrate compressors, drivers and process equipment such as coolers, scrubbers, separators, piping, and wiring.

International Spec: Compliance with API617, API614

Mass flow: Up to 300,000 m^3/h

Discharge pressure: Up to 150 bar(a)

Power input: Up to 25 MW

Drive: Turbine/ Electromotor

Key Technical Features

Horizontal split centrifugal compressor

Multiple impellers are attached to a single rotating shaft, for a multi-stage structure. The gas enters through the intake nozzle, and is compressed and pressurized by centrifugal force as it passes through the impellers, which are rotating at high speed, before being ejected through the ejection nozzle. With this type of compressor, the outer casing can be split in the horizontal direction, facilitating the maintenance of internal parts. The red parts are the critical shaft and impellers.

Vertical split centrifugal compressor

With this type of compressor, the outer casing is a single continuous cylinder, for a structure which is capable of withstanding high pressures of approximately 50 – 700 barg, or 1000 barg in trials. The internal bundle (diaphragm and shaft) can be pulled out in the axial direction for maintenance.

Key Design Features

Features

- Dry gas sealing systems
- Up to four process stages
- Up to 10 impellers per casing
- Ultra-low temperature service
- Intercooling, side streams &extractions
- Optional adjustable inlet guide vanes (IGV)
- Standard oil lubricated or active magnetic bearings

Applications

- On- and offshore oil and gas Plant
- Natural gas distribution & storage
- Liquefied natural gas (LNG)
- Petrochemicals
- Olefins and PDH
- Refineries
- Methanol