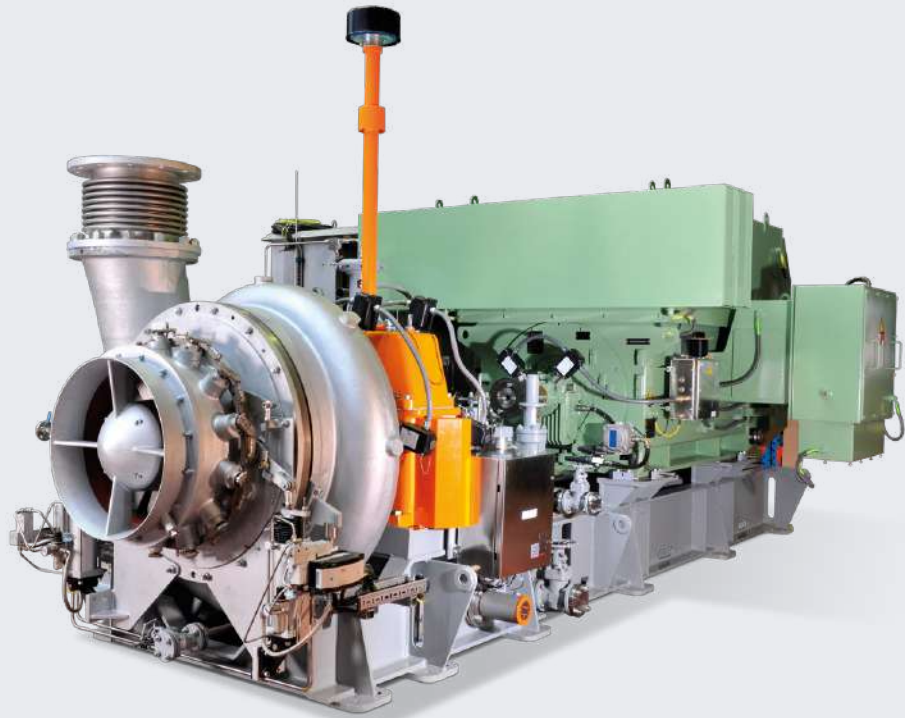


SG centrifugal turbo blowers and compressors

For high efficiency, reliability and precise process control



Shown above: SG turbo blower.

Key features

- Low power consumption – efficiency greater than 85%
- Precise process control via modulating inlet and outlet guide vanes
- Simple installation and maintenance procedure
- Lifetime product support via Howden’s global service network
- High reliability and availability
- Robust design ensuring 25+ years operating time
- API 672 and 617 compliant packages
- Technical and application support

Howden’s range of integrally geared single stage turbo blowers and compressors are widely utilised as the main air blowers within the claus furnace of a sulphur recovery unit and small sulphuric acid plants because of their high efficiency, reliability and the precise process control offered by modulating inlet and outlet guide vanes.

A Howden backward curved single stage impeller has its maximum efficiency 10% below its peak pressure.

This feature leads to a very high design efficiency (85%+) and stable operating characteristic with 10% constant pressure rise to surge.

Howden’s modulating inlet and outlet guide vane system offers very precise process control and a huge turndown range (35%) with a simple constant speed motor. For ambient air applications outlet guide vanes are essential for maintaining efficiency during turndown and offsetting the detrimental effect of constantly varying ambient conditions especially temperature.



SG26



SG30



SG35 & SGH35



SG40 & SGH40



SG45 & SGH45



SG52



SG60



SG65



SG70



SG80



SG92



SG105

Reliability, durability and availability

Howden SG impellers are fully machined from a high quality single piece of aluminium or stainless steel forging. Our gearboxes are integrally geared with forged carbon steel shafts and bearings.

Howden high speed shaft bearings are tilting pad type for smooth running characteristics, and both low speed and high speed bearings are designed for 100,000 hours of L10 life.

Gearboxes are supplied with lube oil from on-skid integral circulating oil system to lubricate and cool bearings and gears reducing wear and tear and extending design life.

Installation and maintenance

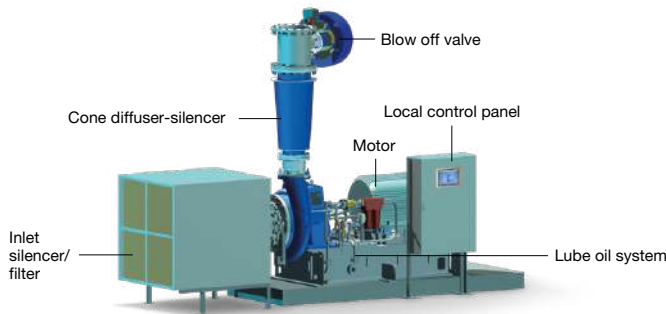
- Howden gearboxes are horizontally split for easy access to shafts, gears and bearings
- Oil and air seals are simple labyrinth type
- Units are supplied as compact, ergonomic packages with all on-skid items pre-installed, wired and tested in factory

Performance

- Flow: 5,000 to 120,000 Nm³/hr
- Pressure: 2.0 Bar(g) in single stage
- Power: Up to 5MW
- Tip speed: 450m/s

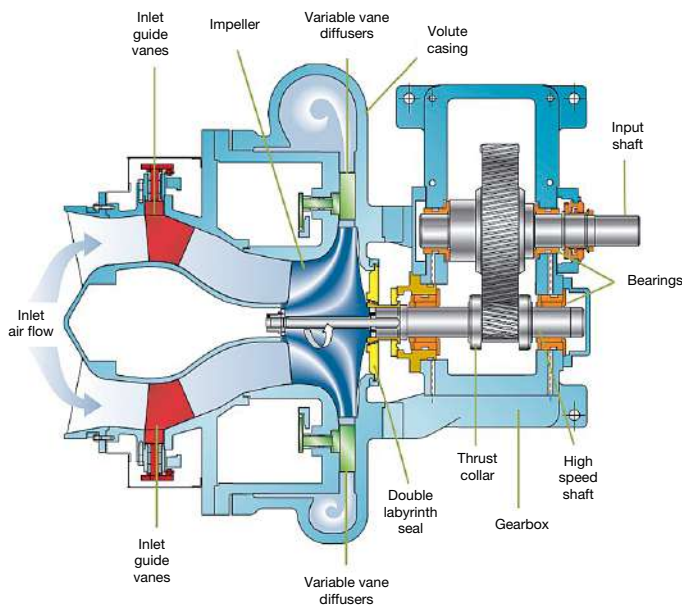
Howden blower and compressor packages are designed to comply with API 672 and API 617 requirements and can be bespoke designed to project specifications.

Turbo compressor system with ancillary equipment



Inlet guide vanes

Inlet/outlet control systems maximising operating efficiency



SG impeller



Outlet guide vanes