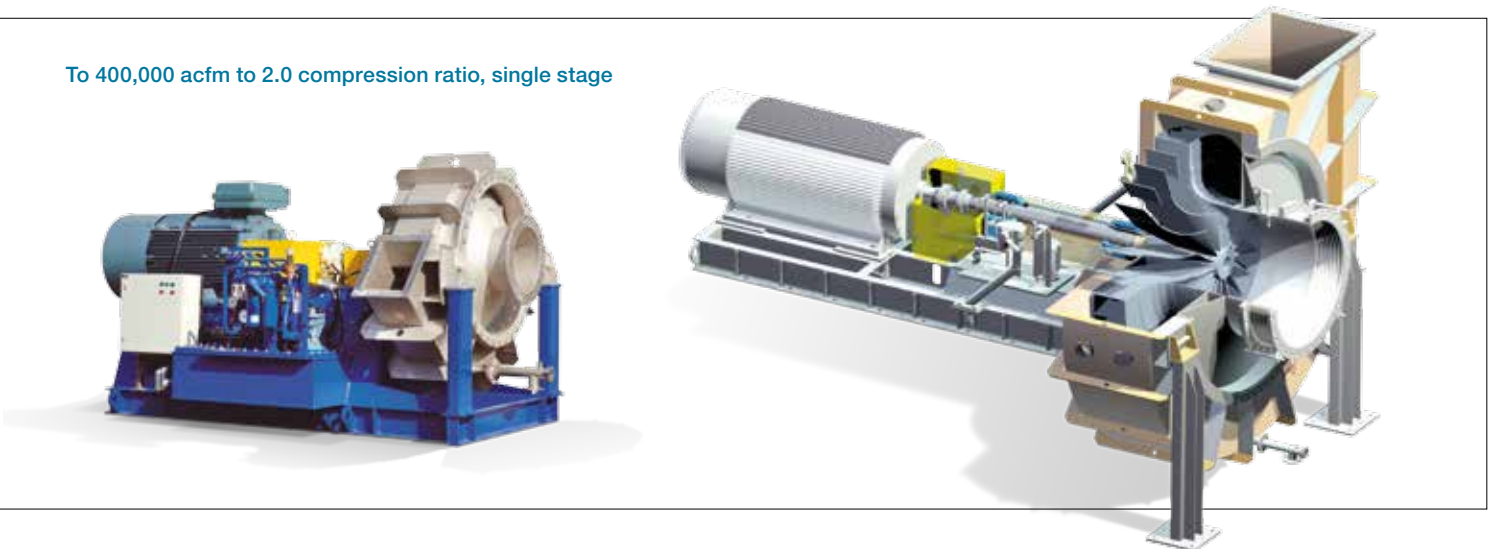


# ExVel<sup>®</sup> Turbo Fans

For process air, process gas and vapor compression

To 400,000 acfm to 2.0 compression ratio, single stage



**We specifically design and fabricate our turbo-fans for each and every project, and to the unique requirements of the application. We aim to understand the unique process, mechanical, and aerodynamic performance requirements of each application in order to provide the best equipment solution.**

Our unique combination of impeller, bearing, and rotordynamic technologies are unsurpassed in industrial fan industry in terms of strength, rigidity, and load capability. Our fan rotor system is constructed to resist the demanding loads imparted by tough applications due to process, fouling, disrupted flow, and temperature and chemistry challenges.

We will design most fans to operate direct coupled to the main driver, and eliminate the need for any gears, which reduces the amount of equipment, instrumentation, noise, and maintenance.

We manufacture from a variety of materials to meet specific process conditions, including high strength quench and tempered steels, Stainless and Duplex Stainless Steel Alloys, and Nickel Alloys.

All component interfaces, site interface connections, and running clearance areas are machined to ensure the best operational integrity.

Our standard lubrication systems designed for sleeve bearings include dual, 100% oil pumps designed for simultaneous operation to ensure constant lubrication at all times and in the event of any type of plant system or equipment failure.

Besides in-process NDE and quality checks, and regardless of how large any unit may be, every fan is run tested at the factory before shipment to ensure the highest operational quality and reliability from the very start.





**For further information contact**

**Howden North America**

7909 Parklane Road  
Columbia, SC 29223

**Tel:** 803-741-2700

**Fax:** 866-757-0908

**Email:** hnasales@howden.com

**Web:** www.howden.com

**For sales and support call:**

1-800-327-8885

**Key features**

**Low speeds**

Typically 3600rpm or less.

Low rotor stress, less sensitivity to fouling, more reliable service.

**Fabricated construction – no castings**

Impellers and casings are fabricated from ductile alloy plate.

Closed face impeller design with reinforced inlet geometry.

Full length radial blades with intermediate stiffening blades.

Durable and forgiving construction for tough operation.

Gas tight casing design.

**Few parts – low maintenance**

Only three rotating parts; impeller, shaft, coupling.

No gears typically.

Fewer spare parts to consider.

Less PM, and more return on investment.

**Combined high efficiency and controllability**

Operating efficiencies up to 80%+.

Controllability to less than 50% flow.

Guide vanes and variable speed options.

**Short lead time: 30 to 40 wks. typical**

**Oil free, non-pulsating operation**

**API (American Petroleum Institute) options**

API 673 – Centrifugal fans.

API 671 – Special purpose couplings.

API 614 – General and special purpose lubrication systems.

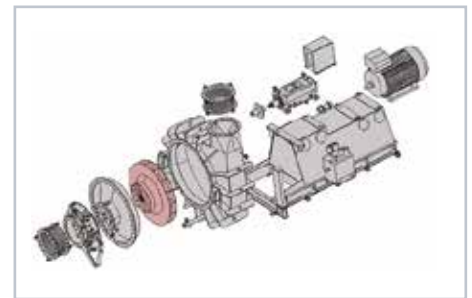
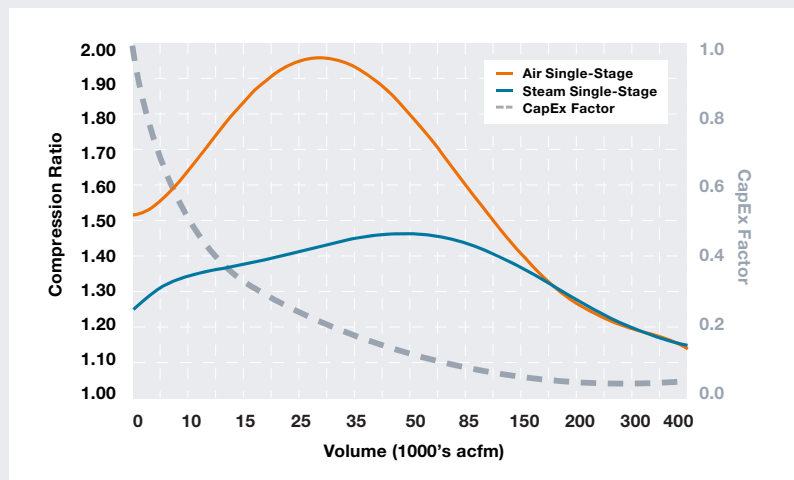
API 541 – Induction motors – 500 horsepower and larger.

API 670 – Machinery protection systems.

**ExVel® Performance range**

Air performance based on standard ambient air, 0.075 lb/ft<sup>3</sup>.

Steam performance based on saturated, atmospheric conditions, 0.0373 lb/ft<sup>3</sup>.



**Revolving Around You™**