

DURAGAS Process Blowers

The **DURAGAS** series is designed and built in a wide variety of sizes, materials and configurations to suit all gases, including toxic, corrosive and explosive. Packages conforming to the latest edition of API Standard 619 are available.

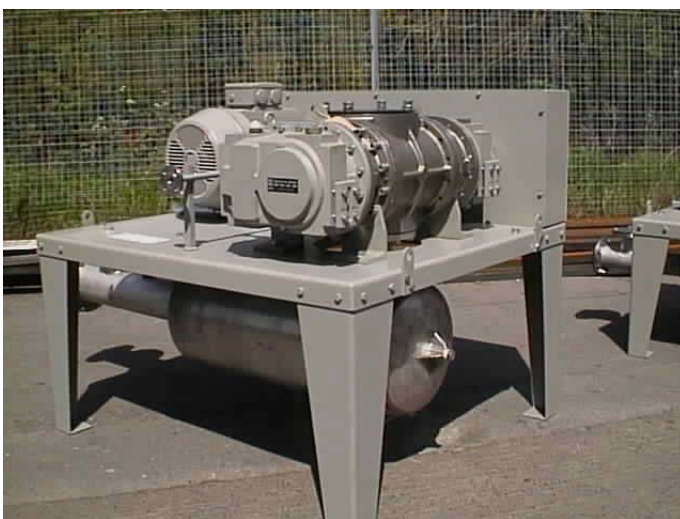


RANGE

Covering a range of capacities from 20 to 80,000 m³/h, the **DURAGAS** series can handle static pressures up to 150 bar g, pressure differentials up to 3.5 bar single stage (higher with multistage) and operating temperatures from -180°C to +225°C.

MATERIALS

Options include:



- Cast iron
- Spheroidal graphite (ductile) iron
- Carbon steel (all cast grades)
- Aluminium bronze
- Austenitic stainless steel (e.g. AISI 304L or 316L)
- 22% Cr duplex stainless steel
- 25% Cr superduplex stainless steel
- Nickel-chromium super alloys (e.g. Hastelloy®)
- Titanium



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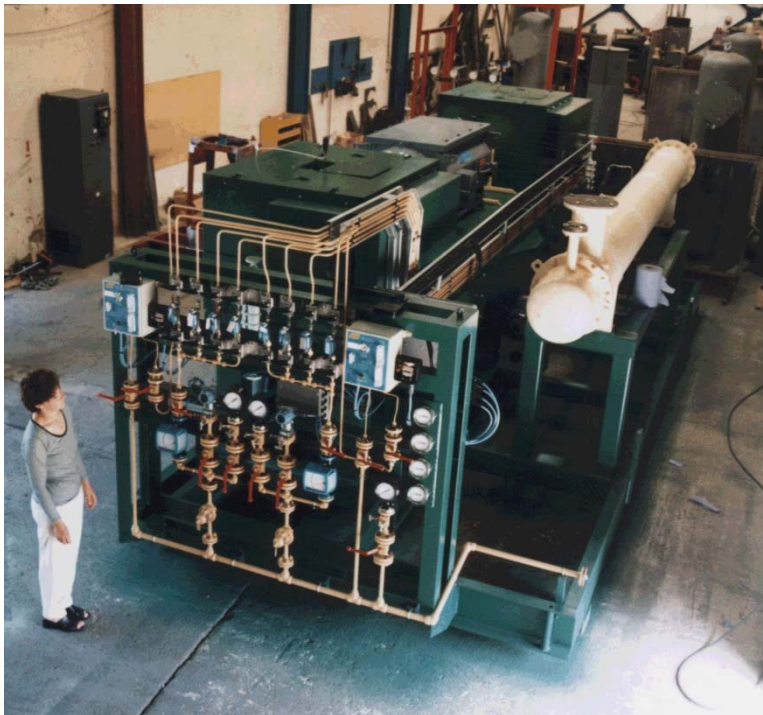
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SEALING ARRANGEMENTS

A wide variety of seal arrangements are available to suit specific applications and requirements. These include:

- Lip
- Labyrinth
- Carbon rings
- Single mechanical seal (dry or wet)
- Tandem mechanical (dry or wet)
- Double mechanical (dry or wet)
- Hermetic seal with magnetic drive



OIL FREE

An interspace chamber located between rotor housing and oil chambers to safeguard against oil carry over into the process. Connection of this chamber can be arranged as follows:

- Vented to atmosphere
- Vented to inlet
- Plugged and sealed
- Gas purged or padded



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BASIC DESIGN

- Machine casings are available for pressures up to 150 bar g static with flange drilling to suit the application. Full flanges are available if required.
- Accurately profiled rotors are available with integrally cast shafts or alternatively with a separate shaft for small machines.
- Each rotor is mounted in a cylindrical roller bearing at the non-drive end to allow for axial expansion of the rotors and a double-row, deep-groove ball bearing at the drive (fixed) end. Bearing life (B_{10}) is rated in excess of 50,000 hours.
- Heavy duty timing gears are manufactured from high-tensile alloy steel to BS 970, Grade 709M40 (formerly EN 19) and are AGMA Quality No. 12. Single helical gears are used for increased power transmission. Gears are clamped for ease of timing adjustment. For high speed operation, a pressure-fed oil system can be provided.
- To ensure oil cannot contaminate the gas being handled, an interspace chamber is provided in the end covers between the gas and oil shaft seals.



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TYPICAL GASES HANDLED

Oxidising – Oxygen, Fluorine, Chlorine	Steam
Reducing – Hydrogen, Carbon Monoxide	Methane, Ethane, Propane, Butane, etc.
Sulphur Dioxide	Natural Gas, Landfill Gas, Petroleum Gas
Ammonia	Other Hydrocarbons (e.g. VCM, Ethylene)
Acidic – H ₂ S, HCl, Wet CO ₂	VOC (Volatile Organic Compounds)
Inert – Helium, Nitrogen, Dry CO ₂	Refrigerants
Radioactive - Tritium	Low Density – Hydrogen, Helium

QUALITY

A rigorous quality assurance system in accordance with ISO 9001 is employed on all project work.



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