

MT25-G

Two-Stage Screw Compressor



TECHNICAL SPECIFICATION

| | |
|----------------------------|---|
| › Power range up to | 457 kW max 563 BHP max |
| › Capacity up to | 19 – 42 m ³ /min 673 – 1492 cfm |
| › Inlet pressure up to | 200 mbar min. 1.35 bar max. 24 Hg min. 5 psig max. |
| › Discharge pressure up to | 17 – 25 barg 250 – 350 psig |
| › Speed full loaded/idle | depends on gear ratio – see chart p. 2 |
| › Weight approx. | 1032 kg / 2270 lbs |

››› Benefits

Multi staging is employed for higher overall efficiency, high pressures and less noise. The thrust balancing piston arrangement incorporated in the multi staging models minimizes thrust loading thus increasing the bearing life.

››› Applications

- › Downhole Drilling
- › PET Bottle Blow Molding,
- › Nitrogen Generation
- › Instrument Air for Power Plants
- › Process Air



»»» Features

HIGH EFFICIENCY ROTORS

The compression stages employ a rotor design which is acknowledged to be the most efficient in the industry. The asymmetrical rotor profile provides the lowest power consumption per cubic foot of compressed air.

HOUSING

Two Stage Compressor unit (Airend) housings are made of high grade grey cast iron and are dimensionally stable, thick walled and machined to close tolerances. The close tolerance of rotors and housing assembly ensures optimum pressure ratio for high efficiency.

Suction and discharge ports are designed to provide wider performance over a wide range of rotor tip speeds.

MECHANICAL SEALS*

Mechanical seals were designed with a carbon rotating part, fixed to shaft with a buna-n or viton bellow. The stationary seat in the housing can be steel/ceramic. These are relatively expensive seals because they will withstand the full system pressure during compression shutdown.

BEARINGS

The compressor unit (Airend) is equipped with anti-friction thrust and radial bearings for higher load carrying capacity and smooth operation.

GEARS & DRIVE SYSTEM

The drive system contains precision machined helical gears made of high grade steel, which reduce noise and improve fatigue strength, thus enhancing reliability. The Airend is energized by a prime mover which is directly coupled with the input drive shaft through a flexible coupling and the drive is geared to the male rotor. The speed of rotors is increased by means of the helical gears to obtain the required output parameters in terms of free air delivery at specified pressures. Minimum and maximum input rpm is dependent on gear ratio of the two stage compressor. The minimum and maximum input speeds are listed below.

| Gear ratio | Max. input rpm | Min. input rpm |
|---------------|----------------|----------------|
| 2.85:1 | 1,800 | 875 |
| 2.61:1 | 2,000 | 900 |
| 2.27:1 | 2,250 | 1050 |
| 1.74:1 | 2,950 | 1364 |

MAIN CONSTRUCTION FEATURES

- › Simple installation
- › Rugged construction
- › Low operating noises
- › Simple to assemble and disassemble
- › Oil filter for each airend
- › Two rotor sets with asymmetrical profile



Options and Specifications

TECHNICAL SPECIFICATIONS

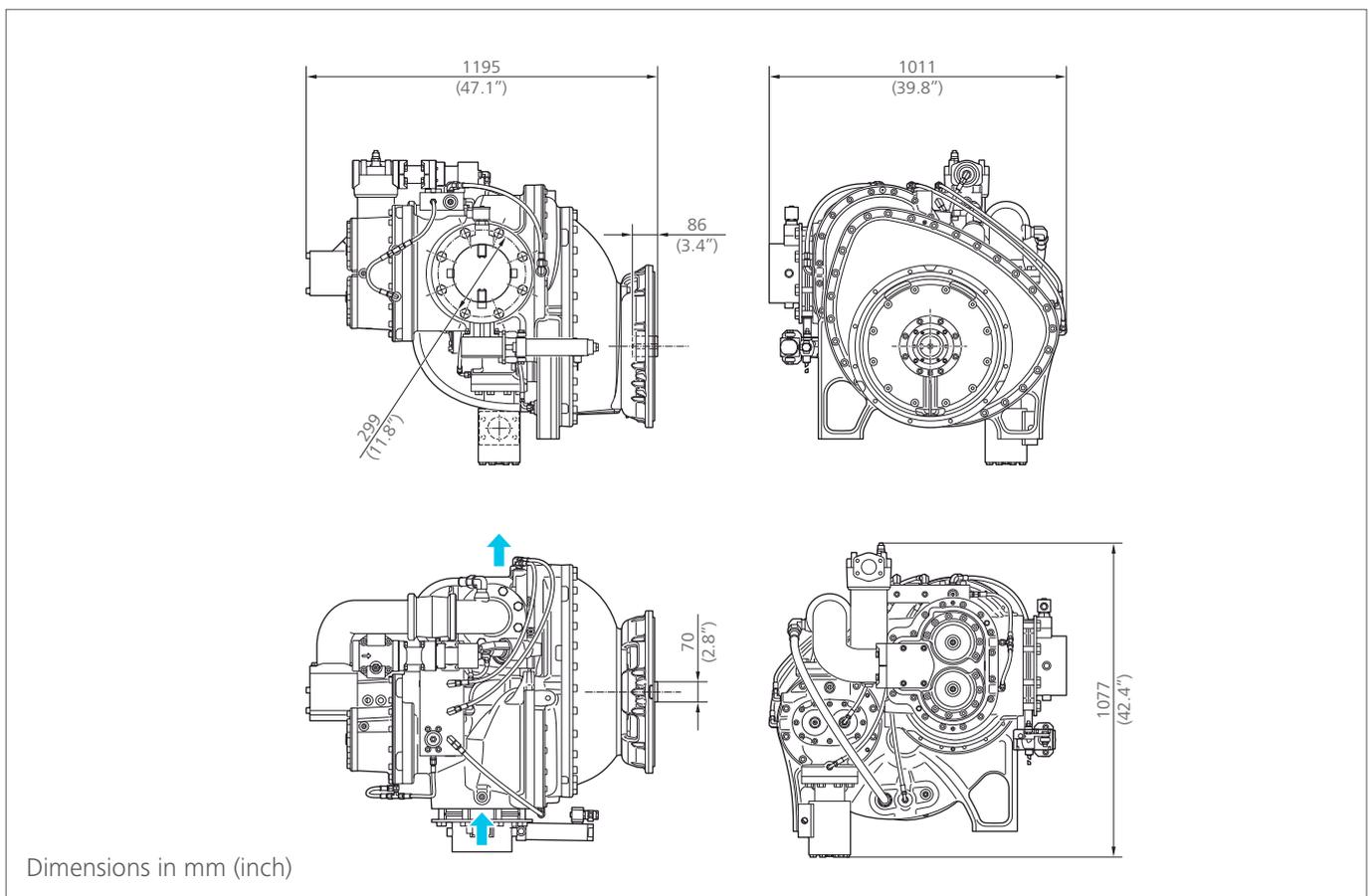
- › Rotor L/D 2.2 and 1.1
- › Shaft Seal – Mechanical*

OPTIONS

- › Intake filter
- › Intake control valve
- › Discharge checkvalve
- › Oil thermostat
- › MPV
- › Fine separator system

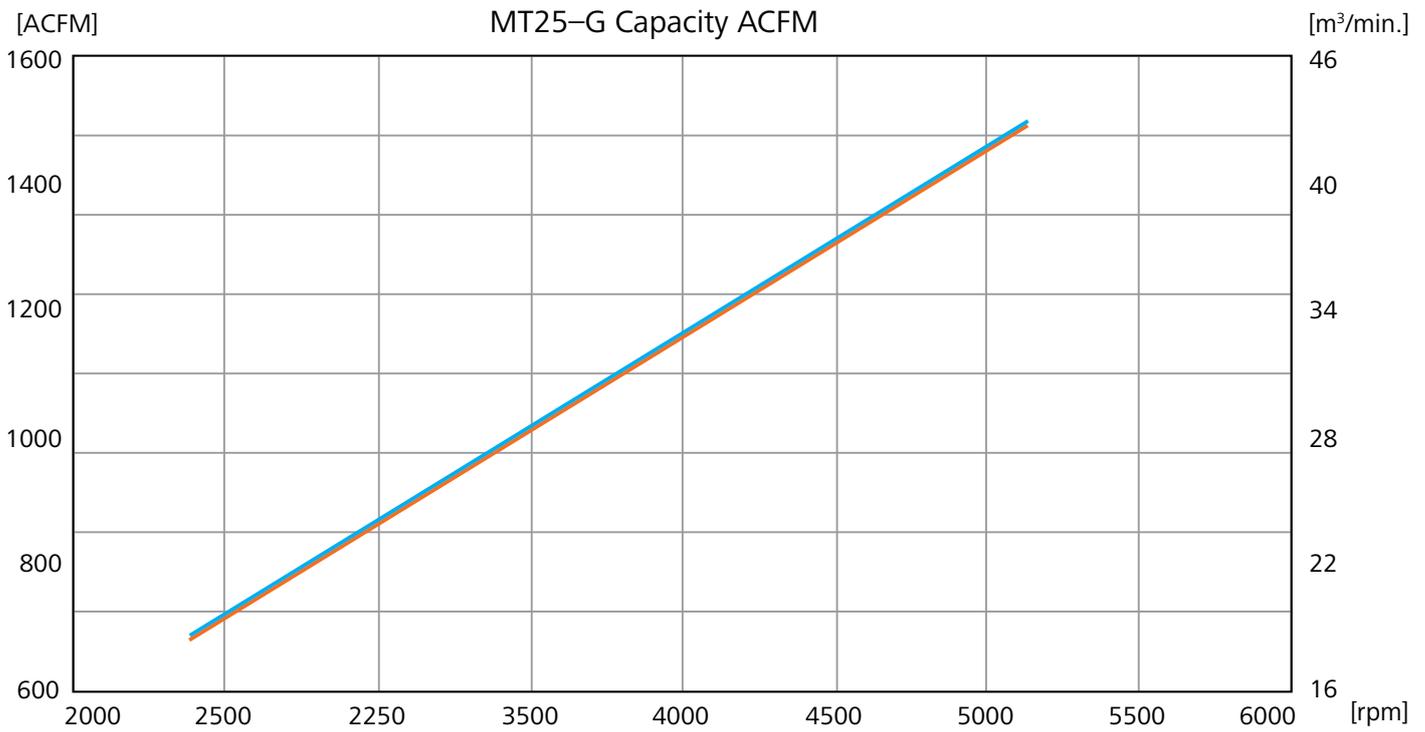
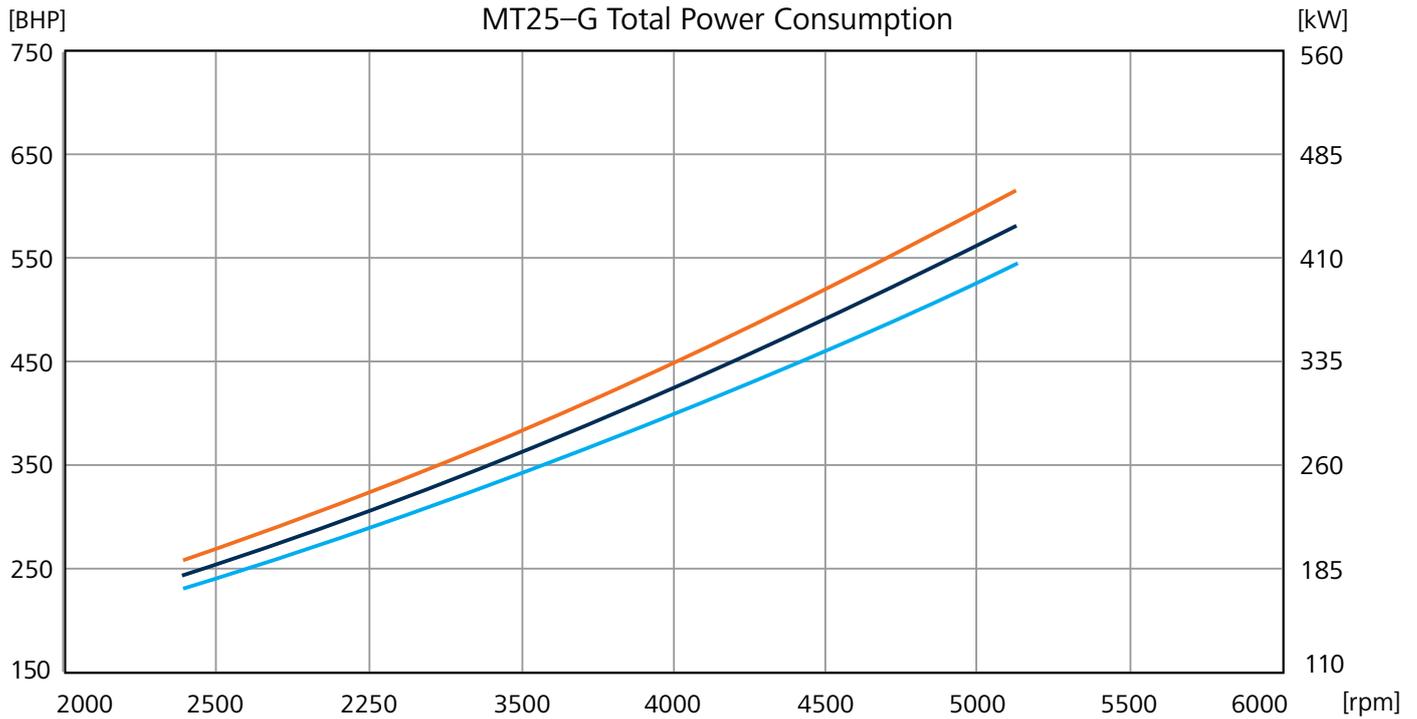
* Mechanical seals prevent air from entering the gas stream when operated with any attainable vacuum inlet gas pressure.

Dimensioning



For detailed design, please order the installation drawing/3d model.

▶▶▶ Performance Data



■ 17 bar | 250 psi
 ■ 21 bar | 300 psi
 ■ 24 bar | 350 psi