LeROI®
by Gardner Denver

HGT17 & HGT24 SERIES

Rotary Screw Gas Compressors

Benefits

LeROI Two-stage Rotary Screw Compressors are very cost-effective for handling high volumes of gas in field gathering, vapor recovery, and other applications and delivering gas at high pressures. The work is divided between two-stages and reduces the forces on rotating elements such as bearings. Low maintenance and high reliability are inherent with rotary screws because they have few moving parts. There are no valves, rings or packings to wear out or cause loss of efficiency. The two-stage LeROI screw gas compressor line offers the same capacity and power modulation features as the single-stage screws. Versatrol is an available option providing the end user with maximum flexibility.

Smooth operation results from no unbalanced forces and no pressure pulsation. No foundation is required. There are no piping vibrations from pressure pulsation.

Direct coupled natural gas engine or electric motor drives are equally acceptable with the HGT17 and the HGT24 rotary screw. LeROI Rotary Screw Gas Compressors are available in various single-stage models covering a flow range of 20 to 15,000 MSCFD and horsepower from 10 to 900, and four two-stage models covering a flow of 1,000 MSCFD to 13,000 MSCFD and horsepower from 400 to 600.

Features

Two-stage operation from 250 PSIG maximum is possible with the HGT17 and HGT24 Series oil-flooded compressors. Compressor packages are simple, reliable and cost-effective. The gas differential pressure provides oil circulation for proper lubrication. Optional oil pumps are available for applications requiring specific oil regulation. All iron or steel construction with no copper or copper alloys makes these compressors compatible with natural gas, sweet or sour.

Performance

Brake Horsepower	
HGT17	400 Max.
HGT24	600 Max.
Flow Range (MSCFD)	
HGT17	2,500 Max.
HGT24	5,000 Max.
Inlet Pressure	20″ Hg Vac. Min.*
	20 PSIG Max.
Discharge Pressure	20*–500 PSIG (MAWP)
Speed Range	
HGT17	750/Min. 3,600/Max. RPM
HGT24	500/Min. 3,600/Max. RPM

* Consult Factory for use with lower vacuum inlet or discharge pressures.

HGT24 Compressor with
Bell Housing and Versatrol

HGT17 Compressor with
Bell Housing and Versatrol

Options & Specifications

Technical Specifications

- Model HGT17 & HGT24
- Rotor Diameter
  - HGT17 175 mm (6.89 inches) first stage
    127.5 mm (5.02 inches) second stage
  - HGT24 245 mm (9.65 inches) first stage
    175 mm (6.89 inches) second stage
- Rotor L/D 1.65
- Rotor Description
  - Each Stage: Twin Screw SRM Profile with
    Sealing Strips, 4 Lobe Male, 6 Lobe Female
- Shaft Seal(s) – Mechanical*
- Drive System
  - Internal Helical Speed Increasing Gears (AGMA 11)
    HGT17 1.759-3.100 Gear Ratios available
    HGT24 1.143-2.000 Gear Ratios available
  - Rotation - Facing Shaft - CW Drive Shaft
    HGT17 2½" Dia. with ⅝" Square Key
    HGT24 2⅞" Dia. with ¾" Square Key
- Materials
  - Rotors – Ductile Iron 65-45-12
  - Castings – Ductile Iron 65-45-12/Cast Iron G3000
  - Bearings – Roller bearings on the inlet end and tapered roller bearings on the discharge end – alloy steel races, rolling elements and cages.
- Weight
  - HGT17 2,000 pounds
  - HGT24 3,800 pounds

* LeROI's mechanical seals prevent air from entering the gas stream when operated with any attainable vacuum inlet gas pressure.

Options

- Versatrol Internal Bypass Valves
  - Versatrol internal bypass valves are available for efficient capacity control from 100-50% of design flow. Control can be manual with four steps or stepless with a microprocessor. Control system is not included.
- Fixed Vi
  - H (High), L (Low)
- Oil Pump
  - Integral oil pumps are available for low-pressure differential applications
- SAE # 1 Flywheel Housing

Applications

- Gas Gathering
- Well Head Gas Compression
- Fuel Gas Boosting
- Vapor Recovery
- Inert Gas Boosting
- Landfill Gas

Gardner Denver®

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