

### **HG24 SERIES** MODEL HG24XXX GEAR DRIVE

## Rotary Screw Gas Compressors

### **Benefits**

LeROI rotary screw gas compressors are very cost-effective for handling high volumes of gas in field gathering, vapor recovery, and other applications. The HG24 Series is suitable for applications to 350 BHP and 300 PSIG discharge pressure. Low maintenance and high reliability are inherent with rotary screws because they have few moving parts. There are no valves, rings or packing to wear out or cause loss of efficiency.

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

Direct coupled natural gas engine or electric motor drives are equally acceptable with the HG24XXX rotary screw. LeROI Rotary Screw Gas Compressors are available in various models covering a flow range of 20 to 15,000 MSCFD and horsepower from 10 to 900.

### **Features**

Single-Stage operation from 15 PSIG to 300 PSIG maximum is possible with the HG24 Series oil-flooded compressors. Compressor packages are therefore simple, reliable and cost effective. The gas differential pressure provides oil circulation for proper lubrication at differential pressures over 60 PSI. Optional oil pumps are available for applications with less than 60 PSI differential pressure.

Adjustable Vi allows discharge porting to be selected in the field to match the internal compression to the application requirement for maximum compression efficiency. All iron or steel construction with no copper or copper alloys makes these compressors compatible with natural gas, sweet or sour.

### Performance

Brake Horsepower Flow Range (MSCFD) Inlet Pressure

**Discharge Pressure** Speed Range

350 Max. 5,000 Max. 20" Hg Vac. Min.\* 50 PSIG Max. 20\*-300 PSIG (MAWP) 500/Min. 3,600/Max. RPM \* Consult Factory for use with lower vacuum inlet or discharge pressures.



Variable Vi

HG24XXXVIEP Compressor with Standard Shaft. Versatrol & Oil Pump

Compressor with SAE #1 Bell Housing,

# **Options & Specifications**

### **Technical Specifications**

- Model HG24
- Rotor Diameter 245 mm (9.64 inches)
- Rotor L/D 1.65
- Rotor Description
  - 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)
  - Gear Ratios of .717 2.617 are available
  - Rotation Facing Shaft CW, Drive Shaft  $2\frac{1}{2}$ " Dia. with  $\frac{5}{2}$ " 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
  - 2,250 lbs
- \* 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.
- Internal Volume Ratio
  - The HG24 has LeROI's standard externally adjustable Vi feature, allowing internal compression optimization while the compressor is operating. Fixed Vi of H = 4.4, M = 3.0 and L = 1.9 are also available.
- Oil Pump
- Integral oil pumps are available for low-pressure differential applications.
- SAE # 1 Flywheel Housing
- SAE # 0 Flywheel Housing Adapter
- Modules with gas/oil reservoir assembly, thermal valve, oil filter assembly, minimum pressure valve and sight glass are all mounted on a steel sub-base with connected components.

### **Applications**

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



#### LeROI Gas Compressors

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