



by Gardner Denver

HG10 AND HGF10 SERIES  
MODELS HG10000 AND HGF10000 NON-GEARED

## 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 HG10 and HGF10 Series are suitable for applications to 90 BHP and 350 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.

Natural gas engine or electric motor drives are equally acceptable with rotary screws. 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.

### Performance

Brake Horsepower	90 Max.
Flow Range (MSCFD)	500 Max.
Inlet Pressure	20" Hg Vac. Min.* 50 PSIG Max.
Discharge Pressure	50-350 PSIG
Input Speed Range	
HG10000	2,650/Min. 5,400/Max. RPM
HGF10000	1,770/Min. 3,600/Max. RPM

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

### Features

The HG10 can be belt driven or direct coupled to electric motors for maximum flexibility at minimum cost. The compressor shaft bearings can absorb the belt side load without additional pillow block bearing supports up to 30 HP. The HGF10000 is suitable for direct coupling to engines and electric motors.

Single-Stage operation from 20 PSIG inlet to 350 PSIG maximum is possible with the HG10 and HGF10 Series oil-flooded compressors. Compressor packages are simple, reliable and cost-effective. The gas differential pressure provides oil circulation for proper lubrication at differential pressures over 70 PSI. An auxiliary oil pump is required on applications below 70 PSI differential pressure.

Discharge porting can be selected 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.



HG10000HIP



S30MHG10000HI

# Options & Specifications

Versatrol



## Technical Specifications

- Models HG10000 and HGF10000
- Rotor Diameter 108 mm (4.25 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
  - HG10000 is suitable for direct coupling to electric motors or V-Belt Drive - oversized input shaft bearings for belt side load up to 30 HP
  - Rotation - Facing Shaft - CCLW, Drive Shaft 1.44" Dia. with 3/8" Square Key
  - HGF10000 is CLW rotation suitable for direct coupling to engines or electric motors.
  - Drive Shaft 1.44" with 3/8" Square Key
- Materials
  - Rotors - Ductile Iron 80-55-06
  - Castings - 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
  - 250 lbs

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

## Options

- Internal Volume Ratio
  - Three volume ratios are available for matching compressor performance to pressure conditions
  - High Ratio - 4.4
  - Medium Ratio - 3.0
  - Low Ratio - 1.9
- Versatrol Internal Bypass Valves
- Fan Shaft
  - A fan shaft is available for use with a direct mounted fan (side load is not acceptable so cannot be used for belt drive).
- Oil Pump
  - Integral oil pump is available for low-pressure differential applications, with or without fan shaft.
- SAE # 3 Bell Housing
  - Modules with oil cooler, aftercooler, gas/oil reservoir assembly, thermal valve, fan, oil filter assembly, minimum pressure valve and sight glass are all mounted on a steel subbase with connected components. Drive motor, belts, pulleys, guard and electric motor driven cooling fan are also available.

## Applications

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

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