

G & H series pumps are positive displacement helical gear pumps that offer the following unique features

Capacity range:

1 TO 35 GALLONS PER MINUTE

Pressure range:

G SERIES 0 TO 250 PSI
H SERIES 0 TO 500 PSI

Viscosity range:

30 TO 100,000 - PLUS SSU

Shafts:

G SERIES GROUND AND POLISHED STEEL.
H SERIES HARDENED AND GROUND TO RESIST WEAR.

Helical gears:

FOR SMOOTH, QUIET RUNNING.

Housing:

OF CLOSE GRAIN CAST IRON. THREE SECTION DESIGN INSURES ALIGNMENT, EFFICIENCY AND EASE OF FIELD SERVICE.

Bearings:

FULL FACE THRUST BEARINGS AVAILABLE IN BRONZE, CARBON, CAST IRON AND NEEDLE (FOR H SERIES ONLY).

Seals:

MECHANICAL SEALS OF BUNA, VITON, TEFLON OR NEOPRENE.
PACKING SEALS OF LOW FRICTION GRAFOIL, HIGH TEMPERATURE GRAPHITE (400 F) OR TEFLON.

Self priming:

HIGH VACUUM CREATED BY THE CLOSE MANUFACTURING TOLERANCES OF THE PUMP PERMIT SELF PRIMING AT THE MAXIMUM HEIGHT MADE POSSIBLE BY THE PHYSICAL PROPERTIES OF THE LIQUID BEING PUMPED. (UP TO 25 FT. BASED ON FUEL OIL AT 70 F)

Versatility:

ALL MODELS AVAILABLE IN PEDESTAL TYPE FOOT MOUNT DESIGN. SIZES 03, 05, 10 AND 18 AVAILABLE IN CLOSE COUPLED DESIGN.
G SERIES OFFERS OPTIONAL SHAFT EXTENSION FOR PULLEY DRIVE.
H SERIES OFFERS INTEGRAL OUTBOARD BEARINGS FOR PULLEY DRIVE SUPPORT AND PROTECTION AGAINST DIRECT DRIVE MISALIGNMENT.



Selecting your Pump:

BEARINGS:

Sleeve Bearings (0 to 250 psi)

Bronze: Best suited for low to medium pressure requirements for those liquids which are chemically compatible and with adequate lubricity values (viscosity) indicated in table below. Typical liquids include lubricants, vegetable oils, mineral oils, and petroleum oils.

Iron: Same as for bronze, above, but especially for applications where no copper can be tolerated, such as pumping animal fats and molasses silage mixtures. Iron bearings will work harden and burnish (see table below).

Carbon: For clean liquids, including those of low viscosity (less than 100 ssu). Suitable for chemicals, solvents, water solutions, petroleum products, hydraulic oils, lubricating oils, etc. Not suitable for abrasives (see table below).

Needle Bearings (0 to 500 psi)

Highest load carrying ability. Covers pressure range from 0 to 500 psi (see table below). Bearings must be lubricated by liquid being pumped. Suitable for lubricating oils, mineral and vegetable oils, heat transfer oils, lubricating hydraulic oils, petroleum lubricants. Liquid must be clean – no abrasives. NOTE: For a combination of viscosities less than 100 ssu and pressures in excess of 100 psi, carbon bearings should be used.

Bearing Selection Table:

Bearings	Pump Series	30 -100 ssu Viscosity	100 – 300 ssu Viscosity	300 plus ssu Viscosity
BRONZE	G H	50 psi 50 psi	150 psi 150 psi	250 psi 250 psi
IRON	G H	N/R N/R	N/R N/R	250 psi 250 psi
CARBON	G H	150 psi 250 psi	150 psi 250 psi	250 psi 300 psi
NEEDLE	H	N/R	See factory	500 psi

SEALS:

Mechanical Seal:

Buna: Suitable for oils and mild chemicals. Temperature limits -40F to 225E

Neoprene: Resistant to weather, ozone, gasoline, and oils. Temperature limits -40F to 200E

Viton: For oils, fuels, lubricants, most mineral acids and solvents. Temperature limits -40F to 400E

Teflon: For industrial chemicals, severe corrosives, and the more difficult solvents. Temperature limits -120F to 500E

Packing Type Seal:

Unlike mechanical seal, the packing type seal is not a zero leakage seal. It requires a slight drippage (about one drop per minute) to prevent shaft scoring and burning up of the packing material. The packing gland must be tightened occasionally to compensate for packing wear. Standard packing is graphite.

OPTIONAL RELIEF VALVE:

- Design overcomes valve chatter and liquid surge. Valve operates smoothly and quietly over its entire range.
- Pressure adjusting screw is set on job to the desired operating pressure as per operating instructions. Pressure range from 25 psi to 300 psi.
- Unique design features eliminate undesirable pressure override found in most conventional relief valves. Pressure override is the extra pressure -required to open the valve before it reaches the bypass flow pressure.

ROTATION:

G & H Series Pumps are uni-directional, i.e. rotation must be specified when pump is ordered. The reason for this requirement is that the bearings are force lubricated from the pump's pressure side and the seal cavity is vented to the suction side to reduce seal wear and increase seal life.

Rotation change and port reversal can be achieved by rotating pump cover 180 degrees.