

The Gearchem pumps are designed for continuous on duty use. They are constructed out of the strongest material available to provide superior chemical resistance and assure long life. Designed to handle a variety of process liquids including liquefied gasses, the GA12 can handle highly viscous fluids to very thin, clear, non-abrasive fluids. Typically employed to transfer fluids they are equally advantageous in metering fluids because of their consistency.

Key Features

- Gearchem pumps offer laminar flows for consistent, continuous and measurable transfer of liquids.
- Fully inline serviceable. Do not need to disconnect from piping.
- Self-priming and bi-directional
- Closed running and operating clearance evacuate air from the suction piping
- Can handle clear lubricating and non-lubricating fluids including hydrocarbons and polymers
- Variety of gears available and easily convertible to satisfy different service conditions
- All gear materials are non-sparking for use with hazardous fluids
- Internal sleeve type bearings are lubricated by process fluid eliminating the need for periodic lubrication maintenance and prevents contamination of external lubrication materials
- Three types of seals and two packing arrangements available

Control Options



MPC Vector

- The MPC VECTOR is an advanced pump controller that is physically separated from the pump's enclosure. Its purpose is to precisely adjust output flow of a process media by means of pump motor speed control, and is designed for a wide variety of control applications.

Operating Benefits

- Simplified maintenance due to quick disassembly
- Do not require periodic lubrication, since the pumped fluid provides the necessary lubrication and cooling.
- Possibility of contamination of pumped fluid is eliminated
- Bi-directional for easy installation
- Dual purposed: can be used as either a transfer pump or a metering pump
- Handles a variety of fluids and viscosities
- Has superior chemical resistance



Aftermarket & Accessory Offerings

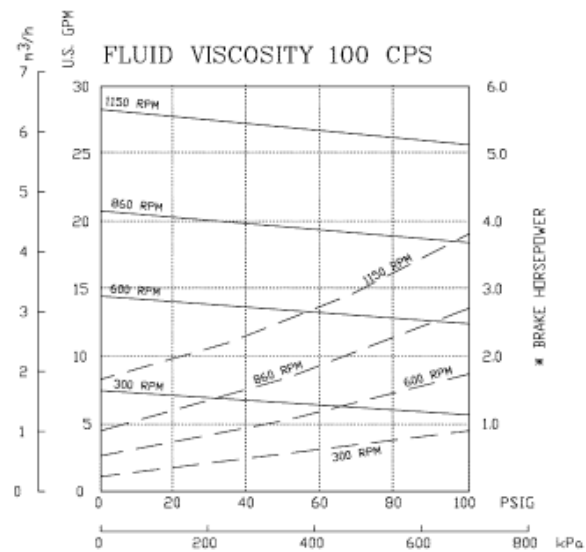
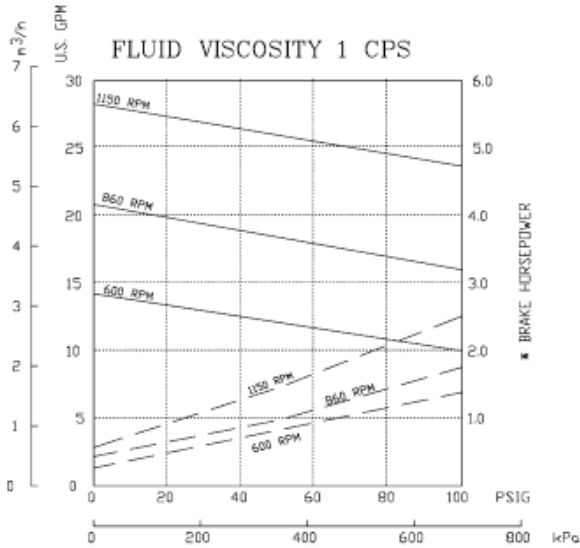
- KOPkit[®]
- Bolt-on Heating/Cooling jackets
- Pressure Relief Valves
- Back Pressure Diaphragm Valves
- Base-Mounted Units
- Close-Coupled Units



ECO Gearchem[®] Series 12 External Spur Gear Pump

ECO Gearchem® Series 12

Typical Performance



Engineering Data

Casing/Housings: 316SS, 316 SS, Alloy C, Alloy 20
 Drive/Idler Gears: 316SS, 316 SS, Alloy C, Alloy 20
 Shafts: 316SS, 316 SS, Alloy C, Alloy 20
 Bearings: Carbon 72, Carbon 92, Glass-filled PTFE, Silicon Carbide
 Bearing Type: Internal Sleeve
 Wearplate: Carbon 72, Carbon 92, Glass-filled PTFE, Silicon Carbide
 Bearing Lubrication: By pumped fluid
 Packing Arrangements: Standard or lantern ring
 Mechanical Seals: Single internal or double seals to 140 psi. Single external seal to 50 psi.
 Port Size and Type: 1.5" NPT or BSPT
 Direction of Rotation: Bi-directional
 Theoretical Displacement: 2.792 gal/100 rev (105.7 cc/rev)
 Drive Shaft Diameter: .5"

Maximum Differential Pressure: 150 psi (10.3 bar), (Consult factory for pressures over 100 psi)

Minimum System Pressure: .1mm Hg (abs)

Maximum Speed: 1150 rpm

Maximum Viscosity: 100,000 cPS, higher viscosities achievable with speed reduction

Maximum Fluid Temperature: 450°F (232°C) metallic gears or carbon idler, 212°F (100°C) non-metallic gears

Minimum Fluid Temperature: -100°F (-73°C)

Fluid pH range: 0-14

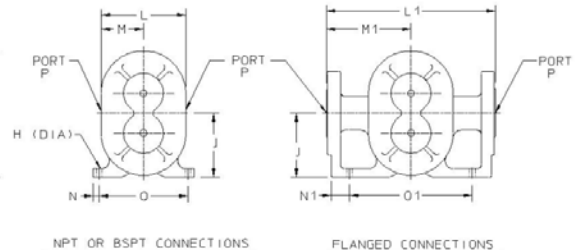
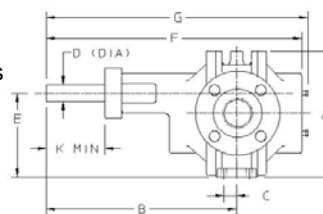
Approximate Weight: 39 lbs. (17.6 kg) pump only

Custom Engineered Designs

- Bearing High Pressure option available
- Flush plugs
- Housing vent port
- Bolt-on Heating/cooling jackets
- Pressure relief valves
- Backpressure valves
- Flanges
- Flush plugs
- Housing vent port

Dimensions

Inches(mm)								
Ports	A/A ¹	cP	D	L	O	U	X/X ¹	Z
1 ½ in threaded	6 (152.4)	15½ (384.2)	5 (127.0)	11¼ (285.8)	7½ (190.5)	1 (25.4)	2½ (63.5)	13/16 (30.2)
1 ½ in flanged	9 7/16 (239.7)	15½ (384.2)	5 (127.0)	11¼ (285.8)	7½ (190.5)	2 (25.4)	5 (127.0)	13/16 (30.2)



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ECG122 K11