

# ECO GEARCHEM<sup>®</sup> Series 4

## EXTERNAL SPUR GEAR PUMP

ECO positive displacement gear pumps offer the reliability you need to safely transfer or meter chemicals in a wide range of applications. Extensive material options provide versatility for pumping low or high viscosity fluids over a broad range of temperatures, pressures, and corrosive service.

Typical applications include chemical transfer, distillates from evaporation columns, and everything from glues and molten sulfur to soaps and toothpastes. ECO gear pumps are well suited for pilot plants, vacuum systems, and many metering applications.



### Applications

- pH control
- odor control
- acids
- caustics



### Flow

up to 3 gpm (13.6 lpm)



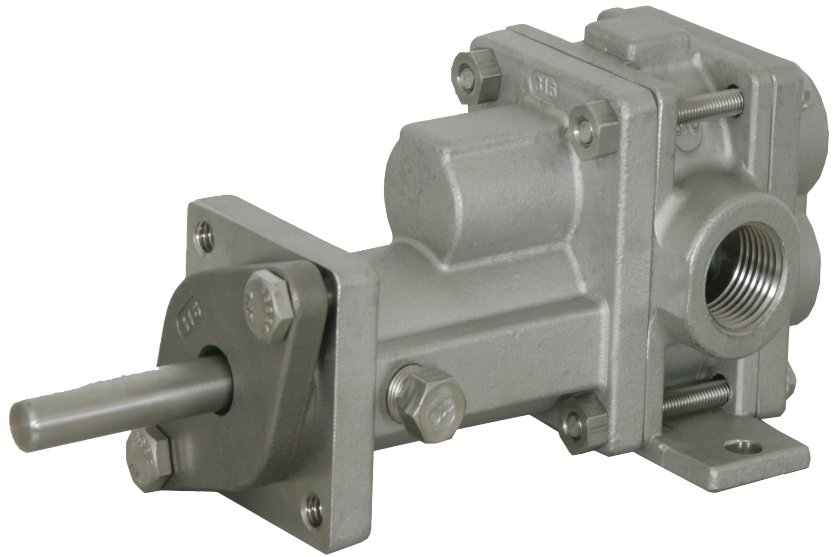
### Pressure

up to 140 psi (9.6 bar)



### Temperature

up to 450°F (232°C)



- Gearchem pumps offer laminar flows for consistent, continuous and measurable transfer of liquids.
- 360 degree mounting and bi-directional operation allow for easy installation.
- 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 gear materials, easily convert 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.
- Offered with heavy duty bellows or wedge type mechanical seals minimize the possibility of leakage to the environment and contamination of pumped fluid
- 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.
- Monitoring of flow and rpm performance allows for predictive maintenance.
- Periodic lubrication is not required since the pumped fluid provides the necessary lubrication and cooling.

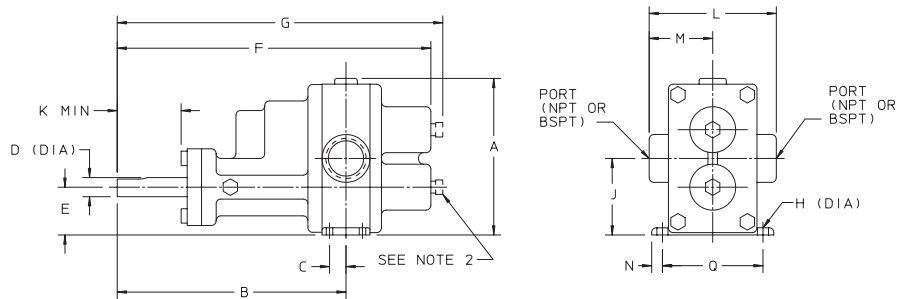
# ECO GEARCHEM® 4 SPECIFICATIONS

Port Size and Type	0.50" NPT, BSPT or 0.50" 150 LB ANSI Flange
Direction of Rotation	Bi-directional
Theoretical Displacement	0.189 gal/100 rev (7.16 cc/rev)
Drive Shaft Diameter	0.375"
Maximum Differential Pressure	140 psi (9.6 bar)
Minimum System Pressure	0.1mm Hg (abs)
Maximum Speed	1725 rpm
Maximum Viscosity	Up to 100,000 cPS
Maximum Fluid Temperature	450°F (232°C)
Minimum Fluid Temperature	-100°F (-73°C)
Fluid pH range	0-14
Approximate Weight	4.2 lbs. (1.9 kg) pump only

# MATERIALS OF CONSTRUCTION

Casing / Housings	316 SS, Alloy C, Alloy 20
Drive / Idler Gears / Shafts	316 SS, Alloy C, Alloy 20
Bearings	Carbon 72, Carbon 92, Glass-filled PTFE
Bearing Type	Internal Sleeve
Wearplate	Carbon, PEEK, Ceramic, Glass-filled PTFE
Bearing Lubrication	By pumped fluid
Packing Arrangements	Graphoil or PTFE lantern rings or packing, Viton lip seals
Mechanical Seals	Single or double, wedge or bellow type

# DIMENSIONS

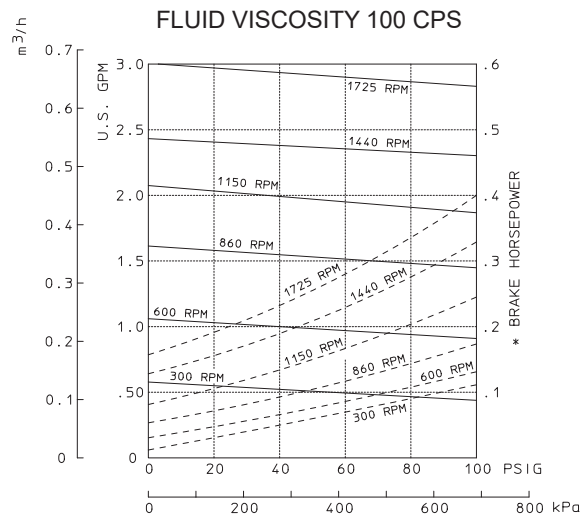
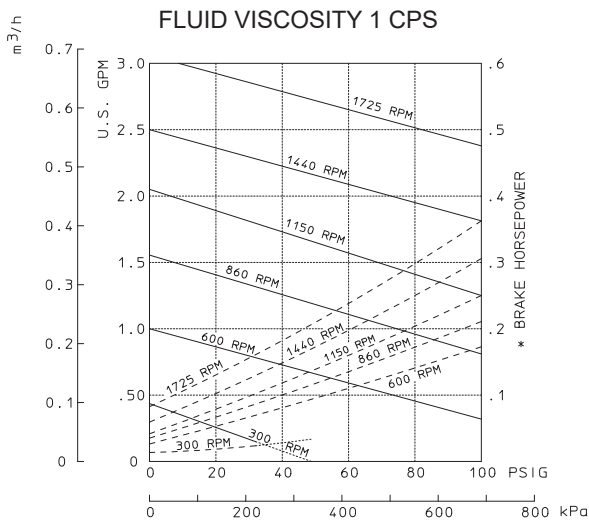


### Notes:

1. Suction and Discharge ports are dependent upon rotation.
2. Bearing flush plugs (0.12 NPT) are optional.
3. All dimensions are in inches.

Port	A	B	C	D	E	F	G	H	J	K MIN	L	M	N	Q
0.50"	2.88"	5.7"	-	0.38"	0.88"	7.32"	7.63"	0.29"	1.38"	1.07"	2.88"	1.44"	0.25"	3"

# FLOW & PRESSURE



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Pulsafeeder is an ISO 9001 Certified Company.

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