

# ECO GEARCHEM® Series 12

## 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 28 gpm (106 lpm)



### Pressure

up to 200 psi (13.8 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.
- Periodic lubrication is not required since the pumped fluid provides the necessary lubrication and cooling..
- Offered with heavy duty 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

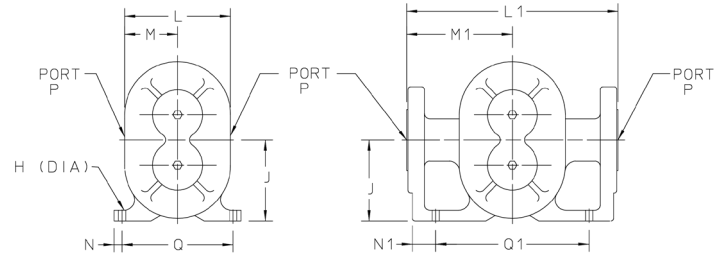
# ECO GEARCHEM® 12 SPECIFICATIONS

Port Size and Type	1.5" NPT, BSPT or 150 LB RF Flange
Direction of Rotation	Bi-directional
Theoretical Displacement	2.792 gal/100 rev (105.7 cc/rev)
Drive Shaft Diameter	1.0"
Maximum Differential Pressure	100 psi (6.9 bar)
Minimum System Pressure	0.1mm Hg (abs)
Maximum Speed	1150 rpm
Maximum Viscosity	Up to 100,000 cPS
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

# MATERIALS OF CONSTRUCTION

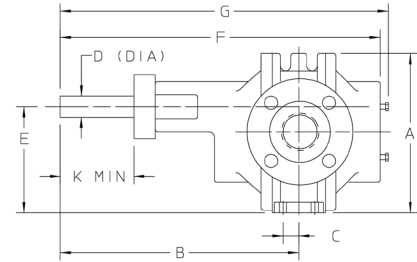
Casing / Housings	316SS
Drive / Idler Gears / Shafts	316SS
Bearings / Wearplate	Carbon 72, Carbon 92, Glass-filled PTFE
Bearing Type	Internal Sleeve
Bearing Lubrication	By pumped fluid
Mechanical Seals	Single internal mechanical seal

# DIMENSIONS



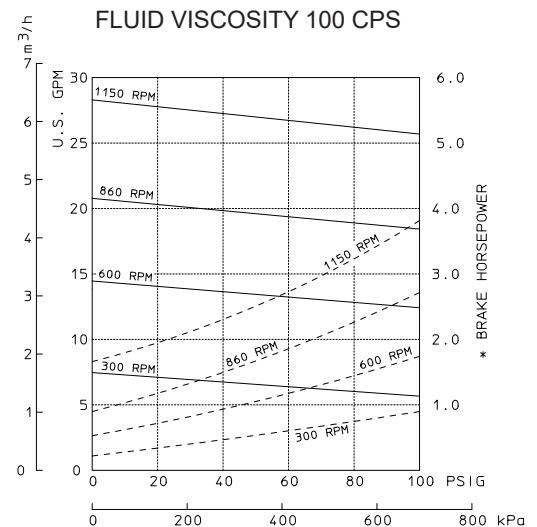
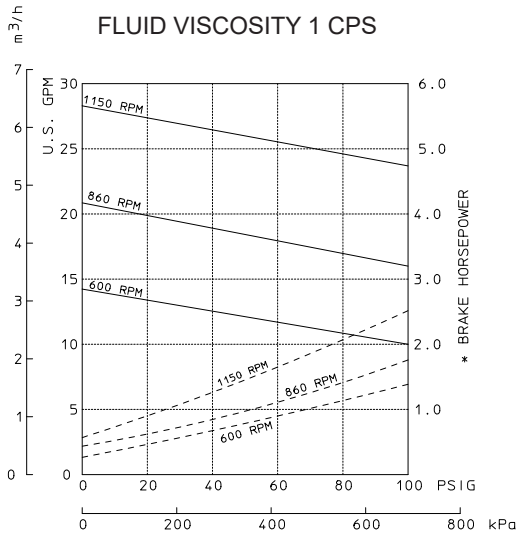
NPT OR BSPT CONNECTIONS

FLANGED CONNECTIONS



PORT SIZES			NPT OR BSPT CONN				FLANGED CONN				
NPT OR BSPT	150 LB RF FLG		L	M	N	Q	L1	M1	N1	Q1	
P	P	A	B	C	D	E	F	G	H	J	K MIN
1.5"	1.5"	7.5"	11.25"	0.75"	1"	5"	15.12"	15.5"	1.09"	7.25"	3.25"

# FLOW & PRESSURE



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 Pulsafeeder is an ISO 9001 Certified Company.