



E Series
Seal-less Internal
Gear Pumps



Where Innovation Flows

envirogearpump.com



Seal-less Internal Gear Pump SERIES

A Safer, Greener, More Cost-Effective Pumping Solution

EnviroGear® Pumps, part of PSG®, a Dover Company, is a leading global provider of innovative, high-quality industrial gear pumps for the safe and efficient transfer of liquids. PSG is proud to offer E Series Seal-less Internal Gear Pumps, a durable and environmentally-friendly positive displacement seal-less gear pump. EnviroGear E Series pumps save you money by providing a low initial cost, high performance and low maintenance costs.

Our world-class distributor network ensures that you will have access to the pump you need when you need it. We are devoted to your business success, servicing your needs with world-class products, delivery and best-in-class expertise. E Series combines all of this while offering some of the shortest gear pump lead times in the industry. Put us to the test today and contact your local distributor at envirogearpump.com.

E Series Pumps are Ideally Suited For...

- Adhesives
- Biofuels
- Chemicals
- Food processing
- Lube oil and grease
- Paint and coatings
- Petrochemical
- Petroleum additives
- Polyurethane
- Printing
- Resins
- Soaps

E Series Features

Our revolutionary seal-less design with patented between-the-bearing support system effectively eliminates leaks and mechanical wear, helping to increase personal and environmental safety. Leveraging unique patented design features, E Series is not just a magnetically-coupled, mechanically-sealed or traditional internal gear pump. EnviroGear has completely reinvented internal gear pump technology with a true engineered solution specifically designed from the inside-out for environmentally conscious fluid handling, both for thin fluids, as well as hard-to-seal viscous fluids.

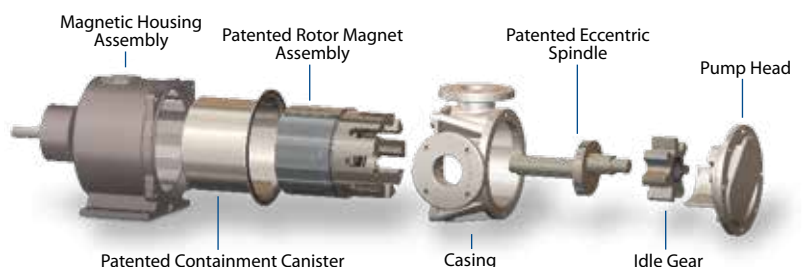
- Patented between-the-bearing support system technology
- High reliability and durability
- 50% reduction in maintenance costs
- Lowest overall cost of ownership
- Increased environmental and fluid-handling safety
- Single-fluid chamber with seal-less design eliminates leaks
- Interchangeable with mechanically-sealed and packed gear pumps

Interchangeability Allows Upgrading Existing Gear Pumps With Minimal Installation Costs

E Series pumps have been designed to be interchangeable with up to 95% of the internal gear pumps that are currently available in the market. That means no piping changes, no driver changes, no coupling changes, no flow-rate changes and no baseplate changes. The E Series side-ported casing is also interchangeable with a number of lobe pumps.



E1-Series Seal-Less
Internal Gear Pump





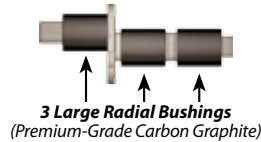
Between-the-Bearing Support System For Increased Durability

The E Series Design

The patented EnviroGear design supports the rotor and idler gears at three crucial locations with an Eccentric Spindle. The Eccentric Spindle is supported in the head, the crescent location and the back of the containment canister, eliminating many of the effects of the cantilevered load. Larger diameter, harder



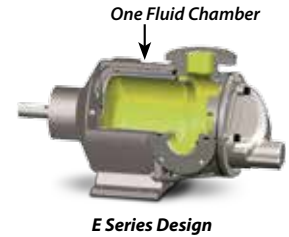
materials provide more rigid support for less shaft deflection and bearing wear. Materials are 4140 carbon steel or 17-4 PH stainless steel. Large, long radial bushings support the entire length of the rotating element, which spreads out the hydraulic forces and allows the bushings to last longer.



One Fluid Chamber For Enhanced Reliability, Fluid Safety

The E Series Design

The E Series uses magnets mounted directly to the rotor, eliminating the adapter plate and allowing for a single-fluid chamber. This single fluid-chamber design results in a much shorter, simpler flow path and allows the pump to easily handle fluids with high viscosities up to 50,000 cSt while increasing bearing life and cleanability.



Ductile Iron, Carbon Steel		
Model	Max. RPM	Flow @ Max. Speed
E1-2-CS	1800	3.4 m ³ /hr (15 gpm)
E1-4-CS	1800	6.8 m ³ /hr (30 gpm)
E1-24-DI or CS	780	17.0 m ³ /hr (75 gpm)
E1-32-DI or CS	780	22.7 m ³ /hr (100 gpm)
E1-55-DI or CS	640	30.7 m ³ /hr (135 gpm)
E1-69-DI or CS	640	38.6 m ³ /hr (170 gpm)
E1-82-DI or CS	640	45.4 m ³ /hr (200 gpm)

Stainless Steel		
Model	Max. RPM	Flow @ Max. Speed
E1-2-SS	1200	2.3 m ³ /hr (10 gpm)
E1-4-SS	1200	4.5 m ³ /hr (20 gpm)
E1-24-SS	640	12.5 m ³ /hr (55 gpm)
E1-32-SS	640	18.2 m ³ /hr (80 gpm)
E1-55-SS	520	25.0 m ³ /hr (110 gpm)
E1-69-SS	520	31.8 m ³ /hr (140 gpm)
E1-82-SS	520	36.3 m ³ /hr (160 gpm)

Parameter	Configuration	Rating
* Differential Pressure	Ductile iron, carbon steel stainless steel	* 1.4 to 13.8 bar (20 to 200 psi) * 1.4 to 10.3 bar (20 to 150 psi)
Temperature	Ductile iron, carbon steel stainless steel	-40 to 260°C (-40 to 500°F) -40 to 260°C (-40 to 500°F)
Viscosity	All	0.5 to 50,000 cSt

* Consult factory for differential pressures below 1.4 bar (20 psi).

Description	Part	Ductile-Iron Models	Carbon-Steel Models	Stainless-Steel Models
Pressure Containing	Casing, Head	Ductile Iron	Carbon Steel	Stainless Steel (CF8M)
	RV Body	Carbon Steel		Stainless Steel (CF8M)
	Canister	Stainless Steel (316)		
Product Contact	Rotor, Idler	Carbon Steel		Stainless Steel (17-4PH)
	Spindle	Alloy Carbon Steel (4140) (opt. abrasion-resistant version is surface-hardened)		Stainless Steel (17-4PH)
	Rotor Sleeve	Stainless Steel (316)		Stainless Steel (316)
	RV Spring	Stainless Steel (302)		Stainless Steel (302)
	Bushings	Carbon Graphite, Bronze or Tungsten Carbide		Carbon Graphite or Bronze
	O-Rings	Viton (DuPont Type A), PTFE-encapsulated Viton, PTFE-encapsulated Silicone or any commercially available O-ring		
Non-Product Contact	Magnet Housing	Ductile Iron		
	Shaft	Alloy Carbon Steel (4140)		

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