







ECLIPSE® EXTE

PULSAFEEDER EXPERTISE

For over 70 years, Pulsafeeder, Inc. continues to be a proven leader in fluid handling technology and innovation in chemical dosing. With extensive experience in providing fluid handling solutions, our pumps and systems are designed to handle your toughest applications. Known for their rugged construction and dependable performance, our products are of the highest level of manufacturing excellence and quality control.

ECLIPSE GEAR PUMPS

The Eclipse Series represents a dramatic advance in pump technology. Combining proven design principles with patented features, our pumps are reliable, simple, and intuitive. Structurally rugged with corrosion-resistant materials, Eclipse is an ideal fit for many medium to highly corrosive liquids, covering the entire pH scale.

GEAR PUMP TECHNOLOGY

The innovative technology behind Eclipse supports its ability to handle the most corrosive chemicals with a simple to service, front pull-out design. Eclipse is available with wetted components in completely non-metallic construction, 316LSS, or Alloy C (this ensures corrosion resistance over a wide range of chemicals and temperatures.) These pumps are magnetically driven to eliminate mechanical seal wear and leak paths. The patented bearing design promotes constant hydrodynamic lubrication.

CONFIGURATIONS



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RNAL GEAR

MARKETS & TYPICAL APPLICATIONS

Markets

- Chemical Processing
- Oil & Gas
- Petrochemical
- Wastewater Treatment
- Water Treatment Power
- Water Treatment Municipal

MATERIALS OF CONS

Typical Applications

- Sodium Hypochlorite
- Hydrogen Peroxide
- Sulfuric Acid
- Solvents
- Caustics
- Polymers

- Bleaches
- Dyes & Inks
- pH Control
- Catalyst
- Cleaning Agents
- Flocculants
- Odor Control
- Adhesives & Resins
- Acids

Housing	PVDF	316LSS	Alloy C				
Magnet	Neodymium encapsulated in virgin PTFE	Neodymium in 316LSS welded	Neodymium in Alloy C welded				
Gears & Liner	Carbon-reinforced PTFE	Carbon-reinforced PTFE 316LSS	Carbon-reinforced PTFE Alloy C				
Shafts	Alumina Ceramic						
Bearings	Carbon Graphite or Graphite-impregnated Silicon carbide	Carbon Graphite or Graphite-impregnated Silicon carbide	Carbon Graphite or Graphite-impregnated Silicon carbide PTFE				
O-rings	Viton [®] -A or EPDM standard, others available	PTFE					

PRODUCT SPECIFICATIONS

	Non-Metallic	Metallic	
Flow	up to 33 gpm (125 lpm)		
Differential Pressure	150 psi (10.3 bar)		
Maximum Casing / Working Pressure	200 psi (13.8 bar)		
Viscosity	up to 10,000 cPs		
Process Fluid Temperatures	from -40°F to 150°F (-40°C to 65°C)		
NPSHr	2 ft		

COMPONENTS





FNPT, BSPT, ANSI or DIN Flange Connections

Fully Encapsulated Driven Magnet

Patented Housing Liner

Innovative One Piece Gear Shaft Containment Can Resists Heat Damage Due to Eddy Currents and Eliminates Leak Paths

Modular Magnet Hub (Non-metallic Models Only)

MORE THAN YOU EXPECT.

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NEMA & IEC Motor Adaptor

**Engineered configurations not shown may be available upon factory request

FEATURES



DESIGNED FOR SIMPLICITY

- · Fewest component gear pump on the market
- · Simplified ordering and inventory with fewer parts
- · Self-aligning parts and piloted fits ensure proper assembly every time



RENEWABLE PERFORMANCE

- · Patented housing liner protects the housing from wear
- · Easy maintenance KOPkit® (Keep on Pumping kit) saves time and money
- Regain performance flow with a KOPkit®



HEAVY DUTY BEARINGS & TOLERANCE O-RING

- · Bearings have large wear areas
- Bearings are made from self-lubricating materials and their patented geometry allows for run dry capabilities
- Tolerance O-ring maintains proper internal operating clearances



UNIVERSAL FLANGES WITH INSERTS*

- Standard housings mate to both ANSI and DIN flange connections
- PTFE or Viton®-A inserts act as a gasket and can be reused or replaced to ensure a proper seal



UNIVERSAL MOTOR ADAPTOR*

- Standard adaptors easily mate to multiple NEMA and IEC motors
- · Wide range of motor adaptors allow for easy installation in retrofit applications

*Non-metallic Only



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ENEFITS

MAGNETICALLY DRIVEN SEALLESS DESIGN

- Eliminates costly seal flush systems required for double mechanical seals
- Patented drive shaft spline design optimizes magnet alignment on shaft
- Fully encapsulated driven magnets offer maximum corrosion resistance
- Modular magnet hub: one drive magnet per pump size, with interchangable hub; hubs fit both standard NEMA and IEC motors (Non-metallic only)
- Sealless design ensures zero leakage



FRONT PULL-OUT DESIGN

- Does not require special tools for servicing
- Easily serviced in place without disturbing piping or electrical connections
- Reduced down time equals less maintenance cost and more production time



CLOSE-COUPLED MOUNTING

- · Eliminates the potential for damage due to misalignment
- Helps to eliminate replacement costs due to wear and tear from misalignment



ENVIRONMENTAL SAFETY

 Zero leakage allows for a safe working environment; no emissions of hazardous or regulated chemicals



- · Piping and electrical remain intact during servicing, requiring less labor
- · Ease of maintenance with front pull-out design
- · Constant, non-pulsating flow uses smaller pipe and ancillary equipment



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MORE THAN YOU EXPECT.

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CURVES & CON

FLOW CURVES for sizing reference only







Note: Flow and Pressure Values subject to change without notice







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FIGURATIONS

PUMP CONFIGURATION STRING

Pump Selection	Available Model	Code	Description	E	• _
Positions 1-3 PUMP SIZE	E	02 05 12 25 75 125	Maximum Capacity .45 gpm (1.7 lpm) Maximum Capacity 1.6 gpm (6 lpm) Maximum Capacity 3.4 gpm (12.9 lpm) Maximum Capacity 7.4 gpm (28 lpm) Maximum Capacity 22 gpm (83.3 lpm) Maximum Capacity 33 gpm (125 lpm)		
Position 4 BASE MATERIAL	02,05,12,25 02,05,12,25 02,05 02,05 02,05 Export Restric 12,25 12,25 12,25 12 12 12 25,75,125	A G C J K M C C J K M N	316LSS / FNPT 316LSS / BSPT, ISO 7-1 ALLOY C / FNPT ALLOY C / BSPT, ISO 7-1 PVDF / BSPT, ISO 7-1 PVDF / BSPT, ISO 7-1 ALLOY C / BSPT, ISO 7-1 PVDF / FNPT PVDF / FNPT PVDF / BSPT, ISO 7-1 PVDF / FNPT PVDF / FNPT PVDF / Flange		
Position 5 BEARINGS	02,05,12,25,75,125	L B	Carbon Silicon Carbide		
Position 6 O-RINGS	02,05,12,25,75,125	V E K U	Viton®-A EPDM Kalrez® Grade 4079 PTFE (Select for Metallic construction, not available on Non-Metallic)		
Position 7 MOTOR MOUNTING ARRANGEMENTS	02,05,12,25,75 02,05,12,25,75,125 75,125 02,05,12 02,05,12 02,05,12 02,05,12 02,05,12,25,75 25,75 25,75,125 02,05,12,25,75,125	F O R W H J K L P Y	NEMA 56C (C-face, rigid base, 5/8" shaft diameter, 4x 3/8"-16 tapped holes on a 5-7/8" bolt circle) NEMA 143/5TC-182/4C (C-face, rigid base, 7/8" shaft diameter, 4x 3/8"-16 tapped holes on a 5-7/8" bolt circle) NEMA 182TC-184TC (C-face, rigid base, 1-1/8" shaft diameter, 4x 1/2"-13 tapped holes on a 7-1/4" bolt circle) NEMA 213TC-215TC (C-face, rigid base, 1-3/8" shaft diameter, 4x 1/2"-13 tapped holes on a 7-1/4" bolt circle) IEC 63 B3/B14 (rigid base, face, 11 mm motor shaft diameter, 4x M5 tapped holes on a 75 mm bolt circle) IEC 71 B3/B14 (rigid base, face, 14 mm motor shaft diameter, 4x M6 tapped holes on a 85 mm bolt circle) IEC 80 B3/B14 (rigid base, face, 19 mm motor shaft diameter, 4x M6 tapped holes on a 100 mm bolt circle) IEC 100/112 B3/B14 (rigid base, face, 24 mm motor shaft diameter, 4x M8 tapped holes on a 115 mm bolt circle) IEC 100/112 B3/B14 (rigid base, face, 28 mm motor shaft diameter, 4x M8 tapped holes on a 130 mm bolt circle)		
Position 8	02,05,12,25,75,125		Dash		
Position 9 OPTIONS	02,05,12,25,75,125 05,12,25,75,125 02,05,12,25,75,125 05,12,25,75,125 02,05,12,25,75,125 05,12,25,75,125 05,12,25,75,125 05,12,25,75,125 05,12,25,75,125	X A N B X-ATEX A-ATEX N-ATEX B-ATEX	Standard (Complete Pump - No Options) Bearing Flush Port (1x 1/8" FNPT / BSPT Connection located in the center of the front cover) Pump Wet End Only (Non-metallic in conjunction with 7th position "Y". Metallic in conjunction with 7th position "F-P".) Combination of 9th Position Options "A" and "N" Standard Pump with ATEX Directive - CE Ex II 2G T6 II 2D T6 Bearing Flush with ATEX Directive - CE Ex II 2G T6 II 2D T6 Wet End Only with ATEX Directive - CE Ex II 2G T6 II 2D T6 Wet End Only and Bearing Flush with ATEX Directive - CE Ex II 2G T6 II 2D T6		

Viton[®] and Kalrez[®] are a registered trademark of DuPont.

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PARTS, KITS, & ACCESSORIES



Y-Strainers capture out debris in pipelines, protecting equipment and processes. They prevent premature wear of the rotating components within a pump.



Pressure Relief Valves prevent an over pressurization situation from damaging your pump or system.



Pressure Gauges are relied on to measure pressure in the system. Proper pressure is necessary to ensure flow. Our pressure gauges are accurate and reliable.



Calibration Columns are constructed of clear PVC tubes with PVC end caps or an option for Borosilicate glass with Teflon[®] end caps and should be sized for a 30-second draw down.



Back Pressure Valves provide positive back pressure for systems with less than the minimum required pressure difference between the discharge and suction side of the metering pump. They assure optimum metering performance.



We offer KOPKit® (Keep on Pumping kits) designed to guard against unnecessary downtime and assure the highest level of efficient and uninterrupted service from your Eclipse® pump. In the event of a breakdown, one kit will put you back in business fast!



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