

ECLIPSE PRO™

PULSELESS INTELLIGENT GEAR PUMP METERING

Precision Performance | Integrated Intelligence | Radical Simplicity

The Eclipse Pro™ redefines chemical metering by collapsing traditional system complexity into a single, high-performance solution, integrating the motor, controller and pump into a single **IP66/NEMA 4X** enclosure. Designed for the water and wastewater industry, it removes the need for external VFDs, bulky panels, and cumbersome baseplates.

Solving Operator Pain Points With Rotary Technology

Dramatically increase MTBF and reduce time to service:

Stop replacing peristaltic tubing multiple times a year. Properly installed **gear pumps can run for years on a single gear set**. When service is needed, bring the pump to factory new performance in just minutes **without removing the pump from service**.

Simple and Efficient Handling of Off-Gassing Chemicals: Avoid complex attempts to prevent gas buildup from Sodium Hypochlorite. Gear technology **allows for gas to simply pass through the pump**, and the Eclipse Pro head can be positioned to allow easy system venting. **No loss of prime** means Eclipse Pro is always ready to deliver.

Common Applications

Disinfection, pH, odor, Coagulation, Fluoridation control with Sodium Hypochlorite, Chlorine Dioxide, Hydrochloric Acid, Nitric Acid, Ferric Chloride, Calcium Nitrate

Flow

Up to 19 gph @ 150 psig
Up to 27 gph @ Low Pressure

Differential Pressure

up to 150 psi (10.3 bar)

Temperature

up to 200°F (93°C)
“See specifications for additional information”

Predictive Maintenance:

Stop “firefighting” and start planning. Our predictive maintenance uses **real-time pump health** - not just hours on a clock - to catch issues before they cause downtime. When it is time for maintenance, the **Repair-in-Place** design ensures field service is fast and effortless.

Plug-and-Play Precision: The “Enter and Go” 7-inch touchscreen removes manual calibration. Pulse-less gear technology ensures smooth flow, accurate to **0.12 GPH**, without the need for pulsation dampeners.



Precision Flow Control

- **“Enter and Go” Interface:** Simply input your target flow rate; the system responds instantly to manual or system commands, eliminating complex manual calibrations.
- **Pressure-Independent Dosing:** Integrated flow monitoring ensures accuracy +/- 1% Full Scale regardless of system pressure fluctuations.
- **Pulse-less Gear Technology:** Provides a smooth, continuous discharge that allows for smaller piping and avoid high or low concentrations of chemical in the process fluid.

SCADA Harmony & Connectivity

- **Precision I/O Suite:** Integrate effortlessly via **Modbus RTU (RS485)**, **4-20mA**, or **4 programmable relays**. Monitor torque, speed, and flow on a linear scale with **0.12 GPH resolution**.
- **7-Inch Color Touchscreen:** Features guided startup and commissioning to ensure the unit is optimized for your specific application from day one.

Rugged Reliability & Serviceability

- **Chemical Resilience:** Built with **PVDF head** to survive corrosive chemicals, and viscous fluids up to 1,000 cPs.
- **Rapid Field Service:** The front pull-out, **“Repair-in-Place”** design allows for a range of repairs from a simple KOPKit (gears, shafts, liner, .etc.) to a complete pump and motor swap out all in a matter of minutes, minimizing process interruption.
- **NEMA4X IP66 Rated Enclosure:** Every pump feature, from the responsive display and flow meter, to the suite of connections and durable pump enclosure; all are **designed for rugged use in harsh chemical environments** protecting your process and personnel.



SPECIFICATIONS

Performance Range	Max Flow Rate	1-19 gph @ 150 psig Up to 27 gph @ 10 psig	Control & User Interface	Display	7-inch color TFT Touchscreen
	Max Differential Pressure	150 psi (10.3 bar)		Resolution	0.12 gph (Flow); 1 RPM (Speed)
	Max. Allowable Working Pressure	200 psi (13.8 bar)		Automation	Speed or Flow Pacing, Guided Start-up, Batching, and Timed Dosing modes / Maintenance predictability
	Max. Process Temperature	200° F (93° C). C/F for pressure derates above 150° F (65° C)		Safety Features	10-Second Dry Run Protection, Overload/ Blocked Discharge Alerts
	Accuracy	0.12 gph	Connectivity & I/O	Analog / Digital	4 ea. total inputs: 3 ea. 4-20mA Inputs, 1 ea. Flow Sensor/Pulse Frequency Input, 1 ea. 4-20mA Output
	Suction Lift	Self-priming up to 5 ft (with foot valve)		Network	1 ea. Modbus RTU via RS485
	Viscosity / Solids	Up to 1,000 cPs: Solids < 70 microns at 10% concentration		Relays	4 ea. Programmable Relay Outputs, Dry Contacts (2 ea. 3A @ 250VAC and 2 ea. 8A @ 250VAC) and Ethernet TCP/IP (Coming Q1 '27)
	Duty Cycle	Continuous		SCADA Integration	1 ea. Local/Remote permission signal via dry contact
Materials of Construction	Pump Head / Casing	PVDF	Electrical	Power	115/230 VAC, 50/60 Hz, 1 Phase (150W max)
	Gears / Shafts	PEEK/PEEK, ALUMINA-CERAMIC/PTFE		Certifications (Tentative)	NSF-61, BABAA Compliant, CSA/UL, CE, RoHS
	Seal Type	Sealless Mag-Drive		Protection	NEMA 4X, IP66-rated enclosure; Brushless DC Motor
	O-Rings	Kalrez, FKM (Viton®), CSM (Hypalon®)		Warranty	3 Years (For non-wear parts including motor, electronics, workmanship)
	Liner	Carbon reinforced PTFE			
	Ports	0.25" FNPT			
	Pump Inlet & Outlet	0.25" FNPT, BSPT			
	Flow Meter Inlet & Outlet	Straight Tube with 0.25" MNPT, BSPT adapter			
	Mounting	Standard: Horizontal (Optional 360 orientations with wall bracket)			



DIMENSIONS | WEIGHT

Weight: 22 lbs. / Measurement in Inches

