DATA SHEET

PRIMEROY® Series
Metering Pump

Model PLG

PLG pump - GSD liquid end

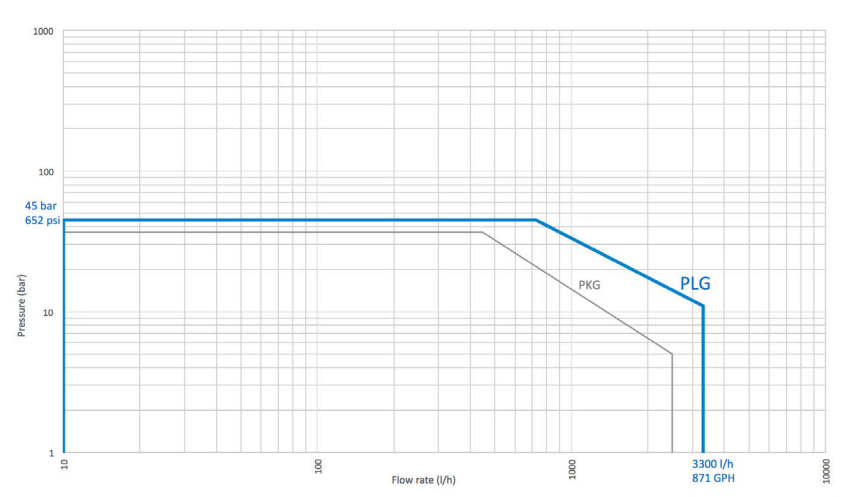
The PRIMEROY® metering pumps are versatile, reliable pumps that consistently and accurately inject chemicals. The pump's field-proven design enables precise control of the pump delivery rate with a +/- 1% steady state accuracy, over a range to 10 to 100% of the nominal flowrate. They feature a compact, variable eccentric drive that changes the stroke length by changing the position of the center of the shaft in the eccentric.

Model PLG provides accurate dosing of a broad spectrum of fluids used in many industrial processes thanks to their modular design which offers several types of liquid ends, capacity control options and other configuration options enabling them to meet the specific requirements of your process application.

The main benefits of the PLG are its special compact design, the Global Security Device (GSD) and the Installation Monitoring Indicator (IMI).

The model PLG is designed for high flow rates (3300 L/h – 871 GHP for a simplex configuration) and mid pressure applications (45 bar – 652 psi).

Simplex PRIMEROY® PLG Pump Performance



	50 Hz motor	60 Hz motor
Flow rate	Up to 3,300 L/h	Up to 871 GPH
Pressure	Up to 45 bar	Up to 652 PSI
Thrust	900 daN	2,023 lbf
100% stroke	50 mm	1.97 in
Ambient T° Standard	-10 to + 50 °C	+14 to +122°F
Low T° design	-40 to + 50 °C	- 40 to + 122 °F

- **Municipal drinking/wastewater plants**: Coagulation/flocculation (injection of ferric chloride, aluminium sulphate, etc.), pH regulation (injection of acids and alkalis), water conditioning before and/or after RO treatment in desalination plant
- **Industrial water treatment**: protection of installation such as boilers and hydraulic systems (corrosion inhibitors, biocides, scale inhibitors, amines…)
- **Chemistry/Petrochemistry**: injection of additives, injection of co-catalyst, injection of sulphuric acid into water to produce diluted sulphuric acid
- **Refinery/Downstream**: Injection of chemicals for separation and treatment of refined products, injection of paraffin inhibitor into fuel storage tanks
- **Oil & Gas**: injection of biocide, corrosion/scale inhibitors, H2S scavengers… protecting piping and other assets and maintaining production rates, transfer of steam condensate
- **Food and beverage industry**: Injection of enzymes in starch production, injection of caustic soda for process water neutralization in refining and distilling applications

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Benefits

- Compliant with **API 675 standards**
- **Adaptability and accuracy**: capacity adjustable while running or stopped (stroke micrometric adjustment, 10 turns only from 0 to 100%, graduation scale in %)
- **Space constraints**: Minimized footprint and weight, available in vertical or horizontal motor configurations, GSD design for tiny spaces
- **Specific benefits with the GSD design (Global Security Device)**:

- **Triple hydraulic security with the GSD design**: in addition to the internal pressure safety valve, the diaphragm controls the hydraulic refill and the diaphragm itself is protected by a valve blocking the overrunning and the extrusion

- **Installation Monitoring Indicator (IMI) system with the GSD design**: visual indication of over-pressure, cavitation and lack of pulsation dampening that can cause disturbance and inaccuracy in the dosing process

- **One unique oil design for mechanical lubrication and hydraulic chamber**: no risk of oil cross contamination

- **Over-pressure protection**: integrated safety valve to protect the pump on diaphragm liquid ends
- **Suitable for the majority of fluids in all industrial processes**: many stroke speeds for accurate dosing
- **Modular design to precisely fit your needs**: multiple options for liquid ends, check valves, connection types, and control…
- **Multiplexing capability up to 10 heads, depending on the thrust load**: providing cost savings in the power consumption and asset footprint whilst reducing pulsation and required NPSH and, giving the capability to inject several different products or meet a specific flow rate
- **Long life**: ensured by using high quality materials engineered to a robust and proven construction, oil bath lubrication to ensure reliability during continuous operation
- **Safety**: diaphragm liquid ends guaranteed leak-proof with service life in excess of 20,000 hours
- **Operations even in the most extreme conditions**: specific configurations to operate in saline/offshore conditions, desert, low temperature environment
- **Global design**: can comply with the main worldwide certifications and systems: EC, UKCA, ATEX, IECEx, NACE, SASO, Customs Union, etc.

Technical features

- Liquid end body in 316L S.S., 17-4PH, or PVC. Other materials such as Alloy 20, Hastelloy, Super Duplex available upon request
- Diaphragms in PTFE or 316L
- 5 stroke speeds/gear ratios available with 50 Hz-motor: 64, 80, 96, 120 and 149 spm. 4 stroke speeds/gear ratios with 60 Hz-motor: 77, 96, 115 and 144 spm
- Manual, electrical or pneumatic stroke length adjustment
- IEC or NEMA mounting, VFD (Variable Frequency Drive) motor
- Electric equipment for non-hazardous or hazardous area, large variety of protections and insulations
- Conforms to ATEX II 2 G Ex h IIC T4 Gb X with ATEX motors
- Optimum protection for critical processes or pumped fluids: double diaphragm failure detection, temperature probes
- Special valves for any type of fluid (including concentrated sulphuric acid and slurries)
- Remote head, cooling/heating jacket to operate in processes requiring low/extreme fluid temperatures
- Full set of connections: screwed or flanged connectors (ANSI, DIN or ISO)
- Wide range of accessories available to complete your dosing installation

Design Specifications

According to your process, we advise you on the best design of liquid ends to meet your specific requirements. The following charts demonstrate the minimum and maximum flow rate and pressure of the pump for a single head on a basic configuration. To obtain the flow rate for multiplex head, multiply the flow rate by the number of heads. For other applications, please consult us.

Standard connections are depending on the plunger diameter; a full set of connections are available upon request. Please consult us for details.

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TYPE G1 - G2 (GSD)

- Compact footprint, fewer components due to the lack of hydraulic fluid reservoir
- High flow at medium pressure
- IMI system (Installation Monitoring Indicator) to visualize any variations in the dosing process

		50 Hz Motor					60 Hz Motor					
Plunger diameter code	Swept volume	Stroke speed max	Motor speed max	Flow rate max		Pressure max	Stroke speed max	Motor speed max	Flow rate max		Pressure max	Connections
				10 bar	P.max				145 psi	P.max		
Ø	cm³	spm	rpm	l/h		bar	spm	rpm	GPH		psi	
Metallic, type H												
40	62.8	149	1440	506	452	45	144	1728	129	115	652	1” - VV1 m
50	98.2	149	1440	807	722	45	144	1728	206	184	652	1” - VV1 m
63	155.9	149	1440	1254	1205	23	144	1728	320	307	333	2” - VV1 m
70	192.4	149	1440	1582	1520	23	144	1728	404	388	333	2” - VV1 m
80	251.3	149	1440	2067	2023	17	144	1728	527	516	246	2” - VV1 m
90	318.1	149	1440	2616	2584	14	144	1728	668	661	203	2” - VV1 m
100	392.7	149	1440	-	3300	11	144	1728	-	842	159	2” - VV1 m
Plastic, type P												
50	98.2	149	1440	807		10	144	1728	206		145	1” - VV1 f
63	155.9	149	1440	1254		10	144	1728	320		145	1” 1/2 - VV1 f
70	192.4	149	1440	1582		10	144	1728	404		145	1” 1/2 - VV1 f
80	251.3	149	1440	2067		10	144	1728	527		145	1” 1/2 - VV1 f
90	318.1	120	1440	2107		10	115	1728	534		145	1” 1/2 - VV1 f
100	392.7	120	1440	2657		10	115	1728	674		145	1” 1/2 - VV1 f

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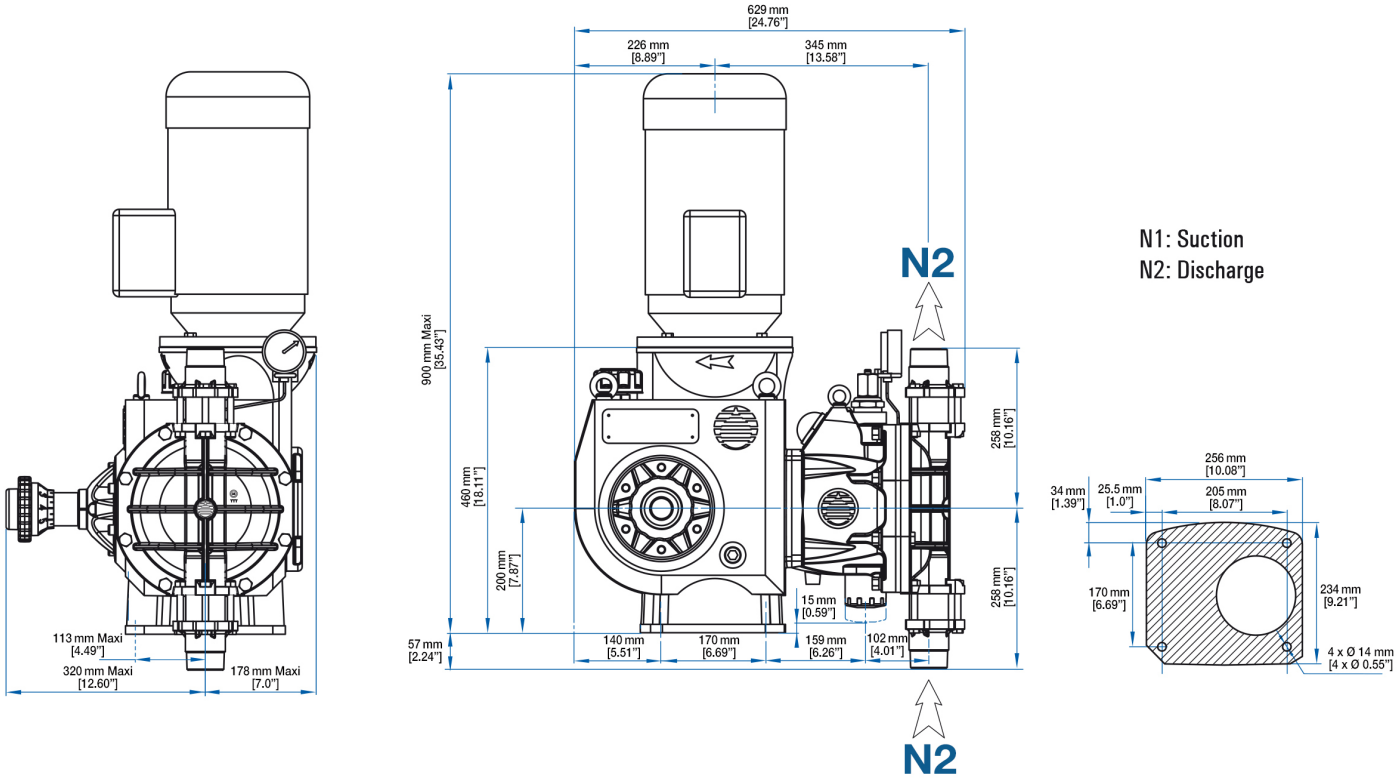
Dimensions, Weight and Packing

The general dimensions are given in mm and as an indication only. The dimensions given correspond to the maximum dimensions (largest liquid ends, most powerful motor)

GSD PTFE DIAPHRAGM LIQUID END
Simplex configuration



N1 Suction - **N2** Discharge

Version	Net weight (*)		Gross weight (*)		Packing	
	kg	lbs	kg	lbs	(L x W x H) mm	(L x W x H) in
PLG - Simplex	220	485	310	683	1100 x 680 x 1350	43.3 x 26.8 x 53
PLG - Duplex	330	728	460	1.414	1600 x 950 x 900	63 x 37.4 x 35.5
PLG - Triplex	470	1.036	660	1.455	1950 x 950 x 900	76.8 x 37.4 x 35.5

(*) Approximately

Milton Roy and our trusted partners can help to:

- Guide you in selecting the turnkey solution that best suits your needs
- Advise you on the optimum installation of your equipment
- Propose a wide range of accessories to complete the installation of your pump
- Advise you on the essential wear parts to be kept on hand in order to optimize the performance of your equipment
- Provide turnkey dosing solutions, from a skid-mounted pump to a complex, 100% customized chemical injection package

Picture for illustration purposes only. We reserve the right to modify the characteristics of our products without prior notice

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