

*Series*

*G*

*Metering Pumps*

250 ml  
KIMAX  
USA



**LMI**  
**MILTON ROY**

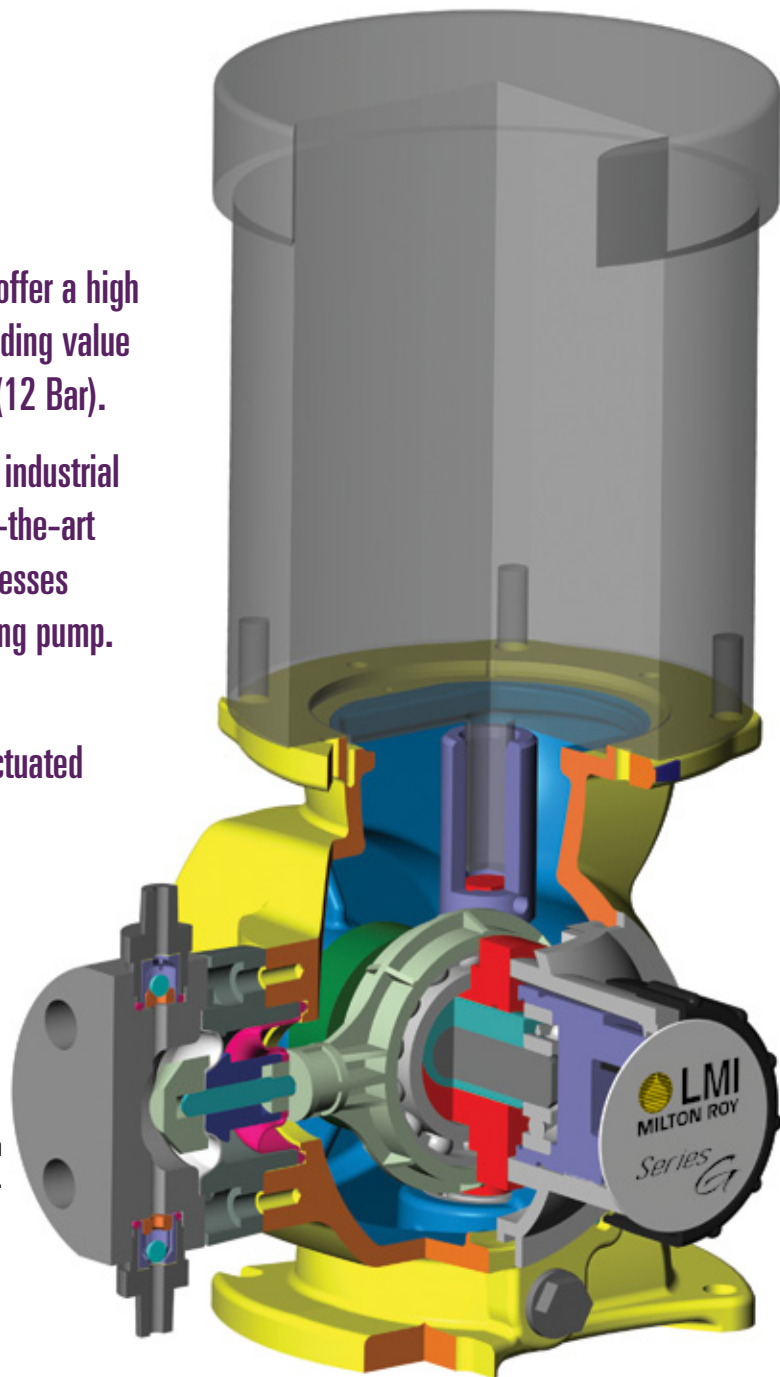
# Series G

The SD & SG metering pumps offer a high level of reliability with outstanding value for applications up to 175 psi (12 Bar).

LMI has combined heavy-duty industrial drive technology with state-of-the-art design and manufacturing processes in creating the Series G metering pump.

This family of Mechanically Actuated Diaphragm metering pumps is designed for durability and cost effectiveness.

Illustrated to the right is a SD4 with a PVC liquid end, featuring NPT connections.



## Series G Features and Specifications

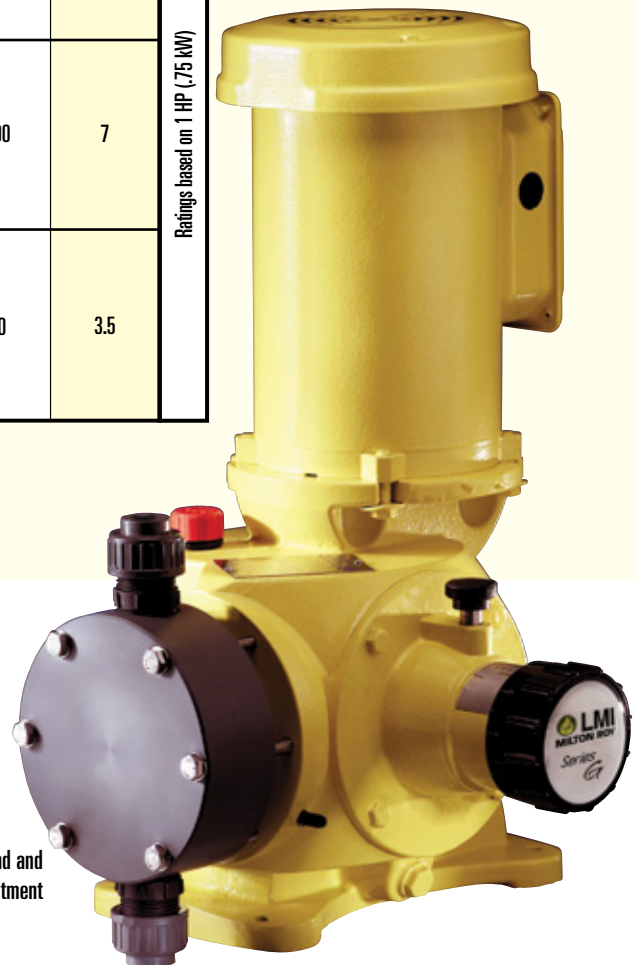
- Flow Rates up to 312 GPH (1180 Liters/hr)
- Mechanically Actuated Diaphragm liquid end eliminates flow restrictions
- Durable, metallic housing designed to withstand tough environments
- High efficiency motors minimize heat buildup
- A robust metallic, worm gear drive coupled with the industrial duty variable eccentric stroke adjustment mechanism yields a 10 to 1 turn down ratio with smooth velocity profiles as compared to the pulsating flows of solenoid pumps or lost motion designs.
- The PTFE, high performance, diaphragm design increases diaphragm life by eliminating the stresses inherent in most designs
- Reliable low flow performance is a result of high performance check valves with machined seats
- All gear components operate in an oil bath for long life
- Precision stroke adjustment can be operated while the pump is running or stopped
- Steady State Accuracy -  $\pm 1\%$  of full capacity over the 10 to 1 turndown ratio
- Liquid Temperature Range - 14° to 122° F (-14° to 50° C)
- Coating - 2 part epoxy
- Average Weight - Frame D: 45 lbs (20 kgs)  
Frame G: 105 lbs (48 kgs)
- Relevant model codes are ETL Certified to conform to ANSI/NSF Std 50

# Pump Selection by Capacity and Pressure

Pump Selection Series G			Maximum Ratings				Pressure		Ratings based on 1/4 HP (.25 kW)
Frame	Liquid End	Gear Code	Capacity @60Hz (1725 RPM)		Capacity @50Hz (1425 RPM)		PSI	Bar	
			GPH	Liter/Hr	GPH	Liter/Hr			
D	2	1	0.18	0.7	0.15	0.6	175	12	Ratings based on 1/4 HP (.25 kW)
		2	0.35	1.3	0.29	1.1			
		6	0.48	1.8	0.40	1.5			
		3	0.7	2.6	0.58	2.2			
	4	1	3.0	11	2.5	9.5	150	10	
		2	6.6	25	5.5	21			
		6	10	38	6.9	26			
		3	14.4	45	12	45			
	7	1	13	49	10	39	100	7	
		2	25	95	21	79			
		6	34	129	28	106			
		3	50	189	42	159			
	8	1	31	117	26	98	75	5	
		2	57	216	47	178			
		6	87	329	72	273			
		3	127	481	106	401			
G	5	1	26	98	22	82	150	10	Ratings based on 1 HP (.75 kW)
		2	53	201	44	167			
		6	75	284	62	237			
		3	106	401	88	334			
		8	—	—	110	416			
	6	1	37	140	31	117	100	7	
		2	74	280	62	233			
		6	104	394	87	328			
		3	147	555	122	464			
		8	—	—	154	583			
	7	1	75	284	62	237	50	3.5	
		2	150	568	125	473			
		6	208	787	173	656			
		3	300	1136	250	946			
		8	—	—	312	1181			

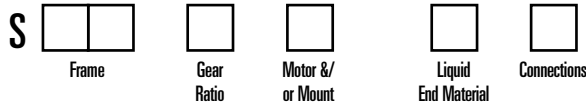


Optional degassing valve for SD 7, SD 8 & SG 5 is p/n 61411



The LMI SG7 with PVC liquid end and manual micrometer stroke adjustment

## Series G Product Code



<b>Frame</b>	<b>Motor &amp;/or Mount</b>
<b>D Frame</b>	8 = 1 ph 60 Hz 115/230 VAC 1725 RPM TE
D2	J = 3 ph 60 Hz 230/460 VAC 1725 RPM TE
D4	9 = 1 ph 50 Hz 115/230 VAC 1425 RPM TE
D7	L = 3 ph 50 Hz 220/380 VAC 1425 RPM TE
D8	X = Nema 56C Mount
<b>G Frame</b>	Less Motor
G5	P = DC Motor with Variable Speed Drive
G6	
G7	<b>Liquid End Material</b>
<b>Gear Ratio Code</b>	4 = Polypropylene
1 = 43 SPM	2 = PVDF
2 = 86 SPM	7 = 316 SS
6 = 120 SPM	8 = PVC
3 = 173 SPM	P = Polymer Service
8 = 180 SPM @ 1425 RPM (SG only)	L = Slurry Applications
	N = H <sub>2</sub> SO <sub>4</sub> Applications
	C = Caustic Applications (Sodium Hydrochloride) G-Frame Only
	F = Fluoride Applications G-Frame Only
	<b>Connections</b>
	P = NPT

### Optional Degassing Valve Information. Use only with PVC Liquid end.

Series G	Frame	No Fitting
SD	2	39672
	4	39672

Supplied with 10' of 1/4" Polyethylene Tubing

Series G	Frame	Valve w/Adapter
SD*	7	61411
	8	61411
SG*	5	61411
	6	61421
	7	61421

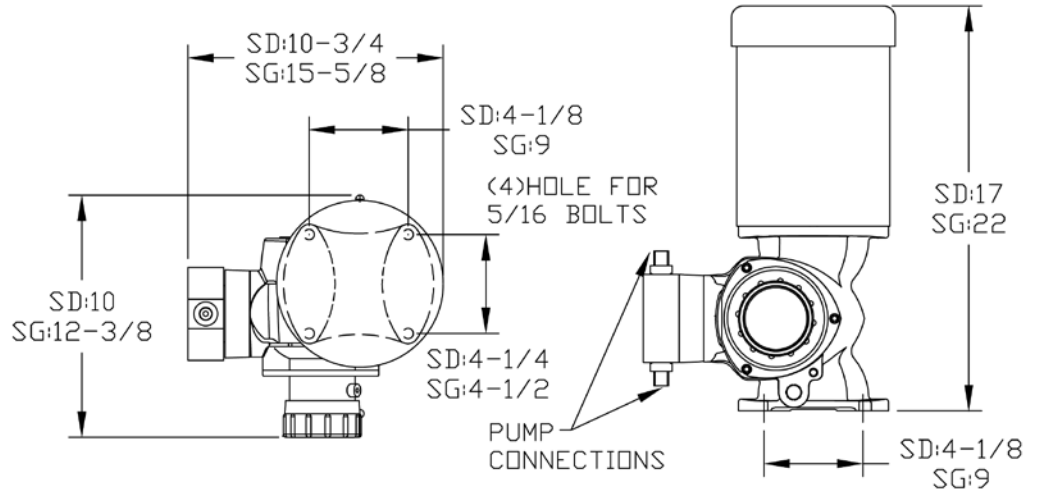
\* Connection 1/4 NPT F



The photograph to the right is a SD4 with a PVC liquid end, featuring a Degassing Valve - p/n 39672

## Dimensions

Approximate for envelope estimations. Certified prints are available.  
Dimensions are showing for both D and G Frames in inches.



## NPT Connection Sizes



Frame	Liquid End Size	Connection Port Size for the following materials			
		PP, PVC & PVDF	Polymer Applications Slurry	H <sub>2</sub> SO <sub>4</sub>	316 SS
D	2	1/4" Male	N/A	1/4" Male	1/4" Male
	4		1/2" Male		1/2" Male
	7 & 8		1/2" Female		
G	5	1" Female	1" Male	1" Female	1" Male
	6 & 7				

## Materials of Construction

Material	Frame	Liquid End Size	Head	Diaphragm Cap	Check Valve Body	Seals	Seats	Balls	Diaphragm
Polypropylene (PP)	G	5	PP	PP	PVDF	Viton	PVC		
		6			PVC				
PVC***	D	2*	PVC	PVC	PVDF	Aflas	Alloy C22	Ceramic	
		4*					PTFE		
	7 & 8	Viton				PVC			
	G					5			
6 & 7	PVC								
PVDF	D	2*	PVDF	PVDF	PVDF	Aflas	Alloy C22	PTFE	
		4*					PTFE		
	7 & 8	PVDF							
G	All								
Polymer Applications**	D & G	All	PVC		PVDF				
Slurry Applications	D	4	316 SS	PVC	316 SS	Viton	316 SS	316 SS	
	D	7 & 8	PVC						
	G	All							
H <sub>2</sub> SO <sub>4</sub> Applications	D & G	All	PVC	PVC	PVDF	Aflas/Viton	CA 20	CA 20	
316 SS***	D	2	316 SS	316 SS	316 SS	PTFE	316 SS	316 SS	
		4					316 SS		
	7 & 8	Viton				316 SS			
	G						5		
6 & 7	PTFE								
Caustic Applications	G	5	PVC	PVC	PVDF	EPDM	PVC	Ceramic	
		6 & 7			PVC				
Fluoride Applications	G	5	PVC	PVC	PVDF	Viton	PVC	PTFE	
		6 & 7			PVC				

\* Note: A polyethylene dimensional spacer is used in all plastic D2 and D4 check valves.

\*\* Hastalloy C spring

\*\*\* ETL Certified to conform to ANSI/NSF STD 50 when using these liquid end materials.

## Series G, Dependable and Versatile



The LMI Series "G" pump has proven its exceptional value over years of solid performance in a wide range of applications and industries. Water treatment chemicals, process additives, acids, out-gassing fluids, slurries, and many more applications are all handled with ease by this robust metering pump design. Your local distributor can assist you in applying the SD & SG metering pumps to your process.

## Accessories



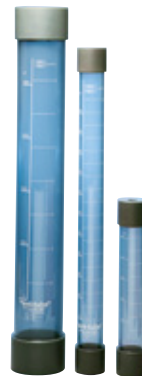
**Safety Valves**  
Protect pump and piping from overpressure.



**Back Pressure Valves**  
Provide smooth, artificial pressure in pump discharge line for atmospheric or low pressure systems to ensure pumping accuracy.



**Pulsation Dampeners**  
Minimize pressure and flow surges in the pump discharge. When applied to pump inlet, more favorable NPSH conditions result.



**Calibration Columns**  
Allow periodic verification of pump performance during routine checks or after system maintenance.



201 Ivyland Road • Ivyland, PA 18974-0577 • ph: 215.293.0401 • fax: 800.327.7563  
www.lmipumps.com • email: info@lmipumps.com