

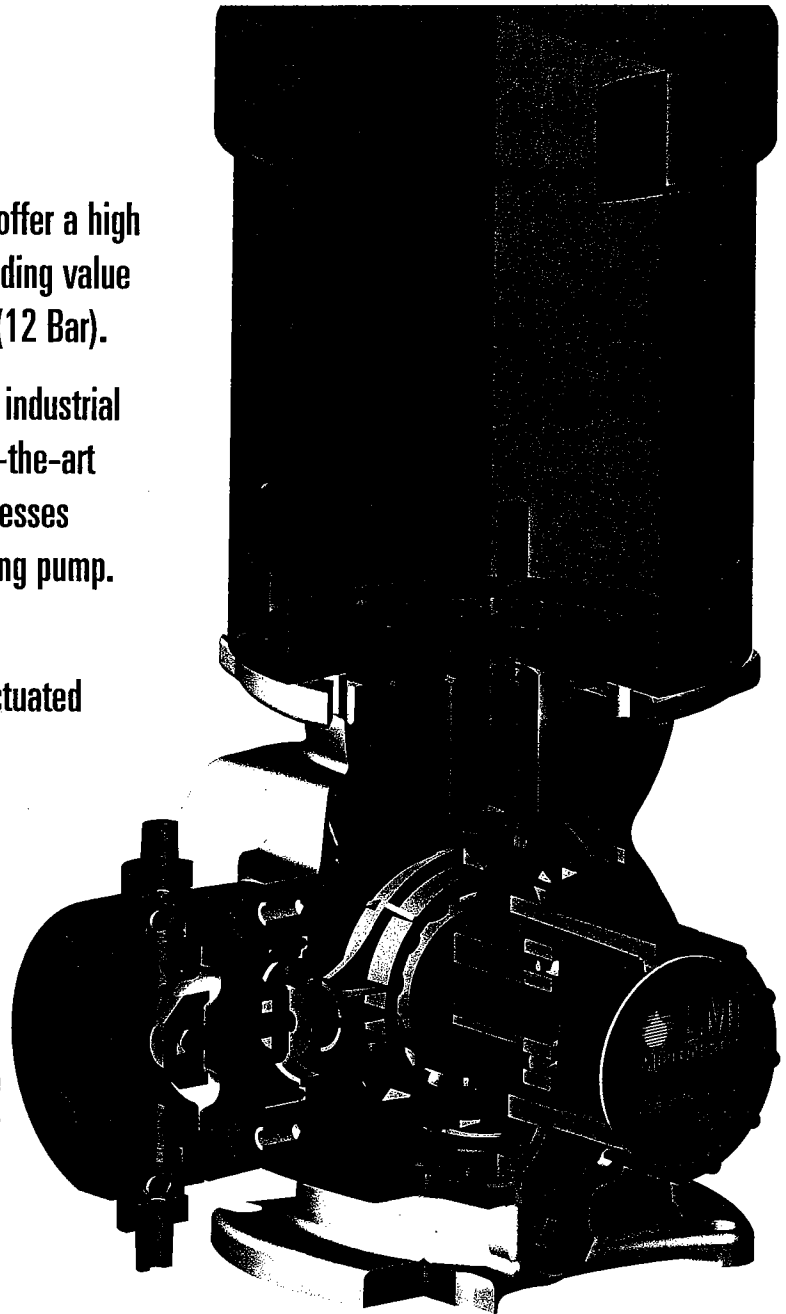
# Series G

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.

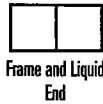
Illustrated to the right is a SD4 with a PVC liquid end, featuring NPT connections.



## 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
- Smooth running, low friction bronze gears
- 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)

# Series G Product Code



Frame and Liquid End



Gear Ratio



Motor &/ or Mount



Liquid End Material



Connections

## Frame and Liquid End

### D Frame

SD2

SD4

SD7

SD8

### G Frame

SG5

SG6

SG7

## Gear Ratio Code

1 = 43 SPM

2 = 86 SPM

6 = 120 SPM

3 = 173 SPM

8 = 180 SPM @ 1425 RPM  
(SG only)

## Motor &/or Mount

8 = 1 ph 60 Hz 115/230 VAC 1725 RPM TE

J = 3 ph 60 Hz 230/460 VAC 1725 RPM TE

9 = 1 ph 50 Hz 115/230 VAC 1450 RPM TE

L = 3 ph 50 Hz 220/380 VAC 1450 RPM TE

X = Nema 56C Mount

Less Motor

P = DC Motor with Variable Speed Drive

## Liquid End Material

1 = White Polypropylene

2 = PVDF

7 = 316 ss

8 = PVC

P = Polymer Service

L = Slurry Applications

N = H<sub>2</sub>SO<sub>4</sub> Applications

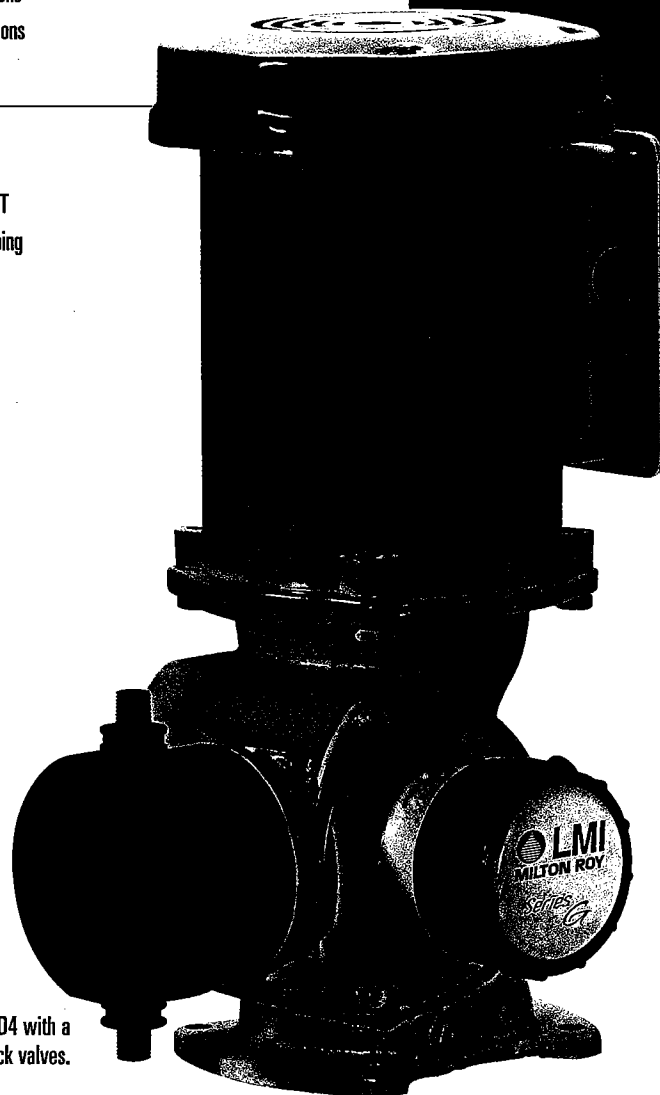
## Connections

P = NPT

T = Tubing

B = Bleed Valve NPT

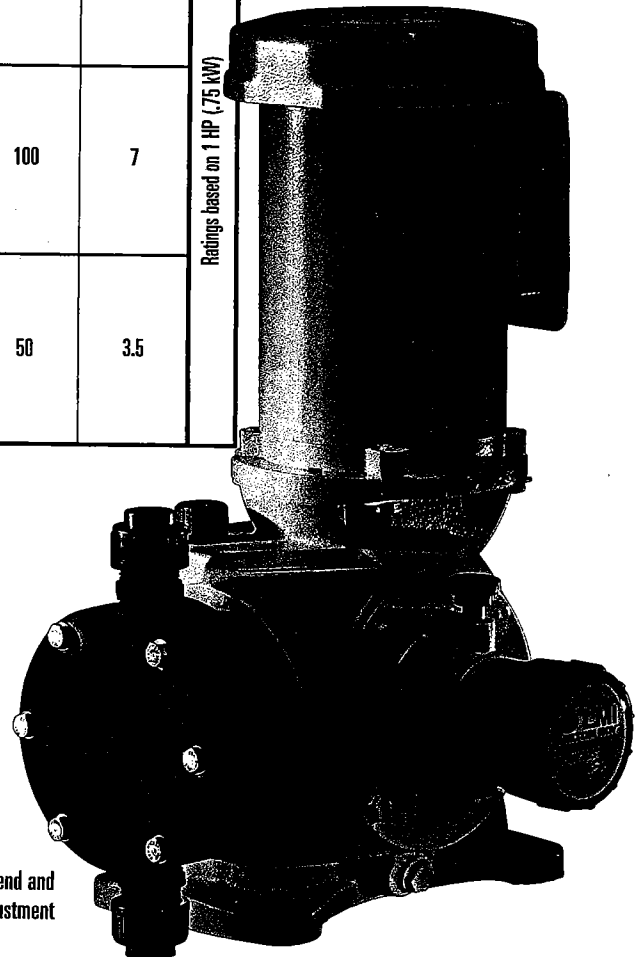
C = Bleed Valve Tubing



The photograph to the right is a SD4 with a PVC liquid end, featuring NPT style check valves.

# Pump Selection by Capacity and Pressure

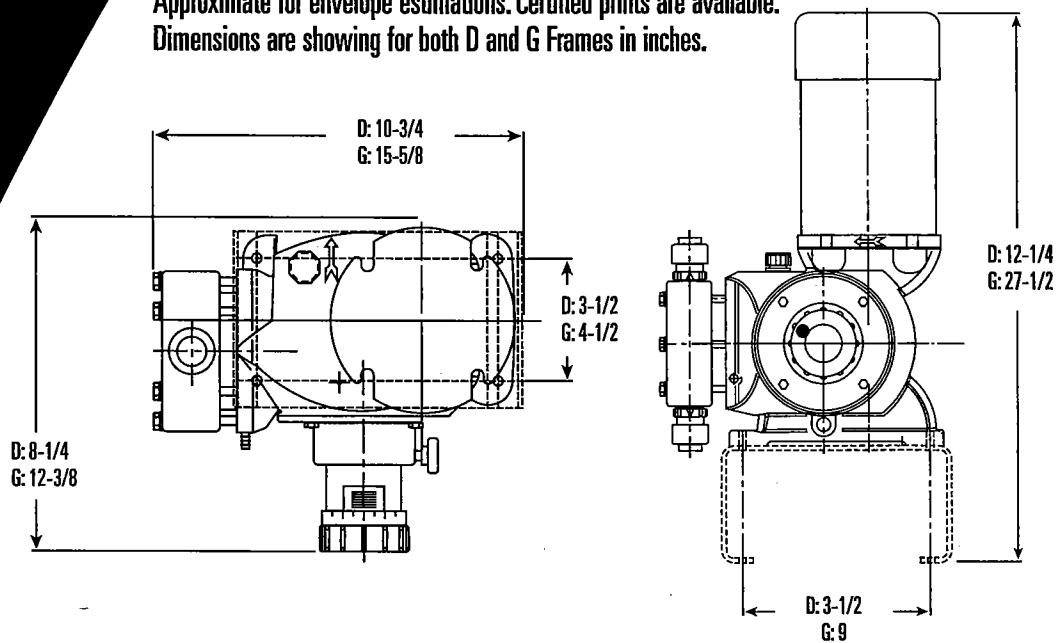
Pump Selection Series G			Maximum Ratings				Pressure		Ratings based on 1/4 HP (.25 kW)
Frame	Liquid End	Gear Code	Capacity @ 60 Hz (1725 RPM)		Capacity @ 50 Hz (1425 RPM)		PSI	Bar	
			GPH	Liter/Hr	GPH	Liter/Hr			
D	2	1	0.18	0.7	0.15	0.6	175	12	Ratings based on 1/4 HP (.25 kW)
		2	0.35	1.3	0.29	1.1			
		6	0.48	1.8	0.40	1.5			
		3	0.7	2.6	0.58	2.2			
	4	1	3.0	11.4	2.5	9.5	150	10	
		2	6.0	23	5.0	19			
		6	8.3	31.4	6.9	26			
		3	12	45	10	38			
	7	1	12.5	47	10.4	39	100	7	
		2	25	95	21	79			
		6	34	129	28	107			
		3	50	189	42	158			
	8	1	28	106	23	88	75	5	
		2	57	215	47	180			
		6	79	299	66	249			
		3	115	435	96	363			
G	5	1	26	98.4	22	82	150	10	Ratings based on 1 HP (.75 kW)
		2	53	200.6	44	167			
		6	75	283.9	62	237			
		3	106	401.2	88	334			
		8	—	—	110	416			
	6	1	37	140.0	31	117	100	7	
		2	74	280.1	62	233			
		6	104	393.6	87	328			
		3	147	556.4	122	464			
		8	—	—	154	583			
	7	1	75	283.9	62	237	50	3.5	
		2	150	567.8	125	473			
		6	213	806.2	177	672			
		3	300	1135.5	250	946			
		8	—	—	312	1181			



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

## 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				
		Black PP, PVC, PVDF & Acrylic	Polymer	Slurry	HSO4	316 SS
D	2	1/4" Male	1/4" Male	1/4" Male	1/4" Male	1/4" Male
	4			1/2" Male		
	7 & 8			1/2" Male		
G	5	1" Female	1" Male	1/2" Female		1" Male
	6 & 7			1" Male	1" Female	
				1" Male	1" Female	

## Materials of Construction

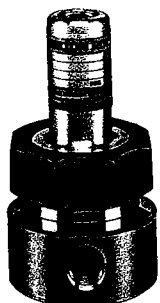
Material	Frame	Liquid End Size	Head	Check Valve	Seals	Seats	Balls	Diaphragm
White Polypropylene	G	5	White PP	PVDF	Viton	PVDF	Ceramic	PTFE
		6		PP		Polyethylene		
PVC	D	2	PVC	PVDF	Aflas	Alloy C22	Ceramic	
		4				PTFE		
		7 & 8				PVDF		
	G	5		PVC	Viton	Polyethylene		
6 & 7								
PVDF	D	2	PVDF	PVDF	Aflas	Alloy C22	Ceramic	
		4				PTFE		
		7 & 8				PVDF		
	G	All		PTFE	PVDF			
Polymer Applications	D & G	All	PVC	PVC	Viton	316 SS	316 SS	
Slurry Applications	D & G	All		316 SS	Aflas	CA 20	CA 20	
H2SO4 Applications	D & G	All		PVDF	Aflas	CA 20	CA 20	
316 SS	D	2	316 SS	316 SS	316 SS	316 SS	316 SS	
		4				PTFE		
		7 & 8				PVDF		
	G	5			Viton	316 SS		
		6 & 7						PTFE

## Series G, Dependable and Versatile



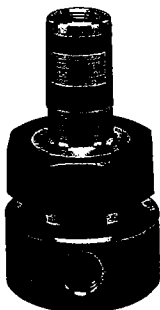
The LMI Series "G" of pumps has proven its exceptional value over years of solid performance in a wide range of applications and industries. Water treatment chemicals, process additives, acids, out-gassing fluids, slurries, and many more applications are all handled with ease by this robust metering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

## Accessories



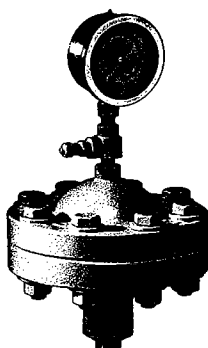
### Safety Valves

Protect pump and piping from overpressure.



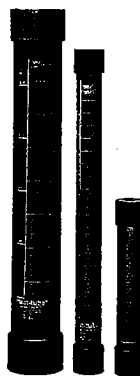
### Back Pressure Valves

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.



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