

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
- \bullet 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 | | | Capacity@60Hz | | Maximum Ratings Capacity@50Hz | | D. | 1. Sala | | |
|----------------------------|-----|------------|---------------|------------|----------------------------------|----------|------------------|---------|----------------------------------|--------|
| Frame Liquid Gear | | (1725 RPM) | | (1425 RPM) | | Pressure | | | | |
| | End | Code | GPH | Liter/Hr | GPH | Liter/Hr | PSI | Bar | | |
| | | 1 | 0.18 | 0.7 | 0.15 | 0.6 | - 175 | | | |
| | 2 | 2 | 0.35 | 1.3 | 0.29 | 1.1 | | 12 | | |
| | 2 | 6 | 0.48 | 1.8 | 0.40 | 1.5 | | | | |
| | | 3 | 0.7 | 2.6 | 0.58 | 2.2 | | | | |
| | | 1 | 3.0 | 11 | 2.5 | 9.5 | | 10 | _ | |
| | 4 | 2 | 6.6 | 25 | 5.5 | 21 | 150 | | 5 kW | |
| | | 6 | 10 | 38 | 6.9 | 26 | | 10 | HP (.2 | |
| D | | 3 | 14.4 | 45 | 12 | 45 | | | Ratings based on 1/4 HP (.25 kW) | |
| | | 1 | 13 | 49 | 10 | 39 | - 100 | 7 | sed or | |
| | 7 | 2 | 25 | 95 | 21 | 79 | | | igs bæ | |
| | | 6 | 34 | 129 | 28 | 106 | | | Ratir | |
| | | 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 | | | | |
| | 5 | 1 | 26 | 98 | 22 | 82 | - - - - | | | 1 |
| | | 2 | 53 | 201 | 44 | 167 | | | | |
| | | 6 | 75 | 284 | 62 | 237 | | 10 | | |
| | | 3 | 106 | 401 | 88 | 334 | | | | |
| | | 8 | | | 110 | 416 | | | | |
| | | 1 | 37 | 140 | 31 | 117 | - - - 100 | | 15 kW | |
| | 6 | 2 | 74 | 280 | 62 | 233 | | | Ratings based on 1 HP (.75 kW) | |
| G | | 6 | 104 | 394 | 87 | 328 | | 7 | e l | |
| | | 3 | 147 | 555 | 122 | 464 | | | based | |
| | | 8 | _ | _ | 154 | 583 | | | | atings |
| | 7 | 1 | 75 | 284 | 62 | 237 | 50 | | 1 * | |
| | | 2 | 150 | 568 | 125 | 473 | | | | |
| | | 6 | 208 | 787 | 173 | 656 | | 3.5 | | |
| | | 3 | 300 | 1136 | 250 | 946 | | | | |
| | | 8 | _ | _ | 312 | 1181 | 1 | | | |



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

| S Frame | Gear Motor &/ Liquid Conner Ratio or Mount End Material | ctions |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|------------|
| Frame | Motor &/or Mount | |
| D Frame | 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 | |
| G Frame | Less Motor | |
| G5 | P = DC Motor with Variable Speed Drive | |
| G6 | | |
| G7 | Liquid End Material | |
| Gear Ratio Code 1 = 43 SPM 2 = 86 SPM 6 = 120 SPM 3 = 173 SPM 8 = 180 SPM @ 1425 RPM (SG only) | $4 = Polypropylene$ $- 2 = PVDF$ $7 = 316 SS$ $8 = PVC$ $P = Polymer Service$ $L = Slurry Applications$ $N = H_2SO_4 Applications$ | |
| | Connections | |
| | P = NPT | |

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

| Series G | Frame | No Fitting |
|------------|--------------|-----------------------|
| SD | 2 | 39672 |
| | 4 | 39672 |
| Supplied w | ith 10' of 1 | /4" Polyethene 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

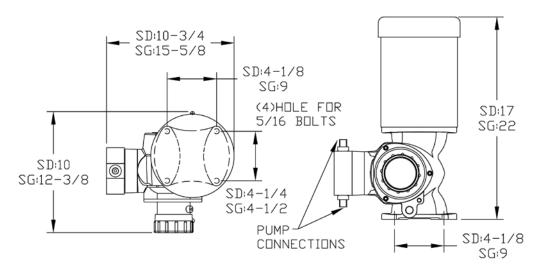
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MILTON ROY

Series

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 | | Applications | 316SS | | | |
| | | | Polymer | Slurry | HSO4 | 01000 | | |
| D | 2 | 1/ ″ Mele | | 1N/A | 1/ ″ Mele | ¼″ Male | | |
| | 4 | '/₄'' Male | | ¹ /," Male | 1/ ₄ ″ Male | 1/," Male | | |
| | 7&8 | | 1/ " Famala | - | | - | | |
| · · | 5 | | 1/2" Female | | | | | |
| G | 6&7 | 1″ Female | | 1″ Male | 1″ Female | 1″ Male | | |

Materials of Construction

| Frame | Liquid End Size | Head | Diaphragm Cap | Check Valve Body | Seals | Seats | Balls | Diaphragm |
|-------|----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| G | 5 | . PP | PP - | PVDF | - Viton | PVC | - Ceramic | PTFE |
| | 6 | | | PVC | | | | |
| Р | | PVC | PVC | PVDF | Aflas | Alloy C22 | | |
| U | | | | | | PIFE | | |
| G | 5 | | | | Viton | PVC | | |
| | 6&7 | | | PVC | | | | |
| D | | PVDF | PVDF | PVDF | Aflas | | | |
| | | | | | | PTFE | | |
| | | | | | PTFE | PVDF | | |
| | | | | DI /DF | | | | _ |
| | | | | PVUF | | | | |
| | | 316 SS | 51/0 | | Viton | 316 SS | 316 SS | |
| | | PVC. | PVC | 316 SS | | | | |
| - | | | | | | 01.00 | | |
| D&G | | PVC | PVC | PVUF | Aflas/Viton | | CA 20 | - |
| D | | 4 | 240.00 | 316 SS | PTFE | | - | |
| | | | | | Viton | 316 22 | 316 SS | |
| G | | 210.22 | 210.22 | | | 316 SS | | |
| | | | | | | | | |
| | G D G D D & G D D G D & G D D & G D D & G D D D C D D D C D | $\begin{array}{c} & Size \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ & \\ $ | $\begin{array}{c c c c c c c c } Size & Size & \\ \hline \\$ | Size Lap 5 PP PP 6 PP PP 6 2* PVC 2* PVC PVC 6 5 68.7 2* PVDF PVDF 0 4* PVDF 2* PVDF PVDF 0 4* PVDF 0 4* PVDF 0 7.8.8 PVC 0 4 316.SS 0 7.8.8 PVC 0 4 316.SS 0 4 316.SS 0 4 316.SS 0 4 316.SS | $ \begin{array}{c c c c c c c c c c c } \hline Frame & End & Head & Cap & Valve & Body \\ \hline Size & PP & PP & PP & \\ \hline & 5 & & \\ \hline & 6 & & & \\ \hline & & & & \\ \hline & 6 & & & \\ \hline & & & & \\ \hline & & & & \\ \hline & & & &$ | FrameEnd SizeHeadDiaphinagin CapValve BodySealsG 5 6 PPPPPVDFViton 6 2^* $7 & 8$ PVCPVCPVDF 4^* $7 & 8$ PVCPVCPVDFAflas 6 5 $6 & 7$ PVCPVDFViton 6 5 $6 & 7$ PVDFPVDFAflas $7 & 8$ $6 & 6 & 7$ PVDFPVDFAflas $7 & 8$ $6 & All$ PVDFPVDFAflas D 4^* $316 SSPVDFPVDFD4316 SS316 SSVitonD7 & 8410PVCPVDFAflasD7 & 84110PVCPVDFPTFED4316 SS7 & 816 SSPVCPVDFAflas/VitonD7 & 8410PVCPVDFPTFED4316 SS7 & 8316 SS7 & 8316 SS7 & 8316 SS7 & 8316 SS$ | $ \begin{array}{c c c c c c c } \hline \mbox{Frame} & \bdown & \$ | FrameEnd SizeHeadDatamagin CapValve BodySealsSeatsBalls6 5 PPPPPVDFVitonPVC6 6 PVC PVCPVCPVC0 4^* PVCPVCAflasAlloy C220 4^* PVCPVCPVDFAflasAlloy C220 4^* PVCPVCPVCPVC 6 $6 \& 7$ PVC PVDFAflasAlloy C220 4^* PVDFPVDFAflasAlloy C220 4^* PVDFPVDFPVDF 5 $4 ll$ PVCPVDFAflasAlloy C220 4^* PVDFPVDFPVDF 0 4 $316 SS$ $316 SS$ $316 SS$ $316 SS$ 0 $7 \& 8$ PVC PVCPVDF $316 SS$ $316 SS$ 0 $7 \& 8$ $316 SS$ $316 SS$ $316 SS$ $316 SS$ $316 SS$ 0 4 $7 \& 8$ $316 SS$ $316 SS$ $316 SS$ $316 SS$ 0 4 $7 \& 8$ $316 SS$ $316 SS$ $316 SS$ $316 SS$ 0 4 $316 SS$ $316 SS$ $316 SS$ $316 SS$ $316 SS$ |

* 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.



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