PT. DWIJAYA SELARAS

CHEMICAL FEED PUMP

GUDANG MULTIGUNA ALAM SUTERA
T8 NO. 35 ALAM SUTERA
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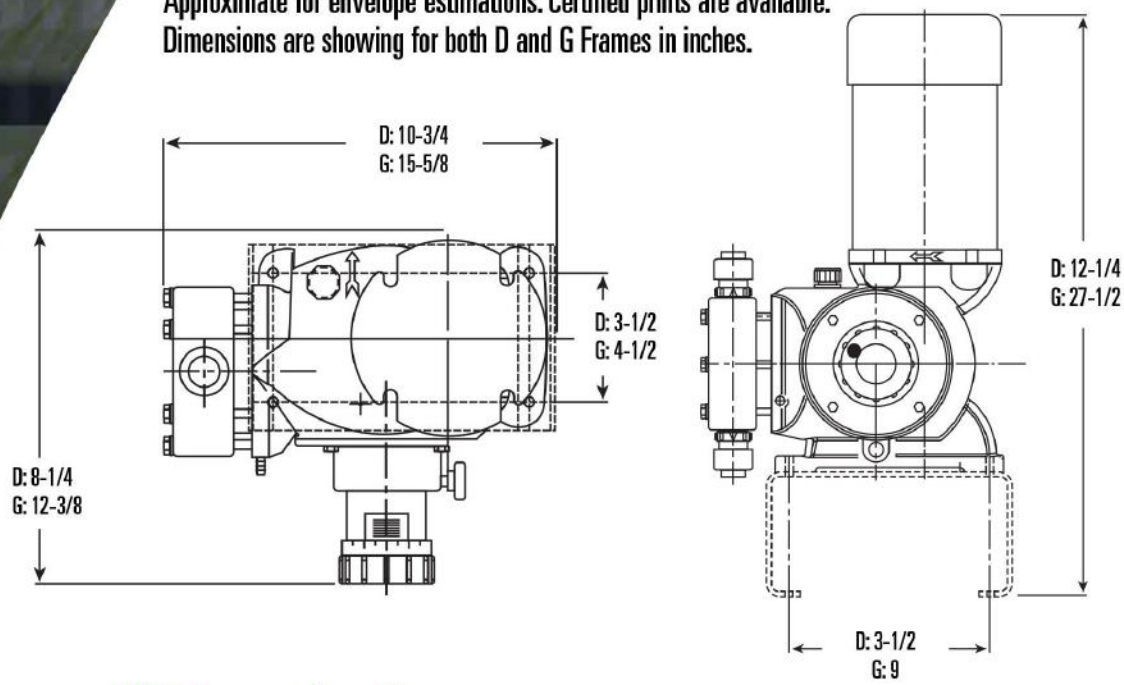
OUR PARTNERSHIP:

LMI

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	Applications			316 SS
			Polymer	Slurry	HSO4	
D	2	1/4" Male		1/4" Male	1/4" Male	1/4" Male
	4			1/2" Male		1/2" Male
	7 & 8	1/2" Female				
G	5					
	6 & 7	1" Female		1" Male	1" Female	1" Male

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		
		4				PTFE		
		7 & 8			Viton	PVDF		
	G	5						
		6 & 7		PVC		Polyethylene		
PVDF	D	2	PVDF	PVDF	Aflas	Alloy C22		
		4				PTFE		
		7 & 8			PTFE	PVDF		
	G	All						
Polymer Applications	D & G	All	PVC	PVC	Viton	316 SS	316 SS	
Slurry Applications	D & G	All		316 SS				
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			Viton	316 SS		
	G	5						
		6 & 7			PTFE			

LMI PT. DWIJAYA SELARAS

Series G

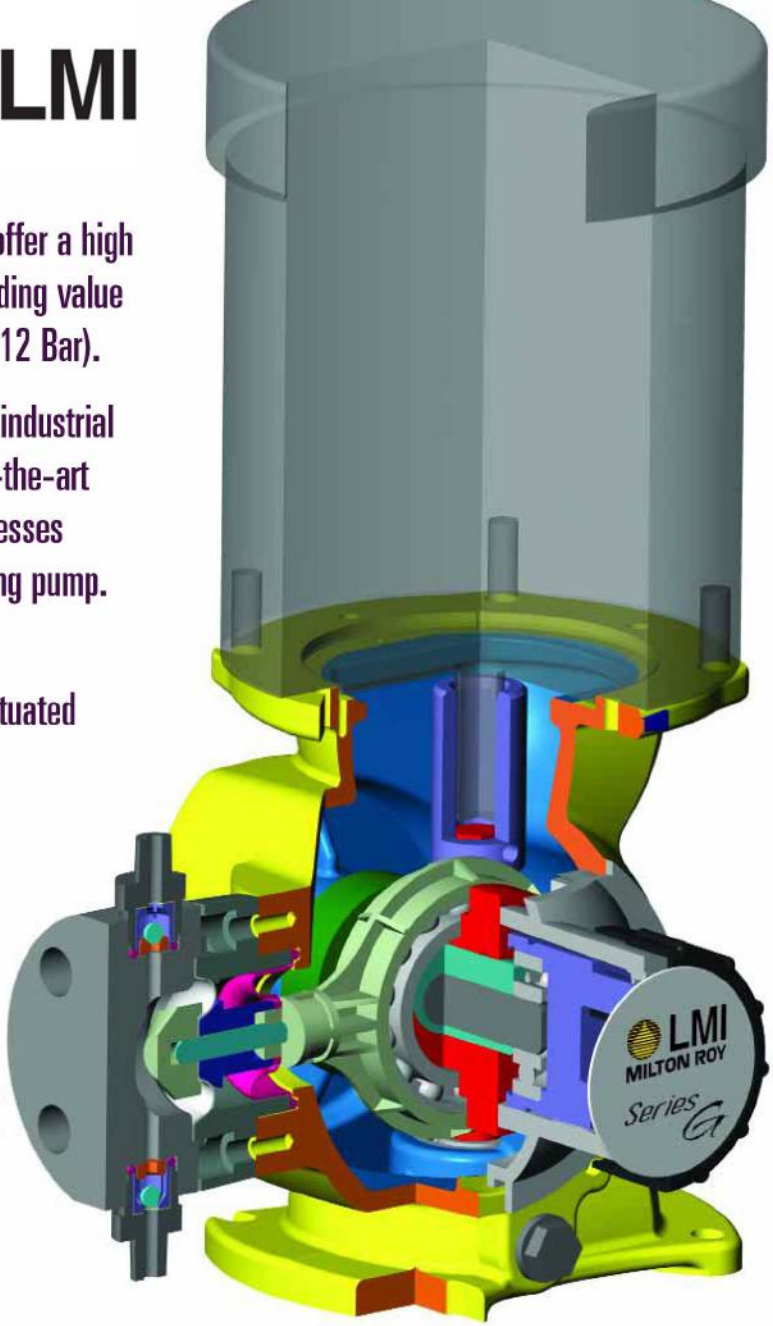
LMI

PT DWIJAYA SETARAS

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 - ± 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)

Pump Selection by Capacity and Pressure

Pump Selection Series G			Maximum Ratings						
			Capacity @ 60 Hz (1725 RPM)		Capacity @ 50 Hz (1425 RPM)		Pressure		
Frame	Liquid End	Gear Code	GPH	Liter/Hr	GPH	Liter/Hr	PSI	Bar	
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

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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 1425 RPM TE
- L = 3 ph 50 Hz 220/380 VAC 1425 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_2SO_4 Applications

Connections

- P = NPT
- T = Tubing
- B = Bleed Valve NPT
- C = Bleed Valve Tubing

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

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.

PT DWIJAYA SELARAS

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.

LMI
MILTON ROY

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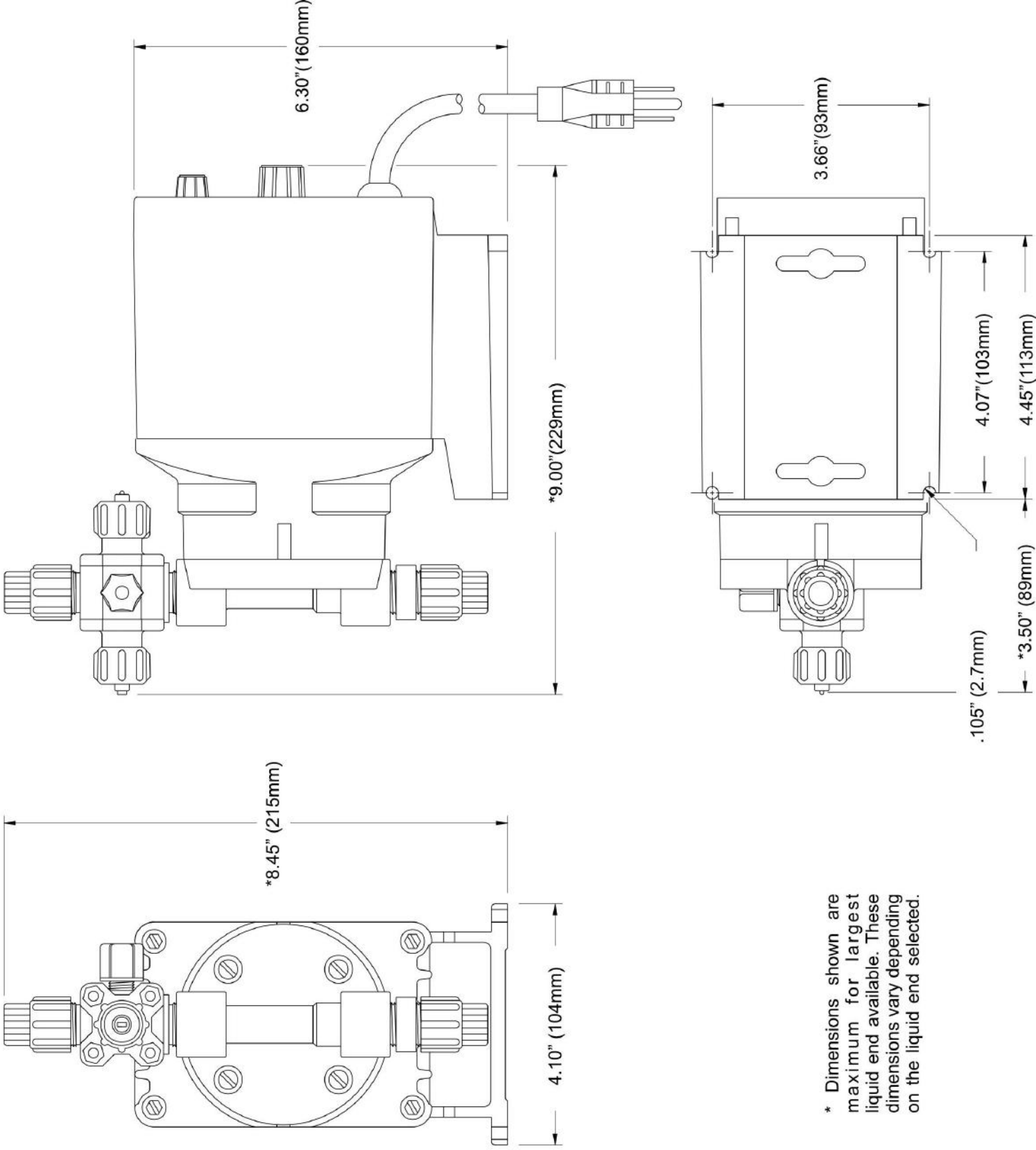
Lit# 1968.A 2/03



* Dimensions shown are maximum for largest liquid end available. These dimensions vary depending on the liquid end selected.

Specification Sheet

Series P

GENERAL

Chemical metering pumps shall be positive displacement, Liquifram™ type pumps that are UL and CUL approved. Output volume shall be adjustable while pumps are in operation from zero to maximum capacity of:

P02, P12	- 0.21 GPH	(0.79 liters per hour)
P03, P13	- 0.42 GPH	(1.6 liters per hour)
P04, P14, P74	- 0.58 GPH	(2.2 liters per hour)
P05, P15, P75	- 1.0 GPH	(3.8 liters per hour)
P06, P16, P76	- 2.0 GPH	(7.6 liters per hour)
P08, P18, P78	- 3.2 GPH	(12.1 liters per hour)

Chemical metering pumps shall be capable, without a hydraulically backed diaphragm, of injecting solutions against pressures up to:

P02, P12	- 150psig	(10.3 Bar)
P03, P13	- 110psig	(7.6 Bar)
P04, P14, P74	- 250psig	(17.3 Bar)
P05, P15, P75	- 110psig	(7.6 Bar)
P06, P16, P76	- 50psig	(3.5 Bar)
P08, P18, P78	- 22psig	(1.5 Bar)

SERIES P0

The stroke frequency will be fixed at the following rates.

P02, P03	- 60 strokes per minute
P04, P05, P06, P08	- 100 strokes per minute

Stroke length shall be adjustable by readily accessible dial knob located opposite the liquid handling end.

SERIES P1

Adjustment shall be by means of readily accessible dial knobs, one for changing stroke length and the other for changing stroke frequency. Both knobs are to be located opposite the liquid handling end.

SERIES P7

Control of Series P7 metering pumps shall be selectable between internal and external pulsing by means of a switch integral with frequency control knob. "External" position to be below lowest internally paced frequency setting. Stroke length shall be adjustable by means of readily accessible dial knob. When in external pulsed mode, Series P7 units shall accept signals without the use of electrical timer or internal timer.

DRIVE

The pump drive shall be totally enclosed with no exposed moving parts. Solid state electronic pulser shall be fully encapsulated and supplied with quick connect terminals at least 3/16" (4.75 mm) wide. Electronics shall be housed in chemical resistant enclosure at the rear of the pump for maximum protection against chemical spillage. Electrical power consumption shall not exceed 22 watts per hour under full speed and maximum pressure conditions. Pump weight shall not exceed 14 lbs (6.5 kg).

AUTOMATIC PRESSURE RELIEF

To eliminate need for pressure relief valve, Liquifram™ shall automatically stop pulsating when discharge pressure exceeds pump pressure rating by not more than 35%.

MATERIAL

Chemical metering pump housing shall be of chemically resistant glass fiber reinforced thermoplastic. All exposed fasteners shall be stainless steel. Chemical metering pump valves shall be ball type, with ceramic balls[1]. Valve seat and seal ring shall be renewable by replacing the combination seat-seal ring[2] or cartridge valve assembly. Pump head shall be of transparent acrylic[3] material capable of resisting the pumped chemical. Fittings and connections at pump head shall be PVC[4].

CHECK VALVES AND TUBING

A total of 16 ft (4.8 m) of polyethylene tubing[5] shall be provided per pump complete with compression connections. A foot valve with integral one piece strainer shall be provided for the suction line, and an injection check/back pressure valve with ½" NPT male connection for the injection point. The injection check valve shall incorporate a dilating orifice which prohibits scale formation and accumulation of crystalline deposits.

Notes:

1. Type 316 stainless steel or PTFE may be specified.
2. Hypalon®, PTFE or Polyprel® may be specified.
3. PVDF, PVC, Polypropylene, or Type 316 stainless steel may be specified.
4. PVDF, Polypropylene, or Type 316 stainless steel may be specified.
5. 6 ft. (1.8 m) of vinyl suction tubing may be specified in place of polyethylene for the suction side only. 1/4" pipe thread may be specified.

Replaces same of Rev. B 8/00
1934.C 6/01