APULSAFEEDEN BENGINEERED PRODUCTS



MECHANICAL DIAPHR

PULSAFEEDER EXPERTISE

For over 70 years, Pulsafeeder, Inc. continues to be a proven leader in diaphragm and dosing metering technologies. With extensive experience in providing fluid handling solutions, our pumps and systems are designed to handle your toughest applications. Known for their rugged construction and dependable performance, our products are of the highest level of manufacturing excellence and quality control.

PULSA® GLM SERIES PUMPS

Our Pulsa GLM series is a mechanically actuated diaphragm metering pump, designed to be reliable, robust, efficient, and compact. It features an industrial design to work in just about any application or environment. If you are looking for a high value chemical transfer or dosing metering pump with low cost of ownership, GLM is an outstanding choice. This latest pump series from Pulsafeeder can handle a wide range of flows and process chemicals.

MATERIALS OF CONSTRUCTION

GLM3-4

Wet End Materials: Polypropylene, PVDF, 316L Stainless Steel **Diaphragms:** Composite PTFE, solid PTFE (GLM7 Only)

Check Valves: Ceramic or Stainless Steel



Housing: Epoxy painted aluminum



Design Feature	Customer Benefit		
Robust industrial design	Long pump life, low cost of ownership		
Auto stroke lock and adjustment	Accurate chemical dosing		
Leak free wet end with secondary sealing	Safety, no clean up or environmental risks		
Toolless valve and connection options	Fast and easy installation and servicing		
Multiple KOPkit® service options	Proper level of maintenance with minimized cost		
Epoxy paint and ETFE coated heads	Chemical resistant and protected from the environment		
Fully sealed outdoor-duty gearbox	Sealed and protected from harsh environments		
Oil sight glass	Quick maintenance checks		
Never-seize coupling	Allows for quick and easy removal of motor		

GLM1-2

AGM METERING PUMP

PRODUCT SPECIFICATIONS



Max Flow: up to 845 gph (3,200 lph)

Min Flow: 0.0264 gph (0.10 lph)



Auto-locking Stroke Adjustment



Pressure:

up to 175 psi (12 bar)

Suction Pressure: up to 170 psi (11.7 bar)

Suction Lift: 10 ft (3 m) Standard Visco

Standard Viscosity: up to 1,000 cPs



Process Temperature: from 32 to 113°F (0 - 45°C)

Ambient Temperature Range: from 32 to 113°F (0-45°C)



Accuracy:

+/- 2% of Set Point

Modu

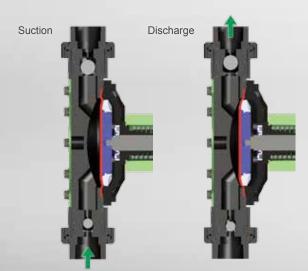
Modular Connections: Tube, Threaded, Flanged



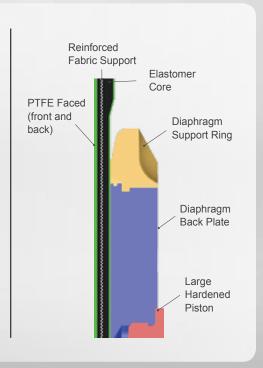
NEMA Type 7 Class 1:

Div 1 Groups C&D (when used with classified motor)

DIAPHRAGM TECHNOLOGY



A diaphragm reciprocates at a preset stroke length, displacing an exact volume of process fluid. Diaphragm retraction causes the product to enter through the suction check valve. Diaphragm advancement causes the discharge of an equal amount of the product through the discharge check valve.



MARKETS & TYPICAL APPLICATIONS

Markets

- Water Treatment Power
- · Water Treatment Municipal
- Typical Applications
 - Acids
 - Caustics
 - Polymers

- · Wastewater Treatment
- · Chemical Processing
- Bleaches
- pH ControlSolvents

- · Oil & Gas
- Petrochemical
- · Dyes/Inks
- Catalysts
- Cleaning Agents

FEATURES & BENE



GEARBOX

- · Compact and lightweight saves space and easy to handle
- · Fully sealed, non-vented gearbox design prevents ingress of contaminants
- · Oil bath gearbox allows for use in hazardous areas
- · Oversized, shielded bearings for long life and reliability
- · Robust industrial hex-head SS hardware for proper torques and standardized fittings



MOUNTING FEET

- · Flat and solid uniform mounting feet extend outside of the gearbox for stability
- · Oversized, slotted mounting holes to accommodate various fasteners
- · With motor installed, pump will not tip over prior to installation



DRIVE

- Sealed upper worm bearing extends gear and motor life, reduces noise, and maximizes pump efficiencies by ensuring full torque output
- Motor flange drain path redirects liquids away from seal and eliminates pooling/resting on seal or motor shaft connection
- Non-metallic, never-seize motor coupling prevents sticking or "welding" of worm shaft to motor shaft allowing for ease of motor installation/removal
- Highly efficient, heavy-duty drive train maximizes uptime and reduces total cost of ownership



OIL LUBRICATION

- Oil bath for normal or explosion proof areas lubricates all internal moving parts to extend pump life
- Easy and accessible oil fill location obstruction free and visible



WET END & CONNECTIONS

- Standard materials: PVDF, PP, and 316LSS
- · Stainless Steel hardware for added chemical resistance
- Four bolt tiebar (316LSS models only)
- Multiple connection options: Tube, NPT, ISO/BSPT (see pump model configurations for availability)



FITS



- · Secure diaphragm sealing technology provides leak free service and chemical containment
- · Secondary O-ring seal offers worry free valve sealing and eliminates chemical spray
- Retention plate ensures pressure containment (hydrostatic and creep elimination) and allows for proper head bolt torque without loosening over time



DIAPHRAGM

- · Flat mechanically actuated diaphragm delivers reliable pumping action and long life
- Double sided PTFE coated composite diaphragms maximizes chemical resistance and diaphragm lubrication
- Multiple diaphragm sealing beads prevent leakage in industrial applications



CHECK VALVES

- Patent pending spherical uniform velocity valving, limited turbulence superior solids handling, and auto-flushing; flow is routed evenly without cavitation concerns
- Three piece self contained replacement assemblies
- O-ring valve seat (soft seat) for improved priming, less noise, and better solids/slurry handling (not available in 316LSS configurations)



STROKE CONTROL

- 10:1 turndown standard
- 0-100% stroke range (while on or off) in one complete revolution
- · Auto-lock stroke position, drift free maintaining proper flow



SERVICING

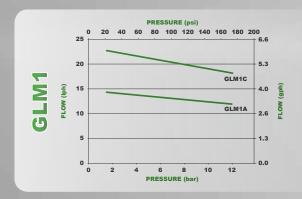
- · Toolless valve removal for simple servicing
- · Multiple KOPkit options for simple maintenance and extended pump life
- · Easy oil fill and drain
- · Oil sight glass for fast inspection of oil and operation
- · Ease of maintenance common hardware, no special tools required
- · Never-seize, non-metallic motor coupling for fast disconnect

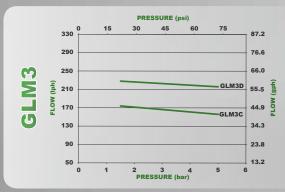


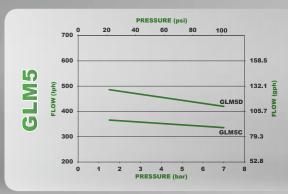
FLOW & PRESSURE

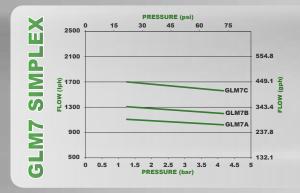
FLOW CURVES

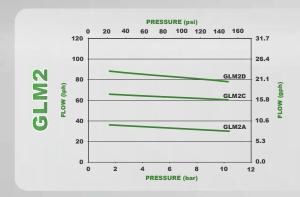
Only 60 Hz speeds and flows are shown. See Model Table on page 8 for 50 Hz.

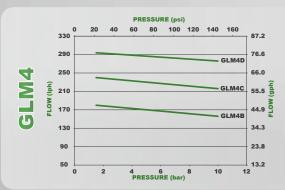


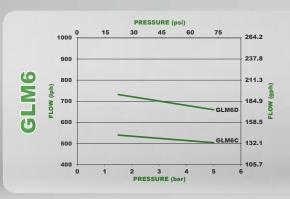


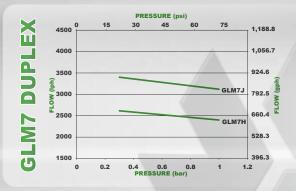




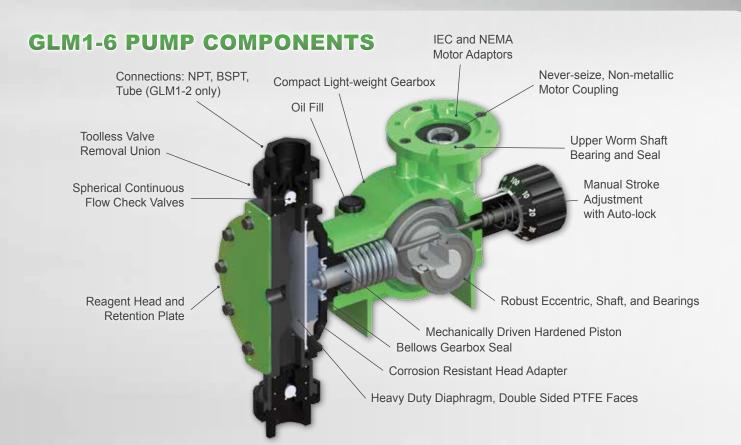


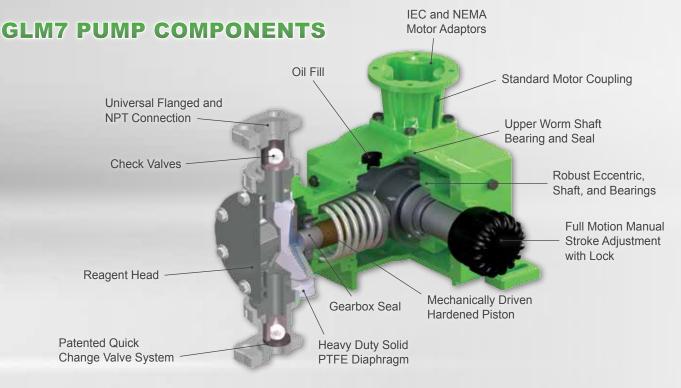






RATING





PERFORMANCE & D

MODEL TABLE — FLOW & PRESSURE RATINGS

	60 Hz			50 Hz			HP	Connection		
MODEL	Pressure (psi)	Flow (gph)	Flow (lph)	SPM	Pressure (bar)	Flow (gph)	Flow (lph)	SPM	(kW) Required	Size
GLM1A	175	3.2	12	88	12	2.6	10	73		
GLM1C	175	4.8	18	140	12	4.0	15	116		
GLM2A		8.0	30	88		6.6	25	73		1/2" FNPT or FBSP or 3/8" x 1/2" Tube
GLM2C	150	15.9	60	140	10	13.2	50	116		(Plastic Models Only)
GLM2D		20.6	78	184	10	17.2	65	153	0.33 (0.25)	
GLM2E	NA	NA	NA	NA		21.1	80	187		
GLM3C		41.2	156	140		34.3	130	116		
GLM3D	75	57.1	216	184	5	47.6	180	153		
GLM3E	NA	NA	NA	NA		60.8	230	187		All ENDT EDOD
GLM4B		41.2	156	116		34.3	130	97		- 1" FNPT or FBSP
GLM4C	150	57.1	216	140	10	47.6	180	116		
GLM4D		72.9	276	184		60.8	230	153		
GLM5C	100	88.8	336	140		74.0	280	116		
GLM5D	100	111	420	184	7	92.5	350	153	1 (0.75)	
GLM5E	NA	NA	NA	NA		119	450	187		1.5" FNPT or FBSP
GLM6C	75	133	504	140		111	420	116		1.3 FINE I ULEDOF
GLM6D	75	174	660	184	5	145	550	153		
GLM6E	NA	NA	NA	NA		182	690	187		
GLM7A		270	1020	116		225	850	97		
GLM7B	75	317	1200	140		264	1000	116		
GLM7C		412	1560	175		343	1300	145		1.5" FNPT (316LSS Models)
GLM7D	NA	NA	NA	NA	5	423	1600	173	1.5 (1.1)	or ANSI 1.5" Flange
GLM7H*	75	634	2400	140		528	2000	116		with 1.5" FNPT (Plastic Models Only)
GLM7J*	75	824	3120	175		687	2600	145		/
GLM7K*	NA	NA	NA	NA		845	3200	173		

^{*}Duplex Models

Note: Flow and pressure ratings based on water-like viscosity and are subject to change without notice.

ESIGN

GLM1-	7 PU	MP	MODEL CONFIGURATION		Required Code	
Pump Selection	List \$ Adder	Code	Choice And Description	GLM		
PUMP SIZE (Determined from chart) Position 1-5	See chart	See chart	See chart			
	Standard -	Α	NEMA 56C (All GLM Models)		_	
Motor Frame	Non-deduct	В	IEC 71B14 (GLM1-6 Models Only)		_	
Selection	(basca off	D	NEMA 143/5TC (GLM7 Models Only)			
Position 6			IEC 90B14 (GLM7 Models Only)			
		T	IEC 100B14 (GLM7 Models Only)			
Wet End		А	316LSS/PTFE-316LSS liquid end - PTFE diaphragm and PTFE O-rings - 316LSS ball valves			
Materials	See chart	F	PVDF/Viton - PVDF liquid end - PTFE diaphragm and Viton O-rings - ceramic ball valves			
Position 7		Р	PP/Viton - PP liquid end - PTFE diaphragm and Viton O-rings - ceramic ball valves		_	
		Р	FNPT (All GLM Models, PP/PVDF GLM7 models include Flange)			
Connections Position 8		В	FBSP (GLM1-6 Models Only)			
POSITION 0		Т	3/8" tube connection (PP/PVDF GLM1-2 Models Only)			

GLM1-7 K	KOPki	t® CONFIGURATION	Required Code			
KOPkit® Selection	Code	Choice and Description	KM	-	_X	
	1	For All GLM1 Models				
	2	For All GLM2 Models				
PUMP SIZE	3	For All GLM3 Models				
(Determined from chart)	4	For All GLM4 Models				
Position 1-3	5	For All GLM5 Models				
	6	For All GLM6 Models				
	7	For All GLM7 Models				
INIET FAID	А	316LSS Wet End with PTFE O-rings				
WET END MATERIALS	F	PVDF Wet End with Viton O-rings				
Position 4	Р	PP Wet End with Viton O-rings				

WET END MATERIALS

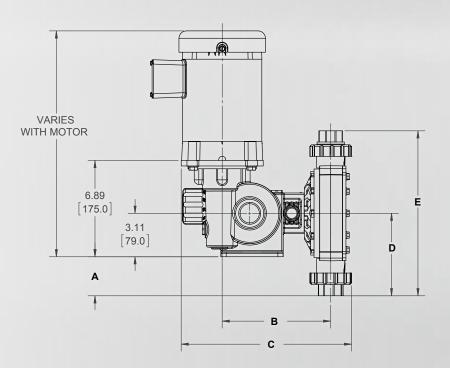
Wet End	Model	Head	Diaphragm	Guide	Seat	Valve Cap	Balls	O-rings	O-ring Seat
PVDF		PVDF		PVDF	PVDF	PVDF	Caramia	Viton®	Viton®
PP	GLM1-7	PP	PTFE	PVDF	PVDF	PP	Ceramic	VIIOII	VILORIS
SS		SS		SS	SS	SS	SS	PTFE	N/A

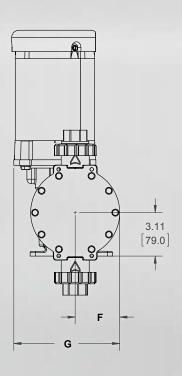
Viton® is a registered trademark of DuPont Performance Elastomers.

IMENSIONAL

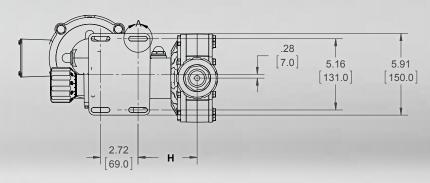
DIMENSIONAL DRAWINGS - GLM1-6

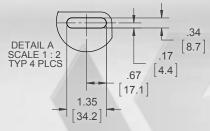
See Table Below





Dim	GLM1-2	GLM3-4	GLM5-6
А	0.95 / 24.0	2.80 / 71.0	3.68 / 93.5
В	7.43 / 188.6	7.77 / 197.3	7.91 / 200.8
С	11.31 / 287.2	12.20 / 309.9	12.59 / 319.9
D	4.06 / 103.0	5.91 / 150.0	6.79 / 172.5
E	8.11 / 206.1	11.81 / 300.1	13.58 / 344.9
F	2.75 / 69.8	3.75 / 95.2	4.00 / 101.6
G	7.23 / 183.6	8.30 / 210.9	8.55 / 217.2
Н	3.95 / 100.4	4.27 / 108.6	4.41 / 112.1



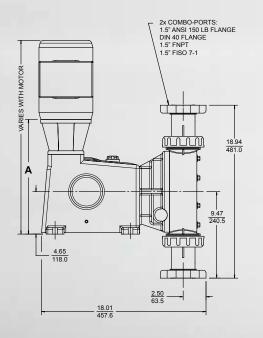


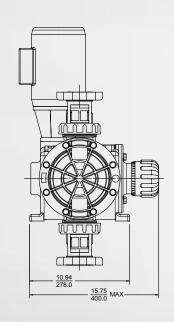
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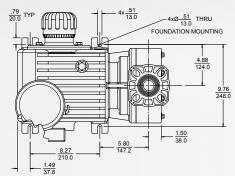
Largest measurements shown. Size may vary depending on material. All measurements are for reference only. Subject to change.

DRAWINGS

DIMENSIONAL DRAWINGS - GLM7 SIMPLEX



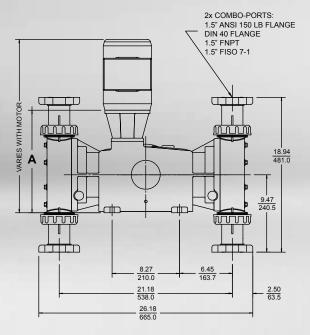


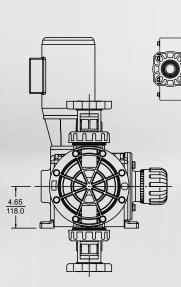


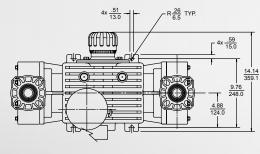
Frame	A DIM
90 IEC	12.55 / 318.8
100 IEC	13.24 / 336.3
56C NEMA	13.18 / 334.8
143/145TC	13.18 / 334.8

All measurements are in inches/millimeters. Reinforcement plate not shown.

DIMENSIONAL DRAWINGS - GLM7 DUPLEX







Frame	A DIM
90 IEC	12.55 / 318.8
100 IEC	13.24 / 336.3
56C NEMA	13.18 / 334.8
143/145TC	13.18 / 334.8

All measurements are in inches/millimeters. Reinforcement plate not shown.



APULSAFEEDER® GENUINE PARTS

PARTS, KITS, & ACCESSORIES



Spare Parts related to your pump are available. If you need to replace a diaphragm, reagent head, or a valve assembly, we have it.



Pulsation Dampeners improve pump efficiency by removing pulsations and smoothing pipe flows.



Pressure Relief Valves prevent an over pressurization situation from damaging your pump or system.



Back Pressure Valves provide positive back pressure for systems with less than the minimum required pressure difference between the discharge and suction side of the metering pump. They assure optimum performance.



PULSALube® is the only oil Pulsafeeder recommends for use in our pumps. PULSALube is a superior blend of oils designed to provide optimal lubrication and extend equipment life. It maintains your pump warranty.



We offer KOPkit® (Keep on Pumping kits) designed to guard against unnecessary downtime and assure the highest level of efficient and uninterrupted service from your GLM pump. In the event of a breakdown, one kit will put you back in business fast!



For More Information, Contact Your Authorized Pulsafeeder Representative

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