

# **PULSAFEEDER**<sup>®</sup> ENGINEERED PRODUCTS

## 7440

## PULSA Series<sup>®</sup>

Our time proven Pulsa Series<sup>®</sup> 7440 is a leak-free, hydraulically balanced diaphragm metering pump. It is engineered for precise dosing and long-term dependability to deliver superior value. Our flat diaphragm or unique HYDRAtube<sup>®</sup> head design, along with a variety of wet end materials, offers a diverse range of fluid handling solutions. The PULSA Series 7440 is commonly used for applications in industries such as chemical processing, petrochemical, oil & gas, water & wastewater treatment, and power.



### Applications

corrosion inhibitors, anti-scalants, slurries, disinfection, pH and odor control



### Flow

up to 440 gph (1666 lph)



### Pressure

up to 3200 psi (221 bar)

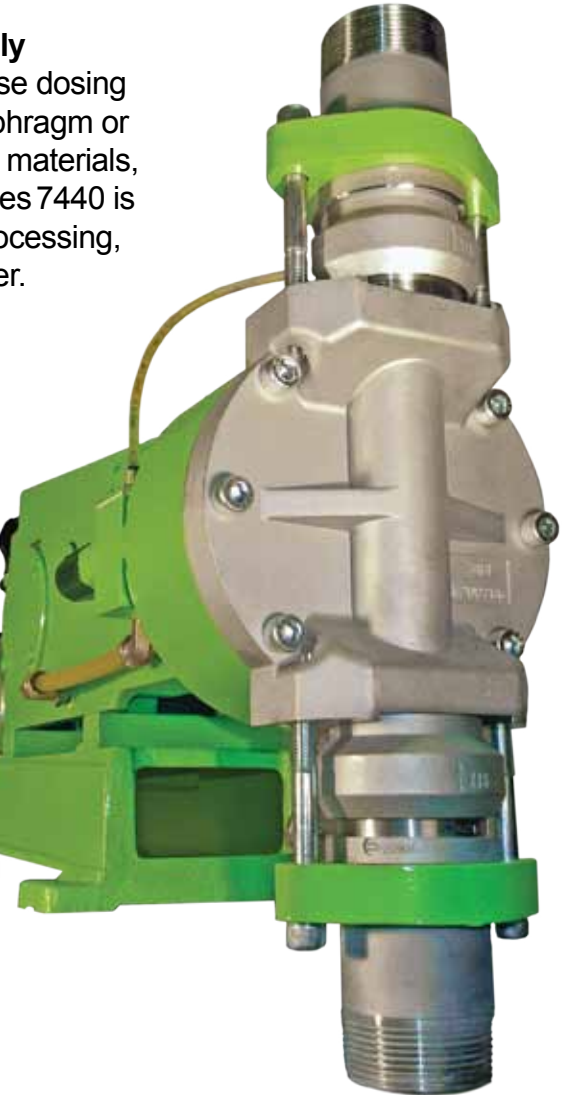


### Temperature

up to 180°F (82°C)



API-675 • CE • ATEX



## Hydraulic diaphragm metering delivers more than you expect.

### Standard materials of construction

- Wet end: 316LSS, GF-PTFE, PVC
- Diaphragm: PTFE
- Pump body: Cast Iron
- Valve ball: 316LSS, Alumina Ceramic
- Valve gaskets: PTFE

### Connection types

- NPT
- Raised-face Flange

### Controls

- PULSAmatic<sup>®</sup> - stroke length
  - NEMA Type 4X & Type 7
- VFD - motor speed

### Leak detection

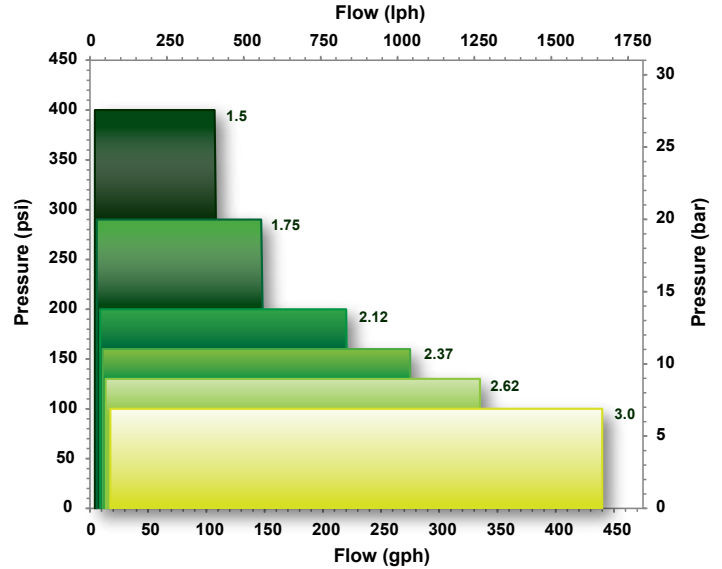
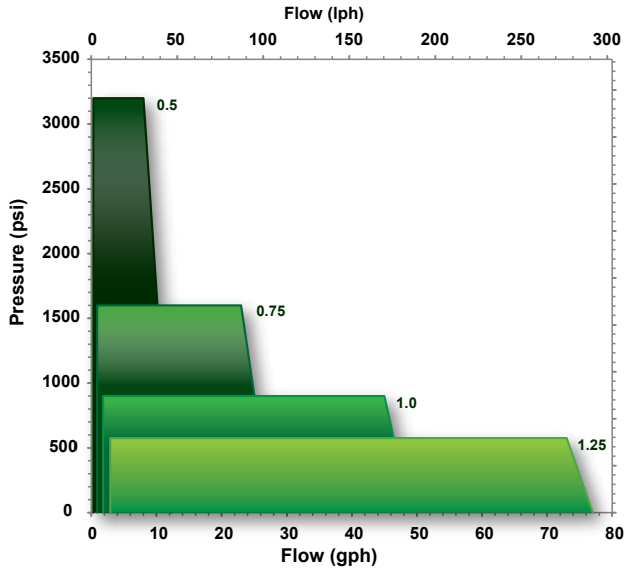
- PULSAalarm<sup>®</sup>
  - Pressure based
  - IP66 NEMA Type 7/4X

### Duplex configurations

### HYDRAtube<sup>®</sup> design

- The solution for sheer sensitive and high viscosity fluids
- Straight flow-through path
- Double diaphragm safety
- Optional slurry valves
- Robust Ductile Iron housing
- Elastomeric HYDRAtube
- ChemAlarm<sup>®</sup> leak detection

## Flow & Pressure Envelope by Piston Size (inches)



### Features & Benefits

- Full motion stroke length control yields 0-100% linear flow adjustment over a 10:1 turndown range
- Hydraulically balanced diaphragm for long life and reduced service costs
- Proven hydraulic management system assures consistent performance and rapid recovery from system upsets
- Material options for safety, durability and chemical compatibility
- Epoxy coating resists corrosion from atmospheric contaminants
- Easy maintenance KOPkit® (Keep on Pumping kit) saves time and money

### Custom Engineering

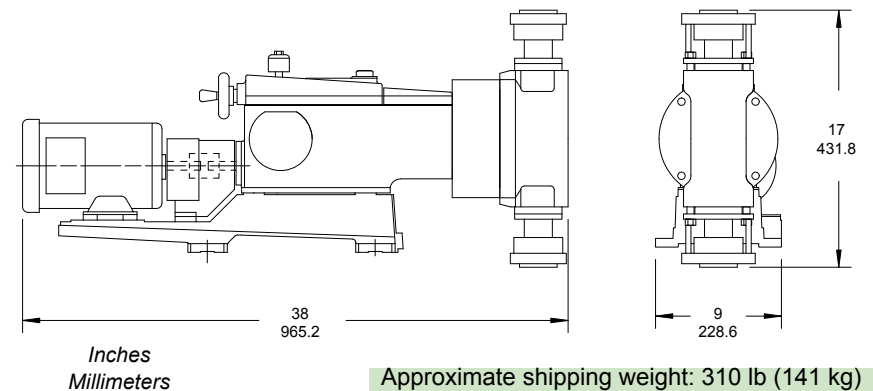
- Compatible materials: Alloy C, Alloy 20, Monel, DuplexSS, Titanium, PVDF
- Extended pressures to 3625 psi / 250 bar
- Extended temperature ranges
  - ♦ From -40°F (-40°C) to 700°F (371°C)
  - ♦ Remote heads and jackets
- Custom electronic controls
- Multiplex configurations
- Pneumatic stroke control
- Degassing valve
- Chemical feed systems
- Application consulting

**Spec Pulsafeeder.**  
Get more than you expect.

### Specifications

Materials	316LSS, PVC, GF-PTFE	Max temp	180°F (82°C)
Diaphragm type	Flat, Flat LD, Tube	Min temp	40°F (4.4°C)
Motor power	up to 2 hp (1.5 kW)	Accuracy	±1%
Motor frame	NEMA 56, 143T/145T, IEC 71B3	Standards	API-675, CE, ATEX

### Dimensions



*The dimensions shown may differ depending on pump configuration.*

**For More Information, Contact Your Authorized Pulsafeeder Engineered Products Representative**



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# PulsaPro® 680

## HYDRAULIC DIAPHRAGM METERING PUMP

PulsaPro® 680 is a positive displacement, leak-free, hydraulically balanced diaphragm metering pump, engineered for precise dosing and long-term dependability, delivering superior value. It offers a diverse range of fluid handling solutions with unique wet end designs consisting of HYDRAtube®, HYDRAcone®, or flat diaphragm types, each available in a variety of wet-end materials. PP680 features immediate visual intelligence about pump and system performance. It complies with the API 675 standard for use in oil & gas, petrochemical, chemical processing, power generation, and water & wastewater treatment industries. Certified by WQA as “NSF/ANSI 61” compliant for use in drinking water treatment processes.



### Common Applications

- corrosion inhibitors
- anti-scalants
- odor control
- Disinfection with Sodium Hypochlorite
- pH control with lime slurries



### Flow

up to 38.2 gph (144.6 lph)



### Pressure

up to 3,100 psi (213.7 bar)



### Fluid Temperature

up to 250°F (121°C)



API 675, CE,  
ATEX, IECEx



“NSF/ANSI/CAN 61”  
“NSF/ANSI/372”



### Standard materials of construction

- Wet end: 316LSS, GF-PTFE, PVC
- Diaphragm: PTFE, Hypalon\* or Viton\*
- Valve ball: 316LSS, Alumina Ceramic
- Valve seat: 316LSS, PVC, GF-PTFE
- Valve gaskets: PTFE, Hypalon\* or Viton\*
- Pump body: Cast Iron

### Connection types

- NPT
- Raised-face flange

### Controls

- Manual stroke length control
- Electronic stroke length control

### Leak detection

- PULSAlarm®
  - Pressure based
  - IP66, NEMA Type 4X, NEMA TYPE 7

### Automatic degassing

- Hypo Valve
  - Automatic purging of trapped gasses
  - Integrated Design
  - Use with Sodium Hypochlorite

### Multiplex configurations

- up to 17 pumps

### HYDRAtube & HYDRAcone design

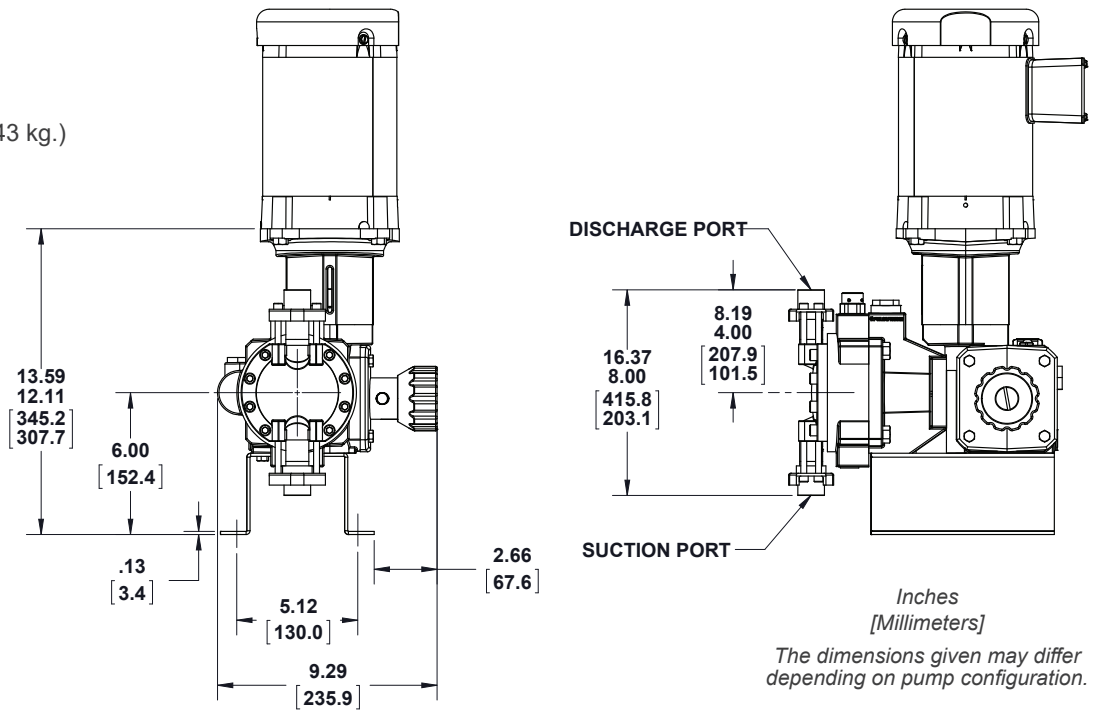
- The solution for shear sensitive and high viscosity fluids
- Straight flow-through path
- Optional slurry valves
- Elastomeric HYDRAtube & HYDRAcone
- Robust Ductile Iron housing - HYDRAtube only
- Double diaphragm safety - HYDRAtube only
- ChemAlarm® leak detection - HYDRAtube only

\* HYDRAtube only

**PULSAFEEDER®**  
ENGINEERED PRODUCTS

## DIMENSIONS

Approximate shipping weight: 95 lb. (43 kg.)



## SPECIFICATIONS

<b>Materials</b>	316LSS, PVC, GF-PTFE	<b>Accuracy</b>	±0.5%	
<b>Diaphragm type</b>	Flat, Tube, Cone	<b>Temperature limitations</b>	Min	Max
<b>Motor power</b>	up to 0.33 hp (0.25 kW)	<b>Standard Fluid temp. range</b>	-10°F (-23°C)	250°F (121°C)
<b>Motor frame</b>	NEMA 56C, 143/5TC IEC 71B14, 80B14	<b>Ambient temp. limit with ATEX</b>	-4°F (-20°C)	174°F (79°C)
<b>Standards</b>	API 675, CE, ATEX IECEx, "NSF/ANSI 61"			

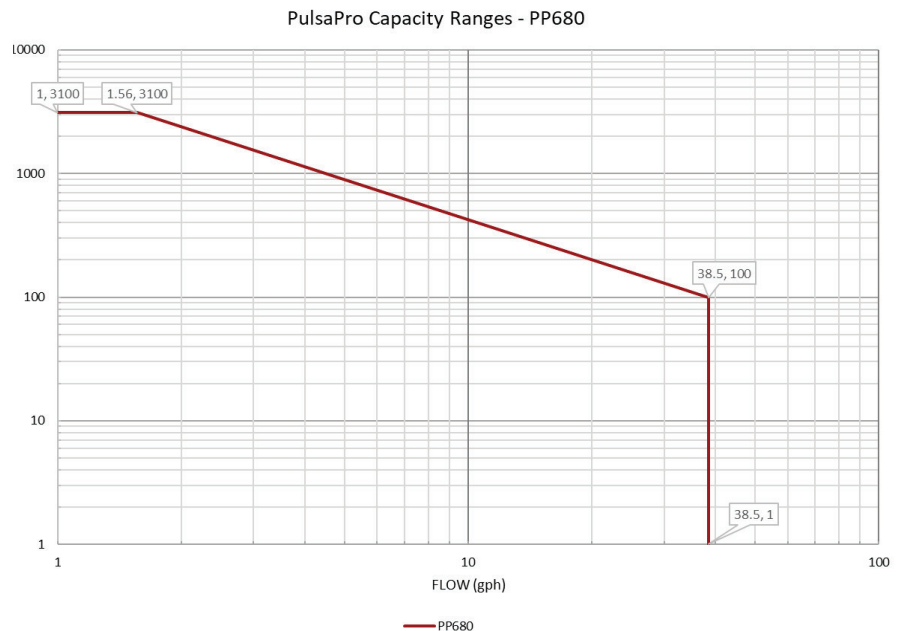
## FEATURES & BENEFITS

- Unique 3 valve hydraulic management system makes the PulsaPro pump resilient to system upset
- **Hydraulic performance valve** maintains optimum diaphragm position and allows low NPIP of 5 psi (0.31 bar)
- **Push-to-prime valve** allows quick manual priming of the hydraulic system in addition to automatic air bleeding
- Externally adjustable **hydraulic by-pass valve** protects against over-pressurization
- Four bolt tie bar design provides ultimate resistance to piping moments and forces
- Three component check valves for controlled fluid displacement, assuring reliable hydraulic operation
- Manual stroke length adjustment with resolution of 0.1% for set point accuracy and optional electronic stroke length adjustment with 5x improved resolution

## CUSTOM ENGINEERING

- Compatible materials: Alloy C, Alloy 20, Monel®, DuplexSS, Titanium, PVDF
- Minimum temperature to -10°F (-23°C) and with ATEX to -4°F (-20°C)
- Degass Valve
- Chemical feed systems
- Application consulting

## FLOW & PRESSURE ENVELOPE



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*Pulsafeeder is an ISO 9001 Certified Company.*



## PULSAtron Series A Plus

The Pulsatron Series A Plus offers manual function controls over stroke length and stroke rate as standard with the option to select external pace for automatic control.

Ten distinct models are available, having pressure capabilities to 250 PSIG (17 BAR) @ 12 GPD (1.9 lph), and flow capacities to 58 GPD (9.1 lph) @ 100 PSIG (7.0 BAR), with a standard turndown ratio of 100:1, and optional ratio of 2000:1. Metering performance is reproducible to within  $\pm 3\%$  of maximum capacity.

### FEATURES

- Manual Control by on-line adjustable stroke rate and stroke length.
- Highly Reliable timing circuit.
- Circuit Protection against voltage and current upsets.
- Solenoid Protection by thermal overload with auto-reset.
- Water Resistant, for outdoor and indoor applications.
- Internally Dampened To Reduce Noise.
- Guided Ball Check Valve Systems, to reduce back flow and enhance outstanding priming characteristics.
- Few Moving Parts and Wall Mountable.
- Safe & Easy Priming with durable leak-free bleed valve assembly (standard).
- Optional Control: External pace with auto.manual selection.



### CONTROLS

#### Manual Stroke Rate

- Turn-Down Ratio 10:1

#### Manual Stroke Length

- Turn-Down Ratio 10:1

#### External Pacing Option

#### External Stop Option

#### External Pace With Stop Option (125 PM only)

### BENEFITS

- Reliable metering performance.
- Rated "hot" for continuous duty.
- High viscosity capability.
- Leak-free, sealless, liquid end.



Tested and Certified by WQA  
against NSF/ANSI/CAN 61 & 372.



PVDF & PVC Degass Head Pumps.  
See [www.wqa.org](http://www.wqa.org) for  
certification parameters.



## SPECIFICATIONS

MODEL		LBC2	LB02	LBC3	LB03	LB04	LB64	LBC4	LBS2	LBS3	LBS4	
Capacity nominal (max)	GPH	0.25	0.25	0.42	0.50	1.00	1.25	2.00	0.50	1.38	2.42	
	GPD	6	6	10	12	24	30	48	12	33	58	
	LPH	0.9	0.9	1.6	1.9	3.8	4.7	7.6	1.9	5.2	9.14	
Pressure <sup>3</sup> (max.)	GFPP, PVDF, 316SS or PVC (W code) w/TFE Seats	250 (17)	150 (10)	250 (17)	150 (10)	100 (7)	100 (7)	50 (3.3)	250 (17)	150 (10)	100 (7)	
	PVC (V code) Viton or CSPE Seats / Degass Liquid End	150 (10)							150 (10)			
Connections:		Tubing	1/4" ID X 3/8" OD					3/8" ID X 1/2" OD		1/4" ID X 3/8" OD		
		Piping	1/4" FNPT									
Strokes/Minute		125						250				

Note 3: Pumps with rated pressure above 150 PSI will be de-rated to 150 PSI Max. when selecting certain valve options, see Price Book for details.

## ENGINEERING DATA

Pump Head Materials Available	GFPP, PVC, PVDF, 316 SS
Diaphragm	PTFE-faced CSPE-backed
<b>Check Valves Materials Available</b>	
Seats/O-Rings	PTFE, CSPE, Viton
Balls	Ceramic, PTFE, 316 SS, Alloy C
Fittings Materials Available	GFPP, PVC, PVDF
Bleed Valve	Same as fitting and check valve selected, except 316SS
Injection Valve & Foot Valve Assy	Same as fitting and check valve selected
Tubing	Clear PVC, White PE

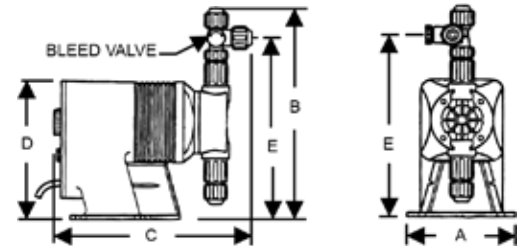
Important: Material Code - GFPP=Glass-filled Polypropylene, PVC=Polyvinyl Chloride, PE=Polyethylene, PVDF=Polyvinylidene Fluoride, CSPE=Generic formulation of Hypalon, a registered trademark of E.I. DuPont Company. Viton is a registered trademark of E.I. DuPont Company. PVC wetted end recommended for sodium hypochlorite.

Reproducibility	±3% at maximum capacity
Viscosity Max CPS	1000 CPS
For viscosity up to 3000 CPS, select connection size 3, 4, B or C with 316SS ball material. Flow rate will determine connection/ball size. Greater than 3000 CPS require spring loaded ball checks. See Selection Guide for proper connection.	
Stroke Frequency Max SPM	125 / 250 by Model
Stroke Frequency Turn-Down Ratio	10:1 / 200:1 by Model
Stroke Length Turn-Down Ratio	10:1
Power Input	115 VAC / 50-60 HZ / 1 ph 230 VAC / 50-60 HZ / 1 ph
<b>Average Current Draw</b>	
@ 115 VAC: Amps	0.6 Amps
@ 230 VAC: Amps	0.3 Amps
Peak Input Power	130 Watts
Average Input Power @ Max SPM	50 Watts
Approvals	Conforms to ANSI/NSF STD. 50

## DIMENSIONS

Series A PLUS Dimensions (inches)						
Model No.	A	B	C	D	E	Shipping Weight
LB02 / S2	5.0	9.6	9.5	6.5	8.2	10
LBC2	5.0	9.9	9.5	6.5	8.5	10
LBC3	5.0	9.9	9.5	6.5	8.5	10
LB03 / S3	5.0	9.9	9.5	6.5	8.5	10
LB04 / S4	5.0	9.9	9.5	6.5	8.5	10
LB64	5.0	9.9	9.5	6.5	8.5	10
LBC4	5.0	9.9	9.5	6.5	8.5	10

NOTE: Inches X 2.54 = cm



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