

Ever since its introduction, the PULSA<sup>®</sup> 680 metering pump has been one of our most popular products. Its winning combination of metering precision, rugged construction and affordability makes it your best choice for hundreds of applications. Pulsafeeder pioneered and perfected hydraulic diaphragm metering pumps. The PULSA<sup>®</sup> 680 is a result of over 50 years of pump research, development, and testing.

### Key Features

- A worm drive and eccentric translate the rotary motion of a worm shaft into reciprocating linear motion by a plunger.
- The plunger displacement (and pump flow rate) is manually controlled by a 0-100% micrometer adjustment mechanism accurate to  $\pm 1\%$ .
- A no-drift stroke lock mechanism maintains the accuracy of the stroke setting.
- A built-in make-up valve, bypass valve and bleeder valve, features normally found on more expensive pumps, keep the system hydraulically balanced for trouble-free operation.
- The life of the pump is extended by the use of needle bearings at the high load points.
- Long-term durability is achieved through the use of high quality materials in the drive train. The worm gear is made from Dynalloy<sup>®</sup> bronze.

### Controls Options



#### Electric Stroke Length Control

- A fully electric PULSAmatic<sup>®</sup> stroke length controller is available for operation with electric instrument signals.



#### Pneumatic Stroke Length

- A fully pneumatic operator design for use with a typical 3 to 15 psi (0.2 to 1.0 kg/cm<sup>2</sup>) instrument air signal to produce 0 to 100% flow.



#### MPC Vector

- The MPC VECTOR is an advanced pump controller that is physically separated from the pump's enclosure. Its purpose is to precisely adjust output flow of a process media by means of pump motor speed control, and is designed for a wide variety of control applications.

Leak Detection is available in either Pulsalarm<sup>®</sup> or ChemAlarm<sup>®</sup>

### Operating Benefits

- Special Valve design facilitates quick removal of check valves without disassembly of piping
- Drive components carry a two-year warranty.
- Flows up to 39 GPH (147 LPH), and pressures up to 3000 psi (207 bar).
- Metering accuracy with a  $\pm 1\%$  over a 10:1 flow range.



### Aftermarket & Accessory Offerings

- KOPkit<sup>®</sup>
- Cal Columns
- Strainer
- Pressure Relief Valves
- Back Pressure Valves
- Pulsation Dampeners
- Gauges



# PULSA Series® 680

## Specifications and Model Selection

RATED FLOW, AT RATED PRESSURE GPH (LPH) <sup>1</sup>				RATED PRESSURE	Diaphragm Style <sup>(2)</sup>	PISTON SIZE (inches)	Connection INLET/OUTLET FNPT (inches)
50 Hz Flow		60 Hz Flow					
36 SPM	176 SPM	44 SPM	175 SPM	PSI (Bar)			
0.12 (0.44)	0.56 (2.13)	0.14 (0.53)	0.56 (2.11)	3000 (207)	TM	0.25	¼
0.17 (0.63)	0.8 (3.04)	0.2 (0.76)	0.8 (3)	1500 (103)	TM	0.25	¼
0.18 (0.69)	0.88 (3.34)	0.22 (0.83)	0.88 (3.31)	1000 (69)	TM	0.25	¼
0.21 (0.79)	1 (3.8)	0.25 (0.95)	1 (3.76)	250 (17.2)	TM	0.25	¼
0.41 (1.55)	2 (7.6)	0.49 (1.85)	2 (7.53)	1800 (124)	TMC	0.375	¼
0.73 (2.78)	3.5 (13.4)	0.88 (3.33)	3.5 (13.25)	925 (64)	TMC	0.5	¼
1.21 (4.57)	6 (23)	1.45 (5.49)	6 (22.58)	600 (41)	TMC	0.625	¼
1.7 (6.3)	8 (30)	2(7.53)	8 (30)	400 (27.6)	THC	0.75	½
2.5 (9.5)	12 (45)	3 (11.36)	11.82 (45)	300 (20.7)	THC	0.875	½
3.3 (12.6)	16.2 (61)	4 (15)	16 (61)	235 (16.2)	THC	1	½
4.3 (16.4)	21 (80)	5.2 (19.68)	21 (79)	185 (12.8)	THC	1.125	½
5.6 (21)	27 (102)	6.7 (25.36)	26.6 (101)	150 (10.3)	THC	1.25	½
6.8 (26)	33 (125)	8.2 (31)	32.64 (124)	130 (9)	THC	1.375	½
8.1 (30.6)	39 (147)	9.7 (37)	38.55 (146)	100 (6.9)	THC	1.5	½

1. Ratings subject to change

2. M = Metal; T = Teflon; H = HydraTube; C= Cone

### Engineering Data

**Materials:** Standard wet end materials available are 316SS, 20SS, glass-filled Teflon and PVC on flat and tube diaphragm models. 316SS, 20SS and glass-filled polypropylene are standard on Hydracone diaphragm models. Valve materials are 316SS, 20SS, alloy C and alumina ceramic. Custom materials quoted on request.

**Ratings:** Most models with metal head construction are rated to 180°F. Models with plastic head construction rated to 150°F. Elastomer diaphragm models generally limited to 40°F minimum.

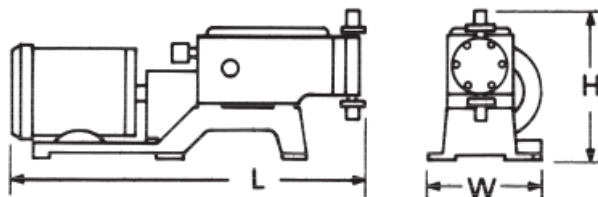
**Motors:** A 1/6 HP, 115/230 volt, 1750 RPM totally enclosed motor is standard. Three-phase, explosion-proof and special duty motors are optional.

### Custom Engineered Designs

- Remote Head
- High Temperature Remote Head
- Anti-Siphon Valve
- Degassing Valve
- Slurry Valves

### Dimensions

PULSA 680	L	H	W	Approx. Shipping Weight
Inches	19.8	9	6.6	40 lbs.
Centimeters	50.3	22.9	51.5	18.1 kg.



[pulsafeeder.com](http://pulsafeeder.com)

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