



Plus PMP SERIES

Chemical Metering System

The PMP Plus Series is Knight's newest line of variable speed metering pumps built on the industry's most reliable and consistent platform. The high performance chemical metering system is designed to offer a wide array of flow rates and multi-functional controls to meet your pumping application needs. With the choice of peristaltic or electric diaphragm metering pumps, the PMP Plus offers the versatility to dispense a variety of process fluids or chemicals for food & beverage cleaning and sanitation, dairy farms, industrial process, and large laundry.



- New multi-function electronics with high resolution variable speed control (manual adjustment or 4–20 mA input) to vary pump delivery volume depending on the application
- One pump can serve a variety of your applications and reduce the need to stock multiple flow rates
- Optimize delivery speed for more efficient cleaning and reduced cycle time
- “All in One” control with selectable operating modes (limit timer, repeat cycle, relay input)
- PMP Plus Series offers the choice of Electric Diaphragm Pumps (2.8 gpm, 1.2 gpm, .6 gpm) [10.6 lit/min, 4.5 lit/min, 2.3 lit/min] or Peristaltic Metering Pumps (.6 gpm, .25 gpm) [2.3 lit/min, 1 lit/min]
- Simple dip switch and push button programming
- Watertight, secure locking enclosure with powder coated IP-65 rated stainless steel
- Case mounted manual start activation or remote switch
- Delay on and lock out functions

PMP Plus Electric Diaphragm Pump (PMPE)



The PMP Plus Electric Diaphragm Pump is a highly reliable and simple design with few moving parts that features a heavy duty, long life motor that produces high pressure yet, low pulsation pumping action. These field proven pumps are engineered for aggressive chemical, high duty cycle applications.

- High resolution variable speed controls allow you to “dial in” the precise flow rate required for a wide variety of metering applications
- Flow Rates: 3.1, 2.8, 1.2 and .6 gal/min (11.6, 10.6, 4.5 and 2.3 lit/min)
- Long lasting EPDM or Viton seals for a variety of chemicals
- More consistent dosing as flow rates “hold” for life of the valves
- No squeeze tubes to change or service
- Quick connect “bayonet” style inlet/outlet fittings
- Continuous duty rated motors
- Engineered for aggressive chemical, high duty cycle applications
- 70 PSI (4.83 bar) pressure switch option

PMP Plus Peristaltic Metering Pump (PMPP)



The PMP Plus Peristaltic Metering Pump System features Knight’s industry best peristaltic pump design that has become the bench mark for reliability and quality for the chemical dispensing industry.

- High resolution variable speed control allows you to “dial in” the precise flow rate required for a wide variety of metering applications
- Flow Rates: .6 and .25 gal/min (2.3 and 1 lit/min)
- Long lasting squeeze tubes
- Self Priming, Easy to Service
- Watertight, secure locking enclosure with powder coated IP-65 rated stainless steel
- Only the tube gets wet
- Max Pressure: 30 PSI (2.1 bar)

Pump Activator Options

Pump activators are available for all PMP Plus models



Single Product Remote Activator
P/N 7640616-25



Case Mounted Manual Start Button
P/N 1900452

Note: All models include suction and discharge fittings (barb type), gear clamps, suction stand pipe and 6 ft. (1.8 meter) power cord.

Recommended Applications



Food & Beverage Processing Facilities

CIP Sanitizer Injection
COP Dosing
Bucket/Bottle Fill
Conveyor Lube Injection
Bottle Warmer



Machine Shops

Cutting Fluids

Life Sciences

Cart Washer
Tunnel Washer
Bucket Fill



Dairy Farm

Pipeline Cleaning/Sanitizing
Teat Dip Chemical Dispensing
Wash Pen Chemical Injection
Foot Bath



Laundry Operations

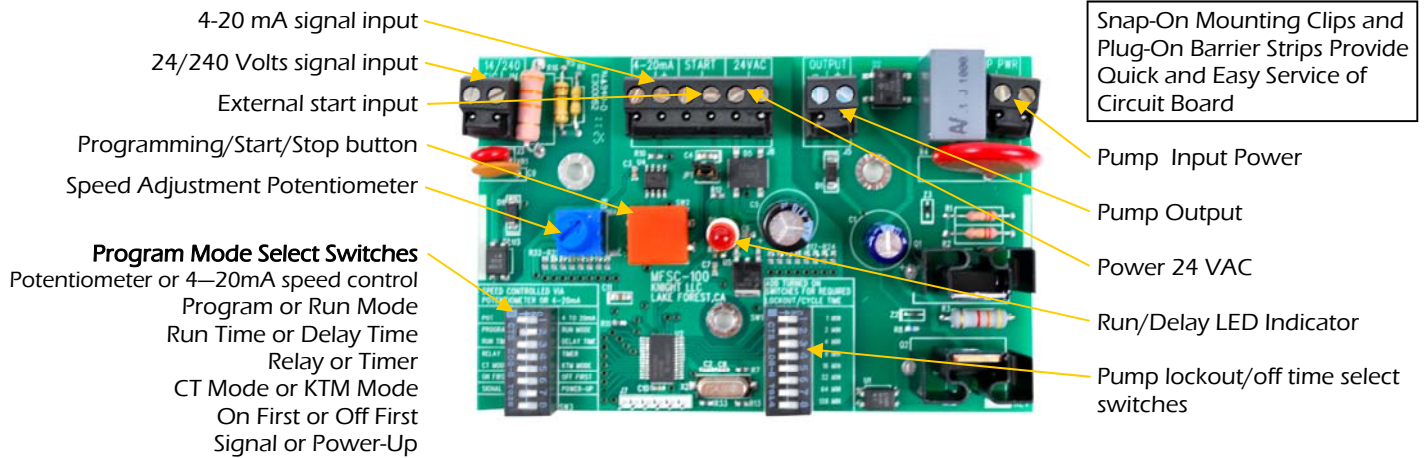
CBW/Tunnel Machines
Washer Extractors

Water/Waste Water

Cooling Tower Biocide
Caustic Injection
Chlorine Metering
Lift Station Dosing

PMP Plus Control Board

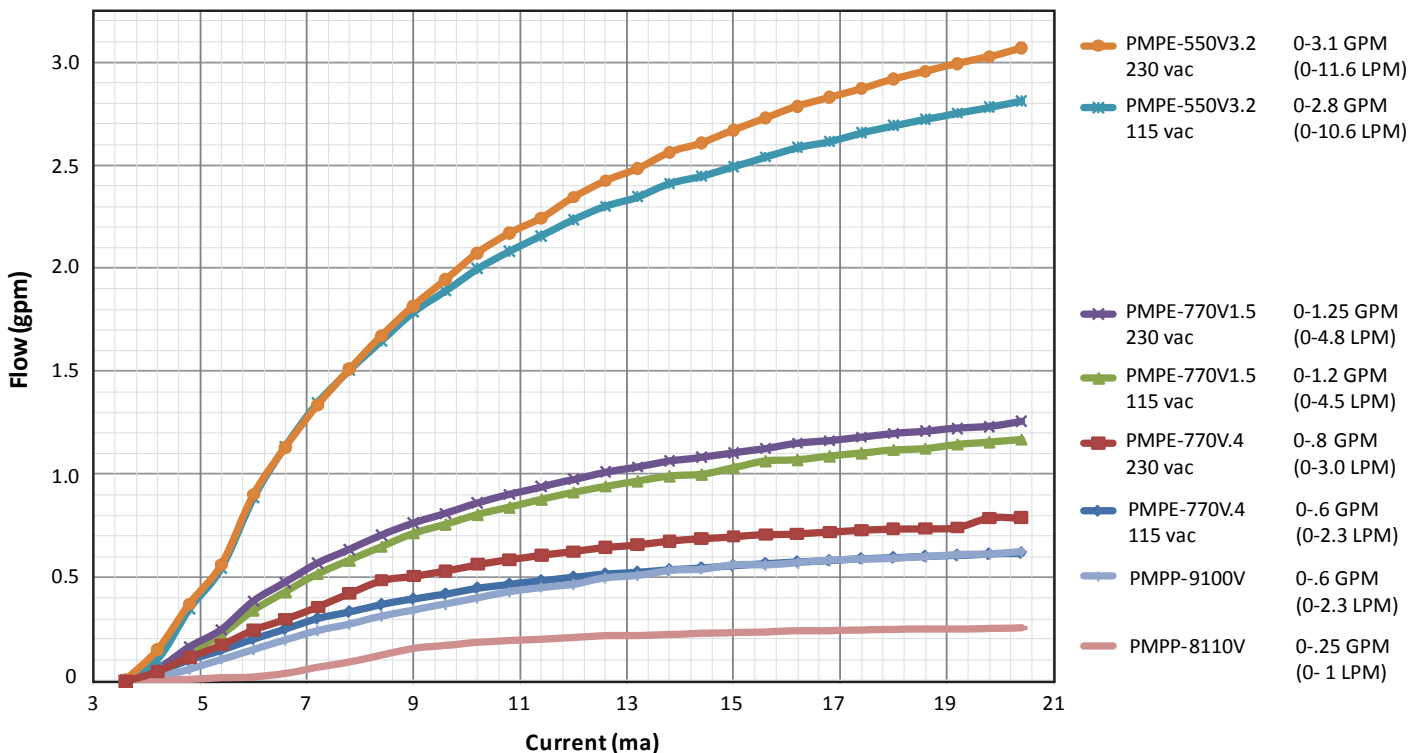
The PMP Plus chemical metering systems come standard with a unique microcontroller that provides extreme versatility of use. The multi-function pump controller varies the speed of the pump to provide accurate, precise injections for almost any chemical batch feed application, repeat cycle injection, pumped misting applications and direct closed loop injection. The circuit board has dual dip switch program/mode selectors to set the PMP Plus speed control and timer programming.



Programming Settings

Operating Mode	Signal Input	Pump "On" Time	Pump "Off" Time	Delay On Time	On First	Off First
KTM	14–240 VAC/VDC	0-12 min 42 Sec		0-12 min 45 sec	Select	Select
CT	14–240 VAC/VDC	0-12 min 42 Sec	0-255 min.	0-12 min 45 sec	Select	Select
Relay	14–240 VAC/VDC	1 second to continuous				
4-20 mA	External Input from PLC					

PMP Plus MFSC Flow Chart



Variable Flow Rates based on 4-20 ma current input at 0 PSI head pressure

ORDERING INFORMATION

PMP Plus Peristaltic Pump

PMPP-8110V

Power: 115VAC/60hz, 230 VAC/50Hz

Dimensions: 9.3" H x 5.8" W x 5" D (23.6 cm x 14.7 cm x 12.7 cm)

Part Number	Description	Electrical	Flow Rate
8457773-01	PMPP-8110V w/ peristaltic pump and EPDM squeeze tube, 30 PSI (2 bar)	110V	.25 gpm (0-1 LPM)
8457773-02	PMPP-8110V w/ peristaltic pump and EPDM squeeze tube, 30 PSI (2 bar)	230V	.25 gpm (0-1 LPM)
8457774-01	PMPP-8110V w/ peristaltic pump and Viton squeeze tube, 30 PSI (2 bar)	110V	.25 gpm (0-1 LPM)
8457774-02	PMPP-8110V w/ peristaltic pump and Viton squeeze tube, 30 PSI (2 bar)	230V	.25 gpm (0-1 LPM)
7600775	PMPP-8110V Accessory Kit		

PMPP-9100V

Power: 115VAC/60hz, 230 VAC/50Hz

Dimensions: 13.6"H x 8"W x 7.5"D (34.5cm x 20.3cm x 19.1 cm)

Part Number	Description	Electrical	Flow Rate
8457763-01	PMPP-9100V w/ peristaltic pump and EPDM squeeze tube, 30 PSI (2 bar)	110V	.6 gpm (0-2.3 LPM)
8457763-02	PMPP-9100V w/ peristaltic pump and EPDM squeeze tube, 30 PSI (2 bar)	230V	.6 gpm (0-2.3 LPM)
P7600776	PMPP-9100V Accessory Kit		

PMP Plus Electric Diaphragm Pump

PMPE-770V

Power: 115VAC/60hz, 230 VAC/50Hz

Dimensions: 13.6"H x 8"W x 7.5"D (34.5cm x 20.3cm x 19.1 cm)

Part Number	Description	Electrical	Flow Rate
8457768-01	PMPE-770V.4 w/ EDP and EPDM valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	110V	.6 gpm(0-2.3 LPM)
8457768-02	PMPE-770V.4 w/ EDP and EPDM valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	230V	.8 gpm(0-3.0 LPM)
8457769-01	PMPE-770V.4 w/ EDP and Viton valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	110V	.6 gpm (0-2.3 LPM)
8457769-02	PMPE-770V.4 w/ EDP and Viton valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	230V	.8 gpm (0-3.0 LPM)
8457766-01	PMPE-770V1.5 w/ EDP and EPDM valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	110V	0-1.2 gpm (0-4.5 LPM)
8457766-02	PMPE-770V1.5 w/ EDP and EPDM valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	230V	0-1.25 gpm (0-4.8 LPM)
8457770-01	PMPE-770V1.5 w/ EDP and Viton valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	110V	0-1.2 gpm (0-4.5 LPM)
8457770-02	PMPE-770V1.5 w/ EDP and Viton valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	230V	0-1.25 gpm (0-4.8 LPM)
8457771-01	PMPE-770V1.5 w/ EDP and EPDM valve seals/diaphragm, w/ 70 PSI (4.8 Bar) pressure switch	110V	0-1.2 gpm (0-4.5 LPM)
8457772-01	PMPE-770V1.5 w/ EDP and Viton valve seals/diaphragm, w/ 70 PSI (4.8 Bar) pressure switch	110V	0-1.2 gpm (0-4.5 LPM)
P7600785	PMPE-770V Accessory Kit, EDP 1.5 / 0.4, EPDM		
P7600770	PMPE-770V Accessory Kit, EDP 1.5 / 0.4, Viton		

PMPE-550V

8457764-01	PMPE-550V3.2 w/ EDP and EPDM valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	110V	0-2.8 gpm (0-10.6 LPM)
8457764-02	PMPE-550V3.2 w/ EDP and EPDM valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	230V	0-3.1 gpm (0-11.6 LPM)
8457767-01	PMPE-550V3.2 w/ EDP and Viton valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	110V	0-2.8 gpm (0-10.6 LPM)
8457767-02	PMPE-550V3.2 w/ EDP and Viton valve seals/diaphragm w/ bypass at 100 PSI (6.9 bar)	230V	0-3.1 gpm (0-11.6 LPM)
P7600770	PMPE-550V Accessory Kit, EDP 3.2, EPDM		
P7600784	PMPE-550V Accessory Kit, EDP 3.2, Viton		

Pump Activator Options

1900452	Case Mounted Manual Start Button
7640616-25	Single Product Remote Activator

KNIGHT LIMITED WARRANTY

Knights controls and pump systems are warranted against defects in material and workmanship for a period of ONE YEAR. All Electronic Control Boards have a TWO YEAR warranty. Warranty applies only to the replacement or repair of such parts when returned to the factory with a KRA number, freight prepaid and found to be defective upon factory inspection. Rubber and synthetic rubber parts such as "O" rings, diaphragms, squeeze tubing and gaskets are considered expendable and are not covered under warranty. Warranty does not cover liability resulting from performance of this equipment nor the labor to replace this equipment. Product abuse or misuse voids warranty. Knight products are not for use in potentially explosive environments. Any use of our equipment in such an environment is at the risk of the user. Knight does not accept any liability in such circumstances.

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