

SYSTEM FEATURES

- ❖ Compact Skid Mounted Packaged Portable Chemical Dosing system with:
 - Compressed Air / Natural Gas Operated Chemical Dosing Pump,
 - 400 / 500 / 1000 / 3000 / 5000 Ltr CS / SS Tank with Level Gauge and Rockwool insulation
 - Rigid Skid in MS or SS for rough handling.
 - Inbuilt Calibration Pot.
 - SS Interconnecting Piping with ball type isolation valve, suction strainer, ferrule fittings for leak proof operation.
 - Pre tested at the maximum discharge pressure
 - Pump, Calibration Pot and FRL mounted in a lockable enclosure for safety.
 - Epoxy painted for corrosion resistance.
 - Piping designed for use of thick viscous liquids during winters also.
 - Optional – Tank Heaters with temperature sensor and controls (Flame Proof DGMS approved.)
 - Optional – Pump Flow Rate measuring and monitoring device upto 200 barg to record, store and monitor Pump Flow Rate, Flow Totaliser, enabling user to calculate hourly and cumulative working of the pump derived by computing the total flow per unit time. Measuring and controlling device available in Flame Proof and Non Flame Proof construction / housing.



PUMP FEATURES

- ❖ Plunger Type in SS 316 construction.
- ❖ Intrinsically Safe operation
- ❖ Ceramic Plunger – optionally ceramic coated / hard faced Stainless Steel
- ❖ Flow Control by stroking rate with Stroke Delay Timer and stroke length variation with an accurate Micro Meter Stroke Adjustment device
- ❖ Flow turn down ratio of 100: 1 (by combination of stroke rate and stroke length adjustment)
- ❖ Steady State Accuracy of $\pm 1.0\%$ or better.
- ❖ Simple operation, minimum working parts, field serviceable pumps.
- ❖ Pressure Amplification ratio 1: 30
- ❖ Max Pressure 350 Kg/cm².
- ❖ Input Air / Gas Supply: 2 – 210 Kg/cm²
- ❖ Field adjustable maximum pressure cut off by control of Input Air supply from Air Filter Regulator Assembly.
- ❖ Supplied with inbuilt Filter Regulator Assembly and Flow Calibration / Flow Rate Pot / Rate Gauge

Designed, Manufactured & Performance Guaranteed with pride in INDIA by

MATZ PUMPS PRIVATE LIMITED

Plot No: 609, Phase IV, G.I.D.C. Vatva, AHMEDABAD – 382 445 - INDIA

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FEATURES

- ❖ Pump Operation with Compressed Air or Natural Gas.
- ❖ Plunger Type
- ❖ Intrinsically Safe operation
- ❖ Ceramic Plunger – optionally hard faced Stainless Steel
- ❖ Flow Control by stroking rate with Stroke Delay Timer and stroke length variation with an accurate Micro Meter Stroke Adjustment device
- ❖ Flow turn down ratio of 100: 1 (by combination of stroke rate and stroke length adjustment)
- ❖ Steady State Accuracy of $\pm 1.0\%$ or better.
- ❖ Simple operation, minimum working parts, field serviceable pumps.
- ❖ Pressure Amplification ratio 1: 30 - variable
- ❖ Max. Discharge Pressure 350 Kg/cm².
- ❖ Input Air / Gas Supply: 2 – 210 Kg/cm²
- ❖ Field adjustable maximum pressure cut off by control of Input Air supply from Air Filter Regulator Assembly.
- ❖ Supplied with inbuilt Filter Regulator Assembly and Flow Calibration / Flow Rate Pot

OPERATING PRINCIPLE

Unit employs a single acting spring return pneumatic cylinder actuated by a Stroke Delay timer.

Compressed air / natural gas at a pre desired set pressure is used as a prime mover of the pump, the air / gas is fed to the stroke delay timer which give air impulses to the single acting cylinder based on the stroke rate adjuster setting.

Return stroke of the cylinder is accomplished by a spring designed for long trouble free operation.

A Micro Meter Stroke length adjustment device is incorporated on the pump which accurately controls the stroke length of the cylinder piston achieving an accurate flow variation from 0 – 100%.

AVAILABLE MODELS

MODEL	Capacity Range – LPH
PMP-1-2.5	0.015 to 2.5
PMP-1-5.0	0.015 to 5.0
PMP-1-10	0.015 to 10
PMP-1-15	0.15 to 15
PMP-1-20	0.2 to 20
PMP-1-25	0.25 to 25
PMP-1-30	0.3 to 30
PMP-1-50	0.5 to 50
PMP-1-75	0.75 to 75
PMP-1-100	1 to 100
Pump Model PDP-1- have the same performance range except for the construction which is order specific	



GENERAL TECHNICAL FEATURES

PUMP TYPE	Single Acting Reciprocating Plunger air / gas operated
Flow Range -	0.025 to 100 LPH max
Max. Dis. Pressure	350 Kg/cm ² max
Pressure Amplification	1 : 30 - VARIABLE
Turn Down Ratio	100 : 1
Stroke Length	30 mm - adjustable
Port Size – threaded	½" NPT M / BSP M
Flow Variation	Micro Meter Adjustment and Stroke Delay Timer

STANDARD ACCESSORIES ALONG WITH PUMP

- Inlet Air / Gas Filter & Pressure Regulator.
- Calibration Pot.
- Interconnecting Piping.
- All built in to a cabinet in CS with Epoxy Coating / Zinc Coated or in SS.

OPTIONAL ACCESSORIES & FEATURES

- Dosing Tank in CS, SS construction.
- Tank and piping with or without Insulation.
- Complete skid mounted chemical dosing / injection skid with instrumentation, piping, valves, strainers, flow meters, flow rate totalizer's and accessories.
- Flow / Temperature / Pressure / Running Hours transmitters / indicators / recorders for local and remote monitoring and data logging.
- Flameproof Tank Electrical Heaters with DGMS or ATEX approval. Rating 3 kW for 400 Ltr Tanks, 3.5 kW for 600 Ltr Tanks and 6 kW for 1000 Ltr Tanks or higher on demand.
- Auto dosing facility in 230VAC, 24VDC with 4 – 20 mA output available.

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