

---

# **EAST-MAN** Positive Displacement Flow Meter

---

## *EM-PMU-25*

*EAST-MAN Petroleum Metering Unit (Liquid Flow Meter) are positive displacement, reciprocating piston type Meters, designed for high sustained accuracy and continuous volumetric measurement of any non corrosive liquid flowing through a pipeline. Especially suited to check the exact receipt, transfer, consumption, dispensing, mixing, packaging of oil/liquids. This unit is widely adaptable to other various types of services. It will not freeze or get air locked to and does not require more attention than any other ordinary type of meter or equipment.*

*Advanced manufacturing techniques, dimensional accuracy, rigid C.I. body, low noise, cost effective and foremost indigenously built make EAST-MAN petroleum metering unit exceptionally reliable.*



## Key Features:

---

Accuracy  $\pm 0.1\%$

Non-Resettable Totaliser Reading

Size: 25mm/ 1"

Inline Inlet/Outlet Ports

Repeatability 100%

Calibration Seal

Flow Rate: 1-90 LPM

Calibration Knob

---

### ***EASTERN AUTOMOTIVE MACHINE TOOLS PVT. LTD.***

1243, M.I.E. Part-B, Bahadurgarh-124507 (Haryana) INDIA  
Tel: +91-9416202456

Email: [info@eastmanmeters.com](mailto:info@eastmanmeters.com)  
Web: [www.eastmanmeters.com](http://www.eastmanmeters.com)

## Mechanism

---

The Unit has three teflon pistons connected by yolks with a wobble plate. Inlet and discharge of liquid are calibrated by a triangular valve and seat, operating above the pistons. The operation is simple, the liquid comes through the entrance port, goes down to the sides of the valve through valve intakes, then into the ends of the cylinder, thus forcing the piston upwards. A similar movement in the next piston moves the liquid out through the discharge port. To put it simple, EAST-MAN Petroleum Metering Unit is a simple liquid engine with three teflon pistons operating within three cylinders, just like an automobile engine. The movement of the three cylinders measures liquid just as filling cans with liquid and pouring them off.



## Installation and Mounting

---

Meter should have an adequate support and be fastened securely, avoiding strains from piping. Counter should be conveniently located for the operator to read easily. It can be faced in all four directions. When used with Pump, the meter should be on the discharge side of the Pump. Use Minimum number of joints, and ample size pipes for connection. Do not run the Meter backwards. The Flow Direction is marked on the Meter. Apply Pressure compound to male thread only.

## Pressure and Rate of Flow

---

- Pressure should never exceed the rated working pressure on the name plate.
- Use soft closing valves to avoid excessive shock pressure.
- Do not subject the meter to high expansion pressure resulting in temperature rise.
- Flow Rate must be in limits to the Rated Capacity stamped on the Name Plate.

### **EASTERN AUTOMOTIVE MACHINE TOOLS PVT. LTD.**

1243, M.I.E. Part-B, Bahadurgarh-124507 (Haryana) INDIA  
Tel: +91-9416202456

Email: [info@eastmanmeters.com](mailto:info@eastmanmeters.com)  
Web: [www.eastmanmeters.com](http://www.eastmanmeters.com)

## Air and Vapour

---

*Where there is any possibility of air or vapour being pumped into the meter, Air Separators are required. We recommend Combination Air Separator, Strainer, NRV Assy. with pressure gauge (All provided as single product), to prevent air or vapour or intrusion of dirt/grit/pipe scale or any other foreign matter carried through the pipeline. Air/Vapour is discharged from the Air Separator Head. In case of inflammable Oil/Liquid bleeding from the head, a vent pipe should be connected from air separator head to storage or to an empty drum. After installation or repair, slowly fill the meter with oil/liquid. Do not allow the meter to run on high speed on air or vapour*

*Note: Strainer is essential to protect meter from intrusion of foreign matter.*

## Testing and Calibration

---

*The Meter and Accessories are carefully inspected and tested before leaving the factory. Meters are tested for accuracy and sealed. After the meter is installed, it should again be tested. If calibration is required, it is done by removing lock pin and turning the calibration wheel. If the amount in the measuring instrument is less than the counter shows, rotate the wheel in clockwise direction. If the amount in the measuring instrument is more than the counter shows, rotate the wheel in counter clockwise direction.*

*After adjusting to give desired direction, Insert the lock pin back into the hole. A seal wire should then be slipped in the Lock Pin Hole, through the Bolt Head in the counter, and wrapped around the rim of the wheel. Then both ends of the seal wire should be sealed with lead seal.*

*Note: Always calibrate the meter with the same liquid the meter has to measure. To obtain the maximum accuracy & efficiency, the meter should be tested at regular intervals, and recalibrate if required.*

### ***EASTERN AUTOMOTIVE MACHINE TOOLS PVT. LTD.***

1243, M.I.E. Part-B, Bahadurgarh-124507 (Haryana) INDIA  
Tel: +91-9416202456

Email: [info@eastmanmeters.com](mailto:info@eastmanmeters.com)  
Web: [www.eastmanmeters.com](http://www.eastmanmeters.com)

## Maintenance

---

*The EAST-MAN petroleum Metering Unit is a precision instrument. If properly installed and maintained, this unit can give years of trouble free service. However to get the most from the unit, a simple maintenance routine should be followed.*

*To ensure highest accuracy and maximum service, only the liquid measured should pass through the unit.*

*Install a strainer on inlet side as close to the meter as possible. Clean the strainer regularly.*

*Where there is any possibility of air or vapour being pumped into the meter, Air Separators are required. We recommend Combination Air Separator, Strainer, NRV Assy. with pressure gauge (All provided as single product), to prevent air or vapour or intrusion of dirt/grit/pipe scale or any other foreign matter carried through the pipeline.*

*Protect meter against transmission of water. Draw water off the storage tank regularly. Never flush the lines with water after the flow meter is installed.*

*Petroleum Metering Unit is a measuring unit and should be kept in the best working conditions at all times.*

*It should also be understood that:*

*If the installation of the meter is not carried out according to the standard practice reproduce in this manual, it may not give satisfactory performance. The components used in manufacturing of this unit are of highest quality and with close tolerances with selected material. Thus to ensure trouble free service, only use original spare parts in case of replacement/repair. The company shall not be responsible for any damage caused due to negligence/mishandling.*

### **EASTERN AUTOMOTIVE MACHINE TOOLS PVT. LTD.**

1243, M.I.E. Part-B, Bahadurgarh-124507 (Haryana) INDIA  
Tel: +91-9416202456

Email: [info@eastmanmeters.com](mailto:info@eastmanmeters.com)  
Web: [www.eastmanmeters.com](http://www.eastmanmeters.com)

## Technical Specification

Model	EM-PMU-25
Applicative Range	Diesel, Kerosene & any Non-Corrosive Liquid
Flow Rate	1-90 LPM
Accuracy	0.1%
Size	1" x 1" BSP
Max. Displaying Capacity (Current Reading)	9999.9 (5-Digit)
Accumulative Capacity (Totaliser Reading)	99999999 (8-Digit)
Rated Working Pressure	50 PSI
Operating Temperature	0-80 deg C
Max. Viscosity	120 centistokes (eq. to Raw Honey)
Weight	33 Kg (approx.)
Meter	Reciprocating Type PD
Calibration	Mechanical
Least Count	100ml

## Material

Body	C.I.
Sleeves	Stainless Steel
Pistons	Teflon
Seat	Gun Metal
Valve	C.I.
Seal	Viton
Remaining Parts	M.S., Brass, Al

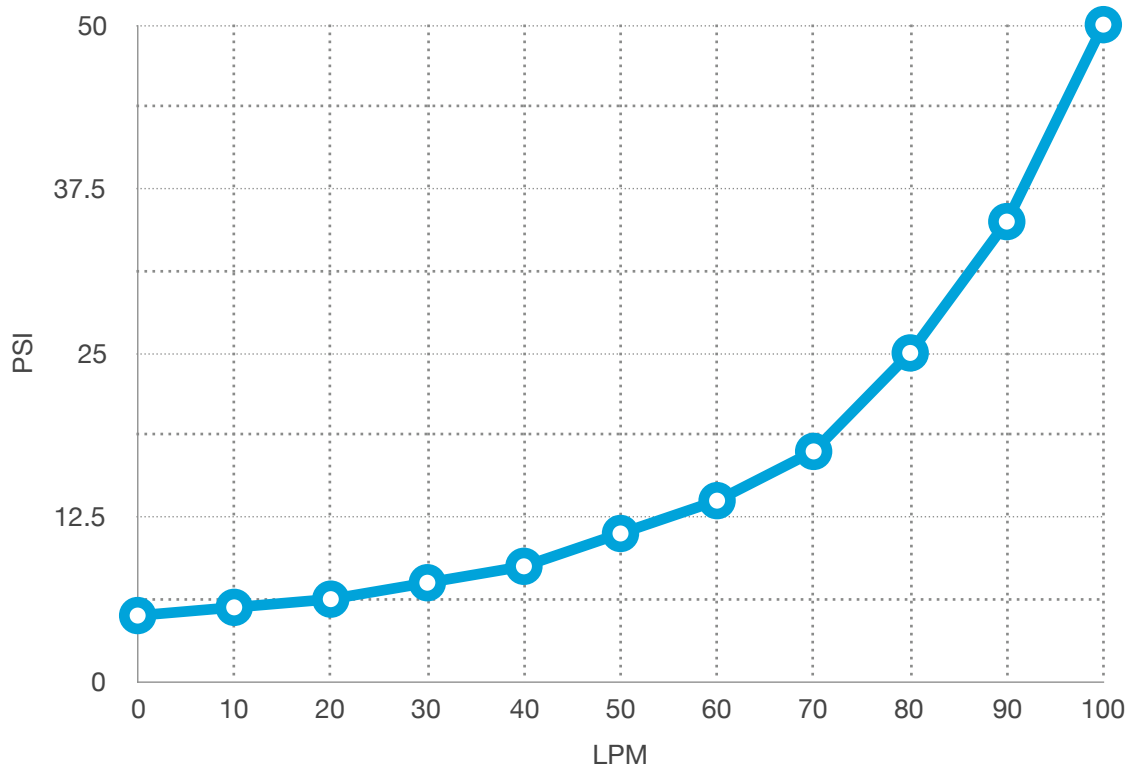
### ***EASTERN AUTOMOTIVE MACHINE TOOLS PVT. LTD.***

1243, M.I.E. Part-B, Bahadurgarh-124507 (Haryana) INDIA  
Tel: +91-9416202456

Email: [info@eastmanmeters.com](mailto:info@eastmanmeters.com)  
Web: [www.eastmanmeters.com](http://www.eastmanmeters.com)

## Pressure Drop Curve

---



## Applications

---

<i>Automotive</i>	<i>Cosmetics</i>	<i>Delivery</i>	<i>Paint&amp;Varnish</i>
<i>Agriculture</i>	<i>Chemical Processing</i>	<i>Industrial</i>	<i>Petroleum</i>
<i>Adhesives</i>	<i>Concrete Add Mixtures</i>	<i>Hydrocarbon</i>	<i>Beverage</i>
<i>Marine</i>	<i>Dairy</i>	<i>Processing</i>	<i>Pulp&amp;Paper</i>
<i>Aviation Fuelling</i>	<i>Liquid Fertilisers</i>	<i>Lube Oil</i>	<i>Textile</i>

### ***EASTERN AUTOMOTIVE MACHINE TOOLS PVT. LTD.***

1243, M.I.E. Part-B, Bahadurgarh-124507 (Haryana) INDIA  
Tel: +91-9416202456

Email: [info@eastmanmeters.com](mailto:info@eastmanmeters.com)  
Web: [www.eastmanmeters.com](http://www.eastmanmeters.com)