

Technical Data

Cyclone Meter

Model 2200



General

The Model 2200 Cyclone Meter is a 2 inch, single case, positive displacement meter designed for the high speed measurement of petroleum products. Its simple design utilizes the rotating crescent principle of operation which allows for high accuracy performance that exceeds requirements found in aircraft refueling, bulk plants, tank truck and general petroleum applications.

Design Features

- Superior Accuracy
- Extremely Wide Flow Range
- Low Pressure Drop
- Non-Ferrous Construction
- 90° Offset or In-line Flanges
- Long Service Life

Principle of Operation

As liquid enters the input chamber of the measuring element, an internal cylinder containing two crescent shaped rotors is driven in a clockwise or counter clockwise direction (flow direction dependent). As the cylinder turns within the measuring element the rotors divide and transfer a discrete volume of product to the outlet port.

A mechanical coupling, attached centrally to the measuring unit, provides rotational mechanical energy necessary to drive registration equipment. As the measuring unit rotates each revolution is transferred by mechanical output gearing and then to the adjustor. The adjusted output is then registered in exact engineering units.

The Cyclone meter is equipped with the Model 4200 Adjustor for applications which require bi-directional, or non-cyclic performance.

Materials of Construction

Housing and Covers: Heat Treated Aluminum

Shafts: Stainless Steel

Rotors: Heat Treated Aluminum

Bearings: Stainless Steel

Elastomers:

Standard: Buna

Optional: Viton

Ratings

Maximum Working Temperature (Product):

-40 to 150°F (-40 to 65°C)

Maximum Working Pressure: 150 psi (1034 kPa)

Maximum Flow Rate:

Continuous: 125 gpm (475 lpm)

Intermittent: 150 gpm (570 lpm)

Viscosity

100 cP (500 SSU) Maximum. (Consult Factory for Higher Viscosity Applications.)

Accessories

- Counters
- Preset
- Strainers
- Printers
- ATC
- Transmitters
- Flow Rate Indicator
- Aircraft Refueling Valves

Shipping Weight And Volume (Approximate)

40 lbs @ 2 Cu. Feet

18 kg @ 0.23 Cu. Meters

Process Connections

1-1/2" NPT, 2" NPT or British Standard Threaded Square Flange (900 Offset Configuration)

1-1/2" ANSI, 125 lb. Flat Face Flange (20 DIN 2576)

Straight Flow Path

2" ANSI 125 lb. Flat faced Flange (50 DIN 2576)

Straight Flow Path

1-1/2" ANSI, 150 lb. Raised Face Flange (20 DIN

2633) Straight Flow Path

2" ANSI, 150 lb. Raised Face Flange (50 DIN2633)

Straight Flow Path

Engineering Units

US Gallons, Liters and dekaliters (Consult Factory for other units of measure.)

Strainers

It is recommended that all meters be protected by a strainer located directly upstream of the meter.

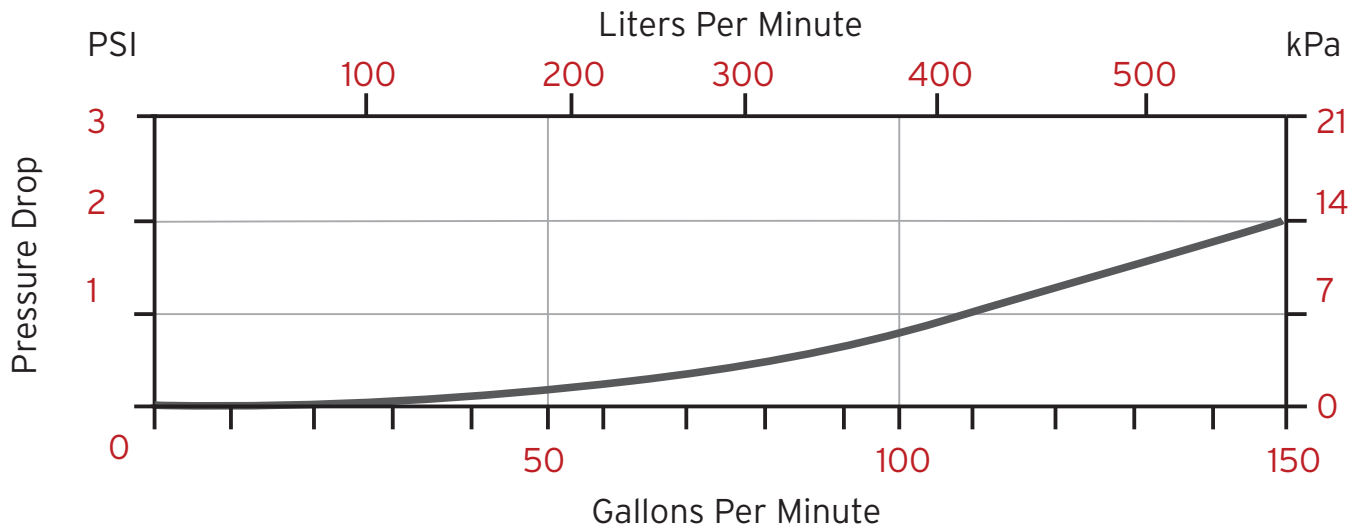
Recommended Strainer Mesh

Gasoline: 80 Mesh

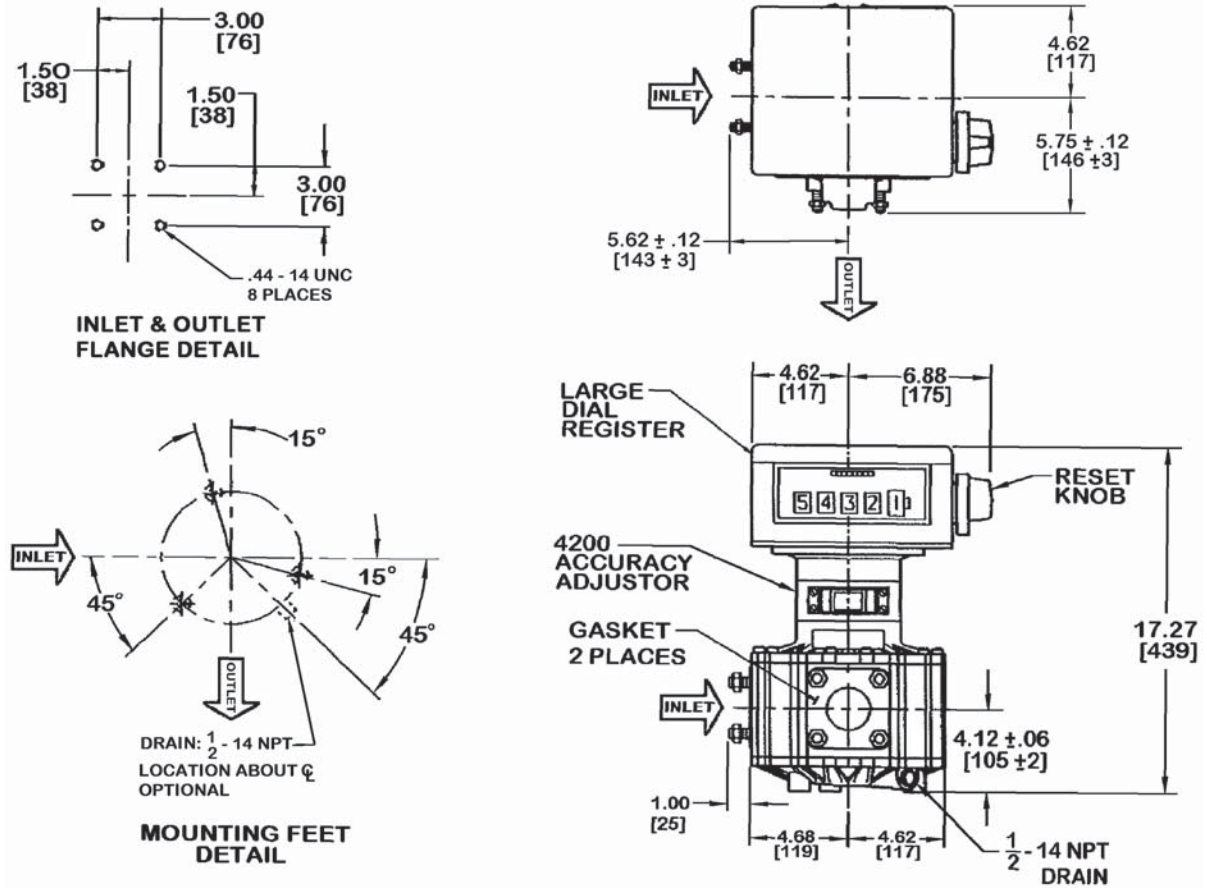
Kerosene & Distillates: 60 Mesh

Diesel, Heat, & Fuel Oils: 40 Mesh

Typical Pressure Drop



Dimensions (For Certified Dimensional Prints -Consult Factory)



Model	Accuracy (linearity)	Minimum Flow Rate				Maximum Flow Rate	
		1.0 cP		5.0 cP		gpm	lpm
		gpm	lpm	gpm	lpm		
2200	+/- 0.15%	15	57	7	26	125	475
	+/- 0.25%	10	38	5	19		

NOTE:

Do not operate this instrument in excess of the specifications listed. Failure to heed this warning could result in serious injury and/or damage to the equipment.

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