

2.5" Model ST-75-SS

Bulletin SS01106E Issue/Rev. 0.0 (7/03)

Smith Meter® Single-Case Rotary Vane Meter and Line Accessories

The **Smith Meter® Model ST-75-SS** is a DN65 (2.5") single-case, straight-through, rotary vane positive displacement meter commonly used on tank trucks and as a line meter. Applications include: blending, batching, dispensing, inventory control, and custody transfer of oils, solvents, chemicals, paints, fats, and fertilizers.

Features

- **Superior Accuracy** – The Smith Meter rotary vane meter principle and unique offset, inlet, and outlet nozzles combine to minimize pressure drop across the measuring chamber for reduced flow through the meter clearances for maximum accuracy.
- **Low Pressure Drop** – Streamlined flow path provides low pressure drop.
- **Positive and Accurate Registration** – High torque drive calibrator with adjustments in 0.05% increments ensures accurate registration.
- **Long Service Life** – Low friction ball bearings, fixed cam timing, and rugged construction give sustained accuracy and long life.

Options

- **High Viscosity Meter Clearances** – to extend operation at maximum flow rate from 400 mPa•s to 2,000 mPa•s.
- **High Temperature Meter Clearances** – to extend operating temperatures up to 100°C.
- **End Connections** – Available with DIN or ANSI flanges.



Meter Specifications

Maximum Flow – Typical

1,200 L/min

Minimum Flow Rate – Typical

120 L/min

Meter Gearing

One dekalitre or one U.S. gallon per revolution of meter output shaft.

Viscosity

Standard: 400 mPa•s (2,000 SSU) maximum.

Optional: 2 Pa•s (10,000 SSU) maximum – specify “High Viscosity Meter Clearances.”

Over 2 Pa•s: Specify “High Viscosity Meter Clearances” and derate maximum flow rate in direct proportion to viscosity over 2 Pa•s (e.g., at 4 Pa•s, derate maximum flow rate to 50% of normal continuous rating 600 L/min).

Temperature

Standard:

-40°C to +65°C.

Optional High Temperature:

High temperature meter clearances: Up to 100°C.

End Connections and Maximum Working Pressure

End Connections	Housing Material	Pressure - bar (kPa)
Class 150 ANSI B16.5 raised face flanges DIN 1092-1/21 raised face flanges	Stainless Steel	16 (1.600)

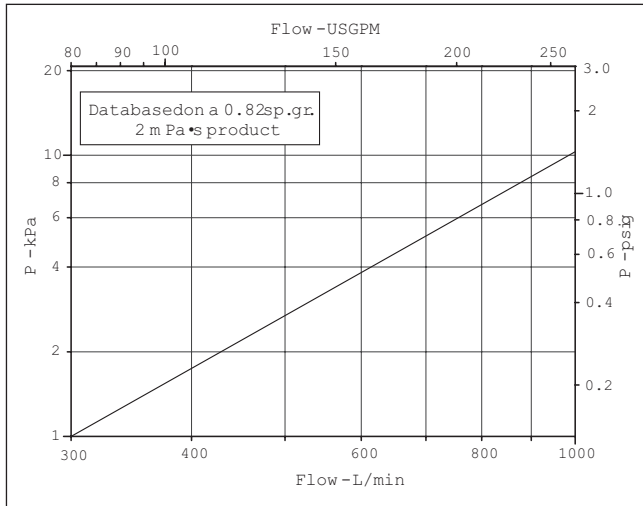
Materials of Construction

Housing	Internals	Seals
Stainless Steel	Stainless Steel, Peak	PTFE ¹

Meter Ordering Information

Application	Batching, Loading, Blending, Inventory, Process Control, etc.
Operating Conditions	Liquid - Name, Viscosity (Min./Max.), and Specific Gravity Flow Range - Min./Norm./Max. Temperature Range - Min./Max. Maximum Working Pressure
Units of Registration	Litres, Dekalitres, Gallons, Kilograms, or Pounds
Options	Flange Size - 3" ANSI Clearances - Standard, High Viscosity, or High Temperature
Accessories	As required.

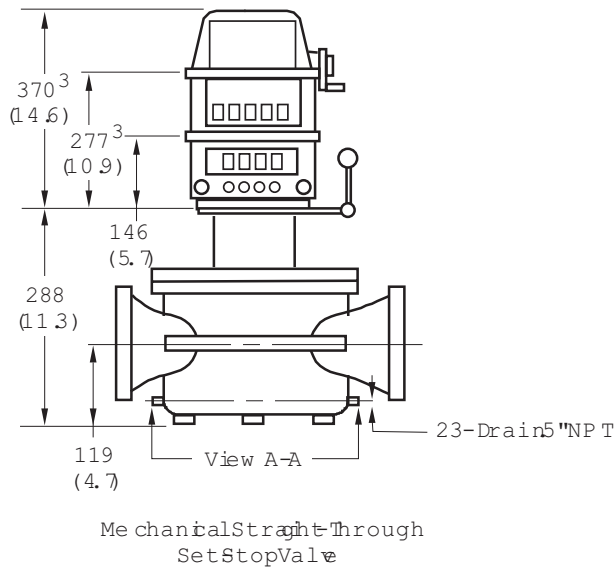
Pressure Drop



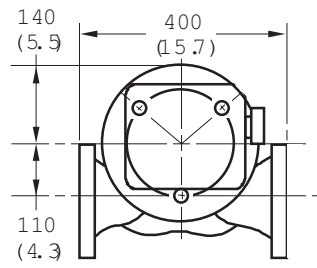
1 Polytetrafluoroethylene (PTFE).

Dimensions²

Millimetres (Inches)

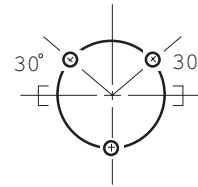


Meters and Preset Valve



Top View

3-M10 Threaded Meter Anchor Bolt Holes, Equally Spaced on a 206 mm Diameter Bolt Circle



² Dimensions – Millimetres to the nearest whole mm (inches to the nearest tenth), each independently dimensioned from respective engineering drawings.

Revisions included in SS01106E Issue/Rev. 0.0 (7/03):

New company branding and contact information added.

The specifications contained herein are subject to change without notice and any user of said specifications should verify from the manufacturer that the specifications are currently in effect. Otherwise, the manufacturer assumes no responsibility for the use of specifications which may have been changed and are no longer in effect.