

# FILL-RITE®

The Most Trusted Name in Pumps and Meters

## Product Catalogue



 Tuthill

Made in  
  
USA

# FILL-RITE®

Tuthill manufactures a comprehensive product line of chemical and fuel transfer products well suited for any dispensing and metering applications. The Fill-Rite® and Sotera™ brands are recognized internationally as the most dependable, durable, and rugged products available.

Manufactured in the U.S. from durable, long lasting materials such as cast iron, aluminum, stainless steel and engineered polypropylene, Tuthill products are designed to continually perform, time and time again, even in the most difficult of installations and applications.

Considered the industry standard for fast fluid transfer, Tuthill offers a broad range of products consisting of AC and DC Fuel Transfer Pumps, Hand Pumps, Flow Meters, Precision Weights and Measures Meters, AdBlue Systems, Bio-Diesel Transfer Systems, Diaphragm Pumps, Fuel Cabinet Dispensers, and a full line of accessories.



Manufacturing Facility located in Fort Wayne, IN



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# DC Pumps - Rotary Vane



FR4405GE



FR1205GE

See page 17 for accessories.

Fill-Rite® 12 and 24 Volt pumps offer all cast iron construction, and offer flow rates and configurations suitable for both portable and stationary systems. With low amp draw, thermal overload protection and a full range of hose, nozzle and flow meter options, this series of DC pumps deliver durability and performance suitable for both private and commercial facilities.

	FR1205GE	FR4205GE	FR2405GE	FR4405GE
Max Flow (LPM)	57	75	60	75
Motor kW	0,19	0,19	0,19	0,19
Motor Amps	20	22	10	13
Voltage Type	12 VDC	12 VDC	24 VDC	24 VDC
Inlet Port	1" BSPP-F	1" BSPP-F	1" BSPP-F	1" BSPP-F
Outlet Port	3/4" BSPP-F	1" BSPP-F	3/4" BSPP-F	1" BSPP-F
Max Pressure	1,1 Bar	1,1 Bar	1,1 Bar	1,1 Bar
Thermal Overload Protection	Yes	Yes	Yes	Yes
Tank Adapter	2" BSPT-M	2" BSPT-M	2" BSPT-M	2" BSPT-M
By Pass Valves	Yes	Yes	Yes	Yes
Built in Strainer	Yes	Yes	Yes	Yes
Duty Cycle	30 Minute	30 Minute	30 Minute	30 Minute
Self Priming	Yes	Yes	Yes	Yes



# FILL-RITE® AC Pumps - Rotary Vane



FR705VEL



FR310VEMN



See page 17 for accessories.

Fill-Rite® AC pumps are heavy duty design with all cast iron construction, thermal protection and a wide range of flow rates to support both standard and high flow systems. Whether fueling construction or mining equipment, or tractors and combines, the quality and durability of our AC pumps provide quick fueling and dependability you can only achieve with Fill-Rite.

	FR705VE	FR705VEL	FR310VEMN	FR311VELMN
Max Flow (LPM)	75	70	130	120
Motor kW	0,25	0,25	0,56	0,56
Motor Amps	20	22	10	13
Voltage Type	230 VAC	230 VAC	115/230 VAC	115/230 VAC
Meter Type	-	3 Wheel Mech.	-	4 Wheel Mech.
Meter	-	807CL1X418	-	901LX418
Totalizer Digits	-	6	-	7
Meter Accuracy	-	+/- 1,00%	-	+/- 2,00%
Max Pressure	1,6 Bar	1,6 Bar	1,8 Bar	1,8 Bar
Hz	50/60	50/60	50/60	50/60
Thermal Overload Protection	Yes	Yes	Yes	Yes
Inlet Port	1" BSPP-F	1" BSPP-F	1 ½" BSPP-F	1 ½" BSPP-F
Outlet Port	1" BSPT-F	1" BSPT-F	1" BSPT-F	1" BSPT-F
Tank Adapter	2" BSPT-M	2" BSPT-M	2" BSPT-M	2" BSPT-M
By Pass Valves	Yes	Yes	Yes	Yes
Built in Strainer	Yes	Yes	Yes	Yes
Anti-Siphon Valve Available	Yes	Yes	No	No
Duty Cycle	30 Minutes	30 Minutes	30 Minutes	30 Minutes
Built-In Check Valve	Yes	Yes	Yes	Yes
Self Priming	Yes	Yes	Yes	Yes

# DC Pumps - Diaphragm



For export out of the EU.

Sotera electric diaphragm pumps offer proven technology that combines the strengths of diaphragm (membrane) pumps with the convenience, portability and efficiency of an electric motor. This combination uses less power than other conventional chemical pumps for maximum efficiency.

Our unique design improves fluid handling capabilities with low liquid shearing. It handles solids up to 2,5 mm and operates with indefinite dry run capabilities. These features make this the ideal waste oil, heavy lubricant and hydraulic fluid transfer pump.

	FR205B	FR210B	FR410B
Max Flow (LPM)	50	50	50
Motor kW	0,19	0,19	0,19
Motor Amps	10	10	20
Voltage Type	24 VDC	24 VDC	12 VDC
Built In Check Valve	Yes	Yes	Yes
Housing Material	Glass Filled Polypropylene	Glass Filled Polypropylene	Glass Filled Polypropylene
Diaphragm Materials	Hytrel	Hytrel	Hytrel
Hose Diameter	-	1" NPT-F	1" NPT-F
Hose Length (meters)	-	3,6	3,6
Manual Nozzle	-	1" NPT-F	1" NPT-F
Max By-Pass Pressure	3,5 Bar	3,5 Bar	3,5 Bar
Thermal Overload Protection	Yes	Yes	Yes
Inlet/Outlet Port	1" NPT-F	1" NPT-F	1" NPT-F
Tank Adapter	2" BSPP-F	2" BSPP-F	2" BSPP-F
Suction Pipe	-	1" BSPP-F	1" BSPP-F



SP100 - 10B - CA - SSS



SP100 - 05B - PP - SSS



## Model Description Information SP100 - XXX - XX - XXX - X

### Port Size

- 05 - 1/2"
- 10 - 1"

### Fluid Connection

- N - 1/2 - 1/4 NPTF-1
- B - Rp 1/2 (BSPP)

### Drive Material

- P - Polypropylene
- C - Groundable Nylon

### Wet-End Material

- P - Polypropylene
- C - Groundable Acetal
- F - PVDF
- A - Aluminum

### Diaphragm

- S - Santoprene®
- H - Hytrel®
- T - PTFE w/ Santoprene® Backer

### Balls

- S - Santoprene®
- H - Hytrel®
- T - PTFE

### Seats

- S - Santoprene®
- H - Hytrel®
- P - PP (w/PTFE seal)
- F - PVDF (w/PTFE seal)

### Options

Tuthill is setting a new standard in Air Operated Diaphragm Pumps! The SP100 is an evolutionary design that incorporates industry-altering design characteristics for improved performance, reliability and functionality. With 15% more flow, 62% fewer parts, 56% better efficiency, and half the repair time, our SP100 provides the best performance in the market today. For the transfer of AdBlue, light oil, waste oil, transmission fluid, anti-freeze, and other automotive fluids, the SP100 is the best you can get!

	SP100-05B-XX-XXX	SP100-10B-XX-XXX
Max Flowrate (flooded suction)	66 lpm	211 lpm
Max Inlet Pressure/Max Outlet Pressure	6,9 bar/6,9 bar	6,9 bar/6,9 bar
Air Consumption @ 2,8 bar	0,65 cfm/gal	1,12 cfm/gal
Displacement/Cycle @ 6,9 bar	0,14 lit	0,83 lit
Max Particle Size	2,4 mm dia.	4,8 mm dia.
Max Temp Limits (Elastomers)	-	-
Acetal (CD)	-12° to 82°C	-12° to 82°C
Hytrel (H)	-29° to 66°C	-29° to 66°C
PVDF (PF)	-12° to 93°C	-12° to 93°C
Polypropylene (PP)	2° to 79°C	2° to 79°C
Santoprene (S)	-40° to 107°C	-40° to 107°C
PTFE (T)	-4° to 107°C	-4° to 107°C
Noise Level @ 70psi	75,0 db(A) at 60 cpm	75,0 db(A) at 60 cpm
Ratio	1:1	1:1
Inlet/Outlet	1/2" FBSP	1" FBSP
Air Inlet	1/4" FNPT	1/4" FNPT
Air Exhaust	3/8" FNPT	3/8" FNPT
Air Inlet Pressure Range	0,14-7 bar	0,14-7 bar
Max Material Inlet Pressure	0,69 bar	0,69 bar
Fluid Outlet Pressure Range	0,14-7 bar	0,14-7 bar
Max Pump Speed	450 cpm	240 cpm
Max Suction Lift (water w/ Hytrel Balls)	4,27 m	4,27 m

## SP100 - Fluid Compatibility

	-05B-PP-SSS	-05B-PP-TTP	-05B-PF-TTF	-05B-CD-HHH	-10B-PA-SSS	-10B-PA-HHH	-10B-CA-HHH
Transmission Fluid				●	●	●	●
AntiFreeze				●	●	●	●
Waste Oil				●	●	●	●
New Oil				●	●	●	●
AdBlue	●				●	●	●
Windshield Wiper Fluid		●	●	●	●	●	●
Ag Chemicals	●	●	●	●	●	●	●

# AdBlue Pumps and Accessories



FRSD120800MN



Sotera Professional Series Rotary Vane pumps are perfect for AdBlue transfer pumping applications. Stainless steel construction and Viton® seals ensure clean, dependable handling of AdBlue products with a durable, long-lasting pump performance. Complete your pump package with our easy-to-use accessories - all the parts you need to quickly and efficiently dispense AdBlue products.



825D075BSPPS

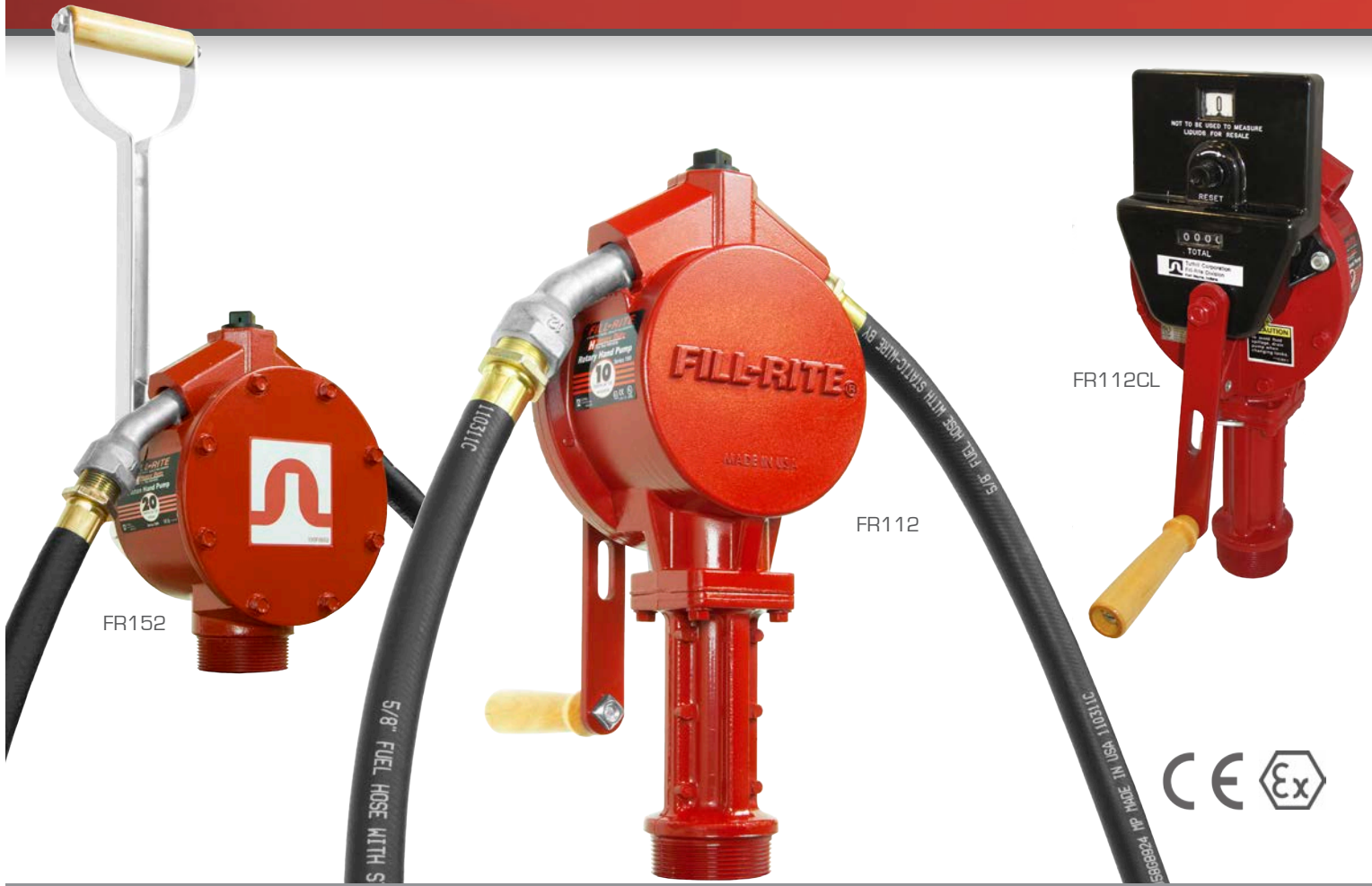


KIT180MAMPS

- Stainless steel mounting plate
- 825D075BSPP digital meter
- 3/4" x 6' hardwall suction hose
- BSPP discharge hose
- BSPP stainless steel automatic nozzle

	FRSD120800MN	FRSA120800MN	825D075BSPPS
Max Flow (LPM)	30	30	7,6 - 76,0
Max Differential Pressure (Bar)	2	2	8,3
Motor Kw	0,37	0,37	-
Full Local Motor Amps	35	7.2	-
Voltage	12 VDC	220 VAC	-
Port Size	3/4" BSPP	3/4" BSPP	3/4" BSPP
RPM	3,450	3,450	-
Motor Type	TEFC	TEFC	-
Max Viscosity	40 cp	40 cp	-
Max Temp [°C]	49	49	54
Duty	Continuous	Continuous	-
Housing	304SS	304SS	Glass-Filled Poly
Vanes	Acetal	Acetal	-
Seals	Viton®	Viton®	Viton®
Accuracy	-	-	± 0,5%





Tough. Reliable. Long-Lasting. Fill-Rite hand pumps deliver fluids quickly and easily. Whether you're transferring gasoline, oil, or diesel, select from a variety of Fill-Rite hand pumps. You'll appreciate the trouble-free performance of these rugged models.

	FR110	FR112	FR112CL	FR150	FR152
Volume Measure	100 Rev.	100 Rev.	100 Rev.	100 Strokes	100 Strokes
Volume (Liters)	38	38	38	76	76
Inlet Port	1" NPT-F	1" NPT-F	1" NPT-F	1" NPT-F	1" NPT-F
Outlet Port	3/4" NPT-F	3/4" NPT-F	3/4" NPT-F	3/4" NPT-F	3/4" NPT-F
Tank Adapter	2" NPT-M	2" NPT-M	2" NPT-M	2" NPT-M	2" NPT-M
Hose Size (inches)	-	3/4" NPT	3/4" NPT	-	3/4" NPT
Hose Length (meters)	-	2,4	2,4	-	2,4
Nozzle Spout	-	Yes	Yes	-	Yes
Discharge Spout Assembly	-	-	-	-	Yes
Suction Pipe Material	-	Steel	Steel	-	Steel
Anti-Siphon Valve	Yes	Yes	Yes	Yes	Yes
Check Valve	Yes	Yes	Yes	Yes	Yes
Strainer	Yes	Yes	Yes	Yes	Yes
Counter (Liters)	-	-	Yes	-	-



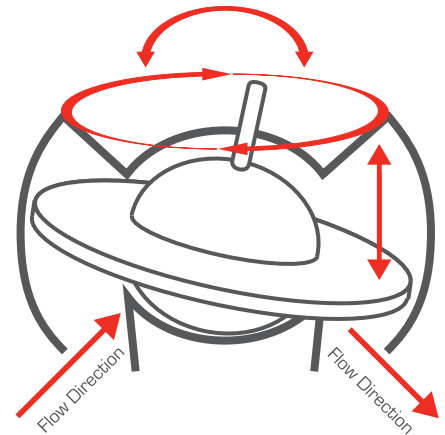
# Meter Overview

## Tuthill Positive Displacement Meters

Fill-Rite has over 50 years of industry-leading experience in the design and manufacture of positive displacement meters, shipping over 100,000 units each year. Our expertise in nutating disc and oval gear technologies make Fill-Rite meters the preferred brand for a broad range of applications in multiple markets. We offer “weights and measures approved” models for custody transfer, batching or dispensing. Whether you are tracking fuel consumption on-site or in the field, Fill-Rite offers a professional solution.

### Nutating Disc (accuracy +/- 1% to 2%)

Mechanical meters are the work horses of the Fill-Rite line. The 800 and 900 Series nutating disc mechanical meters are designed specifically to meter and totalize (gas/diesel) fuels transferred on-site. For rapid fuel transfer, these are typically mated to a Fill-Rite pump, but can also be used in gravity feed applications. The flow range for these two series is 19 - 151 LPM. If you need something that is a bit more robust to handle higher flows (up to 227 LPM) and pressure (10 - 69 bar), look no further than the TN Series. The TN Series is an excellent solution for diesel, and many other automotive and industrial fluid applications.



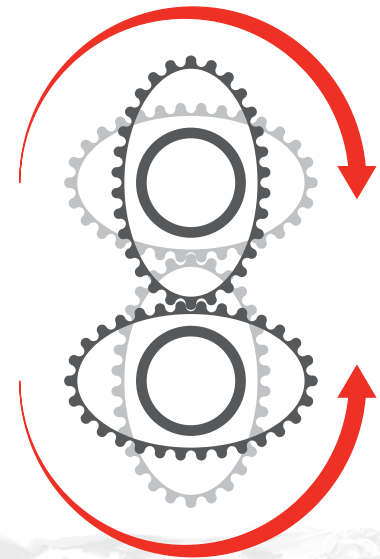
### Digital Meters

Our 900D Series (nickel coated aluminum) and 825/820 Series digital chemical (polypropylene) meters are designed for both petrochemical and chemical metering, and can handle a wide range of flows and compatibilities. These meters are designed for in-line use or mounting to our rotary vane or diaphragm pumps.

### Precision Oval Gear (accuracy +/- 0,25% to 1% )

Tuthill manufactures a complete series of Oval Gear Precision Meters that are available in both aluminum and stainless steel. The TS Series Meters cover a flow rate range of 8 - 757 LPM and pressure range of 0 - 27 bar. MID certified models are available for certain custody transfer applications that include refined fuels and diesel exhaust fluid. Applications include: dispenser - fuels and AdBlu, bulk rack - high volume loading and unloading, bob tail - delivery truck (petrol / diesel / home heating oil).

Our TM Series (Mini) 0,1 - 75 LPM precision meters complete the low flow range of our offering. Applications Include: additive injection, fuel consumption measurement, and more.





806CLX418

807CL1X418

901LX418

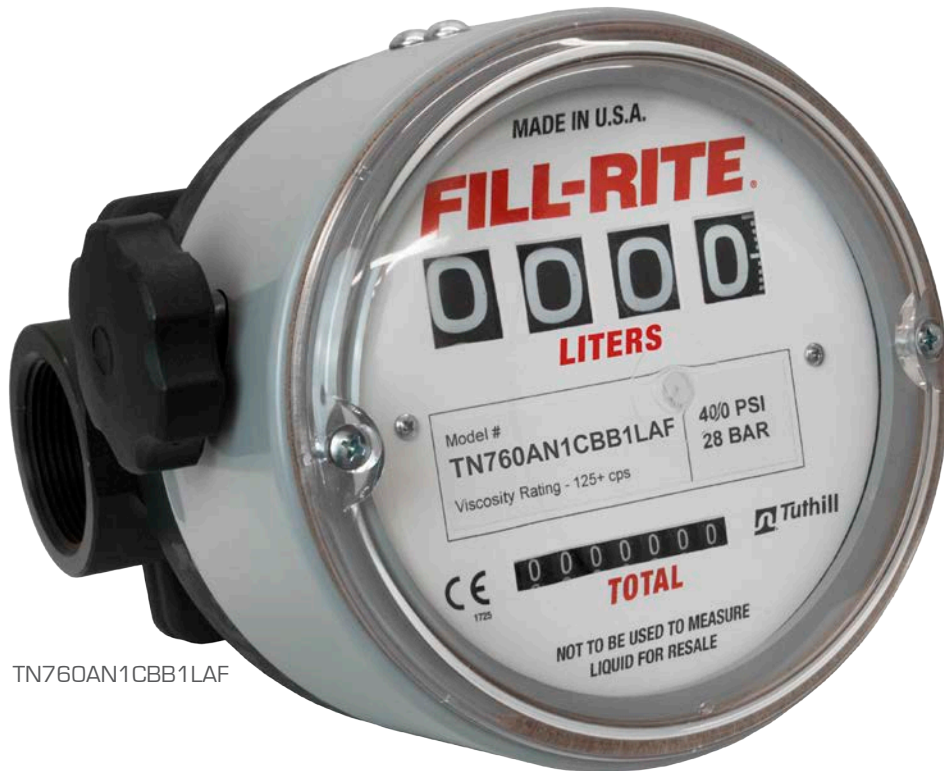
Fill-Rite's line of mechanical flow meters are designed to meet the stringent demands of customers who need to monitor fuel usage accurately and dependably. Rugged construction, easy to read numbers, and the flexibility of horizontal or vertical positioning are just three features of these superior meters. Plus, all can be field calibrated for the utmost accuracy.

	806CLX418	807CL1X418	901LX418	901L1.5X418
Flow (LPM)	20 - 75	20 - 75	25 - 150	25 - 150
Max Pressure (bar)	3,5	3,5	3,5	3,5
Inlet Port	1" BSPT-F	1" BSPT-F	1" BSPT-F	1.5" BSPT-F
Outlet Port	1" BSPT-F	1" BSPT-F	1" BSPT-F	1.5" BSPT-F
Strainer	Yes	No	No	No
Meter Type	3 Wheel Mech.	3 Wheel Mech.	4 Wheel Mech.	4 Wheel Mech.
Totalizer Digits	6	6	7	7
Meter Accuracy	+/- 1.00%	+/- 1.00%	+/- 2.00%	+/- 2.00%

# Meters - Nutating Disk Mechanical Display

Our TN Meters are famous for rugged dependability. These meters utilize positive displacement nutating disk technology for use in non-custody transfer applications such as inventory control of refined petroleum products and non-corrosive chemicals.

High pressure versions are available in two model sizes (TN700 and TN800 series) for use in automotive fluid distribution systems, lube trucks, and similar service. With a viscosity range from 1 to 50,000 cSt, these meters can handle a wide range of temperature and viscosity conditions for a versatile solution to your metering needs.



TN760AN1CBB1LAF



	TN740AN1CBA1LAI	TN760AN1CBB1LAF	TN860AN1CBB1LAC	TN860AN1CBB2LAC	TN860AN1CBB2LBC
Flow (LPM)	1,9 - 38	2,9 - 57	23 - 230	23 - 230	23 - 230
Max Pressure (bar)	69,0	27,6	10,3	10,3	10,3
Inlet Port	1" BSPP-F	1,5" BSPP-F	1,5" BSPP-F	1,5" BSPP-F	1,5" BSPP-F
Outlet Port	1" BSPP-F	1,5" BSPP-F	1,5" BSPP-F	1,5" BSPP-F	1,5" BSPP-F
Strainer	No	No	No	No	No
Meter Type	4 Wheel Mech.	4 Wheel Mech.	4 Wheel Mech.	4 Wheel Mech.	4 Wheel Mech.
Seals	Viton®	Viton®	Viton®	PTFE	Viton®
Principle	Nutating Disk	Nutating Disk	Nutating Disk	Nutating Disk	Nutating Disk
Max Temp. (Celsius)	75° C	75° C	75° C	75° C	75° C
Pulsed Output	No	No	No	No	No
Totalizer Digits	8	8	8	8	8
Meter Accuracy	+/- 2,00%	+/- 2,00%	+/- 2,00%	+/- 2,00%	+/- 2,00%
Viscosity Range (Cp)	125+	125+	3 to 22	1 to 2	1 to 2
Fluid Types	High Viscosity Lube	High Viscosity Lube	Diesel, BioDiesel, Kerosene, Jet	Gasoline, Water	E85, E100, ALS, Solvents





900DP



900DB

**The 900DP Meter** - With a pulser and intrinsically safe barrier included, the 900DP is the ultimate in convenience. It saves you the time and trouble of sourcing a compatible barrier to provide intrinsically safe operation in explosive or combustible atmosphere installations.

All Fill-Rite positive displacement nutating disc meters are ideal for inline use, or mounting to one of our rotary vane or diaphragm pumps. The rugged corrosion-resistant construction, provides a durable product for the most demanding applications. Our digital meters are easy to calibrate and allow for simple selection of metering units. Incredible utility, strong visual clarity and amazing accuracy are standard features on every Fill-Rite digital meter.



820

	820	900DBBSPT	900DB1.5BSPT	900DPBSPT	900DP1.5BSPT
Flow Rate (LPM)	7 - 75	23 - 151	23 - 151	23 - 151	23 - 151
Max Pressure (bar)	8.2 @ 21°C	3.5	3.5	3.5	3.5
Inlet/Outlet	1"/1" BSPT	1"/1" BSPT	1½"/1½" BSPT	1"/1" BSPT	1½"/1½" BSPT
Mtrls of Const - Body	Polypropylene	Nickel Plated Aluminum / Aluminum			
Mtrls of Const - Seals	Viton®	Buna	Buna	Buna	Buna
Mtrls of Const - Internal	Stainless, PPS	Stainless Steel, Steel, Polyester, Acetal			
Power Source	2 AA Batteries	2 AA Batteries	2 AA Batteries	AC Power w/ use of Barrier	
Calibration		Ounces, Pints, Quarts, Liters, Gallons. and user defined units			
Certification	-	CE, Ex	CE, Ex	CE, Ex	CE, Ex
Compatible Fluids	Water, light oils, mild chemical	Petrol, Diesel, Biodiesel up to B20, Kerosene, E15, Mineral spirits, Stoddard solvents, and Heptane Intrinsically safe barrier must be used for gasoline in 900DP			

# Meters - Oval Gear



Fill-Rite offers an extensive range of positive displacement meters based on the oval gear operating principle. Available in TM Series (industrial service) and TS Series (with custody transfer certification), these meters are suitable for use on refined fuels, heavy oils, glycols, lubricating oils and other petrochemicals. Fill-Rite oval gear flow meters have non-metallic rotors that eliminate metal-to-metal contact in the measuring chamber. The patented oval gear design allows smaller internal clearances resulting in more accurate metering. Oval gear flow meters are less sensitive to viscosity variations, are designed for high-pressure service and maintain accuracy despite system pressure fluctuations. Meters with mechanical register have a single dynamic seal, while electronic flow meters have static seals only. These meters can be serviced in place, often in 20-minutes or less.





TM04APKCBXKA4HB



TM04ACOCBXKA1BB



The TM Series is well suited for use in additive injection service, low-flow industrial process, small volume batching, fuel consumption systems and monitoring the flow of lubricants to critical bearings in rotating equipment. These flow meters can be combined with a variety of signal conditioners or electronic registers to provide either a pulse or analog signal, with or without a local display. The electronic components may be supplied separately for remote installation or installed in either IP65 or explosion proof enclosures. TM Series meters are compact, accurate and affordable. They provide long lasting performance with minimal maintenance, making the TM Series the intelligent choice.

For a full line listing including digital register options, contact customer service.

Part No.	Digit Position 1, 2	Digit Position 3, 4, 5	Digit Pos. 6-15 (Hall Effect Sensor)	Digit Pos. 6-15 (Reed Switch Sensor)	TM 03A	TM 04A	TM 06A	TM 03A	TM 04A	TM 06A
					SHEBXKA4HB	SHEBXKA4HB	SHEBXKA4HB	PKCBXKA4HB	PKCBXKA4HB	PKCBXKA4HB
					SRSBXKA1BB	SRSBXKA1BB	SRSBXKA1BB	COCBXKA1BB	COCBXKA1BB	COCBXKA1BB
Max Flow [LPM]					11	37	75	11	37	75
Max Pressure [bar]					103	103	103	103	103	103
Material of Construction					Aluminum	Aluminum	Aluminum	Aluminum	Aluminum	Aluminum
Inlet Port					3/8" BSPP-F	1/2" BSPP-F	3/4" BSPP-F	3/8" BSPP-F	1/2" BSPP-F	3/4" BSPP-F
Outlet Port					3/8" BSPP-F	1/2" BSPP-F	3/4" BSPP-F	3/8" BSPP-F	1/2" BSPP-F	3/4" BSPP-F
Meter Type					Electronic	Electronic	Electronic	Electronic	Electronic	Electronic
Seals					PTFE	PTFE	PTFE	PTFE	PTFE	PTFE
Max Temp. [Celsius]					150° C	150° C	150° C	70° C	70° C	70° C
Pulsed Output (HE, PPL)*					740	212	107	740	212	107
Pulsed Output (RS, PPL)*					185	53	27	185	53	27
Meter Register (Hall Effect)					None	None	None	PC58	PC58	PC58
Meter Register (Reed Switch)					None	None	None	CC56	CC56	CC56
Linearity (10:1 Turndown)**					+/- 1,00%	+/- 1,00%	+/- 1,00%	+/- 1,00%	+/- 1,00%	+/- 1,00%
Repeatability					+/- 0,50%	+/- 0,50%	+/- 0,50%	+/- 0,50%	+/- 0,50%	+/- 0,50%
Viscosity Range [Cp]					< 300	< 300	< 300	< 300	< 300	< 300

\*HE=Hall Effect, RS=Reed Switch, PPL=Pulses Per Liter

\*\*10:1 Turndown=Applicable Flow Range for Linearity, from Max flow down to 1/10th of Max flow



# Meters - Oval Gear TS Series - Mechanical

TS Series flow meters are approved for custody transfer service under NTEP (US), MID (EU) and several other countries. These meters are designed for use in high speed fueling (including aviation fuels), tank truck loading and unloading, liquid processing, transfer and batching service. Mechanical meters rated 10 BAR are available with register, preset counter and/or ticket printer. Optional components are pulse generators and micro-switch assembly for pump on/off control. Electronic meters rated 28 BAR are compatible with most of the electronic registers on the market today. Flow meters are also available with EMR3 register supplied installed or for remote installation.

All models are manufactured in both anodized aluminum and 316 stainless steel, with 1" to 3" models covering flow from 15 to 760 lpm. Meters in anodized aluminum are available with a full range of accessories including strainer/air eliminator, air check valve, backpressure valve and both mechanical and electronic preset valves. TS Series meters have very low differential pressure values, are easily serviced in the field and are available in configurations suitable for extreme operation conditions (temperature, pressure or viscosity). These low maintenance flow meters are the intelligent choice for both new and reconditioned systems.



TS20AV04BLCBMXAXX



Part No. Digit Position 1, 2 Position 3, 4, 5 Pos. 6-17 (No Strainer/Air Eliminator) Pos. 6-17 (with Strainer/Air Eliminator)	TS 10A VO4BYCBMXAXX -	TS 15A VO4BLCBMXAXX VO6BLCBMXAS4	TS 20A VO4BLCBMXAXX VO6BLCBMXAS4	TS 30A VO4BLCBMXAXX VO6BLCBMXAS4
Max Flow (LPM)	150	230	570	760
Max Pressure (bar)	10	10	10	10
Material of Construction	Aluminum	Aluminum	Aluminum	Aluminum
Inlet Port	1" BSPP-F	1 1/2" BSPP-F	2" BSPP-F	3" BSPP-F
Outlet Port	1" BSPP-F	1 1/2" BSPP-F	2" BSPP-F	3" BSPP-F
Meter Type	5 Wheel Mech.	5 Wheel Mech.	5 Wheel Mech.	5 Wheel Mech.
Seals	Viton®	Viton®	Viton®	Viton®
Max Temp. (Celsius)	80° C	80° C	80° C	80° C
Pulsed Output	Kit Option	Kit Option	Kit Option	Kit Option
Meter Register	1/10 Liter	Liter	Liter	Liter
Totalizer Digits	8	8	8	8
Linearity (10:1 Turndown)	+/- 0.25%	+/- 0.25%	+/- 0.25%	+/- 0.25%
Repeatability	+/- 0.05%	+/- 0.05%	+/- 0.05%	+/- 0.05%
Viscosity Range (Cp)	< 300	< 300	< 300	< 300
MID (Weights & Measures)	No	No	Yes	Yes



TS30AF66AAGXXXX



TS15AF64AAGXXXX



Part No. Digit  
Position 1, 2  
Position 3, 4, 5  
Pos. 6-17 (No Register)  
Pos. 6-17 (Register/Strainer/Air Eliminator)

	TS 10A W04AATU F66AAGXXXX	TS 15A W04AATU F66AAGXXXX	TS 20A W04AATU F66AAGXXXX	TS 30A W04AATU F66AAGXXXX
Flow (LPM)	150	230	570	760
Max Pressure (bar)	27,6	27,6	27,6	27,6
Material of Construction	Aluminum	Aluminum	Aluminum	Aluminum
Inlet Port	1" BSPP-F	1 1/2" BSPP-F	2" BSPP-F	3" BSPP-F
Outlet Port	1" BSPP-F	1 1/2" BSPP-F	2" BSPP-F	3" BSPP-F
Meter Type	6 Digit	6 Digit	6 Digit	6 Digit
Seals	Viton®	Viton®	Viton®	Viton®
Principal	Oval Gear	Oval Gear	Oval Gear	Oval Gear
Max Temp. (Celsius)	70° C	70° C	70° C	70° C
Pulsed Output (PPL)*	457	268	104	73
Meter Register	Liter (Selectable)	Liter (Selectable)	Liter (Selectable)	Liter (Selectable)
Totalizer Digits	8	8	8	8
Linearity [10:1 Turndown]	+/- 0.25%	+/- 0.25%	+/- 0.25%	+/- 0.25%
Repeatability	+/- 0.05%	+/- 0.05%	+/- 0.05%	+/- 0.05%
Viscosity Range (Cp)	< 300	< 300	< 300	< 300
Screen Mesh (F64)	40	40	40	40
MID (Weights & Measures)	Yes	Yes	Yes	Yes

\*PPL=Pulses Per Liter

\*\*10:1 Turndown=Applicable Flow Range for Linearity, from Max flow down to 1/10th of Max flow

# Meters - Oval Gear Dispenser Meters

## Diesel and AdBlue Dispenser Meters

Tuthill offers the most dependable precision meters on the market for fuel and diesel exhaust fluid dispenser applications. From DEF to pure ethanol, we are able to accommodate a wide range of fluid compatibilities through a variety of materials.



TS06A



TS06C

	TS06A	TS06C	TS10A	TS10C	TS15A	TS15C
Flow Rate (LPM)	8-76		15-150		23-230	
Linearity / Linearity Downturn	better than $\pm 0.20\%$ / 10:1					
Repeatability	better than $\pm 0.05\%$ (under constant conditions)					
Pressure Rating (40°C)	3.5 BAR = 350 kPa					
Temperature Rating	-40°C to +50°C					
Certifications	2G Ex d IIA T4, -20°C < Ta < +60° C, ATEK, IEC Ex & IP65, UL & cUL					
Unscaled Pulse Resolution (PPL)	106		471		268	
Mats of Const - Case	AA*	SS**	AA*	SS**	AA*	SS**
Mats of Const - Gears	PPS with carbon bearings					
Mats of Const - Posts	Stainless Steel					
Mats of Const - Seals	Viton® or PTFE					

\* Anodized Aluminum \*\*Stainless Steel

## LPG Dispenser Meters

Whether your needs are for retail or wholesale dispensing, Fill-Rite accommodates single or double hose metering with simplicity and precision for a wide range of LPG installation options.



TS06AS83

	TS06AS83 (Single) and TS06AS84 (Twin)	TS10AF83AUG
Flow Rate (LPM)	7.5 - 75	30 - 180
Linearity/Linearity Downturn	better than 0.50% / 10:1	
Repeatability	0.20%	
Pressure Rating (at 40°C)	24 BAR at 40°C	
Temperature Rating	-40°C to +150°C	-40°C to +125°C
Certifications	Weights & Measures US, CE Mark, UL, cUL & Atex	
Unscaled Pulse Resolution (PPL)	100	
Mats of Const - Case	Anodized Aluminum	
Mats of Const - Gears	Stainless Steel	
Mats of Const - Posts	Stainless Steel	
Mats of Const - Seals	UL Buna N	



KITS05WMA  
Wall Mount Assembly

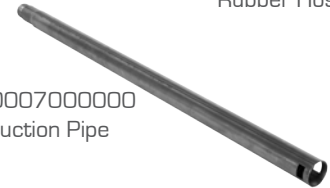


KITS05FRH  
Filter Regulator Hose



Rubber Hose

240007000000  
Suction Pipe



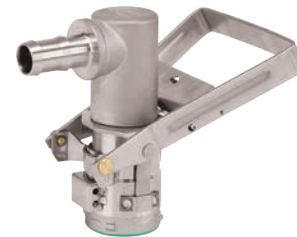
KIT180MPPS  
Stainless Mounting Plate



KIT180DTPS  
55 Gallon Drop Tube



MMSS075RSV  
RSV Four Pin Dispense Coupler



#### Nozzles with Hook and Swivel

Manual Nozzle	1" BSPP-F	100 lpm		PT1GX25NMA
Manual Nozzle for ATEX	1" BSPP-F	100 lpm	Viton Seal	PT1GY20NMA
Automatic Nozzle	1" BSPP-F	60 lpm		41210001
Automatic Nozzle	1" BSPP-F	60 lpm	UN	41210002
Automatic Nozzle	1" BSPP-F	120 lpm		41210003

#### Rubber Hoses

4 m. Hose Ø19mm	1" M BSPP x ¾ BSPT		TUB190431
4 m. Hose Ø19mm	1" M BSPP x ¾ BSPT	NORM DIN EN1360	TUB190431X
4 m. Hose Ø19mm	1" M BSPP x 1 BSPT		TUB250411
4 m. Hose Ø19mm	1" M BSPP x 1 BSPT	NORM DIN EN1360	TUB250411X

Telescopic Suction Pipe	1" M BSPP x 1 meter	240007000000
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#### Repair Kits

Series 100 pump	100KTF1214
Series 600, 1200B, 2400B	1200KTF6725
Series 300 pump, with rotor cover	300KTF7794
Series 30, includes piston	30KTF4919
600C, 1200C, 2400C, 4200C, and 4400	4200KTF8739
Series 700B, carbon vane	700KTF2659
800B & 800C Liter, Buna-N	800KTG2542
825 meter	825KTF1582
900, liter, standard seals	900KTF8121

#### AOD / AdBlue Accessories

Series SP100 Wall Mount Assy	KITS05WMA
Series SP100 Filter/Regulator	KITS05FRH
Series SP100/AdBlue Tote Mount Plate	KIT180MPPS
Series AdBlue 55 Gal Drop Tube	KIT180DTPS
Series AdBlue Tote Coupler	MMSS075RSV

#### Mounting Kits

807 BSP Thread Adapter	KIT807
900 BSP Thread Adapter	KIT900

# Mix and Match

FUEL APPLICATION	Pump System Description					Part Numbers to Order									
	PUMP	SUCTION PIPE	METER	HOSE	NOZZLE DESCRIPTION	PUMP	SUCTION PIPE	METER	ASSEMBLY KIT	HOSE	NOZZLE PART NO.				
Diesel	12 Volt DC 55 LPM	1" Male BSPP x 4M	3-Digit Liter Mech	4M	Manual Alu 1" Automatic 60L *	FR1205GE	240007000000	807CL1X418	KIT 807	TUB190431	PT1GX25NMA 41210001				
Diesel				3/4"X1"	Manual Alu 1" Viton Automatic 60L * Unl					TUB190431X	PT1GY20NMA 41210002				
Petrol/Gasoline				4M	Manual Alu 1" Automatic 60L *					TUB250411	PT1GX25NMA 41210001				
Petrol/Gasoline				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl					TUB250411X	PT1GY20NMA 41210002				
Diesel			4-Digit Liter Mech	4M	Manual Alu 1" Automatic 120L *					FR4205GE	240007000000	901LX418	KIT 900	TUB250411	PT1GX25NMA 41210003
Diesel				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl									TUB250411X	PT1GY20NMA 41210002 *
Petrol/Gasoline				4M	Manual Alu 1" Automatic 60L Unl*									TUB250411	PT1GX25NMA 41210003
Petrol/Gasoline				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl									TUB250411X	PT1GY20NMA 41210002 *
Petrol/Gasoline	3-Digit Liter Mech	4M	Manual Alu 1" Automatic 60L *	FR2405GE	240007000000	807CL1X418	KIT 807	TUB190431	PT1GX25NMA 41210001						
Diesel		3/4"X1"	Manual Alu 1" Viton Automatic 60L * Unl					TUB190431X	PT1GY20NMA 41210002						
Petrol/Gasoline		4M	Manual Alu 1" Automatic 60L *					TUB250411	PT1GX25NMA 41210001						
Petrol/Gasoline		1"X1"	Manual Alu 1" Viton Automatic 60L * Unl					TUB250411X	PT1GY20NMA 41210002						
Diesel	4-Digit Liter Mech	4M	Manual Alu 1" Automatic 120L *					FR4405GE	240007000000	901LX418	KIT 900	TUB250411	PT1GX25NMA 41210003		
Diesel		1"X1"	Manual Alu 1" Viton Automatic 60L * Unl									TUB250411X	PT1GY20NMA 41210002 *		
Petrol/Gasoline		4M	Manual Alu 1" Automatic 120L *									TUB250411	PT1GX25NMA 41210003		
Petrol/Gasoline		1"X1"	Manual Alu 1" Viton Automatic 60L * Unl									TUB250411X	PT1GY20NMA 41210002 *		
Diesel	230 Volt AC 75 LPM		3-Digit Liter Mech	4M	Manual Alu 1" Automatic 120L *	FR705VE	240007000000							TUB250411	PT1GX25NMA 41210003
Diesel				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl									TUB250411X	PT1GY20NMA 41210002 *
Petrol/Gasoline	230 Volt AC 70 LPM		3-Digit Liter Mech	4M	Manual Alu 1" Automatic 120L *	FR705VEL	240007000000							TUB250411	PT1GX25NMA 41210003
Petrol/Gasoline				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl									TUB250411X	PT1GY20NMA 41210002 *
Diesel	230 Volt AC 130 LPM		3-Digit Liter Mech	4M	Manual Alu 1" Automatic 120L *	FR310VEMN	240007000000			TUB250411	PT1GX25NMA 41210003				
Diesel				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl					TUB250411X	PT1GY20NMA 41210002 *				
Petrol/Gasoline	230 Volt AC 120 LPM		4-Digit Liter Mech	4M	Manual Alu 1" Automatic 120L *	FR310VELMN	240007000000			TUB250411	PT1GX25NMA 41210003				
Petrol/Gasoline				1"X1"	Manual Alu 1" Viton Automatic 60L * Unl					TUB250411X	PT1GY20NMA 41210002 *				

\* The flow rate will be less than the standard one.



Excellence at work. Excellence in life.

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