ARB® UTILITY MANAGEMENT SYSTEMS™

NEPTUNE TECHNOLOGY GROUP

TRU/FLO® COMPOUND METER

SIZES: 2"HP, 3", 4", 6" AND 6"x8"

TRU/FLO® meters combine the low-flow sensitivity of a disc-type meter with the high-flow capacity of a turbine-type meter.

All TRU/FLO® Compound water meters meet or exceed the latest performance and accuracy requirements set by the AWWA C702, and maximum continuous flow rates may be exceeded by as much as 25% for intermittent periods.

APPLICATION

The TRU/FLO Compound water meter is designed to register wide-flow ranges where varying flow rates are typical. TRU/FLO meters combine the low-flow sensitivity of a disc-type meter with the high-flow capacity of a turbine-type meter.

OPERATION

The hydraulic valve transfers flow smoothly between the disc section and turbine section of the meter, minimizing the loss of accuracy in the crossover range. The turbine measuring element registers high flows and the disc measuring element registers low flows, ensuring accurate measurement at all flow rates.

CONSTRUCTION

The TRU/FLO consists of a durable no-lead high copper alloy maincase, Neptune Turbine measuring element, Neptune T-10 chamber, a patented hydraulic valve, and two magnetic-driven, roll-sealed registers.

The 6" x 8" TRU/FLO assembly consists of two 8" x 6" concentric reducers, a 6" Neptune strainer, and a 6" Neptune TRU/FLO Compound meter.

The no-lead high copper maincase is corrosion resistant, lightweight, and easy to handle.

A calibration vane allows field calibration of the UME to lengthen service life and to ensure accurate registration.

The two magnetic-driven, roll-sealed registers simplify the meter's design and reduce long-term maintenance by eliminating complicated combining drive mechanisms. For reading convenience, the registers can be mounted in any one of four positions on the meter.

WARRANTY

Neptune provides a limited warranty with respect to its TRU/FLO Compound water meters for performance, materials and workmanship.

When desired, owner maintenance is easily accomplished by in-line replacement of major components, or a factory calibrated UME.

KEY FEATURES

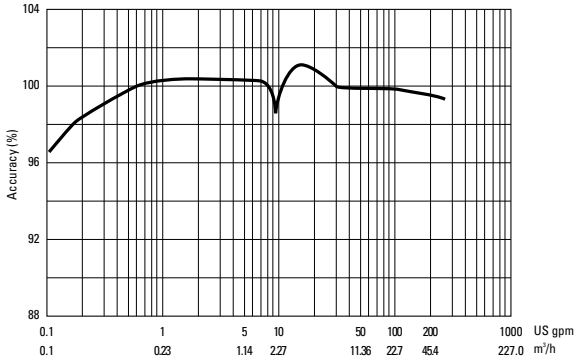
- Patented hydraulic valve design*
- Minimum loss of accuracy in the crossover range increases revenue
- Spring-loaded valve eliminates need for frequent adjustment and service
- Combined Turbine and Disc Measuring Elements
  - Industry-leading flow ranges at 98.5%–101.5% accuracy ensure maximum revenue
  - Direct coupling of rotor to gear train ensures accurate registration
  - Unitized Measuring Element (UME) makes maintenance easier and faster with less downtime
  - Calibration vane allows in-line service to extend life and ensure accurate registration
- Compact Maincase
  - Made from no-lead high copper alloy
  - ANSI/NSF 61 certified
  - Lifetime guarantee
  - Compact, lightweight design provides for easy installation and in-line serviceability

**U.S. patent nos. 4,437,344 and 4,429,571*

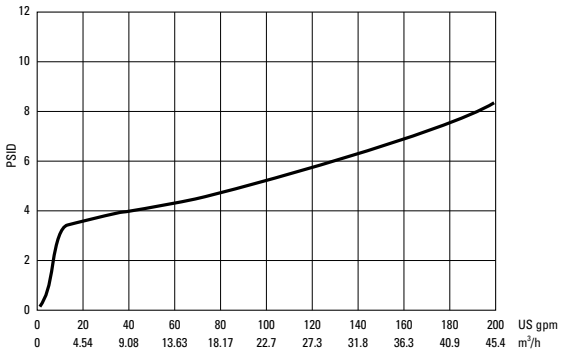
SYSTEMS COMPATIBILITY

Adaptability to all present and future systems for flexibility.

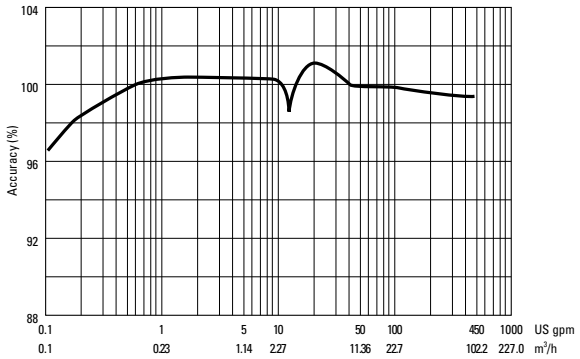
2” ACCURACY



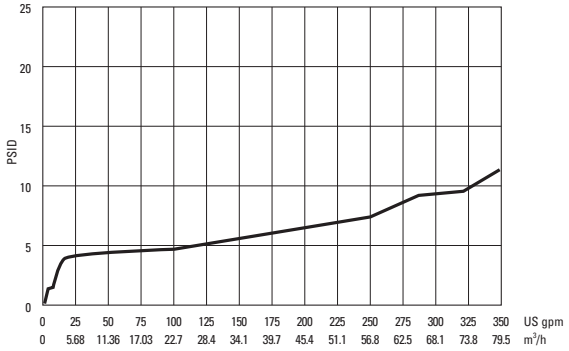
2” PRESSURE LOSS



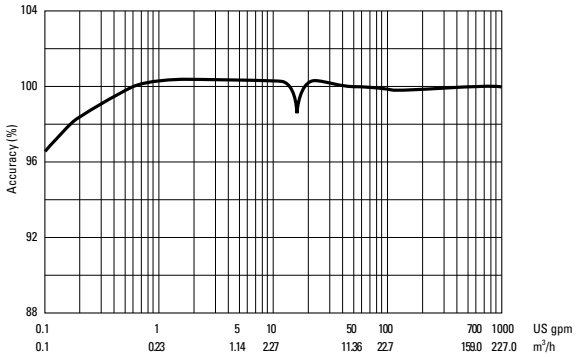
3” ACCURACY



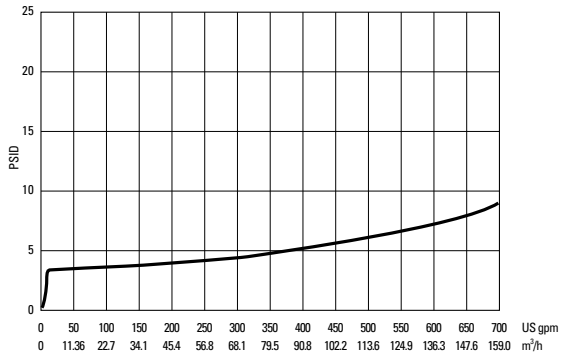
3” PRESSURE LOSS



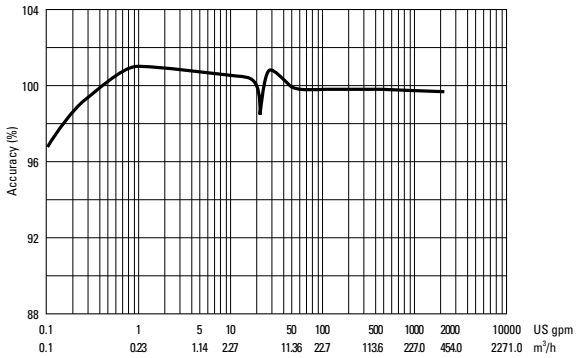
4” ACCURACY



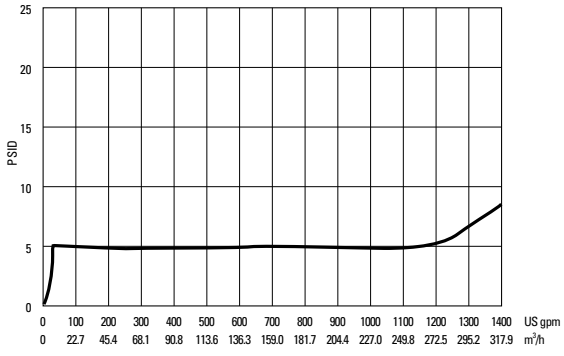
4” PRESSURE LOSS



6” ACCURACY



6” PRESSURE LOSS

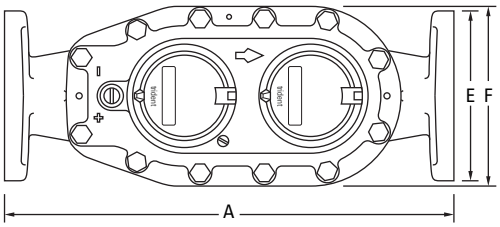


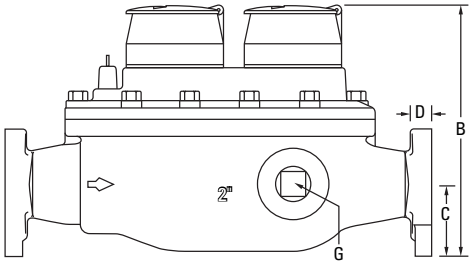
OPERATING CHARACTERISTICS

Meter Size	Normal Operating Range @100% Accuracy (±1.5%)	AWWA Standard	Low Flow @ 95% Accuracy
2"	1/2 to 200 US gpm 0.11 to 45.4 m³/h	2 to 160 US gpm .454 to 36.34 m³/h	1/8 US gpm 0.03 m³/h
3"	1/2 to 450 US gpm 0.11 to 102.2 m³/h	4 to 320 US gpm .91 to 72.68 m³/h	1/8 US gpm 0.03 m³/h
4"	1 to 1000 US gpm 0.23 to 227.1 m³/h	6 to 500 US gpm 1.36 to 113.56 m³/h	1/2 US gpm 0.11 m³/h
6"	1 1/2 to 2000 US gpm 0.34 to 454.2 m³/h	10 to 1000 US gpm 2.27 to 227.12 m³/h	3/4 US gpm 0.17 m³/h
6" x 8"	1 1/2 to 2000 US gpm 0.34 to 454.2 m³/h	16 to 1600 US gpm 3.63 to 363.4 m³/h	3/4 US gpm 0.17 m³/h

DIMENSIONS

Meter Size	A in/mm	B-Std in/mm	B-PRO in/mm	B-E-Coder)R900*i* in/mm	C in/mm	D in/mm	E in/mm	F in/mm	G in/mm	Flange Type	Weight lbs/kg
2" HP	15 1/4 387	8 5/8 219	9 229	12 1/8 308	2 1/2 64	13/16 21	5 7/8 149	6 152	1 1/2 NPT 38	2" Oval 150 lb	32 14.5
3"	17 432	10 1/2 267	11 279	14 1/4 362	3 3/4 95	5/8 16	7 1/2 191	8 1/2 216	1 1/2 NPT 38	3" ANSI 150 lb	72 32.7
4"	20 508	12 1/2 318	13 330	16 1/4 413	4 1/2 114	11/16 17	9 229	9 1/8 232	2 NPT 51	4" ANSI 150 lb	100 45.4
6"	24 610	15 3/4 400	16 1/4 413	19 1/2 495	5 1/2 140	1 25	11 279	12 3/4 324	2 NPT 51	6" ANSI 150 lb	208 94.3
6"x8"	55 3/8 1407	15 3/4 400	16 1/4 413	19 1/2 495	5 1/2 140	1 25	11 279	12 3/4 232	2 NPT 51	6" ANSI 150 lb	460 208.5





GUARANTEED SYSTEMS COMPATIBILITY

All Neptune TRU/FLO Compound meters are guaranteed adaptable to our ARB®V, ProRead™ (ARB VI), E-Coder)R900*i*, E-Coder, TRICON®/S, TRICON/E3®, and Neptune meter reading systems without removing the meter from service.

REGISTRATION

		Turbine Side		Disc Side
Registration (per sweep hand revolution)		2", 3", 4"	6", 6"x8"	2",3",4" 6",6"x8"
1,000	US Gallons		3	
1,000	Imperial Gallons		3	
100	US Gallons	3		
100	Imperial Gallons	3		
100	Cubic Feet		3	
10	US Gallons			3
10	Imperial Gallons			3
10	Cubic Feet	3		
10	Cubic Metres		3	
1	Cubic Foot			3
1	Cubic Metre	3		
0.1	Cubic Metre			3
	Turbine Side	Disc Side		
Register Capacity (6-wheel odometer)	2", 3",	6", 4"	2",3",4" 6"x8"	6",6"x8"
1,000,000,000	US Gallons		3	
1,000,000,000	Imperial Gallons		3	
100,000,000	US Gallons	3		
100,000,000	Imperial Gallons	3		
100,000,000	Cubic Feet		3	
10,000,000	US Gallons			3
10,000,000	Imperial Gallons			3
10,000,000	Cubic Feet	3		
10,000,000	Cubic Metres		3	
1,000,000	Cubic Feet			3
1,000,000	Cubic Metres	3		
100,000	Cubic Metres			3

SPECIFICATIONS

- Application: cold water measurement of flow in one direction
- Maximum operating pressure: 150 psi (1034 kPa)
- Maximum operating temperature: 80°F
- Register: direct reading, center sweep, roll-sealed, magnetic drive with low-flow indicator
- Measuring element:
  - AWWA Class II Turbine, dual suspension
  - Nutating disc

OPTIONS

- Sizes: 2"HP, 3", 4", 6", and 6"x8"
- Units of measure: U.S. gallons, imperial gallons, cubic feet, cubic metres
- Register types:
  - Direct reading: bronze box and cover (standard)
  - Remote reading systems*: ProRead, E-Coder)R900*i*, E-Coder, TRICON/S, TRICON/E3
  - Reclaim
- Companion flanges:
  - 2", 3", 4" bronze or cast iron
  - 6", 6" x 8" cast iron
- Strainer: 2", 3", 4", 6" ANSI/NSF 61 no-lead high copper alloy

* *Consult factory for meter performance specifications when fitted with ARB.*

Neptune engages in ongoing research and development to improve and enhance its products. Therefore, Neptune reserves the right to change product or system specifications without notice.

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