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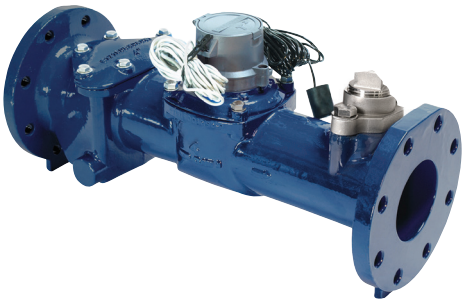
Let's Solve Water

OCWA Issued T2 Meters
for
Sizes 2" to 10" Only

DATA SHEET
WDS-10018-09



OMNI+ Turbo (T²) Water Meter

~~1-1/2",~~ 2", 3", 4", 6", 8" and 10"

The OMNI™+ T² meter operation is based on advanced Floating Ball Technology (FBT).

Performance

The patented measurement principles of the OMNI+ T² meter ensure greater accuracy, expanded accuracy range and longer service life than any other comparable class meter. The OMNI+ T² meter has no restrictions on sustained flow rates within its continuous range. The floating ball measurement technology allows installation in any orientation and flows up to maximum rated capacity without undue wear or accuracy degradation.

Construction

The OMNI+ T² meter consists of two basic assemblies; the maincase and the measuring chamber. The measuring chamber assembly includes the "floating ball" impeller with a coated titanium shaft, hybrid axial bearings, integral flow straightener and an all electronic programmable register with protective bonnet. The maincase is made from industry proven Ductile Iron with an approved NSF epoxy coating. Maincase features are; easily removable measuring chamber, unique chamber seal to the maincase using a high pressure o-ring, testing port and a convenient integral strainer.

OMNI+ Electronic Register

The OMNI+ electronic register is hermetically sealed with an electronic pickup containing no mechanical gearing. The OMNI+ register features a programmable totalizer registration, an optional digital pulse signal, AMI/ AMR reading digits, and a resettable test totalizer. The large, easy-to-read LCD also displays both forward and reverse flow directions. The OMNI+ tamper-proof security cover can be positioned in any of 270 degrees of rotation, with indexing points at each of the 90-degree customary register viewing positions.

Magnetic Drive

Meter registration is achieved by utilizing a fully magnetic pickup system. This is accomplished by the magnetic actions of the embedded rotor magnets and the ultra sensitive register pickup probe. The only moving component in water is the "floating ball" impeller.

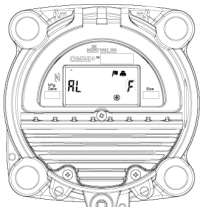
Measuring Element

The hydro-dynamically balanced impeller floats between the bearings. The Floating Ball Technology (FBT) allows the measuring element to operate virtually without friction or wear, thus creating the extended upper and lower flow ranges capable on only the OMNI+ T² meter.

OMNI™+ REGISTER DISPLAY

Segment Test View

Totalizer View


Notification View

Flow Rate View

Conformance to Standards

The OMNI+ T² meter meets and far exceeds the most recent revision of AWWA Standard C701 class II standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF/ANSI Standard 61, Annex F and G approved.

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Strainer

The OMNI+ T² with the AWWA compliant "V" shaped strainer uses a stainless steel screen along with Floating Ball Technology (FBT). This creates a design that greatly improves accuracy, even in difficult settings. A removable strainer cover permits easy access to the screen for routine maintenance.

AMR/AMI Systems

Meters and Electronic Registers are compatible with current Sensus AMR/AMI systems and other AMI communication systems that use the Sensus UI1203 protocol.

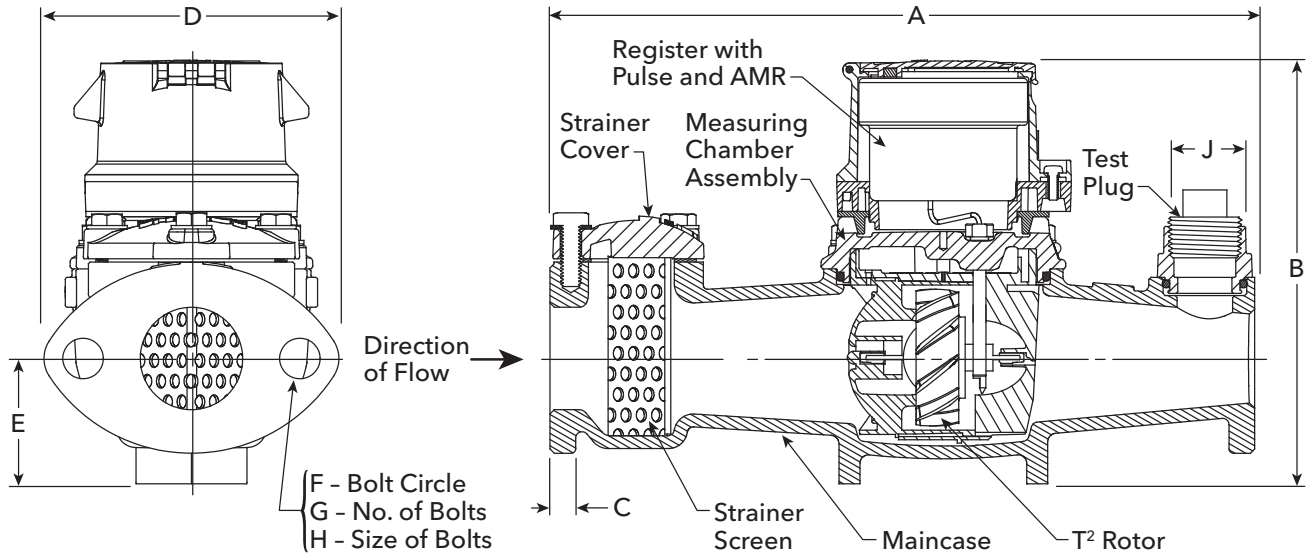
Maintenance

The OMNI+ T² meter is designed for easy maintenance. Should any maintenance be required, the measuring chamber and/or strainer cover can be removed independently. Replacement parts or complete measuring chambers are available for repairs. OMNI+ T² replacement measuring chambers may also be utilized to upgrade some third-party meters to achieve increased accuracy and extended service life.

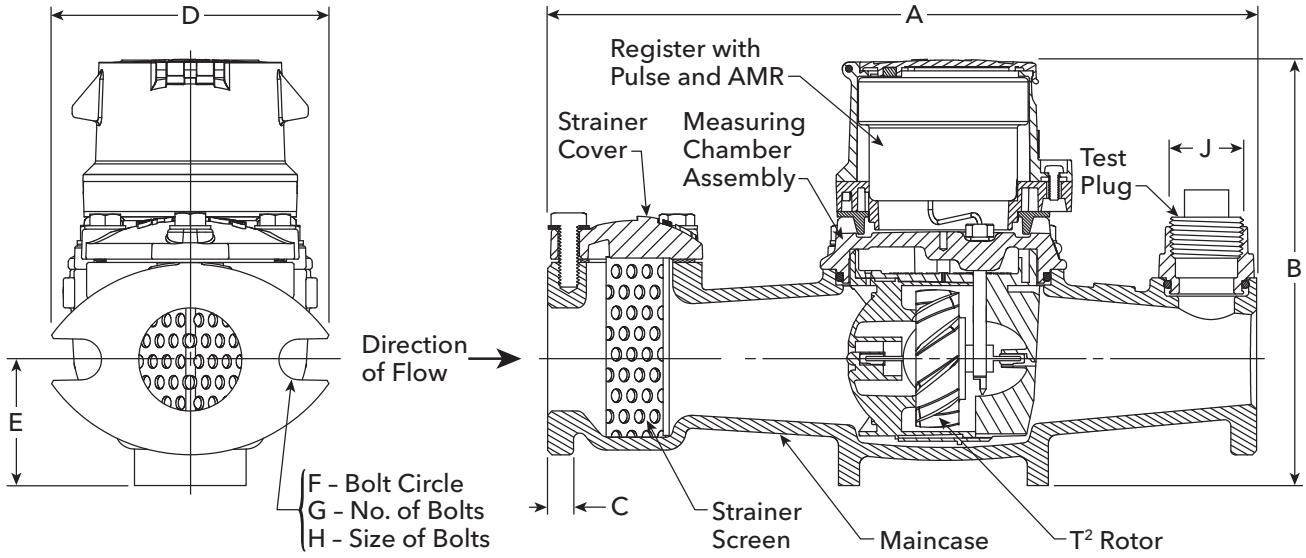
Data Logging

The OMNI+ T² meter logs 180 days of hourly consumption data.

OMNI T²: 1-1/2"



OMNI T²: 2"



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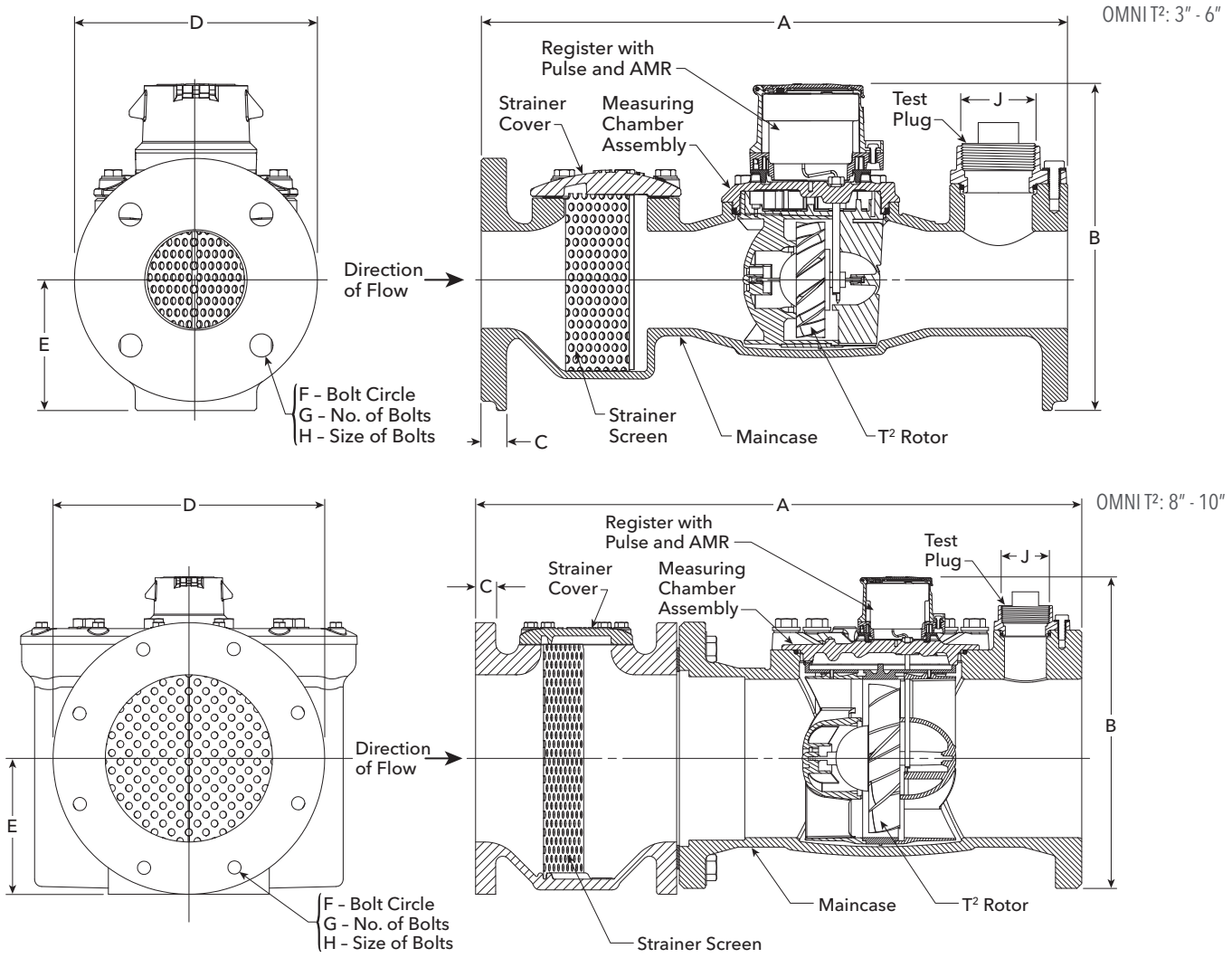

DIMENSIONS AND NET WEIGHTS

Meter and Pipe Size	Normal Operating Range		Connections	A	B	C	D	E	F	G	H	J	Net Weight	Shipping Weight
1-1/2" DN 40mm	1.25 gpm .28 m³/hr	200 gpm 45 m³/hr	Flanged	13" 330mm	8-1/2" 216mm	15/16" 24mm	5-7/16" 138mm	2-5/16" 59mm	4" 102mm	2	5/8" 16mm	1" 25mm	18.8 lbs. 8.53 kg.	22.5 lbs. 10.2 kg.
2" DN 50mm	1.5 gpm .34 m³/hr	250 gpm 57 m³/hr	Flanged	17" 432mm	8-1/2" 216mm	1" 25mm	5-3/4" 146mm	2-5/16" 59mm	4-1/2" 114mm	2	3/4" 19mm	1-1/2" 38mm	27.4 lbs. 12.4 kg.	34.5 lbs. 15.6 kg.
2" w/o Strainer DN 50mm	1.5 gpm .34 m³/hr	250 gpm 57 m³/hr	Flanged	10" 254mm	8-1/2" 216mm	1" 25mm	5-3/4" 146mm	2-5/16" 59mm	4-1/2" 114mm	2	3/4" 19mm	N/A	17.4 lbs. 7.9 kg.	24.5 lbs. 11.1 kg.
3" DN 80mm	2.5 gpm .57 m³/hr	650 gpm 148 m³/hr	Flanged	19" 483mm	11-1/4" 286mm	3/4" 19mm	7-7/8" 200mm	4-1/8" 105mm	6" 153mm	4	5/8" 16mm	2" 51mm	48.5 lbs. 22.0 kg.	57.4 lbs. 26.0 kg.
4" DN 100mm	3.0 gpm .68 m³/hr	1250 gpm 284 m³/hr	Flanged	23" 584mm	11-3/4" 299mm	15/16" 24mm	9-1/8" 232mm	4-3/4" 121mm	7-1/2" 191mm	8	5/8" 16mm	2" 51mm	67.9 lbs. 30.8 kg.	75.8 lbs. 34.4 kg.
6" DN 150mm	4 gpm .91 m³/hr	2500 gpm 568 m³/hr	Flanged	27" 686mm	14" 355mm	15/16" 24mm	11" 279mm	5-3/4" 146mm	9-1/2" 241mm	8	3/4" 19mm	2" 51mm	140 lbs. 63.5 kg.	165 lbs. 74.8 kg.
8" DN 200mm	5 gpm 1.1 m³/hr	3500 gpm 795 m³/hr	Flanged	30-1/8" 765mm	16-1/2" 419mm	11/16" 17mm	13-1/2" 343mm	6-3/4" 171mm	11-3/4" 298mm	8	3/4" 19mm	2" 51mm	471 lbs. 214 kg.	521 lbs. 236 kg.
10" DN 250mm	6 gpm 1.4 m³/hr	5500 gpm 1249 m³/hr	Flanged	41-1/8" 1045mm	19" 483mm	11/16" 17mm	16" 406mm	8-1/2" 216mm	14-1/4" 362mm	12	7/8" 22mm	2" 51mm	685 lbs. 311 kg.	745 lbs. 338 kg.

OMNI+ Turbo (T²) Water Meter

1-1/2", 2", 3", 4", 6", 8" and 10"

SPECIFICATIONS

Service	Measurement of potable and reclaim water. IP68 Rated. Storage temperature: -22 °F (-30 °C) to 155 °F (68.3 °C)	Operating temperatures: Air: -22 °F (-30 °C) to 150F (65.6 °C) Water: 33 °F (0.6 °C) to 80 °F (26.7 °C)
Operating Range (100% ± 1.5%)	1-1/2": 1.25 – 200 GPM (0.28 - 45 m^3/hr) 2": 1.5 – 250 GPM (0.34 - 57 m^3/hr) 3": 2.5 – 650 GPM (0.57 - 148 m^3/hr) 4": 3 – 1250 GPM (0.68 - 284 m^3/hr)	6": 4 – 2500 GPM (0.91 - 568 m^3/hr) 8": 5 – 3500 GPM (1.1 - 795 m^3/hr) 10": 6 – 5500 GPM (1.4 - 1249 m^3/hr)
Low flow (95% – 101.5%)	1-1/2": 0.75 GPM (0.17 m^3/hr) 2": 1.0 GPM (0.23 m3/hr) 3": 1.5 GPM (0.34 m^3/hr) 4": 2.0 GPM (0.45 m^3/hr)	6": 2.5 GPM (0.57 m^3/hr) 8": 4 GPM (0.91 m^3/hr) 10": 5 GPM (1.1 m^3/hr)
Maximum Continuous Operation	1-1/2": 160 GPM (36 m^3/hr) 2": 200 GPM (45 m^3/hr) 3": 500 GPM (114 m^3/hr) 4": 1000 GPM (227 m^3/hr)	6": 2000 GPM (454 m^3/hr) 8": 3500 GPM (795 m^3/hr) 10": 5500 GPM (1249 m^3/hr)
Maximum Intermittent Operation	1-1/2": 200 GPM (45 m^3/hr) 2": 250 GPM (57 m^3/hr) 3": 650 GPM (148 m^3/hr) 4": 1250 GPM (284 m^3/hr)	6": 2500 GPM (568 m^3/hr) 8": 4700 GPM (1067 m^3/hr) 10": 7000 GPM (1590 m^3/hr)
Pressure Loss	1-1/2": 6.9 psi @ 160 GPM (0.48 bar @ 36 m3/hr) 2": 7.0 psi @ 200 GPM (0.48 bar @ 45 m^3/hr) 3": 5.1 psi @ 500 GPM (0.35 bar @ 114 m^3/hr) 4": 8.7 psi @ 1000 GPM (0.60 bar @ 227 m^3/hr)	6": 8.2 psi @ 2000 GPM (0.57 bar @ 454 m^3/hr) 8": 5.1 psi @ 3500 GPM (0.35 bar @ 795 m^3/hr) 10": 7.2 psi @ 5500 GPM (0.50 bar @ 1249 m^3/hr)
Maximum Operating Pressure	200 PSI (13.8 bar)	
Flange Connections	U.S. ANSI B16.1 / AWWA Class 125	
Test Ports	NPT	
Register	Fully electronic sealed register with programmable registration (Gal. /Cu.Ft./ Cu. Mtr. / Imp. Gal. / Acre Ft.)	Programmable AMR/AMI reading and pulse outputs Guaranteed 10-year battery life
NSF Approved Materials	Maincase: Coated Ductile Iron Measuring Chamber: Thermoplastic Rotor "Floating Ball": Thermoplastic Radial Bearings: Hybrid Thermoplastic Thrust Bearings: Sapphire/Ceramic Jewel	Magnets: Ceramic Strainer Screen: Stainless Steel Strainer Cover: Coated Ductile Iron Test Plug: Stainless Steel

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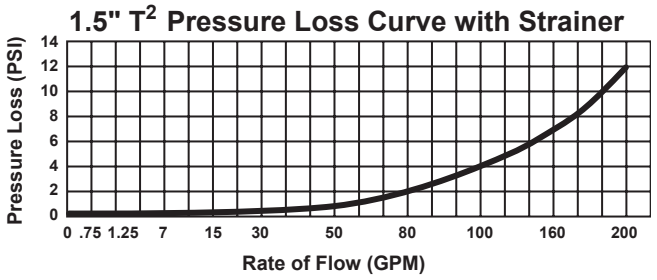
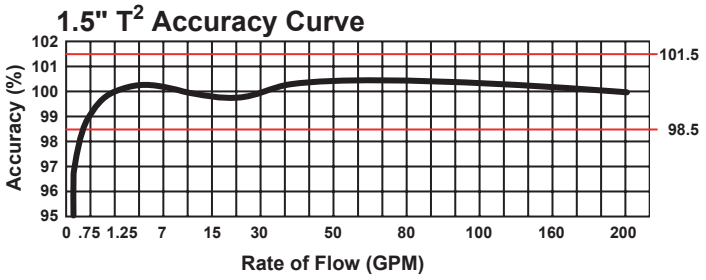
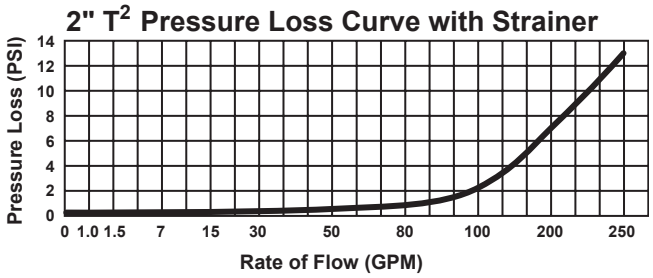
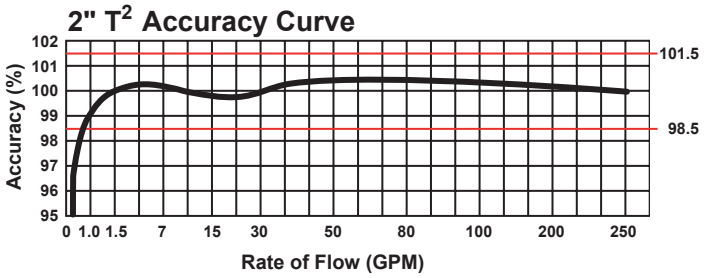
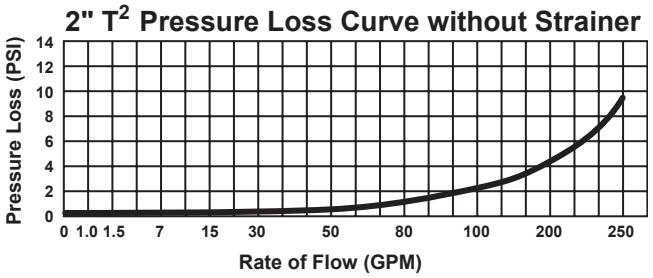
Headloss Curves

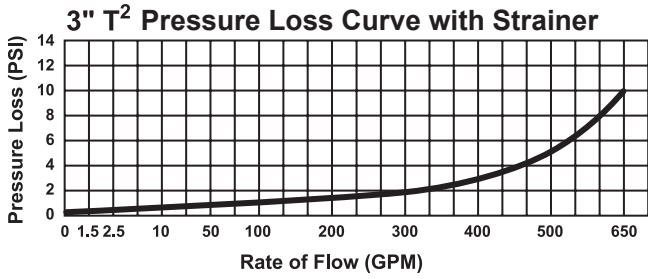


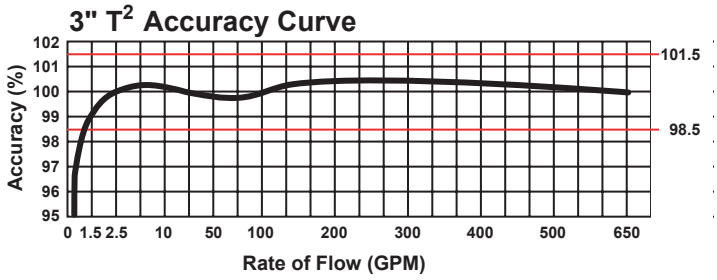


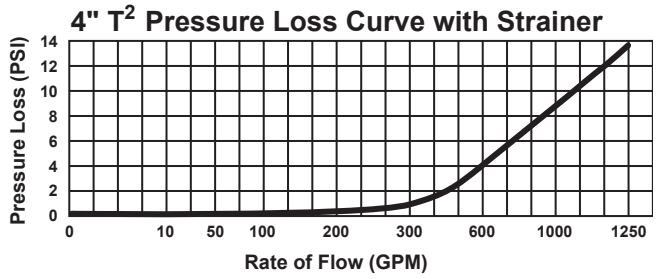


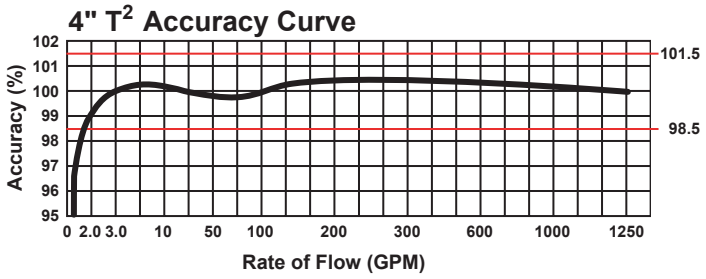












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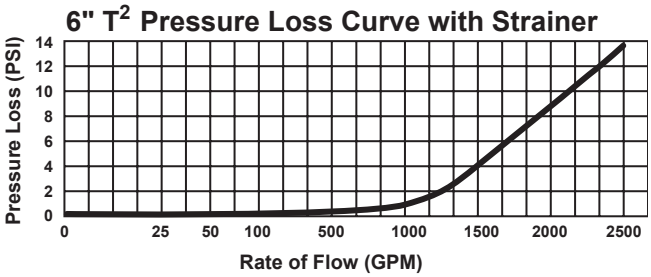

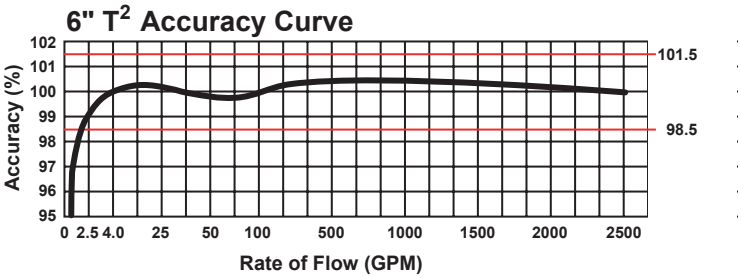

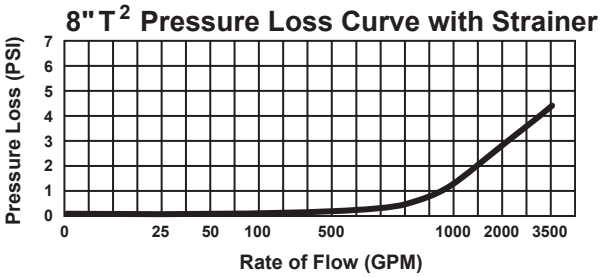

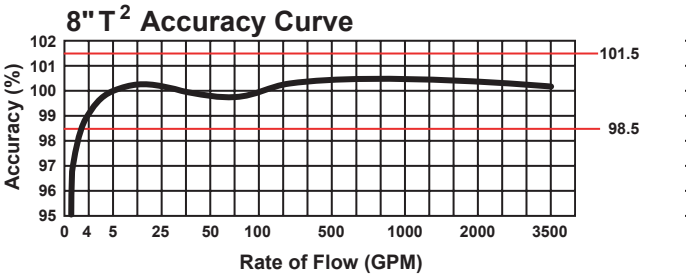

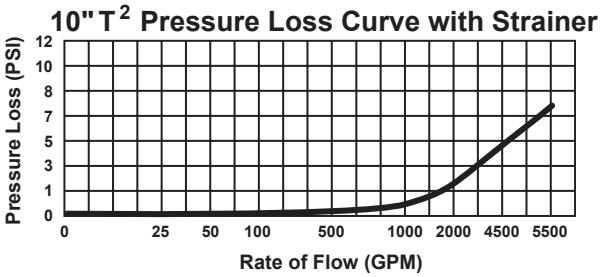

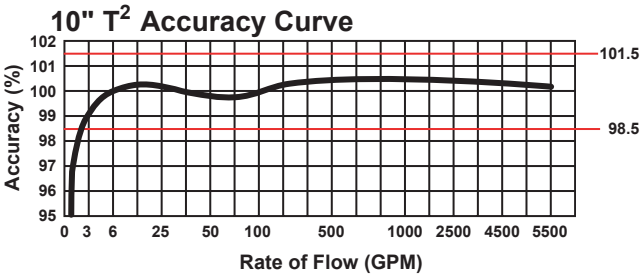

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