



OMNI+ Compound (C²) Water Meter

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

The OMNI™+ Compound (C²) Water Meter operation is based on advanced Floating Ball Technology (FBT).

Performance

The patented measurement principles of the OMNI+ C² meter ensure greater accuracy, expanded accuracy range and longer service life than any other comparable class meter. The OMNI+ C² 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+ C² 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 an AWWA compliant 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+ C² meter.

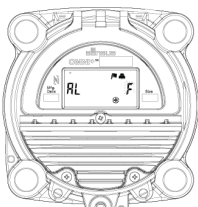
OMNI™+ REGISTER DISPLAY



Segment Test View



Totalizer View



Notification View



Flow Rate View

Conformance to Standards

The OMNI+ C² meter meets and far exceeds the most recent revision of AWWA Standard C701 and C702 class II. Additionally, the meter does not require a valve to meet these standards. Each meter is performance tested to ensure compliance. All OMNI meters are NSF/ANSI Standard 61, Annex F and G approved latest standards.

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Strainer

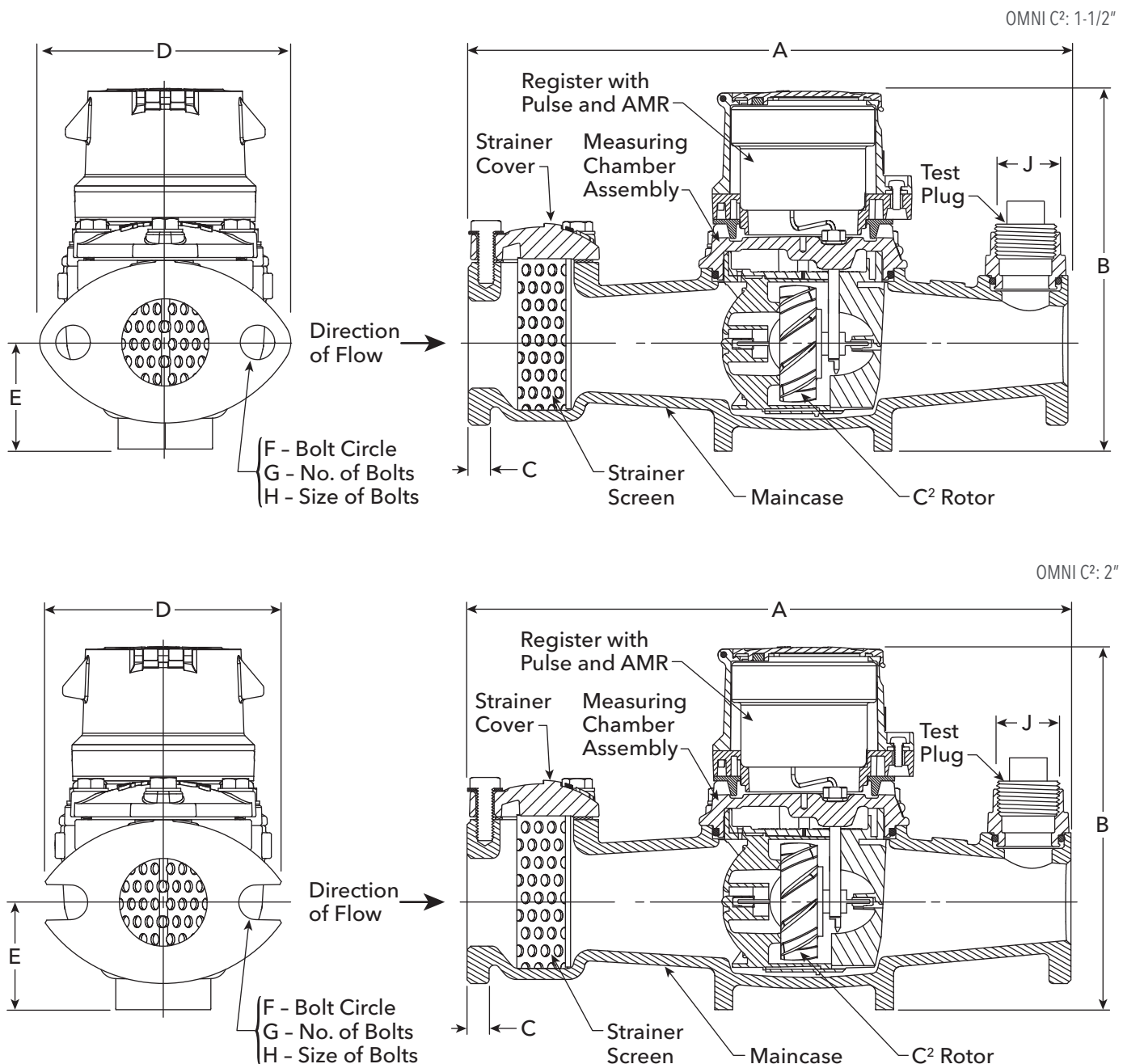
The OMNI+ C² with the AWWA compliant "V" shaped strainer uses a stainless steel screen along with Floating Ball Technology (FBT). This creates a design that greatly improves accuracy, even in difficult settings. A removable strainer cover permits easy access to the screen for routine maintenance.

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.

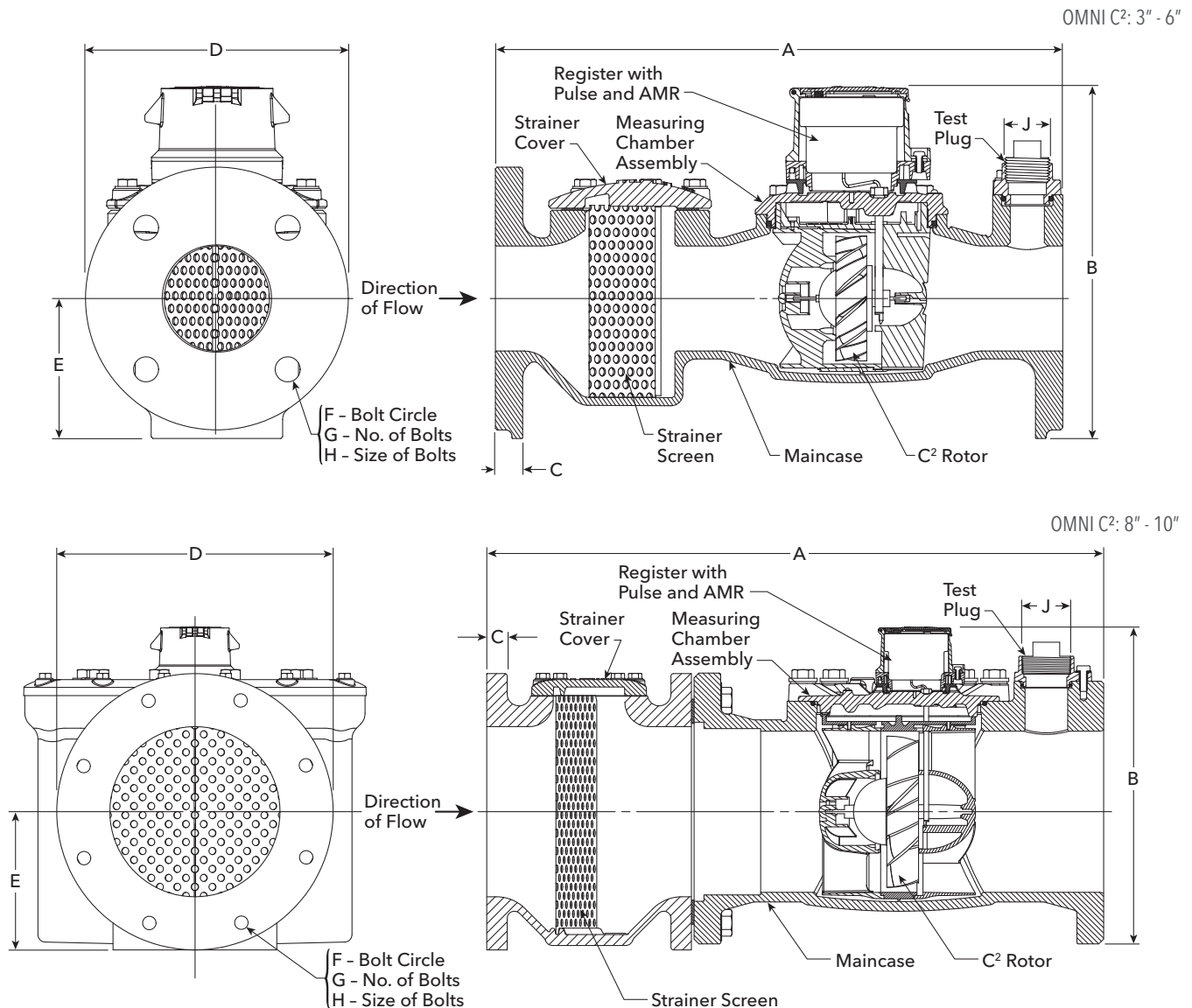
Maintenance

The OMNI+ C² 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+ C² replacement measuring chambers may also be utilized to upgrade some third-party meters to achieve increased accuracy and extended service life.



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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	.5 gpm .11 m ³ /hr	200 gpm 45 m ³ /hr	Flanged	13" 330mm	7-7/8" 200mm	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. 10.20 kg.
2" DN 50mm	.5 gpm .11 m ³ /hr	200 gpm 45 m ³ /hr	Flanged	15-1/4" 387mm	7-7/8" 200mm	1" 25mm	5-3/4" 146mm	2-5/16" 59mm	4-1/2" 114mm	2	3/4" 19mm	1" 25mm	25.4 lbs. 11.5 kg.	32.5 lbs. 14.74 kg.
3" DN 80mm	1 gpm .23 m ³ /hr	500 gpm 114 m ³ /hr	Flanged	17" 432mm	8-3/4" 225mm	3/4" 19mm	7-7/8" 200mm	4-1/8" 105mm	6" 152mm	4	5/8" 16mm	1" 25mm	45 lbs. 20.41 kg.	48.0 lbs. 21.8 kg.
4" DN 100mm	1.5 gpm .34 m ³ /hr	1000 gpm 227 m ³ /hr	Flanged	20" 508mm	11-3/16" 284mm	15/16" 24mm	9-1/8" 232mm	4-3/4" 121mm	7-1/2" 191mm	8	5/8" 16mm	1-1/2" 38mm	64.9 lbs. 29.44 kg.	72.8 lbs. 33.02 kg.
6" DN 150mm	3 gpm .68 m ³ /hr	2000 gpm 454 m ³ /hr	Flanged	24" 610mm	13-1/4" 337mm	15/16" 24mm	11" 279mm	5-3/4" 146mm	9-1/2" 241mm	8	3/4" 19mm	1-1/2" 38mm	130 lbs. 59.0 kg.	155 lbs. 70.3 kg.
8" DN 200mm	4 gpm .91 m ³ /hr	2700 gpm 614 m ³ /hr	Flanged	30-1/8" 765mm	15" 381mm	11/16" 17mm	13-1/2" 343mm	6-3/4" 172mm	11-3/4" 298mm	8	3/4" 19mm	2" 51mm	471 lbs. 214 kg.	521 lbs. 236 kg.
10" DN 250mm	5 gpm 1.1 m ³ /hr	4000 gpm 908 m ³ /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.

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SPECIFICATIONS

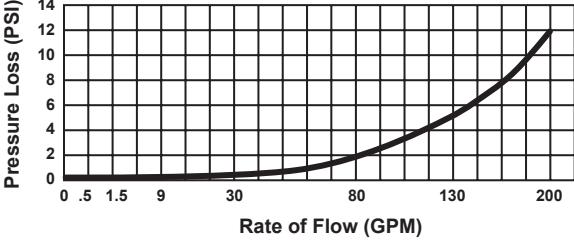
Service	Measurement of potable and reclaim water. Storage temperature: -22F (-30C) to 155F (68.3C)		Operating temperatures: Air: -22F (-30C) to 150F (65.6C) Water: 33F (0.6C) to 80F (26.7C)	
Operating Range (100% ± 1.5%)	1-1/2": 0.5 – 200 GPM (0.11 - 45 m3/hr) 2": 0.5 – 200 GPM (0.11 - 45 m3/hr) 3": 1.0 – 500 GPM (0.23 - 114 m3/hr) 4": 1.5 – 1000 GPM (0.34 - 227 m3/hr)		6": 3 – 2000 GPM (0.68 - 454 m3/hr) 8": 4 – 2700 GPM (0.91 - 614 m3/hr) 10": 5 – 4000 GPM (1.1 - 908 m3/hr)	
Low flow (95% – 101.5%)	1-1/2": 0.25 GPM (.06 m3/hr) 2": 0.25 GPM (.06 m3/hr) 3": 0.5 GPM (0.11 m3/hr) 4": 0.75 GPM (0.17 m3/hr)		6": 1.5 GPM (0.34 m3/hr) 8": 2.5 GPM (0.57 m3/hr) 10": 3.5 GPM (0.8 m3/hr)	
Maximum Continuous Operation	1-1/2": 160 GPM (36 m3/hr) 2": 160 GPM (36 m3/hr) 3": 400 GPM (91 m3/hr) 4": 800 GPM (182 m3/hr)		6": 1600 GPM (363 m3/hr) 8": 2700 GPM (614 m3/hr) 10": 4000 GPM (908 m3/hr)	
Maximum Intermittent Operation	1-1/2": 200 GPM (45 m3/hr) 2": 200 GPM (45 m3/hr) 3": 500 GPM (114 m3/hr) 4": 1000 GPM (227 m3/hr)		6": 2000 GPM (454 m3/hr) 8": 3400 GPM (773 m3/hr) 10": 5000 GPM (1136 m3/hr)	
Pressure Loss	1-1/2": 6.9 psi @ 160 GPM (0.48 bar @ 36 m3/hr) 2": 4.3 psi @ 160 GPM (0.30 bar @ 36 m3/hr) 3": 3.2 psi @ 400 GPM (0.22 bar @ 91 m3/hr) 4": 6.4 psi @ 800 GPM (0.44 bar @ 182 m3/hr)		6": 5.5 psi @ 1600 GPM (0.38 bar @ 363 m3/hr) 8": 4 psi @ 2700 GPM (0.28 bar @ 614 m3/hr) 10": 4.5 psi @ 4000 GPM (0.31 bar @ 908 m3/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: Measuring Chamber: Rotor "Floating Ball": Radial Bearings: Thrust Bearings:	Coated Ductile Iron Thermoplastic Thermoplastic Hybrid Thermoplastic Sapphire/Ceramic Jewel	Magnets: Strainer Screen: Strainer Cover: Test Plug:	Ceramic Stainless Steel Coated Ductile Iron Stainless Steel

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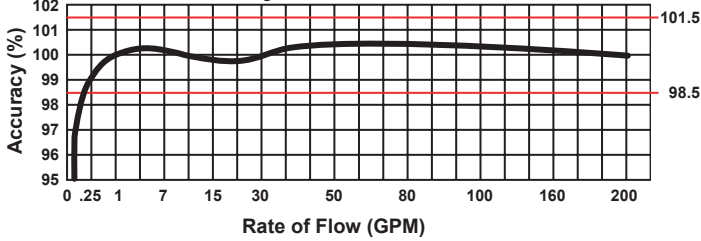
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Headloss Curves

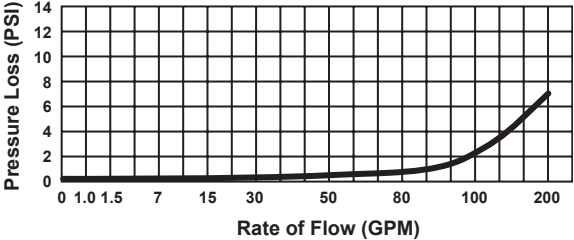
1.5" C² Pressure Loss Curve with Strainer



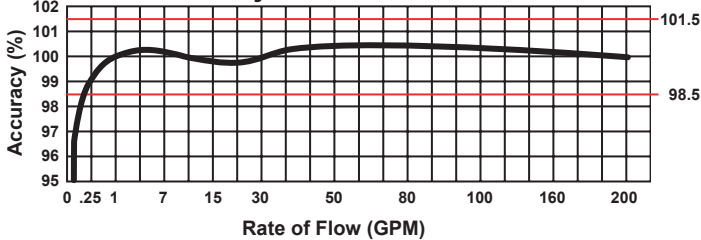
1.5" C² Accuracy Curve



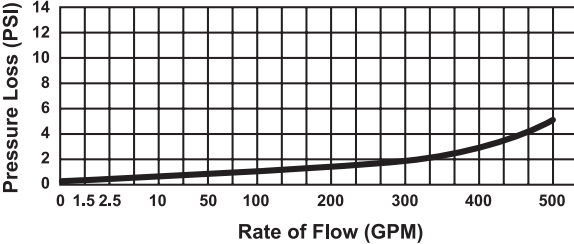
2" C² Pressure Loss Curve with Strainer



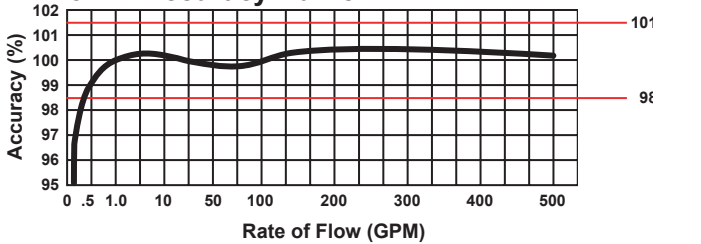
2" C² Accuracy Curve



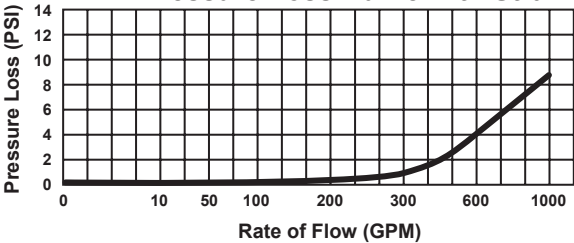
3" C² Pressure Loss Curve with Strainer



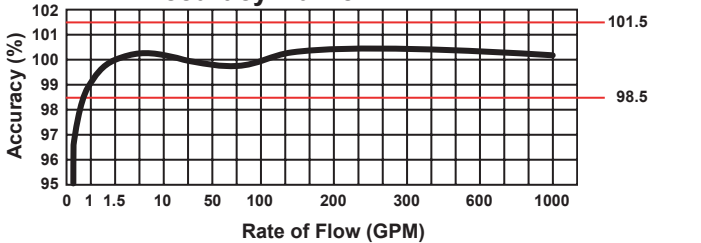
3" C² Accuracy Curve



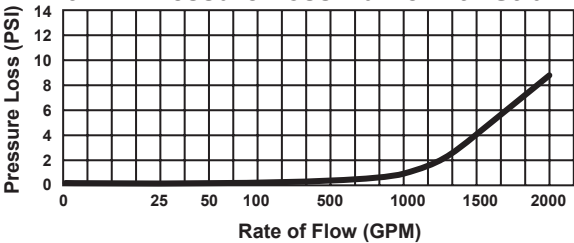
4" C² Pressure Loss Curve with Strainer



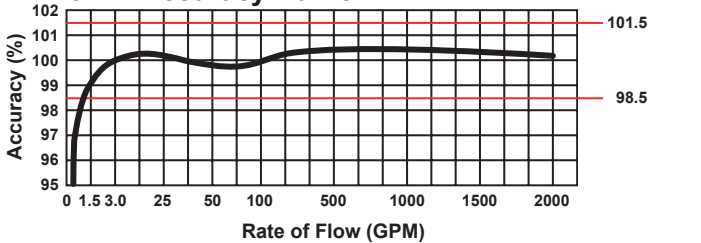
4" C² Accuracy Curve



6" C² Pressure Loss Curve with Strainer



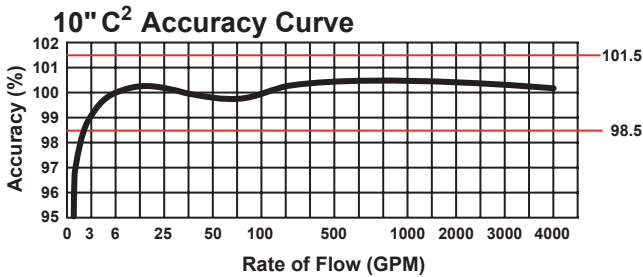
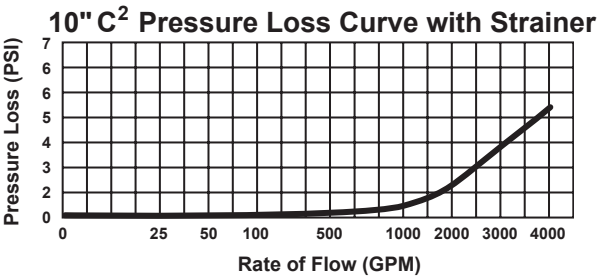
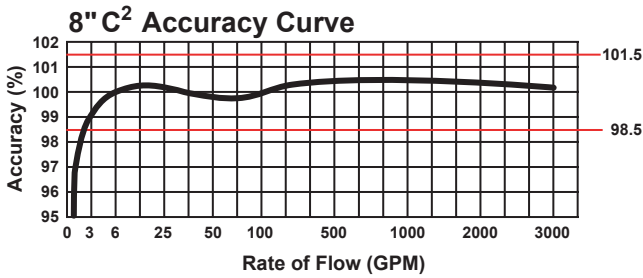
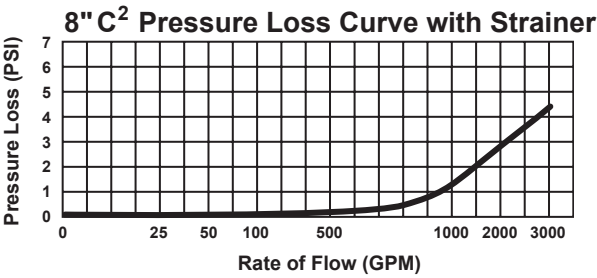
6" C² Accuracy Curve



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