

# Compound Meters (CM)

2", 3", 4", 6", 8", 10"



## Specifications

**Applications** - For use in measurement of potable cold water in residential, commercial and industrial services where flow is in one direction only.

**Construction** - The Compound Meter (CM) consists of a Turbine meter and a Positive Displacement meter. The Turbine meter is composed of four basic components: Main case, measuring element, register housing and permanently sealed register. The main case is constructed of epoxy coated cast iron. The measuring element consists of a rotor, straightening vanes, accuracy regulator, spindles, gears and drive coupling assembly. Rotor rotation is transmitted through magnetic coupling to the register gearing. The register housing is cast bronze for durability. Bolts are made of stainless steel to prevent corrosion. The Positive Displacement meter main case is made of Bismuth BiAlloy CDA89836 or

EnviroBrass™ II C89520. Measuring chambers are made of suitable engineering plastics to meet AWWA C700 standards. The piston has approximately the same specific gravity as water. All spindles are stainless steel. Chamber is supported by silicone rubber mounts. Retaining ring is made of stainless steel.

**Lead Free Main Case** - The meter main cases are in compliance with NSF / ANSI 61 standards and the Safe Drinking Water Act (NSF 372). The serial number is permanently marked on the body along with the size, direction of flow and manufacturer (RG3).

**Performance** - The CM combines the advantages of a Turbine meter and a Positive Displacement meter to yield a highly accurate totalization over extreme flow ranges. The CM Meter complies with AWWA Standard C702.

**Test Plug** - Test plugs are standard on all sizes.

**Installation** - Compound Meters can be installed in virtually any position as long as the totalizer is not placed upside down. Cavitation can present a significant error curve, so RG3 Meter Company recommends 10 pipe diameters of straight pipe upstream of the meter and 5 pipe diameters of straight pipe downstream. It is highly recommended that a Z-plate strainer be used to protect the turbine and help reduce the effects of turbulence. Installing a separate flow-straightening device upstream ensures the highest possible accuracy.

The meter must be installed in a clean pipeline, free from any foreign materials. The meter shall be installed with the direction of flow as indicated by the arrow cast in the meter case. The meter may be installed in horizontal or inclined lines up to 45 degrees.

**Maintenance** - The CM is designed to provide longterm service with minimal maintenance. When maintenance is required, the meter can remain in place and the measuring element with integral straightening vanes can be removed, repaired or replaced. Pre-tested and calibrated measuring elements are available for exchange or purchase.



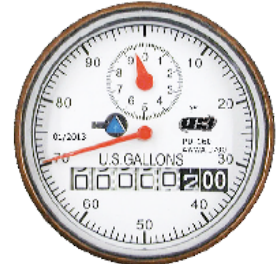
2912 South Access Rd.  
Longview, TX 75602  
PH: 903-753-3456  
Fax: 903-753-5678



**Direct Read Sealed Registers** - The registers are a straight read odometer type with a sweep hand and leak detector. Registers are hermetically sealed to prevent fogging. Registers are roll sealed and dry with a 360 ° test view. All direct reading register cups are made of copper to prevent corrosion and covered with a high-strength, impact-resistant glass lens to prevent breakage. Registers are vacuum sealed. Register housing and lids are made of high-strength polymer or copper alloy. Registers are secured to the main case by means of a plastic tamper-proof seal to allow for in-line service replacement.

Registers include the following:

- Company name
- Month and year of manufacture
- Center sweep hand
- Large, easy to read numbers
- Size of meter
- Unit of measure  
(Example U.S. Gallons, Cubic Feet, or m3)
- Diamond shaped indicator detecting low  
Flow or leaks



### Register Options

- Direct Read - Bronze or Engineered Plastic
- Tesla 4 TR - AMR / AMI - RF Transceiver Register
- Tomahawk - AMR/AMI - Absolute Encoder Register

**Magnetic Drive** - Direct magnetic drive, through the use of high strength magnets, provide positive, reliable and dependable register coupling.

**Characteristics**- Meets or exceeds latest revision of AWWA C702 Dimensional Standards. Rated at 120°F.

Test Plug Standard	Copper Can Sealed Register	Scratch Resistant Tempered Glass	Large Numbers for Easy Reading	Great Flow Rate	Easily Read in a Pit or Meter Box	Retrofit AMR/ AMI Register After Installation
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**Tamper-proof Features** - Registers shall contain a locking device to prevent theft of water usage. Removing the register shall require a special tool.

**Maintenance** - The measuring chamber assembly can be removed in order to be repaired or replaced.

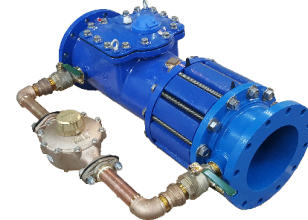
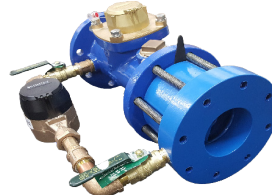


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# Compound Meters (CM)

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Compound Meters		CM 20	CM 30	CM 40	CM 60	CM 80	CM 10
<b>Size</b>		2"	3"	4"	6"	8"	10"
Low Flow	USGPM	1/4	1/4	1/4	3/4	3/4	1 1/2
Normal Flow	USGPM	3-200	1-450	1-1000	3-2000	3-3500	5-7000
High Flow	USGPM	285	550	1250	2500	4500	7000
Continuous	USGPM	200	450	1000	2000	3500	5500
Max. Pressure	P.S.I.	160	160	150	150	150	150
Max. Temp.	Deg. F	140°F	120°F	120°F	120°F	120°F	120°F
Lay-length	Inches	15-1/4"	17"	20"	24"	Custom Built	Custom Built
Height	Inches	9 1/2	9 - 7/8"	10 3/4"	13 1/4"	14 1/4"	Custom Built
Flange Holes		4	4	8	8	8	12
		6 Hole (optional)					
Standard Bi-Pass Meter		5/8 x 3/4" Positive Displacement	5/8 x 3/4" Positive Displacement	5/8 x 3/4" Positive Displacement	1" Positive Displacement	1" Positive Displacement	2" Positive Displacement
Low Flow	USGPM	1/32	1/32	1/32	3/4	3/4	2
Normal	USGPM	1-20	1-20	1-20	3-50	3-50	8-160
High Flow	USGPM	20	20	20	50	50	160
Continuous	USGPM	15	15	15	25	25	80

\* Due to continuous research and product enhancement, RG3 Meter Company reserves the right the change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.

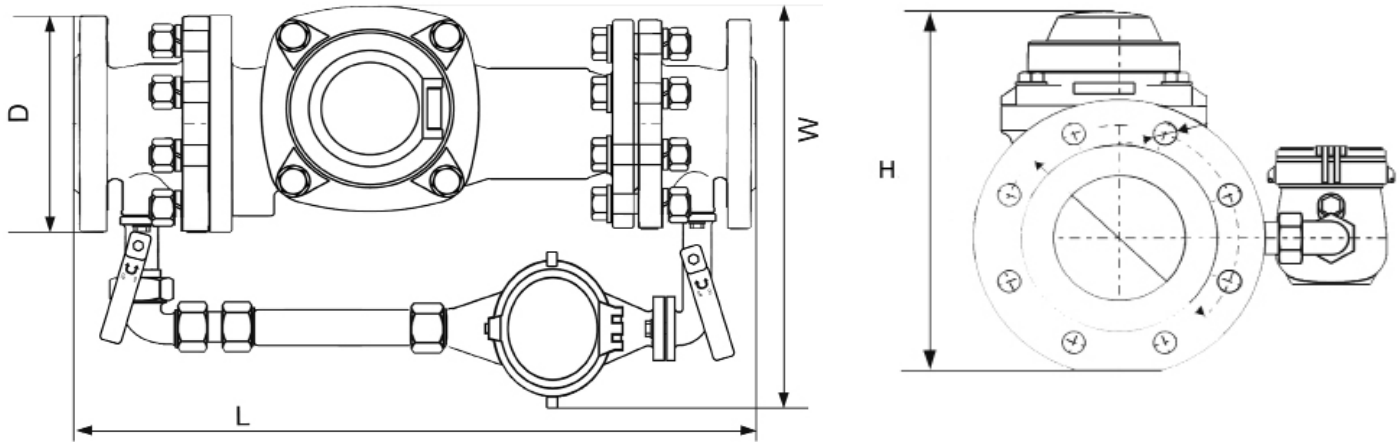


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# Compound Meter Mechanical Dimensions

2", 3", 4", 6", 8", 10"



Dimensions		CM 20	CM 30	CM 40	CM 60	CM 80	CM 10
Pipe Size		2"	3"	4"	6"	8"	10"
Length	L	15-1/4"	17"	20"	24"	Custom Built	26 1/8"
Width	W	13"	15"	15-1/2"	19-1/2"	25-1/2"	29"
Height Mechanical Register	H	9-1/2"	9-7/8"	10-3/4"	13-1/4"	14-1/4"	21"
Height Tesla Register		12"	12-3/8"	13-1/2"	15-3/4"	16-3/4"	24 1/4"
Outside Diameter	D	6"	7-1/2"	9"	11"	13-1/2"	16"

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