

### DESCRIPTION

Model MW800/MM800 Right Angle Meters have a standard coating of fusion-bonded epoxy.

These models are manufactured to comply with the applicable provisions of the American Water Works Association Standard No. C704-02 for propeller type flowmeters.

As with all McCrometer propeller flowmeters, standard features include a magnetically coupled drive, instantaneous flowrate indicator and straight-reading, six-digit totalizer. and since no change gears are used, the MW800 and MM800 can be field-serviced without the need for factory recalibration.

### FEATURES

#### Impellers

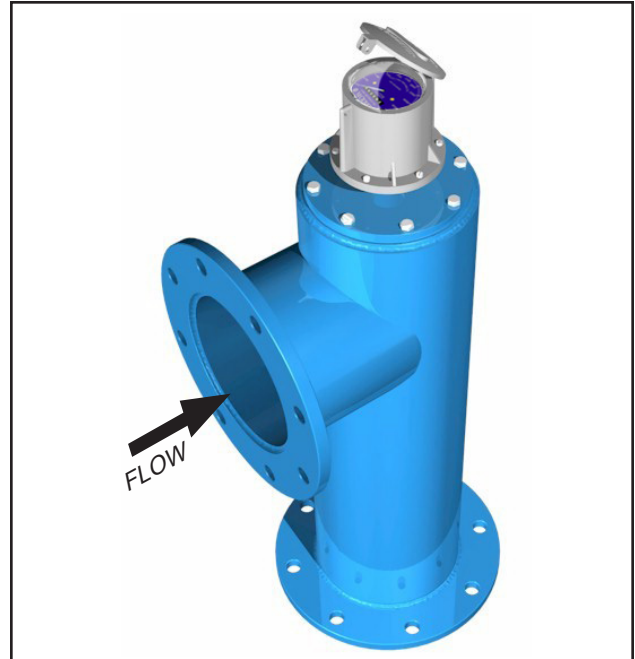
- Impellers are manufactured of high-impact plastic, capable of retaining their shape and accuracy over the life of the meter.
- Each impeller is individually calibrated at the factory to accommodate the use of any standard McCrometer register,

#### Bearings

- Factory lubricated stainless steel bearings are used to support the impeller shaft.
- The sealed bearing design limits the entry of materials and fluids into the bearing chamber providing maximum bearing protection.

#### Register

- The instantaneous flowrate indicator is standard and available in gallons per minute, cubic feet per second, liters per second and other units.
- The register is driven by a flexible steel cable encased within a protective vinyl liner.
- The register housing protects both the register and cable drive system from moisture while allowing clear reading of the flowrate indicator and totalizer.



### Typical Applications

The McCrometer propeller meter is the most widely used flowmeter for municipal and wastewater treatment applications as well as agricultural and turf irrigation measurement.

Typical applications include:

- Water and wastewater management
- Center pivot systems
- Sprinkler irrigation systems
- Drip irrigation systems
- Golf course and park water management
- Gravity turnouts from underground pipelines
- Commercial nurseries

## INSTALLATION

Meter may be mounted in any convenient position compatible with the balance of the system, as long as a full pipeline is assured. Specify direction of flow when ordering. Model MW800 for up flow and model MM800 for down flow.

## SPECIFICATIONS

### Performance

<b>Accuracy / Repeatability</b>	±2% of reading guaranteed throughout range
<b>Range</b>	See dimensions chart on next page
<b>Head Loss</b>	See dimensions chart on last page
<b>Maximum Temperature</b>	(Standard Construction) 160°F constant
<b>Pressure Rating</b>	150 psi. Consult factory for special applications.

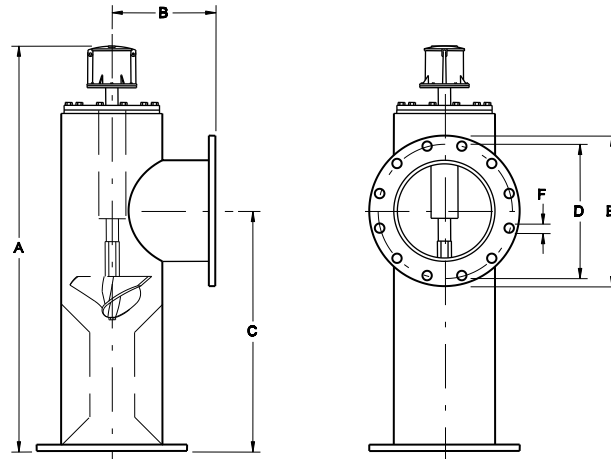
### Materials

<b>Top Plate</b>	Stainless steel (2" to 4") or fusion-bonded epoxy coated carbon steel (6" and larger)
<b>Drop Pipe</b>	304 stainless steel
<b>Spool</b>	Carbon steel standard, stainless steel optional
<b>Coating</b>	Fusion-bonded epoxy
<b>Body</b>	Epoxy-coated carbon steel pipe conforming to A.S.A pipe schedules
<b>Bearing Assembly</b>	Impeller shaft is 316 stainless steel. Ball bearings are 440C stainless steel.
<b>Magnets</b>	(Permanent type) Alnico
<b>Bearing Housing</b>	<ul style="list-style-type: none"> <li>• For models 2" to 16": 304 stainless steel standard, 316 stainless steel optional</li> <li>• For models 18" and larger: Brass standard, 316 stainless steel optional</li> </ul>
<b>Register</b>	An instantaneous flowrate indicator and six-digit straight-reading totalizer are standard. The register is hermetically sealed within a die cast aluminum case. This protective housing includes a domed acrylic lens and hinged cover with locking hasp.

### Options

- Can be fitted with any flange standard including common international standards
- Register extensions available
- High temperature construction
- A complete line of flow recording/control instrumentation
- Certified calibration test results
- Canopy boot

### DIMENSIONS



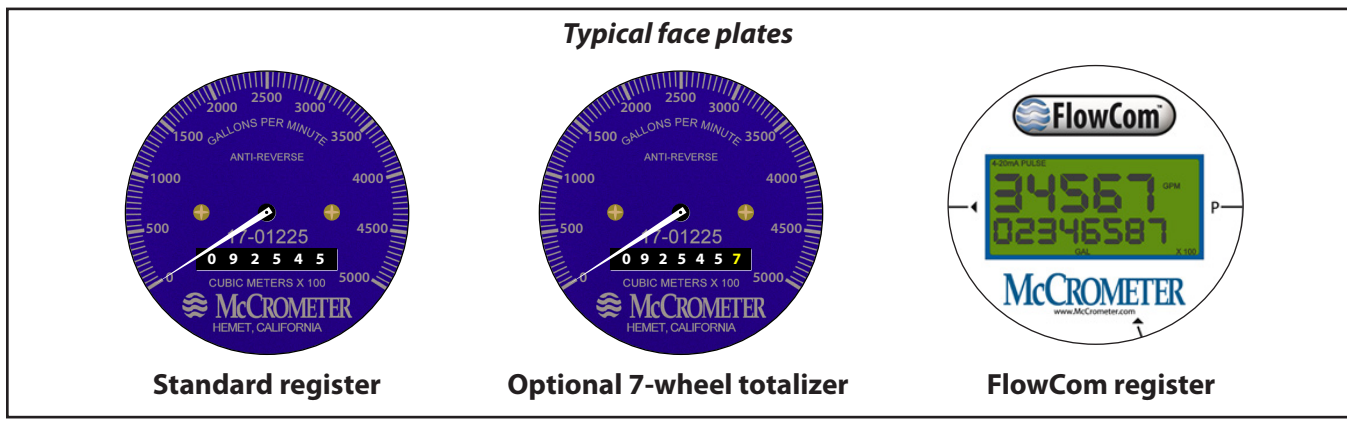
MW800 (UP FLOW) / MM800 (DOWN FLOW)	DIMENSIONS										
Meter and Nominal Pipe Size (inches)	3	4	6	8	10	12	14	16	18	20	24
Maximum Flow U.S. GPM	250	600	1200	1500	1800	2500	3000	4000	5000	6000	8500
Minimum Flow U.S. GPM	40	50	90	100	125	150	250	275	400	475	700
Approx. Head Loss in Inches at Max. Flow	29.50	23.00	17.00	6.75	3.75	2.75	2.00	1.75	1.50	1.25	1.00
Approx. Shipping Weight- lbs.	50	87	128	182	272	370	519	601	814	976	1293
A (inches)	22 1/2	27 7/8	29 7/8	36 3/8	42 3/8	48 3/8	54	60	66	72 1/2	84 1/2
B (inches)	5	6 1/2	8	9	11	12	14	15	16 1/2	18	22
C (inches)	12 1/4	16 5/8	18	23	28	33	38	43	48	53 1/2	63 1/2
D (inches)	6	7 1/2	9 1/2	11 3/4	14 1/4	17	18 3/4	21 1/4	22 3/4	25	29 1/2
E (inches)	7 1/2	9	11	13 1/2	16	19	21	23 1/2	25	27 1/2	32
F (inches)	3/4	3/4	7/8	7/8	1	1	1 1/8	1 1/8	1 1/4	1 1/4	1 3/8
No. of Bolts per Flange	4	8	8	8	12	12	12	16	16	20	20

Flanges in accordance with A.S.A. B16.5, A.S.T.M. A181 Grade I.

Larger flowmeters on special order.

Contact the factory for MM800 (downflow) meter dimensions.

**TOTALIZERS**



**Mechanical Totalizer**

The instantaneous flowrate indicator is standard and available in gallons per minute, cubic feet per second, liters per second and other units. The register is driven by a flexible steel cable encased within a protective vinyl liner. The register housing protects both the register and cable drive system from moisture while allowing clear reading of the flowrate indicator and totalizer.



**Digital Totalizer**

The optional FlowCom register displays a flowmeter's flowrate and volumetric total. Available are optional outputs: scaled pulse and/or industry standard 4-20mA signal. The FlowCom can be fitted to any new or existing McCrometer propeller flowmeter.



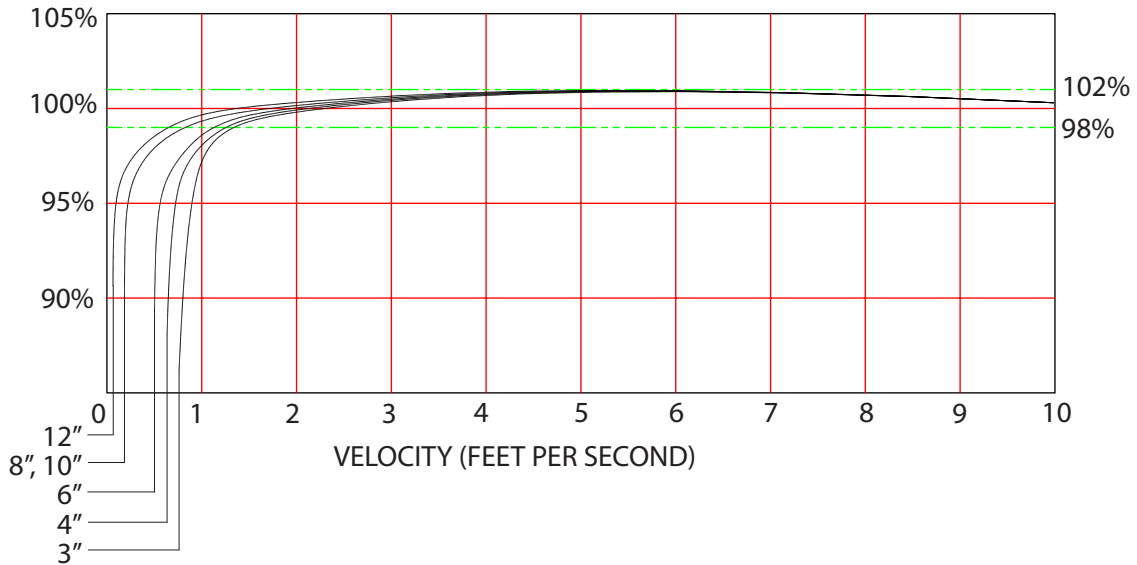
**Wireless Telemetry**

The optional FlowConnect is designed specifically for wireless telemetry via either satellite or cellular data service. Manual meter reading is never required. It uses either the mechanical register or the digital register (both shown above).

You can determine how often readings are made and transmitted to the cloud database, which you can view on a PC or on a cell phone. The viewing utility provides data tools that can analyze flow rate, consumption, and possible anomalies in an irrigation system.

### Accuracy

ACCURACY CHART



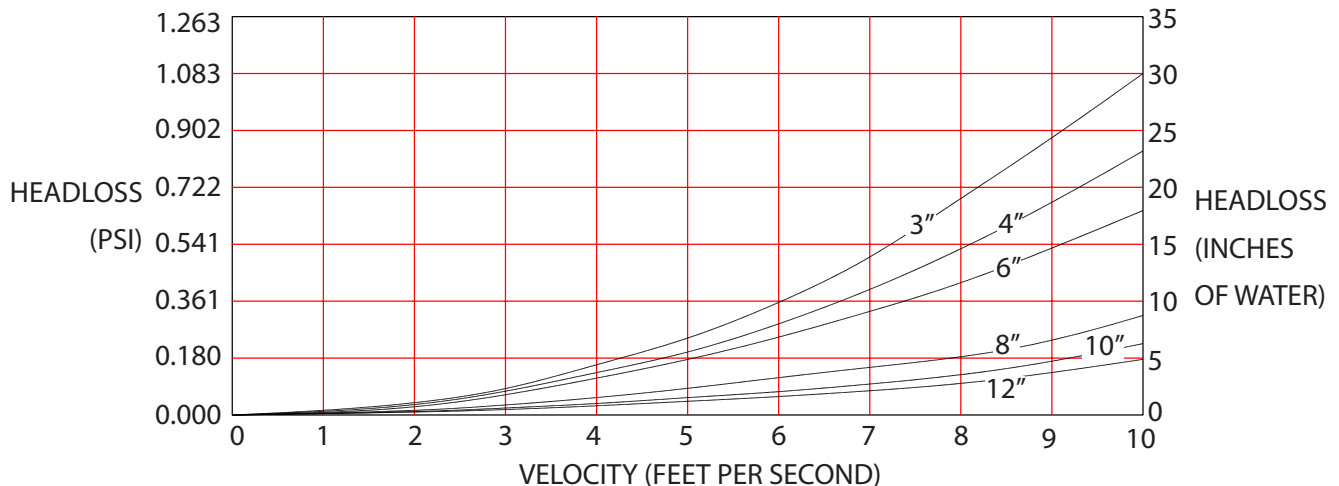
Standard flowrates for McCrometer propeller meters are shown below. Readings are guaranteed accurate within  $\pm 2\%$  in these flowrates. Please note that over 80 percent of the meter's flow range, the accuracy is better than  $\pm 1\%$ .

Nominal Meter Size	2"	2.5"	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Minimum Flow(U.S.GPM)	40	40	40	50	90	100	125	150	250	275	400	475	700
Maximum Flow(U.S.GPM)	250	250	250	600	1200	1500	1800	2500	3000	4000	5000	6000	8500
Dial Face Range	250	250	250	800	1300	2500	3000	4000	6000	8000	10000	10000	15000

### Headloss

Headloss refers to the fluid pressure lost due to the meter. Propeller meters have very low permanent headloss as seen in the chart below.

HEADLOSS CHART



Nominal Meter Size	3"	4"	6"	8"	10"	12"	14"	16"	18"	20"	24"
Max. Headloss (in. H <sub>2</sub> O column)	30	23	17	7	4	3	2	2	2	1	1

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