

DESCRIPTION

- The Model MW600 is manufactured to comply with applicable provisions of AWWA 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.
- Model MW600 Weld-On Saddle Meter is machined to the same radius as the tube on which it is to be installed to provide accurate alignment.



FEATURES

Weldment

- The meter head weldment is either Stainless Steel or fusion-bonded epoxy coated carbon steel for maximum corrosion protection.

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, and since no change gears are used, the MW600 can be field-serviced without the need for factory recalibration.

Bearings

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

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 for underground pipelines
- Commercial nurseries

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.

INSTALLATION

Standard installation is horizontal mount. If the meter is to be mounted in the vertical position, please advise the factory. A straight run of full pipe the length of ten pipe diameters upstream and two diameters downstream of the meter is recommended for meters without straightening vanes. Meters with optional straightening vanes require at least five pipe diameters upstream and two diameters downstream of the meter.

SPECIFICATIONS

Performance

Accuracy / Repeatability	<ul style="list-style-type: none"> • $\pm 2\%$ of reading guaranteed throughout full range. • $\pm 1\%$ over reduced range • Repeatability 0.25% or better
Range	4" to 48"
Maximum Temperature	(Standard Construction) 160°F constant
Pressure Rating	150 psi. Consult factory for higher rated version.

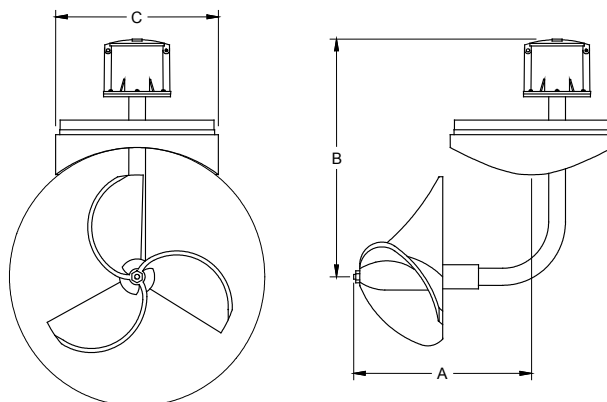
Materials

Top Plate	Stainless steel (4") or fusion-bonded epoxy coated carbon steel (6" and larger)
Weldment	Carbon steel standard, stainless steel optional
Coating	Fusion-bonded epoxy
Bearing Assembly	Impeller shaft is 316 stainless steel. Ball bearings are 440C stainless steel.
Magnets	Permanent type. Alnico.
Bearing Housing	<ul style="list-style-type: none"> • For models 4" to 16": 304 stainless steel standard, 316 stainless steel optional • For models 18" and larger: Brass standard, 316 stainless steel optional
Register	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 lens cover with locking hasp.
Impeller	Impellers are manufactured of high-impact plastic, retaining their shape and accuracy over the life of the meter. High temperature impeller is optional.

Options

- Extended warranty
- Weld-on saddle can be profiled to fit any outside diameter pipe dimensions
- Register extensions
- High temperature construction 180°F
- Marathon bearing assembly for higher than normal flowrates
- Digital register available in all sizes of this model
- A complete line of flow recording/control instrumentation
- Canopy boot

DIMENSIONS



MW600	DIMENSIONS													
Meter Size (inches)	4	6	8	10	12	14	16	18	20	24	30	36	42	48
Minimum Flow U.S. GPM	50	90	100	125	150	250	275	400	475	700	1200	1500	2000	2500
Maximum Flow U.S. GPM	600	1200	1500	1800	2500	3000	4000	5000	6000	8500	12500	17000	25000	30000
Maximum Flow w/ Marathon Bearing	900	1800	2250	2700	3750	4500	6000	7500	9000	12750	18750	25500	37500	45000
Approx. Head Loss in Inches at Max. Flow	23	17	6.75	3.75	2.75	2	1.75	1.5	1.25	1	0.7	0.5	0.45	0.3
Standard Dial Face (GPM/Gal)	800/100	1300/100	2500/100	3000/1000	4000/1000	6000/1000	8000/1000	10000/1000	10000/10000	15000/10000	15000/10000	30000/10000	35000/1000	**
Approx. Shipping Weight-lbs.	30	45	70	90	120	125	130	150	175	190	205	210	220	230
A (inches)	11.37	12.87	12.87	12.12	12.12	12.12	12.12	15	15	15	15	15	15	15
B (inches)	10.75	10.75	11.75	13.75	14.75	14.75	16.75	16.75	18.75	20.75	22.38	26.38	29.38	32.38
C (inches) *	5 ½	7 ½	7 ½	10 ¾	10 ¾	10 ¾	10 ¾	12 ¾	12 ¾	12 ¾	18	20	20	20
No. of Top Plate Bolts	6	8	8	12	12	12	12	16	16	16	16	16	Contact Factory	

* Dimension C is O.D. of saddle.

** Per customer requirements. Larger flowmeters on special order.

To order:

Specify pipe I.D. and O.D. The pipe O.D. determines the meter size. The model number is established by taking the pipe O.D. to the next larger size. For example, a 14" cast iron pipe with a 15.3" O.D. would be a 16" meter, or a model 'MW616.'

INSTALLATION

Standard installation is horizontal mount. If the meter is to be mounted in the vertical position, please advise the factory.

PIPE RUN REQUIREMENTS

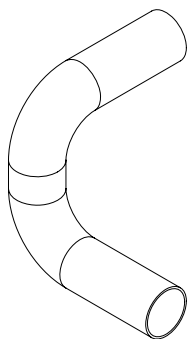
Configuration	A	B
Without straightening vanes	10	1
With straightening vanes	5	1
With FS100 Flow Straightener	1.5	1

Measure 15" from center of ell to determine average location of the propeller tip.

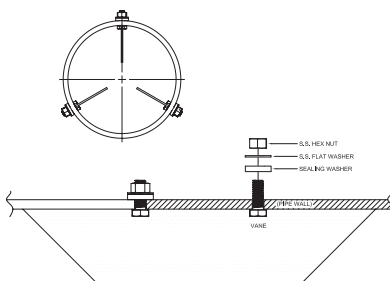
Elbow shown - Other piping components can be pumps, valves and expansions or reductions

STRAIGHTENING VANES

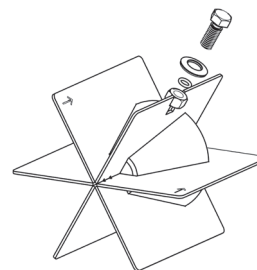
Special attention should be given to systems using two elbows "out of plane" or devices such as a centrifugal sand separator. These cause swirling flow in the line that affect propeller meters. Well developed swirls can travel up to 100 diameters downstream if unobstructed. Since most installations have less than 100 diameters to work with, straightening vanes become necessary to alleviate the problem. Straightening vanes will break up most swirls and ensure more accurate measurement. McCrometer actively encourages installing vanes just ahead of the meter. Straightening vanes are available in weld-in, bolt-in, and the FS100 Flow Straightener.



Elbows out of plane

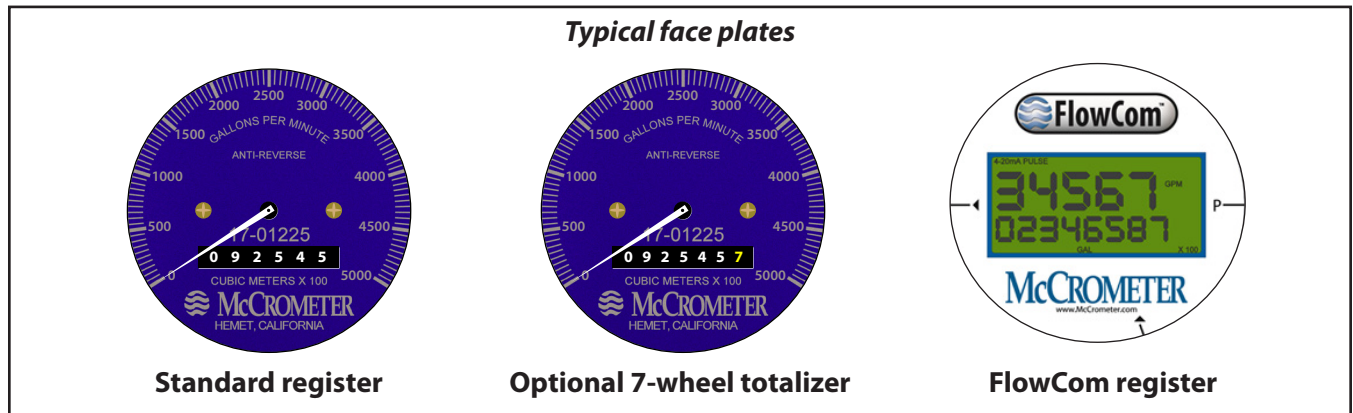


Bolt-in straightening vanes



FS100 Flow Straightener

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.

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