

DESCRIPTION

The Model MF100 is designed to provide high pressure rating and excellent meter accuracy in an inexpensive package.

The model MF100 is designed for a maximum continuous working pressure of up to 150 psi and is fitted with AWWA Class D flanges.

All Mc Propeller flow meters are manufactured to comply with the applicable provisions of AWWA standard No. C704-02.

The impeller and drive assembly are easily accessed through the open end of the meter tube.

FEATURES

Impellers

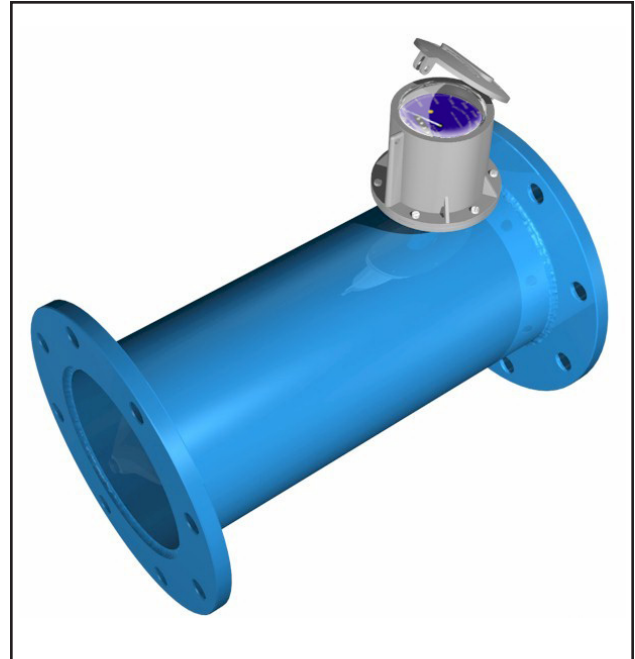
- Impellers are manufactured of high-impact plastic, capable of retaining their shape and accuracy over the life of the meter.
- Each impeller is individually calibrated at the factory to accommodate the use of any standard McCrometer register, and since no change gears are necessary, the MF100 can be field-serviced without the need for factory recalibration.

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

- An instantaneous flowrate indicator is standard and available in gallons per minute, cubic feet per second, liters per second and other units.



Typical Applications

- Center pivot systems
 - Sprinkler irrigation systems
 - Drip irrigation systems
 - Golf course and park water management
 - Commercial nurseries
 - Water and wastewater management
- 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.

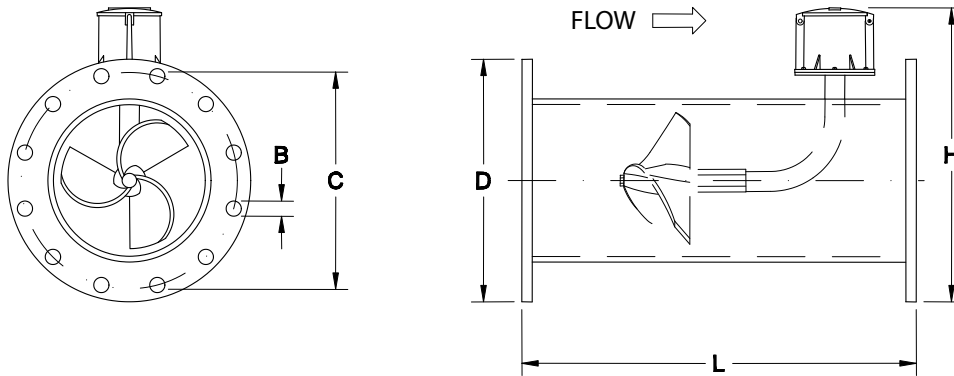
SPECIFICATIONS

Performance	
Accuracy / Repeatability	<ul style="list-style-type: none"> ±2% of reading guaranteed throughout full range ±1% over reduced range Repeatability 0.25% or better
Range	2" to 12"
Maximum Temperature	(Standard Construction) 160°F constant
Pressure Rating	150 psi. Consult factory for higher rated version.

Materials	
Spool	Carbon steel standard, stainless steel optional
Coating	Fusion-bonded epoxy
Body	Epoxy-coated carbon steel pipe conforming to A.S.A pipe schedules
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 2" 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.

Options	
	<ul style="list-style-type: none"> Extended warranty Register extensions All stainless steel construction High temperature construction Marathon bearing assembly for higher than normal flowrates A complete line of flow recording/control instrumentation Flow straightening vanes Certified calibration test results Canopy boot

DIMENSIONS



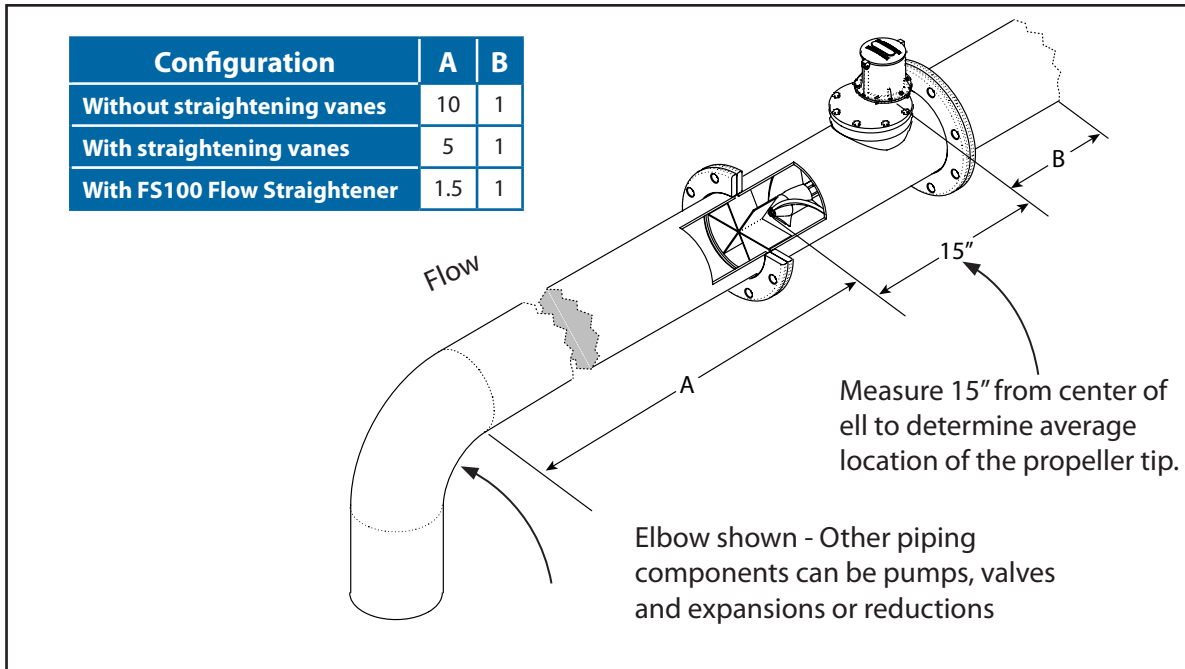
MF100	DIMENSIONS								
Meter Size	inches	2	2 1/2	3	4	6	8	10	12
	mm	51	64	76	102	152	203	254	305
Minimum Flow	GPM	40	40	40	50	90	100	125	150
	LPS	2.5	2.5	2.5	3.2	5.7	6.3	7.9	9.5
Maximum Flow	GPM	250	250	250	600	1200	1500	1800	2500
	LPS	15.8	15.8	15.8	37.9	75.7	94.6	113.6	157.7
Maximum Flow w/ Marathon Bearing	GPM				900	1800	2250	2700	3750
Approx. Head Loss in Inches at Max. Flow	inches	29.5	29.5	29.5	23	17	6.75	3.75	2.75
	mm	749	749	749	584	432	171	95	70
Standard Dial Face*	GPM/ Gal	250/ 10	250/ 10	250/ 10	800/ 100	1300/ 100	2500/ 100	3000/ 1000	4000/ 1000
Approx. Shipping Weight, lbs.	lbs	40	40	40	50	60	102	157	176
	kg	18	18	18	23	27	46	71	80
B	inches	0.75	0.75	0.75	0.75	0.375	0.375	1	1
	mm	19	19	19	19	10	10	25	25
C	inches	4.75	5.5	6	7.5	9.5	11.75	14.25	17
	mm	121	140	152	191	241	298	362	432
D	inches	6	7	7.5	9	11	13.5	16	19
	mm	152	178	191	229	279	343	406	483
H	inches	12.16	12.66	13	13.66	16	17.3	22.5	24
	mm	309	322	330	347	406	439	572	610
L	inches	13	13	13	20	20	20	20	20
	mm	330	330	330	508	508	508	508	508
No. of Bolts Per Flange		4	4	4	8	8	8	12	12

*Indicates the dial face range and multiplier

INSTALLATION

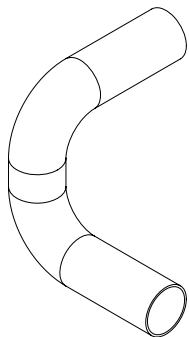
Standard installation is horizontal mount. If the meter is to be mounted in the vertical position, please advise the factory.

PIPE RUN REQUIREMENTS

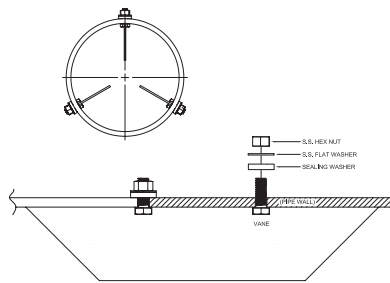


STRAIGHTENING VANES

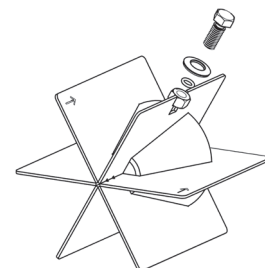
Special attention should be given to systems using two elbows “out of plane” or devices such as a centrifugal sand separator. These cause swirling flow in the line that affect propeller meters. Well developed swirls can travel up to 100 diameters downstream if unobstructed. Since most installations have 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

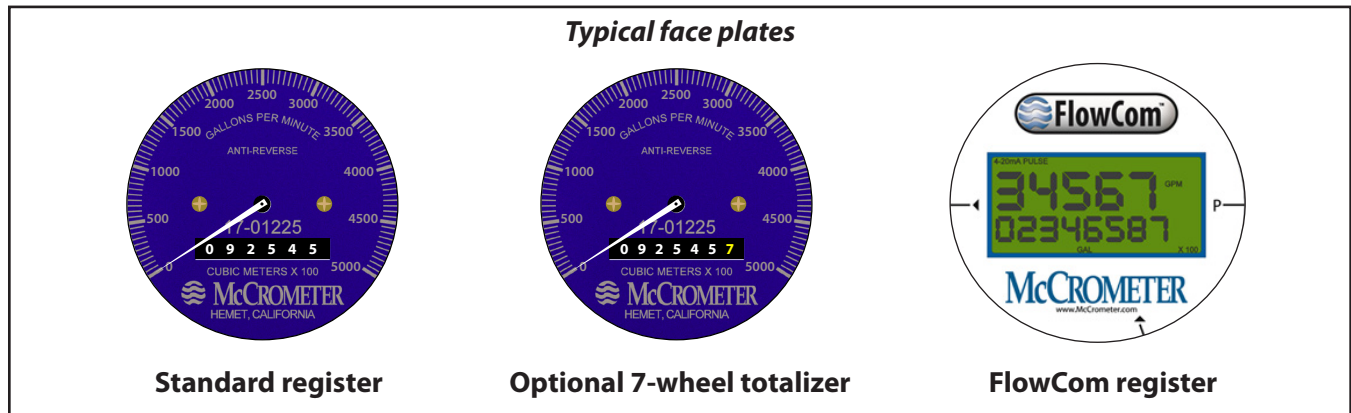


Bolt-in straightening vanes



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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