

MODEL MW500 / MZ500

DESCRIPTION

Model MW500 and MZ500 Main Line Propeller Flowmeters are manufactured to comply with the applicable provisions of the American Water Works Association Standard No. C704-91 for propeller type flowmeters. The model MW500 is designed for a maximum continuous working pressure of up to 150 psi and is fitted with AWWA Class D flanges. The model MZ500 is designed for a continuous working pressure of up to 300 psi and is fitted with ANSI B16.5 Class 300 flanges. The impeller and drive assembly are easily removed through the top flange connection. The meter flow tubes are coated with fusion-bonded epoxy for maximum corrosion protection and integral flow straightening vanes reduce upstream flow turbulence. As with all McCrometer propeller flowmeters, standard features include a magnetically coupled drive, instantaneous flowrate indicator and straight reading, six-digit totalizer.

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 MW500 and MZ500 can be field-serviced without the need for factory recalibration. 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.

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 five diameters ahead and one diameter behind the meter is the minimum normally recommended.



The McCrometer Propeller flowmeter comes with a standard instantaneous flowrate indicator and straight-reading totalizer. An optional electronic register is also available. *Typical face plates.*

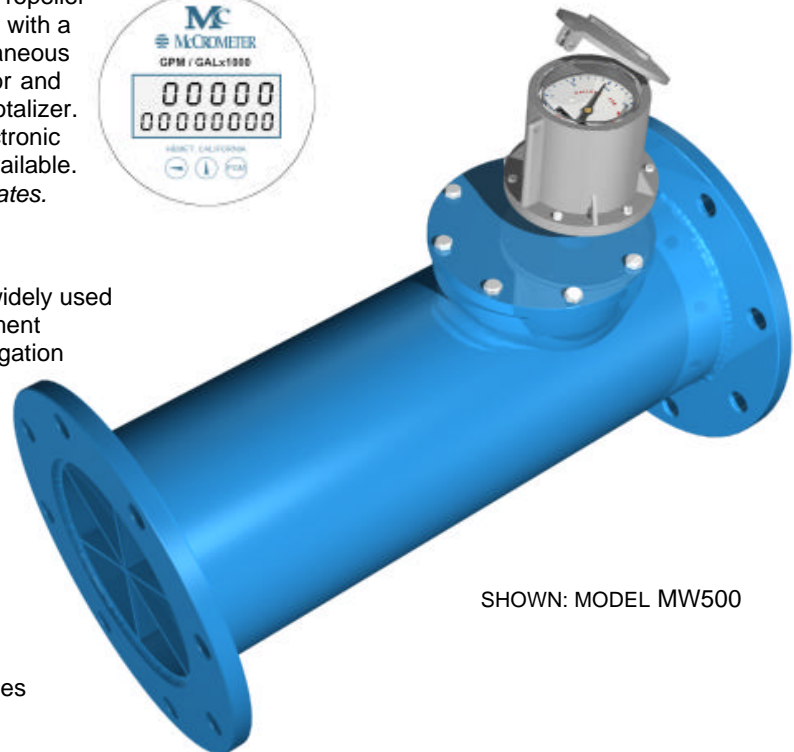


APPLICATIONS

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



SHOWN: MODEL MW500

MAIN LINE FLOWMETER MODEL MW500 / MZ500

SPECIFICATIONS

PERFORMANCE

ACCURACY: ±2% of reading guaranteed throughout range.

RANGE: See dimensions chart below

HEAD LOSS: See dimensions chart below

MAXIMUM TEMPERATURE: (Standard Construction)
160°F constant

PRESSURE RATING: Model MW500: 150 psi
Model MZ500: 300 psi

MATERIALS

BEARING ASSEMBLY: Impeller shaft is 316 stainless steel.
Ball bearings are 440C stainless steel.

MAGNETS: (Permanent type) Cast or sintered Alnico

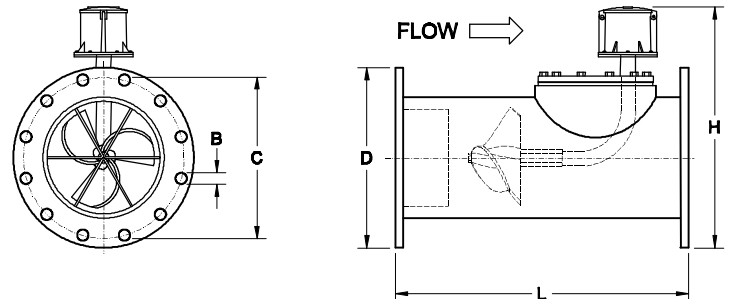
BEARING HOUSING: Brass; Stainless Steel optional

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 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

- International flange standards available
- Other than standard laying lengths available
- Register extensions available
- Forward/reverse flow measurement
- All stainless steel construction
- High temperature construction
- "Over Run" bearing assembly for higher-than-normal flowrates
- Electronic propeller meter available in all sizes of this model
- A complete line of flow recording/control instrumentation
- Certified calibration test results



McCROMETER reserves the right to change design or specifications without notice.

| MW500/MZ500 | DIMENSIONS | | | | | | | | | | | | |
|--|------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| Meter and Nominal Pipe Size | 2 | 2 1/2 | 3 | 4 | 6 | 8 | 10 | 12 | 14 | 16 | 18 | 20 | 24 |
| Maximum Flow U.S. GPM | 250 | 250 | 250 | 600 | 1200 | 1500 | 1800 | 2500 | 3000 | 4000 | 5000 | 6000 | 8500 |
| Minimum Flow U.S. GPM | 40 | 40 | 40 | 50 | 90 | 100 | 125 | 150 | 250 | 275 | 400 | 475 | 700 |
| Approx. Head Loss in Inches at Max. Flow | 29.50 | 29.50 | 29.50 | 23.00 | 17.00 | 6.75 | 3.75 | 2.75 | 2.00 | 1.75 | 1.50 | 1.25 | 1.00 |
| MW500 | | | | | | | | | | | | | |
| Approx. Shipping Weight-lbs. | 36 | 36 | 43 | 54 | 115 | 135 | 197 | 325 | 465 | 530 | 744 | 890 | 1,293 |
| B (inches) | 3/4 | 3/4 | 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 |
| C (inches) | 4 3/4 | 5 1/2 | 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 |
| D (inches) | 6 | 7 | 7 1/2 | 9 | 11 | 13 1/2 | 16 | 19 | 21 | 23 1/2 | 25 | 27 1/2 | 32 |
| H (inches) | 11 3/4 | 12 1/4 | 12 1/2 | 15 1/4 | 16 1/4 | 18 1/2 | 21 3/4 | 24 1/4 | 25 1/4 | 28 1/2 | 29 1/4 | 32 1/2 | 36 3/4 |
| L (inches) | 14 | 16 | 16 | 20 | 22 | 24 | 26 | 28 | 42 | 48 | 54 | 60 | 60 |
| No. of Bolts per Flange | 4 | 4 | 4 | 8 | 8 | 8 | 12 | 12 | 12 | 16 | 16 | 20 | 20 |
| MZ500 | | | | | | | | | | | | | |
| Approx. Shipping Weight-lbs. | 50 | 55 | 62 | 90 | 145 | 220 | 340 | 430 | 650 | 820 | 1,315 | 1,508 | 2,165 |
| B (inches) | 3/4 | 7/8 | 7/8 | 7/8 | 7/8 | 1 | 1 1/8 | 1 1/4 | 1 1/4 | 1 3/8 | 1 3/8 | 1 3/8 | 1 5/8 |
| C (inches) | 5 | 5 7/8 | 6 5/8 | 7 7/8 | 10 5/8 | 13 | 15 1/4 | 17 3/4 | 20 1/4 | 22 1/2 | 24 3/4 | 27 | 32 |
| D (inches) | 6 1/2 | 7 1/2 | 8 1/4 | 10 | 12 1/2 | 15 | 17 1/2 | 20 1/2 | 23 | 25 1/2 | 28 | 30 1/2 | 36 |
| H (inches) | 12 | 12 1/2 | 12 7/8 | 15 3/4 | 17 | 19 1/4 | 22 1/2 | 25 | 26 1/4 | 29 1/2 | 32 3/4 | 34 | 38 3/4 |
| L (inches) | 20 | 20 | 20 | 24 | 26 | 28 | 30 | 32 | 42 | 48 | 54 | 60 | 60 |
| No. of Bolts per Flange | 8 | 8 | 8 | 8 | 12 | 12 | 16 | 16 | 20 | 20 | 24 | 24 | 24 |

Note: Flanges meet ASTM-A-181 specs. Larger flowmeters on special order.

FOR MORE INFORMATION CONTACT:



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