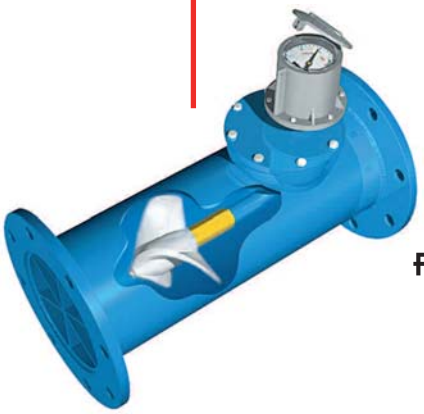
Propeller

Flowmeter

Technology

McPropeller

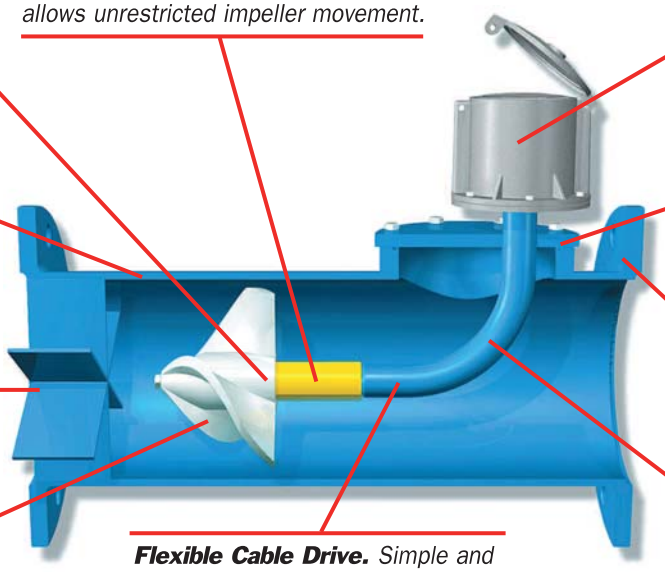


For the Real World.

McCROMETER

The Flow Measurement Specialists

Propeller Flowmeters



Long-lasting Stainless Steel Ball Bearings. *Factory lubricated and protected from flow stream.*

Epoxy-Coated Carbon Steel Body. *All stainless steel construction available.*

Straightening Vanes. *For optimum flow profiles.*

Corrosion-Resistant Impeller. *Made of durable polymer material, factory calibrated to retain accuracy.*

Magnetic Coupling System. *Isolates register and drive system from flow and allows unrestricted impeller movement.*

Flexible Cable Drive. *Simple and durable, protected by self-lubricating cable guide.*

Instantaneous Flowrate Indicator and Totalizer. *Housed in a Die-Cast Aluminum Register Canopy.*

Removable Top-Plate Assembly. *Available on many models for easy access during field service or replacement.*

Wide Variety of End Fittings. *Including threaded, grooved-end, flanged, and weld-on.*

Heavy Gauge Stainless Steel Support. *Resists corrosion.*

The Most Proven, Dependable Choice

McCrometer offers a complete line of dependable and economical propeller flowmeters for the widest range of applications—from fire hydrant testing to effluent management to farm irrigation. Designed to operate in real-world environments, these flowmeters can measure turbulent flows and fluids containing debris, suspended solids, and other contaminants with an accuracy superior to other technologies.

McCrometer's Mc Propeller flowmeters offer a simple and efficient design. They are easy to install, use, and maintain. After over 50 years of installations, it's no wonder these economical workhorses remain the number one choice for so many water management applications.

Self-Cleaning, Durable Design

Key to the success of McCrometer's Mc Propeller flowmeters is a self-cleaning design that prevents the build-up of solids. A unique, magnetic coupling system keeps the register

FIRE HYDRANT FLOWMETER M1104

- Lightweight, portable design
- Instantaneous readings

BOLT-ON SADDLE FLOWMETER MO300

- 4″ to 16″ line sizes

LARGE-LINE, BOLT-ON SADDLE FLOWMETER M1400

- 18″ to 48″ line sizes

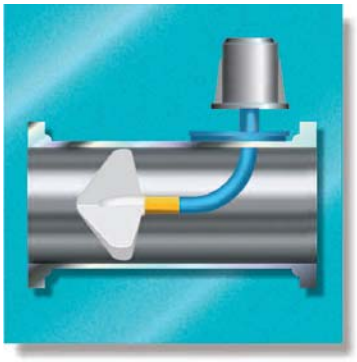
BOLT-ON SADDLE SURFACE WATER FLOWMETER M0300SW

- 4″ to 12″ line sizes

OPEN FLOWMETER M1700

- 10″ to 72″ and larger line sizes

The McCrometer Mc Propeller flowmeter's self-cleaning design uses a flexible drive shaft running within a curved, stainless steel "ell" that makes it easier to shed debris.



The positioning of the impeller directly in the flow stream assures full-flow measurement and greater accuracy.

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

six-digit, straight-reading totalizer. They are available in gallons, cubic feet, acre feet, cubic meters and other standard measurements. Both mechanical and electronic registers are available.

Accuracy for Challenging Environments

McCrometer's Mc Propeller flowmeters operate in a wide variety of environments without damage or loss of accuracy. They deliver ±2% of true accuracy and ±.25% repeatability over a flowrange of up to 25 to 1. Whether measuring clean or dirty fluids, McCrometer's Mc Propeller flowmeters excel in measuring turbulent flows, and their built-in versatility makes them ideal for retrofits.

Options to Meet a Wide Range of Needs

McCrometer's Mc Propeller flowmeters come in a variety of standard style configurations—including bolt-on saddle meter, open flow meter, and precision tube—and with a host of options for custom requirements. They offer exceptional sizing flexibility, and can be sized for line diameters of 2″ to 96″ and larger.

MAIN LINE FLOWMETER MW500/MZ500

- 2″ to 24″ or larger line sizes

IRRIGATION-FLANGED FLOWMETER ML100

- 6″ to 12″ line sizes

GROOVED AND SMOOTH-END FLOWMETER MG100/MS100

- 2″ to 24″ line sizes

ALL STAINLESS STEEL MAIN LINE FLOWMETER QW500/QZ500

- 2″ to 24″ line sizes

Proven performance.

and drive isolated from the flow while permitting unrestricted movement of the impeller. Free rotation of the impeller also is assured by factory-lubricated, stainless steel bearings.

The high-impact plastic impeller will not flex or otherwise change in dimension. In fact, it maintains its shape and accuracy over the lifetime of the meter. The impeller also is corrosion and erosion resistant, enabling McCrometer's Mc Propeller flowmeters to operate safely in rugged environments.

Easy to Use and Maintain

McCrometer's Mc Propeller flowmeters install easily and require little maintenance. All their components are easily serviced in the field. The register is driven by a flexible steel cable. The register can also be extended topward for easy reading in confined spaces.

Instantaneous Flow Rate Indicator & Straight-Reading Totalizer: Standard

Registers have an instantaneous rate of flow indicator and

THREADED-END FLOWMETER MT100

- 2″ to 6″ line sizes

WELD-ON SADDLE FLOWMETER MW600

- 4″ to 48″ or larger line sizes

RIGHT ANGLE FLOWMETERS MW800/MM800

- 3″ to 24″ line sizes

MAIN LINE FLOWMETER MW900/MG900/MT900

- 2″ to 24″ or larger line sizes
- Smooth, grooved, or threaded ends

FLANGED-END FLOWMETER MF100

- 2″ to 12″ line sizes

Proven performance.

Engineered for Accuracy, Durability, and Economy for...

Municipal Water/Wastewater

and

Agriculture/Turf Irrigation

- **Potable water**
- **Drip and sprinkler irrigation**
- **Wastewater management**
- **Water well production**
- **Marine system testing**
- **Fire sprinkler testing**
- **Pumping stations**
- **Golf courses and park water management**
- **Truck loading and discharge**
- **Canal laterals**
- **Center pivot systems**

McCrometer's Mc Propeller flowmeters measure both flow rate and volume, using turbine technology and a helical shaped impeller. The flowmeter consists of a rotating device, an impeller, positioned in the flow stream. When fluid passes through the meter, it contacts the impeller, causing it to spin. The impeller's rotational velocity is directly proportional to the velocity of the flow. The rotation is translated through a magnetic coupling and flexible drive system to the register. The register automatically calculates the flow rate by multiplying the flow velocity with the cross-sectional area of the meter tube.

The register incorporates an instantaneous flowrate indicator and straight-reading totalizer. The flowrate and total flow may be indicated in virtually any unit of measurement such as U.S. gallons or liters.

McCrometer

Application

Support

At McCrometer, all we make are flowmeters. We have over 50 years of flow measurement experience in municipal, industrial, and agricultural markets.
Our knowledgeable staff can accurately evaluate your flow applications and specify the best metering technology for your specific flow condition. For a free evaluation of your flow application or to find out about our other flowmeter products, contact your McCrometer representative today, or visit our website at **www.mccrometer.com**

Instrumentation Options For Remote Display & Control

McCrometer's Electronic instrumentation is specifically designed for use on all McCrometer Mc Propeller flowmeters, allowing the flow data generated by the flowmeter to be transmitted and incorporated into flow monitoring and control systems. This instrumentation can be ordered along with the flowmeters or retrofitted to any existing McCrometer Mc Propeller flowmeter.

Transmitters

Transmitters can be easily installed on all new or existing McCrometer Mc Propeller flowmeters to provide a variety of signal outputs to flow computers, irrigation controllers, electronic and electromechanical totalizers, chart recorders, Programmable Logic Controllers (PLCs), and computerized data acquisition systems.

Standard signal outputs available:

- Linear 4-20 mA
- Dual forward and reverse 4-20 mA (separate signal for forward and reverse flows)
- Digital 0-12 volt pulse
- Dry Contact Relay
- Open-Collector

Electronic Registers

These battery-powered FlowCom registers come with LCD Rate of Flow and Total Flow displays. They replace the mechanical register and can be mounted directly on the propeller flowmeter or in a remote enclosure. These registers are field programmable and have optional 4-20 mA and pulse outputs.

Flow Computers

Remote mounted microprocessors display both rate of flow and total flow. These flow computers are easily field programmable and can include control features such as high and low alarm set points, control and alarm outputs, relay outputs, RS-485 serial communications ports and 4-20 mA outputs.

Chart Recorders

McCrometer Chart Recorders are remote, microprocessor-based, circular chart recorders for monitoring and permanent recording of flowrate information. They use a thermal printing stylus to draw charts on blank paper. Chart Recorders are available with both 24-hour and 7-day charts. Recorders are also available with 4-20 mA control outputs.

McCROMETER
The Flow Measurement Specialists

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