



# FLO-TOTE™ 3



The Flow  
Industry  
Standard for  
Over 2 Decades...

A New Flowmeter Design  
with an Array of Customer  
Requested Features

**MARSH  
McBIRNEY**

A Higher Level of Flow Measurement  
[www.marsh-mcBirney.com](http://www.marsh-mcBirney.com)



## Ideal Applications

Wastewater Sewers

Storm Sewers

Inflow/Infiltration Studies

Modeling/Sewer System Evaluation

EPA Permitting Requirements

Combined Sewer Overflow (CSO Monitoring)

Sewer System Evaluation

Wastewater Treatment Plant Balancing

The original Flo-Tote Open Channel Flowmeter has been the industry standard for over two decades. Tens of thousands of users worldwide have verified Flo-Tote's accuracy. Now, the revolutionary NEW Flo-Tote 3 is available with customer requested features while utilizing the same proven electromagnetic sensor technology. New features include:

- Disconnectable Sensor
- 24 Hour Service Turnaround (Minimal Down Time)
- Field Replaceable Sensor (No Calibration Needed—No Down Time)
- Sensor Interchangeability (Flo-Tote 3 and Flo-Dar)
- Extended Battery Life
- Lightweight (7.5 lbs/3.4 kg) for Easy Handling (Half the weight of Tote II)
- Portable and Permanent Models Available
- Increased Signal Intensity for Greasing Applications
- Flow Temperature Measurement

### Here's How It Works

The Flo-Tote 3 measures both velocity and level in the same cross-section, a requirement necessary for accurate flow rate measurement using the Continuity Equation  $Q = \bar{V} \times A$  where  $Q = \text{Flow}$ ,  $\bar{V} = \text{Average Velocity}$  and  $A = \text{Area}$ . The flow accuracy of the Flo-Tote is based upon the accurate measures of both velocity and level in hydraulic flow labs, as well as under actual sewer conditions. Verification of our specifications by an independent flow laboratory assures you of our commitment to accuracy.

### Flo-Tote Data Management — Flo-Ware™ and Flo-Ware FX™

Flo-Ware and Flo-Ware FX™ are your ideal flowmeter data management and communications software packages for the Flo-Tote 3.

Flowmeter set-up, data retrieval and reporting are easily accomplished with Flo-Ware™, an easy-to-use Windows™ software package. Flo-Ware was designed for use by computer novices and experts alike. Flo-Ware for Windows works with your laptop/desktop PC.

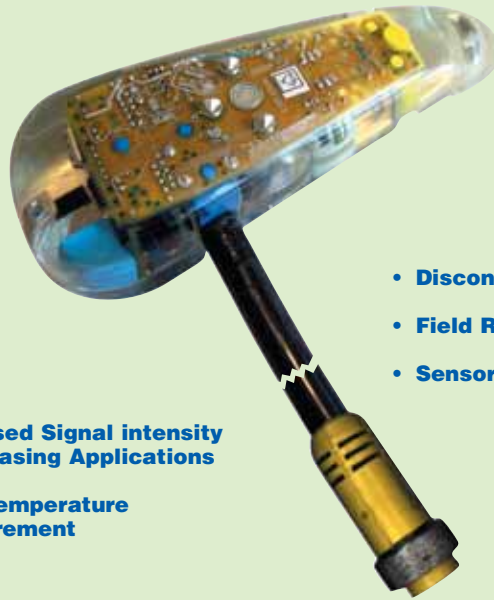
Flo-Ware software is also compatible with Flo-Ware FX software for Pocket PC.

Flo-Ware FX™ was designed to allow field personnel to quickly and easily manage flowmeters on-site. Flo-Ware FX™ uses an inexpensive Pocket PC and carries all of the same field features as Flo-Ware...Site Setup, Real-Time, Read Data, View Data, Calibrations, etc. can all be done with Flo-Ware FX™.



*Data management is easily accomplished with Flo-Ware and Flo-Ware FX (for Pocket PC) Windows® based software.*

## Flo-Tote 3 Electromagnetic Velocity/Area Sensor



**New!**

- **Increased Signal intensity for Greasing Applications**
- **Flow Temperature Measurement**

- **Disconnectable Sensor**
- **Field Replaceable Sensor**
- **Sensor interchangeability**

### **Features**

*Disconnectable  
Electromagnetic Sensor*

*Sensor Interchangeability*

*No Manhole Entry with  
Q-Stick Band/Sensor  
Install Tool*

*24-Hour Service Turnaround*

*Sensor Outputs include:*

- *Velocity*
- *Level*
- *Flow*
- *Fluid Temperature*

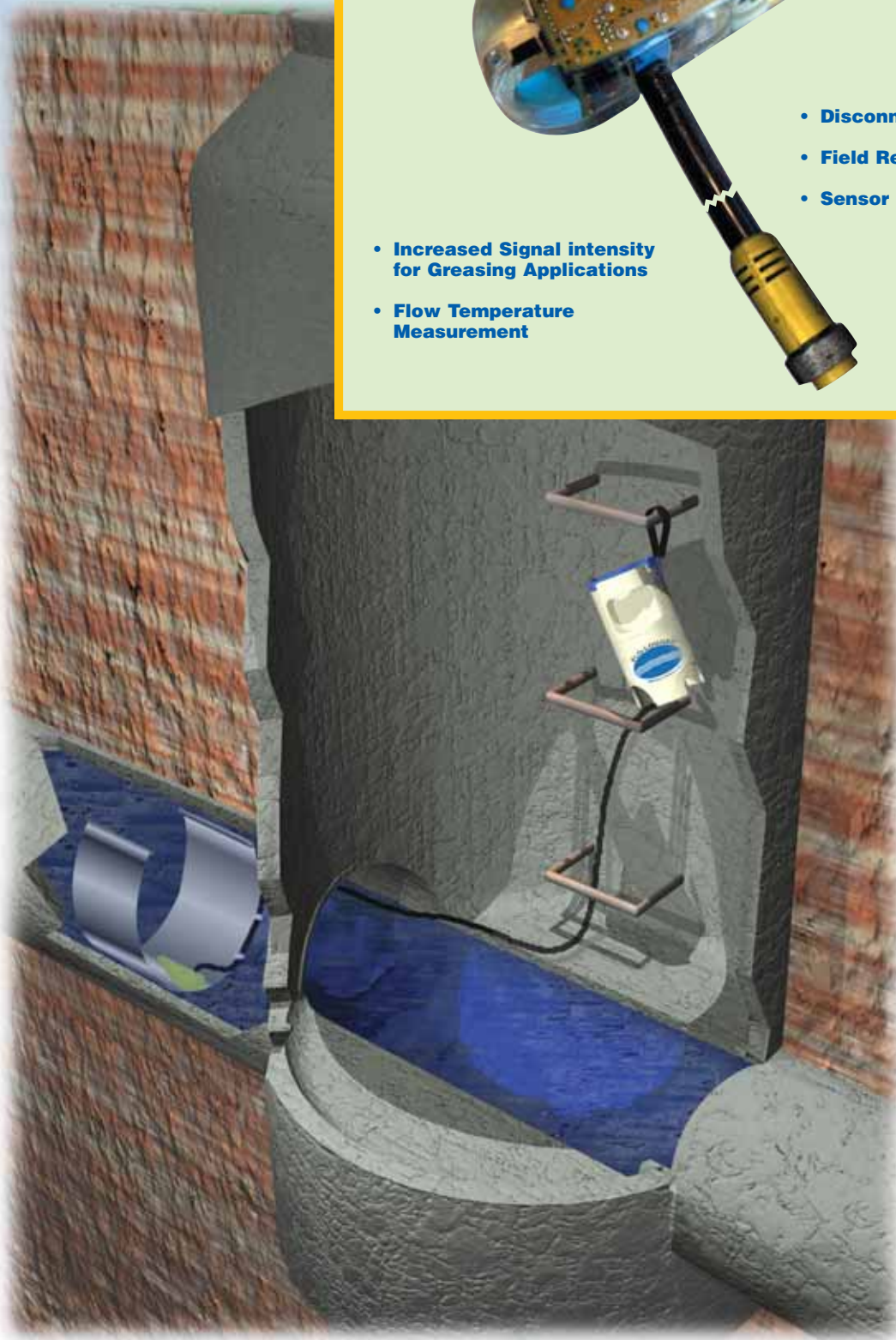
*Separate sealed battery  
compartment*

*Long Battery Life*

*Grease Tolerant Sensor*

*Flow Proportional  
Contact Closure*

*High Impact PVC Case/  
Stainless Hardware*



**Suitable  
for a Variety of  
Applications**

**Culverts  
and Odd  
Shaped  
Channels**



**Rectangular  
Channels**

**Creeks,  
Rivers and  
Streams**



## FLO-TOTE 3 Flowmeter Specification Summary

### SENSOR

#### Velocity

Range: -5 to +20 ft/s (-1.5 to +6.1 m/s)

Accuracy: 2% of reading

Zero Stability:  $\pm 0.05$  ft/s ( $\pm 15.2$  mm/s)

#### Level

Range: 0.4 to 138 inches (10 mm to 3.5m)

Accuracy: 1% of reading

Zero Stability:  $\pm 0.03$  ft ( $\pm 0.009$ m)

#### Environmental

32° to 104° F (0° to 40° C)

### FLO-LOGGER\*

#### Environmental – Operating Range

14° to 125° F (-10° to 51° C)

#### Power Requirements

12 VDC (Two six-volt lantern batteries supplied)

Battery Life: Typically 16 weeks at

15 minute sample interval.

#### Data

Utilizes Flo-Ware Software for set-up, data retrieval, reporting and flowmeter management.

Data Storage: 64K

### FLO-STATION\*

#### Environmental – Operating Range

14° to 122° F (-10° to 50° C)

#### Power Requirements

+12 VDC @ 220 mA with all four 4-20 mA

outputs @ 20 mA

#### Data Storage

64K

\*Select FLO-LOGGER for portable monitoring applications or FLO-STATION for permanent monitoring applications.

Complete flowmeter specification available on our website ([www.marsh-mcBirney.com/specifications](http://www.marsh-mcBirney.com/specifications)) or by contacting us directly.

Option/Accessory list available by contacting us directly.

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ISO 9001:2000 Certified Mfg. Facility



Made in U.S.A. under one or more of the following patent numbers:  
4015471, 4083246, 4459848,  
4549434, 4688432, 4455870,  
4669308, 4821580, 5313842,  
5385056 and 5811688.

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