



APPLICATION BRIEF

AGRICULTURE IRRIGATION WATER MEASUREMENT

June 11, 2025

PROJECT OVERVIEW

Efficient water management is paramount in modern agriculture. Accurate measurement of irrigation water flow enables farmers to optimize water usage, improve crop yields, and conserve resources. Stainless steel paddlewheel insertion flow meters offer a reliable and cost-effective solution specifically designed for measuring water flow in agricultural irrigation systems.

Traditional methods of water measurement in irrigation, such as weirs or flumes and inline propeller flow meters, can be cumbersome, expensive and difficult to install, and may not be suitable for all types of irrigation systems. Inaccurate flow measurements can lead to:

- Over-irrigation, resulting in water wastage, nutrient leaching, and increased costs.
- Under-irrigation, leading to crop stress, reduced yields, and potential crop failure.
- Inefficient use of water resources, especially in water-scarce regions.

Benefits of FLOMEC® Flow Meters

- **Cost-Effective Measurement:** Generally lower in cost than other agricultural irrigation flow meters, making them a budget-friendly option for agricultural applications.
- **Durability and Reliability:** Stainless steel and plastic construction ensures FLOMEC® flow meters can withstand the corrosive environments often found in agriculture, including exposure to fertilizers and chemicals.
- **Good Accuracy in Suitable Conditions:** FLOMEC® flow meters provide accurate measurements in relatively clean water and stable flow conditions, common in many irrigation systems.
- **Wide Range of Applications:** FLOMEC® flow meters can be used in various irrigation setups, including mainlines, branch lines, and individual irrigation zones.

PRODUCT SPECIFICATIONS



DP

- Plastic and Steel Pipes up to 100"
- Max working temperature: -40°F to +300°F (-40°C to +150°C)
- Optional 4-20mA and scaled pulse available
- Remote-mounted display option
- Battery operated display - no wiring required



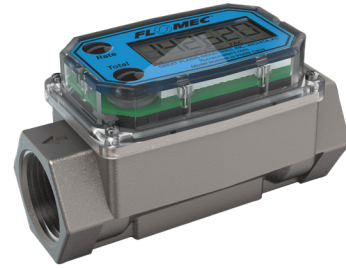
AQUasonic®

- Schedule 80 PVC Tees, 1", 1½", 2", 3", Saddle mounted for 6", 8", 10", 12" pipes
- Max working temperature: 32°F to +140°F (0°C to +60°C)
- Battery Powered Local display – no wiring required
- No rotating components, no bearings to wear
- Can handle sand and silt from wells
- Can handle light organic loading (strained)
- Ease of installation. Fast install on 6" to 12" lines
- Wide flow range. 150:1 turndown!
- 2% accuracy across flow range
- Variety of end connections
- Competitively priced
- NSF rating on Tee configurations

PRODUCT SPECIFICATIONS - CONT.

G2

- 316 Stainless Steel
- Fits pipe sizes ½ in., ¾ in., 1 in., 1½ in., 2 in.
- Accuracy of reading: ± 0.75% to ± 1.5% based on line size
- Max working temperature: 0°F to +129°F (-18°C to +54°C)
- Battery operated display – no wiring required
- Optional 4-20mA and scaled pulse available
- Remote-mounted display option



TM

- PVC housing
- Fits pipe sizes ½ in., ¾ in., 1 in., 1½ in., 2 in., 3 in., 4 in.
- Accuracy of reading: ± 3%
- Max working temperature: +32°F to +140°F (0°C to +60°C)
- Battery operated display – no wiring required
- Optional 4-20mA and scaled pulse available
- Remote-mounted display option



FLOME[®] QS200 with RT40

- Schedule 80 PVC Tees, 1", 1½", 2", 3", Saddle mounted for 6", 8", 10", 12" pipes
- Max working temperature: 32°F to +140°F (0°C to +60°C)
- Remotely Mounted RT40 display with pulse output
- No rotating components, no bearings to wear
- Can handle sand and silt from wells
- Can handle light organic loading (strained)
- Ease of installation. Fast install on 6" to 12" lines
- Wide flow range. 150:1 turndown!
- 2% accuracy across flow range
- Competitively priced



PRODUCT SOLUTION

FLOME[®]'s turbine, impeller, and ultrasonic flow meters are an excellent choice for measuring agriculture irrigation water. We have solutions for pipes from 1" to 100". FLOME[®] flow meters have remote display mounting options and pulse and 4-20mA output options for transmitting signals to control devices.

The G2 Flow Meter is an accurate choice for steel pipes from ½" to 2", and the TM Flow Meter is a great choice for plastic pipes from ½" to 4".

The DP Series Insertion Flow Meter is a great solution for metal or plastic pipes 1½" to 100". Installation is easy, drill a hole in the pipe and mount it to the proper depth with a saddle. There are 2 transmitter/display options. One with a pulse output and the other with 4-20mA output.

For applications that only need a local read, the battery-powered AQUAsonic[®] Flow Meter is a great choice for pipes from 1" to 12".

For applications where the pipe is below grade or you just want a remotely mounted display, the QS200 with RT40 is an excellent option for pipes from 1" to 12". The RT40 also comes standard with a pulse output.