

# FLO-GISTICS

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## CALIBRATION TESTING IMPROVES METER ACCURACY WITH THE ECO VALVE WATER SAVER™ TRILLIUM CALIBRATION TEST - JANUARY 2023



Testing was conducted at Trillium Measurement and Control on the Patent Pending Eco Valve Water Saver™ (EVWS) to verify the accuracy of the meter, measurements were taken before and after the valve was installed downstream of the flow meter.

Testing was conducted on a closed system with the air being injected manually.

Below is a chart indicating the low, medium and high flow rates going through the pipe.



| Flow Rates Going Through the Meter | FLOW RATE L/m (Litres per Minute) | Error Percentage Meter and Water Only<br>Average of 3 Test Samples | Error Percentage with 0.4 SCFM (Standard Cubic Feet per Minute) AIR ADDED<br>Average of 3 Test Samples | Error Percentage with 0.4 SCFM (Standard Cubic Feet per Minute) and 3" EVWS AIR ADDED<br>Average of 3 Test Samples | Meter Accuracy Improvements with the EVWS |
|------------------------------------|-----------------------------------|--------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|-------------------------------------------|
| Low Flow                           | 35                                | -0.02                                                              | 73.14                                                                                                  | 7.5                                                                                                                | 90%                                       |
| Medium Flow                        | 679                               | 0.628                                                              | 4.67                                                                                                   | 1.904                                                                                                              | 60%                                       |
| High Flow                          | 1324                              | 1.689                                                              | 3.88                                                                                                   | 1.88                                                                                                               | 52%                                       |

Note: A standard accuracy of 2% is typically required for municipal water flow measurements



Trillium Measurement and Control

**Column 1.** Shows the speed the water was going through the meter.

**Column 2.** Flow rate: The amount of flow that passes through the meter or meter and valve for each segment of the test in litres per minute value.

**Column 3.** Error Percentage Meter Only: This is an average of the inaccuracy of the water meter alone without the Eco Valve Water Saver™ (EVWS), air, or any other outside influence.

**Column 4.** Error Percentage with 0.4 cubic feet of air per minute injected into the flow of water being tested: This represents potential air being entrapped in a municipal water line and inflating the meter reading being registered by a water meter

**Column 5.** Error Percentage with 0.4 cubic feet of air per minute being injected into the water flow passing over both the water meter and Eco Valve Water Saver™ (EVWS)

**Column 6.** Meter accuracy improvements with the Eco Valve Water Saver™ (EVWS) installed.