C715 TEST BENCH COMPATIBILITY

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AWWA C715-18, TESTING "STATIC" METERS

- The 2018 Addendum to AWWA Manual M6, Water Meters—Selection, Installation, Testing, and Maintenance, fifth edition, provides guidance to users on testing procedures and related topics for meters conforming to standard ANSI/AWWA C715-18 Cold-Water Meters—Electromagnetic and Ultrasonic Type, for Revenue Applications. This standard was approved by the AWWA Standards Committee on Water Meters on February 19, 2018, approved by the AWWA Board of Directors on June 9, 2018, and made effective on October 1, 2018.

ULTRASONIC, MAG (STATIC METERS)

- Static Meters - Water meters that read the flow of water without the use of moving parts.

- Ultrasonic Meters – Measure the flow of water by transmitting ultrasonic sound waves across the pipeline.

- Electromagnetic or Mag Meters - When water passes the pipe, the fluid creates electrical voltage. The electrodes will detect and measure the electrical voltage generated by the water. Because fluid velocity is proportional to electrical voltage, the voltage is converted to a flow rate.

WHAT CHANGED? C700/C710 VS C715

- You will see in this addendum that they added the C715 for these meters. Before this, there was not a testing criteria for them. As an example, a 5/8" displacement meter (C700, C710) will test at .25gpm for the low flow. The C715 requirement is .11gpm for low flow. At this flow rate they expanded the accuracy limits to 95%- 105%. A displacement meter limit is 95% - 101%.
- The basics of meter testing doesn't change with C715. It's still water in and water out accuracy. To truly test the performance of a meter you need to look at the repeatability of the test results. If the meter is really accurate you should be able to run back to back tests and get very close results for each of the flow rates. A bad meter will test all over the place while a good meter, even if it's running 98%, will run 98% every time.

WILL MY BENCH COVER LOW FLOWS?

- In the majority of cases, yes. In some cases, you'll need to add or modify a component or adjust your test. Some benches have testing indicators that only measure down to 1/4 GPM. They are replaceable with indicators that will measure down to 1/8 GPM.
- Also, if you want to test at the low flow rate, the pass fail is 95% to 105%. If you increase the flow rate, it is 98.5% to 101.5%. This should also help encompass most existing benches.
- You can also time the flow rate. We recently lowered the flow rate on a bench in the lab to a rough guess of an 1/8 gpm and then timed it to see if the test would take 80 minutes. This would be a quick work around if you have a tight budget and need to "get by", until you can make a change in equipment.

FORD METER BOX

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Questions?