



## Cross Helps UVA Ensure Efficiency in Medium Temperature Hot Water Metering

The University of Virginia, located in Charlottesville, was founded in 1819. The school serves 17,000 undergraduates and 8,700 graduate students on a 1682-acre campus that consists of nine undergraduate and three professional schools. As one might imagine, the UVA campus, known locally as Grounds, uses an incredible amount of water, fossil fuels and power. Therefore, it's critical the school's utilities run as efficiently as possible. A loss of even 1% can lead to substantial costs, making precise monitoring key. For this reason, UVA implemented a robust metering program utilizing many Flexim non-invasive ultrasonic flow meters. The Facilities Management team monitors the flow of water around campus with hundreds of flow meters to quickly identify if there is a leak or other issue. Recently, the team noticed a discrepancy in medium-temperature water metering in a couple of areas so they called in the flow experts at Cross Process Solutions to help.





According to Scott Martin, Systems Integration & Development Manager at UVA, his team worked with Cross to develop a plan “to visit the meters in the primary area and do a few different checks ranging from a simple visual check to ensure proper installation (wiring, pipe diameters, insulation, etc.) to more detailed configuration verifications. The latter involved pulling the configuration files from the meters using the specific Flexim diagnostic software.” Early on in the process, the UVA and Cross teams discovered some incorrect settings as well as physical issues, such as transducer placement. The latter cases were related to piping configuration, proximity to elbows, upstream and downstream pipe diameters, etc. Because the inspection went relatively quickly the project was expanded to include another area that showed very similar systemic issues.

Following the inspection, Cross provided UVA with a detailed report outlining the findings and suggested remedial actions. While they weren’t able to completely eliminate the discrepancies the team was able to identify the problem areas for further measurement and monitoring. As Martin said, “you can’t manage what you don’t measure”. UVA is fortunate to have a robust metering program and was only able to find the reconciliation issues because of its extensive metering. Martin commented, “It’s a good problem to have in some respects and we are happy to leverage large amounts of trended data from our meters to help us understand where we may have issues. I think it’s important



whenever we work with our peers that we stress the importance of having a strong metering program. With our own meters and data, not only are we able to identify that there’s a problem, but we’re able to quantify it. We can make good decisions about where to spend money based on the information we collect.”

In the end, Martin said, “the overall case study process was a healthy one for us. We generally consider ourselves to have an outstanding metering program here at UVA. That said, outside perspective and a thorough review are helpful from time to time to ensure meter configurations remain correct and that physical building conditions or piping work have resulted in the appropriate metering revisions. I would certainly recommend any institution go through a similar process periodically, even if they are unaware of any substantive issues.”

### About Cross Company

Cross Company is a 100% employee-owned solutions company that is innovating the industrial world one customer at a time. Cross specializes in robotics and machine automation, industrial measurement and calibration, process solutions, industrial and hydraulic hoses & fittings, and is an original equipment supplier in the mobile vehicle systems integration industry. To learn more about Cross visit [www.crossco.com](http://www.crossco.com).

### About the University of Virginia

Founded in Charlottesville, VA in 1819, UVA is a historic public institution of higher education that aims to educate and prepare citizen leaders to contribute to a flourishing democracy. The university boasts nationally ranked schools and programs, diverse and distinguished faculty, a major academic medical center, and proud history as a renowned research university. The University is enriched by active student self-governance, sustained commitment service, and a robust NCAA Division I Athletics program.