



Columbus Water Works

Improving Meter Accuracy and Reducing Maintenance with the Neptune® MACH 10®

Often ranked as one of the top cities in which to live, Columbus, Georgia's urban revitalization, continued growth, large military presence, and affordable suburbs attract a diverse population. Columbus Water Works manages approximately 75,000 connections for 200,000 residential and commercial customers.

Maintaining accuracy and reliability were some of the common and persistent issues Columbus Water Works experienced with traditional meters, resulting in costly and time-consuming maintenance. Further complicating the process were the challenges associated with existing meter vaults, which had been constructed around metering equipment that would be expensive to replace.

MACH 10 SOLVES PROBLEMS AND SAVES MONEY

A 6" fire service compound meter for a small apartment community presented a problem without an easy solution. The pit was too small to accommodate a new HP PROTECTUS® III meter, and the investment required to install a new vault was too high.

"Replacing the meter was always on our priority list but we didn't have a cost-effective option due to the existing vault and lack of ground clearance," said Caleb Cole, Customer Advocacy Manager with Columbus Water Works. Columbus Water Works participated in a Neptune beta test with several commercial and industrial MACH 10 ultrasonic water meters and were impressed with its smaller size and lighter weight. The MACH 10 would fit within the existing meter vault and help mitigate potential safety risks to installers in order to expedite the installation process.

The successful beta outcomes led to the decision to install a MACH 10 in early 2021. "Not only did the MACH 10 solve the vault issue, but we were also able to install it in the same place with the same lay length in only about three hours – which would have taken days otherwise and required a lot of staff labor and extreme inconvenience for the residents," said Cole.



CUSTOMER

Columbus Water Works

SERVICE TERRITORY

Columbus Water Works manages approximately 75,000 connections for 200,000 residential and commercial customers.

SOLUTION BENEFITS

Maintain accuracy without service interruptions

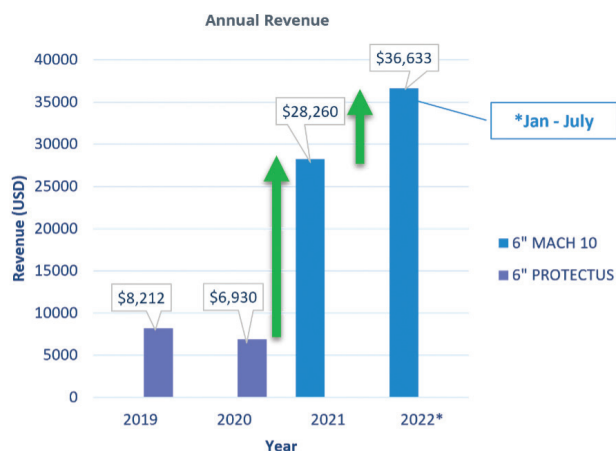
Reduce truck rolls to address recurring issues in the field

Sustained accuracy contributed to a 308% increase in revenue in first year

Replace aging turbine meters for significant improvements in accuracy

Make installation possible and significantly safer in tight spaces

Save substantial time and cost by eliminating testing and maintenance



Providing superior performance upon installation, Columbus Water Works saw an increase of more than 483% in average consumption per meter read, leading to a gain of over 308% in revenue in the first year. An additional 30% in revenue was realized through the first seven months of 2022. Furthermore, cost savings are being realized by the MACH 10's lack of moving parts, which eliminates the previous need for maintenance.

REPLACING OLD METROLOGY IN CRITICAL CARE

One of Columbus Water Works' larger accounts required some extra care. An area hospital had been serviced for many years by a 6" TRU/FLO® compound meter that required annual maintenance. Given the nature of this critical infrastructure, any downtime related to maintenance and testing presented a challenge. Columbus Water Works installed a new 6" MACH 10 in early 2021, one of the first larger meters in the replacement program.

"Water outage is understandably a major concern at a hospital, which is why we felt confident in installing the MACH 10. The MACH 10's reliability and absence of maintenance were huge driving forces in this decision. The choice certainly paid off as the meter has maintained accuracy since installation and service interruption is a thing of the past," recalled Cole.

AN EXERCISE IN EFFICIENCY

Columbus Water Works also supplies water to nearby Fort Benning, one of the largest Army training facilities in the world, supporting more than 120,000 active-duty military, family members, reserve component soldiers, retirees, and civilian employees.

Currently, Fort Benning has two supply lines with strategically placed 12" and 16" turbine meters to monitor the transfer of water. Given the age of these meters, replacement parts are no longer available. Due to this concern, Columbus Water Works is in the process of switching out these meters with two MACH 10s. "We are extremely excited to be able to upgrade to the 12" MACH 10 meters and anticipate being able to have similar flow rates and significantly more accuracy on how much water we're shipping to Fort Benning," remarked Cole.

ENDING THE UPSTREAM BATTLE

The MACH 10's smaller size and lighter weight made installation possible and significantly safer in some of the tight spaces that would have otherwise required Columbus Water Works to incur the expense of extensive equipment and additional time and labor. The MACH 10's sustained accuracy contributes to a significant increase in revenue, and with the lack of moving parts, helps eliminate testing and maintenance, resulting in substantial time and cost savings.

"I have been 100% sold on Neptune MACH 10 meters right from the first installation. We have seen nothing but benefits. Technicians love the ease of installation as well as not having to go back out to continue to address issues repeatedly. Every Neptune product we have tried in the last two years has been flawless for us. There have been zero issues," Cole said.

