

INSTA-VALVE 250 SUCCESS STORY

PRESERVING PRESSURE, PROTECTING SERVICE: UPGRADING HYDRANT INFRASTRUCTURE IN KENT COUNTY

THE CHALLENGE

In May 2025, the Kent County Water Authority faced a critical infrastructure issue involving a 94-year-old fire hydrant connected to a cast iron water main dating back to 1931. Maintaining adequate fire protection while avoiding service disruptions posed a significant operational challenge. The hydrant, essential for public safety, required urgent replacement to continue meeting modern fire safety standards.

However, shutting down the main to perform the replacement would have disrupted service to over 50 customers and triggered a precautionary boil advisory—an outcome the utility was determined to avoid. Compounding the complexity was the static pressure of 122 PSI in the main, which presented an additional hurdle in safely managing any temporary shutdowns.

THE SOLUTION

To carry out the hydrant replacement without compromising service or operator safety, Kent County Water Authority installed a 6" Hydra-Stop Insta-Valve 250. The installation was completed in just four hours and included a detailed demonstration by a Hydra-Stop technician. The dead-end water main, despite its age and high pressure, allowed for a 100% shutdown using the insertion valve—a testament to the valve's reliability and performance under pressure.

The use of the Insta-Valve 250 significantly shortened the required shutdown window, allowing utility crews to isolate the repair site while keeping water service uninterrupted for surrounding customers. Additionally, the safe work conditions created by the valve's design helped protect field operators from risk during the repair process.

PROJECT IMPACT

The successful installation enabled the safe and timely replacement of the century-old hydrant, securing adequate fire protection for the community into the future. Just as importantly, the operation avoided wide-scale customer disruptions and boil advisories, preserving public confidence in the water system.

By leveraging Hydra-Stop's no-shutdown technology, Kent County Water Authority not only enhanced its operational capabilities but also demonstrated a forward-thinking approach to infrastructure maintenance—safeguarding service reliability while addressing aging assets.



We really tried hard to find circumstances that would really test the Insta-Valve 250, and I can admit I was truly impressed with how smooth the installation was and how reliable the product truly is. — **Matt Potter, Operations Manager-Transmission and Distribution, KENT COUNTY WATER AUTHORITY**



HYDRA-STOP
▶ FROM PENTAIR

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