



Innovative Valves Built with Confidence and Quality

## *Reducing Maintenance Costs with Buildup-Resistant Ball Valves for Wastewater Treatment Facility*

### ABOUT US

---

Since 1901 American Valve has manufactured valves to support critical water and wastewater infrastructure. While wastewater treatment technologies have evolved significantly over 100+ years, most of the fluid handling challenges remain constant. American Valve partners with wastewater treatment operators to find solutions to these everyday challenges.

---



### CUSTOMER JOURNEY

In 1995, American Valve's team joined local distribution partners to identify key applications for their Teflon® fused ball valves in wastewater treatment. A municipal treatment plant in northern New Jersey expressed frustration with eccentric plug valves originally specified in the 1970's. This type of valve has inherent design flaws--exposed seating surfaces, internal parts prone to build-up, and high operating torque. Eccentric plugs readily accumulate solids, often leading to critical failure. Automation is expensive and impractical. Plant management needed a lasting solution.

### PROBLEM

Plant management, frustrated with existing valve maintenance issues, was looking for ways to improve operations. Incoming wastewater contains sediment, solids, and sludge so it is essential to select valves that can manage these elements and resist abrasion. The plant had been experiencing seizing and clogging in the existing eccentric plug valves, which had been used throughout the facility. Flow rates were also compromised which reduced the efficiency of the plant, and there was also a great risk of damaging pumps and other critical equipment due to the clogging issues. In addition to clogging, the valves were difficult to operate and required constant time consuming and expensive maintenance. Facing limited budget for infrastructure, management was looking to find a solution to the jamming that would create cost savings while reducing valve and pump maintenance.



## AMERICAN VALVE 4000™ SERIES BALL VALVE VS. PLUG VALVES:

- Full unobstructed flow.

- No exposed internal components to catch and retain debris.

- No lubrication required to ensure smooth operation and maintain seals.

- Lower torque for more efficient and cost-effective automation.

- ANSI Class VI positive shutoff.

## SOLUTION

The American Valve team shared more information with plant leadership about the 4000 Series™ ball valve, which has a unique patented Teflon®-fused ball. Unlike other valves that have an unprotected metal surface, the valves are impregnated with Teflon® that can't wear, chip or flake and resists buildup and sticking. Ball valves can withstand high pressure, temperature, and velocity flows, making them advantageous in wastewater systems. These uniquely designed valves also offer a convenient quarter-turn operation.

After seeing the difference in the valves, plant management moved forward to install the American Valve 4000 Series™ ball valves to replace the eccentric plug valves for a maximum flow rate.



*Instead of constantly fixing broken things, American Valve started over and developed something better."*

### SETH GUTERMAN

4th-Generation Owner of American Valve