

ArmorTek® Protects Vegas Infrastructure from MIC-Related Corrosion



Location:
Las Vegas, NV

Industry:
Municipal Water Utility

Problem:
Premature valve deterioration and corrosion

Solution:
ArmorTek® Advanced Coating System

Results:
Five years of in-service performance with no MIC activity and enhanced asset reliability in a corrosive environment.

What the Client Needed

During a routine test at an apartment complex on Las Vegas Boulevard, the local water district once again discovered corrosion on one of their backflow preventers. This site already had multiple replacement valves installed, but all were corroded due to the harsh water at this particular site. Further investigation conducted by Watts revealed the presence of microbial-induced corrosion (MIC) at this site — which is known to cause rapid deterioration in products subjected to this condition.

It was determined that the client was going to need a valve with protection that goes beyond standard coating.

Solution

The customer agreed to pilot a new backflow preventer treated with ArmorTek to address their challenge. ArmorTek is an advanced coating system made of an anti-corrosion primer, a microbial inhibitor to limit MIC, and a protective epoxy-polyester topcoat, all designed to control corrosion and protect the substrate layer of the valve.

With the new ArmorTek coating, the customer now has a product where the iron valve is protected against corrosion due to a sacrificial element. The sacrificial element within the coating is designed to corrode instead of the iron in the valve itself. Additionally, the antimicrobial agent protects the valve against MIC.

The corroded valve in Las Vegas was replaced with a new version of the same valve, this time coated with ArmorTek. A third-party study was conducted to test the effectiveness of ArmorTek over a span of 10,000 hours. The study found that valves without ArmorTek corrode approximately 14x as quickly as an ArmorTek coated valve. This seemed like a great solution to this customer's corrosion problems.



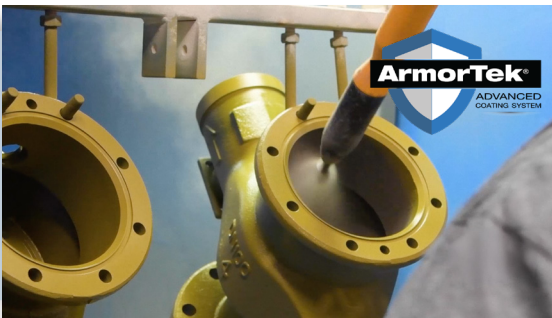
Results

Five years after installing the new valve treated with ArmorTek, there are still no signs of MIC activity. The valve still looks brand new as compared to other similar devices not treated with ArmorTek. Additionally, periodic maintenance is much more feasible due to the cleanliness provided by the ArmorTek coating.

- ✓ No signs of MIC activity after five years in service
- ✓ Valve appearance remained virtually unchanged compared to uncoated alternatives
- ✓ Improved long-term protection against corrosion-related deterioration
- ✓ Easier ongoing maintenance due to the clean condition of the coated surface
- ✓ Greater confidence in long-term asset reliability in a highly corrosive environment

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When we look at this valve that has now been installed for five years, it's a night and day difference.”



Stop Replacing Corroded Valves

ArmorTek®, a 3-part coating system designed to inhibit Microbially Induced Corrosion (MIC).

