

Custom valve and bonnet assembly avoids costly equipment redesign for water heater company

RESULTS

- A custom valve and bonnet assembly helped avoid a time-consuming and costly heater redesign
- Maintains compliance with necessary clean water standards, including NSF and SDWA



APPLICATION

Fluid control device for tankless hot water heater systems

CUSTOMER

Manufacturer of tankless hot water heaters

CHALLENGE

A manufacturer that specializes in tankless water heaters for on-demand hand-washing systems wanted to upgrade the design of its heaters to become more energy efficient. As part of the upgrade, the customer integrated an automatic water shut-off feature that required normally open (NO) valves. These valves needed to comply with the low-lead content requirements of the US EPA Safe Drinking Water Act (SDWA 1417) standard to ensure the safety of the customer's end-users.

SOLUTION

The tankless water heater company sought out Emerson at a local trade show—knowing the ASCO™ product reputation for high-quality valves. After discussing several options for lead-free units that would adhere to the SDWA standards, experts recommended building a custom valve.

The technical team designed a lead-free normally open valve with a custom bonnet that can be installed directly into the customer-designed water tank manifold, avoiding any radical redesign and saving space. The bonnet was tailored specifically for the customer's

The customer was pleased with the high-quality, tailored design that allows inspectors to determine lead-free compliance immediately. This allowed the customer to drastically reduce their product's time to market, thus responding to increasing demand for industrial handwashing systems during the COVID-19 pandemic.

design, and the entire assembly adheres to the SDWA standards. In addition, the valve included an embossed “LF” on all brass components, allowing inspectors to determine lead-free compliance at a glance. The strong collaboration between the customer and the Emerson engineering team ensured the new valve bonnet would seamlessly integrate with the existing manifold ultimately helping to quickly bring the product to market.

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