



# CASE STUDY

## INDUSTRY: FOOD & BEVERAGE

**CUSTOMER:** Campbell Soup Company

**LOCATION:** Maxton, North Carolina



**BACKGROUND:** Campbell Soup Company requires varying temperatures of hot water for their emulsion batch processes where hot water is added to large kettles and mixed with ingredients. Previously, Campbell's was producing hot water with steam and water mixers, but was experiencing problems with temperature control, reliability, and overall accuracy. Campbell's also needed a solution to handle high pressure water and chemical washdown for the plant floor.

**SCOPE OF WORK:** Armstrong International recommended Emech™ Digital Control Valves to alleviate their batch process issues. Campbell's was interested in the water to water mixing valves as they had an abundant supply of 180°F (82°C) water available. The compact design of the Emech E50W was also fitting as it drastically reduced the footprint of their previous steam-water mixer. Armstrong's rep partner, Carotek, Inc., designed a stainless steel enclosure to completely protect the electronics and actuator portion of the Emech valves assembly from high-pressure, chemical washdown of the plant floor.

**BENEFITS:** The Emech E50WT (tri-clamp connections) mixing valves at Campbell's facility were designed to produce 60gpm (227 lpm) of hot water with varying set points between 120°F (48°C) and 140°F (60°C). The valves' set points are changed via the plant control system based on the recipe requirements, and have provided better than +/- 1% accuracy. The feedback capability of the Emech valve also provides real-time water temperature directly to a process monitor on the plant floor. This system has eliminated Campbell's issues with space, reliability and process accuracy. They are currently looking to expand the use of these valves to other applications in the plant, including providing the hot water for plant wash-down.

