



CASE STUDY

INDUSTRY: FOOD & BEVERAGE

CUSTOMER: Guttenplan's Frozen Dough, Inc.

LOCATION: Middletown, New Jersey, USA

BACKGROUND: Guttenplan's Frozen Dough, Inc. utilizes hot water to routinely clean dough build-up from their mixers as well as during complete plant washdowns on the weekends, which typically take five to seven hours. The customer's hot water system was composed of several hundred feet of uninsulated 1 ½ inch copper pipe that supplied hot water to six hose stations. The supplied water was not recirculated thus cooled rapidly in a building that is kept at 50°F. It often took 10 minutes to get hot water to the hose stations wasting valuable water. During weekend cleanings, the customer would also run out of hot water within an hour.

SCOPE OF WORK: Armstrong International specified, supplied and commissioned an Armstrong Flo-Direct® Complete Thermal Exchange Gas-Fired Water Heater to replace the customer's existing hot water heaters for use in Guttenplan's Frozen Dough, Inc.'s CIP system. The customer's existing hot water system consisted of two 1.1 MMBTU water heaters and two 180 gallon, glass-lined storage tanks, which produced 120°F hot water.

The 3MM BTU Flo-Direct® Complete Thermal Exchange Gas-Fired Water Heater and VFD-100 pump package provides 66GPM of 130°F hot water. An insulated return line was added to keep the loop in recirculation. Due to space constraints, the project also included a large storage tank directly under the heater with an immersion heater to maintain temperature during down times.

BENEFITS: With Flo-Direct® installed and operating at a minimum 99.7% efficiency, Guttenplan's Frozen Dough, Inc. has been able to save energy, optimize production and meet the weekend plant wash down requirements with sufficient hot water volume at the right temperature on demand – every time.



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