

FIELD REPORTS

Marzetti 'steam-lines' its hot water needs

T MARZETTI BRANDS, A MANUFACTURER OF CONDIMENTS, sauces, dips, and dressings, provides a wide assortment of cold-fill and hot-fill products in a variety of packages ranging from small single-serve condiment cups and packets to 55-gallon drums and every size in between. Its heat-intensive operations make big demands.

"We had outgrown our old fire-tube boiler, which produced 3,000 pounds of steam per hour," recalls Jerry Hoffer, maintenance manager at the Columbus, Ohio-based processing plant. "With everything in the plant running, we needed 5,000 to 6,000 pounds per hour. We started to stagger our operation to get by with the hot water we had. Once we installed the Clayton, however, we could produce 10,000 pounds of steam per hour – way more than enough for our plant needs."

The "Clayton" Hoffer refers to is the Clayton EG-304-1-DZ steam generator, a once-through, forced-flow, water-tube boiler that utilizes a steel, helical-coil heat exchanger. It supplies steam for building heat, processing and CIP systems.

With the facility's seven kitchens and 20 packaging lines, that is no small task. All of the plant's domestic hot water and water for building heat comes from steam generated by the Clayton EG-304-1-DZ. That steam provides the hot water to jacketed kettles for process heating and cooking; shell & tube heat exchangers that help deliver hot water for domestic usage, processing, and clean-in-place systems; and steam for the remaining plant heating and cleaning needs.

The EG-304-1-DZ feeds two CIP systems at the plant. The first works off Shell & Tube heat exchangers, the larger of the two systems. It cleans two continuously running kitchens and is capable of 60 gallon-per-minute operation. These feed a tank farm consisting of ten 2,500-gallon tanks as well as the production lines. The 95 psig steam that flows from the Clayton to the Pamberly injectors provides hot water for the other CIP sanitation system through direct injection.

Instead of staggering operations, the Marzetti plant can run lines without waiting or interruption. "Cleaning

Once compelled to ration hot water, dressings and sauce maker has all the steam it needs.

efficiencies got better because we had hot water all the time," Hoffer says. The Clayton steam generator is fuel-efficient and can reach full steam output within 20 minutes after start-up.

"We've also enjoyed labor savings," says Hoffer. "People don't have to wait for an operation to end to run their equipment." In addition the Clayton system has required little maintenance. Preventive maintenance takes place every two months for a period ranging from two to three hours. "The unit is off line only 45 minutes of that period," says Hoffer. The feed pump is rebuilt once a year, but forces only two hours of downtime. ♦

For more information:

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Clayton's Mike Sabol and Marzetti's Maintenance Manager Jerry Hoffer fine tune operation of the Clayton EG-304-1-DZ steam generator, a once-through, forced-flow, water-tube boiler that utilizes a steel, helical-coil heat exchanger. Source: Clayton Industries.