

DRY PROCESSING TECHNOLOGY

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FOCUS ON
Air Quality Control
and Dust Collection

Full steam ahead

Pistachio producer solves its steam quality and blowdown problems with a new generator boiler system



One of two Clayton steam generators installed at Setton Pistachio, producing up to 125 bhp of steam as needed with a smaller footprint than the older boiler and much higher efficiency.

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Clayton steam generators, which can run at much higher TDS levels than conventional boilers and only need to be blown down about a 10th of the amount that Setton Farms was experiencing. It was time for an upgrade.

Clayton generators are offered in outputs from 15-2,000 boiler horsepower (bhp). On the Setton Farms project, two Clayton Model SFG125M-1-FMB, 125 bhp low-NOx steam generators with a common 250 bhp vertical feedwater system were selected to replace the two old 50 bhp boilers. The change provided additional steam capacity with 100 percent backup for Setton's 24/7 operation. With a higher steam quality, Clayton could provide the steam that Cohen needed.

Clayton generators are designed to have low blowdown rates, quick startup time and rapid response to changes in steam demand. Factory-installed economizers offer fuel efficiency. Their compact size allowed Setton Farms to install the two 125 bhp steam generators in the same space as two previous 50 bhp boilers. Also, the steam generators don't need to be kept in hot standby for a quick startup, saving time and money.

"After installing Clayton, there was a clear increase in quality and productivity," Cohen says. Setton Farms now plans a new building just for pasteurization and wants to include two more Clayton generators. "We couldn't be happier with Clayton," says Cohen. "They really helped us grow, and we're excited to include them in further expansion." ❁

IN THE LATE 1970S, Americans were going nuts for pistachios.

After the American pistachio proved it could succeed in California, its popularity grew exponentially, and everyone wanted to get into the production business. This opportunity did not go unnoticed by the Setton brothers—Joshua and Morris—who had been selling fresh nuts, seeds and trail mixes in New York since 1959. Seeing the possibilities, they decided to invest in pistachios to help their company grow.

That investment paid off, resulting in Setton Pistachio of Terra Bella Inc., located in California's Central Valley. It is one of the largest pistachio growers and producers in America. By owning the growing, manufacturing and distribution arms of this organization, Setton has maintained consistent quality for more than 50 years.

Ramping up production to meet demand brought with it a manufac-

ture challenge. Although pistachios are produced in a mostly dry process, they are pasteurized with high-quality steam. The more pistachios processed, the more steam is required. Efficiency is key to staying competitive in a fast-growing market, but quality can't be sacrificed in the name of proficiency without losing customers.

Setton Farms wanted to expand one of its processing plants while maintaining its efficiency/quality balance. If the facility kept using the same steam system, operators feared that they wouldn't make enough steam to keep up with production. Inability to produce steam wasn't the only problem. The old boilers were maintenance intensive and frequently required bottom blowdown for a large amount of total dissolved solids (TDS).

TIME FOR A CHANGE

Lee Cohen, general manager of Setton Pistachio, remembered an article about

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