

Hot sauce maker says no sweat to mixing challenge

THE CHALLENGE OF preparing an authentic African hot sauce for the US market

was an easy assignment for Green Garden Foods of Kent, Washington. This custom dressing and sauce manufacturer is known for its ability to source exotic ingredients and replicate complex recipes.

White sweet potatoes with an authentic African texture? No problem. Hot chili peppers that taste more like Cape Town than Mexico City? No sweat.

When Green Garden needed to match the texture of the original sauce on a high-speed, high-volume process line, a Ross high-shear rotor/stator mixer provided the intense shear necessary to puree the solid ingredients quickly. It also provided the flexibility necessary to fine-tune the process until it was producing the required results.

“Our client was adamant,” says Kyle Anderson, technical director at Green Garden Foods. “The flavor, texture and appearance all had to match the product that our client makes in South Africa.”

“Ethnic sourcing is routine for us,” Anderson said. “But to find the best way to puree the sauce, we did a lot of homework. We defined our requirements for performance, maintenance and cost-efficiency. We talked with several plant engineers who use high shear-rotor/stator equipment made by a variety of manufacturers.”

Rotor/stator mixers operate with a high-speed rotor that turns inside a stationary stator. The rotor draws solid and liquid batch material into the high-shear zone and expels it radially at high speed through openings in the stator. Intense mechanical shear occurs at the point where the rotor blade crosses each opening in the stator. That’s where solids are broken apart – virtually instantly.

Rotor/stator technology has advanced dramatically during the last 10 years, but for many the familiar single-stage rotor/stator generator still offers the best combination of performance and value. The Ross mixer operating at Green Garden Foods is a single-stage, 30 hp batch unit with a 7-inch diameter rotor and an electronic variable speed control that enables the operator to adjust shear rates and throughput. Batches run from 40 gallons to much larger volumes, and the

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mix cycle, according to Anderson, is “only a minute or two longer than it takes to add all the ingredients.”

Green Garden Foods originally obtained its high-shear mixer to produce the African Hot Sauce, but it has turned out to be even more productive as a tool to land new business.

“The flexibility of the mixer has been terrific,” says Anderson. “We’ve expanded our capabilities and taken on a whole spectrum of new products made with this mixer - salsas, Mexican hot sauces, Asian sauces, sandwich spreads and dressings.”

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