

Nutritional Outlook

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Organic Ingredients

Product certification opens up new opportunities, p. 27

Fats, Fibers, and Foliage:

Manufacturers try healthy replacements for hydrogenated oils, p. 36

Alternative Sweeteners:

Natural sugar substitutes are in demand, p. 40

ALSO INSIDE:

Stress Management, p. 68

Practitioner's Guide to Dietary Supplements, p. 48

Durable Rotary Blender is S&D's Cup of Tea

Speed, gentle material handling, and serviceability make the 700-TS-110-MS the mixer of choice for one major beverage manufacturer.

S&D Coffee (Concord, NC) is one of the nation's largest coffee and tea manufacturers, producing in excess of 100 million pounds of coffee and 10 million pounds of iced tea per year for restaurant chains like McDonald's, Applebees, and the Olive Garden.

Unlike hot teas, which tend to require just a small number of ingredients, iced tea beverages can contain up to 10 different ingredients, making reliable blending essential. What complicates matters is the fact that, in addition to requiring reliable blending, iced teas also require gentle blending to keep the fragile materials intact. According to Carl Teten, engineering manager at S&D Coffee, cloudiness is a turn-off for restaurant consumers.

About 10 years ago, S&D found a blender that met those requirements: the 700-TS-110-MS, manufactured by Munson Machinery Co. (Utica, NY). According to Steve Knauth, sales manager at Munson, the mixer is capable of handling up to 110 cu ft of product and has a 15-hp motor that requires less energy than many other comparable blenders. The motor uses a small helical gear reduction transmission and chain-and-sprocket drive to power the mixer.



A finished tea blend exits the mixer.

Photos courtesy of Munson Machinery Co.



S&D Coffee produces iced tea for several national chains, including McDonald's, Applebees, and the Olive Garden.

S&D uses the mixer to quickly blend 2000- to 2200-lb batches in 2- or 3-minute intervals. In addition, the machine has a discharge speed of about 50 to 60 cu-ft per minute, enabling

operators to completely discharge the vessel in roughly 2 minutes.

The mixer is equipped with a stationary inlet on one side and a discharge on the other. In between, the drum rotates across the horizontal axis, while internal mixing flights lightly fold the materials and guide them toward the discharge gate.

"It has a very gentle folding and turning action, without any fear of degradation," Knauth says. "If you were an iced tea manufacturer, you'd want something like this mixer because you don't want a lot of dust to show up in your end product."

Knauth adds that the mixer's spray bar also makes it a good platform for adding liquid flavorings if a company uses those ingredients. "You are only spraying on a moving bed of material," he explains. "As

the material is cascading by, it is being sprayed very evenly. Lot A is going to look just like Lot B."

S&D works on one blend over a four-day period, cleans the machine, and then switches to another blend. The machine's single seal located near the inlet helps to contain dust and is mounted externally for easy access. "These blenders are easy to clean between batches," Knauth says. "We have heard from many coffee and tea manufacturers that frequently change flavors and clean between every batch. The access is very good on the inside, and you don't have to work around any nooks and crannies."

Aside from its speed and gentle handling, the blender also has an additional virtue: durability. S&D acquired the 700-TS-110-MS about 10 years ago and Teten expects it to last another 10 years. "Because there is no agitator to wear, these mixers have a tendency to last a long time," Knauth explains. "Since the mixer is just gently lifting and folding material, it really isn't scouring against any wear surfaces on the inside of the machine." Every part of the machine is replaceable, he notes, adding, "this machine could last another 30 years." ♦