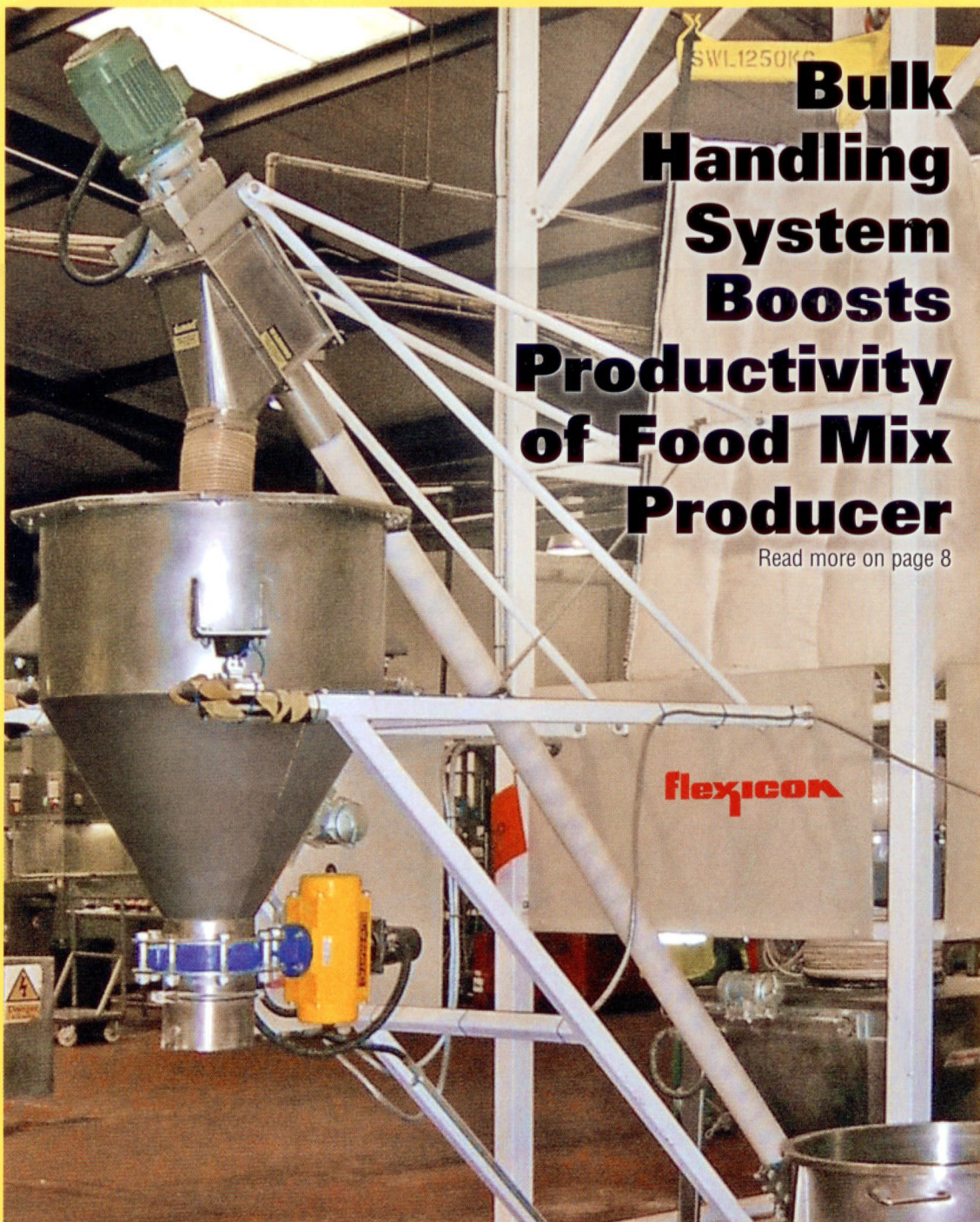


# POWDER BULK SOLIDS

The Source for Dry Processing and Bulk Handling Technology



## Bulk Handling System Boosts Productivity of Food Mix Producer

Read more on page 8

### Specifying Weighing Systems

Specifying a weighing system is complex and involves consideration of several factors, including the required range, level of tolerable uncertainty in the results, etc.

Read more on page 6



### Bagging/Packaging Spotlight

Taylor Products' V2200 heavy-duty vertical form-fill-seal machine can handle any product requiring laminate film structures and polyethylene films.

Read more on page 18



### Weighing Focus

This minor/micro ingredient system from Prater-Sterling maintains accuracy regardless of supply bin capacity or the number of automated ingredients.

Read more on page 35



### Weight Display

The compact and powerful RD-1550 combines more features and more benefits for a smarter approach to communicating weight values. This IP69K-rated device with large 1½-in. display is viewable at up to 50 ft, indoors or out. Its five-button keypad makes this remote display an economical approach to putting basic indicator function in a secondary location. The water-tight unit is daisy chainable and usable with a wide selection of peripheral equipment.

Rice Lake Weighing Systems, Rice Lake, WI 715-434-5168 [www.ricelake.com/laserlt](http://www.ricelake.com/laserlt)



### Rotary Scalpel

The BatchHouse Rotary Scalpel offers a new level of precision in dispensing small increments of material into a batch or package. With the precision of a surgeon's scalpel, it can deliver +/- 0.5 g, independent of batch size. The

Rotary Scalpel technology can be utilized to handle a variety of materials, even fines such as flour. The patent-pending technology utilizes two innovative key components: a large inlet specially designed to insure consistent material flow into a rotary feed drum; and a pneumatic "scalpel." Upon receipt of a set-point weight, the pneumatic scalpel will smoothly "knife off" from a filled vane of the rotary feed drum the precise amount of material needed to complete a batch or fill a container. Unneeded material remaining in the same vane is recycled back to the material source, eliminating all waste.

3i's Technologies, Vineland, NJ 609-910-1342 [www.3istech.com](http://www.3istech.com)

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# Spice Maker Adds Paddle Mixer to Quadruple Production

Seafood, particularly Chesapeake Bay's famous crabs, is popular in this part of the world, and for many seafood lovers an essential part of a meal is the spice that enhances the flavor of the food. J.O. Spice Company, Inc., a family-owned company, has been catering successfully to such diners' tastes for spices since 1945.

In recent years, the company has built on its achievement in the seafood business by expanding its product line to include seasonings for meats, poultry, and vegetables. The move has been so successful that in mid-2006 the company installed new mixing and packaging equipment and reorganized its production operations, which has increased its production capacity fourfold. "Our business has been growing by about 25% a year for the past five years and we were having trouble keeping up with the demand," says Don Ports, president, and grandson of J.O.'s founders (J.O. and Dorothy Strigle).

J.O. has about 50 standard products and "a few hundred" specialty products, which are distributed throughout the eastern and southern states. Previously, these products were mixed in three paddle mixers that had a combined capacity of about 2000 lb. Today, most of the products are mixed by a new, 150-cu-ft-capacity paddle mixer made by Munson Machinery Co. (Utica, NY). Powered by a 50-hp motor, the mixer can process batches of 7000 to 12,000 lb, depending on the density of the product.

Ports chose the mixer because J.O. has always used paddle mixers and they have proved their reliability for mixing the company's products, which generally have a "fairly high" bulk density. "We have considered ribbon mixers," he says, "but they are difficult to clean."

A typical batch consists of 10 to 12 ingredients, including liquid additions. The ingredients, mostly spices and salt, are received in 50-lb bags or boxes, which are moved by forklift onto a mezzanine and manually loaded into the mixer below. When a batch is completed it is discharged into 1500-lb bulk bags, from which the product is packaged in 50- or 75-lb boxes, or 125-lb drums.

Formerly, packaging was a manual operation in which each bag was lifted by a hoist and emptied into the packages. In the new system, each bag is moved by forklift to a bulk-bag



This 150-cu-ft paddle blender mixes most of the spices produced by J.O. Spice Co.



A sampling of J.O. Spice seafood and meat seasoning products.

discharger, from which it is emptied into a hopper that serves two packaging lines via vibratory feed troughs. Each trough feeds product directly into a package that is set on a scale, and the flow is automatically controlled by a gain-in-weight system.

The higher capacity of the new mixing and packaging system has enabled the company to take on new business. "We had been doing some contract packaging of other products, such as cake mixes, and we have been able to expand that," says Ports.

J.O.'s retail products are blended by two of the old paddle mixers. These products are sold in 1- and 2-lb bottles, which are filled by an auger. "We took out the smallest, 5-cu-ft-capacity paddle mixer because we needed the space," says Ports.

*Munson Machinery Company, Inc. (Utica, NY) is a world-wide manufacturer of mixers, blenders, and size reduction equipment for bulk solid materials. For more information, visit [www.munsonmachinery.com](http://www.munsonmachinery.com)*



Most of the spice ingredients are received in 50-lb bags or boxes, but some, such as salt, come in bulk bags that are emptied into the paddle mixer by means of a hoist.