



# Product Digest

this month's topic **Solids Handling**

## Vertical Blenders Provide Low-Shear Mixing and Vacuum Drying



These blenders are appropriate for blending powders, pellets, granules, fibers, and other solids. An auger that turns on its own axis and a mechanical arm that rotates the auger in the conical vessel create a gentle mixing action that makes the blenders suitable for delicate and abrasive products. Spray nozzles may be installed for liquid addition and coating processes. The vertical blenders may also be used in vacuum drying operations. They can accommodate a wide range of feeds, such as slurries, wet cakes, pastes, and flowable solids.

The absence of a bottom support bearing facilitates complete discharge, simplifies cleaning, and reduces the risk of batch-to-batch contamination. Standard sizes with capacities from 1 ft<sup>3</sup> to 500 ft<sup>3</sup> are available.

**Charles Ross and Son Co.**

[www.mixers.com](http://www.mixers.com)

## Bag Dumping System Limits Operator Exposure to Dust



This bag dumper isolates bulk material from the operator and plant environment throughout the opening, dumping, and compaction of bags. Bags are staged on

a stainless steel tabletop and transferred through a plastic strip curtain into a dumping enclosure, which is comprised of a glove box, empty-bag chute, and dust collector above a receiving hopper. The dust collector maintains negative pressure within the enclosure to contain the dust generated during bag opening and dumping. Dust is drawn into the system's two filter cartridges, and an automatic reverse-pulse filter-cleaning system releases short blasts of compressed air inside the filters to limit dust build up. The compactor employs a large pneumatic air cylinder to compress bags into a removable bin that accommodates 50 to 80 bags. The hopper discharges into an enclosed flexible-screw conveyor for dust-free transfer of a wide variety of products, from large pellets to sub-micron powders.

**Flexicon**

[www.flexicon.com](http://www.flexicon.com)

## Product Recovery System Reduces Material Loss



The ProductSaver provides automated removal of any type of container's dry contents. It integrates package inlet feed, package opening, and contents and package separation processes into a single product recovery sequence. Packages are opened within the cutting head enclosure, where high-speed blades are

configured to ensure maximum material release. Inline aspiration removes residual contents from the packaging, and the recovered contents are deposited in bulk containers for convenient handling. The original packaging material is collected and prepared for recycling or disposal. The Product-Saver is designed and built to the user's specifications and can meet current good manufacturing practices (cGMP) according to 21 CFR 110.40 standards.

**National Bulk Equipment, Inc.**

[www.nbe-inc.com](http://www.nbe-inc.com)

## Grinder System Configuration Can Be Customized



The Max-Flow Annihilator grinder system contains two or more Annihilator grinders mounted in a stainless steel frame. The grinders can be installed in an inline or a staggered or offset design to accommodate a variety of channel widths. The system protects downstream pumps, valves,

and process equipment in water treatment plants and their lift stations. The frame is engineered to order and prefabricated, and includes guide rails to permit each grinder to be removed separately for easy maintenance. Steel panels can be inserted in place of one grinder to divert the flow to the remaining grinders during maintenance, which eliminates the need for costly bypass channels. Automated or manual control panels constructed of stainless steel or fiberglass-reinforced plastic (FRP) can be installed to operate each grinder independently.

**Moyno, Inc.**

[www.moyno.com](http://www.moyno.com)

### Dust Collector Hoppers Fit in Tight Spaces

Two low-profile dust collector hoppers are designed to fit the company's Gold Series cartridge dust collectors and are suitable for applications with vertical space constraints. The Low Pro hopper collects dust and fumes from cutting, blasting, welding, and thermal spray operations. It comes with either a 55-gal-drum or a half-size drum, and is available with a Quick Seal drum lid mechanism that readily latches open and shut to expedite emptying and change-out of the drum. The Low Boy hopper is designed for use with heavier dust-loading applications, such as cement and limestone processing, and woodworking. It consists of a clamp-on angled hopper and a low-profile bin. Depending on the model chosen, the low-profile hoppers can reduce overall collector height by as much as 36 in.

**Camfil APC**

[www.camfilapc.com](http://www.camfilapc.com)

### Feeder Comes with Interchangeable Feeding Modules

The MT16 micro-ingredient feeder has been redesigned to include interchangeable twin-screw or single-screw feeding modules. The interchangeable feeders provide versatility and allow the device to handle a broad range of granular materials and powders. It has a feed capacity of 0.02 dm<sup>3</sup>/h to 27 dm<sup>3</sup>/h. The unit is easy to take apart, clean, and maintain, and has an enclosed weight sensor and drive motor. The MT16 feeder is suitable for applications with high-value additives in the food, pharmaceutical, plastics, and chemicals industries.



**K-Tron**

[www.ktron.com](http://www.ktron.com)

### Attrition Mill Reduces Particle Size to 100 Mesh

The Model SK-24-MS attrition mill grinds friable chemicals and minerals to sizes of 10 mesh to as small as 100 mesh. The 24-in.-dia. mill is equipped with an outer stationary milling disc, and an inner rotating milling disc that adjusts to vary the gap between the discs; smaller particles are obtained by reducing the gap. Material enters the gap through the center of the outer disc and is ground between the discs. Precise machining and aligning of the discs maximize size uniformity of the milled material. Static and dynamic balancing of the rotating runner head assembly provides vibration-free operation. Models are available with rotor diameters from 12 in. to 36 in. Rotors are available in carbon steel, or Type 304 or 316 stainless steel.

**Munson Machinery Co.**

[www.munsonmachinery.com](http://www.munsonmachinery.com)

### Storage Container Handles High-Density Products

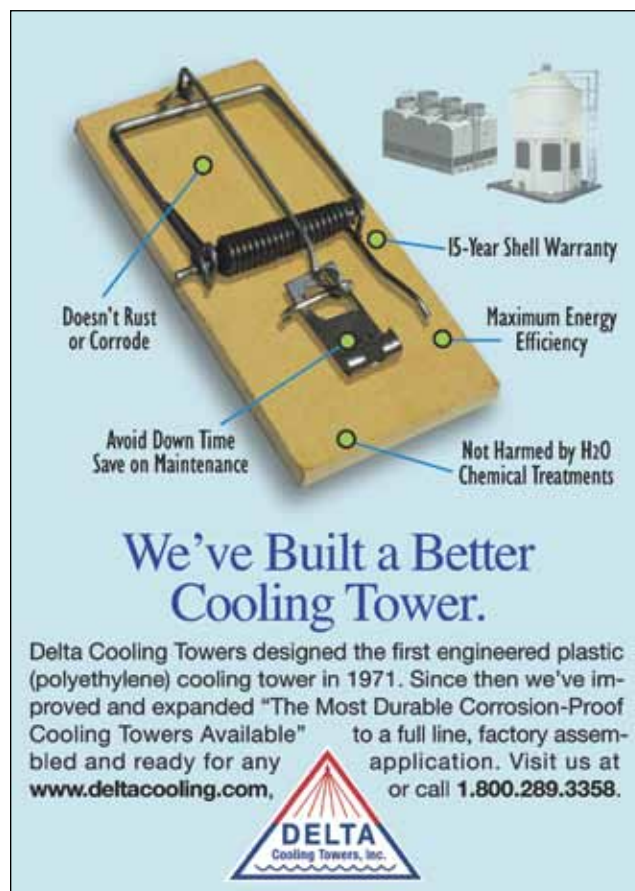


The P-340 Ship Shape reusable bulk container features a stout, low-profile design that can accommodate payloads up to 1,000 lb. It is

30 in. tall, and can be covered and stacked up to three high. The P-340 container is suitable for efficient storage and transportation of dry, granular, free-flowing products with high bulk densities and/or high compaction rates. It has a low center of gravity for safe lift-truck and forklift operation. It is rotationally molded from 100% polyethylene and has a smooth, nonstick interior. Dual side projections allow container dumpers to establish a firm grip and rotate the container 180 deg. for complete product discharge. Available accessories include fork safety tubes, casters, lockable covers, and custom colors.

**Meese Orbitron Dunne Co.**

[www.shipshapecontainers.com](http://www.shipshapecontainers.com)



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