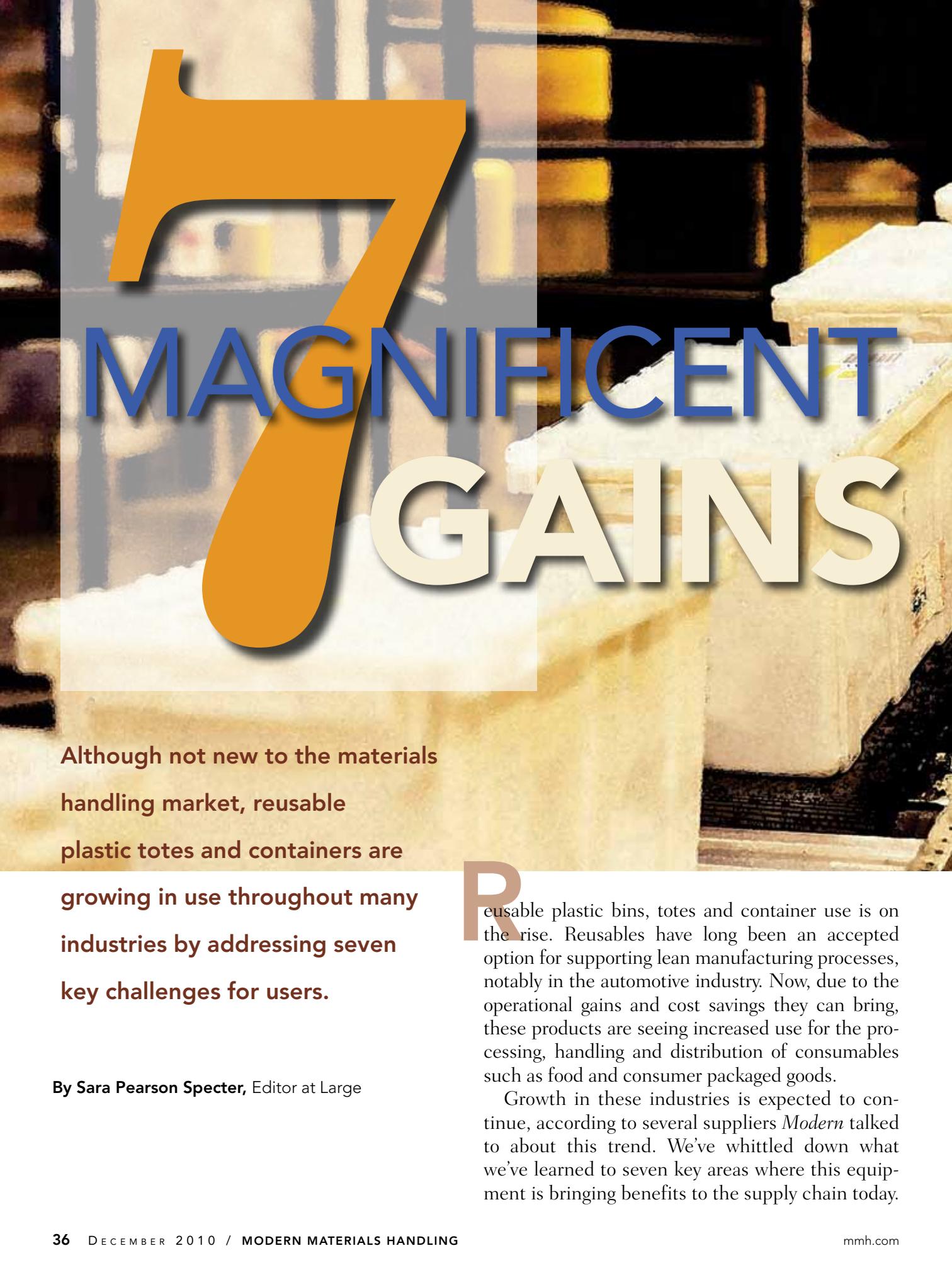


MAGNIFICENT GAINS

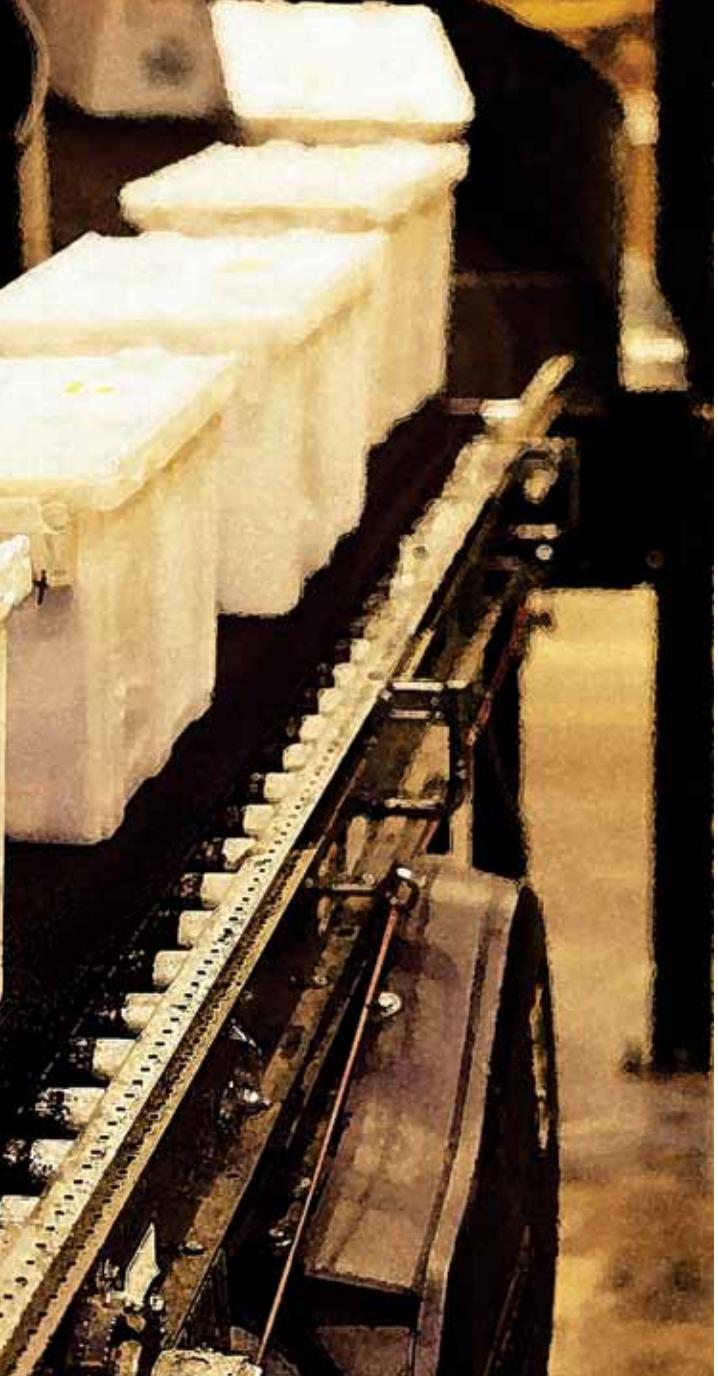


Although not new to the materials handling market, reusable plastic totes and containers are growing in use throughout many industries by addressing seven key challenges for users.

By Sara Pearson Specter, Editor at Large

RReusable plastic bins, totes and container use is on the rise. Reusables have long been an accepted option for supporting lean manufacturing processes, notably in the automotive industry. Now, due to the operational gains and cost savings they can bring, these products are seeing increased use for the processing, handling and distribution of consumables such as food and consumer packaged goods.

Growth in these industries is expected to continue, according to several suppliers *Modern* talked to about this trend. We've whittled down what we've learned to seven key areas where this equipment is bringing benefits to the supply chain today.



1

1. Sustainability

Long before it was trendy, reusable plastic tote and container vendors touted the environmentally friendly benefits of their products. When used as a replacement for one-way, disposable packaging, durable plastic containers (and associated dunnage to secure sensitive contents) eliminate waste as well as the costs of continually repurchasing expendable items.

"Green initiatives are starting to make financial sense as companies establish sustainability goals," says Ken Beckerman, president of Flexcon Container (www.flexcontainer.com). "Because of competitive pressures in the plastic container market, returnables have held steady on pricing while single-use packaging prices have risen."

In addition, potential purchasers have had an increased interest in the amount of recycled content used in the bins, he adds. "If a buyer has a choice, they pick the box that has recycled content because it's the green thing to do."

It's important to understand the difference between post-industrial plastic and post-consumer plastic content, cautions Bob Dunne, president of MOD (Meese Orbitron Dunne, www.shipshapecontainers.com). Because it's specifically engineered for heavy-duty use—including containers and component parts—post-industrial content has known and reliable strength and durability properties that withstand the rough handling associated with warehousing and distribution.

"Post-consumer content, from recycled plastic milk jugs and water bottles, comes with a lot of unknowns from the sorting process, and right now manufacturers can't really be sure of the strength and composition of the post-consumer content that's available," he says.

Additionally, to ensure a returnable container system yields the anticipated sustainability (and financial) benefits, it's critical to place an emphasis on preventing asset loss, says Bill Mashy, general manager of Rehrig Pacific's materials handling group (www.rehrigpacific.com).

"Although I think a lot of people point to theft as the problem, that is truly a symptom of a lack of understanding throughout the loop of the benefits of the system," he says. "We work to educate our customers, their customers and everybody in their supply chain about the basic premise of returnable packaging. We also evaluate the gaps and help put the controls in place to ensure the returns—because a returnable system only makes sense if you can get the containers back."

2. Automated systems

With labor costs always a key aspect of any warehouse's bottom line, more facilities are implementing automated systems such as mini-load automated storage and retrieval systems (AS/RS).

Warehouse managers would be wise to design their system with the tote foremost in mind, says Norm Kukuk, vice president of marketing for Orbis (www.orbiscorporation.com). That's because a successful automation operation is highly dependent on the consistent, tight tolerances of the totes that hold the products stored within it.

"If a system is not built to accommodate the dimensions or weight capacities of totes that are readily available in the market, that can definitely cause a lot of heartburn for someone who has to have a special container developed and tooled after the system is in place," he explains.

Mainly used for distribution from

retailers' warehouses or consumer packaged goods (CPG) supplier facilities for direct-to-store delivery, most systems use totes that correspond to 600 x 400 millimeters (23.6 x 15.8 inches) because they are frequently engineered by suppliers in Europe, where automated systems are more commonplace.

"Other common tote sizes used for automated storage and distribution of general merchandise, grocery and convenience store inventory, and automotive supplies are 21 x 15 inches and 24 x 20 inches," adds Joe Borer, market manager for Buckhorn (www.buckhorninc.com).

3. Food handling

With hygiene and safety regulations making wood and cardboard containers less desirable for use in food handling and processing, interest in reusable plastic handheld and bulk containers has increased.

While beverage, dairy, meat and bakery items have long been distributed to stores in returnable plastic bins, more growers are capitalizing on the "eat local" trend, with fresh produce put on floor displays in a container delivered straight from the field.

"Not only is plastic easy to clean and sustainable, it also does not harbor pest infestations or bacteria," says David Gargett, national sales manager for Decade Products (www.decadeproducts.com).

"We see large bulk containers going into the tomato paste industry, for example," adds Buckhorn's Borer. "Typically, tomato paste is processed and stored in wood containers with a liner, but because of cleanliness issues, that industry and others involved with large bulk storage of food ingredients are moving toward plastic."



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4. Ergonomics

To meet both corporate and OSHA mandates to reduce the amount of weight lifted by workers, suppliers are re-engineering handheld totes to right-size their capacities and reduce the amount of plastic used.

"As components become lighter, the amount of weight that people are allowed to pick up has been reduced—so there's less need for big, heavyweight totes," says Kukuk at Orbis. "OSHA's limit is 40 pounds per container, while some companies don't allow their employees to pick up more than 28 pounds. So, there have been some design changes to tote weight and performance, up or down, to better meet the application."

Additionally, some companies are moving away from returnable bulk containers to handheld containers, not only for enhanced ergonomics, but also for better inventory flow control, adds Buckhorn's Borer. "Better inventory control comes from the products being in smaller lot sizes," he explains.

5. Trailer cubing

Large, durable bulk containers—both collapsible and with rigid, non-collapsing sides—have been gaining in use for maximizing the cube of a trailer. Shippers are finding them useful as a replacement for stretch-wrapped, palletized shipments of non-modular, uneven loads that can't be easily stacked.

"Instead, you can put these items in a container that can be stacked two-high and take advantage of cubing out a trailer to reduce freight costs, says Orbis' Kukuk.

Collapsible containers sized 45 x 48 x 34 inches currently represent 60% of sales at Flexcon, says Beckerman.

"It used to be 10% of our bulk box business, but users have found that it packs out a truck best, collapses for return, and can also be stacked four-high in a warehouse to eliminate pallet rack," he says. "We're also seeing customers use them with lids almost as a shipping case with protective dunnage to ship returnable equipment to users around the world because it protects

the contents so well."

Rotationally molded, nestable plastic bulk containers with a 44 x 44 inch footprint at the base and a 49.5 x 49.5 inch top dimension are also being used for the same purposes, says MOD's Dunne. "We offer three heights in those dimensions so users can select the stacked combination that best maximizes their trailer space—cubing out continues to be a critical driver with the cost of diesel fuel still being so high."



6. Pooling

For companies wishing to take advantage of the environmental, economic and ergonomic benefits of reusable plastic containers but cannot justify the cost of ownership, suppliers and third parties both offer leasing as an option.

"For example, in agricultural use, growers just need the bins for their harvest season, which is often just one or two months," says Decade Products' Gargett. "They rent the containers, pick fruit or vegetables, put them in the bins, process them and give them back to the pooling company when they're done. It makes more sense than laying out the capital to purchase the containers for the limited time that they use them."

In addition to leasing totes and containers, some vendors also supply value-added services to aid in the management of the units. "For meat processors, we custom-designed a container for use in the grind and trim portion of their pro-

Sometimes a standard size, off-the-shelf bulk container won't work for a given application without "aftermarket" customization, including the addition of casters, height increases or reductions from plastic welding or cutting, and the creation of openings in the sidewalls.

duction. We lease it to them, but we also pick it up, clean it, sanitize it, and return it to them for their continued use," says Rehrig Pacific's Mashy.

7. Customization

Sometimes a standard size, off-the-shelf container won't work for a given application, due to the size, weight, or special handling requirements of the products it is intended to handle, space it's being used in, or equipment with which it will interface.

While designing a custom container is an option, it's often far too expensive to create the tooling for a limited

quantity of 50 or 100 units. Therefore, suppliers are offering "aftermarket" customization of their standard container products to meet these unique needs.

"We can take our standard container with a 40 x 48 inch footprint, and customize it to meet the user's specs," says Decade Products' Gargett. "We can cut down the height to 32.5 inches, cut out walls, add casters, decrease the footprint to 20 inches wide to fit in tight spaces, or use a durable plastic welding process to increase the bin's height or footprint."

Gargett has seen a 100% increase in this aspect of his company's business in the five years they've offered these services. "Customization as an option is being requested by multiple industries, including food processing, pharmaceuticals and machine shops," he notes. □