

# Flexible Refreshments

**Pouches and bags are here to stay in the beverage market.**

**T**hink about the last time you were at a party. More than likely, the drinks for the evening were being poured from bottles. Or what about the last time you went to the beach or went tailgating? Chances are, the cooler was stuffed with refreshing beverages in bottles and cans.

Glass, rigid plastic and metal have long been the beverage packaging options of choice, but as flexible packaging continues to invade the marketplace, more beverages are being pouched.

## Why pouches make sense

While it may seem unusual to alter packaging that has been in use for decades, there are distinct advantages to using flexible packaging for beverages.

In addition to convenience, flexible packaging provides decoration opportunities that are not available with other options. This is especially important in retail environments where colorful packaging adds shelf appeal and aids brand recognition. In addition, the lighter weight of pouched beverages cuts shipping costs, and pouches also reduce waste and breakage during transport and in stores.

At the American Packaging Corporation, beverage pouches are just a portion of the flexible packaging the company converts and prints using flexographic and rotogravure presses, and graphics are a key part

*Tom Triggs, liquid market manager at American Packaging Corp., with flexibly packaged products for some European customers.*



of the appeal. Tom Triggs, liquid market manager for American Packaging, explains that the ability to print up to 10 colors gives customers more freedom in designing their packaging. And, because pouches are often reverse printed, additional effects can be added to ensure an attractive product.

“We can reverse print the polyester, and on the surface side we can apply a varnish,” Triggs explains. “We can apply a matte varnish in register, so some of the graphics can have a matte finish and other areas, a glossy look. That way you can have a picture of a bowl of fruit that is very glossy, while areas around the bowl can have a matte, natural look to them.”

In addition to providing a new way to present a product graphically, flexible packaging for beverages also provides benefits in terms of convenience, especially portability.

Frank Colombo, the new product development manager at Rochester, NY-based Pactech Packaging, a manufacturer of premade pouches, says the flexibility of a pouch allows one pouch to replace many bottles in a cooler and be carried around more easily.



*Flexibly convenient. Pactech Packaging diecuts handles out of a standup pouch for easy handling, while a tap-style closure offers simple dispensing.*

Pactech makes pouches for wines and spirits that have a handle diecut directly out of the plastic, making for a convenient way to transport multiple servings.

“With a standup pouch you can put a handle directly into the pouch so it can be easily carried around,” Colombo explains. “[Consumers] like the convenience factor—the mobility of the product.”

Beyond the convenience, Marla Donahue, president of the Flexible Packaging Association, explains that flexible provides a more environmentally-friendly option as well.

“They are convenient, lightweight, non-breakable, easy to ship and store, and have a smaller environmental footprint, especially when you consider the reduced weight in transportation,” notes Donahue.

### **Pouch production**

Before that soft container makes it to your grocery or liquor store, there are several steps in turning those raw materials into a finished product. When it comes to printing, the two most common methods are flexography and rotogravure printing.

American Packaging Corp., employs both processes, running flexo

## **Beyond the Bottle Cap**

Caps, closures, seals, fitments and attachments are all essential parts of the flexible packaging equation. For example, wines in boxes and standup pouches commonly have spouts that release the product either by having the consumer push down on a tap or twist a knob above the spout.

Frank Colombo, new products development manager at Pactech Packaging, explains that when the pouch is manufactured, the fitment does not get inserted completely. Instead, he says it's placed halfway in because when the pouch is filled, the fitment is removed, the pouch is filled through that opening, and then it is reinstalled.

A pouch with a cap is also a great option for babies and toddlers. Tom Triggs, liquid market manager for American Packaging Corporation, says baby food is an increasing market segment when it comes to flexible packaging, with one of the main reasons being it allows for self feeding.

“A toddler, whether they're in the car or in the stroller at the store, can put a package in their mouth and squeeze out as much as they want,” Triggs explains.

He also says that many pouches for baby food have a spoon attached via threads. That can then be unscrewed and used for a variety of pouches.

“You can screw that on to any of those fitmented pouches in the marketplace,” he explains. “The diameter of the threads are standardized, so you can buy a Gerber, Beech Nut or Happy Baby – any of those baby food pouches and use the spoon attachment to feed the child.”

jobs at its Story City, IA location and rotogravure work at its Columbus, WI facility. Most pouches use polyester as their primary printing surface, which Triggs explains is reverse printed either on a flexo or rotogravure press.

Gravure printing is typically used for large-volume jobs and those where very high quality graphics are required. Flexo printing is better suited for smaller volume runs and for mid-range quality graphics.

Triggs says the printing process is also determined by what type of filling line is being used for placing the beverage into the package. Some determining factors include whether it is a horizontal machine, and how tight the registration has to be between the eye marks, which are printed spots that machines recognize as a reference point for package registration. For filling lines with narrow repeat tolerances, Triggs says rotogravure makes the most sense. However, some machines are designed with an expanded repeat tolerance to accommodate flexo printing.



One of American Packaging Corporation's press operator command centers, including a 100 percent defect detection system.

Polyester is used on the outside for printability. Then, a middle gas barrier layer is applied, followed by a contact layer of low density polyethylene.

"Polyethylene is typically referred to as a food-grade contact layer," notes Colombo. "It's recognized by the FDA as a direct food contact layer. It will not impart flavors or leach additives that could contaminate the liquid inside the pouch."

To create the shape of the pouch, a hot bar sealing system is used to melt, form and seal the pouch. Colombo cautions that polyethylene melts at a lower temperature than polyester. Because of this, the sealant layer can melt and form a seal without affecting the polyester layer.

The final step of the process is installing the fitment. Colombo explains that with a wine pouch, this is a two-piece process. The first piece that gets installed is called a gland, which is the actual portion that is attached to the pouch. The second is the tap, which includes the spout from which the wine is evacuated and the button or valve the consumer uses to release the product.

When the pouch is manufactured, the fitment is put in only half way and then inserted the entire way during filling. (See sidebar "Beyond the Bottle Cap.")

"Once that's in, it's in," he says. "It can't be pushed out. Then, it's stable to ship and go over the mountains [while being trucked] without having a chance of it popping out due to air pressure changes."

### Soft growlers

While it's unlikely that the words to the age-old car ride song will be changed to "99 Pouches of Beer on the Wall," one Alaskan entrepreneur has thought outside the bottle, can and growler when it comes to packaging beer.

Kevin Tubbs of Wasilla, AK is president of Beer-



"With some liquid horizontal filling lines, the repeat tolerances are so tight that you only want to make the lamination and print it rotogravure," Triggs says. "Some of them have more forgiving requirements or a wider tolerance. The filling machine is designed that way so you can run flexographic printing."

Following the printing process, pouch construction or formation is a multi-step process in its own right. Colombo says most pouches are constructed in three layers.

Pouch. He says he developed the idea for the pouch when thinking about a better way for his local microbrewery to package its product. A common method for small brewing operations is the growler, a 64-ounce glass jug with a screw cap. In addition to being bulky and breakable, Tubbs explains the growler is not the ideal option for keeping out light and oxygen, the two biggest enemies of beer.

Working with PPI Technologies of Sarasota, FL, Tubbs says the BeerPouch was born. He says the pouch is thick enough to keep the carbon dioxide molecules contained and implements an “oxygen scavenging cap” to keep the unwanted molecules out.



*Stonyfield organic yogurt pouches with a fitment, manufactured by Clear Lam Packaging. Photo courtesy of the Flexible Packaging Association.*

With Big Easy Blends, the pouches incorporate a plastic nozzle that the consumer can drink from. Plus, the pouches are resealable so consumers do not have to use the entire product in one sitting.

“The fact that you can reseal it is definitely our ace-in-the-hole,” explains Katheryn Schindler, Big Easy Blends’ marketing director.

In addition to Big Easy Blends’ own line of Cordina Cocktails and Cordina Spirits, the company has licensed popular non-alcoholic frozen beverage brands Slush Puppie and Icee. Schindler says having a flexible way to package these well-known drinks has been a great option for letting kids enjoy them on the move and take the brands beyond the convenience store.

“Now they’re in Wal-Marts, Walgreens, Krogers and other stores nationwide,” Schindler says. “[The brands] are definitely excited about getting into all these stores. It’s definitely not just the convenience store anymore.”

## Here to stay

As flexible packaging for beverages becomes more commonplace, Triggs also sees growth in products such as yogurt, baby food and fruit purees. He says Capri Sun, the most widely known beverage in flexible packaging, has been in the market for so long that it has helped lead to a wider acceptance of flexible packaging beyond the beverage market.

“The Millennial generation that grew up with Capri Sun is very familiar with putting a straw in a bag of juice,” Triggs says. “That’s made it easier for other products to be accepted by that generation.”

FPA’s Donahue says that in much the same way that flexible packaging provided a fresh take on beverage packaging, other products making the switch will likely catch consumers’ eyes.

“Flexible packaging can provide dramatic results in segments where other packaging formats are the norm,” she says. “Flexible packages provide an opportunity to differentiate new products and grow their volume.”

Flexible packaging has made a dent in the world of rigid packaging and shows that flexible containers for beverages are not just a gimmick and that there is still plenty of opportunity available. So next time you’re at the beach or at a party, look around. You may find that the pouch is here to stay.



*Rotogravure presses at American Packaging Corp. deliver excellent quality for long runs of flexible packaging.*

“There are distinct advantages to eliminating light and oxygen from beer,” he says. “It’s about shelf life, fresh beer, and retaining CO<sub>2</sub>. Our customers go crazy for them because the product is so convenient.”

## Raising the bar on cocktails

Cocktails in pouches have been available for a few years, but a New Orleans company has developed a way to bring the flexible premixed cocktail to a new level.

Big Easy Blends was born when three friends hanging out on the beach were struck with the idea of creating a cocktail that would be easy to transport and drink on the go. While several companies have already created cocktails in flexible packaging, most of those need to be poured from the pouch into a cup.