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## Stick-packer earns its stripes

**A new vertical form/fill/seal machine producing stick-packs at Trans-Packers Services Corp. enables the contract blender and packager to add powdered drink mixes to its menu of military meal-program options.**

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For men and women serving in the military, proper hydration and nutrition are essential to "sustain and enhance the operational effectiveness of the warfighter in all environmental conditions," relates the Department of Defense Combat Feeding Directorate (CFD). The mission of the CFD, part of the U.S. Army Natick Soldier Center, Natick, MA, is to address the unique combat feeding requirements of each military service, including the Marines, Air Force and Navy, through the use of cutting-edge food-performance and delivery technologies.

A new LDPE vial extrusion/blow/fill/seal line equipped with five vertical pouching machines from Duma facilitates Nephron Pharmaceutical's launch of a first-of-a-kind, unit-of-use vial. See [www.packagingdigest.com/info/nephron](http://www.packagingdigest.com/info/nephron)

as for a broad spectrum of institutional and industrial customers.

On the battleground of budget versus performance, CFD relies heavily on companies in the commercial sector to provide cost-effective food and beverage solutions that are convenient to prepare, appealing to consume and hold up to the rigors of distribution. One such company is Brooklyn-based **Trans-Packers Services Corp.** (TPSC [[www.transpackers.com](http://www.transpackers.com)]), which specializes in contract blending and packaging services for the military, as well

as for a broad spectrum of institutional and industrial customers. In business since 1969, TPSC operates more than 60+ packaging machines to accommodate a wide range of food and nonfood packaging requirements. But, when the company began getting requests from the military for a powdered drink-mix base in a stick-pack format, it engaged in a reconnaissance mission of its own to find the most suitable packaging equipment for the application.

In February, TPSC installed a new Model DMV-4 vertical form/fill/seal machine—the first of this model sold in North America—from **Duma Packaging Machinery LLC** ([www.dumapackaging.com](http://www.dumapackaging.com)). Since April of this year, the company has produced in excess of 8 million stick-packs for military and commercial customers.



Second-generation family-owned TPSC operates a 100,000-sq-ft facility that boasts six blenders, four of which are large-capacity blenders, allowing it to blend

more than 8 million lb of powdered product per year, as well as a variety of packaging technologies, including canning, miniature bottle filling and bag filling with either horizontal or vertical f/f/s machines, among others. Says company Chief Operating Officer (COO) Lester Weiss, because TPSC is "constantly changing and evolving," eight of the company's 120 employees man TPSC's machine shop. "We have made a business of rebuilding equipment," Weiss relates.

**The multilane, stick-pack machine uses an auger filler with six tubes, each controlled by its own servo drive, to provide higher filling accuracy and greater product control.**

Among the products TPSC provides the military are miniature bottles of TABASCO(R) Brand pepper sauce(EMDASH)up to 25 million annually(EM DASH)which accompany the military's Meals-Ready-to-Eat (MREs), nonmelting, cinnamon candies in film bags and a powdered dairy drink in a shaped pouch (see upcoming issue of PD for more information on this product).

When TPSC began investigating equipment to produce the powdered beverage-base stick-packs, it turned to its existing vf/f/s equipment from Transwrap. "But," notes Weiss, "we realized we couldn't produce the required quantities using a Transwrap machine."

Turning to other options, TPSC contacted Duma and learned about its DMV-4, a multilane, vf/f/s machine designed to produce stick-packs, single-serve packs and sachet-style packaging. Recalls Andrew Egloff, Duma's east coast regional sales manager, "Trans-Packers needed a multilane stick-pack machine that was capable of producing a wide variety of products. Also important to them was having a well-built machine, as well as good customer service and support.

"The DMV-4 is well-built, stainless-steel and robust, with excellent features capable of producing many different products. Another important feature is our local, U.S. service and support."

Weiss concurs, saying, "With Duma we made the right decision. Their technical support is outstanding."

For military use, TPSC is producing stick-packs measuring 7/8-in. W x

4 3/4 in. L, filled with a granular beverage base in either Lemonade or Raspberry flavors. Other stick-pack applications being produced by the company range in length from 3 to 5 in., with a fixed, 7/8-in. width. Following CFD's published specifications for film and shelf life for military food applications, the stick-pack is constructed of a foil barrier layer, a metallocene sealant layer and an outer PET layer, to provide a shelf life of three years or more. The film is reverse-printed to eliminate rub-off of product information and is supplied by **Cadillac Products Packaging** ([www.cadprod.com](http://www.cadprod.com)), as well as several other suppliers.



**Operators hand-pick filled stick-packs of granular product as they exit the vf/f/s machine in groups of six.**

The multilane DMV-4 is designed to accommodate up to 14-lane operation. At TPSC, the machine uses an auger filler from Duma with six tubes, each controlled by its own servo drive, which provides higher filling accuracy and better product control, relates Duma. Notes Egloff, "The machine also offers the flexibility to control different lanes independently from one another."

During operation, the film is advanced from a rear-mounted roll through a slitting operation that produces six individual, synchronized lanes. The film is mechanically formed into cylindrical shapes through the use of forming collars. At the forming collars, a heat-seal bar contacts the film to create a seal on the back of the film, forming the cylindrical shape. A horizontal heat-seal bar creates a bottom seal. The film is pulled downward mechanically by horizontal heat-seal bars simultaneously, completing the top seal of the filled stick-pack and the bottom seal of the next stick-pack to be filled. Stick-packs are subsequently cut off and discharged.

Since installing the Duma DMV-4 vf/f/s stick-pack machine, Weiss says he is "very happy with the equipment." He adds, "It's easy to move and easy to set up."

One of the machine's outstanding features, he says, is its open design, which makes it easy for operators to access the machine's mechanical disconnects, resulting in convenient changeover and washdown. "We are definitely looking at opportunities to install more equipment," he concludes.

#### **More information is available:**

**Duma Packaging Machinery, LLC, div. of Bossar**, 941/360-8833. [www.dumapackaging.com](http://www.dumapackaging.com).

**Cadillac Products Packaging Co.**, 800/837-0055. [www.cadprod.com](http://www.cadprod.com).