Reprinted from the October 2017 issue of PACKAGING WORLD®

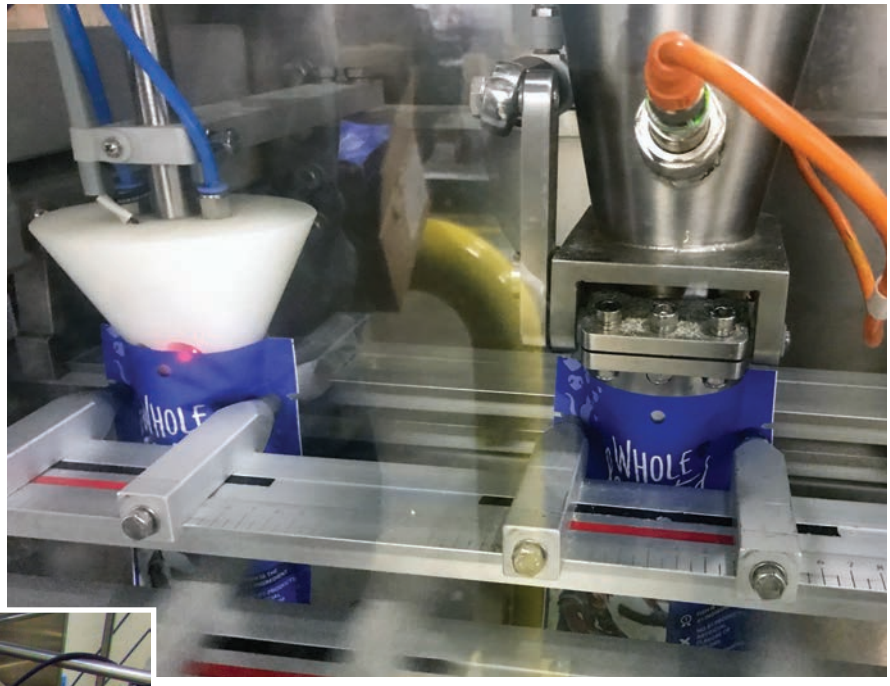
Addressing a manufacturing capacity shortage

Combination scales, vf/f/s machines, baggers that fill pre-made bags, and digital thermal ink-jet coders are all part of an expansion at Loving Pets Products.

PAT REYNOLDS VP EDITOR

When Loving Pets, a maker of snacks for pets, recently found itself just about at capacity with its existing packaging equipment, management wasted little time in sizing up, purchasing, and installing new equipment that would solve the problem.

The sizing up part, explains Operations Manager Brad McManus, was done internally. "Our VerTek vertical form/fill/seal machine and the 10-head combination scale we already had in place had been for some time our best performers in terms of getting them installed, getting them running, and keeping them running with very little intervention needed," says McManus. That being the case, purchasing another similar system was practically a no-brainer—except the new installation features a VerTek 800 rather than a 750, and the combination scale above it is a 14-head machine. Both VerTeks



14 head CombiScale multi-head weigher accurately weighs and dispenses pet treats (left). Swifty Bagger 3600 automatically opens, fills, and seals pre-made pouches with zipper closures (above).

and both combination scales are from **WeighPack Systems, Inc.** (www.weighpack.com).

The Cranberry, NJ-based pet snack maker didn't stop there in its capacity upgrade. Also installed at about the same time as the VerTek 800 and its combination scale was a WeighPack Swifty 3600 paired with a 14-head combination scale just like the one above the VerTek 800. Unlike the VerTek, the Swifty fills pre-made bags.

Looking first at the new VerTek 800, its rated speed is 40 bags/min, though Loving Pets runs it at a steady 30 bags/min. The products being packaged are typically puffed potato and chicken chips. Each bag contains 56 g, and finished package size is 2.6 x 9 in.

"Speed is a critical concern when you are selling a puff treat like we are," says McManus. "The idea is to sell a high-protein treat at a

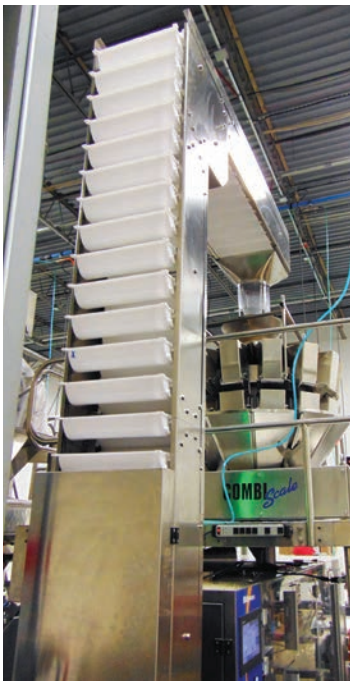
VerTek 800 vertical form & seal machine can produce pouches up to 8 inches wide and up to 60 packages per minute. Inset photo shows the cartridge-style digital thermal inkjet coding system that's integrated into the VerTek.

lower cost, so being able to make and package them quickly and efficiently is obviously important. We're averaging a solid 30 bags/min, including stoppages and breaks and all that stuff. That throughput reliability was a big factor in our decision to go with WeighPack for our expansion.

"Certain puffed products can be quite challenging when it comes to vertical form fill seal, and one in particular that we run two shifts five days a week was especially demanding," says McManus. "It's a small, extruded dental stick. But with the right adjustments—keep in mind that these machines are very adjustable—and the right personnel training, we made whatever modifications that were needed. WeighPack was very helpful as far as support goes. A lot of the important work got done in the initial purchasing phase, where we sent WeighPack samples of our product and they ran them on their machines. So as our machines were built, I was constantly getting videos of our products running on what was soon to be our machines.

"Even with all of that upfront work, there's always something when the machine actually arrives. WeighPack sent along a technician who was very highly skilled. Needless to say, that helped enormously."

The bag material fed into the vf/f/s system comes in two varieties, one of which has a recloseable zipper feature already applied. A modification of the forming tube allows the VerTek to readily handle either option, so Loving Pets can produce zippered or non-zippered pouches.



Complete system including CombiScale multi-head weigher and Swifty Bagger 3600 with bucket conveyor.

McManus notes that currently there is no evacuate-and-backflush feature in use, as the range of products now produced does not call for it. But this could change in the future, he says.

Coding technology

Date coding is of course an important aspect of any snack food packaging operation, regardless of whether the snacks are for man or beast. On the new VerTek 800 system at Loving Pets, the date coding is done by a CodeTech Corp. (www.codetechcorp.com) IJETx. A fully self-contained print module with power and data over Ethernet, the IJETx represents a fairly recent development in the world of marking and coding via HP Digital Thermal Ink Jet technology. When this one-time-use ink-cartridge technology first emerged some years back, the only substrates for which it was suitable were paperboard and corrugated. Advances in ink development, however, have brought HP Digital TIJ into the world of flexible packaging, and this has some observers predicting enormous growth potential for this technology.

"These cartridge-based printers are especially good on equipment that doesn't run around the clock, because the cartridge doesn't require the kind of cleaning and maintenance that other coding equipment typically does if it's idle for a period of time," says McManus. "That really suits us because a lot of our business is private label, so some of our machines are in short-run mode on a regular basis, often with a considerable gap between one production run and another. When we do re-start, the cartridge is ready to go."

Pre-made bags on the Swifty

Right around the same Spring 2016 time frame that saw the installation of the VerTek 800, Loving Pets was busy installing its WeighPack Swifty 3600 with 14-head combination scale. Premade zippered pouches hold either 180 or 450 g of product, and pouches measure either 6 x 6 or 8 x 10 in. Filling speed is rated at 40/min, but Loving Pets operates steadily in the 28 bags/min range. This represents a vast improvement over the manual bagging operation that has now been replaced.

So why use vf/f/s for some products and premade bags for others? Not all product shapes like to flow smoothly down the forming tube of a vf/f/s machine. Complications with product bridging are common.

"A lot of the chicken tenders, duck tenders, and things like that we run on the Swifty," says McManus. "Also, it allows us to quickly switch bag sizes and, again, because we do our own brands as well as private label brands, we have a lot of different bag sizes that we have to switch from or switch to. Maximum changeover time on the Swifty is about 30 minutes."

As with the VerTek 800, product is delivered to the combination scale above the Swifty by way of a bucket elevator supplied by Telesonic (www.telesoniconline.com). Exiting both the Swifty and the VerTek 800, bags are conveyed through a combination metal detector/checkweigher supplied by Rehoo (www.rehoo.com.hk). Bags then arrive at a rotary pack-off table where they are manually packed into corrugated shippers.

Date coding on this line is done by a continuous ink-jet system from Markem-Imaje (www.markemimaje.com). "When you're running two shifts daily as we do on this line, it's an awesome printer," says McManus. **PW**