

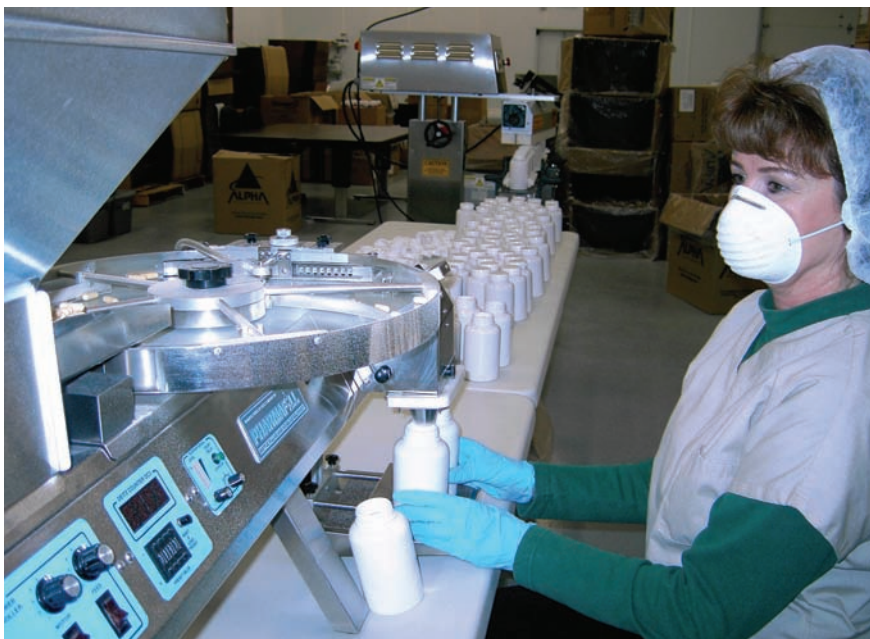
INDUSTRY application

Induction sealing caps off quality at supplements manufacturer

New Life Nutrition, Coloma, WI, manufactures nutritional supplements as tablets, capsules, and powders. In 2007, it produced 6 million tablets, 18 million capsules, and 1 ton of powdered drink mix for its private-label customers. Its other capabilities include formulation development, powder blending, granulation, coating, and packaging. It employs six full-time and five part-time employees.

That's a big step up from 2 years ago, when New Life came into being. At that time, the company's founder, Bill Lapp, was still finding his footing and looking to install production equipment, including an induction sealer for the company's bottling line. "For the sealer, number one, I relied on word-of-mouth by talking with some other manufacturers. I also conducted internet searches, visited production websites, and read articles about equipment that's been used."

Lapp's search ended in April 2006 after he learned about an induction sealer from Pillar Technologies, Hartland, WI. "We chose Pillar right off the bat based on my research into the equipment. I was convinced by testimonials on the sealer's versatility, ease of setup, and professional results."



Last year, the company manufactured and bottled 6 million tablets and 18 million capsules. Every bottle included an induction seal.

The sealer's ability to operate in semi-automatic or automatic modes was especially important. "We were starting up from the ground floor and building a business, and I needed it to expand with us," Lapp said. The system arrived within 8 weeks of order placement and Lapp's crew installed it easily. "It took exactly 20 minutes."

Mobile system serves two lines

The induction sealer, called Unifoiler, includes a flat sealing coil and a 2-kilowatt microprocessor-controlled power supply that allows the unit to start automatically. The controls also allow operators to adjust output and to fine-tune the system's loss-of-seal alarm. The entire system is mounted on a cart and includes leveling pads, a coil-height indicator, and 20 inches of coil height adjustment. That way, it can accommodate many bottle heights as well as bottle closures of all diameters and designs.

The system integrates with a 5-foot-long variable-speed belt conveyor. "We chose the conveyor addition because we were looking to the future when we'll need more automation," Lapp said. "It's about throughput—the conveyor lets us match up on any scheme. Bottles come off the line and go right in the induction sealer."

The company operates two bottling lines and shuttles the induction sealer between them based on the size of the production run, which varies between 300 and 10,000 bottles per order. "From the beginning, it's been just a phenomenal machine. It's very accurate—it seals right the first time, every time. And we do products that are in 65-cubic-centimeter bottles with 33-millimeter caps all the way up to products in 2,500-cubic-centimeter bottles with 110-millimeter caps."

If all goes according to plan, Lapp anticipates installing a second induc-

tion sealer. "We're building the volume to justify the second Pillar—and it will be a Pillar," he said. "When that time comes, we'll have two dedicated induction sealers on the lines."

The benefits: Safety and quality

The purpose of induction sealing is twofold: tamper evidence and freshness. "Our first safety feature for the bottles is J-cap closures that have a tear-off rim," Lapp said. "The second safety feature is the heat-sealed foil induction seal, and that's the requirement for bottling—two safety features. The seal also protects the product in the sense that it stays fresh on the shelf."

Induction sealing will also help the company comply with the FDA's final rule for good manufacturing practice (GMP) of dietary supplements, which went into effect August 24, 2007. Although the company's official compliance date is more than 2 years away, Lapp is working toward



New Life shuttles the induction sealer between its two bottling lines. The company plans to purchase a second induction sealer once production volume justifies it.

compliance now. "When we start our validation process, we document the settings on 'machine' for the product being bottled." The sealed bottle is verified and documented in a standard operating procedure. "As we march down that road to GMP compliance, all the steps in the bottling operation have to be documented, verified, and signed off by the quality manager and operations manager.

When the Pillar system is logged at this setting, at this conveyor speed, at this head-height, it is right the first time and every time. So it makes the validation process and the generation of standard operating procedures a breeze."

It appears that Lapp's foresight is paying off. "Our quality has gotten noticed. The customers are coming and the quotes are going out. We had an amazing year in 2007, and this year is going to be even better."

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