Clarity, cost and ease of use drive new case printers

Last January, antiquated, piezo-electric ink-jet printers for coding Mt. Olive's trays and HSCs of pickle, pepper and relish jars were replaced with new systems that Mt. Olive production manager Steve Whitman says offer "more user-friendly software, low-maintenance hardware and high-quality bar-code capability." He adds, "The software that we had been using before was very difficult to use, the systems' printheads were extremely expensive and, while the printers could print bar codes, they were not the greatest quality."

Currently installed on all of its packaging lines are **RSI** Industrial Print Systems **(www.rsipro.com),** which incorporate **Hewlett-Packard Co.'s** HP TIJ 2.5 print technology. According to RSI senior sales manager Tom Meutsch, the RSI system is sold as an "engineered" solution with HP disposable printhead cartridges. "Since the system is manufactured by us to order, we can easily alter the product hardware or software on a timely basis and at an affordable price," he explains.

Mt. Olive's printers have been set up with two printheads on either side of each line. Each printhead houses four HP print cartridges positioned adjacent to one another and "stitched," or stepped in height, to produce a 2-in. print height. The print cartridges are mounted in HP fixtures within RSI stainless-steel printhead enclosures. On each line, the printheads are situated on a conveyor-mounted rack with skid plates that can be repositioned to meet varying tray widths and heights. Mt. Olive uses HP 4500 pigmented black ink, which Meutsch says provides a longer cap time between prints, better legibility and less reflectance for better bar codes. Information printed onto the trays and HSCs includes the product name, the expiration date, the UPC code and the time on both sides in varying heights from ¼ to ½ in. (excluding the bar code).

During operation of the system, as Dan Briley, application engineering manager for HP explains, the HP print cartridge takes the formatted print data from the RSI system controller and generates ink droplets that are jetted out of the printhead to create the image on the item being printed.

To program the printers, operators use a NEMA keyboard with mouse and a flat-panel monitor attached to a Stealth PC using a Windows XP Professional-based operating system and RSI's ImagerPro software. According to Whitman, print recipes are easy to program into the PC's memory, which now holds more than 350 of Mt. Olive's recipes. As required, the programmed messages are selected and sent to the Array printhead controller from the computer via IEEE 1394 "firewire" communication for speed and reliability. All the control components are housed in a windowed, stainless-steel cabinet.

From Whitman's perspective, the "number one feature" of the RSI system is the simplicity of print cartridge changeover. "It's very similar to changing an ink cartridge in a desktop printer," he says. Maintenance is quick and easy too: "You just take a damp cloth and water and wipe the printhead clean," he adds. In contrast, the company's previous systems had to be purged regularly, which resulted in a lot of lost fluid and wasted time, as well as a messy environment.

Quick-disconnect printheads are held in stainless-steel enclosures, top. Conveyors, middle, are set up to carry cases past the two printheads. Control components are housed in a a stainless-steel cabinet, above.

The case-coding systems at Mt. Olive also incorporate RSI's IMS (Industrial Manifold System) 350-mL bulk-ink system, which enables the user to reduce the cost per mark by allowing each print-cartridge's life to be fully realized and by allowing them to purchase larger volumes of ink at reduced rates. Explains Meutsch, "A single bulk-ink cartridge gravity-feeds four regulators, which in turn feed the four forty-two-milliliter printhead cartridges in each printhead. The continuous, regulated flow of ink to the print cartridges is never interrupted, even during bulk-ink cartridge replacement.

Regarding installation and ramp-up of the new equipment, Whitman could not be more pleased. "With the first system we brought in, it took us almost two years to get all the bugs and kinks worked out. With the RSI printer, it was just a matter of hooking it up to the line and turning it on."

More information is available:
RSI Print Systems, 866/PRINT-HP. **www.rsipro.com.**
Hewlett-Packard Co., 858/655-3524.