

Food Engineering Magazine Field Reports Preparation Guide

Here are some pointers for preparing a *Food Engineering* **Field Report**—sometimes known as an application story, success story or an application brief.

A Field Report describes a problem and its solution. It may involve any product used in the food processing industry; for example, thermal processing equipment (ovens, dryers, fryers, heat exchangers), packaging equipment, process control system hardware and software, sensors and transmitters, actuators, controllers, clean-in-place equipment, MES and ERP software, supply chain and CRM software, motors and drives, and so on. The story can also focus on buildings, floors, walls and other environmental facilities as they pertain to food production. If you're not sure whether your product or service applies, please call and we'll brainstorm it. Two printed samples of published Field Reports follow this page.

Absolute requirements for publication in the printed issue of *Food Engineering*

A submittal **must** contain the following or it will not be used.

- **Body copy** of 500 to 700 words
- **At least two end user (food processor) quotes:** perhaps one describing the problem and one suggesting that he/she is pleased with the solution, which should be quantifiable. That is, for example, it saved xx amount of time, reduced energy costs by xx percent, or the process improvements increased OEE by xx percent.
- **Name of user company and name and title of person being quoted at the user company.** Quotes from supplier companies will not be used, and will be turned into straight text when appropriate.
- **Photograph of product, service, software at the food processor's site**—not a straight product shot! Photograph must be print quality; that is high resolution jpg at 300 pixels per inch (ppi) or 100 pixels per cm. Recommended physical size is at least 5x7 inches or 13x18 cm, or at least 1500 x 2100 pixels. **Do not send Web quality photos at 72 ppi.** Don't forget a suggested caption and photo credit. You may send more than one photo. **Do not save screen dumps as jpg files!** Use a non-destructive format (tif). Call for instructions if you're not sure how to do this!
- **Real name of a person, phone number and email at the supplier** for more information (sales contact)—no web addresses or sales@email.com addresses!
- **Your contact info:** Name, phone, email, address.

Please advise as to where this story may have already been published. If it has been used on a competing publication's Web site or in a printed magazine, we won't be able to use it. If it's been published on a supplier's Web site, we can use it as long as it's not more than a year old. Obviously, if exclusive rights to use the story have already been given to someone else, please don't send it to us. Please make sure of this first. Also, be sure you have cleared the story with the processor.

Please note: These stories are used on a FIFO basis (first in, first out). **Publishing dates for print can not be guaranteed**, but complete submissions, of course, will be published before incomplete submissions. If your story can't meet all the criteria for print, we may be able to publish it online and in our e-newsletter, *Tech Flash*. Call for details! For on-line stories only, contact our on-line editor, [Jeremy Gerrard](#) via email or call 610-436-4220, ext. 8511.

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Packaged produce supplier keeps quality high, suppliers honest

▶ **Automated optical sorting system weeds out bad produce and traces problems back to the supplier.**

Natures Way Foods (NWF), a leader in fresh produce manufacturing, supplies prepared bagged salads and fruit products to major retail and foodservice companies in the UK. The processor takes great care to provide customers with high-quality products and superior service. To do this, NWF strives to control the quality of its incoming produce.

Having already been a Key Technology Inc. customer using its vibratory conveyors throughout the plant, NWF sought equipment that could ensure quality standards are consistently met from suppliers' produce. NWF chose and installed Key's Optyx with FluoRaptor, a fluorescence-sensing laser/camera sorter designed to detect and remove foreign material and defects from the production line.

"Prior to installing Optyx, we relied purely on manual inspection. However, this was not as effective as we would have liked, so we decided to add an

automated sorter to the line to remove defects and foreign bodies," explained Richard Bonn, purchasing manager at NWF. "The sorter eliminates insects, stones and anything else that could come into the factory and get into a bag of salad and create a negative consumer experience."

The automated sorting system combines color cameras and laser technology on one platform to achieve complete sorts. The color cameras recognize size, shape and millions of subtle color differences. The laser detects differences in the fluorescent properties of objects to remove foreign material and defects, even if they are the same color as good product.

"In addition to removing defects and foreign bodies from the product, we use the sorter as a control point," continued Bonn. "When we find foreign bodies in the product, we take them out, but we also track the incidents and trace them back to the suppliers. We send the supplier either the actual foreign bodies or pictures of them from the sorter, and we challenge the supplier to take steps to improve the quality of the product they send to us.

"Before we installed the sorter, it was much more time consuming to identify where problematic product came from. Now, it's very easy to monitor which suppliers are performing badly or well, based on the statistics the sorter collects," Bonn said.

For its line that processes spinach, rocket and red chard, NWF selected the Optyx 3376 with FluoRaptor. The narrow-belt 3000 series sorter can sort up to 2,200 lb. of baby leaf greens per hour and up to 4,200 lb. of crisphead lettuce per hour. Key designed NWF's sorter specifically for baby leaf produce, with product handling and sanitation features that help keep the sorter free of product build-up during production so it operates at optimal performance and improves sanitation. ❖

For more information:

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▶ **Installed at Natures Way Foods, Key's Optyx 3376 with FluoRaptor, narrow-belt 3000 series sorter weeds out produce with defects or foreign bodies.**

It also retains images of foreign bodies to be sent to respective suppliers.

Source: Key Technology.

Printers generate a clear message

▶ Putting product info on shipping cartons at the sealing stage provides vital track and trace data, improves sustainability.

Kettle Foods is passionate about its all-natural potato chips. Working at full capacity, its Beloit, WI, production facility supplies rapidly increasing markets in the Midwest and on the East Coast.

When the Beloit facility opened in March 2007, the company knew it would need a system to track the shipment of its cartoned products to distributors and retailers. It chose five Videojet 2330 large-character printers, installed on its production lines, to code variable data on-demand.

Kettle Foods uses kraft-faced corrugated boxes to ship its product to distributors and retailers. The company prints 14-digit bar-codes and human-readable information (item number, the product name, various plant codes and a best-before date) about the product to help with lot traceability during distribution.

“In our industry, labeling is key, and there is zero tolerance for mislabeling. Especially with regard to food safety, accuracy and good, clear codes for traceability are paramount. We get a nice contrast with the Videojet printers and an extremely clear code on every case,” says Bob Manzer, Kettle Foods plant manager. “It is important that we can read or scan the information

every time, or we couldn’t send out the box and would be forced to take additional time to re-code it.”

Printer reliability is a major benefit. “Our maintenance manager estimates 99.99 percent uptime from the printers,” Manzer says. “We have not had to perform our own maintenance or call Videojet for any unplanned event. We can count on the printers to help maximize our production, and when I ask the operators for feedback on them, the first word that comes up is reliable.

“Right now, we have more than 17 chip flavors and 10 different bag sizes,” Manzer continues. “Because of this variety, the number of bags within a case can change, and the information to be coded on each case varies. The printers allow us to minimize the number of preprinted corrugated boxes we have to keep on hand because we can customize information printed on each box for the product packed inside. Now we can use a single case size for as many as eight different flavors of chips.”

On the production line, the printers’ compact print heads are mounted inside a machine that tapes the boxes closed and simultaneously prints the box. Once the cases are closed, they are manually palletized and shipped to distribution centers or retailers.

“The Beloit plant is automated and has a lot of electronic equipment, data collection and process control,” Manzer says. “The printers easily integrated with our processes because they are durable, reliable and easy to use, even when we run them 24 hours per day, up to six days per week.”

Changing code information takes a minute or less. Operators select the product SKU from a preprogrammed menu that is accessible via the printer’s interface. All information to be coded is automatically set up.

Another of Kettle Foods’s major initiatives is to promote sustainability by continually reviewing packaging options to be more environmentally friendly.

“We like to print right on the box,” Manzer says, “because we can avoid wasted labels, waste from label backings and wasted time applying labels.” ❖

For more information:

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▶ (Left): A Videojet 2330 large-character printer places key data on a Kettle Foods case as it is being sealed. (Right): Printed data includes bar-code and human-readable information that includes batch code, product name, etc.

Source: Videojet.