

## Zero defects

When a customer issued Viking Label with the challenge to deliver labels with zero defects, the company installed a 100% inspection system as part of their QC regime. **Danielle Jerschefske** looks at Viking's experience with the technology

**W**hen a customer demands zero defects in their labels, it's up to the label printer to figure out how to meet that requirement. For Viking Label of Nisswa, Minnesota, this was exactly the dilemma it faced as one of its biggest customers, Golden Plump Chicken, laid down the gauntlet by requiring that they deliver only perfect labels.

'All of our clients have high quality expectations, but in this case, we were challenged to have 100% perfect printing, and we knew we needed a system to help inspect every aspect of our job,' said Herb Johnston, plant manager for Viking Label.

Set on a mission, Johnston and shift supervisors John Lundberg and Terry Giles began researching 100% inspection systems that would be compatible with their Mark Andy 10" 2200 10-color press.

Shark uses line scan camera technology – all other BST Pro Mark inspection systems use area scan technology – which inspects 100 percent of the material 100 percent of the time. The system was designed for use on presses or re-winders and is able to identify virtually any print defect.

When integrated with BST Pro Mark's work flow management solution, the system can identify all defective print and facilitate removal of the bad materials on downstream processes.

Viking produces about 30 million Golden Plump Chicken labels annually at an average press speed of 225 feet per minute. The labels are printed on a rigid polystyrene substrate, and run roll-to-sheet on the 2200. Every insert is inspected by the Shark system. The Shark at Viking contains dual 2048 pixel cameras, which allows identification of defects that are very small.

Lundgren and Giles agreed that their press operators like the defect management screen of Shark. It contains all the information needed to access the severity of identified defects and take action fast. Having a simultaneous display of the full repeat, a close-up of the defect identified (and highlighted), and a close-up of the golden master, supplemented with a zoom function, allows faster, more precise and efficient examination of defects and decision-making.

The Shark is part of an overall quality system, and is frequently used in conjunction with the PowerScope 3000 video system as it is here.

The Shark at Viking Label is able to not only identify defects, but to separate good material from bad.

BST Pro Mark also set up the Shark on the 2200 to help separate good from bad material, by linking the

Shark defect found output to a motor on the conveyer. 'When the Shark finds a defect, an alarm sounds and the conveyer speeds up, which puts a space in the stacks, effectively separating good

labels from bad,' Lundgren said. 'Our operators can look at the screen and easily find where the defect has occurred and quickly correct it.'

Viking has a BST Pro Mark Powerscope 3000 video inspection system on all their presses, including the 2200 with the Shark. It is used for checking color and registration. 'If the Shark picks up a defect, the operator will look at the Powerscope monitor and zoom in on any color or registration problems,' Giles added.

It is interesting to note that Viking used the internet remote diagnostics facility offered by BST Pro Mark on the Shark system. 'If we had a question or problem, the service techs at BST Pro Mark would log into our system from wherever they were and they could see exactly what we were doing,' Lundgren explained. 'Through our wireless connection, they are able to see, troubleshoot and correct any issues that we had.'

Overall, the installation, set up and training process took less than three days. 'The Shark was not at all difficult to integrate into our press,' said Johnston. 'Once the equipment arrived, we took one day to install, one day to train the operators, and then all of the rest was done over the internet.'

Ultimately, it was the client that was impressed, said Johnston. 'Once the system was installed and we had their job running on it for a while, we invited them to the plant to see, first hand, what the Shark was doing for them. They were very impressed with the system, and more importantly – they are impressed with the results.' ■

*The Shark 100% inspection system is installed on the Mark Andy 2200 10" press at Viking Label in Nisswa, Minnesota*

