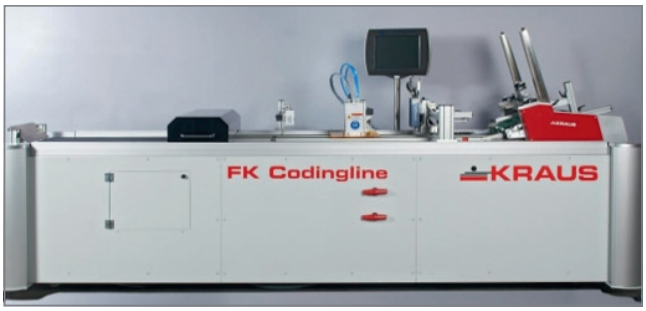
Kraus Maschinenbau

Flexible solution for serialised inspection task

Omron has helped Kraus Maschinenbau to create a solution that adds serialisation capabilities to its printed code inspection system. The inspection tool is part of a friction feeder on an e-cigarette packaging line. The addition of this serialisation capability allows for the printing and verification of a unique code onto each package.



Increasingly stringent national and international regulations require that packaging – particularly in the food and pharmaceutical sectors – carry unique coding which can be used for tracking and tracing of individual products throughout the supply chain. These codes need to be accurately and precisely printed and positioned on the packaging material without compromising either production speed or print quality.

Omron's customer Kraus Maschinenbau, is a designer and manufacturer of friction feeders and specialised systems for the printing and packaging industry. The two companies have enjoyed a long and successful working relationship. Indeed, Kraus Machinenbau believes that its long-term relationship with Omron is one of the foundations for its continuing success in developing systems and solutions to meet specific requirements.

Joachim Kraus, managing director of Kraus Maschinenbau, explained more about the core requirements for the serialisation project: "We needed help to develop an optical inspection system that was able to verify GS1 barcodes. It needed to be simple to adjust without additional tools. It also needed to be easy to use, modular, scalable and to deliver reliable and repeatable results."

The solution provided includes an Omron FlexXpect Vision System matched with an intuitive Omron HMI, which provided the flexibility needed to meet the inspection and visualisation requirements of this application. It can be easily programmed and quickly set up, saving time and maintaining production uptime – which is always critical in packaging applications. The result was the creation of a high-end solution for serialised print verification on the e-cigarette packaging line that also maintains the required levels of precision and accuracy and provides 100% quality inspection, along with code and content verification.

Kraus has also benefitted from having a serialisation solution that can be adapted to meet the needs of other customers with similarly demanding requirements. The modularity and scalability, designed into the specification of every Omron product and system, is an important element in the successful creation of such solutions, which need to be adapted to suit bespoke application demands.

The challenge presented by the project was that every printed code was unique, so the system needed to individually print and then verify each package. This required interaction between the

database, the PLC and the vision system. "Data relating to the codes needed to be quickly shared between the database and the inspection system, via a PLC," explained Gunnar Bischoff, Industry Marketing Manager for Omron Europe. "The camera takes a picture of the printed code on the package and compares it with what should be on the pack. A signal is then sent back to the PLC to confirm whether the code is correct or not."

Gunnar went on to explain that there is a growing need for vision solutions where fast interaction with printers, PLCs, databases and actuators is required. "The trend towards individualised information on packaging is increasing. We receive more and more requests following the introduction of recent regulations including the Falsified Medicine Directive 2011/62/EU (FMD)."

According to Joachim Kraus his customers are looking for a solution that is simple to adjust without additional tools, easy to use, modular, scalable and one which delivers reliable and repeatable results. "When satisfied customers recommend us to their customers, it's not only the performance of our equipment, but the added value and expertise we bring to the project that sets us apart. Our customers value our flexible approach and how we listen carefully to their needs, which in turn enables us to deliver a successful solution tailored to the customer's specific demands. It is the same experience that I value when working with Omron - I am not a camera salesman, I present the problem and expect a solution," added Joachim.

About Kraus Maschinenbau

When it comes to feeding, positioning, dispensing, counting or separating paper and flat products up to 30 mm thick, Kraus Maschinenbau has the perfect solution. Be it sheets of paper, samples or sections of cartons or folding boxes — all these can be separated and thereby prepared for further processing steps (counting, printing, stamping, checking), right up to security coding.

On standard devices, an efficient and reliable solution can often be found for the respective application. When there are complex requirements or when new problems arise, the task at hand is analyzed in a project meeting, discussed and then implemented in a way that meets the customer's needs.

Customers of Kraus Maschinenbau include well-known companies and suppliers for the packaging and labeling industry, for post press and lettershops, as well as for personalization and security concepts. Yet not all products are adorned with the name "Kraus": OEM solutions are also available that can be used around the world.

The products offered by Kraus Maschinenbau GmbH stand for reliability and simple, safe handling. This reliability is also a top priority in terms of sales and project consultation, commissioning and service.

About Omron

Headquartered in Kyoto, Japan, Omron Corporation is a global leader in the field of automation. Established in 1933 and headed by President Yoshihito Yamada, Omron has more than 37,000 employees in 35 countries working to provide products and services to customers in a variety of fields including industrial automation, electronic components industries, and healthcare. The company is divided into five regions and head offices are in Japan (Kyoto), Asia Pacific (Singapore), China (Shanghai), Europe (Amsterdam) and US (Chicago). The European organisation has its own development and manufacturing facilities, and provides local customer support in all European countries. For more information, visit Omron's Web site at www.industrial.omron.eu