Turkish can manufacturer ARKIN METAL relies on 100% quality control from ISRA VISION:

Increased process efficiency for flawlessly decorated metal cans

Metal cans are subject to high quality requirements. The Turkish manufacturer ARKIN METAL has a modern production line with a high-performance metal decorating press for manufacturing cans. The high quality of the products is monitored using DecoSTAR from ISRA VISION. This state-of-the-art solution for 100% print inspection from the world’s leading provider of surface inspection systems ensures that the high metal decoration requirements are met in the best possible way. The solution has already proved successful in operation.

ARKIN METAL produces decorated metal sheets, which are subsequently processed to form cans for oil, all kinds of metal packaging, end use and other food packaging as well as non-food applications. A KBA MetalStar 2 – one of the fastest metal decorating presses in the world – has been used for several years. It allows some 8,500 metal sheets to be decorated per hour. ARKIN’s customers are filling companies with the very highest quality standards for the decorated metal packaging. Before this press was installed and when production speeds were not yet so high, the few defects could be found and eliminated manually. However, the high speed of the press made it ever more difficult for ARKIN’s employees to monitor production and detect problems. The number of color applications has also risen. As a result, ARKIN METAL began to consider an inspection system for its metal decorating press. ISRA VISION quickly emerged as the preferred provider of inspection solutions, as its systems are particularly reliable and stable.

The user’s objectives with regard to the inspection system were improving quality, reducing waste and thus increasing the amount of material that can be sold. In addition, the company aimed to enhance quality management and boost the expertise of both customers and operators.
Inspection solution with crucial benefits

Deploying the DecoSTAR inline inspection system offers crucial benefits for the user: With highly precise measurement and motion compensation for the metal sheets, the unique, bespoke solution ensures perfect print quality and metal decorations. Once the inspection system was installed, serial defects were successfully categorized and then eliminated. After just a short time, the operator could no longer imagine running the press without an inspection system.

The inspection system uses an 8K color camera and ensures 100% inspection of up to 10,000 sheets per hour, allowing reliable detection of defects as small as 0.03 mm². These defects include contrast differences, dust, dirt and covered lines at various print speeds. The system also monitors the decorated sheets for possible color deviations.

Commissioning in a matter of days

The Turkish ISRA VISION team supported the operator on site, providing instruction and training on how to use the inspection system. Due to the system’s short installation time and intuitive nature, it was put into operation in just a few days. The inspection solution has now been in successful use for four years. Because all relevant defects are detected, ARKIN METAL has achieved a more stable level of production on its line. Even at high speeds, the production line is noticeably easier to monitor. Production waste has been reduced significantly as a result of early defect recognition. As possible problems are solved before products are delivered to the customer, complaints are prevented.

Reproducible quality at maximum speeds

The data collected by the inspection system is systematically analysed and used, with the manufacturer using feedback from defective sheets to optimize production. The sizes of all the defects in all produced metal sheets are recorded, making documentation easier and aiding communication with the manufacturer’s customers. All in all, the inspection system allows the company to supply the produced goods to its customers without any problems, boosting customer satisfaction.
In the manufacturer’s view, the inspection solution’s ability to differentiate between all defects that can occur during decoration makes ISRA a technological market leader in the field of inspection technology. The user benefits from reproducible quality at the highest production speeds. The company’s production has now been accurate, reliable and stable for a number of years and many serial defects have been eliminated – thanks in no small part to the inspection system. The DecoSTAR inspection solution significantly increases the efficiency of the production process for decorated metal packaging.

Onur Tecim, Production Manager at ARKIN METAL, is highly satisfied with the inspection system. “We could achieve a more stable production within the printing process due to the ISRA System. As a result of the defect detection which leads to an intervention of our operators at an early stage, the number of scrapped material could be reduced significantly. Also we could reduce customer complaints and meet our customer quality expectations better.”

Summary
With the automated print inspection system from ISRA VISION, all quality requirements can be met. The user benefits from 100% inspected decorated products and the very highest level of process efficiency, strengthens their company’s market position and secures a competitive advantage. In addition, the system conserves resources and makes an important contribution to the sustainability of production. As a result of its positive experiences, ARKIN METAL is now planning to install an inspection system in its coating line.
ARKIN METAL reduces waste in metal decoration with the DecoSTAR inspection system from ISRA VISION.
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