

# Sonoco automates quality control of packaging tubes

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## More efficient use of staff thanks to robotic cell

Sonoco aimed to enhance quality control in its production of tubular food packaging by investigating automation options. This study resulted in a preliminary trial using a robot.

Sonoco Consumer Products, a division of the global entity Sonoco, specialises in consumer food packaging for both prominent and lesser-known brands. The company manufactures cardboard packaging tubes for snacks, with a fixed diameter but varying sizes.  These tubes are produced at a high pace and must adhere to stringent standards in terms of dimensions and composition.

### Optimisation of quality testing

Sonoco conducts quality checks on the tubes directly on the production line to monitor the manufacturing process effectively. Periodically, eight samples are randomly taken from the production line to inspect their length, roundness, and weight, along with performing a leak test. These manual tests are overseen by an operator at the end of the line.

In order to deploy its workforce more effectively and to streamline access to data from these quality controls, Sonoco explored the feasibility of automating these tests and the potential use of a cobot/robot for this task.

To assess the viability of setting up an automated quality control station and to estimate the required investment, Sonoco called upon the expertise of Sirris.

### On-site study

Sirris' expert conducted an on-site study together with Sonoco. Based on this study, all aspects considered to be important for automating the process were listed. A conceptualisation of the solution was also worked out, with a list of possible suppliers and integrators for the actual implementation. Based on this study, Sonoco could start looking for partners to further develop the concept.

### From teething problems to expansion

A first setup is currently in test phase in production, aimed at identifying areas for improvement for subsequent installations. The test setup is mobile and placed on the line, with a robot, protected by a PMMA enclosure, performing the quality tests. Once the automated quality control is perfected, robot cells can also be commissioned on other production lines.

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