



Prevas and Alleima develop AI-based quality control for advanced steel tubes

Together with Alleima, Prevas has developed and verified a machine vision solution for automated quality control of tubes. Using camera technology and AI-based image analysis, the solution can identify surface defects directly in the production environment and provide operators with effective support in their quality control work.

Alleima in Sandviken is a global manufacturer of high-value products in advanced stainless steels and special alloys. The company supplies industries with very high demands on quality and performance, making quality control a critical part of its operations.

In this project, Prevas and Alleima have explored how machine vision and AI can be used to make quality control of long tubes more efficient. Previously, inspections were carried out manually, with operators visually examining the surface of the tubes.

The new solution captures images of the tube surface as the tube rotates and moves through the production line. Up to 1,000 images can be captured for a single tube. The images are analyzed in real time by an AI network trained to identify specific types of defects.

“This is a good example of how AI and machine vision can create tangible value in production. The technology does not replace the operator’s expertise. Instead, it helps direct attention to the areas that require closer inspection. This creates the conditions for more consistent and efficient quality control,” says Niklas Brusén, Vision and Systems Engineer at Prevas.

Verified in a real production environment

The installation at Alleima is a pilot project that has so far focused on verifying the technology's ability to identify defects under real production conditions. At the same time, the results highlight opportunities to develop the solution further.

"What is interesting is not only what the technology can do today, but also the possibilities it opens up for the future. By combining AI, machine vision and industrial automation with knowledge of the customer's production processes, we can solve problems that have previously been difficult to automate," says Milad Abdhagh, Account Manager at Prevas.

The collaboration is an example of how Prevas works with AI and advanced machine vision technology to turn new technology into tangible value for industry.

Read more about the project [with Alleima on the Prevas website](#).

Prevas | Hello Possibility.

For more information, contact

Jan Rydén, Business Unit Manager, Prevas AB, Mobil: +46 72 071 11 50, E-mail jan.ryden@prevas.se.
Milad Abdhagh, Machine Vision Sales Specialist & Account Manager, AI | ML | Deep Learning, Prevas AB,
Mobil: +46 79 072 52 22, E-mail milad.abdhagh@prevas.se

About Prevas

Prevas is an innovative development hub focused on product and production development, with ingenuity at its core. With strong technical expertise, business understanding, and advanced capabilities in data and AI, we help customers from a wide variety of industries to benefit through continuous technological innovation. Good for people, planet, and profit. Prevas was established in 1985 and currently employs 1,000 people in Sweden, Finland, Denmark and Norway. Prevas is listed on NASDAQ Stockholm since 1998. For more information about Prevas, visit www.prevas.com.