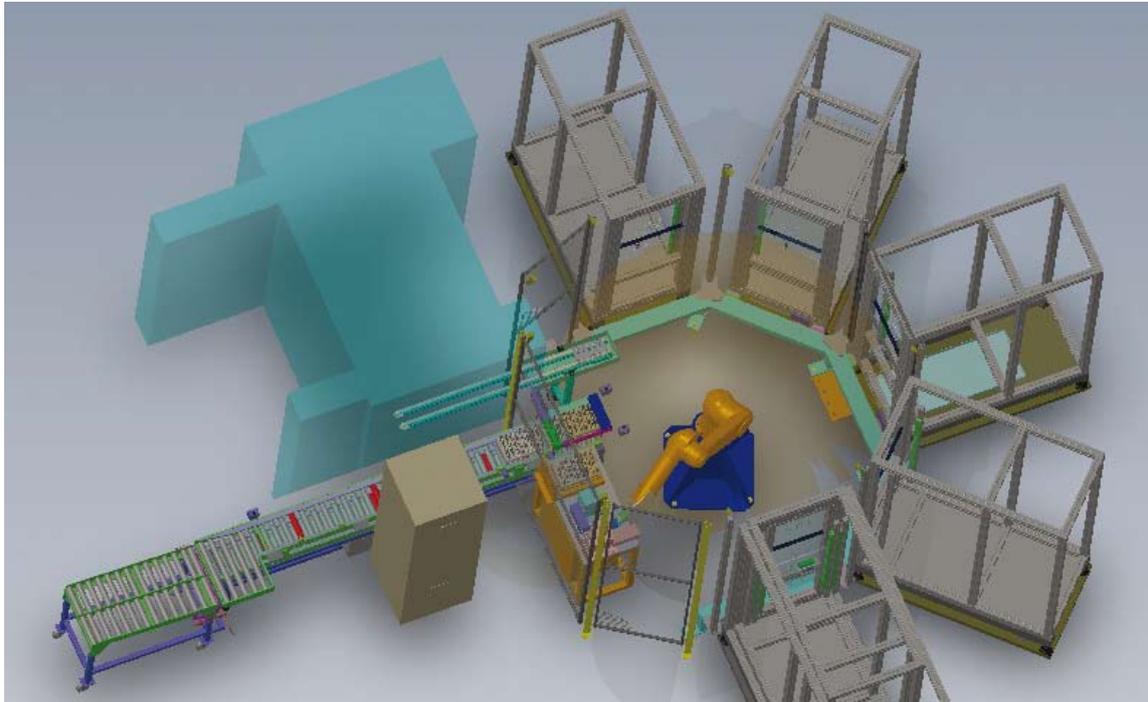


DELPHI Diesel Systems monitors its production using Axis network cameras.

Network cameras integrated into the production management system make it possible to detect irregular components and prevent manufacturing errors.



Organization:
DELPHI Diesel Systems

Location:
La Rochelle, France

Industry segment:
Manufacturing

Application:
Industrial production
monitoring

Mission

An automobile parts manufacturer, the American company DELPHI is one of the first to meet the technological challenge of Common Rail technology by creating so-called next-generation systems for diesel engines. In France, the international group has 2 production centers in Blois and La Rochelle, as well as a national network of 230 "Diesel Service Auto" technical centers.

At the La Rochelle production site, the automation center team wanted to develop a video system to monitor production and identify components in each of the product manufacturing stages.

Solution

Mr. Revranche, an automation specialist, suggested that his "Industrialization Project" committee should integrate Axis network cameras to perform production controls. The images generated by the cameras are then analyzed by a software solution developed internally by DELPHI, which is used for rejecting all irregular parts.

Result

Axis network cameras, which can easily be integrated into the production control solution thanks to their open standards, provide high-definition images enabling a precise and optimal analysis of the presence, color, shape, and reference number of the components. The automation center is extremely satisfied with its installation.

"Only precise and high-performance tools can validate our products which fully meet the strictest requirements and standards of the world's main automobile manufacturers. Axis network cameras appeared to meet these technical criteria and also satisfy the requirements of the La Rochelle site in terms of savings and configuration."

Olivier Revranche, DELPHI automation specialist.

For the past several years, the DELPHI La Rochelle site has integrated a camera system into its manufacturing process, with the major challenge of providing quality and conformity controls of parts manufactured, during the actual process of manufacture.

The DELPHI automation center team wanted to improve its system with innovative and more autonomous equipment, so Mr. Revranche, an automation specialist, proposed purchasing and integrating network cameras. Axis network cameras quickly stood out because of their high reliability and image quality.

"Only precise and high-performance tools can validate our products which fully meet the strictest requirements and standards of the world's main automobile manufacturers. Axis network cameras appeared to meet these technical criteria and also satisfy the requirements of the La Rochelle site in terms of savings and configuration," Olivier Revranche explains.

A robot located in the center of the production line distributes the components to the different stations. Each station is equipped with one camera enclosed in a protective case that can read the component reference number. The cameras then send the component image to a central server, which analyzes and processes the information in order to check the presence, color, shape, and reference number of the components.

The central server, loaded with an internally-developed software solution, detects any irregular parts and sends an alert to the production teams.

The integration of the new system was a success. Mr. Revranche acknowledges, first of all, the simplicity of the configuration and use of the ten Axis cameras installed on the three production lines.

Their simple and fast installation also fit the budget the automation center had for installing the new system. The team saved around €4,000 compared to installing certain Link cameras. Axis network cameras are not only more economical, they are just as effective and efficient as analog cameras dedicated to acquisition functions.

The automation center team selected ten AXIS 207MW and AXIS 210 Network Cameras. The AXIS 207MW Network Cameras are compact and easily blend into an industrial environment. The AXIS 210 Network Camera, for its part, has an integrated multi-zone detection and advanced event function.

The issue of image precision was critical for the DELPHI team at La Rochelle. Thanks to the CMOS progressive scan image sensors and the sophisticated signal processing techniques of the Axis cameras, the video is clear and crisp. The cameras can generate up to 30 images per second and have a fast enough capture rate to enable them to keep up with the sustained pace of the production lines. 10,000 mechanical parts can be checked every day at the La Rochelle site. Axis network cameras keep this pace and have an image quality that enables the proper execution of the quality controls.

DELPHI La Rochelle is thoroughly satisfied with this new cost-effective solution. It competes with systems specially designed for such functions that are more difficult to integrate and more costly. Next DELPHI plans to equip its production lines with new IP cameras.

