Automatisation of production processes

Marposs Group is able to provide quality and process control solutions for the global fastener sector. In recent years, through M&A operations, it has also added process monitoring solutions to its product portfolio, which are widely used to optimise the production capability of manufacturing lines.

hese solutions are used by major producers, and suggested by manufacturing line builders, as they offer numerous advantages. "Our systems can be used throughout production, from our Aeroel Laser stations, which can be used for drawing lines to control the quality of the very first part of the process, all the way to our flexible optical measuring stations to measure several parameters of the finished product," explains Stefano Corradini, group director sales and marketing at Marposs. "On top of this our most recent proposal is focused on the digitalisation of the whole process, by offering SW solutions for the process quality control management."

Working with Marposs means that customers do not simply get a product supplier, but a partner that is able to provide the most suitable solution for every requirement in the field of measuring, testing and control – for any step of the industrial process.

Optoflash – a cost-effective system

A prime example of Marposs' capabilities and commitment to providing the latest solutions is its Optoflash machine, which is a measurement device for use in

production environments. It performs precise measurements by capturing and analysing optical images using side-by-side 2D image architecture. This means that the images, which are acquired by separate sensors, are combined perfectly to form a single resulting image of the part without interruptions or gaps at the stitching edges. As a result, Optoflash is capable of measuring parts up to 300mm in length without any vertical movement of the sensors or the part itself.

Marposs points out that Optoflash has been designed for applications in the automotive, general manufacturing, aerospace and medical sectors. It may be used both in the standards laboratory, as a precision measurement instrument, and in the production environment for carrying out fast, accurate measurements on small scale, precision components.

"With the absence of Z-axis motion the optical acquisition of the complete part — which consumes time on other systems — is performed almost instantaneously on the Optoflash," explains Francesco Piunti, sales and marketing manager — flexible gauging systems at Marposs. "This means its cycle time is impressively fast. For example, it executes 100 static measurements in just two seconds irrespective of how the measurement sections are distributed along the shaft length."

Francesco Piunti adds: "Thanks to the flexibility of the optical measurement system, Optoflash may be easily configured to measure new parts. This flexibility renders Optoflash 'future-proof'."

Optoflash is an all-in-one solution, which means it does not require any separate wiring or additional components, so it can be installed quickly and is ready for use as soon as it is switched on. "The interface of the Optoflash has been designed to be user-friendly and flexible, while enabling users to set-up configurations with varying levels of complexity. This means even the least experienced operators will be able to add measurements to a control program. In addition, multi-level access function means that different parameters can be assigned to different operators. Put simply, the Optoflash is the next generation of precision measurement."

Global reach and support

To add to its wide range of solutions, Marposs has also made its international presence a strategic part of its mission. The Group is present around the world, with sites in 25 different countries and more than 80 offices. "We are proud of our Italian heritage, as Italy has in its culture a unique ability to combine sense of business, industrial craftsmanship and creativeness," points out Stefano Corradini

"However, as a business we have looked to combine the above characteristics with our ability to absorb the best aspects of each local culture in the countries where we operate. For instance, we have been present in Japan since 1970 and we have learned a lot from the Japanese way of thinking regarding production quality control. We are also present in China, where we have been since 1986, and we have more than 700 employees. We have combined the Chinese manufacturing ability with our industrial excellence to create a unique ability to serve the local industrial sector with dedicated solutions."

Such a global reach was obviously impacted by the Covid-19 pandemic, but Marposs is already seeing signs of improvement within the market. "From a general business point of view, the impact of Covid-19 was significant in the second quarter, but from an industrial point of view all our operations around the world were



still operative, and we were able to implement the necessary safety measures to guarantee the health of our employees and of the related communities," mentions Stefano Corradini. "The use of smart (home) working and video conferences was also increased in order to respect our partners', both customers and suppliers, requirements. However, we are now seeing improving signals for new investments, starting from the ASEAN areas, mainly China."

Whilst Marposs is cautious about making any forecasts for the future, there is one positive that it will continue to focus on. "We want to continue to pursue the growth of the company as a community deeply integrated in the fast changing world, whilst doing our best to give answers to every demand for measurement, testing and control improvement in any industrial sector," states Stefano Corradini.

Stefano

Corradini,

sales and

marketing

group director

"As a provider of quality and process control solutions, we also look forward towards an increasing demand for automatisation of production processes, in order to allow production to be managed with a limited number of employees. This would result in any future lockdowns of production plants being unnecessary, as safe distance working would

always be guaranteed by automatic controls. What is for sure is that the world is continuously changing and in Marposs we are ready to follow each change."

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