

COMPANY
PROFILE

MARPOSS

PASSION FOR PRECISION

A probe used for aerospace.
(Photos courtesy: Marposs)

Marposs has become a global leader for the supply of high-precision equipment for inspection, measurement, and control in the production environment.

By **KENNETH CARTER**, Gear Solutions editor

In order to maintain its position as a world leader in the field of high-precision equipment for measurement, Marposs always looks for the right blend between experience and innovation.

“Our mission is mainly to provide high-precision metrology equipment for machine control and part inspection in the shop floor environment,” said Matteo Zoin, senior manager, head of new market development for Marposs North America.

Marposs’ primary customers are industries such as machine tool, automotive, aerospace, and many others, where the company has a hand in supplying applications, gaging and testing equipment and components that work with, for instance, engines, transmission, glass, injectors, bearings, electrical motors, and much more, according to Zoin.

More and more of Marposs’ business has been diversified across all markets in the last few years, he said.

PRECISION WORK

The company makes equipment capable of measuring to the thousandth of a millimeter and more; what makes that claim unique is that it can perform this task in a workshop environment along the production lines and on any machine tool, instead of in a metrology lab, according to Zoin.

“For machine tools performing operations such as grinding, cutting, forming, stamping, we provide a variety of measurements,” he said. “We do part measurement, tooth control, and process monitoring.”

For gaging and testing systems, Marposs does inline gaging, offline gaging, non-destructive tests, assembly and tests, such as leak tests, according to Zoin.

This is part of Marposs’ production-line integrity tests that use non-invasive methodologies including non-destructive eddy current testing that verifies surface faults such as cracks, porosity, blow holes, inclusions, and stripping; and leak testing that verifies the presence of a leak in a component or device.

“The technologies involved with all of these products are different, and it depends also on the application,” he said. “That’s why we say, ‘Marposs is one partner for many solutions,’ because we can offer different solutions to solve the same and different problems.”

Those custom requests are often based on what the customer is ultimately looking for, according to Zoin.

“What are their needs? What are the requests of

the customer?” he said. “I’m not just talking in terms of budget, but more in terms of streamlining their operations.”

FOUR DIVISIONS

Marposs is made up of four divisions: one for standard products, another for special applications, one for machine tools, and R&D.

The after-sales department has more than 300 service engineers worldwide, according to Zoin.

“They are local experts, so they speak the customers’ language,” he said. “We are able to provide immediate quality assistance everywhere in the world. For example, we may work on a project in the U.S. for use here, or it may be shipped in another country. We are



An Optoflash in operation.

able to follow the shipment anywhere.”

About 92 percent of Marposs’ production is outside of the company’s headquarters in Italy; however, the company has a direct subsidiary presence in 25 different countries with more than 80 locations. The main sales and productive centers are in the company’s main markets: U.S., Germany, China, Japan, and Italy, according to Zoin.

Another part of Marposs’ success is its continuous presence in research and development.

“At the company level, we invest 8 percent of our total sales revenue into R&D to develop new products,” Zoin said. “This is really important for us.”

All of Marposs’ gaging solutions (mechanical, air-electronic, contact-electronic, optical) have their origins in the company’s Research and Development Center, as well as the as-yet-to-be-developed technologies that will eventually replace the current ones, according to Zoin.



The M62 Flex.

AFTER-SALES SERVICE

All that dovetails into Marposs' after-sales service.

"This is always our strong point: the fact that, with our worldwide presence, we are able to support our customers everywhere," Zoin said.

Part of Marposs' flexible and innovative solutions is its non-contact gaging using opto-electronics, according to Zoin, which allows for risk-free, fast, non-invasive measuring.

"We have this innovative optical system, the Optoflash, that has a flexible way to measure any type of part that comes with a different size," he said. "They are really fast. The Optoflash is going to perform the measurement and really save a lot of time. The device comes ready with measurement software inside, and that software is able also to produce the different analyses across the statistical process control."

"We have software that also controls the approach of our measurement contacts to the surface of the gears' teeth because, with this type of system, you are always taking care of the fact that any time you come in contact with a surface, you have to be careful to avoid any damages like a scratch," he said.

Other products in Marposs' arsenal, specifically developed for transmissions, include the M62 Flex.

The M62 Flex is a manual use bench gage for the inspection of traditional toothing parameters of gears capable of measuring different parts within a flexible range of applicability. The M62 Flex can be used in the shop floor environment for monitoring the quality of gears during the manufacturing process, thus complementing the already broad M62 family dedicated to gear inspection.

"After machining stages, for example, we can measure inner and outer diameters, perpendicularities, flatness, runout, total runout, concentricity, parallelism; so all the most requested dimensional and geometric features," Zoin said. "We have other types of offline gages like the M63 (mainly for gears and bushings-like parts) and the M67 (for shafts), which are other manually used bench gages for the transmission shop."

Marposs is constantly looking for ways to find solutions to streamline its customers' operations, according to Zoin.

"We always act as a pioneer in any of our markets," he said. "We always look to develop solutions to streamline our customer opera-

tions with the right blend between experience and innovation."

FOUNDED IN 1952

Marposs has come a long way since its start in 1952 by founder Mario Possati. Now the company headquarters in Bentivoglio, Italy, consists of three factories encompassing 38,000 square meters, all side-by-side, which house R&D, design, production, marketing, as well as education and training.

"The product manufacturing center develops what we call a standard product, and the application manufacturing center produces more customized solutions and applications systems that would be integrated in customers' facilities, like a manufacturing product line," Zoin said.


Over the last several years, Marposs has been acquiring other companies to help with that philosophy, including 18 different companies since 2000.

"When we find a company that is going to complement and create a synergy with our solutions, we usually acquire it," Zoin said.

And Zoin said he expects that type of synergy to continue as Marposs looks toward the future.

"We will achieve our goal to diversify, to adapt our solutions to the market's needs, and also the customers' needs because our goal is always to meet and exceed the customer's expectations," he said. "For sure, we are going to grow more and more, like we are doing, for example, expanding our sales operations on the West Coast and in other countries."

Zoin especially sees this for the gear industry.

"For the gears, there is no difference than in other markets," he said. "We are trying to perform and achieve what is requested and then do the best that we can while adopting new technology. I strongly believe that the automatic visual inspection for dimensional check of surface quality or assembly completeness will be the key for the future." 

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