MARPOSS

WORLD LEADER IN GLASS MEASUREMENT

ONE PARTNER MANY SOLUTIONS

Marposs offers gauging components and dedicated solutions for dimensional measurement and control of automotive glass.

The ZENITH is the new reference of chromatic confocal controller that allows measuring with great precision, without contact, shapes and thickness of any transparent layer.

All application requirements can be met thanks to the wide range of products.

DISCOVER OUR SOLUTIONS

An industry conversation between FLABEG, MARPOSS and OLYMPIAS - PART 2 - SMART GLASS FORUM 2024

MARPOSS SPA
A legacy of innovation and growth

Founded in 1952 by Mario Possati, Marposs has its roots in the machine tool controls business. Over the past 70 years, the company has developed a myriad of solutions for in-process and post-process controls, expanding its presence to 34 countries to be close to its customers. Notably, over 90 percent of Marposs's turnover is generated outside of Italy, with one-third of its employees based at the headquarters in Bologna. This global reach is complemented by 30 strategic acquisitions over the last two decades - enabling Marposs to diversify and meet various customer needs.

Embracing the automotive industry's evolution

Marposs has been at the forefront of the automo-

Moderating on May 8 at the Automotive Smart Glass Forum at E-Tech Europe 2024 in Bologna, Glass Technology International was happy to hear key insights from Drs Matthias Schiller, CTO at FLABEG Germany, Luca Bruni, Automotive Glass, Group Industry Manager at MARPOSS and Agamemnon Varonos, CEO of OLYMPIAS as the trio discussed how their latest smart windshield innovations are impacting the automotive industry. In this second of our series of three parts dedicated to the event, we cover the presentation of Marposs's Dr Bruni.

tive industry's transition from internal combustion engines (ICE) to electric engines, while also driving the digitalization of the quality process. In particular, it has been providing innovative solutions for the automotive glass industry for more than 20 years. The company's focus on quality control during production is pivotal, as evidenced by the Overall Equipment Effectiveness (OEE) index which categorises production into availability, performance and quality. Marposs excels in quality control - helping to reduce scrap and costs and thereby aligning with every manufacturer's goal of cost reduction.

Transformations in automotive glass

The role of automotive glass has drastically evolved since the early days of the automobile. Initially, cars featured minimal, simple glass components, with the primary focus on engine innovation. Today, glass is integral to car design and functionality, significantly influencing a model's success. Modern automotive glass is not only more prevalent but also thinner and stronger, contributing to overall vehicle weight reduction and enhanced safety. In-

novations include integrated antennas, acoustic control, adjustable transparency, anti-fog and water-repellent coatings, and head-up displays (HUDs) providing critical information directly on the windshield.

Characteristics of modern automotive glass

The increasing quantity of automotive glass necessitates maintaining lightweight properties to control power consumption, battery life and CO2 emissions. Modern laminated glass, sometimes less than 3.5mm thick, achieves a weight reduction of 20 kg while maintaining high impact resistance for safety. These enhancements improve user experience and vehicle performance - meeting both aerodynamic and aesthetic requirements.

Meeting customer expectations

Marposs addresses specific customer demands for accuracy, speed and flexibility. The company's sensors and systems deliver high precision, essential for the rigorous standards of the automotive industry. Marposs ensures swift cycle times, performing over 200 measurements on glass surfaces within a few seconds, adaptable to various production lines. Additionally, its systems are designed for flexibility and are capable of measuring different types of glass with minimal adjustments, catering to diverse customer needs.

Advanced glass control solutions

Marposs employs three primary approaches to control automotive glass:

- Contact Sensors
  The traditional method uses pneumatically activated contact sensors to measure forms, shapes, and edges;
- Non-Contact Sensors
  These include optical sensors (chromatic confocal technology), which allow for thickness measurement without physically touching the glass, thus avoiding any potential damage during measurement;
- MAESTRO System
  This advanced, non-contact solution uses robots for measuring various glass types. Developed in collaboration with other companies of Marposs's Group, MAESTRO integrates several sensors inside the measuring head, enabling continuous measurement of glass characteristics. The system can handle complex measurements like dimensions, curvature and thickness (air gap) and is managed by sophisticated software that optimises measurement trajectories.

Partnerships and custom solutions

As a technological partner, Marposs collaborates with end users, automotive glass producers, integrators and companies that manufacture measuring benches. Its extensive network of distributors and local offices enables Marposs to offer tailored solutions worldwide - from individual components to comprehensive systems, depending on customer requirements. Through its commitment to innovation and quality, Marposs continues to lead in providing cutting-edge solutions for the automotive glass industry.

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