

MEASURING INSPECTIONS FOR AUTOMOTIVE GLASS



WEBSITE



MARPOSS



VIDEO



FLEXIBLE
NON-CONTACT

NON
CONTACT



MEASURING
SOLUTIONS



SOFTWARE



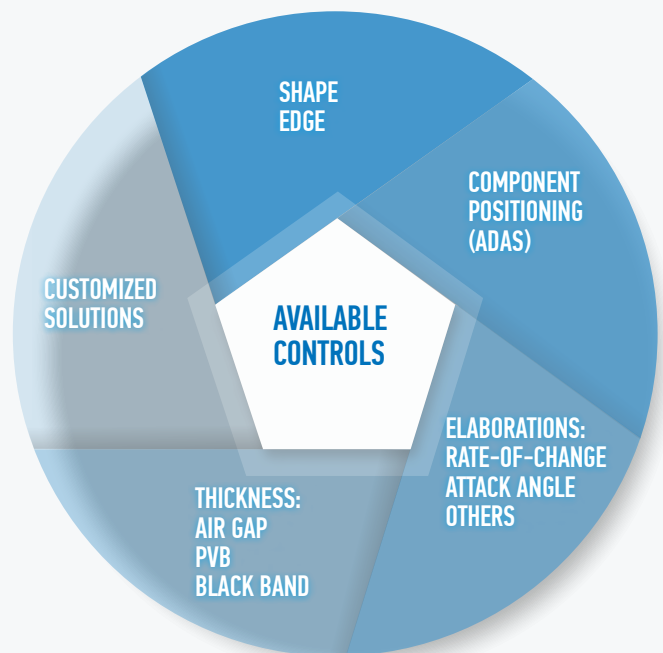
CONTACT

ONE PARTNER MANY SOLUTIONS!

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

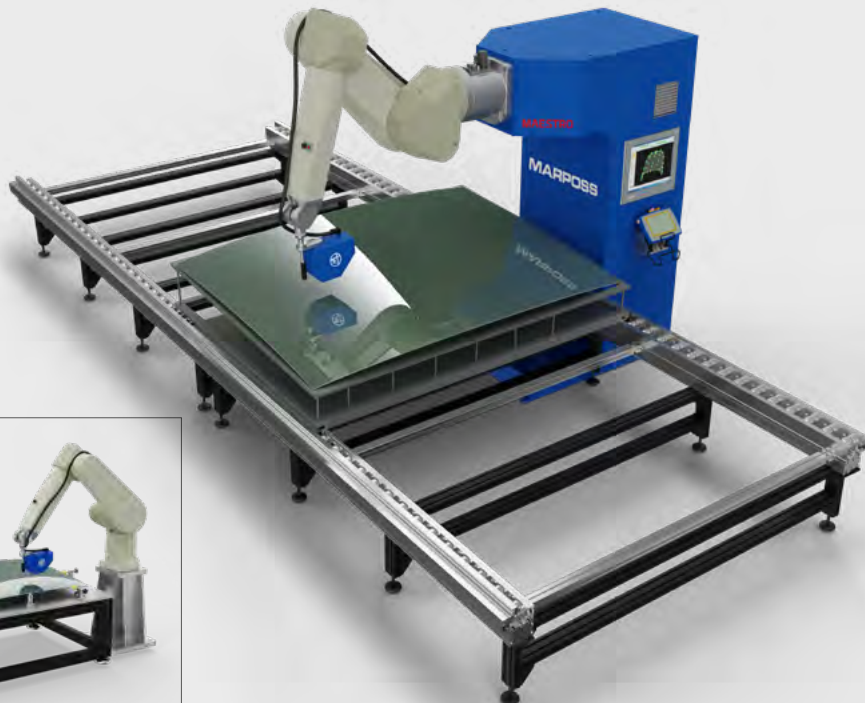
All application requirements can be met thanks to the wide range of:

- Ultra-soft touch sensors with nylon contacts and low measuring force
- Non-contact sensors using multiple technologies (chromatic confocal and interferometric)
- Modular interface units
- Industrial computers
- Intuitive software for displaying customized measurement pages and automatic data collection
- Complete measuring cabinet with integrated pneumatic and electrical systems





NON-CONTACT FLEXIBLE SOLUTIONS



MAESTRO™ is a flexible, non-contact robotized solution that measures the shape, edge and thickness of any type of glass in a single sweep. The measuring head integrates several types of sensors and technologies to inspect all glass characteristics simultaneously.

High metrological characteristics: $\pm 50 \mu\text{m}$ of repeatability and $\pm 25 \mu\text{m}$ of localisation ensure a highly accurate measurement. MAESTRO can perform fast measurement cycles. It is suitable for both laboratory and production environments and can be customized according to the application requirements (i.e. number and model of robots).

BENEFIT

- Fast cycle time
- Creation of part programs from the 3D drawing of the glass
- Robot trajectory is automatically defined by the part program and is always perpendicular to the glass surface
- Automatic part program selection
- Glass positioning error-free thanks to the automatic alignment of the robot on the measuring fixture
- Master integrated into the fixture
- Data collection and statistical analysis
- One software to manage both contact and non-contact sensors
- Taylor made solutions



MAESTRO DEMO VIDEO

Weight [Kg]	1.400 Kg
Dimensions [mm]	width ~ 1.450 depth ~ 1.500 height ~ 2.350
Standard robot in use	Staubli® RX160 @500mm/s
Sigma comfort posa [μm]	5
Sigma extended posa [μm]	25
Bias [μm]	50
Max localization error [μm]	± 25
Max linear speed [mm/s]	750
Measure time [s]	Path (linear meters) X 3
Elaboration time [s]	Num. points X 0,05



NON-CONTACT SOLUTIONS

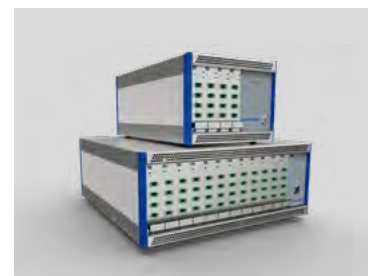
CL-MG / OP / ENDO™ are the lines of optical sensors we can offer to meet any application requirement. Different body diameters (including 8mm for use in existing fixtures) and a huge mix of measuring ranges ensure that the right combination can always be found to measure any type of glass.



ZENITH™ is the new reference in chromatic confocal controllers adapted to industrial environments. Based on standard Ethernet communication, it enables high-precision measurements. The non-contact technology ensures that the part is not scratched or moved during the measurement cycle. Available with 1 or 2 channels, blind or with display, it can measure all types of surfaces and materials, including reflective surfaces



LIGHTMASTER™ is a multi-channel modular controller for chromatic confocal sensor heads. It is available in two versions 16 or 48 channels with modules (lightslots) with 4 channels inputs. LIGHTMASTER 48CH is a 19" 3U rack with a universal Ethernet GigE® interface compatible with PC or PLC.

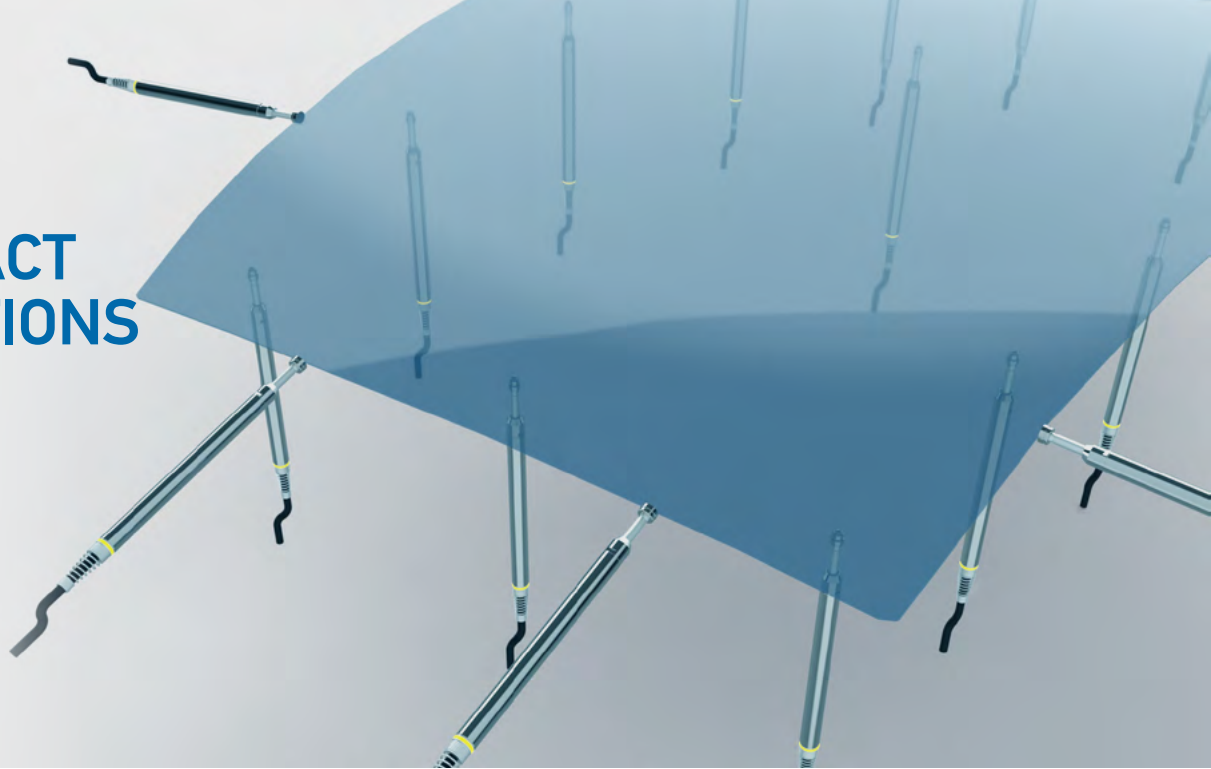


NCG™ is a thickness gauge based on interferometric technology using an infrared light source. The gauge has been designed to control the thickness of various types of parts, glass, plastics and foils. NCG is a high-speed gauge that can be connected to any machine for accurate and fast part thickness control.





CONTACT SOLUTIONS



REDCrown2™ is the latest generation of pencil probes, designed to provide the highest level of metrological performance in any application. The compact shape, measurement accuracy, sturdy design and easy clamping make this type of sensor the basic element for creating customized solutions. The ultra-soft touch version with 0.05N measuring force and plastic contact is the ideal solution to avoid scratches and glass deformation during measurement.

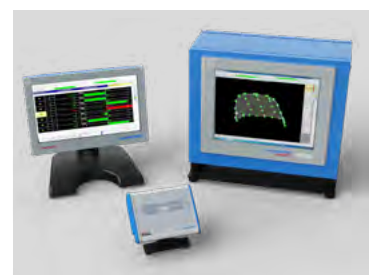


The GAGEPOD™ is a modular distributed data acquisition system designed for simple manual gauging to fully automated measurement and inspection systems.

DIGICROWN™ is a modular system that can be configured in networks. It can be connected to PC and PLC via Ethernet interface. The modularity of the system makes this product ideal for any application layout.



The E9066™ line of Industrial Computers is designed from the ground up to withstand harsh working environments and day-to-day operational abuse. Fanless, maintenance-free industrial PCs housed in factory-tested enclosures ensure the durability and reliability needed to meet any factory requirement.

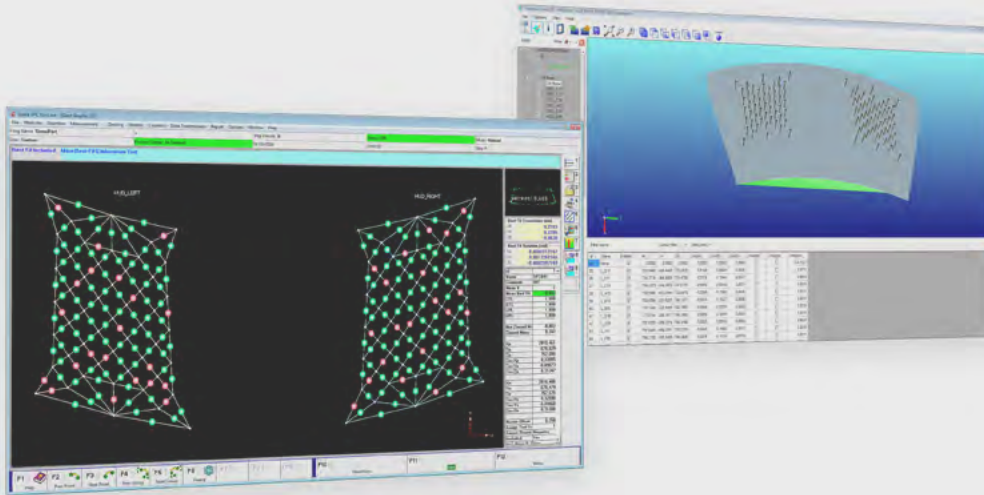


The ALL-IN-ONE MEASURING STATION combines all the elements (sensors, interfaces, industrial PC, measuring software, pneumatic circuit) in a single cabinet that is easy to manage and move. It is suitable for both 100% in-line inspection and laboratory use. It can be customized with dedicated commands, keyboards, lamp indicators, etc.





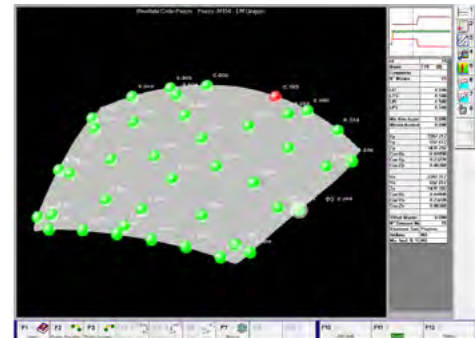
SOFTWARE



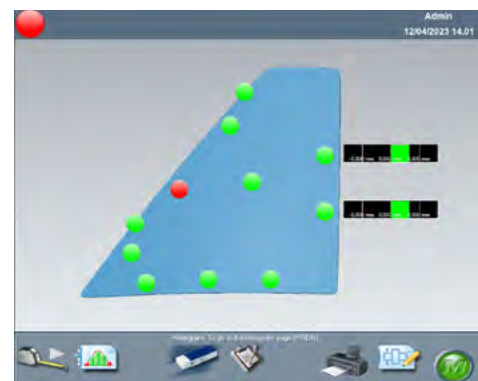
QUICK SPC™ is a suite of software products designed to comply with any SPC / Quality Control requirement, ranging from simple measurement acquisitions to complex gauging applications. It can manage all types of sensors. Framed in a simple, wizard driven, common user interface it is possible to complement the base product by means of software Add-ons.



The Glass ADDON quickly and intuitively displays the measurement made on the glass thanks to the ability to import the 3D file. The Best-fit algorithm overcomes the incorrect positioning of the glass on the measuring fixture. Measurement elaborations (rate-of-change, attack angle, etc.) can be easily implemented and displayed in dedicated pages.



MERLIN PLUS SOFTWARE is the perfect choice for combining flexibility and ease of use to manage simple measurement applications and manual benches. Customized measurement pages, data collection, statistical analysis to keep production under control.



MEASUREMENT, INSPECTION AND TEST FOR QUALITY AND PROCESS CONTROL



worldwide present in

34
countries

offices worldwide

80

exports

94%

approx.

3,500
employees

1,240
Italy

1,110
Asia

810
Rest of
Europe

340
Americas

30

key acquisitions since 2000

8%

resources invested in R&D

Marposs was founded in 1952 and since then has provided shop-floor solutions for the quality control in the production environment. Marposs' solutions include gauging equipment of mechanical components, before, during, and after the production process, monitoring solutions on machine tools, assembly, and testing systems, automatic machines, and checking stations for production lines.

Marposs is one of the main suppliers of the top automotive manufacturers, but operates as well in the aerospace, biomedical, hi-tech, and glass industries.

Marposs Group's employees are more than 3500, located around the world, with presence in thirty-four countries with more than eighty sales offices.



MARPOSS

www.marposs.com

For a full list of address locations, please consult the Marposs official website

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Marposs has an integrated system to manage the Company quality, the environment and safety, attested by ISO 9001, ISO 14001 and OHSAS 18001 certifications.