

OPTOCLOUD

EDU

QUALITY CONTROL BEYOND LIMITS

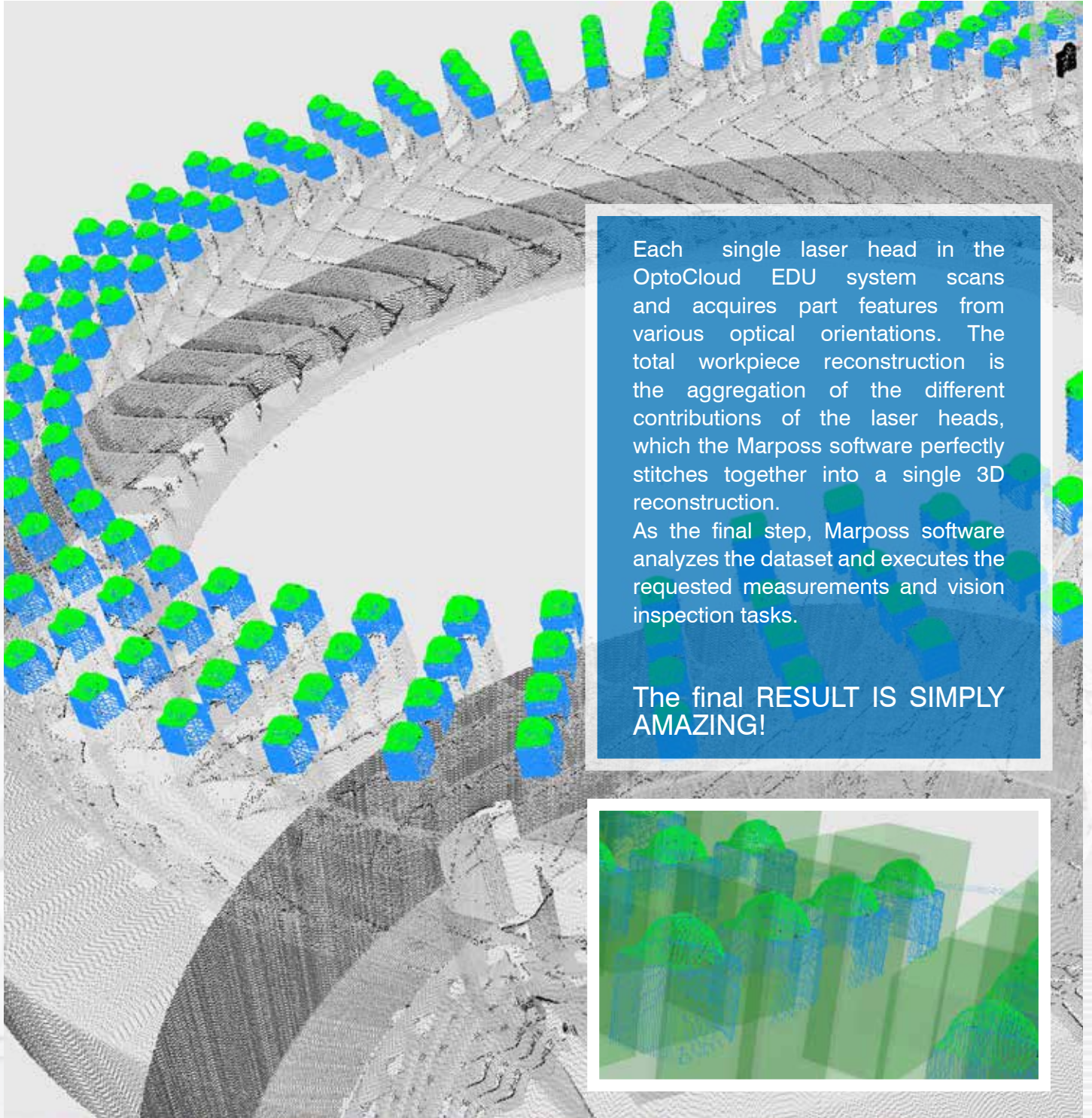


MARPOSS

WELCOME OPTOCLOUD EDU!

Marposs OptoCloud EDU (Electric Drive Unit) is the latest generation of precision 3D inspection solutions, developed for the Electrical Vehicle Industry and its unprecedented quality assurance requirements. Designed to digitally reconstruct 3D models of complex and articulated workpieces and automatically execute measurements and vision inspection tasks, the OptoCloud EDU does in one minute or less what is difficult or even impossible for traditional contact measurement machines.

OptoCloud EDU can be configured to perfectly measure and analyze a wide range of EV components, from electrical stators to transmission shafts.



Each single laser head in the OptoCloud EDU system scans and acquires part features from various optical orientations. The total workpiece reconstruction is the aggregation of the different contributions of the laser heads, which the Marposs software perfectly stitches together into a single 3D reconstruction.

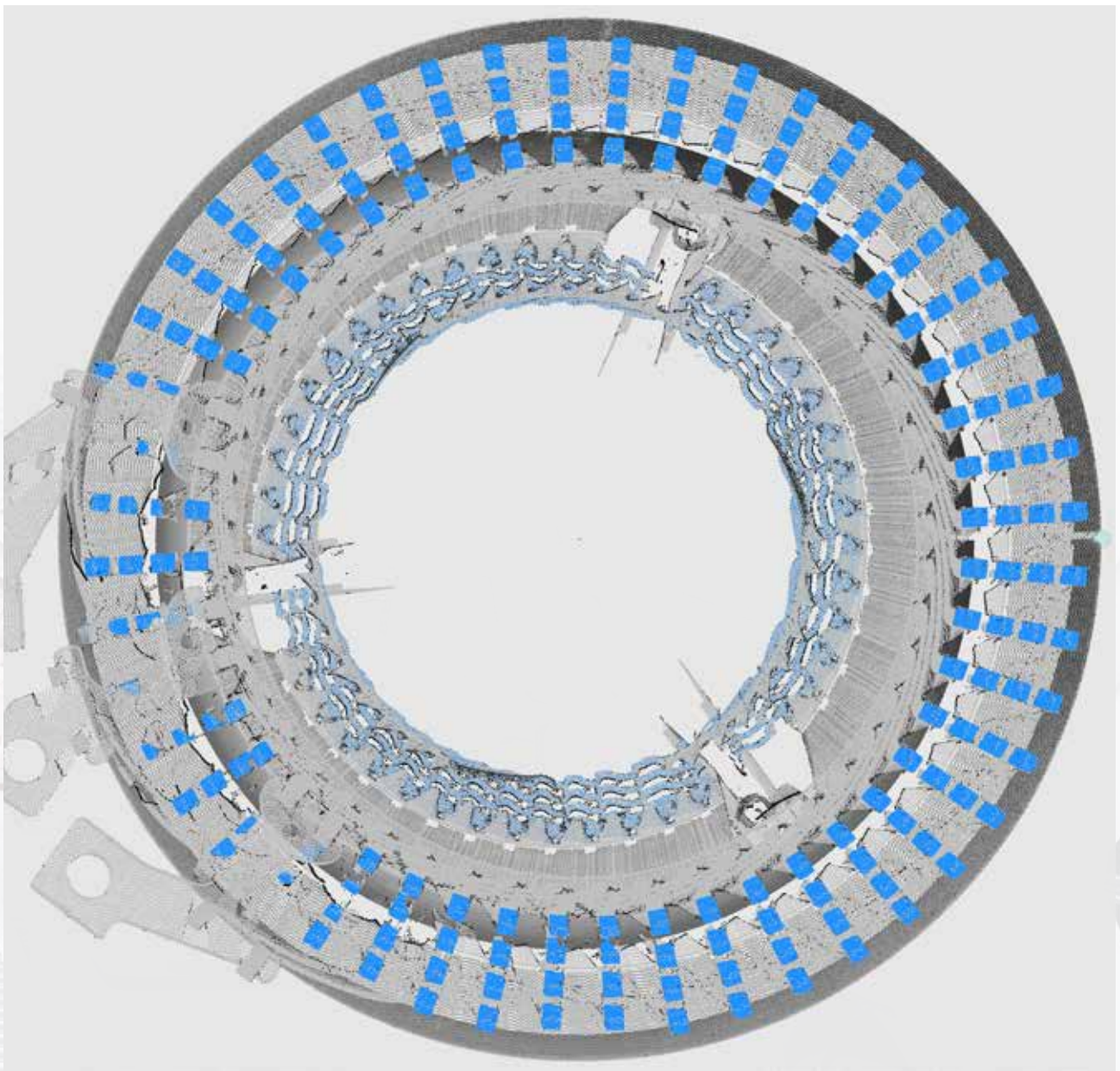
As the final step, Marposs software analyzes the dataset and executes the requested measurements and vision inspection tasks.

The final RESULT IS SIMPLY AMAZING!

Large, complex surfaces are acquired at very high resolution within seconds. Using the extensive dataset of surface points, the OptoCloud can execute a super-precise surface digitalization, which is then processed by the Marposs measurement and inspection software engine.

With its superior speed, the OptoCloud eliminates traditional trade-offs between detailed measurement and available time. In fact, the OptoCloud supports fast, comprehensive production analysis, while at the same time, provides super-precise measurement of each single workpiece feature.

OptoCloud EDU is powered by a robust software suite, able to reconstruct the Point Cloud into a highly-accurate 3D model and, as the last step, an intuitive graphical representation. Line operators can easily review the results of the automatic inspection and drill into the desired level of detail. Perfect for quality control, but much more; the OptoCloud EDU's multiple lasers generate a Point Cloud with a very high level of spatial resolution, incorporating details that are a powerful tool for design reviews and final project validation.



OPTOCLOUD EDU IS MULTI-HEAD, MULTI-SENSOR, AND MULTI-CAPABILITY, ALL-IN-ONE SYSTEM

The 3D reconstruction of complex and structured surfaces is achieved through multiple laser heads, which generate a Point Cloud while the workpiece is quickly rotated 360°.

OptoCloud EDU is so fast that has established a perfect solution for quality control at the production line, using both manual and robotic loading.

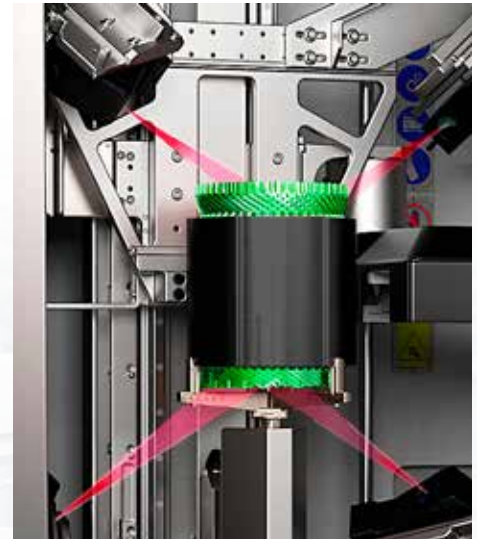
ELECTRONIC CONTROL OF THE LASER POSITION

The OptoCloud EDU's laser heads are integrated over a precision movable axis that positions the laser at the correct distance for the 3D acquisition. Thanks to this functionality, the system can inspect a wide range of part topologies across varying lengths.

LASER HEADS ALWAYS WELL-PROTECTED

Part loading and unloading operations can be critical, but not for the OptoCloud EDU.

Thanks to its Z-axis, the laser heads are automatically moved away from the handling area, leaving plenty of room for workpiece handling while removing the risk of sensor damage.

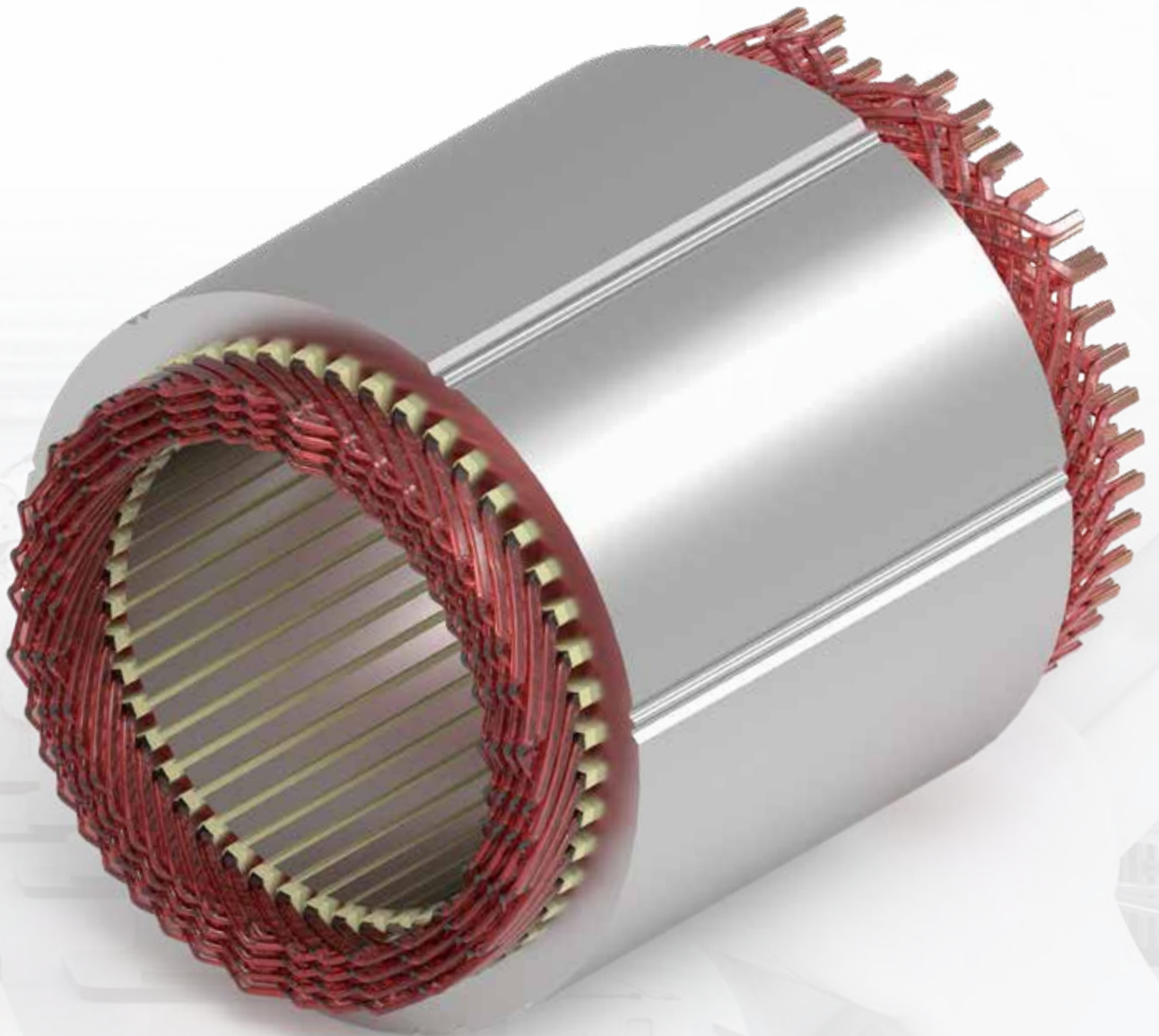




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The OptoCloud EDU is capable of fully validating 240 electrical contacts of a motor stator in just 30 seconds, up to 100 times faster than a traditional contact 3D system!

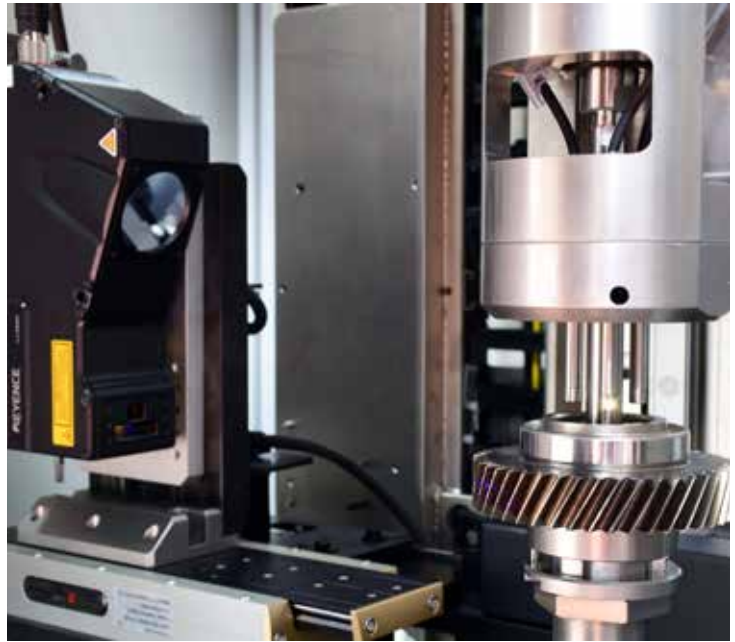
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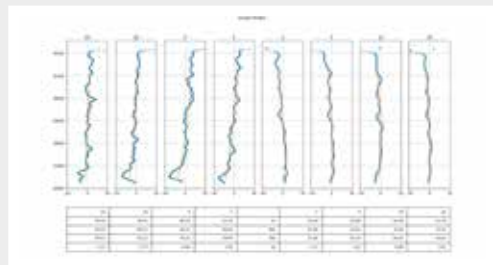
OPTOCLOUD EDU FOR TRANSMISSION ELEMENTS

Configuration flexibility is a key feature of the OptoCloud EDU, making this solution unique in the marketplace. In fact, the OptoCloud EDU can accommodate laser heads and confocal probes at the same time, allowing manufacturers to measure external and internal surfaces in a single part handling.

While the laser head is dedicated to the exterior features of the workpiece like geared and splined surfaces, a confocal block is used to accurately inspect and validate splines and other internal part features.



Optocloud EDU can also perform helical and profile measurements and visualizations, allowing manufacturers to meet industry standards





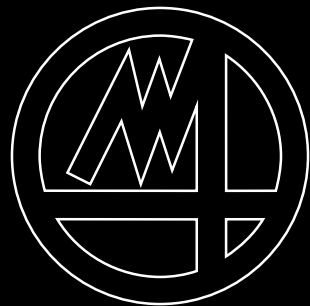
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EXTERNAL OR INTERNAL INSPECTION?

**NO MATTER WHERE THE FEATURE IS
LOCATED! THE OPTOCLOUD EDU CAN
MEASURE BOTH AT THE SAME TIME.**

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

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