



DIMOFAC

PARTNERS

Featuring

DATAPIXEL

QUALITY CONTROL ENGINEERING

ABOUT DATAPIXEL

DATAPIXEL is an SME based in Spain, specialized in the development of non-contact measurement and 3D vision systems. Within its catalogue of products, there are high-speed 3D scanning sensors, metrology software (called M3) to capture and analyse point clouds, and compact portable solutions integrating both hardware and software.



Figure 1: Scanning of Sculpteo parts

DATAPIXEL team, as experts in 3D Vision, optics, electronics, and software engineering, offers to customers innovative solutions based on non-contact sensors, high-speed virtual point cloud processing, verification and real-time processes for reverse engineering. By introducing virtual pieces based on digital 3D point cloud acquisition and visualization technology, and the application of Virtual Metrology and Inspection Automation Solutions, their clients significantly improve their industrial processes and consequently also its results.

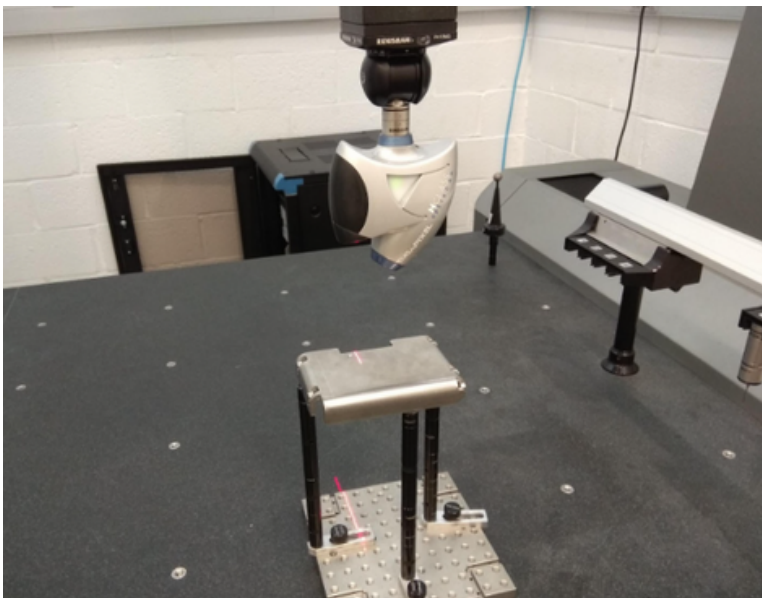


Figure 2: Scanning of VDL parts

The company is growing and strengthening with each new project. Their great desire is to continue to share their success with their customers. In this regards, DATAPIXEL places special emphasis on its R&D department each year, as the importance that we give to research new processes, new methodologies and tools relating to 3D Vision, optics, electronics and software engineering are the driving force behind this activity in the company.

For more information about DATAPIXEL, please visit <https://www.datapixel.com/>



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INVOLVEMENT IN DIMOFAC

What is your role in the DIMOFAC project?

In DIMOFAC project, DATAPIXEL is the leader, designer and developer of the Laser Quality Control module, that provides metrology services of 3D scanning and advanced dimensional measurements, in order to confirm the conformity of manufactured parts from different end-users. The module is formed by a 3D laser triangulation-based scanner and advanced metrology software, integrated in the AAS framework of DIMOFAC.

What are the knowledge or skills that you bring to DIMOFAC?

DATAPIXEL brings to DIMOFAC their specialized knowledge, skills and services related to metrology and dimensional analysis solutions for advanced and more automatic quality control procedures customized for the end-users.

Why did you decide to participate in DIMOFAC?

DIMOFAC represents a good innovation opportunity for DATAPIXEL for different reasons: test our technology with different manufactured parts, tolerances and process requirements, configure our system to work within the innovative AAS framework and plug-and-produce concept, and collaborate with different companies from all over Europe.

What are the learnings you have gained from participating in DIMOFAC?

New technologies to assure the traceability of all the processes from the lifecycle of a manufactured part, or a manufacturing machine, the automation of different production tasks governed through the DIMOFAC platform, ASS configuration and implementation, among others aspects.



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How do you see the DIMOFAC innovation in the Manufacturing Industry?

From the point of view of the Quality Control, DIMOFAC positively influence in having an assembly line more responsive to demand changes, by enabling a more efficient early detection of defects that permits to reconfigure the line on time and avoid finished bad quality products. On the other side, the module can work with different point clouds acquisition technologies, which is a very flexible and beneficial advantage that can be easily appreciated by the manufacturing industry.

What challenges do you have at the moment in DIMOFAC and how are you overcoming them?

All the challenges have been solved as the project evolves, with the great collaboration among the partners, e.g., AAS implementation, integration of the different technologies in the pilots' facilities, etc.

What are the benefits that you have/are taking away from this collaboration?

As stated in the previous answer, the benefits are related to the good innovation opportunities that DIMOFAC represents for DATAPIXEL. Implementing and customizing our technology to work with different manufacturing processes is a benefit, besides the knowledge gained from the implementation of the AAS within our laser QC module. The great collaboration among technical partners in order to create a complete customized solution according to the end-user needs have been also a benefit.

“ It's been a rewarding experience to configure our metrology services into a flexible quality control module for different end users. ”