



# VOLUMETRIC INSPECTOR

Analyzing 120 parts per minute, detecting 95% of defects, classifying parts by model, and rejecting unknown components

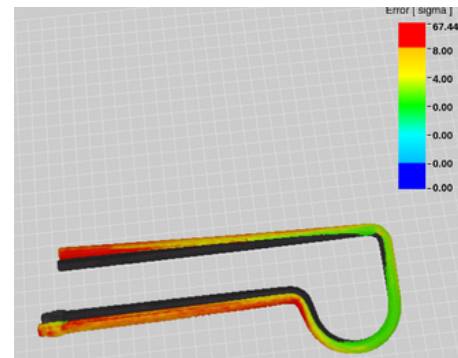
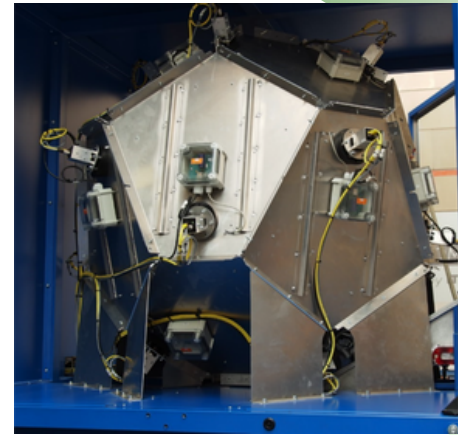
## SOLUTION DESCRIPTION

**The Volumetric Inspector Solution uses various quality techniques to analyze and compare products with expected 3D shapes, detecting deviations and defects that may affect final product quality**

AI tools help learn the expected shape and geometric tolerance measurements.

The solution analyzes and validates dimensions, while detecting geometrical defects like tears and dents.

This in-line camera-based inspection helps prevent defective pieces from integrating into the final product, reducing waste and energy consumption.



## MAIN BENEFITS

**This has been developed to work in the production line, capturing images in real time without requiring reconfiguration. All this, without increasing costs or slowing the manufacturing process down.**

- ▶ Possible to measure and detect trends error before they appear
- ▶ Cost reduction: No down-time and no maintenance
- ▶ The inspection system is NOT subject to human error
- ▶ Part classification, avoiding product specific solutions



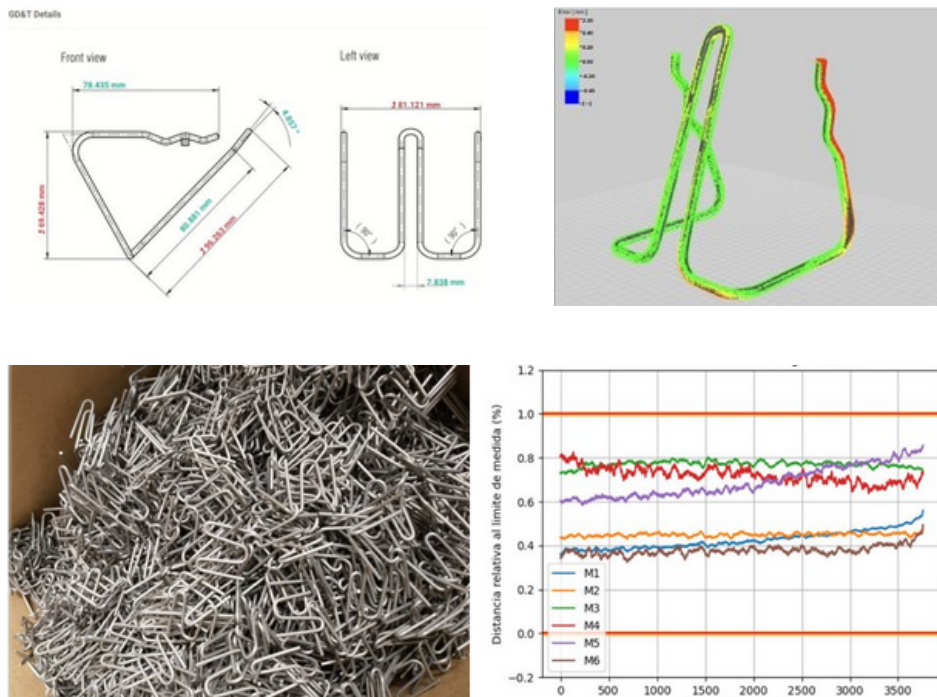
## SUCCESS STORIES

Automotive sector manufacturer with the next problems:

- The standard process was sampling 20% of the production
- They use manual process to check complex measures, so it is hard to ensure precision or accuracy
- They have measure deviation problems due to the manufacturing machines misscalibration.

With the Volumetric Inspection Solution we solve the previous problem achieving these objectives:

- Whole production was inspected using inline process
- Measure deviation problems can be predicted using trending KPIs



### PRODUCT OWNERS



The ZDZW project has received funding from the European Union's Horizon Europe programme under grant agreement No 101057404.