

## CUSTOMER

- ▶ NISSAN MOTOR IBERICA, S.A.  
- Plant of Cantabria, Spain -
- ▶ Prime contractor: Álava Ingenieros
- ▶ Amount: 185.000 €
- ▶ Implementation: 2016-2017



## PROJECT AND SOLUTION

The primary objective of our client, the Japanese car manufacturer Nissan, was to establish a series of technical standards for the acquisition, delivery and set-up of automatic measuring equipment to verify the correct condition of manufacture of some parts in prototype phase in one of its plants in northern Spain, specifically at Los Corrales de Buelna plant in Cantabria.

Grupo Álava worked with Nissan to equip this center, a world-class operational plant and point of reference for other casting and machining factories around the world, with a system capable of automatically measuring

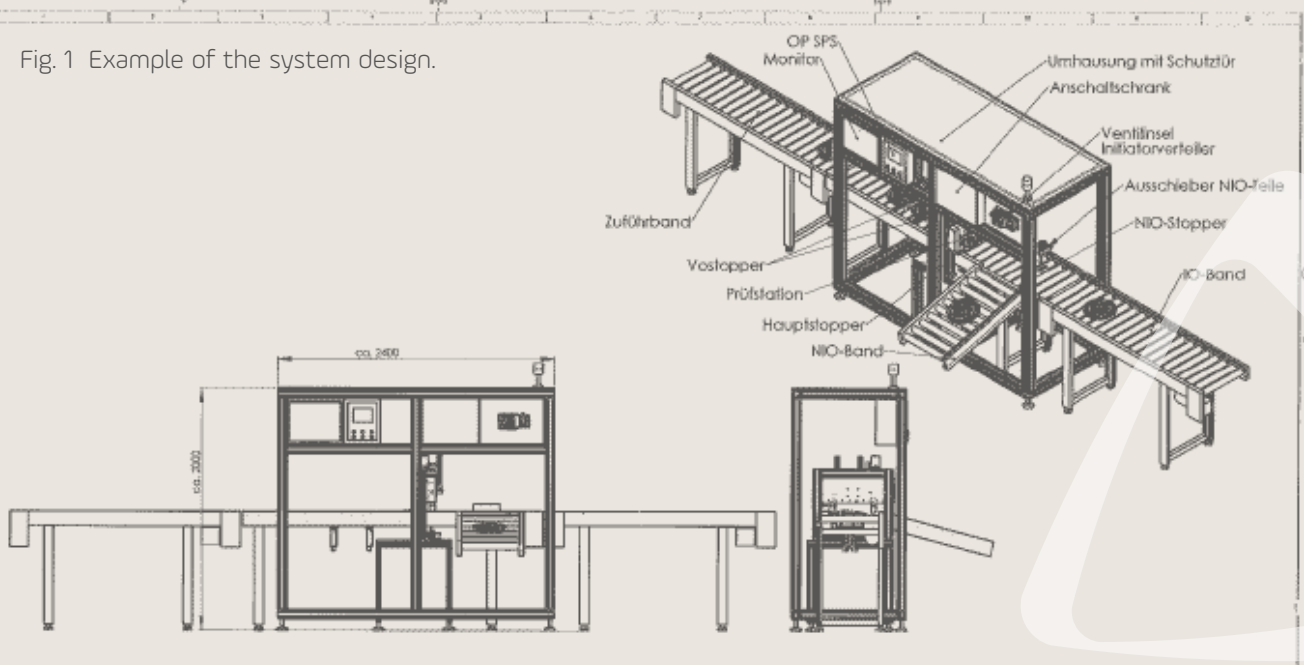
the natural frequency of brake discs, with the aim of meeting and exceeding the client's standards of excellence in the supply of such critical components.

To achieve this, it was necessary to study the pattern spectrum, which would act as a model to determine the suitability of each component, and to design a solution based on the reconfiguration and adaptation to the client's specific need for a system designed and manufactured by our technology partner RTE Akustik, the world leader in production quality control systems based on acoustic and vibration technology.

The system enables the automatic measurement of natural frequencies and detection of defects in components on the same production line where the component is identified via the measurement of acoustic signals. Those that do not fulfil the chosen parameters are removed. In addition, this testing system is fully configurable, allowing it to be adapted to new Nissan models by permitting the offsets caused by other factors such as temperature fluctuations and ageing to be monitored and adjusted.

The solution adapted by Grupo Álava fulfilled all of Nissan's expectations and

Fig. 1 Example of the system design.



objectives, so much so that in the next couple of years it hopes to add other, much more complex and technological equipment to other production lines for the automatic detection of references or to bypass untested parts.



Fig. 2 Example of the system without conveyer belts for input and output.

## ” Think Big

We aim to be a **leader**: providing clients with the latest technologies and accompanying them throughout their projects to deliver **value-added** products, backed up by experienced professionals and **excellent** service.

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