

EXPERIENCE AND INNOVATION: PRELIMINARY TECHNICAL ANALYSIS AND CO-DESIGN

- **Would you like to develop a new production cycle according to particular specifications and tolerances?**
- **Would you like to review the production cycle of a certain type of part and optimize it?**
- **Do you need some support in developing a part, but the batches to be produced are too small?**

Nowadays the demand for special products to design is constantly growing and often it is difficult to combine the tight timing with the need to carry out detailed analysis.

For us at CSF, *every request is important*, and that's why we make preliminary technical analysis and co-design the beating heart of our product development business.

To make this, *we adopt collaborative 2D and 3D simulation tools*, which together with the know-how of our team are able to interpret scenarios, to *formulate quick proposals* according to the needs of end users, often anticipating them, or to *optimize existing products*.

Perform a preliminary analysis and co-design a product is the best way on which depends much of the success of the project you want to develop, with mutual advantages for all those who are involved in.

Today we take you with us in the *heading cycle analysis of a 23MnB4 flanged hexagonal head screw* with nickel zinc coating for automotive field.

During part prototyping *we coordinated virtual reality and the experience of our team*.

First of all, we have identified and *checked in advance all the possible critical issues of the project*, evaluated the heading tonnage and energy consumption and we were able to produce the part on the most suitable header among our range, *minimizing the risk of recalculations due to the non-sharing upstream of the design choices*.

Then, *by producing a plastic sample of the screw on a 3D printer* and checking its geometric conformity, it will be easier to manufacture the right tools for forming the part, reducing the finalization time, avoiding preliminary testing and reducing the impact on product cost.

The finished headed part will *comply with the required mechanical properties*, excluding any aesthetic and functional defects to the application.

Up to date, thanks to this methodology of analysis, ***we have developed more than 4.000 parts of different types and geometries. We also offer this service for batches starting from 5.000 parts*** to give every fastener the importance it deserves with tangible advantages on finished product and related costs.

For more information
info@colombofasteners.com
+39 – 035 78 21 05