

Inoforges Simulation to win markets

Inoforges saved 15% on material and reduced process costs by approximately 10% with respect to its initial calculations by entrusting the Cetim “job” experts with simulation of a part. The result was a competitive quotation which put the company in a good position in France and abroad.

The realization of new parts often requires to re-examine the methods, the processes and sometimes the equipment, and then to propose the best possible technico-economic choices. “We wished to answer a call for estimate concerning the realization of a connecting aluminium part for a welded frame intended for rail transport”, explains Laurent Bourbier in charge of the design office.

After an in-house study, the company understands very quickly that its first idea (hot die forging in a single operation of two parts separated afterwards by machining) risked not to offer all the expected advantages.

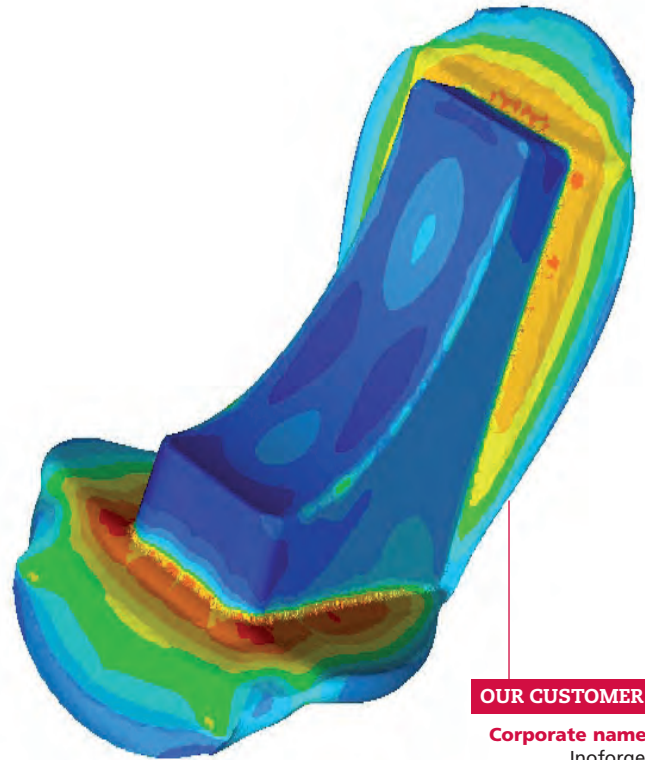
A new design and economies

Within the framework of its search for optimization, Inoforges then entrusts the Cetim’s trade experts to check its calculations. “The simulation carried out with Cetim’s software Forge 2005 confirmed that our first idea

generated very high efforts in term of power to get the desired deformation, with moreover the risk of a poor material homogeneity and high stresses on the tooling”, says Laurent Bourbier.

A new solution with a die intended for only one part, having a slightly modified design, is then studied in partnership with Cetim’s engineers. “We integrated the whole of these results and redesigned the part by adding to it our particular specifications, explains Laurent Bourbier. Then, we again submitted our calculations to Cetim for an assessment.” By optimizing the part and the tools, the expected material savings are close to 15%. As for the

process itself, savings of almost 10% were estimated. “Such a result places us in good position on this market and can only encourage us to introduce simulation among our priorities”, concludes Laurent Bourbier.



OUR CUSTOMER

Corporate name:
Inoforges

Sales turnover
26 million euro

Workforce
200 people

Activity
Inoforges, established for 40 years in Breteuil-sur-Noye (Oise), is specialized in die forging and machining of brass, copper and aluminium parts. The company recently opened two production units to meet its customers’ international needs (creation of Inoforges Poland in 2003 and Inoforges China in 2005)



Cetim's asset

The association of skills related to the forging trade with its simulation means allows Cetim to help the forging factories, while defining and optimizing the production steps in order to assist them from the estimates preparation on.