

# Trochet Hunting down rejects more efficiently

Subcontractor for machine parts and high precision machining, Trochet appreciably improved its production quality. Its asset: an adaptive machining programming tool. Explanations!

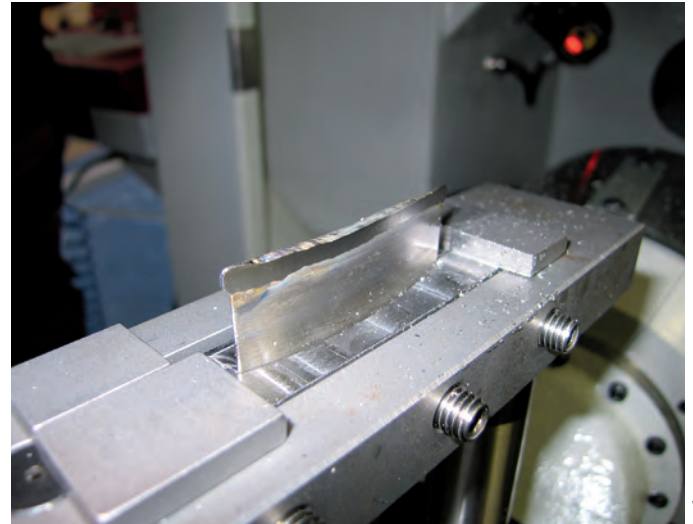
**S**pecialist, among other productions, of difficult machinings for aeronautics, Trochet has to remachine compressor blades by high speed machining. There's only one drawback, but a big one: the blank castings present important dispersions compared to the digital model carried out by computer-aided design (CAD). Cetim proposed the company's manager to call upon tools and know-how of an english editor, Delcam, specialized in computer-assisted manufacturing (CAM). And particularly to its department "professional service" which proposes an original approach: adaptive machining.

### Real-time parts control

*"Tested at Cetim, this solution which combines several tools from Delcam (PowerMill, PowerShape and PowerInspect OMV) allowed to validate all the machined blades",* says Armand de Tarade, manager of Trochet.

The process is simple! The

parts are explored by contact sensors before machining thanks to the PowerInspect OMV module which determines the real geometric shape and compares it with the CAD model. If variations are detected, the part adjustment areas are determined as close as possible to its theoretical volume and morphing rules are defined. Realized using the PowerShape module, morphing allows to apply a global deformation to CAD models and thus to generate a new model in conformity with the real part, starting from the explored areas. This analysis operation using sensors allow to take automatically the decision to reject or not the part before undertaking machining. The PowerMill module is



Delcam

### OUR CUSTOMER

**Corporate name**  
Trochet

**Workforce**  
18 people

**Activity**  
Trochet carries out subcontracting activities in the field of machine parts and high precision machining

used to compute the real machining course, starting from the surface obtained thanks to morphing. Developed within a twelve months time, this project allowed to avoid machining of parts which would have been rejected (off tolerances), eliminating difficult operations carried out by highly qualified operators and to validate 100% of the blades machined in this workshop.



### Cetim's asset

Cetim has a very extended know-how in the field of high speed machining and of the whole of means required to validate an innovative approach (studies, machining programming, controls, last generation numerical control machine-tools, etc).