



INDUSTRIALIZATION - COMPOSITE & METALLIC

ORATECH supports you in your project for the industrialization of metallic and composite parts.

Engineers and Technicians offer you their expertise to resolve your production issues (In or ex situ services):

- **Methods and industrialization**
- **Programming**
- **Tooling design and manufacturing**
- **Optimization of your machining performance**
- **Spindle and machining center reception**
- **Investment adviser**

METHODS & INDUSTRIALIZATION

Coordination of all the manufacturing steps from plan to mass production.

Objectives:

- Identification of RC (recurring cost) and NRC (non-recurring cost) costs
- Editing of array, instruction sheets, nomenclatures
- Management of nonconformity, litigation, specifications and blocking points
- Setting up of the planning and follow up
- Steering of subcontractors (management)
- Project quality, FMECA, industrial validation file
- Industrial transfer

PROGRAMMING

Elaboration of the manufacturing processes and parts manufacturing programming.

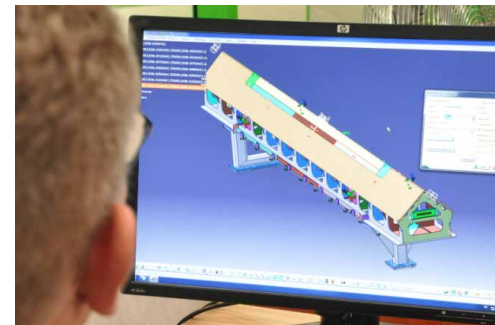
Objectives:

- Programming on CN 3 to 5 axis
- CN expertise in traditional machining and high speed machining
- Tool path simulation
- Collision checking (tool, attachment, machine, tooling)
- Post-processor treatment
- Advice and assistance on customer site



References:

STELIA - AIRBUS - ALSTOM - CCA - DAHER - DASSAULT AVIATION - DCNS - MÉCACHROME - RATIER FIGEAC - SONACA...



TOOLING DESIGN & MANUFACTURING

Design and realisation of your composite and metallic toolings in its entirety.

Objectives:

- 3D design and calculation
- Preliminary project, design, bundling, calculation
- Manufacturing/Control
- Setting up and assembly on customer site

Delegation of competences
Preparers, developers, managers, installers on customer site



OPTIMIZATION OF YOUR MACHINING PERFORMANCES

Analysis and understanding of machining phenomenon.
Writing of experience plan and realisation of tests on test platform or on customer's site.

Objectives:

- Vibration measurements, temperature, efforts, quality parts, energy
- Monitoring products and vibration analysis on machines - **EMMATOOLS**
- Static and dynamic tool analyzer - **2TPRO**
- Cutting feeds and speeds definition (basic approach: energetic optimization/ advanced approach: vibration, temperature, quality).



This department was created to answer one goal: gather all required competencies to succeed the industrialization of your machined parts and support you in your choices. Composed of experts in the field of machining (composites, aluminum, metallic, complexe alloy...), our team developed strong knowledges, methodologies and effective analysis and monitoring products. We acquired these knowledge and competences of machining optimization through regional and national development (ex: high speed machining program for aluminum and composites) as well as productivity missions for majors references (Airbus, Safran, Beneteau, DCNS, Renault...)

RECEPTION OF SPINDLE AND MACHINING CENTER

Measurement and checking of expected benefits.

Objectives:

- Checking and diagnosis of the characteristics of your machining mean
- Determine health and natural mode of the spindle (2TPRO)
- Control performance, with our partners, with Ballbar and tracker

INVESTMENT ADVISER

Advice and orientation on your investments choices.

Objectives:

- Analysis of your need
- Editing of requirements specifications
- Suppliers' consultation
- Selection assistance

WHO WE ARE ?

ORATECH is an engineering company specialized in composites and metallic parts manufacturing. Engineers and technicians, all experts in composites and metallic materials, supports you form study phase to manufacturing and industrial validation of your parts.

AIC is also providing a rare and high added-value service dedicated to machining optimization, program and process definition (composites, aluminum, complexe alloy ...).

Since 2013, we develop a Prototyping activity. We handle your project from technical-economical study to material choices including prototype machining, testing and technology transfer.