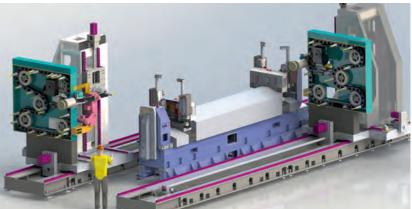




# **MACHINING SOLUTIONS IN ALL MARKET SEGMENTS**







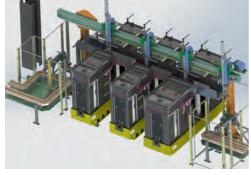






































## **OUR EXPERTISE**





## Pre-project

To meet you, to listen to you, to get knowing you better to reach your expectations.

Our Pre-Project team works by your side to identify your needs and design a project corresponding to your vision. After drawing up the technical file (virtualization, digitalization, CFAO, machining cycle time calculation), we are able to propose you a global offer.





### Mechanical **ENGINEERING**

**CERI's Mechanical Engineering Depart**ment is in charge of Mechanical, Hydraulic and Fluid conception, design...

From the CERI standard products line (machining units, feed tables...), each project is completely defined, from the general view to the detail parts.

The service is equipped with 6 CAD stations, including 4 stations capable of working in 3D SOLIDWORKS interfaces CATIA.





### **Automation ENGINEERING**

The CERI Automation Study Service is one of our strengths.

We have an in-house internal mastery in Automation and Industrial Computer Science: CNC Programs, Robot Programs, Computer Programming, X-Elec schemes....





### Machining DEPARTMENT

BOUST, a subsidiary of CERI, is responsible for the machining of mechanical

Skills: Mechanical welding, Turning, Boring, Milling, Electro-erosion, Grinding, Adjustment...





### Assembly DEPARTMENT

The CERI assembly workshop is organized around a central Assembly and Sub-assembly Tests Hall, and 3 machines assembly halls.

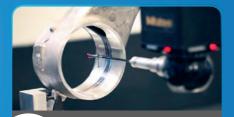
The whole covers an area of 2500 m<sup>2</sup>





### Wiring DEPARTMENT

CERI internally carries out machine wiring, as well as all wiring of cabinets and other operation consoles.





#### Metrology DEPARTMENT

For the control of parts up to complete machine adjstment, our quality control department is equipped with all measuring instrument: RENISHAW Laser Interferometer, RENISHAW Ball-bar, 3x MITUTOYO Coordinate Measuring Machines, FARO Arm, Vibration Test Instrument, Industrial Endoscope, Roughness & Hardness Test Instruments





# Commissioning

CERI offers a wide range of services, from initial expertise to on-site production monitoring, for turnkey projects: Technical analysis / Expertise, After-Sales Service / Spare Parts, Troubleshooting, Onsite interventions, Technical assistance in Mechanics, Automation, Line Driving, Retrofits.





### Quality

In accordance with our Quality Charter, the Quality Department supervises the progress of each project, from the study phases to the follow-up of the installations.

CERI Company is certified Automobile PSA / Renault E.A.Q.F-A since 1994, and ISO 9001 since July 2006.



flexibility.

## **OUR MACHINES**

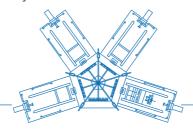
# ROTARY TRANSFER MACHINES

Knowing that agility and productivity are also possible for intensive production, CERI offers a range of flexible transfer machines from 3 to 12 multi-spindle stations fully configured and sized from standard elements. These machines combine un-

rivalled performance and increased



The loading of the parts into the machine is done manually or by automatic system: manipulator, robot, gantry...





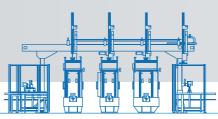


# LINEAR TRANSFER MACHINES



**2 possible configurations:** transfer of the clamped part on its fixture (transfer with pallets) or unclamping of the part at each station and transfer by gantry or transfer bar. These machines allow to work on all

the faces of your parts and combine an unequalled level of performance and an increased flexibility.



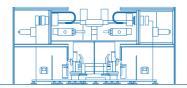
# FIXED STATION MACHINES

Our range of standard elements (spindles, slides...) allow us to design machines with fixed station for the multidirectional machining of your parts.

Particularly suitable for high-speed production, these machines are also the ideal tool for large parts.



The loading of the parts into the machine is done manually or by automatic system: manipulator, robot, gantry...





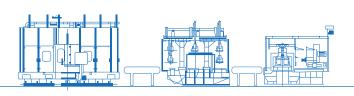
# In the age of Industry 4.0, the process solutions presented by CERI fit perfectly into the factory or connected workshop.





Thanks to its expertise in machine tools, cutting tools and obtaining capabilities, CERI manages «turnkey» projects stating our commitment in terms of quality, performance and reliability, while giving a lot of importance to the accompaniment of our customers.

From the moment of parts picking in containers to the machining, the integrated control, the possible coating and up to the reconditioning, CERI is in charge of all your production lines for a greater productivity.



# COMPLETE LINES





# ROBOTISATION OF LINES

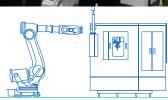
# Design and development of solutions in industrial robotics and automation of production lines.

Our solutions based on conveyors, gantries, manipulators, palletizing cells, robotic cells, vision, camera recognition or IT supervision adapt to your constraints and serve to handle your parts in your environment.











# MACHINING ROBOTS



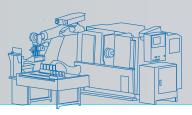
# CERI innovates with robotic machining cells.

By combining the skills of the group, CERI has developed a robotic cell combining machine loading / unloading operations as well as machining by automatic exchange of gripper, and a 24,000rpm electro-spindle is then loaded onto the robot.

This cell offering more flexibility is ideal for the aeronautics market with its small and medium production volumes.

The robot and the machine can be controlled by the same CNC. All the programming and control commands are then grouped together on a main console.

The set is driven by a virtual twin connected on-line. Robot and machining trajectories can thus be virtualized and simulated. This ensures an efficient start-up and the possibility of achieving fixed profitability targets. It offers a gain of 15 to 30% and releases capacity on the machine for other operations, which allows to optimize the cycle time from 10 to 20%.





# MACHINING CENTERS





# CNC LATHES



- Horizontal MCs
- Vertical MCs
- Single Spindle MCs
- Twin spindles MCs
- 3/4/5 axes
- With or without palletization
- Standard 2 axes
- Turn mill & sub spindle
- Heavy duty slant beds & turnmill
- 5 axes
- Vertical lathes







# RETROFIT RETOOLING CARRY-OVER

# CERI has in-house all the skills and equipments to ensure the completetion of retrofitting of all types of machines.

Thanks to our complete equipment such as laser interferometer, Renishaw Ballbar, Faro portable measuring arm, we also offer one-off maintenance services or contracts.



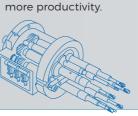


# MULTI-SPINDLES HEADS

As a designer and manufacturer of its own spindles, CERI has in-house all the skills necessary to develop and realize multi-spindle heads «tailor-made» and specific to your needs.



Our multi spindle heads, based on our standard design and performing many operations at the same time, optimize your production lines for more productivity.







## **CERI AT A GLANCE**





## **SERVICES & MAINTENANCE**

We are close to our customers around the World





















# **FOCUS ON THE CERI GROUP**



**PROCESS & MACHINING** 

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