



LARGE SIZE
METALLIC / COMPOSITES
EQUIPEMENT & STRUCTURES

Combining performance and lightness

We combine **large dimension** and excellence while **reducing the mass** of embedded structures.

CNIM Systèmes Industriels (CSI) supports space and new space players in the development of new solutions. In the field of launchers, satellites and new spacecraft, CSI has been optimizing and industrializing flight-proven equipment for more than 30 years, bringing safety, innovation and excellence.

The reliability of our products is up to the technical requirements of launches and a lifetime of several years in orbit.



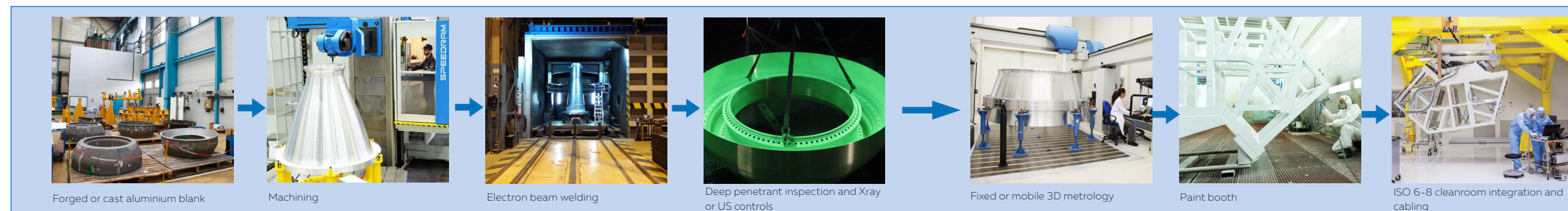
Ariane 5 nozzle housing parts

LARGE DIMENSION & PRECISION

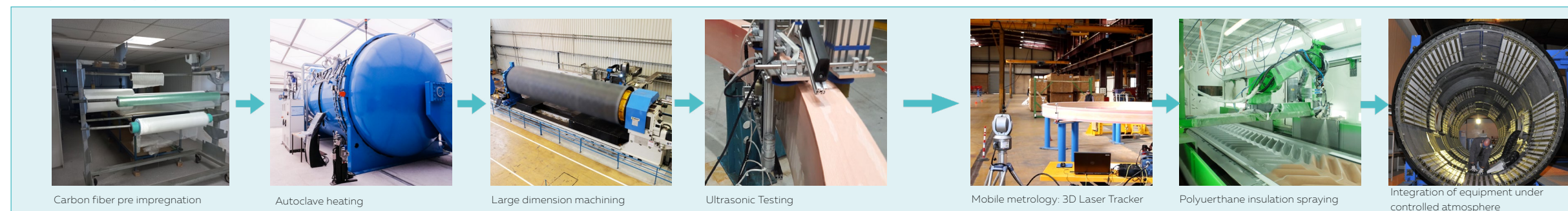
We know how to **meet the most demanding specifications** in terms of precision for large parts (diameter of a few meters). All manufacturing steps, from design to inspection, are carried out by our teams at our site in La Seyne-sur-mer.

Manufacturing and control lines

Metal equipment (5000 or 7000 or 2219-series aluminum, stainless steel, titanium, etc.)



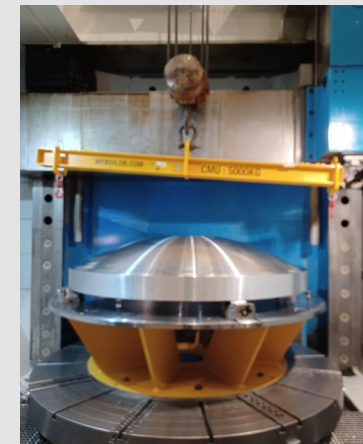
Composite equipment



High-end industrial references

In aluminum or composites, our parts are qualified for the critical environment.

Metals



Cryogenic bulkhead



Ariane 5 titanium tank



Pressure equipment for very severe environment



SSHEL Ariane 5 helium tank

Composites



Filament wound structure with polyurethane internal elements




Reinforced composite: Liquid Resin Infusion (LRI) technique for aircraft radome (Forward Pressure Bulkhead)

OUR FLIGHT RELIABILITY GUARANTEE FOR 30 YEARS

Our parts are integrated and **flight-proven** in both two 1st European launchers: Ariane 5 and VEGA-C. Our teams are trained to meet the requirements of **European space standards**.

CO-DESIGN AT OPTIMIZED COSTS & EXPERTISE IN NOBLE MATERIALS

Resistance in severe environment, reducing the mass, excellent waterproofing, clean room integration... Our engineering and methods teams support you in the development of your metal and composite parts. We offer you the best solution combining technique, economy and performance. We make your design lighter and manufacture **prototype at scale 1**.



CSI co-designs, manufactures cost-optimized equipment and structures in aluminum, reusable stainless steels or composites. Our sub-assemblies are intended for launchers, satellites and ground means.

- Fairings
- Dispensers
- Bulkheads
- Crowns / Flanges
- Tanks
- Floors
- Inter-stage skirts
- Nozzle housings

Want to work with us ?

No investment: our manufacturing and qualification at scale 1 means are at your disposal.

Economic gain: our composite parts are lightweight and our teams make your design compatible with industrialization for series manufacturing.

Quality assurance: our parts are flight-proven.

Photo credits: CSI / Stock. May 2023 edition

ENIM

Systèmes Industriels

Zone portuaire de Brégaillon CS 60208
83507 La Seyne-sur-Mer Cedex, France
<https://cnim-systemes-industriels.com/en>

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