

# DEFENSE

by Additive Manufacturing

## Founded in 1945 and today a world leader in the manufacture of autoclaves for the curing of composite materials, OLMAR presents its new Additive Technology division.

After more than two and a half years of investment in R & D and the incorporation of the most advanced technologies on its facilities, **OLMAR | Autoclaves & Additive Manufacturing** was born with the purpose and capacity to face the following challenges:



### CAPACITIES IN R&D PROJECTS

- **Reconstruction** of high cost metallic components for military programs of any type of vehicle or system.
- Coatings of **composite parts** to improve their resistance to impact or temperature.
- Coatings of **high hardness** and resistance to abrasion.
  - Ballistic applications and reduction of maintenance failures in battleships.
  - Reconstruction of parts or welding without zones of thermal affectation or variation of the material.
- Coating elements with electrically **conductive** materials for electromagnetic isolation.
  - Applications in communications shelter.
  - Applications in components of combat vehicles.
- Manufacture of **prototypes** with addition of functional materials in short series.
  - Light armament.
  - Vehicles.
  - Communication systems.
- Manufacture of **advanced components**.
  - Cannons with inner cladding in advanced materials without maintenance (high resistance to temperature and corrosion).
  - Cannons with external cladding for greater rigidity and lower weight (titanium or carbon fiber).
  - Manufacturing or reconstruction of components for weight reduction | cost saving.

### CAPACITIES IN TECHNOLOGICAL SERVICES

- Design of advanced **electromechanical components** and systems for the sector.
  - Motorized vehicle gun turrets.
  - Light or heavy weaponry and its components.
  - Communication systems.
  - Vehicular components.
- **High precision** machining processes for electromechanical assemblies and components for the sector.
- Advanced **thermal treatments** for metallic materials (HIP) and composites (autoclave curing of thermoset and thermoplastic composites).
- Advanced **surface finishes**, electrochemical polishing, vibration polishing, hardening and distension by shot peening.

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