



TECHNOGENIA GROUP

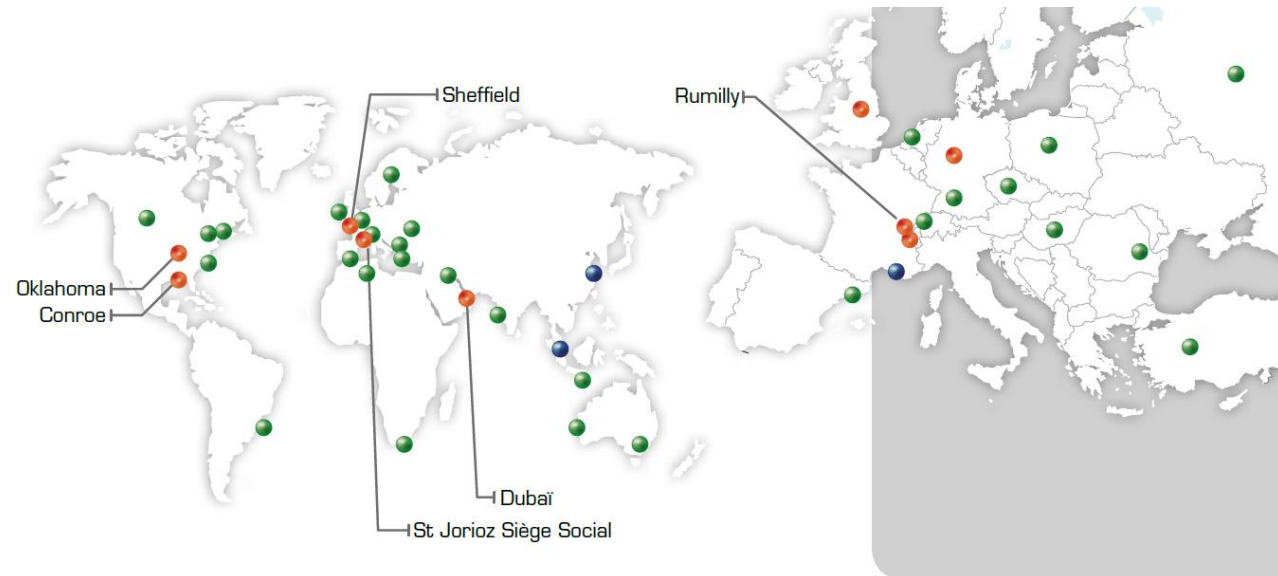
THE LEADER IN HARDFACING

HIGH PERFORMANCE |
ANTI-WEAR SOLUTIONS | ANTI-CORROSION |

FRENCH KNOW-HOW, PRESENCE ON ALL CONTINENTS

A worldwide network

- Technogenia's Group
- Distributors
- **Lasercarb®** licensees



Technogenia is a French family owned company specialized in hardfacing solutions based on tungsten carbide welding overlays, created in 1979 by Guy Maybon.

Technogenia contributes to the reduction of maintenance costs and production stops by increasing the lifetime of many industrial components worldwide. We manufacture welding consumable products and we provide a full range of services from manual hardfacing, laser cladding to the complete supply of wear parts.

WIDE RANGE OF SERVICES AND PRODUCTS

Services:

- ▶ *Laser cladding and hardening*
 - **Lasercarb®**

- ▶ *Manual hardfacing*
 - **Technosphère®**

- ▶ *Infiltration*
 - **Technocasting®**



Products:

- ▶ *Ropes*
 - **Technodur®**
 - **Technosphère®**

- ▶ *Powders*
 - **Technopoudres®**

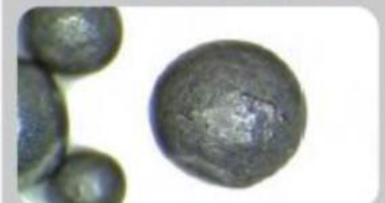
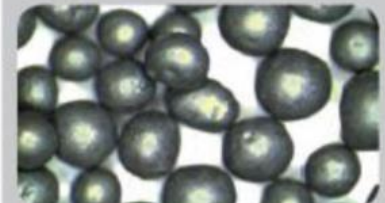
- ▶ *Rodes wire*
 - **Technocore®**
 - **Ultitech®**
 - **Technoloy Plus®**



Tungsten Carbide:

- ▶ *Manufacturer of spherical cast tungsten carbide high hardness*

- ▶ *Cemented tungsten carbide*

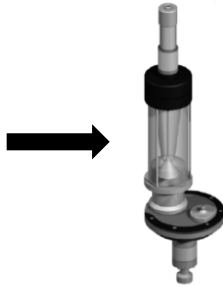


LASER CLADDING LASERCARB® PROCESS

Diode laser



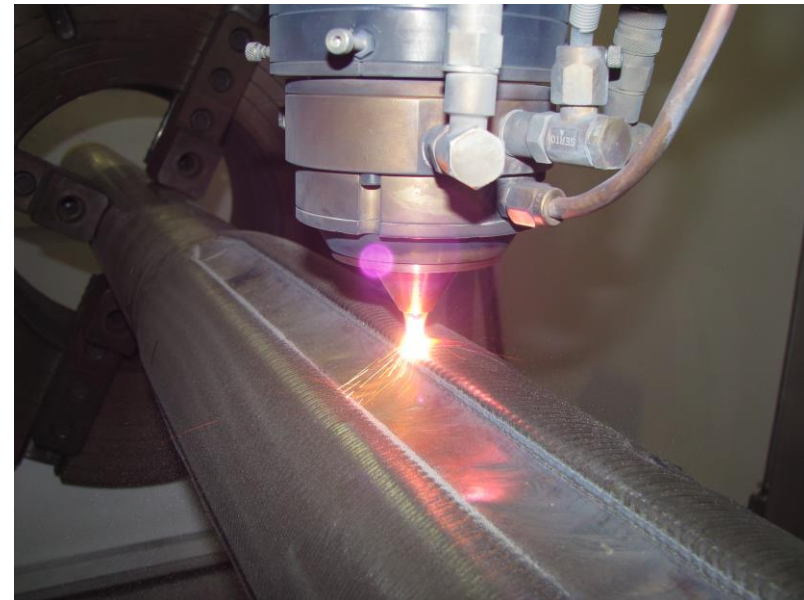
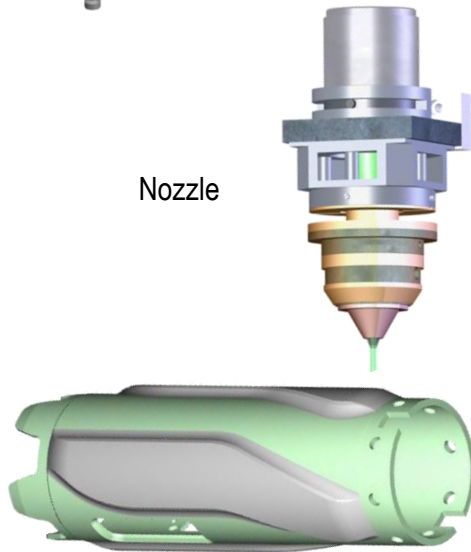
Powder Feeder



CNC 5 axis



Nozzle



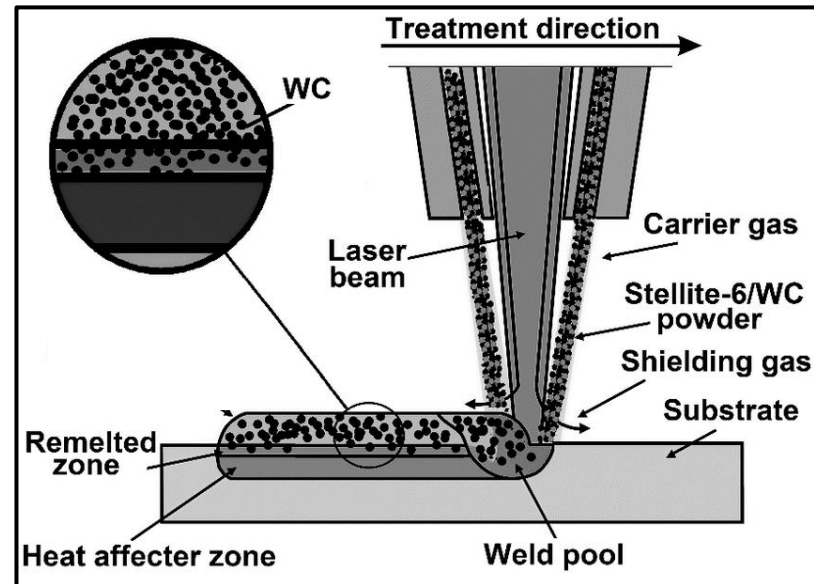
LASER CLADDING LASERCARB® PRINCIPLE

Laser cladding or DLD (Direct Laser Deposition) consists in focusing the energy of a laser beam to melt a powder on the surface of the part.

Laser cladding is today at the top of hardfacing and cladding solutions thanks to a perfect welding on the substrate, surpassing any other alternative technology.

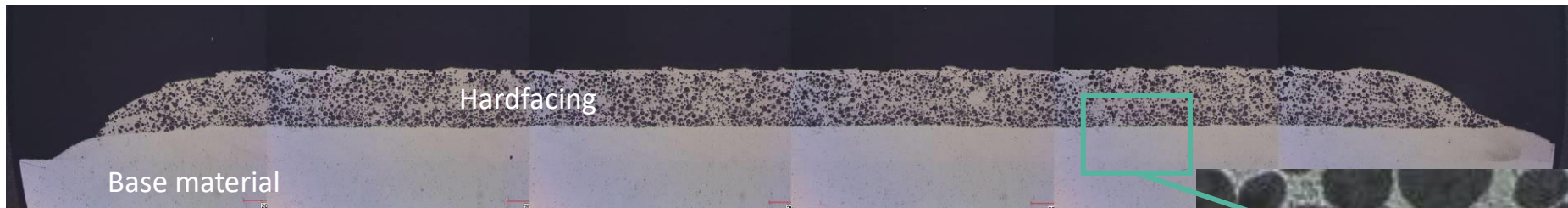
The combination of a laser with a CNC means easy welding overlays on complex shapes with a high level of automation and repeatability.

Our know-how integrates Direct Energy Deposition capacities typical of additive manufacturing technologies.



LASER CLADDING LASERCARB® BENEFITS

- Welded overlay: Metallurgical bond, perfect welding on the substrate.
- Defect free deposit: No porosity or cracks.
- Very low dilution.
- Minimal Heat Affected Zone.
- Extremely limited deformations.
- Precise, reproducible and fully automated process.
- Wide range of powders (WC, Co, Ni, Fe based)
- Deposit thickness from 0.5 mm to 3 mm



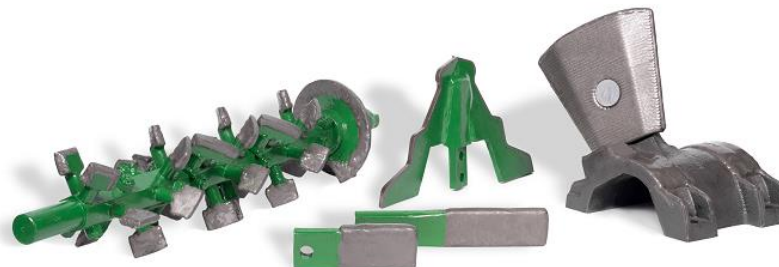
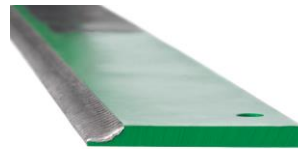
BASE MATERIALS

- | | |
|-------------------------|-------------------------------------|
| • All weldable steels | • Titanium |
| • Most stainless steels | • Some types of weldable cast irons |
| • Non magnetic steels | • Tool steels |

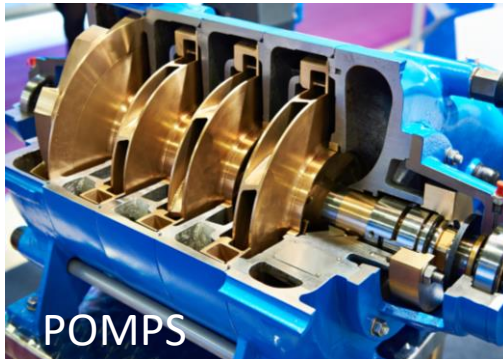
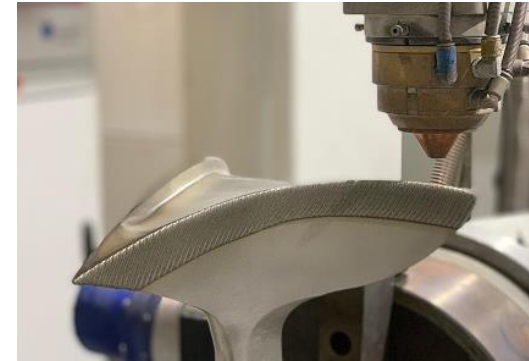
LASER CLADDING LASERCARB® PHOTOS



MAIN FIELDS OF ACTIVITY



MAIN FIELDS OF ACTIVITY



THANK YOU FOR YOUR ATTENTION



www.technogenia-group.com