



# LASER CLADDING & HARDENING

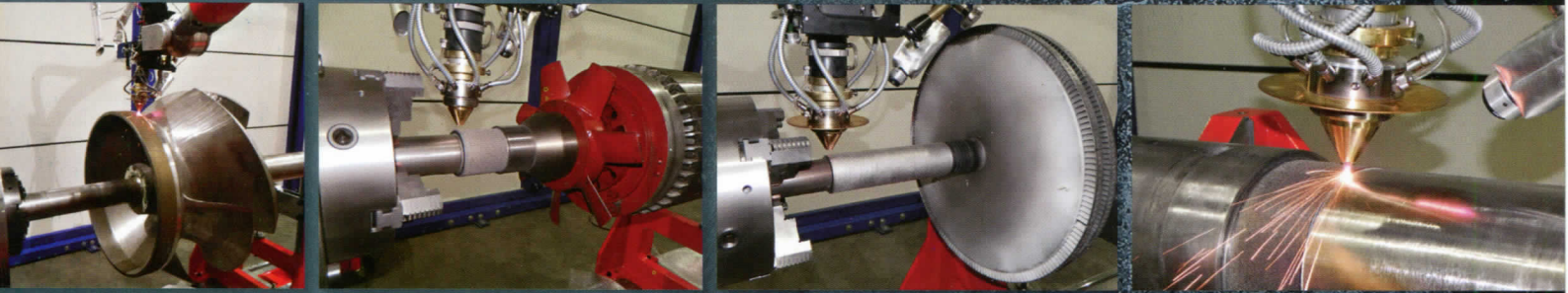


*By far the best available and the most advanced technology for the restoration of worn components offering great advantages:*

- High strength metallurgical bond.
- No distortions.
- Improved life time of component.
- Low dilution between track and substrate (unlike other welding processes).
- High cooling rate => fine microstructure.
- Fast processing times.
- Great variety of materials processed.
- Built part is free of crack and porosity.



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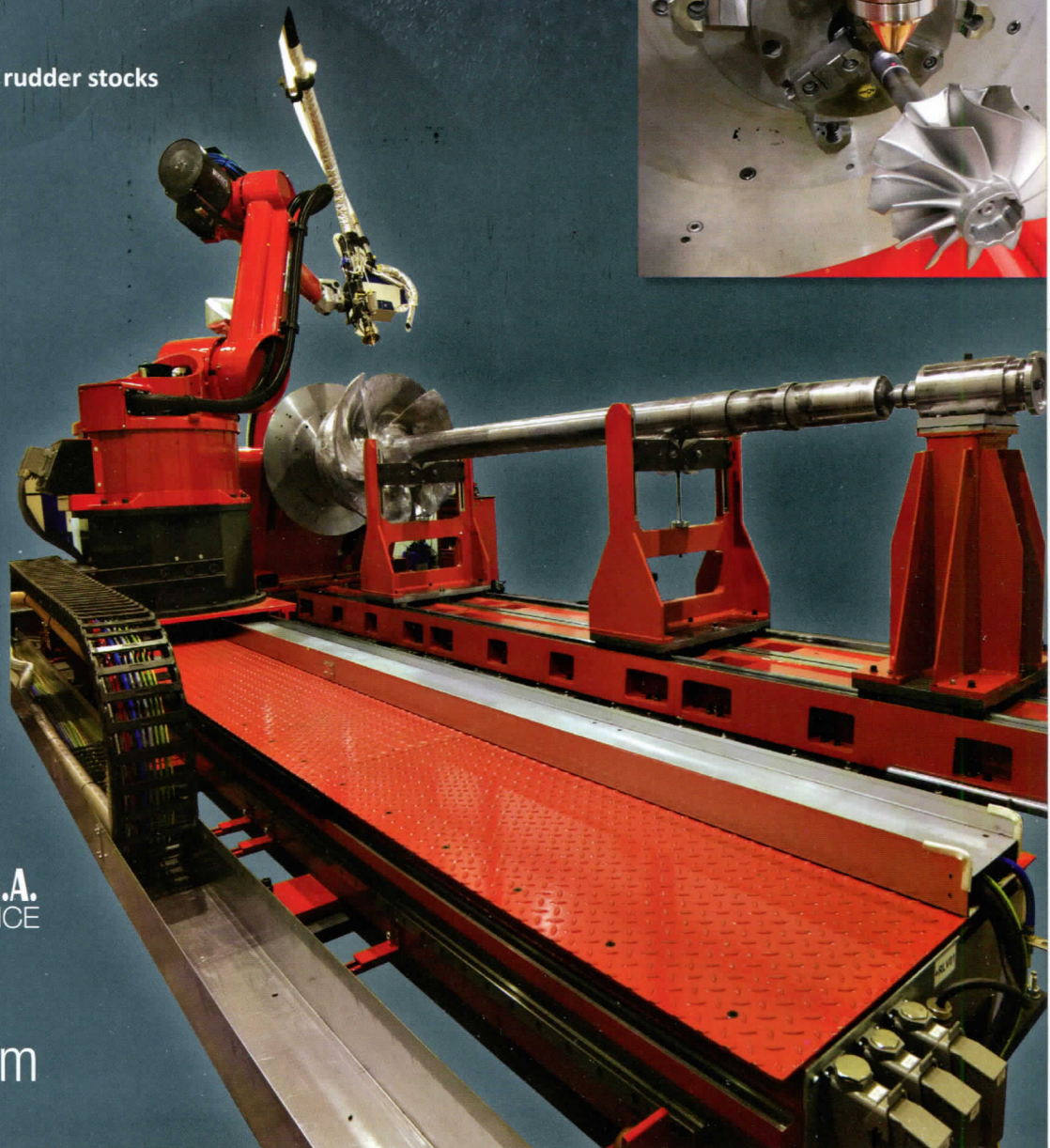
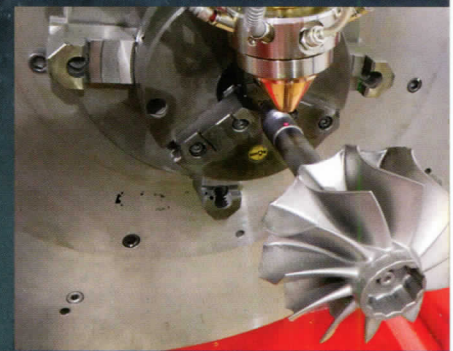
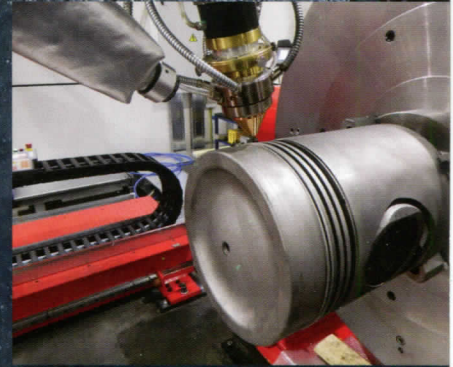


*Laser cladding & hardening is a technology used to restore the service life of various critical components used in the shipping industry, the energy industry, the heavy industry, refineries etc, such as:*

- Steam turbines (rotor journals, sealing strips, blades, nozzles, casings etc)
- Turbochargers rotors (compressor impellers, blades, nozzle rings, rotor journals etc)
- Rotating machinery
- Compressor machinery
- 4-stroke pistons (auxiliary engines)
- Main or auxiliary engine components (Crankshafts, camshafts)
- Gears
- Pump components
- Hydraulic mechanisms
- Various shafts, tail shafts and rudder stocks
- Propellers
- Various others

## **Common Powders Used.**

- Steel based powders.
- Copper based powders.
- Nickel based powders.
- Cobalt based powders.
- Titanium based powders.
- Various carbides.



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