

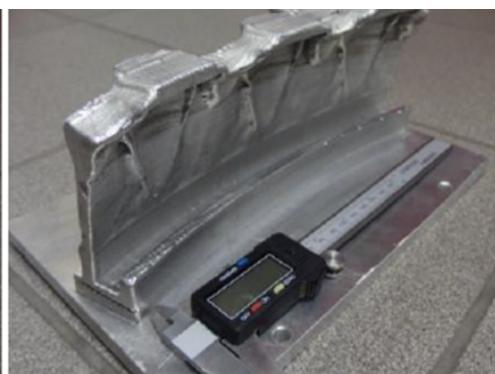
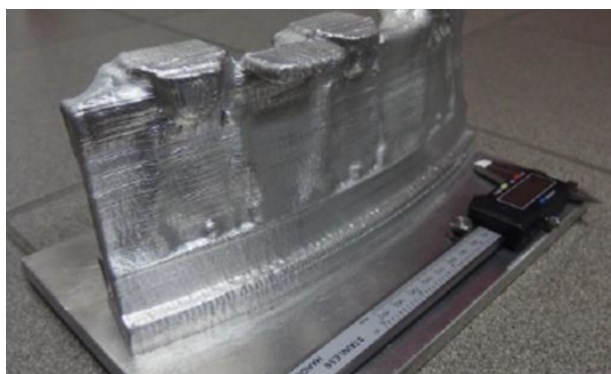
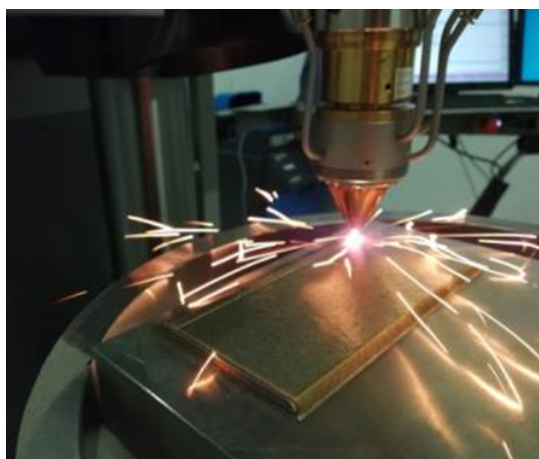
LASER CLADDING MANUFACTURING EXPLORATORY – (CLAMAX)

Technical data

- LMD (Laser Metal Deposition)
- Laser beam up to 2kW
- Spot diameter 1.48mm
- Manufacture of parts up to 750kg
- 5-axis system

Purpose

Clamax or laser Cladding Manufacturing Exploratory is a LMD equipment which allows to perform manufacturing and repair with many different materials and local surface treatments. Its reduced size allows a high flexibility for tuning the deposition parameters of single and multi-materials. The 5-axes system (3 linear + 2 rotational) is equipped with a 2 kW diode laser.



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Parts

With Clamax equipment, repairs or manufacturing of parts is made with many different materials :

- Ferrous alloys (S308, S316L, 21CrMoV5-11, Weldclad3, 17-4PH, duplex steel,...),
- Aluminium alloys (AlSi7Mg, AlSi10Mg, Scalmalloy ®,...)
- Cu alloys, ...

Equipment	Feature	Value
Laser source - Laserline	Type	Diode - Fibre
	Wavelength	980 nm
	Power	2 kW
	Spot diameter	1.48 mm
Nozzle - ILT Fraunhofer	Type	Coaxial
	Max powder diameter	110 µm
	Shielding gas type	Argon or dedicated atmospheres
Powder feeder – GTV (2 hoppers allowing to work with 2 different materials simultaneously)	Carrier gas type	Argon
	Max. capacity	1.5 litres per hopper
	Flow rates (Max.)	Up to 2.82 cm ³ /min
Displacement – Schunk (5 axes: 3 linear + 2 rotational)	Max. displacement rate (x, y and z linear axes)	2500 mm/min
	Max. weight	250 Kg on table 50 Kg on manipulator