



LaserClad

MAXIMUM Protection for Steel Rolls

- Tungsten carbide coatings for extreme wear protection
- Best protection for steel mill wear; rolls, guides, sieves...
- Limited distortion, heat affected zone and low dilution.



Extraordinary wear protection for metals production

The Castolin Eutectic has been a pioneer in developing solutions for preventive maintenance and repair of tools needed for the production of steel, aluminium, copper and other metals. The collection of welding, brazing, thermal spraying and wear plates are all part of the repertoire offered by Castolin.

Since the adaptation of laser cladding technology to the Castolin Services Centers the wear protection of the key tools such as rolls and guides have been raised to the new level. The utilization of 8kW High Power Direct Diode (HPDD) with high level of automation leads to flexible production and superior quality. In addition, the high laser power enables high deposition rate that can reduce the cost of cladding operation.

Advantages of Laser Clad technology

Longer service life

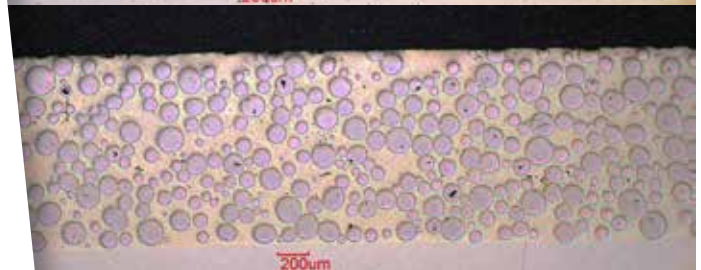
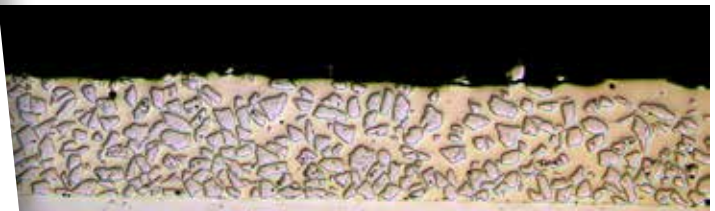
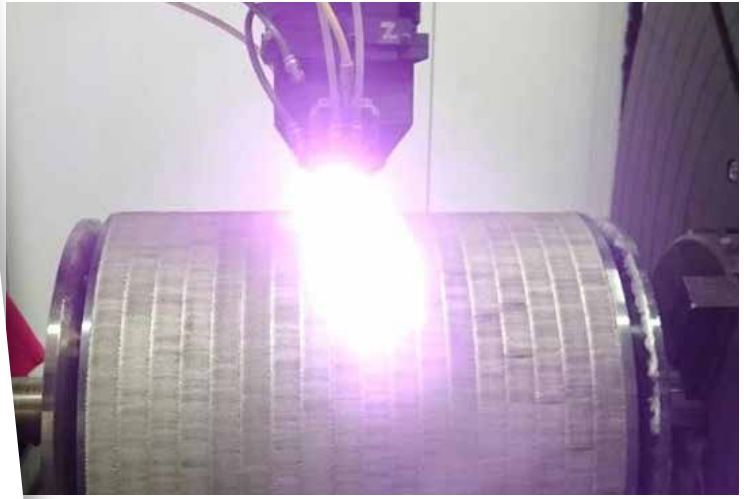
Compared to standard welding techniques, the dissolution of the carbides and the dilution of the cladding material are the lowest that can be achieved. As a result, the wear-resistance is maximized and the service-life is longer.

Reduction of grinding and machining costs

The unique broad beam (up to 23mm wide) produces a flat coated surface that minimize subsequent machining or grinding. Rolls can often be used as welded without further processing.

Lowest distortion

The low heat input of the laser process means the lowest distortion of large and thin wall parts that can easily be cladded.



Advantages working with Castolin

- 100 years of wear and corrosion understanding
- Long experience with laser cladding: selling laser powders for 10 years
- Long experience on metals production and in preventive maintenance.
- Design and manufacture of all powders for laser cladding
- To date, 5 diode LaserClad™ units installed within Castolin Eutectic globally
- Deep understanding of the process developed through research projects with leading institutes
- Investment in the largest HPDD laser cladding facility in Europe and in Asia

Our offer

1. Coating Service

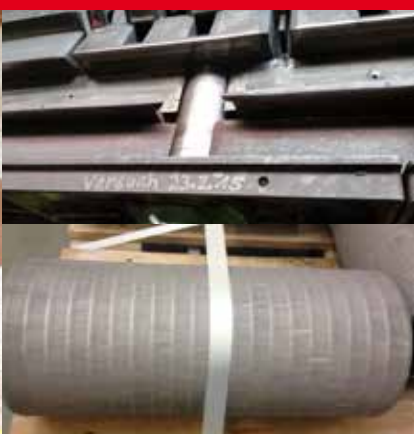
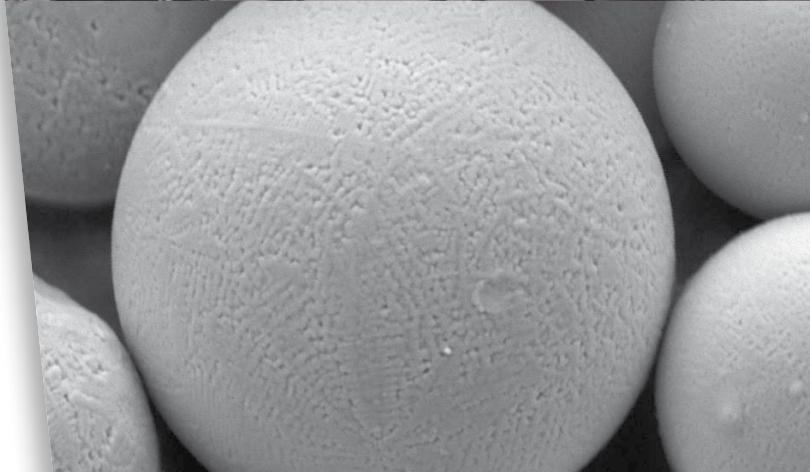
- Tungsten carbide hard-facing (spherical and angular carbides) of rolls, guides etc.
- Repair and maintenance of worn production tools and machine elements by laser cladding
- Precision cladding of smaller components
- R&D support for novel materials
- Cost effective OEM coating service for thousands of parts

2. Laser Cladding powder

- Full range of alloys available and optimised for laser cladding
- Novel alloys can be designed/manufactured in our state-of-the-art powder production plant

3. Fully automated and integrated laser cladding facility

- Complete laser cladding system





Castolin Eutectic Laser Facilities



Castolin Eutectic Laser Powder Production



Our facility

- Located in the Castolin Austria Service workshop - Vienna
- Fully automated 7 axis 8kW HPDD laser cladding
- Fully overhead crane allows coating of parts up to 3 tonnes, 1000mm diameter and 5m length

Stronger, with Castolin Eutectic



Smooth surface after Cladding



www.castolin.com