Laser Cladding Workcell

Robotic Laser Cladding

Applications

- Deposition of High Quality Metal Coatings:
  - Wear Resistance
  - Low-friction Sliding Surfaces
  - Hard Facing Teeth
  - Corrosion Resistance
- Rebuilding of Worn High-value Mechanical Components

Features

- High Efficiency IPG Fiber Laser
- 6-axis Robot with Optional Rotary Axis
- Cladding Head Optimized for Application
- Powder Delivery System
- Class 1 Fully Interlocked Safety Enclosure
- All Functions Integrated and Supported by IPG

IPG's Laser Cladding Workcell is a modular and highly-configurable workstation for laser-based metal cladding. Based on the company's Robotic Laser Workcell, the cladding system comprises a high power, high efficiency fiber laser with a process head, powder feed system and powder recovery/ debris control module, integrated with a 6-axis motion robot. The robot and process delivery system is packaged within a Class 1 laser safety enclosure, with full interlock integration with access doors and facilities safety systems.

IPG's Laser Cladding Workcells are configured as turnkey systems for each individual customer requirement. To maximize utilization of the fiber laser source, additional options allow the Workcell to support either cutting or welding functions in addition to cladding, with optional automated switching between the functions.