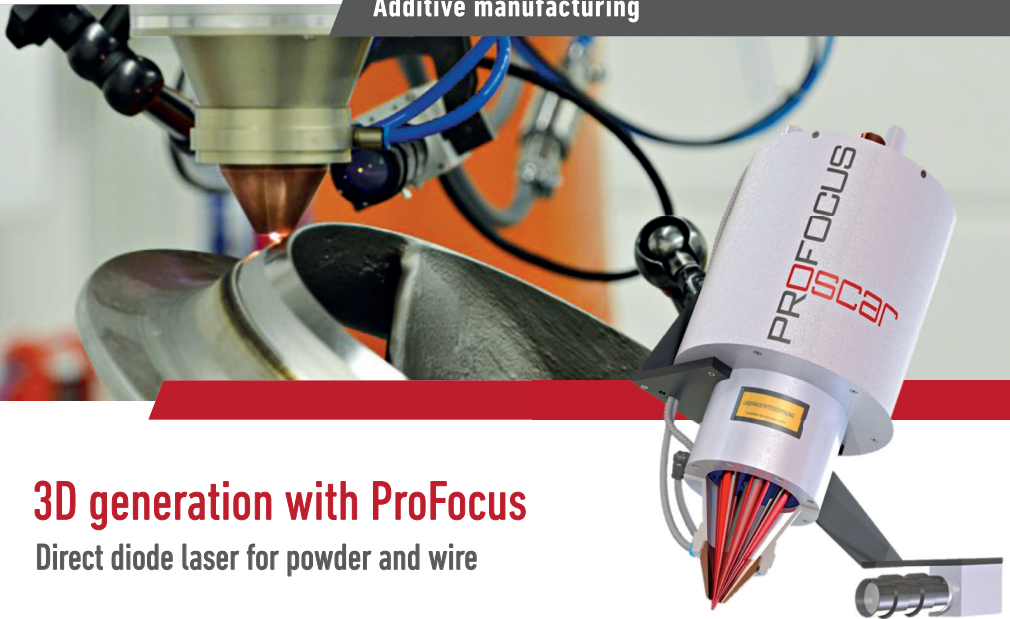


Additive manufacturing



3D generation with ProFocus

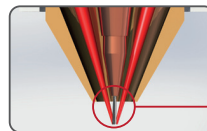
Direct diode laser for powder and wire

Summary of advantages

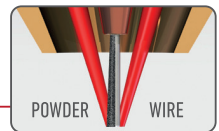
- beam generation and optics in one head
- 6 individual beams with separate control
- direction-independent
- simple changeover between wire and powder process
- integrated process monitoring and control
- doubling of deposition rate by selectable wire preheating (hot wire)
- high powder utilization
- outstanding inert gas shielding
- simple integration into robot and CNC systems

Technical data

- Laser power: 1 kW
- Spot: \varnothing 1 mm
- Dimensions: \varnothing 195 mm x 360 mm
- Weight: ca. 13 kg
- Welding wire: \varnothing 0,8 – 1,2 mm
- Deposition rate: up to 1kg/h
- Powder fraction: 45 – 150 μ m
- Powder utilization: ca. 85 %



Cladding process



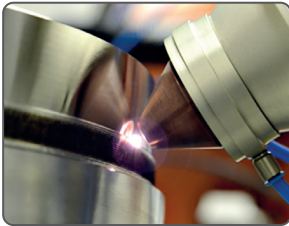
Enlarged view

Our product for your application

Repair and 3D generation

Repair of large components

- reconditioning for repair
- low energy input for minimum distortion
- near net shape accuracy
- excellent material properties



Example: large pump made from 1.4410

3D generation of components

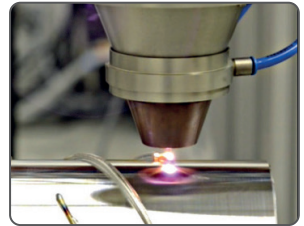
- path contours from CAD - CAM
- components built up at a deposition rate of up to 1 kg/h with a laser power of just 1 kW
- different materials in a single component (e.g. seals, corrosion protection)



Example: fitting made from 1.4404, Ø 190 mm, 17 kg

3D generation on semifinished parts

- 3D material deposition on standardized or pre-prepared semifinished products
- high level of economy from batch sizes of 1
- close to net shape accuracy on contours and reinforcements



Example: shredder made from 1.4410, Ø 250 mm

About us

OSCAR PLT GmbH develops arc and plasma torches and laser machining heads for welding, cutting and cladding as well as for additive manufacture. We offer consulting and support to our customers in integrating our products into their technical applications.