Overview of Additive Manufacturing systems for metal powders

Industrial production solutions for your metal application

As a pioneer in additive technologies and laser specialist since 1979, we offer the right technology for every application requirement: Laser Metal Fusion (or Laser Powder Bed Fusion) or Laser Metal Deposition. Benefit from complete industrial solutions with intelligent monitoring and smart services from a leading high-tech mechanical engineering company worldwide. You are looking for potentials of additive manufacturing in your company? Talk to our experts!

Laser Metal Deposition
From coating to repair through to additive manufacturing

Deposition technology package for LMD: Configurable station from beam generator, feeder, optics, and nozzle

Compatible systems: TruCell 3000, TruCell 7000, and complete integration into your CAM solution.

TruPrint 1000
Build volume (cylinder): Ø 100 x H 100 mm
Maximum laser power at the workpiece (TRUMPF fiber laser): 1 x 200 W
Beam diameter: 55/80 µm
Preheating: Up to 200 °C
Unpacking: Internal or optional under shielding gas
Further options: Preform, Multiplate, Inert Powder Cycle, Powder Bed Monitoring, Calibration

TruPrint 2000
Build volume (cylinder): Ø 200 x H 200 mm
Maximum laser power at the workpiece (TRUMPF fiber laser): 1 x 300 W, Fullfield multilaser option: 2 x 300 W
Beam diameter: 55 µm
Preheating: Up to 200 °C
Unpacking: Internal under shielding gas
Further options: Preform Bed and Melt Pool Monitoring, Calibration

TruPrint 3000
Build volume (cylinder): Ø 300 x H 400 mm
Maximum laser power at the workpiece (TRUMPF fiber laser): 1 x 500 W, Fullfield multilaser option: 2 x 500 W
Beam diameter: 15 µm
Unpacking: Up to 200 °C
Preheating: Up to 200 °C
Further options: Powder Bed and Melt Pool Monitoring, Calibration

TruPrint 5000
Build volume (cylinder): Ø 500 x H 500 mm
Maximum laser power at the workpiece (TRUMPF fiber laser): 1 x 1000 W, Fullfield multilaser option: 2 x 1000 W
Preheating: Up to 500 °C
Unpacking: Internal under shielding gas or external with interchangeable cylinder in depowdering station
Further options: Powder Bed and Melt Pool Monitoring, Calibration

TruPrint 5000 Green Edition
Build volume (cylinder): Ø 300 x H 400 mm
Maximum laser power at the workpiece (TruDisk Laser 1020): 800 W, 515 nm
Beam diameter: 210 µm
Preheating: Up to 200 °C

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Our additive technologies for your application:
Laser Powder Bed Fusion (LMB/LPBF) & Laser Metal Deposition (LMD)
The right solution for every metal AM application

Laser Metal Deposition
The allrounder among additive systems
- From coating to repair through to additive manufacturing
- The right beam source and powder feeder for every application
- High-speed laser metal deposition for rotationally symmetric components

TruPrint 5000
- Highly productive and semi-automated 3D printing system
- Fullfield multilaser 3 × 500 W with Automatic Multilaser Alignment for high part quality
- Inert, closed powder cycle
- NEW: Preform option for hybrid manufacturing

TruPrint 5000 Green Edition
- 3D printing of copper and copper alloys
- Unique combination of green laser and additive manufacturing system
- Highest quality and productivity through green laser with wavelength of 515 nm
- Outstanding thermal properties and electrical conductivities

TruPrint 3000
- Flexible solution for industrial 3D printing
- Maximum productivity through fullfield multilaser 2 × 500 W
- High process reliability due to newly developed gas flux
- Inert, closed powder cycle
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TruPrint 2000
- Economical 3D printing in premium quality
- Maximum part quality with 55 µm beam diameter
- Highly productive due to fullfield multilaser option
- Inert, closed powder cycle

TruPrint 2000 Premiere
- The allrounder among additive systems
- From coating to repair through to additive manufacturing
- The right beam source and powder feeder for every application
- High-speed laser metal deposition for rotationally symmetric components

TruPrint 1000
- 3D printing in premium quality: highly productive and compact
- Highest build rate and machine run time
- Superior part and surface quality
- Ergonomic contact-free powder handling
- Best fit for dental applications: lower part cost due to preform, multipaste and hybrid digital chain

TruPrint 3000 Premiere
- Flexible solution for industrial 3D printing
- Maximum productivity through fullfield multilaser 2 × 500 W
- High process reliability due to newly developed gas flux
- Inert, closed powder cycle

TruPrint 3000 Supreme
- Economical 3D printing in premium quality
- Premium part quality with 55 µm beam diameter
- Highly productive due to fullfield multilaser option
- Inert, closed powder cycle

TruPrint 2000 Supreme
- Flexible solution for industrial 3D printing
- Fullfield multilaser 3 × 500 W with Automatic Multilaser Alignment for high part quality
- Inert, closed powder cycle

TruServices
- <30 min response time for urgent service requests
- 85% service cases solved without on-site assignment
- 24/7 spare parts order
- TRUMPF Bank for flexible financing solutions

NEW:
- 3D printing of aluminum with 2 x 700 W
- Inert, closed powder cycle

NEW:
- Preform option for hybrid manufacturing