



# Precise solutions for the high requirements of medical technology

Sign up now for your personal application consultation.



3D laser welding



UDI marking



Additive Manufacturing

**Entire systems from one source**  
Turnkey and modular solutions

**Accessible, reliable, on-site**  
Consultation on application questions and qualification issues

**Reliable processes for safe products**  
Monitoring functions and image processing solutions

**Complex geometries**  
Individual or in series

# 3D laser welding systems for small assemblies – compact and cost-efficient

1

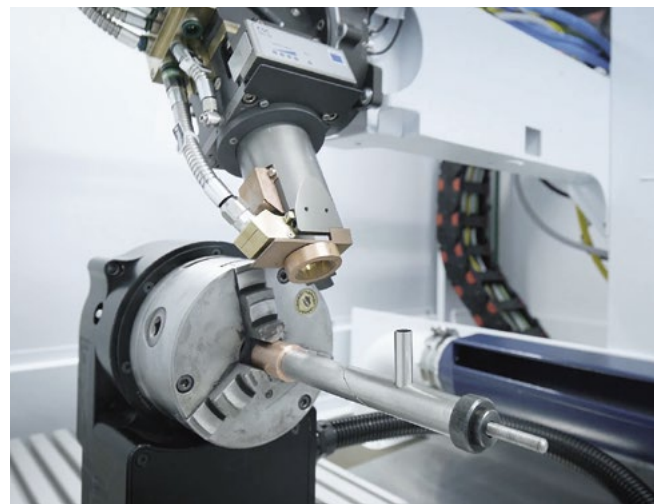


## TruLaser Station 7000: Innovative technology for products of the highest quality

- Laser TruFiber 1000 with motor-driven processing optics
- Turnkey system for precisely welded joints with consistently high quality
- Modular design: Automatic seam correction as well as connection of other laser sources and optics possible
- Spacious working area for processing larger instruments with the same minimal footprint
- Reliable processing of even complex assemblies thanks to 5-axis kinematics
- Flexible operation for all weld seam types
- Integrated interfaces enable automated process solutions and connection of complex fixture technology



With its spacious working area and high welding quality, the TruLaser Station 7000 is especially suited for medical technology instruments such as endoscopes.



The motor-driven swivel optics enables high-quality 3D processing with consistently high process quality for all weld seam types.



Experience the TruLaser Station 7000 in action:  
<https://www.trumpf.com/s/medical-solutions-1>



# Turnkey marking solutions

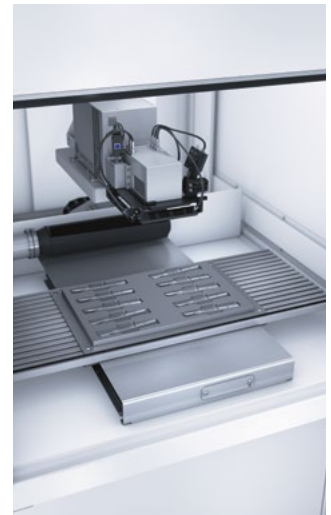
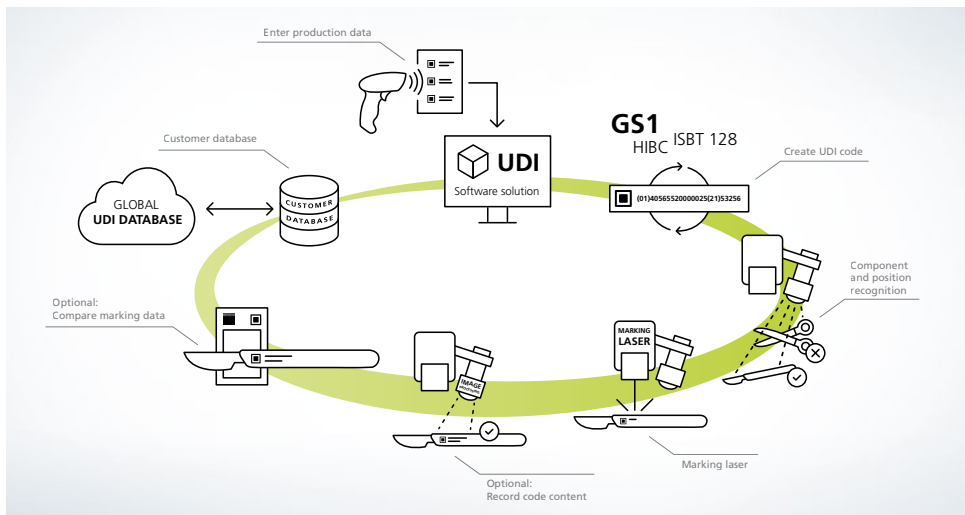
2



## TruMark Station 7000: Precise marking of filigree medical products

- Corrosion-resistant UDI markings on standard medical-technology steels with surfaces of different roughness grades – enabled by the use of nano-, pico- and femto-second lasers (annealing, black marking, engraving)
- Laser marking of medical plastics using ultraviolet wavelengths
- Modular image processing solutions for position recognition, qualification of codes according to ISO 91158 as well as checking characters (OCR/OCV) – also on highly reflective materials

Marking of scalpels with the TruMark Station 7000.



- The use of smart software solutions makes it possible to:
  - Reading in the data from a database or direct input via production docket
  - Automatic creation of correct UDI codes e.g. according to GS1
  - Component recognition and position correction by using image processing
  - High quality and fast application of the marking content
  - Reading and grading codes and marking content by using image processing
  - Writing back the test results into the database



Experience the TruMark Station 7000 in action:  
<https://www.trumpf.com/s/medical-solutions-1>



# Quality assurance from powder to the finished device

3

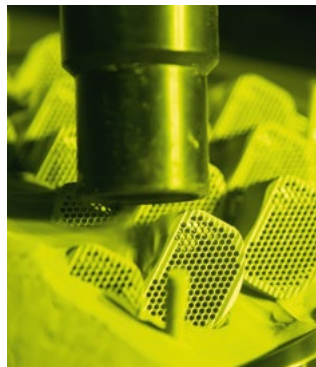


## TruPrint 2000 and 5000: Complex geometries – individual or in series

- Creation of individual or standardized geometries, fine structures and products with high surface quality thanks to flexible adaptation of process parameters
- Reduction of cycle times and therefore reduced costs per part thanks to the simultaneous application of several lasers
- Safe operation with reactive materials under consistent conditions due to inert powder handling
- Option of documenting the oxygen level during powder preparation
- Process monitoring in real time
- Preheating temperatures of 200°C to 500°C reduce inner tensions, increase process reliability and lead to cost savings thanks to optimized part design and support structures



Cranial implant.



Integrated unpacking station.



Experience the TruPrint in action:  
<https://www.trumpf.com/s/medical-solutions-1>



## Your partner in medical technology

- Equipment Qualification (EQ): Support by specially trained service engineers and extensive documentation
- Worldwide TRUMPF service network and comprehensive remote support for quick problem-solving and a minimum of machine downtimes
- Tailor-made consultation on component design, application questions or machine topics – online, in the application laboratory or on-site at your plant

