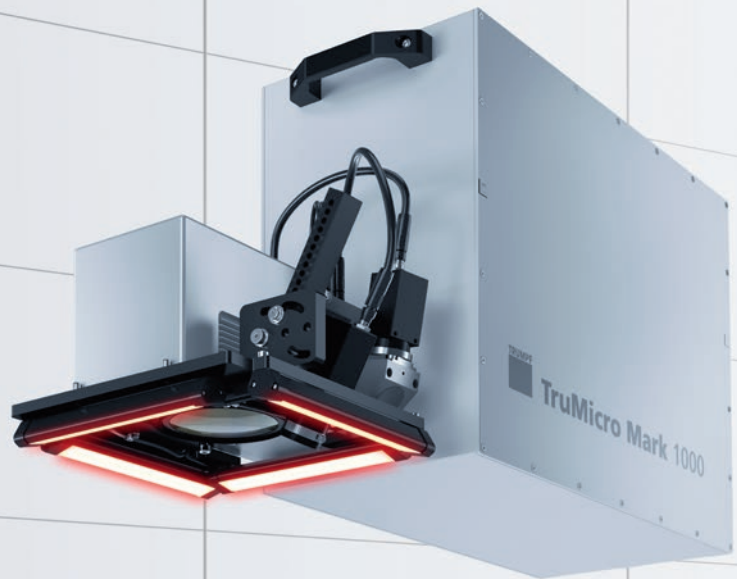


TruMicro Mark 1020

Permanent,
high-contrast and
corrosion-free
black marking of
medical parts



We support you with Installation and Operation Qualification (IQ/OQ) services to comply with the certification requirements of the medical device industry

Focused on the requirements of the medical device industry

- Permanent and corrosion-resistant marking of UDIs. No fading after autoclaving
- High-contrast black marking, legible under all viewing angles
- Full traceability and quality control with VisionLine cameras and image processing solution
- IQ/OQ certification support

Complete solution for 3D marking and material processing

- Unmatched versatility for marking, engraving, structuring, drilling
- TruMark workstation with many workpiece-handling and interface options
- 3D CAD software for marking complex geometries and components
- World-class application and parameter optimization support by our global laboratories

Highest parameter stability and long-term reliability

- Industry-proven and ultrafast laser technology
- Suitable for 24/7 operation
- Perfect for high-volume production or for small lot sizes
- Stable, reproducible results at ambient temperatures of up to 40°C
- 24/7 service support



3D black marking with TruMicro Mark 1020 on an additively manufactured titanium hearing instrument



Turnkey solution: TruMicro Mark 1020 integrated in the marking system TruMark Station 7000



3D black marking on catheter (Alpine Laser)

TruMicro Mark 1020: Unlimited black marking for UDI-compliant markings

Mark, engrave and process your medical parts in full 3D with the new ultrafast laser TruMicro Mark 1020.

Common marking applications

- Unique device identifier (UDI) marking
- Banding to mark depth scales on cannulas, catheters and tubes
- Logos and company branding for identification

Polymer marking

- High-contrast marking of polymers used in the medical industry, including ultra-high-molecular-weight polyethylene (UHMWPE)

3D microprocessing of medical parts

- Drilling, cutting, welding, structuring of surfaces

Significant advantages over the thermal marking process of nanosecond lasers

- High-contrast, dark black marking
- Legible independent of viewing angle, even under difficult lighting conditions
- Markings are permanent and corrosion-resistant, with minimal surface relief, preventing bacteria accumulation
- Marking of extremely small, machine-readable Dot Matrix Codes
- Broad process window, stable and reproducible marking process, with constant, machine-independent parameters
- No creation of cracks, no fading after passivation and autoclaving
- Marking quality is independent of part geometry
- No passivation is required after marking

Technical data

Max. average power	W	10
Marking field	mm	125 × 125 × ±25 180 × 180 × ±50 300 × 300 × ±15 330 × 330 × ±50
Pulse duration range	fs	900
Max. pulse energy	µJ	100
Frequency range	kHz	Up to 2000
Max. peak power	kW	111000
Min. spot size	µm	46

Subject to change without notice. Only specifications in our offer and order confirmation are binding.



Everything else you want to know about TruMicro Mark 1020:
www.trumpf.com/s/9dl2w

