

TruMicro Mark 2000:

Simply flexible.



Complete solution for marking with ultrashort pulses.

The TruMicro Mark 2000 offers the first complete turnkey solution for an ultrashort pulse laser in a marking station. The package, also available as an OEM solution, includes not only the laser but also scanner, cooler and software. The TruMicro Mark 2000 is ideal for customers in search of a unit for laser marking with picosecond pulses. With peak pulse power of 0.5 MW these lasers are ideal for processes where cold material processing is already productive with low average power. Several control loops combined with a patented, fast external modulator guarantee maximum process stability and fixed parameters for every single pulse. The variably adjustable Burst technology enables customization of pulse number and distance, for optimal process adaptation – so the TruMicro Mark 2000 can also be used for other applications in cold processing.



Deep-black, corrosion-free markings on highly reflective surfaces.

The extreme peak performances of ultrashort pulses create a nanostructure on the surface of the workpiece, causing a deep blackening. These markings are extremely high-contrast and remain very legible even under light. Due to the high-energy, ultrashort pulses, the material experiences hardly any heat input. It also remains corrosion-free, even after numerous cleaning and sterilization cycles – and requires no previously applied passivation layer. In addition, the ultrashort pulses enable the marking of highly reflective surfaces, such as chrome-plated plastics. Such markings can only be achieved using picosecond pulses.

TruMicro Mark 2000: Your benefits at a glance.

- 1 Deep-black, corrosion-free markings.
- 2 Markings on chrome-plated plastics.
- 3 High beam quality for absolute precision.

Applications in medical technology.

The TruMicro Mark 2000 is especially suitable for the manufacture of products in medical technology. Resistance to corrosion is especially important where implants and surgical instruments are concerned. Traceability via machine-readable labeling is also growing in importance. No limits are placed here on either the type or form of marking: UDI-compliant product labeling in plain text and with barcodes or data matrix codes for product traceability, micromarking in the range of only a few hundredths of a millimeter, or fine graphics of the highest quality.

	TruMicro Mark 2000
Wavelength	1030 nm
Pulse duration	20 ps
Beam quality M ²	M ² < 1,3
Average laser power	10 W
Max. pulse energy	20 µJ
Repetition rate	0–2000 kHz

	TruMark Station 5000
Max. workpiece size (WxHxD)	680x500x700 mm
Travel length (ZIXIY)	500 300 300 mm
Travel speed	1.5 1.6 6 m/min
Max. workpiece weight	50 kg

Subject to alteration. Only specifications in our offer and order confirmation are binding.