

.NEW

New generation TruDisk

Meet the sharpest tool in the box



01

Intelligent

Optimized for Industry 4.0

02

Ultracompact

Footprint reduced by 50%

03

Flexible cooling concept

Supply temperature of up to 38°C
with an integrated chiller

04

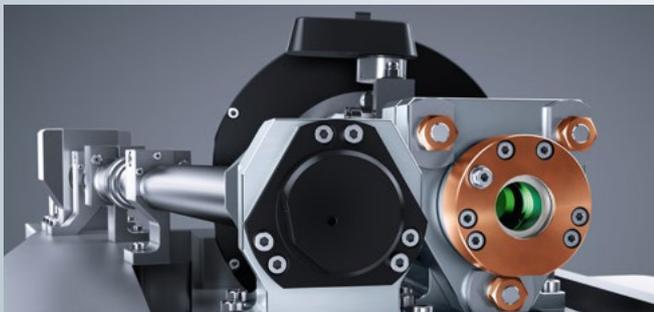
Improved energy efficiency

Innovative pulse function

The ultracompact
disk laser generation

New generation with patented disk laser technology

The TruDisk is a high-powered solid-state laser for welding, cutting and surface treatment of metals. The laser is especially impressive wherever a combination of high laser power and excellent beam quality is required.



01

Intelligent

Optimized for Industry 4.0

Industrial production is undergoing a revolution: machines and components are communicating via sensors and codes. Software solutions bundle the information obtained, analyze it, and control the manufacturing process. The new generation of TruDisk lasers features synchronized data recording of all sensors, offering high-quality data for virtual analyses. Via the OPC UA interface, data from the laser can be read without physical access to the device. The lasers therefore provide optimal hardware requirements for services like condition monitoring and predictive maintenance.

02

Ultracompact

Footprint reduced by 50%

The new TruDisk boasts a space-saving design with a footprint of under 1 m². This modular design of the TruDisk maximizes accessibility and ease of service work. Individual components can be replaced quickly and easily.

03

Flexible cooling concept

Supply temperature of up to 38°C with an integrated chiller

The new TruDisk laser comes with an intelligent cooling concept. Depending on the temperature of your tap water, you can choose between the standard variant with an integrated heat exchanger (up to 28° C in supply flow) and the optional integrated compressor chiller (up to 38° C in supply flow). The footprint of the laser will remain unchanged by your choice. Whenever tap water for cooling is available, you can operate without an external chiller. The compressor chiller is connected to the laser control and is always reliably and simultaneously monitored.

04

Improved energy efficiency

Innovative pulse function

The latest-generation TruDisk has an energy-efficient pulse function. For the first time, even during very brief breaks in processing, the diode current can be reduced to 0 A. For longer processing intervals, the smart energy management of the TruDisk laser is available. As a result, the laser is energy-efficient in operation both during laser-on and laser-off times.

Welding



Cutting



Brazing



Hardening



The proven features of the TruDisk

Highest beam quality

Thanks to the disk geometry

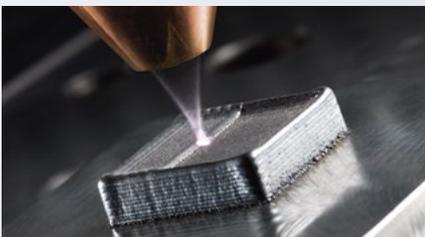
The use of the disk as a laser medium provides brilliant beam quality – on TruDisk lasers, up to $2 \text{ mm} \cdot \text{mrad}$. Delivering between 1 and 16 kW of power, TruDisk lasers produce optimum results for processes as diverse as laser cutting, deposition welding, hardening, and additive manufacturing.



100% constant power

From the first millisecond

The laser power can be regulated in real time instead of being controlled manually. So you get the best power stability on the market for the entire service life of your TruDisk laser. And that means perfectly reproducible results around the clock.



For highly productive cutting and welding, look no further than the TruDisk all-in-one laser. Brazing and deposition welding are two of its key strengths, and it can even handle highly reflective non-ferrous metals.

Robust against back reflection

Thanks to our patented resonator design

Your TruDisk laser can comfortably handle highly reflective materials. At the same time, it works reliably, without any wear parts and has proven itself even in the most extreme of ambient conditions.

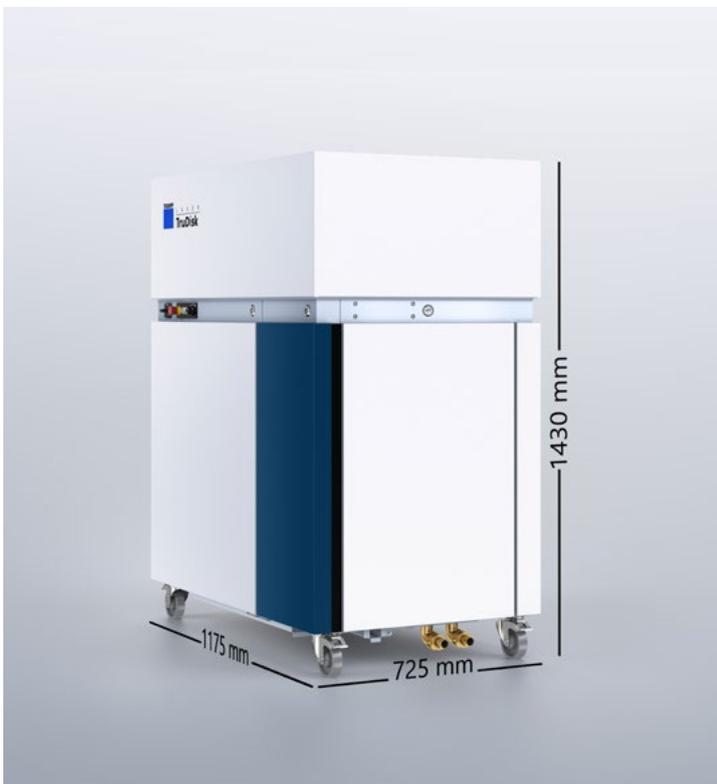


Stable processing results

Thanks to smart software options

The TruControl laser control software provides flexible support for all standard fieldbus systems. It also allows you to program pulse shapes tailored to your specific application. CutAssist helps you get optimum machining results. And the quality data store lets you record all your process settings and export them.





TruDisk with integrated heat exchanger.



TruDisk with integrated compressor chiller.

Technical data				
Product variants	TruDisk 3001 3002 3006	TruDisk 4001 4002 4006	TruDisk 5001 5002 5006	TruDisk 6001 6002 6006
Laser power (at the workpiece)	3000 W	4000 W	5000 W	6000 W
Long-term power stability	± 1% with laser power control			
Adjustable power range	2% (3%) to 100%			
Beam quality (typical values)	4 8 25 mm · mrad	4 8 25 mm · mrad	4 8 25 mm · mrad	4 8 25 mm · mrad
Wavelength	1030 nm			
No. of outputs	up to 2			
Ø laser light cable	100 200 600 µm	100 200 600 µm	100 200 600 µm	100 200 600 µm
Footprint	0.85 m ²			
Accessories	Integrated heat exchanger			
Weight	470 kg			
Cooling options	Integrated heat exchanger (standard) or integrated compressor chiller (option)			
Cooling water temperature ranges	Integrated heat exchanger: 5°C to 28°C / Integrated compressor chiller: 5°C to 38°C			
Ambient temperature in operation	10°C to 50°C			
Efficiency	30%			
Electrical connection	380 V (-10%) to 460 V (+10%), 50 Hz (-3 Hz) to 60 Hz (+3 Hz)			
Options	Active laser power control and live power display, integrated compressor chiller, Remote Services, Quality Data Store, cooling of processing optics via the laser, LaserNetwork, CutAssist			

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