TruLaser:

Cost-effective cutting through thick and thin.

TRUMPF

Machine Tools/Power Tools
Laser technology/Electronics

Up to the challenge.

Contents

Visit us on YouTube.
www.youtube.com/trumpftube

When you choose TRUMPF you choose the most expedient entry into the world of laser cutting. As the world market leader, TRUMPF provides everything from a single source: machine, laser, automation, software and services. Our comprehensive product range in the sheet metal processing chain is supported by a large international service network.

Whatever your requirements, our innovative technology will provide you with the most cost-efficient solution. Our equipment is so easy to operate that even with no experience you will quickly be able to cut the highest quality parts and benefit from the great advantages of the laser beam: Complete freedom in cutting contours across an extremely wide range of material types and thicknesses.

TruLaser:
Benefits at a glance.

1 The most cost-efficient solution for every requirement.

2 The most innovative laser cutting technology.

3 Easy to operate.

4 Wide choice of contours, sheet thicknesses and materials.

5 Everything from a single source: machine, laser, automation, software.

TruLaser Series 1000
Low cost, compact and operator-friendly machines. Its ability to fit in the smallest spaces combined with low investment and operating costs and easy operation are convincing features of the TruLaser Series 1000.

TruLaser Series 3000
Flexible standard machines. The flexibility and reliability of these genuine all-around machines is exceptional.

TruLaser Series 5000
Productive machines. These powerhouses set high standards of productivity and cost efficiency.

TruLaser Series 7000
High-performance machines. These machines stand for absolute top performance regarding both productivity and accuracy.

TruLaser Series 8000
Flexible oversize format machines. Built to deliver the highest cost efficiency and excellent part quality in the oversize range.

In the best hands.

Quality thrives in the right environment.

TRUMPF machines are renowned for their reliability and superb quality. That's because our high quality standards are deeply embedded in our corporate culture and are rigorously applied on a worldwide basis. Thanks to our SYNCHRO production system, we are continuously optimizing our processes, products and services. TRUMPF produces all of its machines on synchronized, standardized flow lines – because optimum quality can only be achieved through reliable processes.

Setting standards.

TRUMPF consistently invests in research and development at a level well above the industry average. Our innovative products and functions constantly set new standards in the field of laser processing. One example of this is BrightLine fiber – the quality breakthrough in solid-state laser cutting.

Sustainable thinking.

We aim to run a cost-efficient and responsible business which makes efficient use of resources. For example, the tiny nozzle diameters of our lasers keep gas consumption to a minimum. With the TruFlow, we offer you the world's most efficient CO_2 laser. The universal cooling interface provides efficient machine cooling.

Making technology simple.

We are driven by our desire to make high-tech laser cutting available to everyone. That's why we focus on developing machines that are user-friendly and easy to operate. Installation, maintenance and programming can be performed without much effort. Many innovations make your everyday work easier: as an alternative to the control panel, the MobileControl app gives you the possibility of monitoring and controlling your machine.

Best choice based on experience.

Our expertise in lasers is based on four decades of experience and the installation of more than 60,000 lasers worldwide. For each laser cutting machine, we carefully select the most suitable option among our eight different types of lasers. As the technology leader, we provide you with neutral, results-oriented advice to help you find the optimum and most cost-effective solution for your particular field of application.

Abundant choice.

TruLaser
Series 1000

Low cost, compact and operator-friendly machines.

These compact machines offer extremely low investment and operating costs combined with the ultimate in user-friendly operation. The dialog-based operating concept makes it quick and easy to find the function you need. It takes just a few hours to install a machine, so you will be cutting your first parts before you know it.

Benefits at a glance.

1   Low investment and operating costs.

2   Very easy to operate.

3   Small footprint of only 25 m².

4   Quick and easy installation.

5   Affordable entry into laser welding.

TruLaser
Series 1000

Laser cutting for less.

Low shipping and space costs.
Shipping is easy and therefore inexpensive. With their compact footprint, the machines of the TruLaser Series 1000 are delivered in just one standard container. Its footprint of just 25 m² also saves on space related costs.

Minimal setup and installation costs.
It takes just a few hours to get one of our machines up and running, reducing installation and setup costs. The machine's low weight requires a floor thickness as low as 100 mm, and the machine does not need to be anchored to the floor, so no drilling is required.

Simple to operate.
The operating concept allows you to choose between beginner and advanced level. With the beginner level, only the keys needed for fast part cutting are visible. The machines of the TruLaser Series 1000 ensure operation is safe even if you have never used a laser machine before. At the advanced level, you can easily adjust all the technological settings yourself.

Low training costs.
The intuitive operating system in the TruLaser Series 1000 is quick and easy to learn – so you can keep training costs to a minimum.

Machine data

	TruLaser 1030	TruLaser 1030 fiber
Working range		
X axis	3000 mm	3000 mm
Y axis	1500 mm	1500 mm
Z axis	75 mm	75 mm
Workpiece		
Max. weight	720 kg	720 kg
Max. speed		
Simultaneous	85 m/min	85 m/min
TRUMPF CNC control	B&R	B&R
Accuracy[1]		
Position deviation P_a	0.1 mm	0.1 mm
Average position scatter $P_{s\,max}$	0.03 mm	0.03 mm
Dimensions and weight[2]		
Length	7400 mm	7800 mm
Width	2800 mm	2800 mm
Height	2300 mm	2900 mm
Weight	9730 kg	10400 kg
Available lasers	TruCoax 2500	TruDisk 2001/3001

[1] Position scatter information is given in reference to the entire working length. Positional accuracy is measured and approved according to VDI/DGQ 3441.
[2] Approximate values (TruDisk not included): The exact figures can be obtained from the applicable installation plan.
Subject to alteration. Only specifications in our offer and order confirmation are binding.

Laser data

	TruCoax 2500	TruDisk 2001	TruDisk 3001
Max. power	2500 W	2000 W	3000 W
Wavelength	10.6 μm	1.03 μm	1.03 μm
Max. sheet thickness			
Mild steel	16 mm	16 mm	20 mm
Stainless steel	8 mm	8 mm	16 mm
Aluminum	6 mm	6 mm	12 mm
Copper	–	3 mm	4 mm
Brass	–	3 mm	4 mm
Power consumption			
Average power consumption during production	26.9 kW	11.5 kW	12.9 kW
Active auto-shutdown	1.4 kW	0.4 kW	0.5 kW

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

Focused knowledge.

TRUMPF machines are very well equipped for all current demands in sheet metal processing and achieve optimal results. To address specific requirements as well, and simplify operation even further, we are continuously developing innovations, such as regulatory, control functions and sensor systems.

For special requirements, you can expand your production capabilities with our innovative Lines – you will find a selection here. Our assistance systems, such as the smart functions, help you with your daily work. Besides Lines and assistance systems, clever features also optimize your production process.

Productivity, reliability and high quality – these Lines, smart functions and clever features can help you improve your workflow.

↗ Productivity   ↻ Process reliability   ✓ Quality

▶ **AdjustLine**   ↗ ↻ ✓

Adapting to material quality made easy.
AdjustLine makes it easier to process lower-quality material. The function adjusts cutting parameters to ensure process reliability when cutting parts.

▶ **CoolLine**   ↗ ↻ ✓

Cut even thick mild steel intricately.
The selective cooling of the workpiece during the cutting process allows for new geometries, more efficient sheet utilization and significantly increases process reliability in the processing of thick mild steel. This process is part of the single cutting head strategy.

▶ **BrightLine**   ↗ ↻ ✓

Excellent through thick and thin.
This special cutting system produces the highest quality cuts in thick stainless, mild steel and aluminum. The smoothness and squareness of the cut edge are far superior to a standard cut. No finishing work is required.

▶ **DetectLine**   ↗ ↻ ✓

Precise position recognition and automatic setting of the focal position.
A camera system determines the precise position of sheets being processed, and also enables the precise further processing of parts which have already been cut. In addition, DetectLine automatically adjusts the focus position.

▶ Dot Matrix Code   ↗ ○ ✓

Marking parts fast and reliably.
In just a few seconds, the laser in your flatbed machine applies a 2-dimensional code (data matrix) of dots to the part being processed. The code content is defined during the programming stage and contains information for the sheet metal processing chain. This considerably simplifies production processes.

▶ LensLine   ↗ ○ ✓

Protection for lens and machine.
LensLine switches off the beam as soon as there are critical impurities within the focusing lens. In doing so the lens is prevented from thermal decomposition, and the beam guidance stays clean. LensLine additionally offers a condition checking function which, thanks to the RFID lens, guarantees perfectly timed cleaning cycles.

▶ FlyLine   ↗ ○ ✓

Pierce on the fly and process faster.
The cutting head travels at high speed over the entire sheet line by line. The control system cuts all the contour sections in the respective beam path. This reduces the time spent on traversing and positioning, especially when cutting perforated grids.

▶ PierceLine   ↗ ○ ✓

Everything under control when piercing.
PierceLine monitors and controls the piercing process. This reduces stress on the material and machine and shortens pierce time by up to 80%.

▶ FocusLine   ↗ ○ ✓

Adapt focal position automatically.
An adaptive mirror in the beam guidance system makes it possible to automatically adjust the focus position to the material type and thickness. The result: Maximum processing speed and excellent edge quality across the entire range of surfaces and materials – without the need for manual adjustment.

▶ Smart Collision Prevention   ↗ ○ ✓

Safe without microjoints.
Smart collision prevention creates a processing strategy that applies across components. Parts at risk of tipping over are cut free only when there is no longer any risk of collision. This allows you to work reliably and safely, even without microjoints.

Focused knowledge.

▶ **Single cutting head strategy**

Save time by using a single cutting head that does not require changing. This reduces non-productive time, especially when you are automatically processing a number of different materials.

▶ **High-speed cutting**

A special cutting head selectively introduces metal vapor plasma to significantly increase cutting speed.

▶ **Laser output control**

The laser power output is automatically adapted to the cutting speed. This ensures optimum cut quality even on sharp corners and small contours.

▶ **Drop&Cut**

Drop&Cut makes the use of remainder sheets and the post-production easier, more intuitive, and efficient than ever. A camera projects the live image of the machine interior directly onto the user interface. Now you can use the mouse or touch control to flexibly place geometries on the remainder sheet.

	TruLaser Series 1000	TruLaser Series 3000*	TruLaser Series 5000*	TruLaser Series 7000*	TruLaser Series 8000
AdjustLine		■ □	■ □	■	■
BrightLine[1]		■	■	■	■
BrightLine fiber[1]		□	□		
CoolLine[1]		■	■ □	■	■
DetectLine[1]		■ □	■ □		
Dot Matrix Code[1]			■ □		
Drop&Cut[1]		■ □	■ □	■	■
Single cutting head strategy	■ □	■ □	■ □	■ □	■
FlyLine		■ □	■ □	■ □	■
FocusLine	■ □	■ □	■ □	■ □	■
High-speed cutting[1]		■	■	■	■
Laser output control	■ □	■ □	■ □	■ □	■
LensLine		■	■	■	■
PierceLine	□	■ □	■ □	■	■
Smart Collision Prevention[1]		■ □	■ □		
Smart Nozzle Automation[1]			■ □		

■ CO_2 □ SSL   * Subject to variability. Please contact your TRUMPF sales person for further details.
[1] Optional

BrightLine fiber
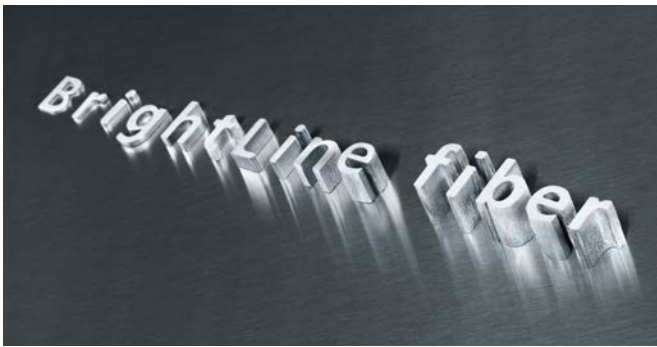
Top-quality results without compromises.
BrightLine fiber turns solid-state lasers into all-purpose tools: it enables you to achieve top-quality results for every sheet metal thickness. What's more, the solid-state laser's benefits for thin-sheet metal processing remain unchanged.

1. Higher quality
Process sheet metal with outstanding edge quality.

2. Increased flexibility
Expand the range of sheet thicknesses you are able to process using the same laser power.

3. Maximum piercing quality
Thanks to BrightLine fiber and multi-stage piercing, there is no spatter even with the smallest of piercing holes.

4. Tiny contours
BrightLine fiber enables you to process even smaller contours than before. Small holes that formerly could only be drilled can now be cut by laser.

5. Higher process stability
BrightLine fiber provides all-round process stability, even with the most exacting cutting quality requirements.

6. Simple part removal
BrightLine fiber makes it easier to remove parts from the scrap skeleton. This saves valuable time when sorting parts. An even cutting surface and a wider kerf are responsible for this easier part removal.

Smart Nozzle Automation

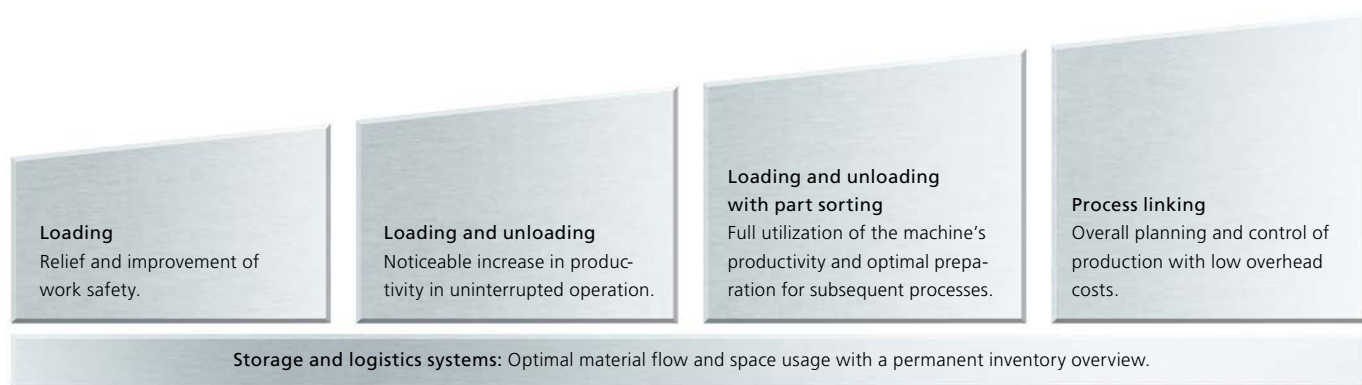**Process reliability in fully automated operation.**
Smart nozzle automation bundles clever features that provide process reliability in fully automated operation. In doing this, this smart function ensures, among other things, the autonomous changing of nozzles when necessary. The nozzle inspection reliably determines whenever a change is necessary. Be it for CO_2 or solid-state laser technologies, smart nozzle automation always includes the relevant functionalities.

Automation
that pays off.

Profitable and efficient production with automation options from TRUMPF.

Automated machines support the material flow, increase process reliability and enhance productivity. TRUMPF's multi-stage concept offers automation that meets your individual needs – all the way through to completely automated production. The solutions come from a single source and are perfectly tailored to TRUMPF machines.

Loading
Relief and improvement of work safety.

Loading and unloading
Noticeable increase in productivity in uninterrupted operation.

Loading and unloading with part sorting
Full utilization of the machine's productivity and optimal preparation for subsequent processes.

Process linking
Overall planning and control of production with low overhead costs.

Storage and logistics systems: Optimal material flow and space usage with a permanent inventory overview.

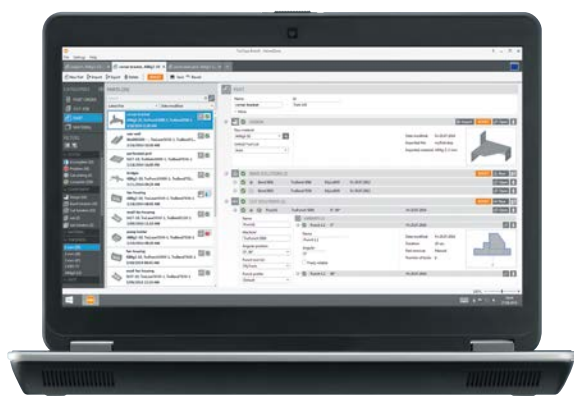| Automation function	Loading	Loading and unloading		
	LoadMaster	**LiftMaster**	**LiftMaster Compact**	**LiftMaster Sort**
Possible machines:				
TruLaser Series 1000				
TruLaser Series 3000	■	■	■	■
TruLaser Series 5000	■	■	■	■
TruLaser Series 7000	■	■	■	■
TruLaser Series 8000	■	■		■

- **LoadMaster** – entry-level solution for the loading of the pallet changer.

- **LiftMaster** – universal loading and unloading.

- **LiftMaster Sort** – loading and unloading with separation of large parts.

- **LiftMaster Compact** – compact and quick loading and unloading.

- **LiftMaster Linear** – loading and unloading of up to three machines.

- **LiftMaster Store** – loading and unloading with direct storage connection.

- **LiftMaster Store Linear** – loading and unloading of up to three machines with direct storage connection.

- **SortMaster** – separation and sorting of small parts. Requires a loading and unloading solution.

- **TruStore** – modular, expandable rack and storage system.

- **Customized storage** – individual storage solution for special requirements.

Loading and unloading / part sorting				Storage and logistics systems	
LiftMaster Linear	LiftMaster Store	LiftMaster Store Linear	SortMaster	TruStore	Customized storage
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■

Programmed for success.

TruTops Boost takes you faster than ever from the geometry to the NC program.

TRUMPF's TruTops Boost is the software solution for designing and programming laser, punching and bending machines that lets you increase your performance at the touch of a button. The software combines all order processing steps, from the geometry through to the completed NC program, in a single all-in-one solution. Its new operating philosophy guides you through the software in a simple, process-oriented manner while allowing you to keep an overview of your orders. Thanks to its numerous automated functions, the innovative Boost technology also makes you unbeatably fast. With it, you become more profitable and boost your business!

Talk to your TRUMPF contact to find out when TruTops Boost will be available to you. Until then, our TruTops Laser software can offer you optimum support. We recommend our TruTops Fab software as the ideal production control system for your requirements.
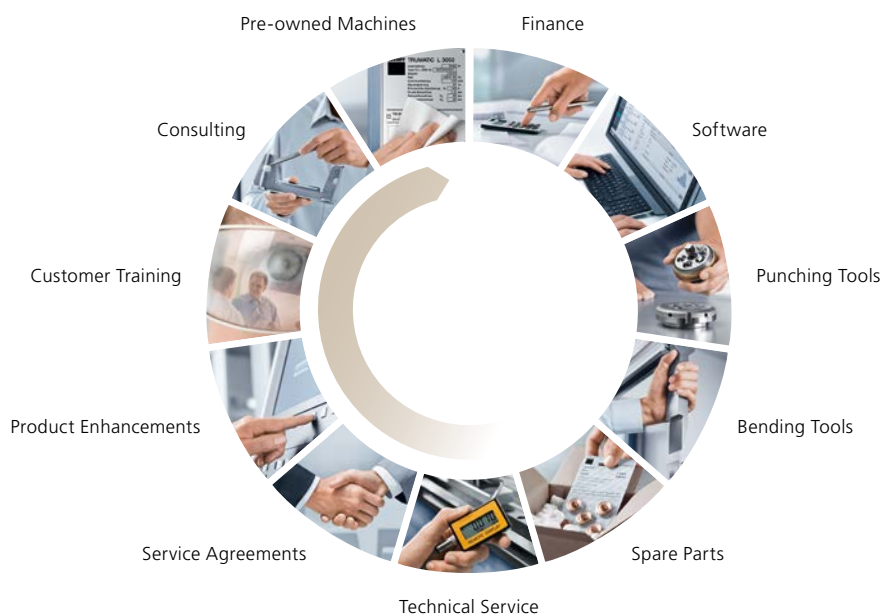
TruTops Boost: Benefits at a glance.

- From geometry to NC program faster than ever before.

- Everything monitored: Single software solution for all order processes.

- Everything under control: Intuitive user interface supports flexible working.

- Everything faster: Boost technology with productive automated functions.

- Innovative Boost technology + new operating philosophy = TruTops Boost

Service like no other.

Throughout the lifecycle of your machine.

Pre-owned Machines • Finance • Software • Punching Tools • Bending Tools • Spare Parts • Technical Service • Service Agreements • Product Enhancements • Customer Training • Consulting

Regardless of the TRUMPF technology you use, you will always get the best service. Thanks to the award-winning spare parts logistics at TRUMPF, we guarantee the highest availability of spare parts and provide you with all the products in the short-est time. TruServices Finance offers you individual financing solutions quickly and without a lot of paperwork. Our service technicians are highly trained and always available when you need them. A Service Agreement is the ideal way of ensuring the best usability of your machine. Should your requirements change, we have flexible upgrading options and technical in-novations that will make your machine even better. Our broad range of training courses with experienced trainers and hands-on practice will also give you a head start in understanding and operating your machine.

The TRUMPF Group ranks among the world's leading manufacturers of production technology and industrial lasers. Technical and efficient solutions for our customers have been our focus since 1923. As a leading technology supplier, TRUMPF is a one-stop shop for all of your technology needs: machines, automation, storage technology and services.

TRUMPF

TRUMPF Werkzeugmaschinen GmbH + Co. KG
www.trumpf.com