

TruLaser:

Cost-effective
cutting through
thick and thin.



Up to the challenge.

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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.

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





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.

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.

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 CO₂ laser. The universal cooling interface provides efficient machine cooling.

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 8000

Flexible oversize format machines.

These machines are built to offer maximum cost-efficiency when processing oversized formats. Their unique extra pallet concept means they can process metal sheets up to 16 m in length while retaining the flexibility and productivity of a machine for standard formats. The metal sheet is moved through the machine in several steps, while intelligent processes ensure maximum part quality, even when the sheet is being repositioned.





Benefits at a glance.

- 1 Sheets up to 16 m in length.
- 2 Flexible choice of pallet system.
- 3 Smooth, seamless cutting of repositioned sheets.
- 4 Option of doubling productivity by adding a second cutting head.

TruLaser Series 8000

Powerful, reliable and productive.

The TruLaser Series 8000 demonstrates decisive advantages in oversized processing. With dynamic linear drives and proven TruFlow lasers you can be sure of achieving the highest cut quality. The patented solution for quick and precise pallet sequencing, combined with an intelligent monitoring and control system, guarantees reliable processes. As an option, you can double the productivity with a second cutting head.

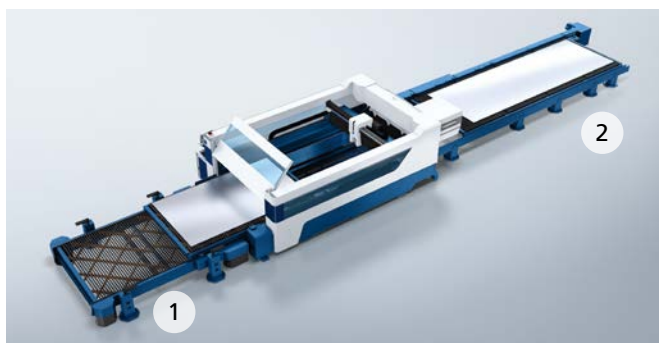
Smart, controlled and precise.

Innovative processing strategies from TRUMPF provide the best quality assurance for your oversized format cutting. Control of the internal material stresses produces cuts without offset steps – for sheets up to 16 m in length. High resolution, direct measurement systems in all axes ensure extremely accurate parts. With the precise laser control system you will be able to cut contours reliably in thick and thin sheets.

The most cost-efficient strategy for your pallet changers.

The best solution if oversized formats account for **up to approx. 40% of your work:**

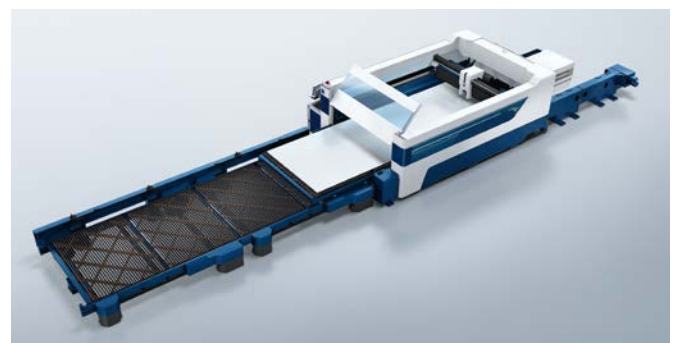
For standard formats up to 4 m in length use the pallet changer (1) and automation for highest productivity. You can enhance flexibility with the additional pallet (2) for sheets up to 16 meters in length.



Flexible with an additional oversized format pallet.

The best solution if oversized formats account for **more than approx. 40% of your work:**

Achieve maximum productivity for oversized formats up to 12 m in length by loading and unloading while the machine is cutting. You can reduce cycle times to a minimum with the quick oversized pallet changer. This solution also enables cost-efficient unmanned production with maximum process reliability.



Highly productive with an oversized format pallet changer.

Machine data	
	TruLaser 8000
Working range	
X axis	2500 mm
Y axis	4000 mm
Z axis	105 mm
Oversized format options	
With 4000 x 2500 mm pallet changer and additional oversized format pallet	16000/14000/12000/10000/8000/6000 x 2500 mm
With oversized format pallet changer	12000/8000/6000 x 2500 mm
Workpiece	
Max. weight	Depends on selected pallet system
Max. speeds	
Simultaneous	304 m/min
TRUMPF CNC control	Siemens Sinumerik 840D SL
Accuracy⁽¹⁾	
Position deviation P_a	0.05 mm
Average position scatter $P_{s\ max}$	0.03 mm
Repeat accuracy of repositioning	± 0.1 mm
Position accuracy of repositioning	± 0.2 mm
Dimensions and weight	Depends on selected pallet system

⁽¹⁾ Position scatter information is given in reference to the entire working length. Positional accuracy is measured and approved according to VDI/DGQ 3441. Subject to alteration. Only specifications in our offer and order confirmation are binding.

Laser data		
	TruFlow 4000	TruFlow 6000
Max. power	4000 W	6000 W
Wavelength	10.6 µm	10.6 µm
Max. sheet thickness		
Mild steel	20 mm	25 mm
Stainless steel	15 mm	25 mm
Aluminum	10 mm	15 mm
Power consumption		
Average power consumption during production	30.3 kW	38.2 kW
Active auto-shutdown	1.0 kW	1.2 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



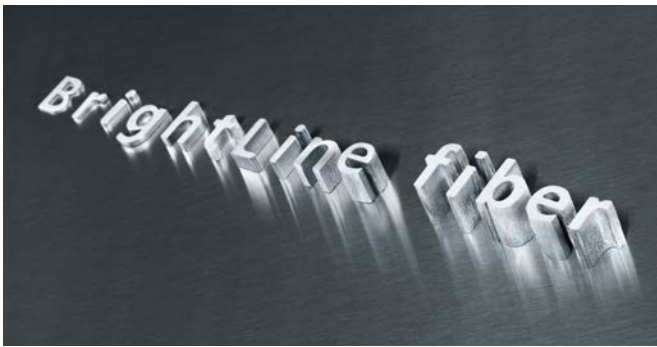
Drop&Cut makes the use of remainder sheets and the post-production easier, more intuitive, and efficient than ever. A camera projects the live image of the machine interior directly onto the user interface. Now you can use the mouse or touch control to flexibly place geometries on the remainder sheet.

	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⁾			■ □		

■ CO₂ □ 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.

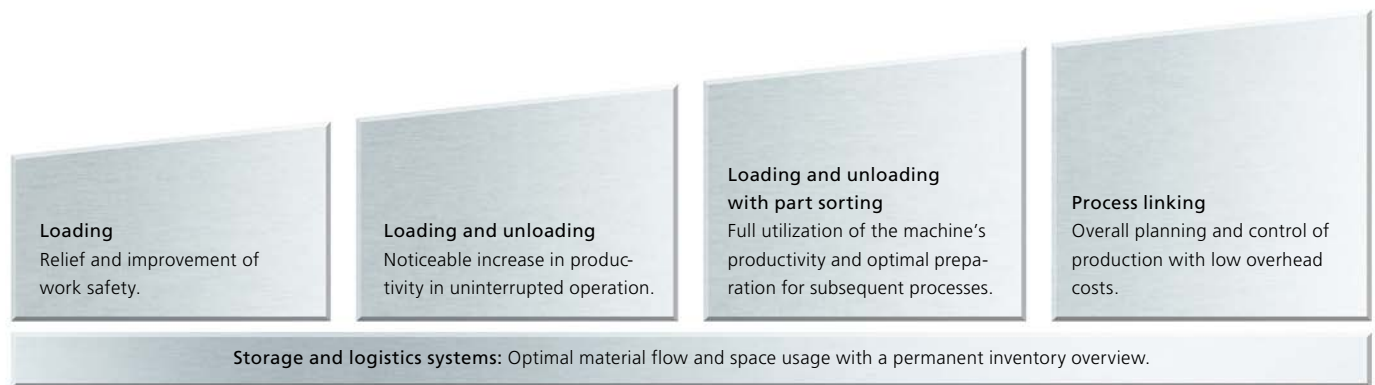
Smart nozzle automation bundles clever features that provide process reliability in fully automated operation. In doing this, this smart function





ensures, among other things, the autonomous changing of nozzles when necessary. The nozzle inspection reliably determines whenever a change is necessary. Be it for CO₂ 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.



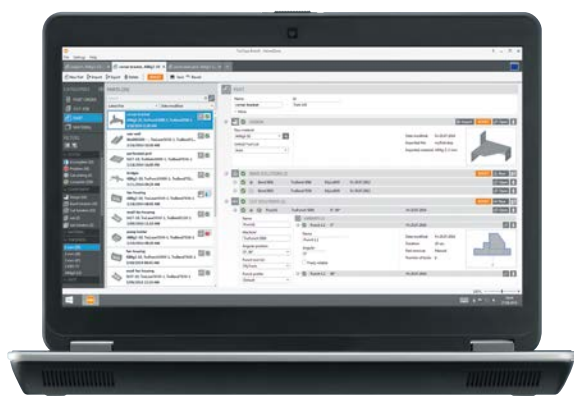
Automation function	Loading	Loading and unloading		
	LoadMaster	LiftMaster	LiftMaster Compact	LiftMaster Sort
				
Possible machines:				
TruLaser Series 1000				
TruLaser Series 3000	■	■	■	■
TruLaser Series 5000	■	■	■	■
TruLaser Series 7000	■	■	■	■
TruLaser Series 8000	■	■		■

- **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
					
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■
■	■	■	■	■	■

Software:

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.

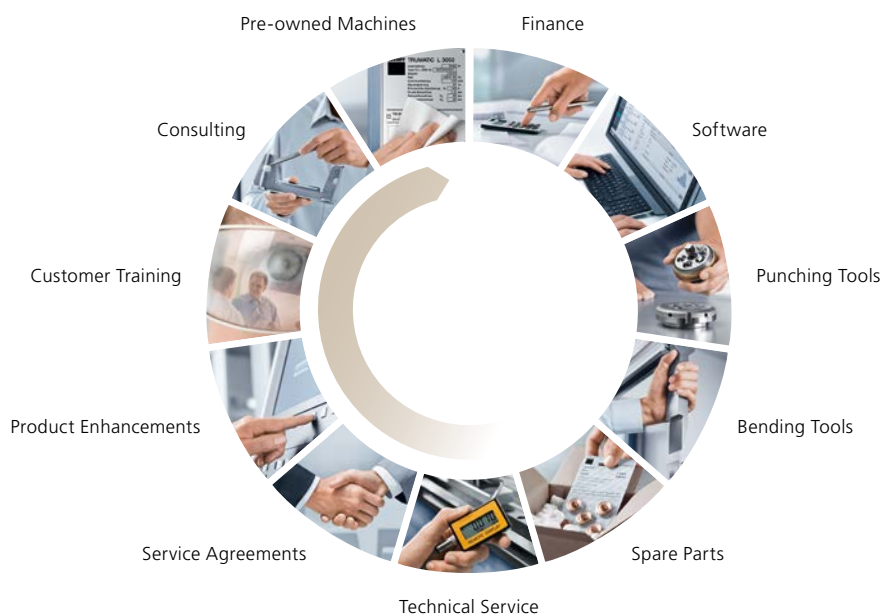
TruTops Boost: Benefits at a glance.

- 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

TruServices:

Service like no other.

Throughout the lifecycle of your machine.



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 shortest 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 innovations 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 is certified according to ISO 9001:2008
(for additional information see www.trumpf.com/en/company/quality)

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