TruLaser:

Cost-effective cutting through thick and thin.

Machine tools/Power tools
Laser technology/Electronics
Medical technology

TRUMPF

Up to the challenge.

Contents

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-effective 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.**

You can find out more about TruLaser at www.trumpf-machines.com/TruLaser

TruLaser Series 1000

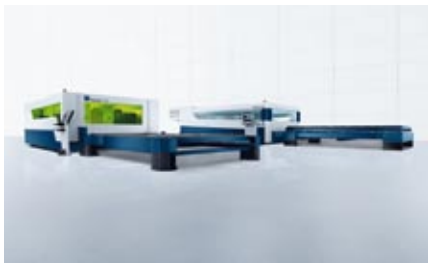
Low cost, compact and operator-friendly machines. Its ability to fit in the smallest spaces combined with low investment and operating costs and easy operation are convincing features of the TruLaser Series 1000.

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 precision machines for mass production. Equipped with two cutting heads, these machines produce parts in parallel: the best way to achieve maximum productivity at the highest level of precision.

TruLaser Series 8000

Flexible oversize format machines. These machines 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 features regularly set new standards that take you to the top in laser processing, such as our single cutting head strategy and our mirror cutting head.

Think sustainability.

We aim to run a cost-effective and responsible business which makes efficient use of resources. For example, the tiny nozzle diameters of our lasers keep gas consumption to a minimum, and our universal cooling interface is ideal for highly efficient machine cooling.

You can find out more about efficiency+ at www.trumpf.com/efficiencyplus

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, and why we strive to make every function intuitive and easy to learn. This has multiple benefits: It minimizes your training costs and makes the machines easier to install, maintain and program – everything runs more smoothly and the risk of mistakes is greatly reduced.

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 best suitable option from our eight different types of lasers. You can count on receiving neutral, results-oriented advice to help you find the optimum and most cost-effective solution for your particular field of application.

Abundant choice.


TruLaser 3030
TruLaser 1030

CO_2 or solid-state laser: Your choice.

The right laser machine for you.

CO_2 and solid-state lasers are particularly good choices for our laser cutting machines, offering the perfect balance between productivity and flexibility. Both options are well suited for industrial environments thanks to their robust design, so you can focus on enjoying maximum availability while minimizing the cost of consumables and spare parts.

Exploiting their strengths.

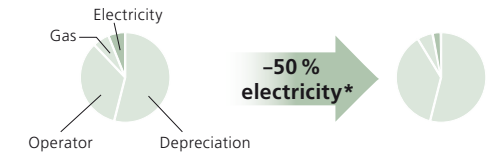
Both CO_2 and solid-state lasers have specific strengths in terms of productivity, flexibility and costs which come to play in certain fields of application. Making the best use of the right laser can significantly increase the profitability of your production facilities.

Profitable production.

The key to calculating the profitability of your production line is to determine how the cost per part is affected by machine cost per hour and productivity. There are two approaches to minimizing your costs per part. The two examples shown here exclude material costs since these are not dependent on the selected machine:

Reduce the machine cost per hour. This aspect offers some room for optimization, for example through electricity costs – although these only play a minor role, averaging 6 percent of the total machine cost per hour.

Reduce machine cost per hour by consuming less electricity.*

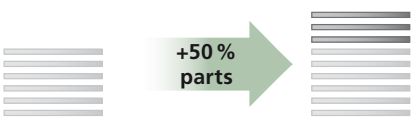


Machine cost per hour	:	Productivity	=	Costs per part	
€ 75/h	:	100 parts/h	=	€ 0.75/part	
€ 73/h	:	100 parts/h	=	**€ 0.73/part**	**–3 %**

* Cutting electricity by 50 percent is equivalent to a saving of € 2/h

Increase output. Productivity offers the greatest leverage when it comes to reducing costs per part: The more parts you produce per hour, the lower the cost of each individual part.

Increase productivity.

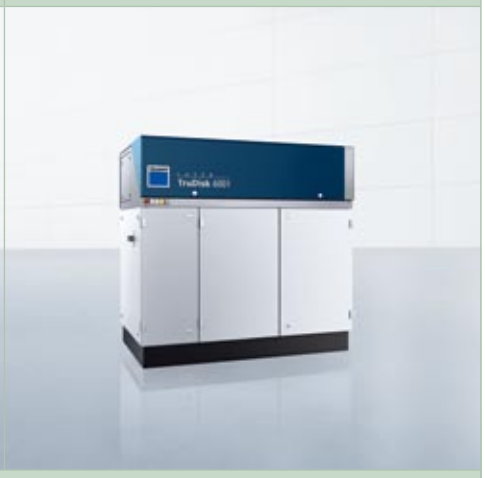


Machine cost per hour	:	Productivity	=	Costs per part	
€ 75/h	:	100 parts/h	=	**€ 0.75/part**	
€ 75/h	:	**150 parts/h**	=	**€ 0.50/part**	**–33 %**

Comparing the strengths of CO_2 and solid-state lasers.

Rating:

- good
- excellent

	CO_2 laser	Solid-state laser
		
Productivity		
Mild steel (O_2)	Excellent for all sheet thicknesses	Excellent for all sheet thicknesses
Stainless steel, mild steel (N_2)	Best choice for thick sheets	Best choice for thin sheets
Aluminum (N_2)	Excellent for all sheet thicknesses	Best choice for particularly thin or thick sheets
Non-ferrous metals (O_2/N_2)	Not suitable	Best choice for non-ferrous metals
Flexibility		
Laser power	Up to 8 kW	Up to 6 kW
LaserNetwork capabilities	No	Yes
Tolerance of sheet quality	●●	●
Costs		
Energy efficiency	●	●●
Cost efficiency of consumables	●●	●●
Cost efficiency of spare parts	●●	●●

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.

Technical 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	575 kg	575 kg
Max. speed		
Simultaneous	85 m/min	85 m/min
TRUMPF CNC control	B&R ARNC0	B&R ARNC0
Accuracy[1]		
Position deviation Pa	0.1 mm	0.1 mm
Average position range Ps	0.03 mm	0.03 mm
Dimensions and weight[2]		
Length	7400 mm	7400 mm
Width	3300 mm	3300 mm
Height	2300 mm	2300 mm
Weight	9000 kg	9000 kg
Available lasers	TruCoax 2500	TruDisk 2001

Laser data	TruCoax 2500	TruDisk 2001
Max. power	2500 W	2000 W
Wavelength	10.6 µm	1.03 µm
Max. sheet thickness		
Mild steel	16 mm	12 mm
Stainless steel	8 mm	6 mm
Aluminum	6 mm	5 mm
Copper	–	2 mm
Brass	–	2 mm
Power consumption of the entire system[3]	8–59 kW	8–35 kW

[1] The attainable accuracy depends on various factors including workpiece type and pretreatment, sheet size, and position in the working area. In accordance with VDI/DGQ 3441, measuring length 1 m.

[2] Approximate values (TruDisk not included): The exact figures can be obtained from the applicable installation plan.

[3] Including suction, control, HF generator and cooling system, depending on the machining program.

TruLaser Series 3000

Flexible standard machines.

These versatile laser cutting machines provide outstanding flexibility and reliability. The TruLaser Series 3000 is based on a remarkably simple operating and maintenance concept and offers numerous options to enhance its versatility. The use of a single cutting head for all sheet thicknesses eliminates the need to change cutting heads when you switch to a different type of sheet. And the adjustable control panel features convenient and intuitive touch operation to guide you through the program functions.

Benefits at a glance.

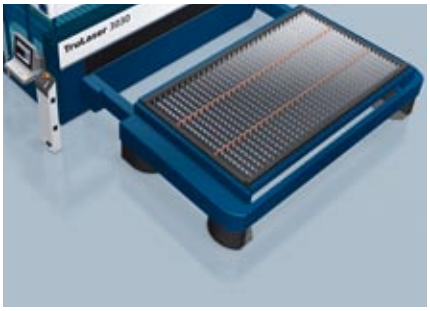
1. First-class processing flexibility.
2. High cutting speeds and minimal downtime.
3. Low and easy maintenance.
4. Simple to operate.
5. Various automation options.

TruLaser Series 3000

Easy to operate and endlessly versatile.

These machines are designed to be easy to operate and maintain. The components are clearly marked and easily accessible. This makes maintenance even easier, so you can get the machine running again even faster. The machines also offer the ability to incorporate many additional functions, helping you to respond with flexibility to changing needs and minimize unproductive time.

The RotoLas add-on enables you to cut tubes and pipes on your 2D laser cutting system.



The side positioning of the pallet changer cuts the footprint by about 20 percent.

The lens and nozzle technology package greatly simplifies lens and nozzle operation.

TruLaser 3030 Lean Edition: Grows with your business.

Small, then not so small: This machine is a size-reduced version of the TruLaser 3030 which you can expand to meet increasing production needs. It features an ergonomic pull-out pallet with pallet guides that can be folded in to keep them out of the way – an excellent alternative to the pallet changer.

With pull-out pallet.

With automatic pallet changer.

With pallet changer and LiftMaster Compact.

With automated storage facility.

Technical data					
	TruLaser 3030	**TruLaser 3040**	**TruLaser 3060**	**TruLaser 3030 Lean Edition**	**TruLaser 3030 fiber**
Working range					
X axis	3000 mm	4000 mm	6000 mm	3000 mm	3000 mm
Y axis	1500 mm	2000 mm	2000 mm	1500 mm	1500 mm
Z axis	115 mm	115 mm	115 mm	115 mm	115 mm
Workpiece					
Max. weight	900 kg	1250 kg	1900 kg	710 kg	900 kg
Max. speed					
Simultaneous	140 m/min	140 m/min	85 m/min	140 m/min	140 m/min
TRUMPF CNC control	Siemens Sinumerik 840D SL	Siemens Sinumerik 840D SL	Siemens Sinumerik 840D	Siemens Sinumerik 840D SL	Siemens Sinumerik 840D SL
Accuracy[1]					
Position deviation Pa	0.1 mm	0.1 mm	0.1 mm	0.1 mm	0.1 mm
Average position range Ps[1]	0.03 mm	0.03 mm	0.03 mm	0.03 mm	0.03 mm
Dimensions and weight[2]					
Length	9300/6500[3] mm	12000 mm	16100 mm	6500 mm	8300 mm
Width	4600/7600[3] mm	5300 mm	5200 mm	5600[4]/7100 mm	5100 mm
Height	2200/2200[3] mm	2200 mm	2000 mm	2200 mm	2400 mm
Weight	12000 kg	14000 kg	21500 kg	12000 kg	12000 kg
Available lasers	TruFlow 3200/4000 5000/6000	TruFlow 3200/4000 5000/6000	TruFlow 3200/4000	TruFlow 3200/4000	TruDisk 3001

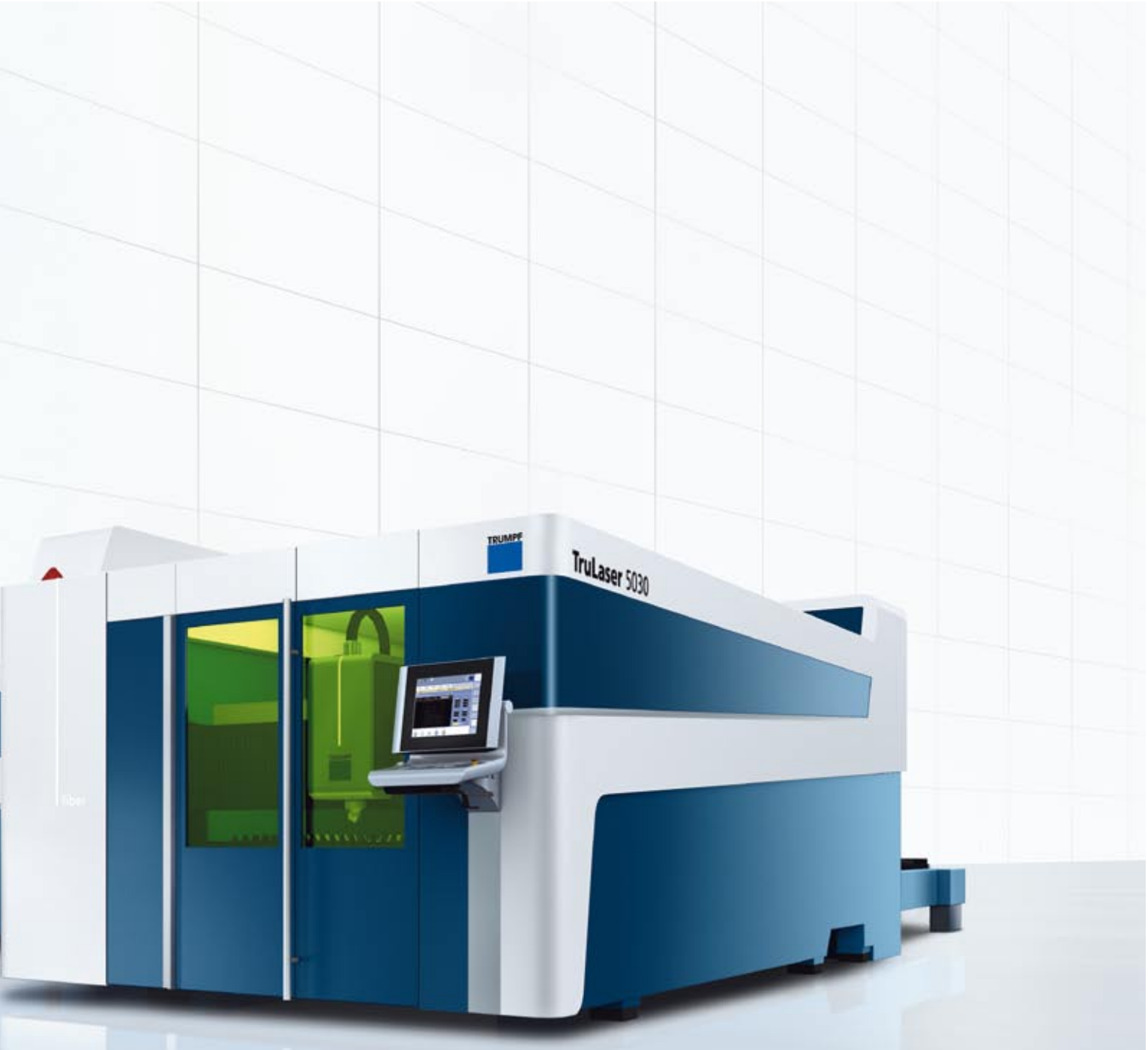
Laser data	**TruFlow 3200**	**TruFlow 4000**	**TruFlow 5000**	**TruFlow 6000**	**TruDisk 3001**
Max. power	3200 W	4000 W	5000 W	6000 W	3000 W
Wavelength	10.6 µm	10.6 µm	10.6 µm	10.6 µm	1.03 µm
Max. sheet thickness					
Mild steel	20 mm	20 mm	25 mm	25 mm	20 mm
Stainless steel	12 mm	15 mm	20 mm	25 mm	15 mm
Aluminum	8 mm	10 mm	12 mm	15 mm	15 mm
Copper	–	–	–	–	6 mm
Brass	–	–	–	–	6 mm
Power consumption of the entire system[5]	11/26[6] – 53 kW	11/32[6] – 65 kW	11–72 kW	11–89 kW	13–29 kW

[1] The attainable accuracy depends on various factors including workpiece type and pretreatment, sheet size, and the position in the working area. In accordance with VDI/DGQ 3441, measuring length 1 m.
[2] Approximate values. The exact figures can be obtained from the applicable installation plan.
[3] Applicable when the pallet changer is in the transverse position.
[4] Width during processing with pallet guides-folded in.
[5] Including suction, control, HF generator and cooling system, depending on the machining program.
[6] For TruLaser 3060.

TruLaser Series 5000

Productive machines.

These powerhouses set high standards of productivity and cost efficiency. The TruLaser Series 5000 machines offer impressively high productivity while cutting non-productive time to a bare minimum. This is made possible by dynamic drives and high axis speeds combined with functions such as the single cutting head strategy and automatic nozzle changer.



Benefits at a glance.

1. Highest productivity for thin sheet metal or universal cutting.
2. High axis speed and positioning dynamics.
3. Minimal downtime.
4. Wide variety of materials.
5. Various automation options.

TruLaser Series 5000

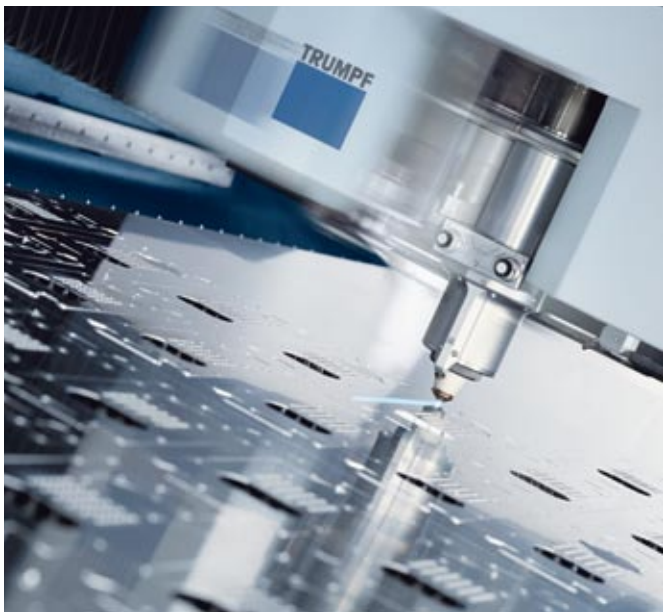
Real powerhouses.

These highly productive machines effortlessly process both thick and thin sheets. Equipped with the TruDisk laser and our highly dynamic drives, they can achieve feed rates for thin sheets that are up to three times faster, offering you the most cost-effective solution for thin sheet processing.
The sophisticated and versatile TruFlow laser provides superb quality at all sheet thicknesses. With a laser power of up to 8,000 W, it can even cut through 50 mm thick stainless steel.

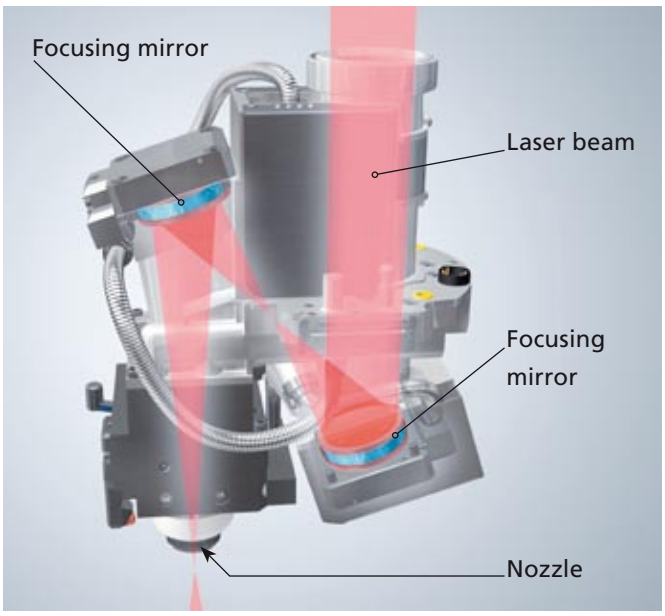
Select additional options to create the ideal machine for your needs and reduce non-productive time.

Optional packages include for example:

- **Mirror cutting head technology package – for robust and low maintenance focusing without a lens.**
- **Nozzle changer – for automatic nozzle exchange.**



High productivity for optimized cost per part.



Mirror cutting head: Cutting without a lens.

Technical data

	TruLaser 5030	TruLaser 5040	TruLaser 5060	TruLaser 5030 fiber	TruLaser 5040 fiber
Working range					
X axis	3000 mm	4000 mm	6000 mm	3000 mm	4000 mm
Y axis	1500 mm	2000 mm	2000 mm	1500 mm	2000 mm
Z axis	115 mm	115 mm	115 mm	115 mm	115 mm
Workpiece					
Max. weight	900 kg	1700 kg	2600 kg	900 kg	1250 kg
Max. speed					
Simultaneous	300 m/min	300 m/min	300 m/min	260 m/min	260 m/min
TRUMPF CNC control	Siemens Sinumerik 840D	Siemens Sinumerik 840D	Siemens Sinumerik 840D	Siemens Sinumerik 840D SL	Siemens Sinumerik 840D SL
Accuracy[1]					
Position deviation Pa	0.1 mm	0.1 mm	0.1 mm	0.1 mm	0.1 mm
Average position range Ps[1]	0.03 mm	0.03 mm	0.03 mm	0.03 mm	0.03 mm
Dimensions and weight[2]					
Length	11100 mm	13000 mm	16950 mm	9400 mm	10900 mm
Width	4600 mm	5400 mm	5550 mm	3000 mm	5700 mm
Height	2400 mm	2400 mm	2400 mm	2400 mm	2400 mm
Weight	12000 kg	14000 kg	16000 kg	12700 kg	15000 kg
Available lasers	TruFlow 5000/6000/8000	TruFlow 5000/6000/8000	TruFlow 5000/6000/8000	TruDisk 3001/5001	TruDisk 3001/5001

Laser data	TruFlow 5000	TruFlow 6000	TruFlow 8000	TruDisk 3001	TruDisk 5001
Max. power	5000 W	6000 W	8000 W	3000 W	5000 W
Wavelength	10.6 µm	10.6 µm	10.6 µm	1.03 µm	1.03 µm
Max. sheet thickness					
Mild steel	25 mm	25 mm	25 mm	20 mm	25 mm
Stainless steel	20 mm	25 mm	50 mm	15 mm	20 mm
Aluminum	12 mm	15 mm	25 mm	15 mm	20 mm
Copper	–	–	–	6 mm	10 mm
Brass	–	–	–	6 mm	10 mm
Power consumption of the entire system[3]	11–72 kW	11–89 kW	45–92 kW	13–29 kW	13–47 kW

[1] The attainable accuracy depends on various factors including workpiece type and pretreatment, sheet size, and the position in the working area. In accordance with VDI/DGQ 3441, measuring length 1 m.

[2] Approximate values. The exact figures can be obtained from the applicable installation plan.

[3] Including suction, control, HF generator and cooling system, depending on the machining program.

TruLaser Series 7000

High precision machines for mass production.

Equipped with two cutting heads, these machines produce parts in parallel:
The best way to achieve maximum productivity at the highest level of precision.

Benefits at a glance.

1. Maximum productivity with second cutting head.
2. Highly dynamic thanks to carbon fiber motion unit.
3. Outstanding accuracy and part quality.
4. Wide variety of materials.

TruLaser Series 7000

Unrivalled productivity.

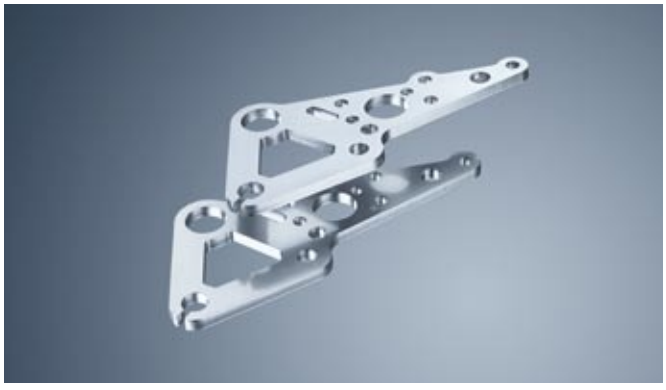
With their high acceleration and axis speeds, these machines produce truly astonishing results. Compared to single cutting head machines, they can achieve throughput rates up to three times higher while considerably reducing the costs per part.

The TruLaser Series 7000 combines the high productivity of its linear drive technology with a unique laser concept. You can decide whether you want to produce parts with one or two cutting heads. The machine splits the beam of the TruDisk laser into two for dual-head operation or uses the whole beam for single-head operation. The two cutting heads on the CO_2 machine each have their own TruFlow laser and can each be taken offline separately as required.

Twice the productivity with two cutting heads.

Unrivalled precision.

High-resolution, direct measuring systems in all axes, combined with precise laser control, ensure excellent accuracy. As a result, this machine is perfect for cutting detailed parts, such as electrical panels.



Bracket, stainless steel, 6 mm.

Electrical panel, structural steel, 0.5 mm.

Technical data

	TruLaser 7025	TruLaser 7040	TruLaser 7025 fiber	TruLaser 7040 fiber
Working range				
X axis	2500 mm	2500 mm	2500 mm	2500 mm
Y axis	1250 mm	4000 mm	1250 mm	4000 mm
Z axis	115 mm	115 mm	100 mm	100 mm
Workpiece				
Max. weight	500 kg	1600 kg	500 kg	1600 kg
Max. speed				
Simultaneous	304 m/min	304 m/min	304 m/min	304 m/min
TRUMPF CNC control	Siemens Sinumerik 840D	Siemens Sinumerik 840D SL	Siemens Sinumerik 840D	Siemens Sinumerik 840D SL
Accuracy[1]				
Position deviation Pa	0.05 mm	0.05 mm	0.05 mm	0.05 mm
Average position range Ps[1]	0.02 mm	0.02 mm	0.02 mm	0.02 mm
Dimensions and weight[2]				
Length	10200 mm	15800 mm	10200 mm	16800 mm
Width	8800 mm	7280 mm	8800 mm	8100 mm
Height	2860 mm	3090 mm	2860 mm	3500 mm
Weight	11600 kg	16500 kg	11600 kg	15000 kg
Available lasers	TruFlow 3200/4000	TruFlow 3200/4000/6000	TruDisk 6001	TruDisk 6001

Laser specifications	2x TruFlow 3200	2x TruFlow 4000	2x TruFlow 6000	TruDisk 6001
Max. power	2 x 3200 W	2 x 4000 W	2 x 6000 W	6000 W
Wavelength	10.6 µm	10.6 µm	10.6 µm	1.03 µm
Max. sheet thickness				
Mild steel	20 mm	20 mm	25 mm	20 mm
Stainless steel	12 mm	15 mm	25 mm	20 mm
Aluminum	8 mm	10 mm	15 mm	20 mm
Copper	–	–	–	6 mm
Brass	–	–	–	6 mm
Power consumption of the entire system[3]	38–76 kW[4]	42–92 kW[4]	65–150 kW[4]	11–33 kW

[1] The attainable accuracy depends on various factors including workpiece type and pretreatment, sheet size, and position in the working area. In accordance with VDI/DGQ 3441, measuring length 1 m.

[2] Approximate values. The exact figures can be obtained from the applicable installation plan.

[3] Including suction, control, HF generator and cooling system, depending on the machining program.

[4] When cutting with two lasers.

TruLaser Series 8000

Flexible oversize format machines.

These machines offer maximum cost efficiency when processing oversized formats. The TruLaser Series 8000 enables you to process sheets up to 16 meters in length by moving the sheet through the machine in several steps. Intelligent processes automatically 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.

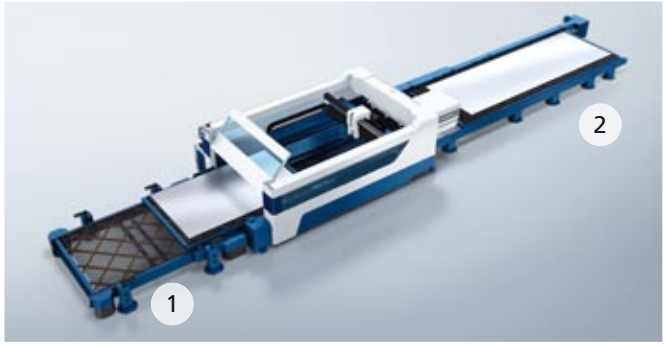
Smart, controlled and precise.

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-effective strategy for your pallet changers.

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

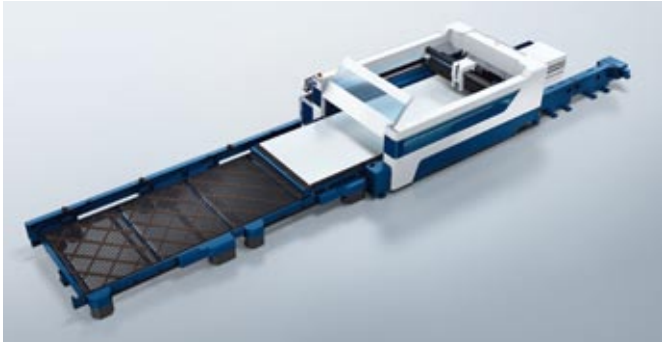
For standard formats up to 4 m in length use the pallet changer (1) and automation for highest productivity. You can enhance flexibility with the additional pallet (2) for sheets up to 16 meters in length.



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-effective unmanned production with maximum process reliability.



Highly productive with an oversized format pallet changer.

Technical data

	TruLaser 8000
Working range	
X axis	2500 mm
Y axis	4000 mm
Z axis	115 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 Pa	0.05 mm
Average position range Ps[1]	0.02 mm
Repeat accuracy of repositioning	± 0.1 mm
Position accuracy of repositioning	± 0.2 mm
Dimensions and weight	Depends on selected pallet system

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 of the entire system[2]	32–53 kW	58–88 kW

[1] The attainable accuracy depends on various factors including workpiece type and pretreatment, sheet size, and position in the working area. In accordance with VDI/DGQ 3441, measuring length 1 m.

[2] Including suction, control, HF generator and cooling system, depending on the machining program.

Focused knowledge.

Productivity, high quality and reliability – these useful options will help you to improve your workflow.

✓ Quality

Process reliability

Productivity

ControlLine

Sensors keep the distance between the cutting nozzle and the sheet metal constant – even if the sheet is uneven. ControlLine determines the position of the sheet and adjusts the cutting program, eliminating the need to correct the position manually.

CoolLine

The selective cooling of the workpiece during the cutting process allows new geometries and significantly increases process reliability in the processing of thick mild steel.

BrightLine

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

DetectLine

The intelligent camera system scans sheets in process very accurately and determines their precise position. The machine can also use this data to detect parts which have already been cut, in order to process them further and with absolute precision. In addition, DetectLine automatically adjusts the focus position.

ContourLine

ContourLine makes it possible to accurately cut contoured holes with diameters much smaller than the material thickness. A pulsed beam system controls the introduction of heat into the material.

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.

FlyLine

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.

LensLine

LensLine immediately switches off the beam if the focusing lens accumulates a critical amount of debris. This prevents the lens from thermally decomposing and keeps the beam guidance system clean. The system automatically checks the condition of the lens in the mounted cutting head. So the lens is only cleaned when necessary – not just as a precaution.

FocusLine

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.

NitroLine

This technique introduces nitrogen at very high pressure to produce oxide-free edges. As a result, you can cut thicker sheets and achieve very high cutting speeds in stainless steel and aluminum.

High-speed cutting

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

PierceLine

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

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.

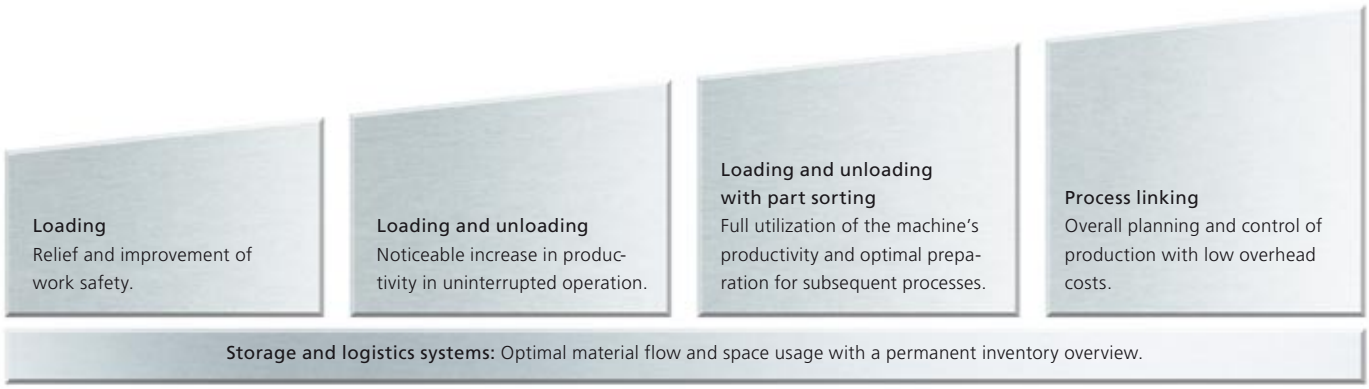
PlasmaLine

If plasma forms when thick sheets are being cut, the control system reduces the feed speed or stops the axis motion. The beam is not interrupted, meaning PlasmaLine ensures high process reliability and part quality.

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
	LoadMaster	LiftMaster	LiftMaster Sort	LiftMaster Compact	PartMaster
					
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.
- **PartMaster** – quick and ergonomic part removal as an option of LiftMaster Compact.
- **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.

You can find out more about automation topics by visiting www.trumpf-machines.com/en/products/automation

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

Software:

Programmed for success.

Programming: TruTops Laser.

Efficient NC programs ensure reliable processes.
With TruTops Laser you can program your TruLaser machines easily and reliably. Efficient nesting software and multiple setting options ensure that different parts are arranged in the ideally positions on the metal sheet. In addition, the program ensures that workpieces do not tilt and prevents collisions.

You can further optimize material usage by taking advantage of built-in residual sheet management and efficient algorithms that enable you to use common cuts for adjoining parts. In addition, the laser output is individually adapted to each task and deployed as cost-efficiently as possible – so you save even more money.

Production control: TruTops Fab.

Simple, comprehensive production control.
TruTops Fab is the modular complete solution for your production operations. Whether you want to optimize your infrastructure with individual modules or implement a complete solution, TruTops Fab is set up to meet your requirements.

Individual software modules help your company improve all its processes in the fields of production, administration and logistics. TruTops Fab is completely geared towards actual practice in sheet metal processing – offering you an unrivalled competitive advantage.

TruTops Laser: Benefits at a glance.

- Fast and process-reliable NC programs.
- Short programming time.
- Highly efficient nesting.
- Direct optimization of part quality.
- Excellent utilization of laser power.

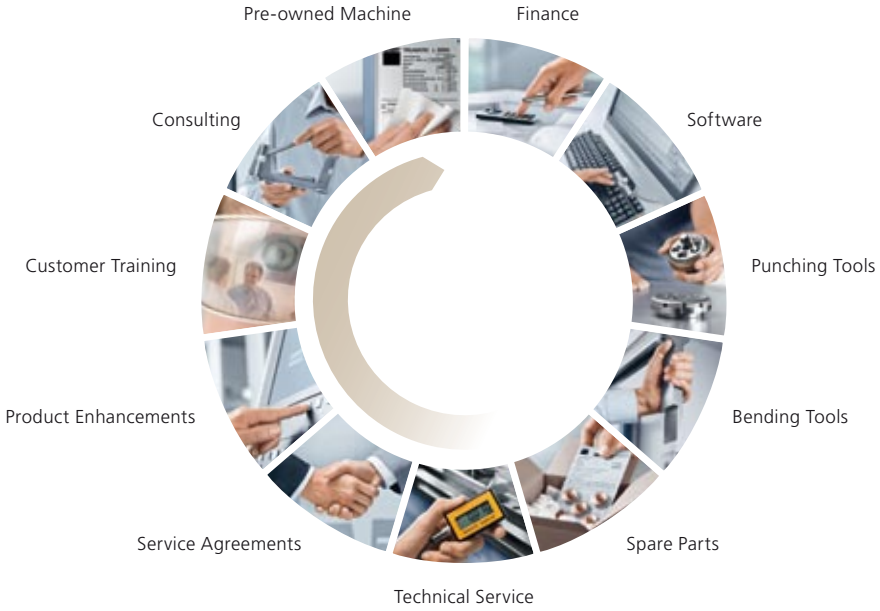
TruTops Fab: Benefits at a glance.

- Modular system to meet your needs.
- Individual user guidance.
- TruTops programming systems can be integrated without difficulty.
- Direct communication with controls.
- Easy exchange with ERP/PPS system.

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. And, thanks to TRUMPF's award-winning spare parts logistics, all parts can be shipped to you in the shortest time possible. TRUMPF Leasing 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.

You can find out more about our services at www.trumpf-machines.com/services

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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