

Laser systems

The answer to your
manufacturing needs

The perfect solution

Thousands of satisfied customers place their trust in machinery made by the world's leading technologist in laser material processing. Laser systems from TRUMPF give you the security of knowing you have chosen a highly flexible and extremely productive solution for your processing needs. We will support you every step of the way, from developing your application to choosing the right technology, components, and software – and we even offer comprehensive after-sales services. Together we can boost your productivity!

Your industry partner: We want to share our expertise with you.

In good hands no matter what industry
4–7

In our Laser Application Centers, we work together with you to develop your process right from the very beginning.

We can help you rise to the challenge
8–9

TRUMPF delivers sophisticated complete solutions that have proven their mettle.

Everything from a single source
10–11



Diverse solutions for varied tasks: Together will we find the right one for your production line.

**Your application,
our technologies
12–13**

With TruConnect solutions for networked manufacturing.

**Your Smart Factory
14–15**

Find out more about our product range here.

**The answer to your
manufacturing needs
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Our comprehensive services and unwavering support will give you a competitive advantage.

**TruServices.
Your partner in performance
38–41**

All the technical information you need at a glance.

**Technical data
42–45**

In good hands no matter what industry

What drives you drives us too. For many decades now, we have been offering customers from a wide range of industries help and advice on using laser technology. The knowledge we have acquired over this time gives us an edge that we aim to pass on to you: You can expect technology that is both state of the art and tailored to the specific needs and concerns of your industry. TRUMPF is always at the forefront of the latest trends, and is continually investing in the research and development of new technologies and potential applications to ensure we maintain this leading position in the future too.



Anywhere and everywhere

Laser material processing has been an integral part of numerous vehicle sub-assemblies for many years now. Almost every component – from the drivetrain through to custom decorations – has had a laser involved in its manufacture.



See the versatility that working with laser tools offers across all industries:
[www.trumpf.com/
s/kecj9f](http://www.trumpf.com/s/kecj9f)

Automotive industry

Laser technology has been a part of contemporary car manufacture for many years now. The automotive industry is a global one – and TRUMPF is a global company: Customers around the world can rely on premium service, high spare parts availability, and an expert team of industry managers and product managers who are supported by sales staff with encyclopedic knowledge of products and industries. Our industry expertise has been acquired over decades and will take your production process to the next level.



Body in white

Working on the body of a vehicle requires maximum speed and flexibility at all times. Our laser systems enable you to process even contemporary aluminum alloys and hot-formed steel in a highly productive manner. TRUMPF offers innovative, tried-and-tested solutions for welding, cutting, removing excess material (LBM), soldering and glue priming that you can rely on.



Electromobility

Use highly compact structures without processing problems. Or benefit from new joint geometries for electrically conductive metals and fast welding of battery components – with minimal spatter formation and very little heat generation.



Lightweight construction

Laser technology can open the door to modern-day lightweight construction, enabling you to process press-hardened steels, aluminum alloys, fiber-reinforced materials and ultralight steel grades such as Usibor in a cost-effective way. Lasers even make it possible to use entirely new types of lightweight construction, such as intelligent structures or 3D-printed components, which will result in marked improvements to your product.

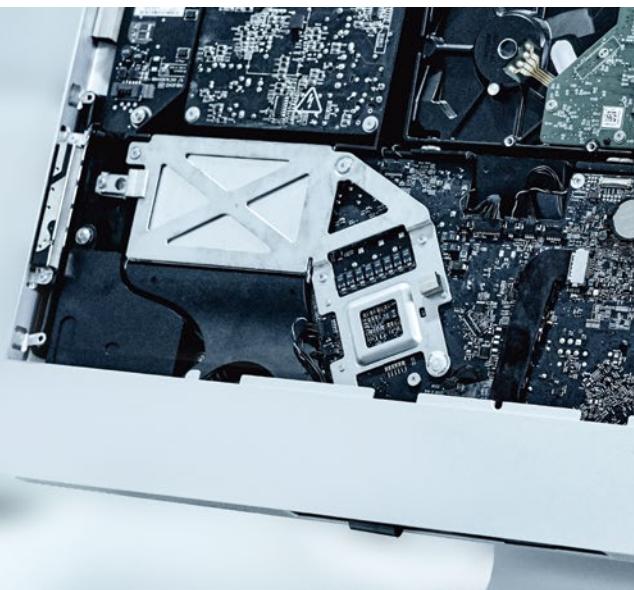


Powertrain

Working with drives often involves joining parts together. To machine your drive components you need quiet, splatter-free processes and deep, flawless seams that are long-lasting and can withstand harsh conditions. You are always in good hands with state-of-the-art laser technology from TRUMPF.

Medical engineering

Nowhere is having reliable processes more important than in medical engineering: With TRUMPF you can count on ultraprecise, reproducible results without the need for reworking, plus highly flexible production from batch size 1. The laser light works contactlessly, meaning that sterility is assured at all times. Being marked with a laser ensures that parts are traceable in accordance with UDI standards, while 3D printing offers maximum customization of artificial hips or dentures.

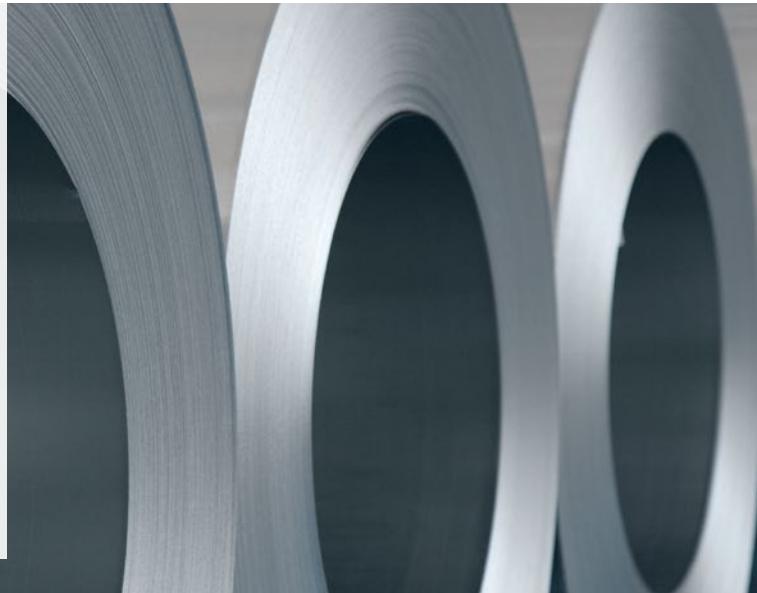


Electrics/electronics

Fast processes in fully automated production lines, high-precision processing and minimal exposure to heat for your workpiece: Laser systems from TRUMPF make achieving these things effortless. A laser also enables you to engrave an extremely high number of sensitive electronic components at the same time – without contact and free from wear.

Sheet metal working

Sheet metal working requires speed and flexibility. TRUMPF laser systems enable you to quickly and easily carry out retooling, welding, cutting, and deposition welding with a single machine, while also offering fast processing, an intuitive operating concept and assistance with application development.





Utility vehicles and transportation

Modern laser machines are consistent, reliable and bring down the cost per part, for example when carrying out welding work or laser cutting hot-formed parts. Procedures such as laser deposition welding help to repair components cost-effectively instead of having to replace them. TRUMPF is a dependable partner for automatable solutions in this regard.

Aviation and aerospace industries

From expensive certification processes and premium part quality to reliable reproducibility, the demands made in the aviation and aerospace industries are enormous. But with engineering from TRUMPF, you don't have to worry about meeting them: we offer cutting-edge technologies such as laser deposition welding and 3D printing to the highest standards, and we are here to help you with a global service team.



Science

Are you conducting research into the properties of new or unusual materials? Or perhaps you're developing processing strategies for the industrial production line of the future? Then you need state-of-the-art laser systems that are reliable and offer flexible parameterization. TRUMPF is helping numerous universities and institutes to acquire new knowledge.



We can help you rise to the challenge

Whether you know exactly what you need or you're looking for a custom solution, we will be there for you every step of the way. We are fascinated by lasers and all the possibilities they offer. In our Laser Application Centers (LAC) we are ready and waiting to assist you – no matter when, no matter where. This is because we want you to find the right partner in the right place who always has the right technologies for your needs.



"With our custom service packages, we can help you without you having to pause your operations. Our comprehensive remote services offer quick, straightforward assistance in the event of a malfunction. We also offer 360° care through providing training, functional enhancements, and application services directly at your premises."

Bastian Becker, Services, Ditzingen

"With our unique industry management concept, we start assisting you long before you actually put a laser to work in your production line. You have our expert team of automotive specialists and product developers at your disposal throughout this process. We work together with you to create custom solutions that exploit the full potential of laser technology in your production plant, whether that means developing equipment for processing high-strength materials, designing laser-friendly components or using laser soldering."

Marc Kirchhoff, Automotive Team Leader, Ditzingen



"TRUMPF helped us enter the market for 3D cutting high-strength steel grades. We received so many orders we soon had to purchase a second laser system."

Gerardo Oaxaca, CEO of Superlaser & Fixtures, Puebla



Photo: Adam Wiseman

"TRUMPF's technical expertise helped us finally find an automatable laser cutting solution. It's done away with the need for two out of three work steps. Plus we can react more quickly to design changes in manufacture."

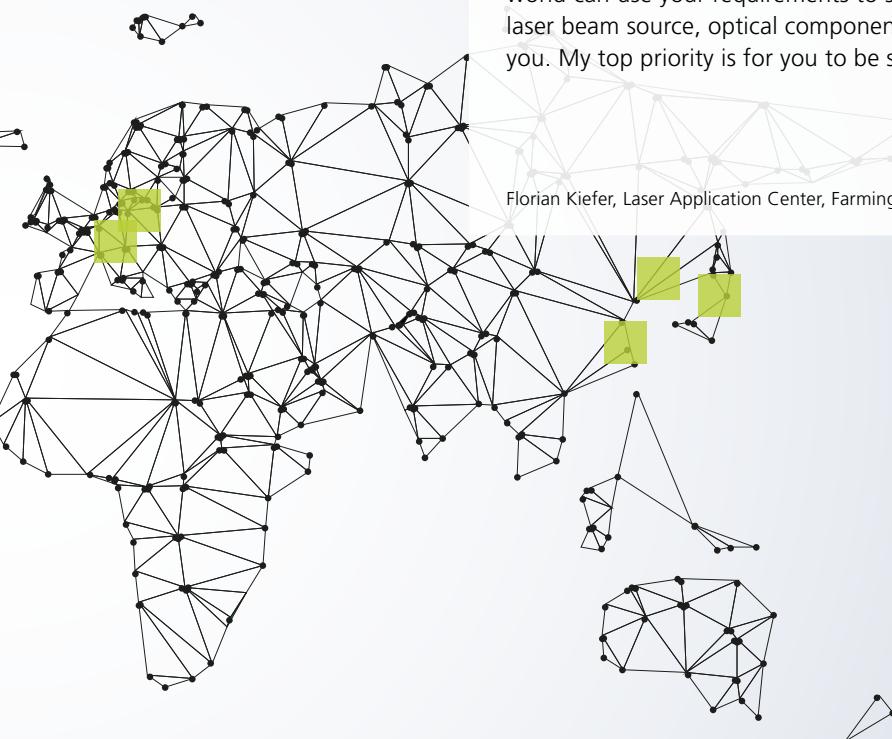
Ulrich Nieweg, Head of Prefabrication/Tool Making at Zwilling J. A. Henckels AG, Solingen



Photo: Ralf Kreuels

"The variety of applications in laser technology is growing all the time. If you're looking for the right laser to meet your processing needs, you're in the right place in one of our LACs. Our experts around the world can use your requirements to select the right combination of laser beam source, optical components, and process parameters for you. My top priority is for you to be satisfied with the results."

Florian Kiefer, Laser Application Center, Farmington



Find out more about how we can help you at our Laser Application Centers here: www.trumpf.com/s/7smpv

Everything from a single source

TRUMPF gives you the security of knowing you have chosen a sophisticated and proven solution for your manufacturing system. Our numerous components – all of which we make ourselves – and our fully comprehensive global service make us a reliable partner for your production needs. You will also benefit from our knowledge of key issues for the future, such as Industry 4.0 and additive manufacturing.

Everything for your machine

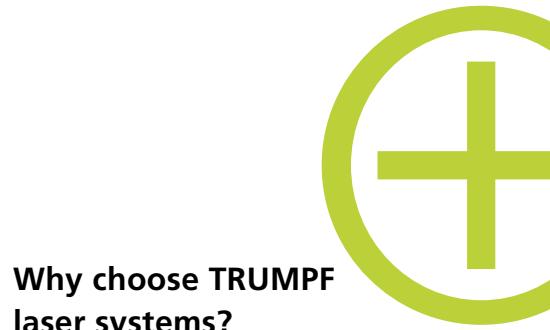
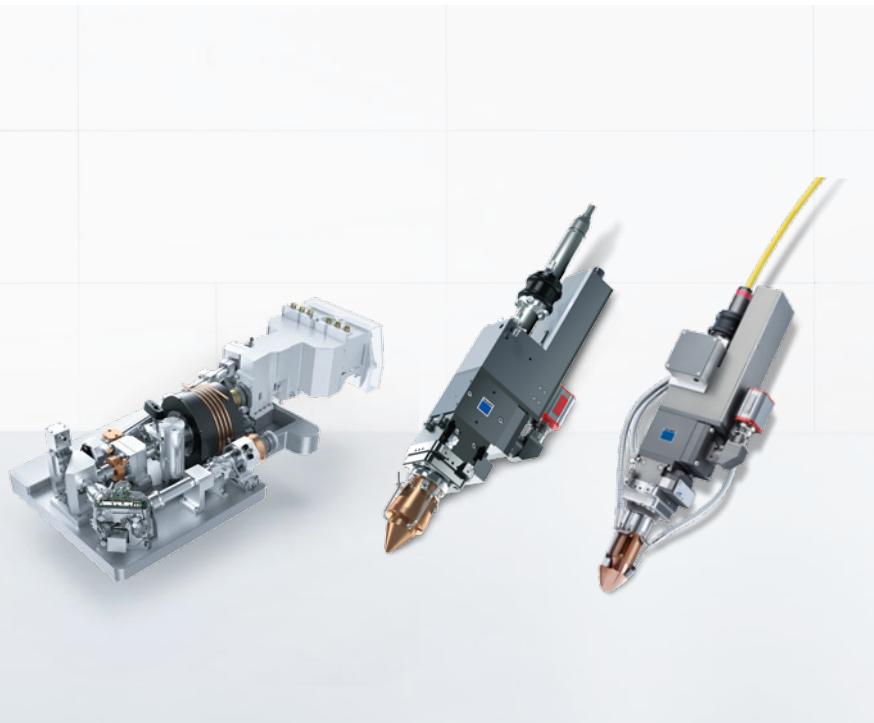
- Machine
- Laser
- Procedure-specific processing optics
- Sensor technology
- Software
- Custom solutions



Everything for your manufacturing processes

- Automation solutions
- Construction of jigs and fixtures
- Part and powder management in additive manufacturing
- Laser network





Why choose TRUMPF laser systems?

- 1 Tailored solutions
- 2 Optimal for large-scale production and batch size 1
- 3 Consistently high component quality
- 4 Virtually warp-free processing
- 5 Highly precise results
- 6 No reworking needed
- 7 Maximum productivity minimizes cycle times
- 8 Process flexibility (cutting, welding, LMD)
- 9 Extremely robust and reliable
- 10 Maximum machine availability

TruServices. Your partner in performance

- Worldwide technical service
- Functional enhancements
- Monitoring and analysis
- Training
- Application advice



The best complete solution for your manufacturing process

We place extremely exacting demands on our products in terms of their technology, engineering, quality, and usability in practice. We guarantee you won't fail to notice this.



Your application, our technologies

Our customers come from a wide variety of industries and they each have their own unique processing tasks, since every application places very specific demands on technology. TRUMPF offers laser systems that cater to all industrial applications, whether you work with rapid mass manufacture or batch size 1, from robust joining to fine separating: You will find the right solution for your manufacturing needs in our product range. You can obtain everything from a single source, from beam sources and system solutions through to beam guiding components, processing optics and intelligent sensor systems.



Find out more about what lasers can do and how you could use laser technology in your work here:
www.trumpf.com/s/k4ivz1

	TruPrint	TruLaser Cell 1100	TruLaser Cell 3000	TruLaser Cell 7000	TruLaser Cell 8030	TruLaser Station 5005	TruMark Station 5000
Welding		■	■	■		■	
Deposition welding			■	■			
Plastic welding						■	
Cutting			■	■	■		
Drilling and removing material			■*			■*	■
Hardening			■*	■*			
Generating	■		■	■			
Marking							■

* Upon request.



Your Smart Factory

Digital networking brings considerable freedom: You see more, know more, and are able to use your laser systems and your entire production facility to their full potential. TruConnect lets you design your Smart Factory step by step. The pragmatic solutions from TRUMPF will support you on your networked manufacturing journey, helping you make your entire process more transparent, more flexible and, first and foremost, more cost-effective.



Your solution: TruConnect

TruConnect is synonymous with Industry 4.0 at TRUMPF. The range of solutions connects man and machine through information while covering all steps of the production process – from quotation through to shipping your parts.

Modular and customized

Because no two manufacturing processes are the same, you can combine TruConnect modules to suit your needs. This enables you to digitally network your production plant step by step and expand the system gradually.

Why choose TruConnect?

- Increased productivity
- Higher availability
- Transparency thanks to the overview of statuses in your production process
- Saving time equals greater efficiency
- Traceable and documented process data
- High process quality in the long term



Discover the potential networked production could unlock for you with these two example scenarios:
www.trumpf.com/s/smart-factory

TruPrint



01

Achieve great things

thanks to a powder reservoir that's up
to the task of printing big products

02

Work profitably

thanks to a powerful laser and industrial part
and powder management

Benefit from unlimited design freedom and manufacture 3D components from the powder bed: the TruPrint 3000 is your flexible solution for additive industrial manufacturing.

**03**

Faster setup

thanks to our integrated
interchangeable cylinder concept

04

Manufacture consistently and reliably

thanks to industrial software and
monitoring solutions



Curious? Find out
more about the
TruPrint 3000 here:
[www.trumpf.com/
s/xglo9e](http://www.trumpf.com/s/xglo9e)

01

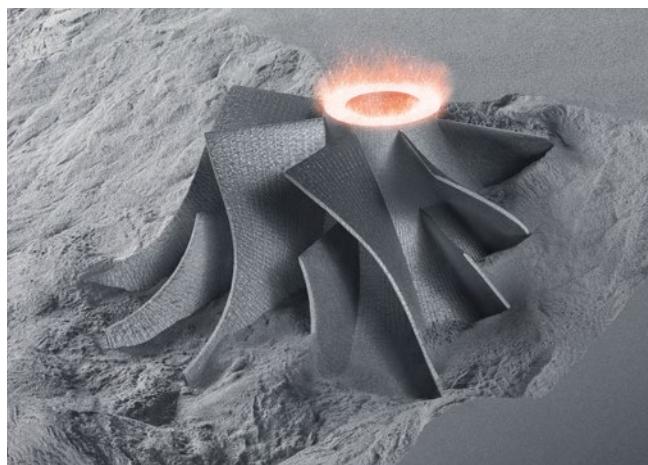
Achieve great things

thanks to a powder reservoir that's up to the task of printing big products

Laser metal fusion (LMF) gives you unlimited design freedom. You can use the TruPrint 3000 to create complex components for industrial mass manufacture. The universal TruPrint 3000 LMF medium-format machine gives you ultimate flexibility in terms of the size and number of your components too – thanks to an average product size of 300 x 400 mm and a large internal powder reservoir. The preheater (up to 200° C), which comes fitted as standard, ensures that components exhibit superior quality and the process is robust.



LMF can be used to generate complex inner structures, such as this burner head (by Siemens).



The laser melts the required contours of the part in layers in the powder bed, which enables any geometry to be created.

02

Work profitably

thanks to a powerful laser and industrial part and powder management

The part and powder management system, comprising sieving station, depowdering station and powder silos, enables you to work while LMF is in progress and set up your machinery faster. It also improves the safety of the process as contact with the powder is avoided. The productivity of your TruPrint is boosted not only by its powerful 500 W fiber laser, but also through optimal usage of material and machine plus maximum operational reliability. Thanks to the variably adjustable focal diameter, which can be set to between 100 and 500 µm, you can react flexibly to the requirements of different components.



The sieving station with vacuum conveyor, the powder silo and the depowdering station (see picture below) make it possible to set up and remove powder from one or more machines while LMF is being carried out.



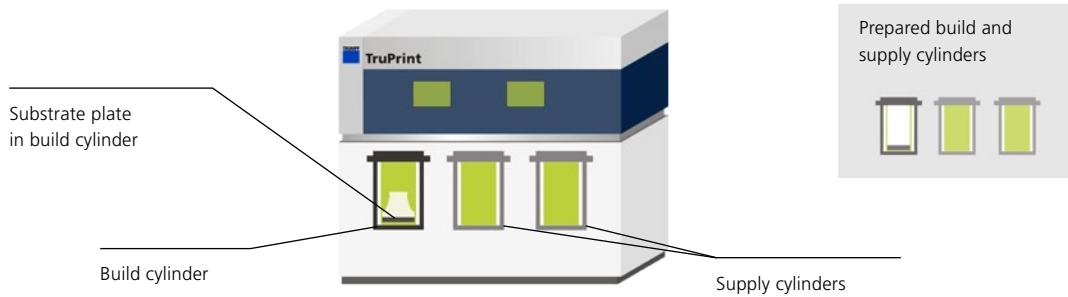
TruPrint 3000 depowdering station.

03

Faster setup

thanks to our integrated interchangeable cylinder concept

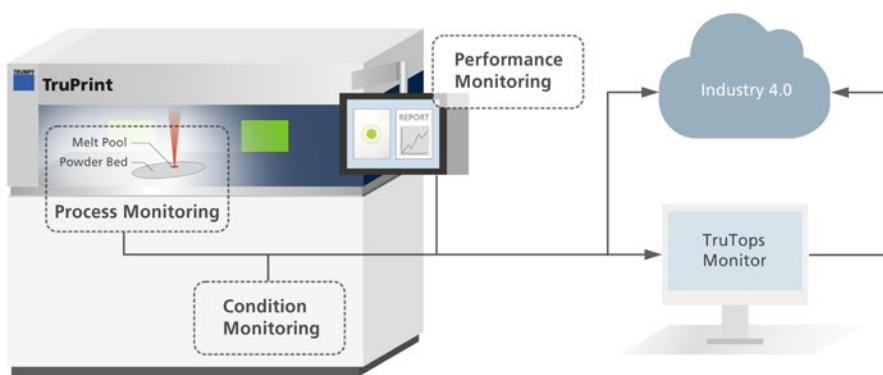
Use your time efficiently: The build and supply cylinders can be changed quickly and while printing is in progress. This minimizes set-up times, which in turn improves your productivity and the capacity utilization of your machinery.

**04**

Manufacture consistently and reliably

thanks to industrial software and monitoring solutions

You have an overview and full control at all times. The TruTops Print software package with Siemens NX makes sure there are no gaps in the data chain. Intelligent monitoring solutions enable you to not only supervise and analyze the printing process, but also control it remotely.



Visual Online Support (VOS) gives you a quick, competent online service to ensure maximum machine availability.



For 3D printing on an industrial scale, TRUMPF has three sturdy models to choose from, which are suitable for producing single parts or for mass manufacturing parts in a highly productive way:

■ **TruPrint 1000**

■ **TruPrint 3000**

■ **TruPrint 5000**

TruLaser Cell 1100

The flexible beam guidance system is your specialist machine for endless welding a variety of seam geometries on bands, pipes, and profiles, and for welding rotationally symmetrical parts.

01

Easy to integrate

thanks to a flexible, compact structure

**02**

Extremely efficient

thanks to state-of-the-art beam sources and calibrated sensors

03

Perfectly accessible

thanks to variable adjustment and swivel axes

04

Fully customized

Optional extras offer solutions for every application

01

Easy to integrate

thanks to a flexible, compact structure

Make life easy for yourself: The compact and modular TruLaser Cell 1100 can be integrated into your production lines with the utmost ease. You can configure the beam guidance system to meet your specific needs in terms of the linear axes, the working height or process path. This makes it possible to weld in two different places at the same time.



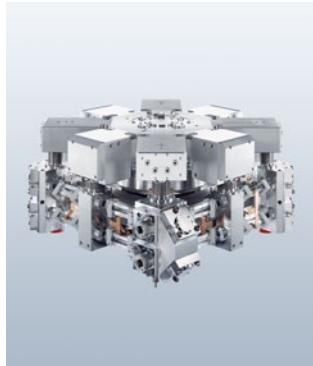
Non-stop manufacture – the system for endless welding professionals.

02

Extremely efficient

thanks to state-of-the-art beam sources and calibrated sensors

With the TruLaser Cell 1100, you can step your production process up a gear. Simply choose the right beam source for your application – CO₂ laser or solid-state laser – and the system is highly flexible when it comes to positioning the beam and optics. The perfectly calibrated sensors guarantee optimum welding results. All of these factors together cut your operating costs and increase your production speed.



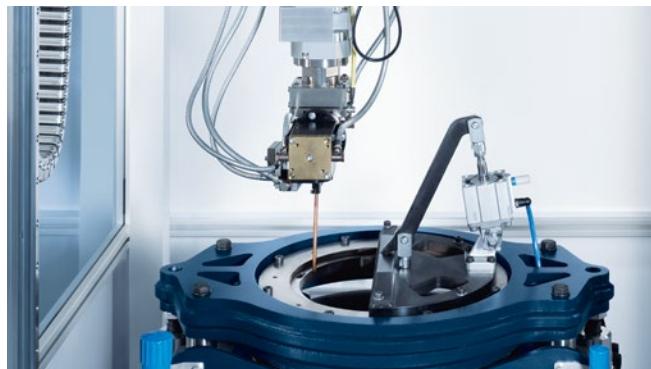
Use the beam source you need: The TruFlow CO₂ laser (left) or the TruDisk disk laser – the choice is yours.

03

Perfectly accessible

thanks to variable adjustment and swivel axes

The TruLaser Cell 1100 gives you everything you need for welding, with a flexible beam guidance system that can even tackle rotationally symmetrical parts. Variable adjustment and swivel axes enable the machine to be set up exactly as required, meaning your workpiece is perfectly accessible at all times.



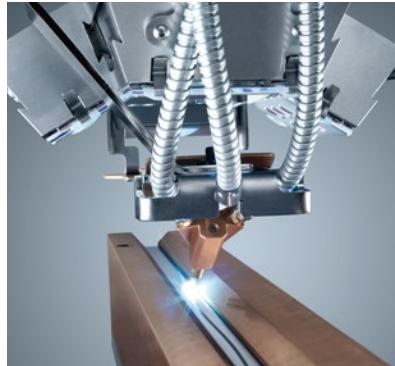
Optimally equipped even for rotationally symmetrical components.

04

Fully customized

Optional extras offer solutions for every application

Be more flexible thanks to a wide range of welding optics with linear or swivel axes. Sensor systems for finding and tracking seams together with functions such as SeamLine and SeamLine Pro guarantee maximum quality, reliability and productivity.



You too can achieve the perfect seam with the right process monitoring system.



You can find still more information about the TruLaser Cell 1100 here: www.trumpf.com/s/20q1n3

TruLaser Cell 3000



01

Flexible production

3 technologies – 1 system

02

Highly productive processing

thanks to custom automation solutions

03

Setup made simple

thanks to tailored tooling concepts from a single source

Laser welding, laser cutting and – the technology of the future – laser deposition welding: The compact TruLaser Cell 3000 is a true all-rounder, delivering premium-quality processing results with unrivaled flexibility and paving the way to new manufacturing techniques.

**06**

Know no bounds

thanks to an extremely large work area

05

High-precision manufacturing

thanks to superb repeat accuracy

04

Step by step to perfection

thanks to a multitude of options and processing optics



You can find anything else you would like to know about the TruLaser Cell 3000 here:
www.trumpf.com/s/woxpy9

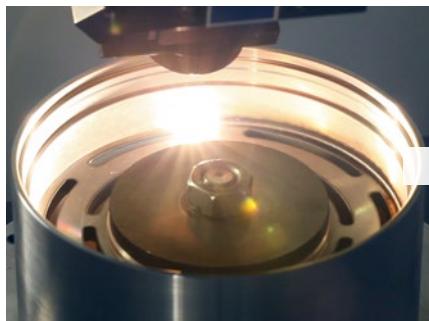
01

Flexible production

3 technologies – 1 system

Groundbreaking flexibility without compromise: The TruLaser Cell 3000 can cut almost any shaped contour, even on the most delicate and complex of parts – without having to change the tool, without the need for reworking, and almost completely without warping. The quick-change concept lets you switch from welding to cutting in under 5 min. This means you can benefit from the advantages of laser welding straightaway and use laser deposition welding to lay the groundwork for the future of your production line.

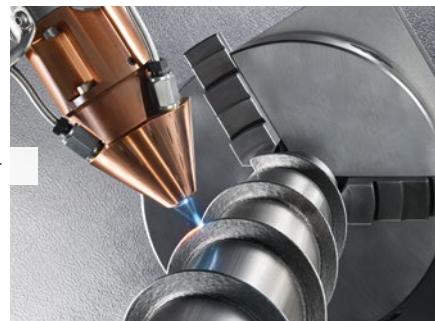
Welding



Cutting



Deposition welding

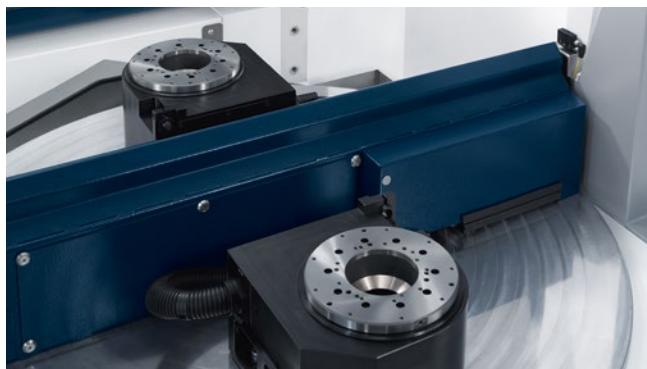


02

Highly productive processing

thanks to custom
automation solutions

High volumes? No problem! Rotating changers can boost your production capacity by allowing you to load and unload the system during manufacture. The automatic lifting doors on the sides make it possible to connect the machine to transfer systems and load it using robots at any time.



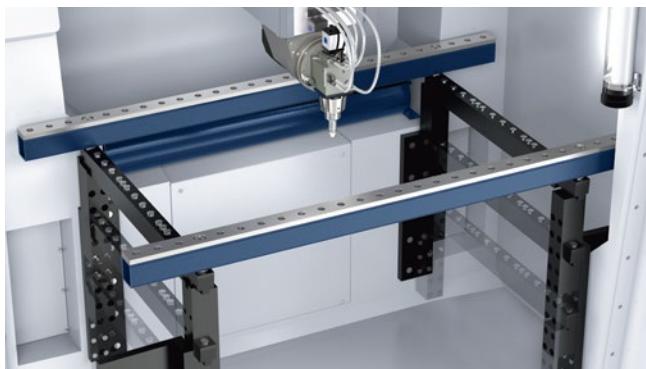
The rotating changer with rotational axes enables you to load and unload the system while production is in progress. This is especially beneficial when producing high volumes of parts.

03

Setup made simple

thanks to tailored tooling concepts
from a single source

The variable clamping system in the TruLaser Cell 3000 lets you exploit the full potential that unique, flexible work area management has to offer. The perforated grid system helps you set up your equipment in the same way each time. It's easy to adjust the working height to your processing needs and, if you require a lot of space, you can remove the clamping system quickly and easily.



The clamping system in the work area can be varied to suit your precise needs.

04

Step by step to perfection

thanks to a multitude of options and processing optics

Choose the right solid-state laser for your application from our extensive laser range. The TruLaser Cell 3000 can be equipped with almost all fiber-guided TRUMPF solid-state lasers. The power of the laser is a maximum of 8 kW, but higher powers can be provided on request. Focusing optics adapt the properties of the laser beam to each specific task. The modular system gives you the complete freedom offered by different designs and optional components.



The huge work area always gives you enough space for your project.

05

High-precision manufacturing

thanks to superb repeat accuracy

A machine you can rely on: The axis system's special measuring and compensation function makes your machine as accurate as a measuring system, meaning you can carry out even high-precision laser processing work with a repeat accuracy of under 5 µm.



Maximum accuracy: The axis system now works with greater precision than ever before.

06

Know no bounds

thanks to an extremely large work area

More for your money: Boasting the biggest and most flexible work area in its class, the TruLaser Cell 3000 offers space not just for large fittings, fixtures, and automation components – the additional motorized workpiece axis enables you to process 3D parts too, which can be up to 50% larger than normal.

TruLaser Cell 7000



01

Start with one

and retrofit
modules as needed

02

Flexible production

so you can switch between
processes easily

Want to process 2- and 3D components or pipes? With a laser system from the TruLaser Cell 7000 Series, you will be perfectly equipped to do so. Switch flexibly between cutting, welding and deposition welding.

**05**

More comfortable operation

thanks to the ergonomic control panel

04

Save time

with optimum machine dynamics

03

Improve quality

thanks to automatic raw beam adjustment



You can find more information about the TruLaser Cell 7000 here:
www.trumpf.com/sewethn

01

Start with one

and retrofit modules as needed

You decide how you would like to enter the world of laser processing. And then, if your customers' needs or your production requirements change, you can simply retrofit your machinery to suit. The modular design of the TruLaser Cell 7000 makes this quick and easy. Various different CO₂ lasers and solid-state lasers are available, as well as numerous machine options such as partitions for separating two stations, rotating changers and linear changers. This means you will always have the optimal equipment for your applications.



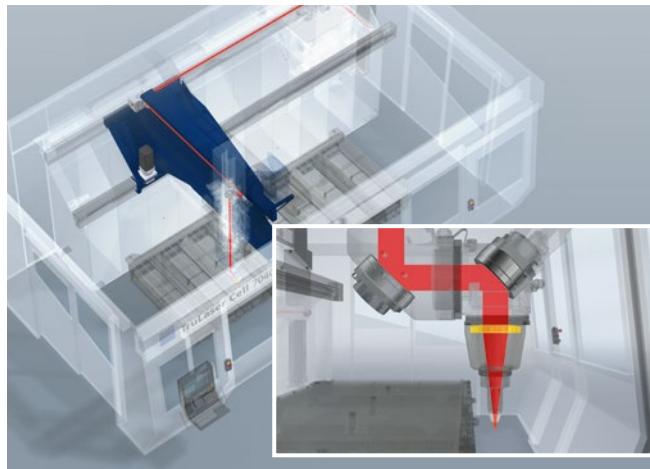
Stay flexible: The modular system makes retrofitting simple and straightforward.

03

Improve quality

thanks to automatic raw beam adjustment

Consistent processing results are guaranteed throughout the work area thanks to the automatic raw beam adjustment function in the CO₂ laser. Users also benefit from TRUMPF's expertise in lasers being documented in technology tables, which contain data that enables the machine to be quickly adapted to different materials and sheet thicknesses – no matter whether cutting, welding or deposition welding is the task at hand. The specialists at TRUMPF Laser Application Centers can also provide tailored advice as required.



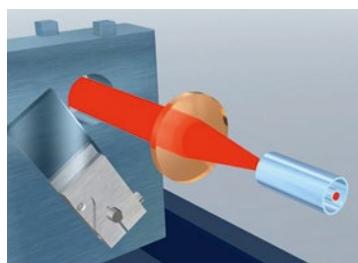
The automatic raw beam adjustment function works throughout the work area to produce consistent processing results – guaranteed.

02

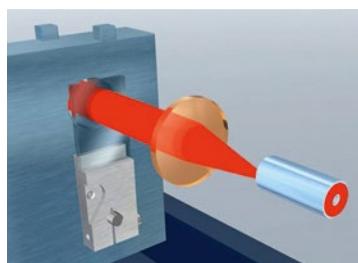
Flexible production

so you can switch between processes easily

Whether you need to cut, weld or deposition weld, the modular TruLaser Cell 7000 Series provides you with various different manufacturing techniques that you can flexibly choose between. The laser system gives you greater freedom across a range of parts as it can process 2- and 3D components and pipes quickly and cost-effectively.



Changeovers made easy:
The 2-in-1 fiber enables welding and cutting to be carried out with the same laser light cable at the touch of a button. If the beam is enclosed in the core, this results in an optical setup for cutting with superlative beam quality (top). To provide the optimum conditions for deep welding and heat conduction welding, the beam is enclosed in the ring (bottom).



04

Save time

with optimum machine dynamics

The TruLaser Cell 7000 makes your production process faster, employing maximum positioning speeds and axis acceleration to slash your production times. The FastLine Cell uses on-the-fly piercing to reduce nonproductive time when cutting by as much as 40%, while the dynamic cutting optics boast an exceptionally rapid acceleration capacity. A magnetic coupling on the working head ensures maximum process reliability all the while, so you can manufacture more efficiently than ever before – and rely on your system 100%.



On-the-fly plunge-cutting reduces nonproductive time when cutting by as much as 40%.



The magnetic coupling on the working head reduces downtime as it can be precisely fastened with just one hand following a collision. The working head's three-point mounting also guarantees maximum robustness and precision. And for ultimate convenience, the machine automatically detects which optics are being used whenever you change them.

05

More comfortable operation

thanks to the ergonomic control panel

Working has never been this easy: The ergonomic control panel is mounted in a space-saving way on the machine cabin, where it can be rotated, operated from the cabin, or even moved along the entire front side of the machine if you wish. The 6D mouse makes teaching the axes and moving them in or around even quicker. The intelligent control system prevents operating errors and saves time.



The ergonomic control panel is extremely flexible and can be adjusted to suit your needs.



The 6D mouse makes operating the machine quick and easy.

TruLaser Cell 8030



01

Be more productive

thanks to high dynamics and
new options

02

Manufacture better

thanks to X-Blast technology

The second-generation TruLaser Cell 8030 sets new standards in the 3D cutting of hot-formed components. New options and optimized details ensure ultimate productivity and reliability.



03 **More efficient production**

thanks to the economical TruDisk 2000

04 **Work in safety** thanks to intelligent options

05 **Space-saving** thanks to a compact footprint



You can find out even more about the TruLaser Cell 8030 here:
[www.trumpf.com/s/
uv1ld5](http://www.trumpf.com/s/uv1ld5)

01

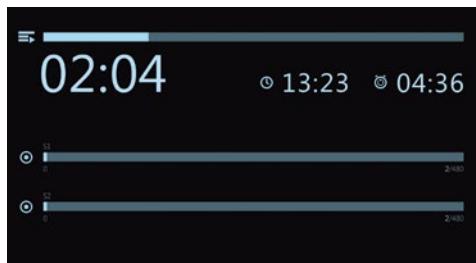
Be more productive

thanks to high dynamics and new options

The TruLaser Cell 8030 makes your production process exceptionally fast. Options such as dynamics level 2 speed up the machine and reduce cycle times by as much as 11% when making complex components, while different functions ensure that processes are reliable and the results are optimal. Intelligent automation solutions also make sure that bottlenecks do not arise when loading and unloading manually. With a rotary indexing table or robots to semiautomate your process, you can minimize cycle times while making production more productive.



A rotary indexing table and robots keep cycle times to a minimum.



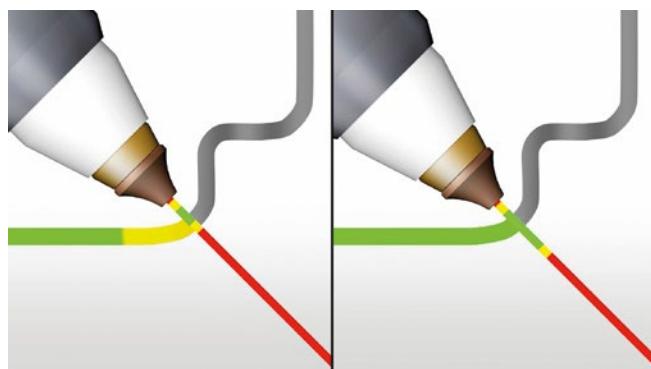
The remaining time display lets you know at a glance how the component, and indeed the entire order, is progressing.

02

Manufacture better

thanks to X-Blast technology

Play it safe with the X-Blast cutting nozzle – this has twice the range of standard nozzles, so it can work further away from the metal sheet being processed. The result? Significantly fewer nozzle collisions, which means fewer machine down-times and higher productivity. The process also creates fewer burrs and therefore higher-quality components, which will win you favor among your customers.



Quicker and superior – thanks to twice the usual standoff distance between the workpiece and the nozzle.

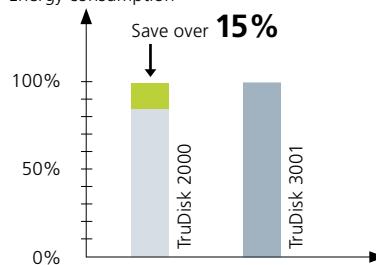
03

More efficient production

thanks to the economical TruDisk 2000

The choice is yours: No matter what your application, you have a wide range of lasers at your disposal. Using the TruLaser Cell 8030 with a compact fiber-guided TruDisk 2000 laser, for example, would make your production process especially efficient. This system boasts unsurpassed beam quality and exceptional focusability, which saves electricity and thereby reduces the cost per part – and even has a positive effect on the size of your investment.

Energy consumption



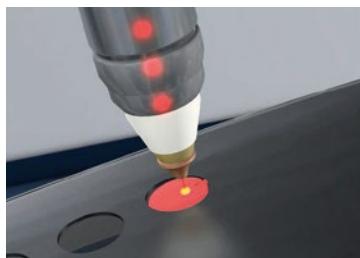
Benefit from the outstanding beam quality of our solid-state lasers and save real money.

04

Work in safety

thanks to intelligent options

Two optical measuring processes ensure greater safety on the TruLaser Cell 8030: ObserveLine Comfort checks whether a contour has been cut out in full, thereby preventing cutting slugs getting caught in the finished part. ObserveLine Professional monitors the positioning accuracy of the machine and can detect even the tiniest of positioning errors in the cutting nozzle. The precise and secure magnetic coupling enables you to carry on working in no time at all, even in the event of a collision. These two handy functions will save you money by making your production line quicker and less prone to creating rejects.



With the ObserveLine Comfort measuring system, you can be sure that each cut is made in full – every single time.



Perfect parts: The ObserveLine Professional measuring system checks that the optics are in the correct position at all times.

05

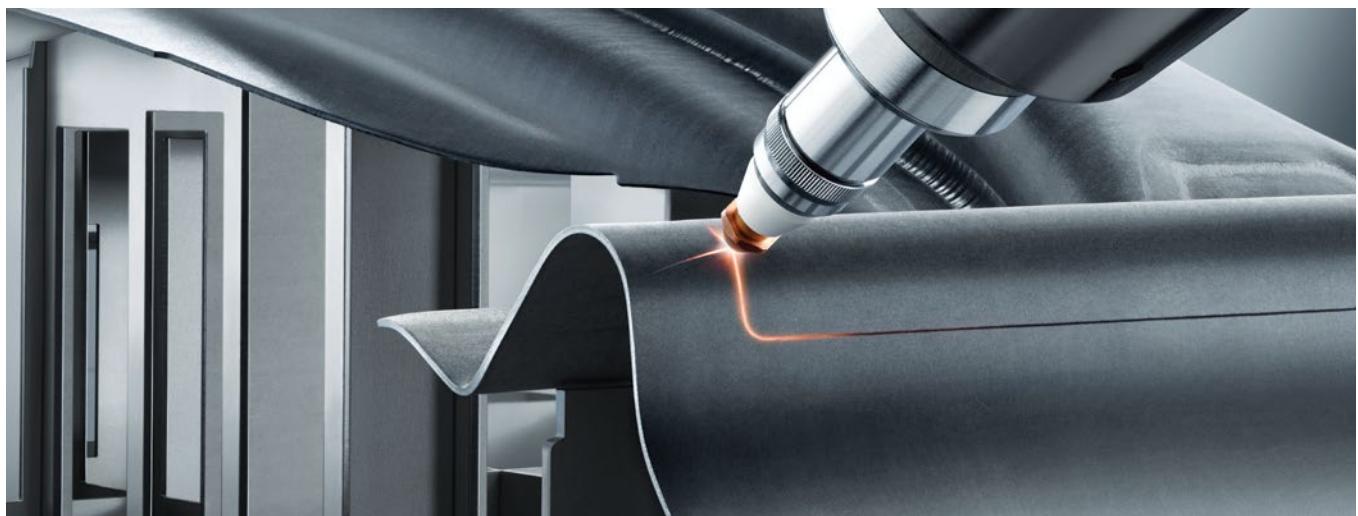
Space-saving

thanks to a compact design

Lacking space in your production facility? No problem! The compact TruLaser Cell 8030 has a very small footprint, meaning you have the flexibility to plan multiple machines into your workspace according to your specific needs. A further advantage of the system is that it is ergonomic and extremely easy to use. The rotating changer can be loaded and unloaded from the front as well as the sides.



The compact, easy-to-use laser cell fits into any production line.



The highly dynamic drive configuration in combination with maximum machine rigidity will speed up your manufacturing process.

TruLaser Station 5005

Laser welding at just 1 m²? With the TruLaser Station 5005, you can start small but think big. This compact laser machine with up to five axes enables you to process small and medium-sized parts remarkably easily and cost-effectively.

01

Small initial outlay

thanks to low investment costs



02

Easy to program

thanks to the intuitive operating concept

03

Reliable processing

thanks to fully integrated image processing

04

Flexible processing

thanks to different optics

01

Small initial outlay

thanks to low investment costs

Are you looking for the right machine to enter the world of laser welding with? Then look no further than the TruLaser Station 5005. This compact machine (including exhaust system) requires just 1 m² of space and, thanks to lower production costs, your investment pays off even if you are only producing a small volume of parts.



Start small, think big: The TruLaser Station 5005 requires only 1 m² of space.

02

Easy to program

thanks to the intuitive operating concept

Make it easy for yourself: The panel PC on the TruLaser Station 5005 can help you do exactly that by letting you operate the laser system quickly and comfortably – and teach in parameters via the touchscreen directly on the component. Remote working is possible too, thanks to the Smart Teach app for the programmable focusing optics (PFO). The digital camera transmits the live image to the app, so you can conveniently control everything from your tablet.



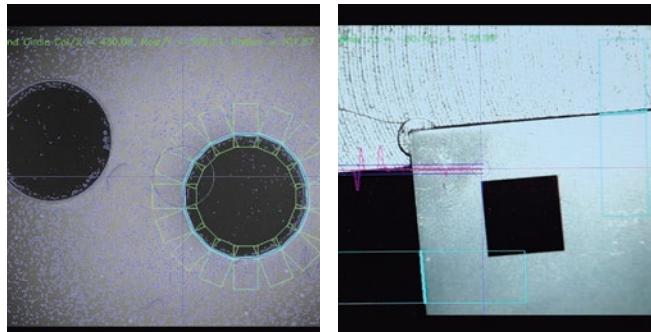
Quick and comfortable to operate: Using the panel PC, you can teach in parameters via the touchscreen directly on the component.

03

Reliable processing

thanks to fully integrated image processing

The VisionLine image processing system considerably increases the stability of your process while improving the quality of your components. This option automatically detects the features of the component's geometry and can correct the NC machining program if necessary. The result? Premium-quality parts and minimal costs.



VisionLine detects the position of the part using its unique features. In the next step, VisionLine corrects the position of the part if it has moved out of place.

04

Flexible processing

thanks to different optics

Your work is varied – and the TruLaser Station 5005 is versatile. The system gives you the option to work with up to five axes when using BEO optics or with PFO scanner optics. You can be flexible in your choice of material too: plastics can be processed as well as metals thanks to the laser pyrometer.



TruLaser Station 5005 with motorized swiveling BEO D70 focusing optics and rotational axis.



Getting started couldn't be easier. You can find out more about the TruLaser Station 5005 here: www.trumpf.com/s/w3v5fu

TruMark Station

Designed with adaptability, cost-efficiency and flexibility in mind: the highly compact TruMark Station 5000 is the consistent and reliable complete solution for laser engraving and laser beam machining work.

**01**

Maximum compatibility

Perfect for all TRUMPF marking lasers

02

Work in safety

thanks to laser protection and emissions extraction

03

Can be used anywhere

in the production line or as a single workstation

04

Make it big

thanks to lengthways transfer, even for large workpieces

01

Maximum compatibility

Perfect for all TRUMPF marking lasers

You have the freedom to choose: There is a multitude of different TRUMPF lasers and optics available for the TruMark Station 5000. They have all been configured to work perfectly with the marking station, so you can choose the optimum combination for your particular marking or material removal job – whilst staying flexible at all times.



TRUMPF has the right marking laser for any task. Choose from among the best!

02

Work in safety

thanks to laser protection and emissions extraction

Maximum safety for your staff in minimal space: The smoke and particle emissions exhaust system comes built into the machine frame of the TruMark Station 5000 to save space. The combination filter with activated carbon is monitored using a differential pressure controller and the volume flow can be varied using a potentiometer.



Looking for a compact marking station?
You can find everything you need to know about the TruMark Station here:
www.trumpf.com/s/24cbg6

03

Can be used anywhere

in the production line or as a single workstation

Benefit from the unbeatable combination of a larger work area and a compact design. The TruMark Station 5000 makes the perfect addition to your production line – or it can simply be set up as a single workstation. Do you prefer to sit or stand when working? You can do either thanks to the machine's intelligent, ergonomic design.



Easy to integrate into your production line – with the relevant laser safety class or even without an enclosure.

04

Make it big

thanks to lengthways transfer, even for large workpieces

The TruMark Station 5000 is easy to slot into your workflow and integrate into your production line, as the openings on the sides of the housing make it possible to transfer workpieces lengthways. Processing large and heavy components is no problem for the marking system either.



You will always find the right TruMark Station for your size. Choose the right machine for you depending on your workpieces and batch sizes.

- **TruMark Station 1000 and 3000 – small components and low throughput**
- **TruMark Station 5000 and 7000 – large and heavy component, big batch sizes**

TruServices. Your partner in performance

To secure your future success, capitalize on services that will move you forward not just short-term but in the long run too: Whether you want to create the best conditions for successful manufacturing, make the most of your TRUMPF laser systems or have the flexibility to adapt them to changing requirements – together we will find opportunities to maximize your value creation long-term. In us, you will find a reliable partner who will provide you with all-round support with tailor-made solutions and service packages – enabling you to manufacture economically and at a constantly high level.

› EMPOWER

If you wish to create the best conditions for successful manufacturing: We will support you in this.

› SUPPORT

If flexibility and availability of equipment in day-to-day operations are essential to you: We are there for you.

› IMPROVE

If you want to gradually focus your manufacturing on maximum value creation: We will work together to reach your goal.



Financing

Technical Service

Monitoring & Analysis

Training

Genuine Parts

Functional Enhancements

Service Agreements

Process Optimization

Design and Programming
Software

Service Agreements



Technical Service



To give you peace of mind, we have bundled different services together in a variety of service agreements. Select a range of services to suit your needs and budget: Technical hotline, Teleservice, scheduled maintenance, repairs (including replacement parts) – whatever you choose, you will benefit from low-priced packages that require little effort to redeem.

Do you need speedy technical support or want to take preventive measures to guarantee the availability of your TRUMPF system? We're here to help you with our global service network. Whether your plant is located in Europe, America or Asia, you can rely on quick, professional assistance anywhere in the world – from installation and maintenance through to repairing your machinery. Simply give our Technical Service team a call, discuss the various options with our specialists and decide which solution will work best for you: a member of staff visiting your premises in person or troubleshooting advice from a Teleservice employee.



- Regular optimization of your system
- Consistently high production quality
- Longer service life for your system
- Predictable costs thanks to fixed-price packages or annual flat rates
- Less planning and order processing work



- Qualified TRUMPF service technicians
- Global service to a high standard
- Quick reaction times and lower costs thanks to innovative service products

Process Optimization



Genuine Parts



Your processes are affected by a number of different parameters. The greatest potential for optimization lies in adjusting these parameters, which is why, if you want to increase the efficiency of your production line, it is essential to identify them accurately. With our help, you can uncover the hidden potential of your production process, for example through analyzing your part design, your subprocesses, or even your entire manufacturing line. We will then work together with you to develop selective or holistic solutions, such as those for networked manufacturing, based on these results.

Manufacturing with optimal reliability and precision: genuine Parts and Consumables are perfectly tailored to your machine and produced to the highest standards of quality. Our worldwide logistics network ensures you receive the parts you need as quickly as possible. Enjoy efficient and reliable manufacturing with Genuine Parts from TRUMPF, ensuring that your investment will pay off over the long term!



- Develop solutions together
- Decades of experience thanks to being manufacturers ourselves
- Expert knowledge gathered from numerous industries and applications
- Increase value creation in your manufacturing process



- Quality straight from the manufacturer
- Speedy delivery thanks to global logistics
- No need for adjustment thanks to plug-and-play principle
- Parts subject to ongoing further development
- Long-term spare part availability



You can learn more about our complete and comprehensive package of useful services here: www.trumpf.com/s/services

Technical data

TruLaser Station 5005
TruLaser Cell 3000, 7006, 7020, 7040, 8030

Technical data							
		TruLaser Station 5005	TruLaser Cell 3000	TruLaser Cell 7006	TruLaser Cell 7020	TruLaser Cell 7040	TruLaser Cell 8030
Axis positioning range							
X	mm	300	800	650	2000	4000	3000
Y	mm	300	600	1500/2000	1500/2000	1500/2000	1500
Z	mm	500	400 (+300) ¹⁾	750	750	750	600
B/C ²⁾	°	± 120/n x 360	± 135/n x 360	± 135/n x 360	± 135/n x 360	± 135/n x 360	± 135/n x 360
Max. payload	kg	30	400		800	1600	300
Speed							
X/Y/Z	m/min	6	50	100	100	100	100
Simultaneous	m/min	10	85	173	173	173	173
B/C ³⁾	1/min	15/200	120/400	90/90	90/90	90/90	90/90
Acceleration							
X/Y/Z	m/s ²	0.5	10	9/10/10	9/10/10	9/10/10	10
Simultaneous	m/s ²	0.9	17.3	16.7	16.7	16.7	17.3
B/C ³⁾	rad/s ²	65/160	125/500	200/100	200/100	200/100	200/100
Positioning deviation Pa							
Linear axes X/Y/Z	mm	0.1	0.015 (0.005) ²⁾				
Rotational axes B/C ³⁾	°	0.1/0.2	0.02/0.02				
Repeatability on two sides R							
Linear axes X/Y/Z	mm	0.003	0.003 ²⁾				
Rotational axes B/C ³⁾	°	0.03	0.010 (0.003)				
Maximum positioning variation							
Linear axes X/Y/Z	mm			0.03	0.03	0.03	0.03
Rotational axes B/C ³⁾	°			0.005	0.005	0.005	0.005
Maximum positioning deviation							
Linear axes X/Y/Z	mm			0.08	0.08	0.08	0.08
Rotational axes B/C ³⁾	°			0.015	0.015	0.015	0.015

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

TruLaser Station 5005

TruLaser Cell 3000, 7006, 7020, 7040, 8030

Technical data							
		TruLaser Station 5005	TruLaser Cell 3000	TruLaser Cell 7006	TruLaser Cell 7020	TruLaser Cell 7040	TruLaser Cell 8030
Laser							
Max. laser power	W	1000	8000 ⁴⁾	6000	6000 ⁴⁾	6000 ⁴⁾	4000
Available lasers		TruDisk, TruPulse, TruDiode, TruFiber, TruMicro	TruDisk, TruPulse, TruDiode, TruFiber, TruMicro	TruFlow, TruDisk	TruFlow, TruDisk	TruFlow, TruDisk	TruDisk
Available technologies		Laser welding	Laser welding, laser cutting, laser deposition welding	Laser cutting			
Rotating changer							
Diameter	mm		870		4000	4000/5200	4000/4800
Max. payload per side	kg		95		350	350/700	300
Stations	Num- ber		2		2	2	2/3
Rotation time	s		3		3.3	5.5	2.3
Total typical nonproductive time	s		5.2		7	9	5
Dimensions							
Width/depth/height	mm	860/1315/2020	1600/2840/ 2650	5)	5)	5)	5)

¹⁾ With additional W1 axis. ²⁾ High-accuracy axis system. ³⁾ C180 rotational axis. ⁴⁾ Higher laser power upon request.

⁵⁾ Dimensions are listed in the standard layout of the custom machine

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

TruLaser Cell 1100

Technical data		
		TruLaser Cell 1100
Axis positioning range		
X	mm	300 x 500
Z	mm	300 x 500
Q	mm	± 25
Positioning accuracy X/Z	mm	± 0.1
Positioning accuracy Q	mm	± 0.05
Max. laser power	W	15,000
Available lasers		TruFlow, TruDisk, TruDiode

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

Technical data

TruMark Station 1000, 3000, 5000, 7000

Technical data					
		TruMark Station 1000	TruMark Station 3000	TruMark Station 5000	TruMark Station 7000
Available marking lasers		TruMark Series 1000, 3000, TruMark 5010	TruMark Series 1000, 3000, 5000	TruMark Series 1000, 3000, 5000, 6000, TruMicro Mark Series 2000	TruMark Series 3000, 5000, 6000
Dimensions	mm	410 x 521 (desktop)/ 760 (standalone) x 831	630 x 820 (desktop)/1750 (standalone) x 670	860 x 2000 x 1310	1200 x 2000 x 1200
Weight (without laser)	kg	35	90 (desktop)/ 160 (standalone)	410	612
Electrical connection (voltage)	V	100/240	100/230	115/230	200/400
Electrical connection (frequency)	Hz	50/60	50/60	50/60	50/60
Electrical connection (amperage)	A	2.6 at 230 V	3/4/6/9/13	10/13/15/16/20	12.5/25
Max. power consumption	W	600	600	2550	5000
Max. workpiece dimensions	mm	250 x 150 x 300	440 x 200 x 350	680 x 500 x 700	1000 x 400 x 500
Max. workpiece weight	kg	5	12	50/25 (with X/Y axis)	100/25 (with Y axis)
Available axes		Z (manual)	Z	X Y Z	X Y Z
Max. travel	mm	150	200	300 300 500/442 (TruMicro Mark)	650 375 400
Traveling speed	m/min		2.4	6 6 1.5	15 15 0.7
Rotational axis	mm	65	65	65, 150	65, 150
Door		Manual	Motorized	Motorized, available with rotary indexing table	Motorized
Exhaust system		External	Integrated, external possible	Integrated, external possible	Integrated, external possible
Laser safety class		1	1	1, 4 possible	1

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

TruPrint 1000, 3000, 5000

Technical data				
		TruPrint 1000	TruPrint 3000	TruPrint 5000
Build cylinder	mm x mm	dia. 100 x 100 Optional: Smaller installation space	dia. 300 x 400	dia. 300 x 400
Building materials		Stainless steel, tool steel, cobalt-chrome, aluminum, nickel-based alloy, titanium ¹⁾ , precious metals ¹⁾ , bronze		
Layer thickness	µm	Typically 10–50 ²⁾	Typically 20–150 ²⁾	Typically 20–150 ²⁾
Laser source	W	200 fiber laser Option: Multi-laser 2 x 200 fiber laser	500 fiber laser	3 x 500 fiber laser
Preheater	°C		200	500
Beam diameter	µm	50, optional 30	100–500 ²⁾	
O ₂ concentration	ppm	Up to 100 (0.01%)	Up to 100 (0.01%)	Up to 1000 (0.1%)
Scanning speed	m/s	Max. 6	Max. 11	
Protective gas		Nitrogen, argon		
Power supply	V A Hz	230 7 50/60	400 32 50/60	
Dimensions	mm	1445 x 1680 x 730	3385 x 2005 x 1475	
Weight	kg	705	4300	
Automation				Process starts automatically

¹⁾ Available with option packages. ²⁾ Individually adjustable.

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

You can find more information at www.trumpf.com

- Technical datasheets available to download
- Ability to clearly compare up to three products
- Displays perfectly on any end device

The passion that drives us

From production and manufacturing technology to laser systems and material processing, we develop highly innovative products and services to meet your needs. Our solutions are superbly reliable and ready for industrial use. We do everything we can to give you a powerful competitive edge, drawing on our expertise, experience, and a genuine passion for what we do.

Industry 4.0 – solutions for your future

The fourth industrial revolution is changing the world of manufacturing. Is it possible to stay competitive internationally with all this change? Yes – with the opportunities offered by digital networking. With our pragmatic solutions, we will support you every step of the way on your networked manufacturing journey, helping you make your processes more transparent, more flexible and, first and foremost, more cost-effective. This will enable you to make the most of your resources and ensure your production process is fit for the future.

TruConnect is synonymous with Industry 4.0 at TRUMPF. The range of solutions connects man and machine through information while covering all steps of the production process – from quotation through to shipping your parts.



TruConnect
Your Smart Factory



Check out our
YouTube page:
[www.youtube.com/
TRUMPFtube](http://www.youtube.com/TRUMPFtube)



Lasers for manufacturing technology

Whether on a macro, micro, or nano scale, we can offer you the right laser and the right technology to create an innovative and cost-efficient production environment for any industrial application. We can also provide you with appropriate system solutions, application know-how, and consulting services.



Power-supply systems for high-tech processes

From semiconductor manufacturing to solar cell production, our MF and RF generators supply electrical power for induction heating-, as well as plasma and laser excitation at a clearly defined frequency and output, with high levels of reliability and repeatability.

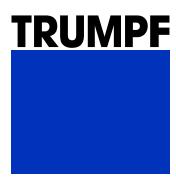


Machine tools for flexible sheet metal and pipe work

From laser cutting and punching to bending and laser welding, we provide our customers with tailor-made machines and automation solutions for a versatile array of sheet machining processes. That includes advice, software, and services – in short, everything you need to achieve reliable production of high-quality products.



TRUMPF is certified to ISO 9001
(Find out more: www.trumpf.com/s/quality)



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www.trumpf.com