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

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TRUMPF

TruMark

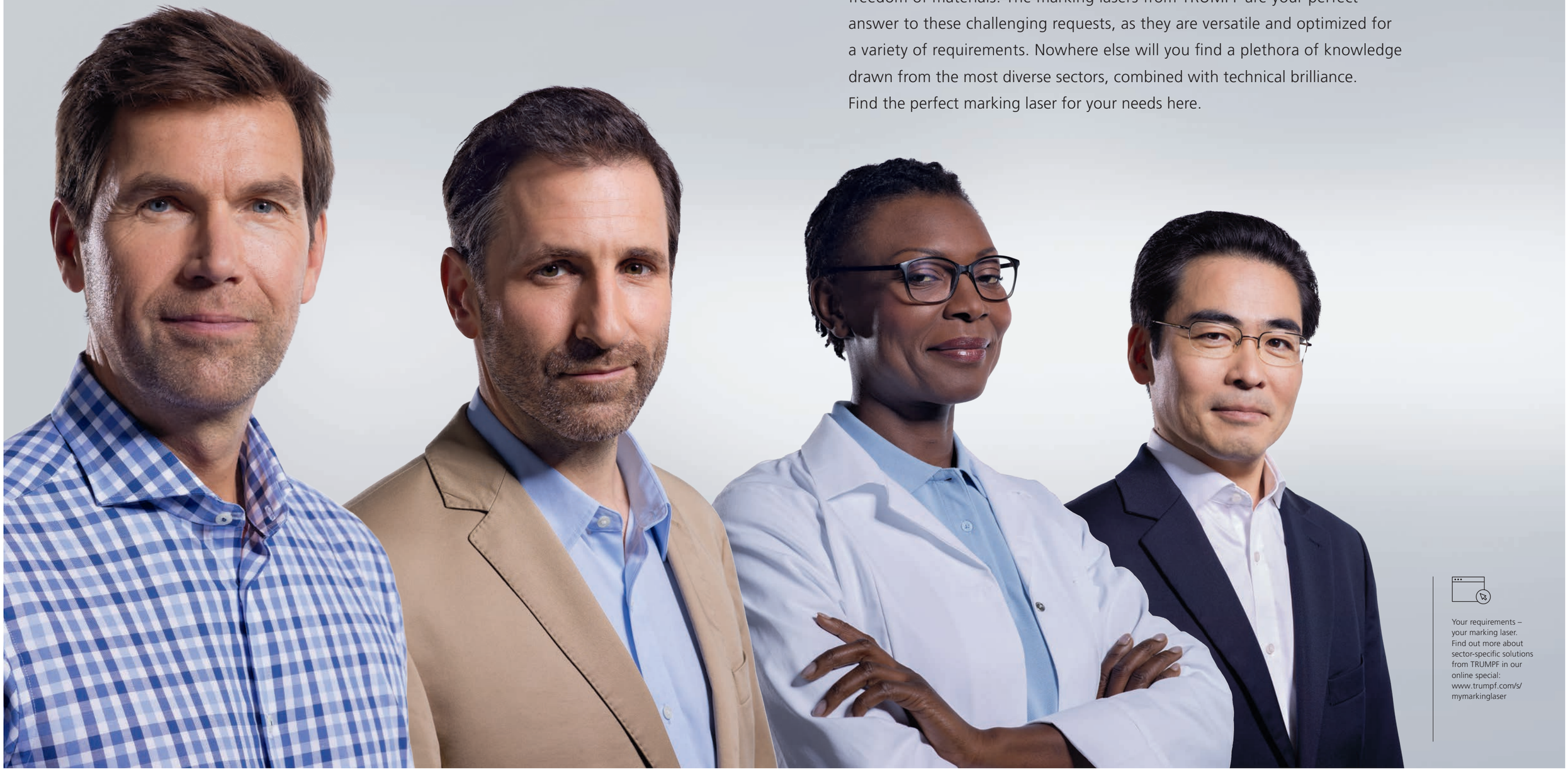
# The individual solution for your industry


TRUMPF

TRUMPF Inc.
www.trumpf.com

# #mymarkinglaser

In an industry with increasing demands, faster, flexible and more precise reactions are required, all while having the highest quality products and freedom of materials. The marking lasers from TRUMPF are your perfect answer to these challenging requests, as they are versatile and optimized for a variety of requirements. Nowhere else will you find a plethora of knowledge drawn from the most diverse sectors, combined with technical brilliance. Find the perfect marking laser for your needs here.



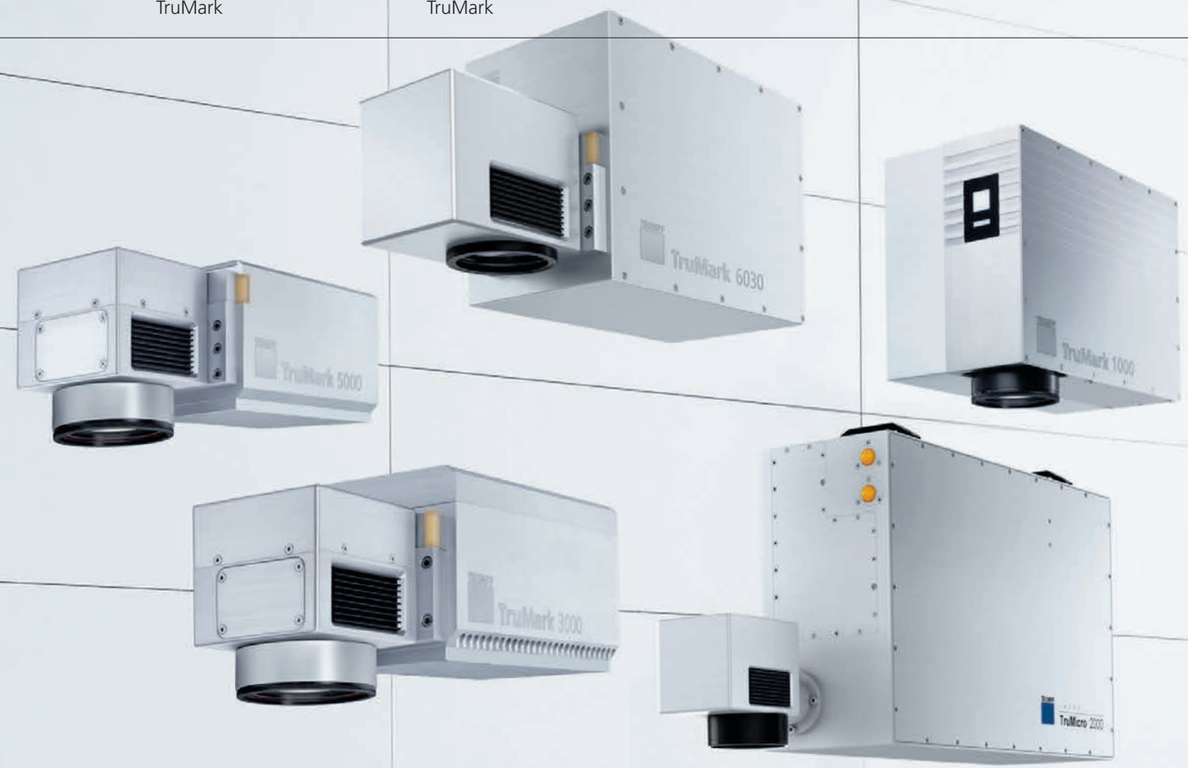
Your requirements – your marking laser. Find out more about sector-specific solutions from TRUMPF in our online special: www.trumpf.com/s/mymarkinglaser

# The diversity of marking

Discover how TRUMPF can support you in finding your ideal marking laser, regardless of which requirements are most important to you. We also assist you in selecting your hardware and software, and provide expert advice on your individual process. Through providing custom-made, top class services and establishing our Smart factory, we have expert knowledge of Industry 4.0. Together with TRUMPF, you will be prepared for the production processes of the future.

# TruMark: This is what you can expect

A marking laser is an important element in your production chain. With TRUMPF, you have a well-informed partner who knows what you need. You can rely on the quality, performance and safety of the new TruMark generation.




## Quality

TruMark lasers ensure high-quality, long-lasting markings. With their high pulse peak power, you can combine quality with rapid cycle times. The ability to focus precisely means you can also achieve this at high peak intensities and for small markings. VisionLine ensures enhanced quality by facilitating the automatic or manual positioning of the marking content on the component and automatically handles all process and laser data for the documentation.

**No compromises on quality**

## Performance

Quick, quicker, TruMark. With the marking lasers from TRUMPF, you can significantly increase your production speed. Lasers in different power classes ensure that every application has the right laser available. The established parameter library facilitates quick process set-up. Rapid laser availability and a highly dynamic scanner ensure short processing times.

**High speed for your processes**

## Safety

With Performance Level e, system safety remains a top priority during integration. Plug & Produce ensures user safety, even during component exchange, through additional components such as mechanical shutters.

**With TruMark lasers, you can confidently make your mark**

View our comprehensive overview of all TruMark marking lasers: www.trumpf.com/s/markinglasers

# What type of user are you?

What is especially important to you about a marking laser? Ease of integration into your production line? Marking speed? Efficiency? High availability? Best marking quality? No matter what your priorities are – you'll find your perfect TruMark marking laser here.


**"In the automotive industry, I need an overall system that is efficient. The TruMark is the ideal marking laser for that."**
Joerg M., process and system planner

## Automotive

Maximum system efficiency, simple integration

During vehicle production, numerous components are used, which must each carry specific designations and traceability information; individual TruMark marking solutions from TRUMPF offer vehicle manufacturers the durable marking quality necessary for this process, and can be efficiently and safely integrated in production facilities. Further advantages of the TruMark marking lasers are its excellent robustness, and the modular construction which makes them versatile, compact and easy to extend.



VisionLine image processing and an integrated autofocus feature ensure constant high quality.

Mark, structure, clean: TruMark lasers can take on many automotive industry tasks.

By foam marking: Barcodes and marking rear car lights with free text.


**"In the medical industry, every part must be traceable. TruMark is the marking solution that I trust absolutely."**
Caroline T., quality assurance officer

## Medical engineering

Process reliability first

TruMark lasers inscribe medical devices and instruments, and implants with absolute precision. They can create even the finest markings on sensitive surfaces and meet all the criteria for perfect UDI (unique device identification) markings. Short pulse durations in the range of picoseconds or femtoseconds ensure the highest degree of contrast and maximum corrosion resistance. This results in minimal heat penetration and no residues on the surface.



Traceable due to durable marking: With its extreme pulse peak power, the TruMicro Mark generates deep black UDI codes with enhanced corrosion resistance for traceability.



Laser-marked hose clamp in surgical stainless steel. Perfect UDI codes in accordance with regulations.


TruMark lasers mark a wide variety of materials; we have the right wavelength for every one.


**“With household appliances, all the marking possibilities are needed, and for this I need exactly one solution: TruMark.”**
Marc E., technology officer

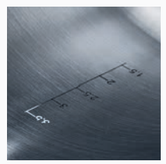
## Household appliances

Highest marking quality, utmost flexibility

Household appliances have many visible parts, and exceptionally high-grade, durable and haptically high-quality marking is essential. The applications within the sector are diverse, calling for flexible solutions with regard to focal lengths, marking field sizes or wavelengths.



With TruMark marking lasers, you can mark household appliances economically and to an exceptional standard.



The TruMark lasers can even be used on more complex forms with precision.


You can work cleanly with a high degree of precision, and even easily remove paint from sheets just using a marking laser.


Find out more about TruMark marking lasers in different sectors here: www.trumpf.com/s/mymarkinglaser

**“In the electromechanical industry, I need high marking quality without system failures, something I can use quickly and flexibly. TruMark is just the thing!”**
Alexander S., purchaser

## Electronics

Highest performance, maximum reliability

Housings, switches, power supply units, circuit boards and more: with TruMark marking lasers, you can mark and structure many different electromechanical industry components in high quantities – contactless, durable and free of wear.



UV marking lasers can mark even flame-retardant materials in high-quality using ultra-violet wavelengths.



Even highly reflective materials such as copper can be easily marked using TruMark lasers.

Benefit from short cycle times thanks to the scalable laser power and short reaction times.

# Together, we will find the right marking laser for you

Whether you have basic application questions or detailed optimization requirements, we are at your side right from the start. 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 optimum technologies for your needs.

## Together, we will find your ideal marking process

**Our experts will be delighted to help you select the ideal marking laser for your task in our Laser Application Centers.**

### 1. Determining factors

Specify the determining factors for your marking task, such as desired process duration, parts handling or production environment.

### 2. Marking content

Supply us with sample components and the desired marking content (logo, text, data matrix code, etc.).

### 3. Marking procedure

We will identify the ideal marking procedure for you, with a perfectly balanced combination of marking result, laser beam source and workstation. We develop optimum process parameters that are tailored to your criteria.

### 4. Installation

If you so choose, we can accompany and support you further with installation, training, maintenance, telephone support, and other services.

"We have always been able to rely on the service from TRUMPF throughout our long years of collaboration. I appreciate the fact that I can always count on the highest process reliability in my marking tasks."

Jürgen Diesenberger, production director for instruments and sterile technology, Karl Leibinger Medizintechnik GmbH & Co. KG

"The trend in laser marking is moving in the direction of industry-specific solutions, such as in software, and increased machine intelligence. It is important to us that marking lasers always meet the requirements of an industrial environment, and that their installation, commissioning and operation is as simple as possible. Additionally, we offer our customers a sustained collaboration which they can trust."

Steffen Ehrenmann, product manager for marking lasers and systems

"TRUMPF has always been a good partner throughout many years of collaboration – globally as well. We have always been able to rely on quick support when developing new marking ideas and varieties."

Victor Vasconcelos, industrial mechanic, MüKo Maschinenbau GmbH

"We benefit significantly from the experience which TRUMPF provides. The high dependability of their systems and the international availability of spare parts ensure our production success."

Ricus Müller, senior technical expert for manufacturing technology/process development, Continental Temic microelectronic GmbH

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

# TruMark 6030

Marking with utmost reliability and performance.

01

## 25% shorter process times

due to high performance

05

## Always in the right place

with optimum position recognition and marking alignment


02

## Utmost stability

with new power regulation

03

## Plug in and go

with removable connection cables and a wide range of interfaces

04

## Robust and reliable

thanks to powerful components





01

### 25% shorter process times

thanks to high performance

Due to the high level of available average power at the workpiece and the increased pulse energy, you can work even more productively. The excellent beam quality and high power densities guarantee high-quality, high-contrast markings and clean material removal.

02

### Utmost stability

with new power regulation

Dynamic, integrated power regulation means that you can mark constantly and with utmost reproducibility. It ensures the best pulse-to-pulse stability as well as constant power. Additionally, a fast, integrated Z axis ensures a constant spot diameter on different processing levels.

A constant spot size achieves homogenous annealing even at different processing levels.

03

### Plug in and go

with removable connection cables and a wide range of interfaces

The TruMark 6030 is quick and easy to integrate into production. This is made possible, for example, by the supply unit and the external PC as a 19" plug-in unit, the removable connection cable (length = 6 m) and a range of available interfaces (Profibus, Profinet, EtherCAT, EtherNET/IP).

04

### Robust and reliable

thanks to powerful components

The new marking laser is a high-end industrial device; manufactured with the most up-to-date production technologies and equipped with powerful optical components, it is an exceptionally robust marking system. Thus, the processing head of the TruMark 6030 can withstand high accelerations.

05

### Always in the right place

with optimum position recognition and marking alignment

The VisionLine image processing system with integrated lighting automatically and reliably recognizes the position of the component. The sequencing of images (stitching) completes this task easily, even when processing larger components. Therefore, you can depend on your process-reliable system to always mark at the right place. Intuitive operation and a predefined library of characteristics make your work even easier.


The VisionLine image processing system automatically recognizes the parts and places the marking right where it belongs.

# TruMicro Mark Series 2000

Discover the world of ultrashort pulses and achieve the highest levels of corrosion resistance and extremely high-contrast black.


01

## Simple operation

and easy control of laser pulses

02

## Long-lasting, high-contrast markings

due to ultrashort pulses

03

## Marking of highly reflective materials

thanks to high peak intensities

04

## Maximum stability

with patented quad-loop stabilization



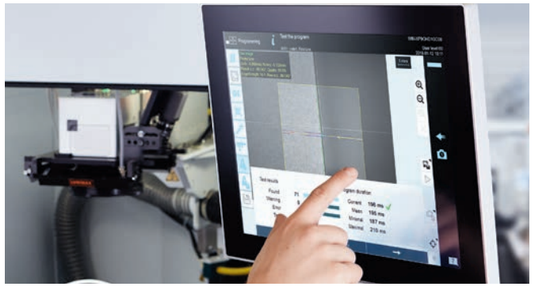


01

## Simple operation

and easy control of laser pulses

The TruMicro Mark Series 2000's exceptionally versatile marking tools were designed with simplicity in mind. You don't need any expertise in ultrashort laser pulses, and you can get started right away as the beam source is already installed. The intuitive operation of the TruTops Mark software along with custom-made interface, makes your work easier and ensures you get top-class results.



With the TruTops software, it is also child's play to control ultrashort pulses.

02

## Long-lasting, high-contrast markings

due to ultrashort pulses

As a result of the ultrashort pulses, small light traps (also called nanoripples), develop on the surface. These ensure an extremely dark, black contrast, irrespective of the viewing angle. In the case of markings on stainless steel, you can thereby achieve the highest degree of corrosion resistance.


Surgical stainless steel scalpel marked with black UDI code.

"Long-lasting and optimum legibility: I am extremely satisfied with the marking quality from the ultrashort pulses of the TruMicro Mark."

Caroline T., quality assurance officer

03

## Marking of highly reflective materials

thanks to high peak intensities

Marking copper, aluminum or brass – no problem with the TruMicro Mark Series 2000. The ultrashort pulses with high peak intensity have unique absorption behavior. This means you can achieve brilliant markings, even on difficult materials.

04

## Maximum stability

with patented quad-loop stabilization

The patented quad-loop stabilization of the beam source ensures maximum stability with monitored pulse energy for each individual pulse. You can use the industrially proven TruMicro Series 2000 as a beam source with functions such as flexible repetition rate and burst mode. Thus you can achieve top results during cold processing, with almost no heat penetration into the material.


Marking in black with picosecond pulses.

For further information on marking with ultrashort pulses, see: www.trumpf.com/s/r3axsl

# TruMark Series 5000

Our compact marking lasers for deep engraving, annealing marking, microstructuring, and surface treatment.

01

## Save time

thanks to the high processing speed

05

## Consistent performance

across the entire frequency range


02

## Flexible with regard to material

due to adjustable pulse duration

03

## Work in safety

with fiber protection duct and shutter

04

## Easy to integrate

thanks to intelligent modular design





01

## Save time

thanks to the high processing speed

The unique feature of the TruMark Series 5000 is that it has high pulse frequencies – a key factor for high processing speeds. With its software-controlled focus position adaptation, you can mark components at different processing levels in one operation, without mechanically moving them.

In addition to laser marking, functional surface structures can also be specifically modified, thereby influencing the tribological characteristics.

02

## Fexible with regard to material

due to adjustable pulse duration

Settings that are application-specific, along with consistent peak intensities and high pulse frequencies, means that you no longer have to choose between quality and productivity for your marking processes. Reduced pulse durations enable high quality results for a wide variety of materials, even with short cycle times.

03

## Work in safety

with fiber protection duct and shutter

In addition to an especially robust fiber protection hose, the TruMark Series 5000 also possesses additional features such as a mechanical shutter and fiber plug monitoring between laser and processing unit. This means that operators can work safely even if the workstation is open.

"With its high performance and simple integration, the TruMark Series 5000 fits perfectly into my production line."

Joerg M., process and system planner

04

## Easy to integrate

thanks to intelligent modular design

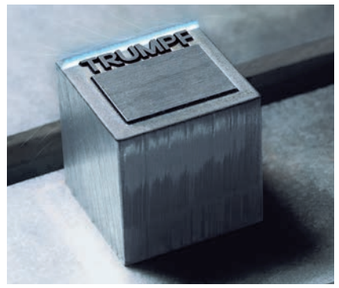
The scanner optics, the processing unit and the supply unit are coupled via connectors, which makes it simple to build the laser into your production system or your plant. Numerous interfaces make integration into your production area even easier.

05

## Consistent performance

across the entire frequency range

With TruMark Series 5000, you can be sure that your performance remains consistent across all frequency ranges. In addition, various power classes satisfy every requirement in terms of performance.




The high performance of the TruMark Series 5000 makes deep engraving with high volume removal possible, even with short cycle times.

Find out more about the TruMark Series 5000 at: www.trumpf.com/s/g6rbaf

# TruMark 5010

The one-box laser as a complete package for total laser marking freedom.

01

## Easy to integrate

with our innovative one-box concept

04

## Low investment costs

thanks to an excellent price/ performance ratio


02

## Versatile

suitable for a wide variety of marking tasks

03

## Compact and brilliant

entirely without a supply unit





01

## Easy to integrate

with our innovative one-box concept

The TruMark 5010 does not require a supply unit due to an ingenious, powerful air cooling system that prevents the component from overheating. This makes the integration far easier for you – especially since the space-saving laser possesses all key industrial interfaces.

02

## Versatile

suitable for a wide variety of marking tasks

Don't underestimate the laser due to its size; the TruMark 5010 can mark metals, plastics and organic materials at a unique price-performance ratio, with brilliant beam quality. The infrared, one-box marking laser delivers exceptional results, especially for deep engraving and surface processing.


You can mark data matrix codes in your tools using black engraving, making it easier to manage them.

03

## Compact and brilliant

entirely without a supply unit

The TruMark 5010 combines average power with brilliant beam quality. Space-saving, air-cooled and equipped with the most important interfaces, the marking laser is simple to integrate. The TruMark 5010 is a true all-in-one solution: the Fiber laser, scanner, control unit, and the internal focus position control unit, are combined within its housing which eliminates the need for a separate supply unit.


Laser, scanner, control unit, and focal position control are integrated into the housing.

04

## Low investment costs

thanks to an excellent price/performance ratio

The TruMark 5010 allows for profitable laser processing even for small to medium-sized quantities. Thus, it is ideally suited for those who want to integrate laser marking in their production line without compromising on quality.


Laser-marked single-point lubrication system: The TruMark 5010 is your perfect point of entry into laser marking.

More about marking with the one-box laser: www.trumpf.com/s/mv4c6x

TruMark



# TruMark Series 3000

The tried-and-tested top solution for a wide variety of materials and applications.

01

## Excellent results

thanks to a perfectly tuned performance package

05

## Perfect for all components

due to its internal focus position control unit


02

## Flexible material selection

using different wavelengths

03

## High availability

thanks to ingenious design

04

## Integration made easy

with a compact size and modular design

01

## Excellent results

thanks to a perfectly tuned performance package

The TruMark Series 3000 is an attractive proposition with its bundle of technical top ratings. Enjoy top quality markings with reliable pulse-to-pulse stability, brilliant beam quality, comprehensive pulse powers up to 100 kW, and high pulse energies.

"The decisive factor for our team when purchasing the TruMark 3330 was the fact that it would be easy to integrate into our plant concept."

Alexander S., purchaser

02

## Flexible material selection

using different wavelengths

The lasers of the TruMark Series 3000 are available with infrared, green, and UV wavelengths. This variety allows you to select your materials without limitations; even plastics can be marked without problems. This means you always achieve the best quality and performance for your application.

04

## Integration made easy

with a compact size and modular design

It is especially easy to integrate the laser into your production system given the modular design and compact dimensions of the TruMark Series 3000 processing unit. Additionally, the removable hybrid cable and the numerous available interfaces ensure that start-up is convenient.

03

## High availability

thanks to ingenious design

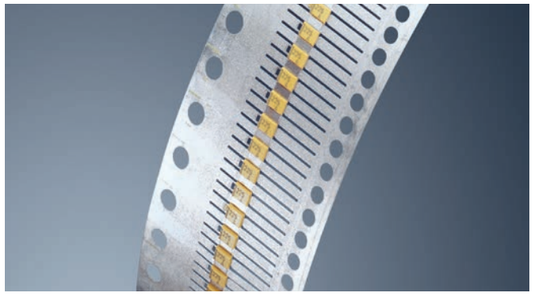
The laser represents reliable performance even under difficult conditions. To further improve availability and to make maintenance quick and easy, the electrical components are separated from the optical ones.

05

## Perfect for all components

due to its internal focus position control unit

Does your workpiece include different heights? No problem! The TruMark Series 3000 possesses variable focal positioning adjustment, which allows you to process at different levels. This allows you to continue production at different processing levels more quickly and with high process reliability.



Laser-marked electrical components: Information applied to the tiniest area facilitates the secure identification of the product at all times.

Top-class markings on a diverse range of materials: Here, a color change onto a flame-retardant plastic is done with the UV laser.

Find out everything else you would like to know about the TruMark Series 3000: www.trumpf.com/s/hf9ntx

# TruMark Series 1000

The cost-effective and compact all-in-one solution is completely integrated with a laser, scanner and control unit.

01

## Precise marking results

thanks to outstanding beam quality

04

## Integration made easy

with diverse interfaces


02

## Flexible material processing

due to a robust solid-state laser

03

## Small initial outlay

thanks to low investment costs





01

## Precise marking results

thanks to outstanding beam quality

With the TruMark Series 1000, you can count on the best marking results without compromising. The outstanding beam quality of the laser ensures precise processing at all times.


Top-class marking results: This marking was produced by a color change via carbonization.

02

## Flexible material processing

due to a robust solid-state laser

The short pulses of the vanadate laser ensure high-quality markings. Efficient and safe material processing is possible even at high pulse frequencies. You remain flexible and can process a diverse spectrum, such as metals, plastics or organic materials.


Day-and-night design for the automotive sector: The marking laser removes partial covering layers of multilayered plastic. The color contrast produces the design effect.

03

## Small initial outlay

thanks to low investment costs

The all-in-one, compact and versatile TruMark Series 1000 is the perfect solution for small to medium quantities, with low investment costs and ease of integration.

TruMark Series 1000 marking lasers are ideally suited for layer removal.

04

## Integration made easy

with diverse interfaces

The TruMark Series 1000 performs perfectly without an external supply unit, and is equipped with a range of interfaces. This makes it easy for you to integrate it into your production.

The wide range of interfaces offered by the TruMark Series 1000 make it easy to integrate into your production line.

Find out more about this great-value first point of entry into laser marking: www.trumpf.com/s/mv4c6x

# TruMark Station 7000

The top model with every feature: offers you power and precision for large tasks.

01

## Series production

thanks to a large work area with many options


04

## Marking without limits

due to the movable laser

02

## Simple operation

with one user interface for multiple functions

03

## Work ergonomically

thanks to the perfectly thought-out workspace design



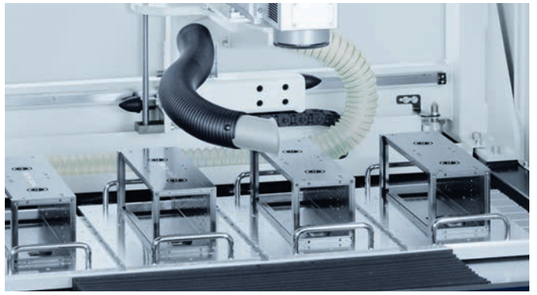


01

## Series production

thanks to a large work area with many options

With its large internal dimensions, the TruMark Station 7000 marking system provides you with plenty of space and is ideal for large batch sizes. You can inscribe single large or heavy components laser-safe, or you can arrange smaller parts next to each other and have them processed automatically. Optional equipment such as rotary axes can support each production step.



Flexible and ideal for large batch sizes: In the enormous work area, you can process one large part or many small ones.

02

## Simple operation

with one user interface for multiple functions

With the ability to use the same single user interface to operate the axes or set the laser parameters, it doesn't get simpler than the TruMark Station 7000. The TruTops Mark software, which can be programmed flexibly, controls all axes, the motor lift door and the peripheral devices.

03

## Work ergonomically

thanks to the perfectly thought-out workspace design

The efficient design of the workspace allows the machine operator to work without becoming fatigued. The entire work area is highly accessible, and extractors for smoke and particles ensure a safe working environment, even at high laser powers.

"Due to the spacious work area it's all child's play, even when marking our biggest components."

Marc E., technologist

04

## Marking without limits

due to the movable laser

The TruMark Station 7000 is the only station with a laser that moves through the entire work area and which can let the component rest. The laser can travel along two axes that are positioned in the X- and Y-directions. When the work surface is in the Y-direction, it opens up an expansive work area.


The laser moves through the TruMark Station 7000 work area.

Find out more about our top model at:
www.trumpf.com/s/bme1is

# TruMark Station 5000

The intelligent all-in-one for those who like to take things easy.

01

## Universally usable

thanks to a wide selection of lasers

04

## Can be used anywhere

in the production line or as a single workstation


02

## Work in safety

due to integrated extractor

03

## Flexible integration

with the option of transferring workpieces lengthways





01

## Universally usable

thanks to a wide selection of lasers

The TruMark Station 5000 provides a variety of lasers with different focusing optics in different focal lengths and wavelengths.

The TruMark Station 5000 offers a free choice of lasers and optics.

02

## Work in safety

due to integrated extractor

The smoke and particle emissions extractor is integrated in the TruMark Station 5000's housing and connected to the work area. The combination filter with activated carbon is monitored using a differential pressure controller, and you have the additional option to set the volume flow.

The integrated extractor protects staff from smoke and particles.

03

## Flexible integration

with the option of transferring workpieces lengthways

The TruMark Station 5000 is easy to fit 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. Or you can choose the TruMark Station 5000 entirely without casing (laser safety class 4), to process larger components. There is also the option of extending the closed work area on both sides.

Simple to integrate into your flow line, even without an enclosure (laser safety class 4).

04

## 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. You have the option to either sit or stand when using the machine due to its intelligent, ergonomic design.


TRUMPF has conducted numerous applications trials to prepare the TruMark Station 5000 for flexible usage in industry.

Visit the website of our all-rounder, TruMark Station 5000: www.trumpf.com/s/i8ub63

# TruMark Station 3000

The simple and user-friendly marking cube for small and medium-sized batches.

01

**Get started easily**
with intuitive operability

05

**Mark safely**
with a motorized laser protection door and laser safety class 1


04

**Perfectly equipped**
for any application or batch size

02

**Work comfortably**
because of our focus on ergonomics

03

**Compact desktop application**
with the TruMark one-box lasers





01

## Get started easily
with intuitive operability

The TruMark Station 3000 is perfectly suited for customers with small and medium batch sizes. The spectrum of applications encompasses the removal, structuring, and targeted coloring of surfaces. The simple, safe but industrially robust marking station is straightforward and comfortable to operate.

Laser-marked headrest: Make your customers happy with individually-designed single parts.

02

## Work comfortably
because of our focus on ergonomics

The operating elements of the TruMark Station 3000 are ergonomically attached, and it is controlled via the tried-and-tested TruTops Mark software. An automatic door facilitates quick and comfortable loading and unloading. In addition, a motorized Z-axis supports component positioning and the achievement of the exact focus position.

03

## Compact desktop application
with the TruMark one-box lasers

Simply equip your TruMark Station 3000 with a TruMark one-box laser. With its small external dimensions, the marking station even fits on your desk. There is also a stand-alone version available for standing and sitting operation in the processing area.

04

## Perfectly equipped
for any application or batch size

The TruMark Station 3000 offers optimal capabilities due to the TruMark Series marking lasers, making it the ideal solution for any application or batch size. An optional rotational axis further enhances the flexibility of the marking station. If you wish to convert to series production, simply remove the side flaps and pass your conveyor belt through.


You can also use the TruMark Station 3000 as a desktop workspace or as a stand-alone solution – the supply unit and extractor are integrated into the substructure.

05

## Mark safely
with a motorized laser protection door and laser safety class 1

Excellent safety in a compact design: the electrically operated and monitored laser protection door ensures the safety of your staff.


The laser protection door is electrically operated and monitored – perfect safety for your staff.

For further details on the TruMark Station 3000: www.trumpf.com/s/hl68zv

# TruMark Station 1000

The simple to use marking station for desk tops.

01

## Space-saving

thanks to its compact design

04

## Work safely

with the highest laser safety class


02

## Easy to transport

for maximum flexibility

03

## Low initial outlay

with an excellent price/ performance ratio





01

## Space-saving

thanks to its compact design

The TruMark Station 1000 is the smallest and most compact laser workstation from TRUMPF – it will even fit on your desk. The marking station even has a comfortable work area, accessible from three sides.


Are you looking for a cost-effective device for high-quality markings with low material throughput? Then the TruMark Station 1000 is the perfect solution for you.

02

## Easy to transport

for maximum flexibility

With the TruMark Station 1000, you have the ability to mark without having to stay in one place. The marking station is extremely compact, weighs just 77 lbs. and can easily be transported in the trunk of a car. In this way, it is perfectly suited to mobile applications.

03

## Low initial outlay

with an excellent price/performance ratio

The TruMark Station 1000 is an entry-level device with a small price tag, which can produce high-quality inscriptions economically and safely. The right laser for your application is already integrated, and the manually adjustable work table makes operation easier.

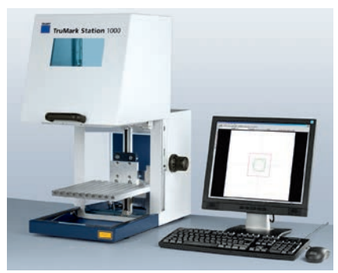

Product designations on safety switches quickly and simply marked.

04

## Work safely

with the highest laser safety class

Small, but with all the equipment required for safety: with a laser that automatically stops when the door is opened and safety-based redundancy systems, the TruMark Station 1000 is in the top laser class 1.

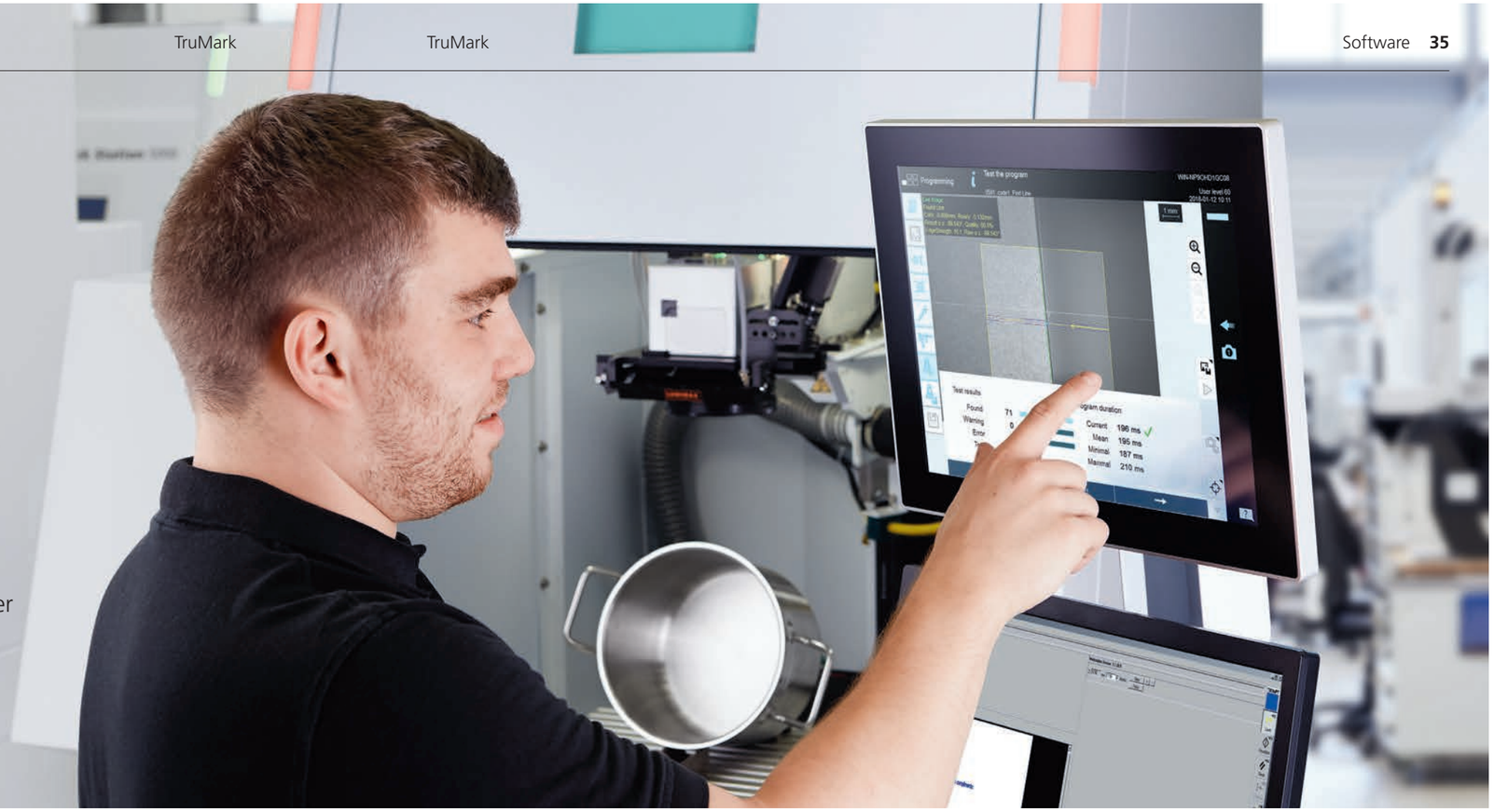



The integrated focus adjustment and height-adjustable contact surface help you to respond flexibly to varying workpiece sizes.

More on the marking solutions which fits on your desk: www.trumpf.com/s/f30urj

# Everything under control with TruTops Mark

With TruTops Mark, mastering laser technology is easy. The marking software is based on Windows 10 and available in several languages. TruTops Mark combines marking software, a CAD editor, a management tool for laser parameters and interfaces, sequence programming, and a sophisticated diagnostic tool. This means you have all aspects of your laser operations under control with just one piece of software. If you need assistance or are new to laser marking, NAVIGATOR is there to help; this laser parameter assistant brings our application development expertise to your business.



## Simple operation

**CAD editor in TruTops Mark**
Here you will find the full range of options for drawing, designing, creating data matrix codes and barcodes, importing vector and pixel formats as well as TrueType fonts. Numerous laser-optimized standard characters are available.

**Managing parameters and interfaces**
The large number of interfaces allows you to import variable data into your marking program. TruTops Mark also offers you plenty of options with regard to integration into existing production machinery via the control unit.

**Parameter library**
You can easily copy parameters you have already used for new marking files. This is a fast and productive means of creating new marking files. It also helps ensure that your parts are consistently marked with the same quality, even with multiple machines.

**Adjusting the focal position**
The camera solution lets you automatically set the correct focal position. This is an advantage when marking components with varying processing heights.

## Simple integration

**Sequence programming with QuickFlow**
QuickFlow creates an object-oriented environment that makes for easy drag-and-drop programming of sequences. It enables you to control complete marking cycles and allows you to respond to production measurement data by varying the markings.

**TruTops Mark Module Interface (TTM-MI)**
TruTops Mark also offers standardized module interfaces to suit your industry and your particular needs. These interfaces can easily be integrated into any production process. This includes a base module, a scan module, a database module as well as a camera module and a special UDI module for medical technology. Customer-specific modules are also available.

**ActiveX TruTops Mark Component**
The ActiveX software component for TruTops Mark facilitates integration by ActiveX data exchange. The predefined TLV commands can be easily integrated into your process environment.

## Simple diagnostics

**Diagnostic tool**
This tool visualizes and analyzes laser operating data and displays a complete list of monitoring notifications and live status information. This means that faults can be quickly identified and corrected.

**Laser Power Monitor**
The Laser Power Monitor is an internal module for measuring laser power, and is conveniently controlled using the software.

**Laser Power Calibration**
This option allows the power of the marking laser to be calibrated. The power reserves mean your marking results will look the same as the first day, even years after.

# Everything in sight

The third generation of the VisionLine image processing system sets new standards of user-friendliness and process reliability.

01

**High process reliability**
thanks to automatic position recognition

02

**Ready for any situation**
due to its modular design

03

**Simple operation**
with an intuitive user interface and library of characteristics

01

## High process reliability
thanks to automatic position recognition

VisionLine recognizes the component position and ensures that every marking is placed in exactly the right spot, and checks and evaluates it immediately. The system reports missing components and actively avoids double markings.

02

## Ready for any situation
due to its modular design

No matter what your application situation, VisionLine can adapt to it. The camera can look through the scanner lens, or can be installed sideways. Choose to use one or two different cameras for finding and reviewing the marking position and to achieve high cycle times. VisionLine can cope with all lighting conditions, and the stitching function, which is the sequencing of images, enables you to keep a close eye even on large components.

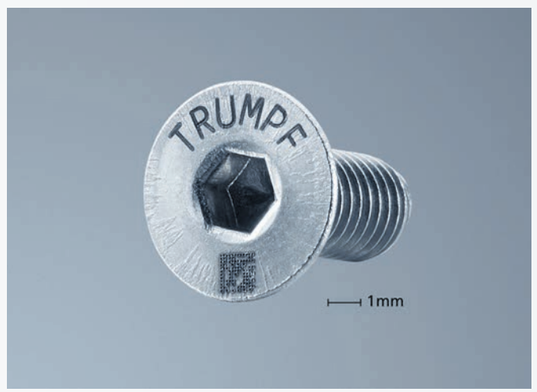
03

## Simple operation
with an intuitive user interface and library of characteristics

A comprehensive library of predefined characteristics and an intuitive user interface make the operator's life easier; simply enter the characteristic to be recognized, the code to be read, a few parameters, and you can get started.

Find out even more about the advantages offered by VisionLine image processing: www.trumpf.com/s/90dbfa


With VisionLine image processing, you can be sure that your markings are always 100% accurate and are placed at exactly the right spot.




The VisionLine image processing system checks every single marking, ensuring an error rate of zero.

# TruServices. Your Partner in Performance

To be successful in the future, you need the proper services to keep you on track for the long term. We can assist you in creating the perfect manufacturing environment or help make the best use of your TRUMPF equipment and tailor it to your evolving needs. Whatever the case, we're on hand to help you maximize your added value and lock those benefits in. TRUMPF is the right choice if you're looking for a reliable partner that can support you with a wide range of custom solutions and service packages, ensuring that your manufacturing business continues to be an immense success.


## EMPOWER

Looking to create the best conditions for successful manufacturing? We can give you the support you need.

## SUPPORT

Are flexibility and machine availability top priorities in your ongoing manufacturing activities? We're on hand to help.

## IMPROVE

Do you want to gradually shift your production processes towards maximum added value? We can achieve that together.

- Financing
- Technical Service
- Monitoring & Analysis
- Training
- Genuine Parts
- Product Enhancements
- Service Agreements
- Process Optimization
- Design and Programming Software

## Technical Service

Do you want to get fast access to technical service? Or take proactive steps to maximize the availability of your TRUMPF system? Our global network of service teams is here to help! Whether your manufacturing business is based in Europe, America, or Asia, you can count on fast and professional support worldwide, covering everything from installation to maintenance and repairs. Simply call our Technical Service team and talk to a specialist to decide which is the most efficient way to handle your particular case – an on-site mission by one of our service engineers or troubleshooting with our Teleservice.


- Qualified TRUMPF service engineers
- High standard of service worldwide
- Fast responses and lower costs thanks to innovative services

## Process Optimization

Your processes are influenced by a variety of different parameters, and adjusting those parameters can often unlock potential for optimization. Identifying that hidden potential is the key to making your production activities more efficient, and that's where we can help. With our support, you can uncover the hidden potential of your production process, for example by using our expertise to secure your competitive edge. TRUMPF specialists can offer you individual advice on your particular applications and can optimize your marking processes.


- Developing solutions together
- Expert know-how gained from multiple industries and applications
- Boost the added value of your manufacturing activities

## Monitoring & Analysis

Do you like the idea of constantly keeping tabs on the current status and performance of your marking laser? TRUMPF offers monitoring and analysis products that take transparency to the next level. Monitoring machine status and processes in real time shows whether the actions you take have the effects you want. You also save time and money by preventing costly machine and plant downtime and identifying potential savings. An additional alarm function is also available for your marking laser, which updates you on process disruptions and their causes by e-mail or text message around the clock. This enables you to react as quickly as possible.


- Rapidly identify potential ways of increasing productivity
- Track the success of your efforts
- Secure, controlled data transfer.
- Makes planning and arranging servicing easier

## Service Agreements

Our service agreements offer a range of service packages to help make your manufacturing business run more smoothly. By bundling together different services, we are able to offer packages that are cheaper and less complex, so that you can easily choose the best option that fits your needs at a fixed price you can budget for. Continuous access to professional support maximizes machine availability over the long term, ensuring consistently high production quality and low running costs. Regular servicing by the manufacturer also increases your machines' service life.


- Periodic optimization of your machines
- Consistently high production quality
- Longer service life for your system
- Predictable costs thanks to fixed-price packages or annual fee

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

# Technical data

## TruMark Station 1000, 3000, 5000, 7000

| Technical data | | | |
|---|---|---|---|
| | | **TruMark Station 1000** | **TruMark Station 3000** |
| **Available marking lasers** | | TruMark Series 1000, 3000, TruMark 5010 | TruMark Series 1000, 3000, 5000 |
| Dimensions | in | 16.1 x 20.5 x 32.7 | 24.8 x 32.3 (desktop)/68.9 (stand-alone) x 26.4 |
| Weight (without laser) | lbs | 77.2 | 198.4 (desktop)/ 352.7 (stand-alone) |
| Electrical connection (voltage) | V | 100/240 | 100/230 |
| Electrical connection (frequency) | Hz | 50/60 | 50/60 |
| Electrical connection (amperage) | A | 2.6 at 230 V | 3/4/6/9/13 |
| Max. power consumption | W | 600 | 600 |
| Max. workpiece dimensions | in | 9.8 x 5.9 x 11.8 | 17.3 x 7.9 x 13.8 |
| Max. workpiece weight | lbs | 11.0 | 26.5 |
| Available axes | | Z (manual) | Z |
| Max. travel | in | 5.9 | 7.9 |
| Traveling speed | ft/min | – | 9.8 |
| Rotational axis | in | 2.6 | 2.6 |
| Door | | Manual lift door | Motorized lift door |
| Extractor | | External | Integrated, external possible |
| Laser safety class | | 1 | 1 |

## TruMark Series 1000, 3000

| Technical data | | | | | | |
|---|---|---|---|---|---|---|
| | | **TruMark Series 1000** | **TruMark Series 3000** | | | |
| | | **1110** | **3020** | **3130** | **3230** | **3330** |
| Beam quality ($M^2$)/intensity distribution | | $<1.5/TEM_{00}$ | $<1.5/TEM_{00}$ | $<1.2/TEM_{00}$ | $<1.2/TEM_{00}$ | $<1.5/TEM_{00}$ |
| Wavelength | nm | 1064 | 1064 | 1064 | 532 | 355 |
| Pulse repetition frequency | kHz | 15–100 | 1–100 | 1–100 | 1–100 | 1–120 |
| Min. focal diameter | µm | 50 | 30 | 28 | 15 | 16 |
| Max. internal focus position control | in | ±0.3 @ F= 160 | ±2.4 in @ F= 420 | ±2.4 @ F= 420 | ±2.4 @ F= 330 | ±0.7 @ F= 330 |
| Max. marking field size | $in^2$ | .17 x . 17 | .45 x .45 | .45 x .45 | .36 x .36 | .26 x .26 |
| Standard marking field size | $in^2$ | .17 x .17 | .17 x .17 | .17 x .17 | .17 x .17 | .17 x .17 |
| **Dimensions** | | | | | | |
| Processing unit dimensions (L x W x H) | in | 13.1 x 6.8 x 10.4 | 15.0 x 5.4 x 5.4 | 15.0 x 5.4 x 5.4 | 15.0 x 5.4 x 5.4 | 17.7 x 5.4 x 8.1 |
| Supply unit dimensions (L x W x H) | in | – | 16.5 x 17.5 x 18.3 | 16.5 x 17.5 x 18.3 | 16.5 x 17.5 x 18.3 | 16.5 x 17.5 x 18.3 |
| **Installation** | | | | | | |
| Protection class | IP | 54 | 54 | 54 | 54 | 54 |
| Permitted ambient temperature | °F | 59-104 | 59-104 | 59-104 | 59-104 | 59-104 |

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

| | | |
|---|---|---|
| **TruMark Station 5000** | **TruMark Station 5000R** | **TruMark Station 7000** |
| TruMark Series 1000, 3000, 5000, 6000, TruMicro Mark Series 2000 | TruMark Series 3000, 5000, 6000 | TruMark Series 3000, 5000, 6000 |
| 33.9 x 78.7 x 43.5 | 32.3 x 70.5 x 43.5 | 47.2 x 78.7 x 47.2 |
| 903.9 | 573.2 | 1349.2 |
| 115 / 230 | 115 / 230 | 200 / 400 |
| 50 / 60 | 50 / 60 | 50 / 60 |
| 10 / 13 / 15 / 16 / 20 | 10 / 16 | 12.5 / 25 |
| 2550 | 2000 | 5000 |
| 26.8 x 19.7 x 27.6 | 7.9 x 7.5 x 7.9 | 39.4 x 15.7 x 19.7 |
| 110.2/55.1 (with X/Y-axis) | 4.4 x 22.0 | 220.5/55.1 (with X/Y-axis) |
| X \| Y \| Z | Z | X \| Y \| Z |
| 11.8 \| 11.8 \| 19.7/17.4 (TruMicro Mark) | 10.4 | 25.6 \| 14.8 \| 15.7 |
| 19.6 \| 19.6 \| 4.9 | 3.3 | 49.2 \| 49.2 \| 2.3 |
| 2.6, 5.9 | 2.6 | 2.6, 5.9 |
| Motorized lift door | Motorized index table | Motorized lift door |
| Integrated, external possible | External, optionally integrated | Integrated, external possible |
| 1, 4 possible | 1 | 1 |

## TruMark Series 5000, TruMark 6030, TruMicro Mark 2020, 2030

| **TruMark 5010** | **TruMark Series 5000** | | | | **TruMark 6030** | **TruMicro Mark 2020, 2030** |
|---|---|---|---|---|---|---|
| | **5020** | **5040** | **5050** | **5070** | | |
| 1.6/Low order mode | 2.0/Low order mode | 3.7/Low order mode | 1.6/Low order mode | 3.7/Low order mode | $<1.3/TEM_{00}$ | $<1.3/TEM_{00}$ |
| 1062 ± 3 | 1062 ± 3 | 1062 ± 3 | 1062 ± 3 | 1062 ± 3 | 1030 | 1030 |
| 1–200 | cw, cwm, 1–1000 kHz | cw, cwm, 1–1000 kHz | cw, cwm, 1–1000 kHz | cw, cwm, 1–1000 kHz | 1–120 40–120 kHz | Max. 2000 |
| 45 | 41 | 70 | 28 | 70 | 50 | 34 |
| ± 1.1 | ±2.4 @ F= 420 | ±2.4 @ F= 420 | ±2.4 @ F= 420 | ±2.4 @ F= 420 | ±2.0 | – |
| .45 x .45 | 45 x .45 | .45 x .45 | .45 x .45 | .45 x .45 | .28 x .28 | .28 x .28 |
| .17 x .17 | .17 x .17 | .17 x .17 | .17 x .17 | .17 x .17 | .19 x .19 | .16 x .16 |
| | | | | | | |
| 16.9 x 6.9 x 9.8 | 16.3 x 5.2 x 6.2 | 16.3 x 5.2 x 6.2 | 16.3 x 5.2 x 6.2 | 16.3 x 5.2 x 6.2 | 17.1 x 6.1 x 8.1 | 7.1 x 19.7 x 13.4 |
| – | 16.5 x 17.5 x 21.7 | 16.5 x 17.5 x 21.7 | 16.5 x 17.5 x 21.7 | 16.5 x 17.5 x 21.7 | 19.5 x 19.1 x 8.7 | 32.5 x 23.6 x 48.2 |
| | | | | | | |
| 54 | 54 | 54 | 54 | 54 | 54 | 54 |
| 59-104 | 59-104 | 59-104 | 59-104 | 59-104 | 59-104 | 59-95 |

# Commitment is what drives us

Whether manufacturing and production technology, laser technology or material processing, we develop highly innovative products and services that are industry standard and completely reliable. In order to offer you persuasive competitive advantages, we offer our customers all of our expertise, experience and plenty of commitment.

Visit our YouTube channel: www.youtube.com/TRUMPFtube

## Industry 4.0 – solutions for your future

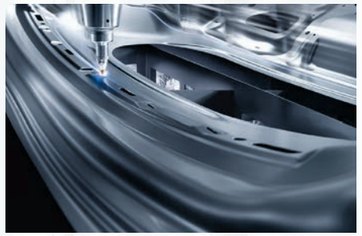
The fourth industrial revolution is changing the world of manufacturing, and we make it possible to stay internationally competitive through digital networking opportunities. With our pragmatic solutions, we will support you every step of the way on your manufacturing journey, helping you make your processes more transparent, more flexible and 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 employees and machines through information, while covering all steps of the production process from quotation to shipping your parts.

TruConnect
Your Smart Factory

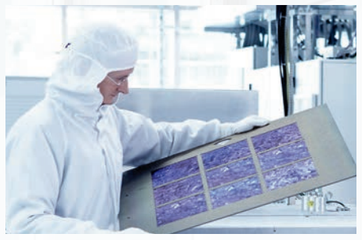
## Lasers for production technology

Whether macro, micro or nano: We have the right laser and the right technology for any industrial application, allowing you to manufacture in an innovative yet cost-efficient manner. In addition to the technology, we will also support you with system solutions, knowledge of applications and advice.



## Power supplies for high-tech processes

From manufacturing semiconductors to producing solar cells, our high- and medium-frequency generators give electricity for induction heating, plasma and laser excitation - a defined form based on frequency and demand with high reliability and repeat accuracy.



## Machine tools for flexible processing of sheet metal and pipes

For all processes in flexible sheet production including laser cutting, stamping, bending and laser welding, we offer you custom-fit machines and automation solutions. These solutions include consultation, software and services, which enables you to produce high quality and reliable products.