TRUMPF

TruMark

The individual solution for your industry

#mymarkinglaser

The demands are increasing: Faster, more precise, more individual and more flexible reactions are required, as well as the highest quality – no matter what the material. The marking lasers from TRUMPF are your perfect answer to these challenging requests: Nowhere else will you find so much knowledge drawn from the most diverse sectors, combined with technical brilliance. TruMark marking lasers are versatile and optimized for a variety of requirements. Find the perfect marking laser for your needs here.

The diversity of marking

Start here to find your ideal marking laser. No matter which marking laser requirements are especially important to you: Discover how TRUMPF can support you in selecting your hardware and software, and advise you on your individual process. Together with TRUMPF, you will be prepared for the production processes of the future – through expert knowledge of Industry 4.0, Smart Factory and through providing custom-made, top-class services.

TruMark:
This is what you
can expect

You know: 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
excellent ability to focus very precisely
means you can also achieve this at high
peak intensities and for small markings.
VisionLine facilitates the automatic or
manual positioning of the marking
content on the component, automati-
cally handles all process and laser data
for the documentation, and thus
ensures enhanced quality.

Performance

Quick, quicker, TruMark. With the
marking lasers from TRUMPF you can
really pick up speed. Lasers in different
power classes ensure that every appli-
cation has just the right laser available.
Rapid laser availability and a highly
dynamic scanner ensure short process-
ing times. The established parameter
library facilitates quick process set-up.

No compromises on quality

High speed for your processes

Safety

With Performance Level e, system safety remains a top priority during integration. With Plug & Produce, nothing can go wrong, even during component exchange. Furthermore, additional components such as mechanical shutters provide safety.

With TruMark marking 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?

"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 purpose, and can be efficiently and safely integrated in production facilities. The modular construction of TruMark marking lasers makes them versatile, compact and easy to extend. A further advantage of the laser is its excellent robustness.

VisionLine image processing and an integrated autofocus feature ensure constant high quality.
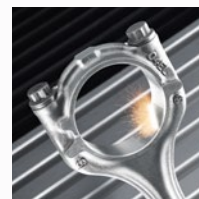
Mark, structure, clean: TruMark lasers can take on many automotive industry tasks.

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

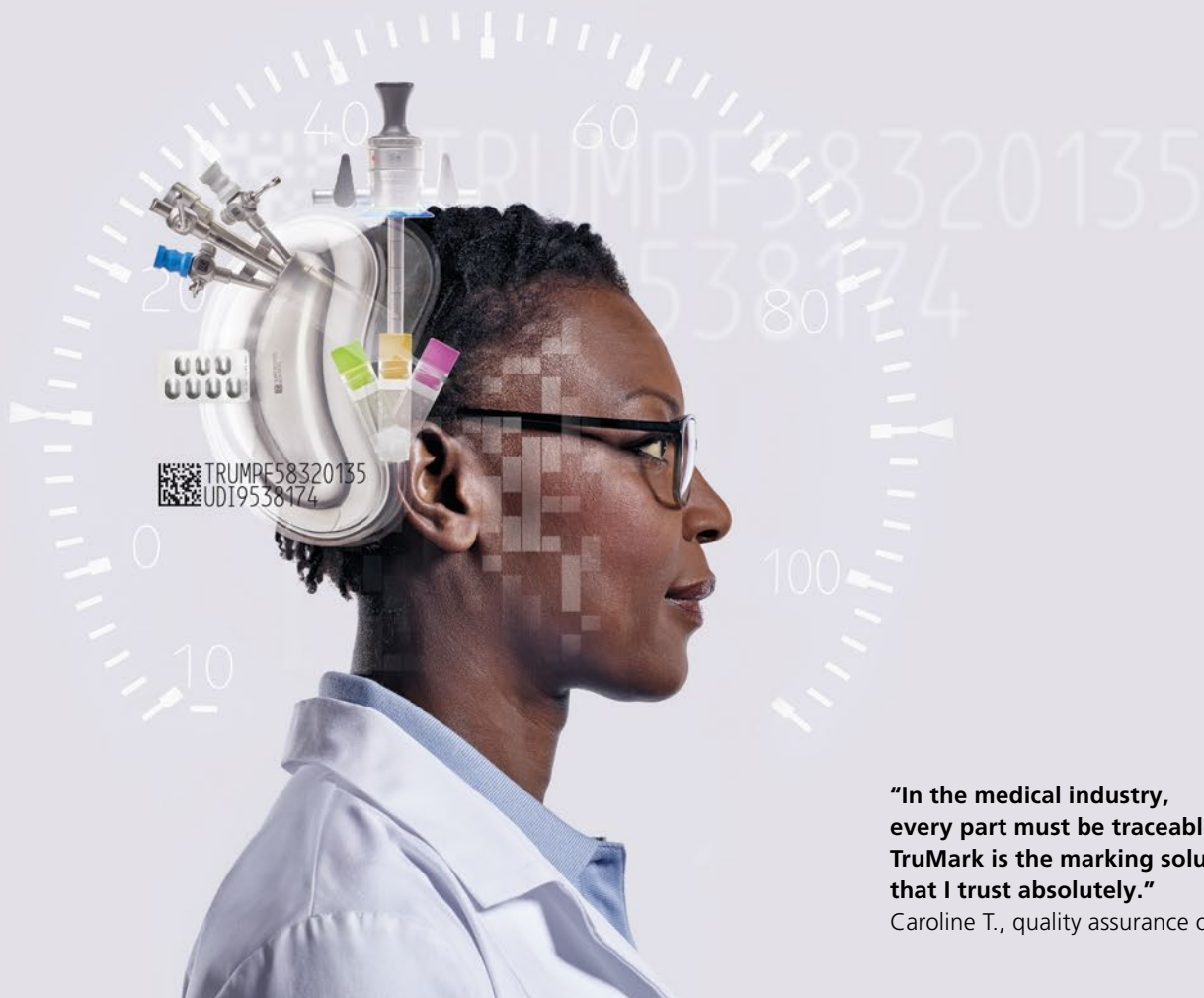What is especially important to you about a marking laser? Ease of integration into your production line? Marking speed? Efficiency? High availability? Best marking quality? No matter what your priorities are – you'll find your perfect TruMark marking laser here.

"In the 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, as well as implants with absolute precision. With their ability to focus very precisely, 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 – with minimal heat penetration and without 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.

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

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

White goods and household items
Highest marking quality, utmost flexibility

Household appliances have many visible parts. Here, 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 highly economically and to an exceptional standard.
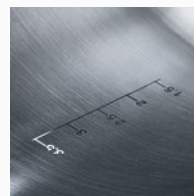
The TruMark lasers even mark more complex forms with precision.
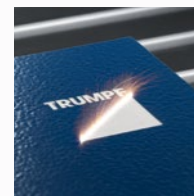
You can work cleanly and with a high degree of precision, and even easily remove paint from sheets just using a marking laser.

600 V AC   10 AMP
250 V DC   0,25 AMPS
125 V DC   0,5 AMPS

"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: 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 ultraviolet 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

We are at your side right from the start, no matter whether you have basic application questions or detailed optimization requirements. 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 for you, tailored to your criteria.

4. Installation

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

"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."

"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."

Steffen Ehrenmann, product manager for marking lasers and systems

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

"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

thanks to high performance

02

Utmost stability

with new power regulation

05

Always in the right place

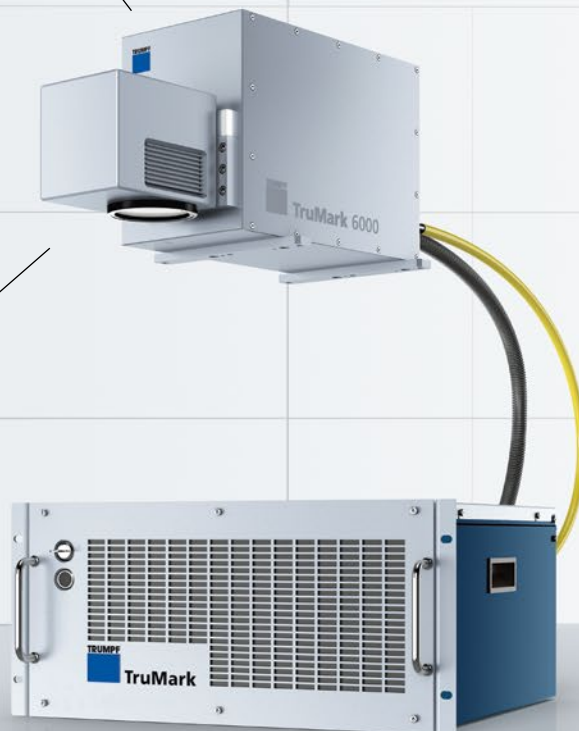with optimum position recognition and marking alignment

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

Thanks 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 and absolutely 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 also withstand high accelerations.

05

Always in the right place
with to 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) makes this no problem, even when processing larger components. You can therefore 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 ultrashort laser pulses

04

Maximum stability
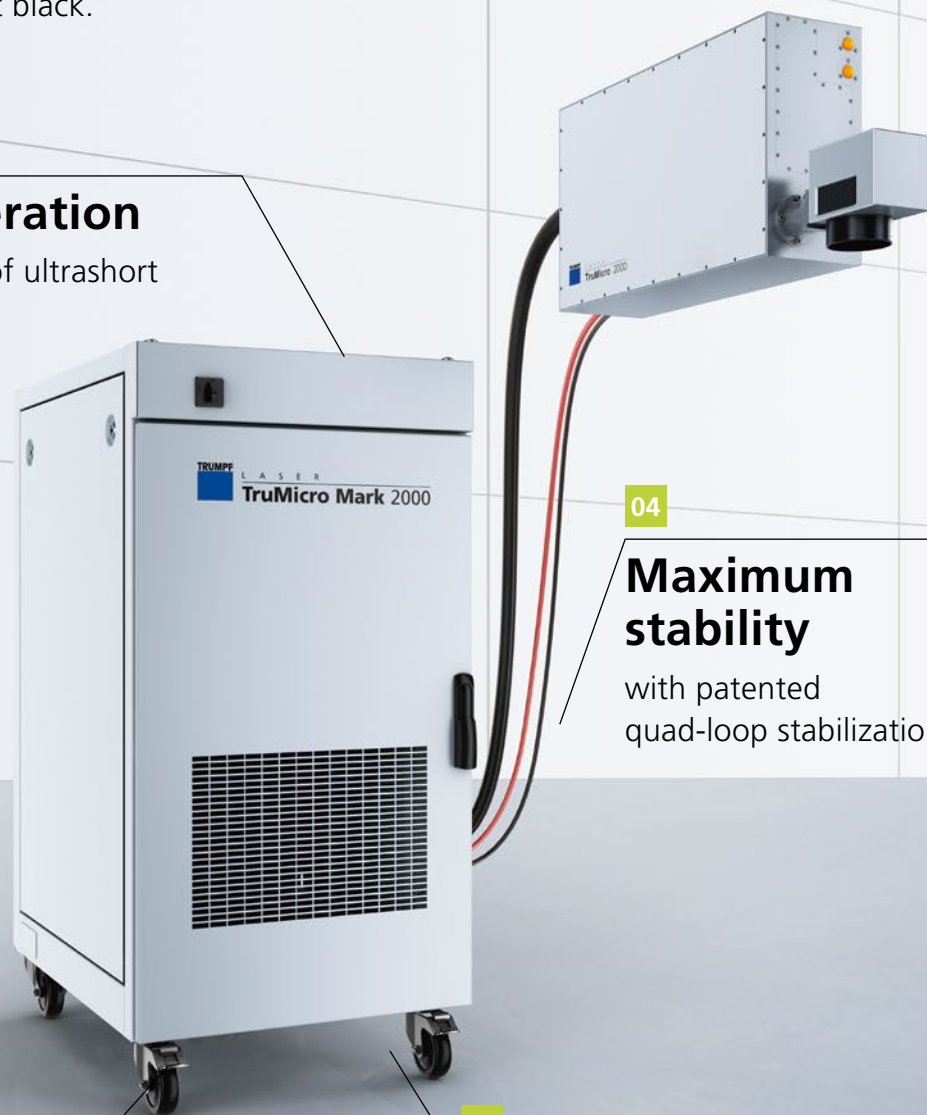
with patented quad-loop stabilization

02

Long-lasting, high-contrast markings

thanks to ultrashort pulses

03

Marking of highly reflective materials

thanks to high peak intensities

01

Simple operation
and easy control of ultrashort laser pulses

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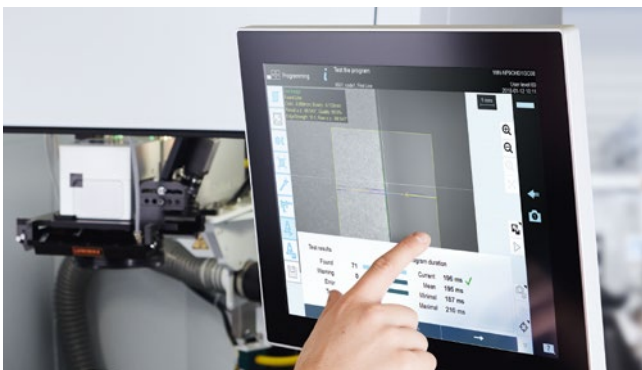
With the TruTops software, it is also child's play to control ultrashort pulses.

02

Long-lasting, high-contrast markings
thanks to ultrashort pulses

As a result of the ultrashort pulses, small light traps, so-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, for example, 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. As a beam source, you use the industrially-proven TruMicro Series 2000 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.

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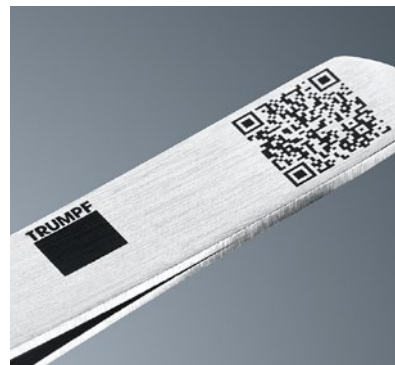
Marking in black with picosecond pulses.

TruMark Series 5000

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

05

Consistent performance

across the entire frequency range

01

Save time

thanks to the high processing speed

02

Flexible with regard to material

thanks to adjustable pulse duration

03

Work in safety

with fiber protection duct and shutter

04

Easy to integrate

thanks to logical modular design

01

Save time
thanks to the high processing speed

The special thing about 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
thanks to adjustable pulse duration

Application-specific setting of the pulse duration whilst maintaining constant peak intensity and high pulse frequency means that you no longer have to choose between quality and productivity for your marking processes. After all, with reduced pulse duration, you also get high-quality marking results even with short cycle times – for a wide variety of materials.

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 logical modular design

The scanner optics, the processing unit and the supply unit are coupled via connectors, so that it is very 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 – and thanks to its different power classes satisfies every requirement in terms of performance.
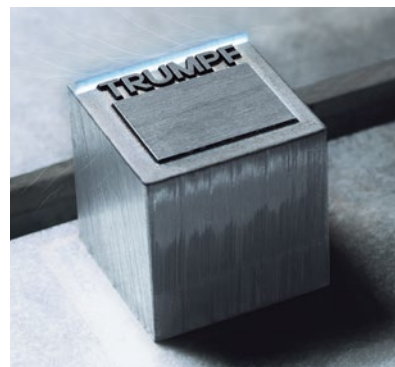
Deep engraving with high volume removal – no problem with the high performance of the TruMark Series 5000, even with short cycle times.

TruMark 5010

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

04

Low investment costs

thanks to an excellent price/
performance ratio

01

Easy to integrate

with our innovative
one-box concept

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 manages perfectly without a supply unit. An ingenious, powerful air cooling system 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 it because it's so small! You can mark metals, plastics and organic materials with the infrared one-box marking laser TruMark 5010 – with brilliant beam quality. The marking laser delivers high-quality results especially for deep engraving and surface processing at a unique price-performance ratio.

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: Fiber laser, scanner and control unit, as well as internal focus position control unit are combined within its housing. You don't need a separate supply unit.

A true all-in-one solution: 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. It is thus ideally suited for all 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 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

thanks 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

thanks to compact size and modular design

01

Excellent results
thanks to a perfectly tuned performance package

Enjoy top-quality markings. The TruMark Series 3000 is an attractive proposition with its bundle of technical top ratings: 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

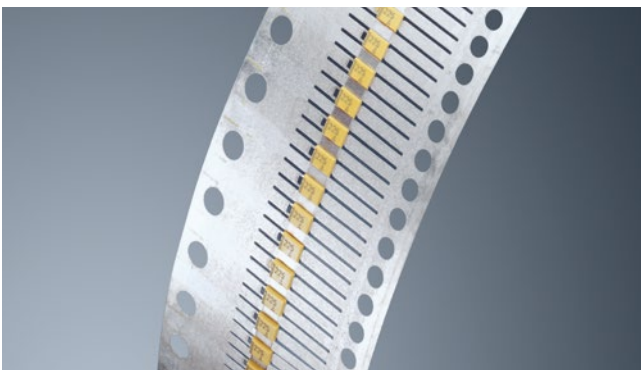# Flexible material selection
using different wavelengths

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

04

Integration made easy
thanks to compact size and modular design

The modular design and compact dimensions of the processing unit of the TruMark Series 3000 make it especially easy for you to integrate the laser into your production system. 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
thanks 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. In this way, you can 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 via 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, completely integrated with a laser, scanner and control unit.

04

Integration made easy

with diverse interfaces

01

Precise marking results

thanks to outstanding beam quality

02

Flexible material processing

thanks to a robust solid-state laser

03

Small initial outlay

thanks to low investment costs

01

Precise marking results
thanks to outstanding beam quality

Don't compromise: With the TruMark Series 1000, you can count on the best marking results. The outstanding beam quality of the laser ensures precise processing any time.

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

02

Flexible material processing
thanks 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 of materials, 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

All-in-one, compact and versatile: The 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 manages 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 flows.

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.

04

Marking without limits

with the movable laser

01

Series production

thanks to a large work area
and many options

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 and 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

It doesn't get simpler than this: You can use the same single user interface to operate the axes or set the laser parameters. 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 carefully thought-out 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
with the movable laser

The TruMark Station 7000 is the only station with a laser which moves through the entire work area and which can let the component rest. The laser can travel along two axes in X- and Y-direction, and in conjunction with the positioning of the work surface in Y-direction, 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-rounder for those who like to take things easy.

04

Can be used anywhere

in the production line or as a single workstation

01

Universally usable

thanks to a wide selection of lasers

TruMark Station 5000

02

Work in safety

thanks 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
thanks 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 the volume flow can be set.
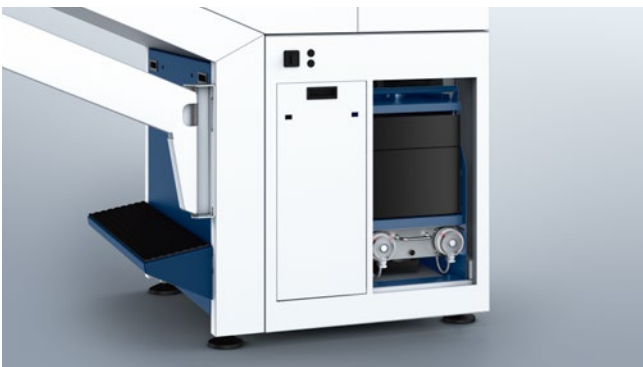
The integrated extractor protects staff from smoke and particles.

03

Flexible integration
with the option of transferring workpieces lengthways

The TruMark Station 5000 is easy to slot into your workflow and integrate into your production line, as the openings on the sides of the housing make it possible to transfer work-pieces 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. Do you prefer to sit or stand when working? You can do either thanks to the machine's 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 compact marking cube for small and medium-sized batches: simple and user-friendly.

01

Just get started

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

Just get started
with intuitive operability

The TruMark Station 3000 is perfectly suited to 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 optimum compatibility with the TruMark Series marking lasers, and therefore offers the ideal solution for any application and small and medium batch sizes. An optional rotational axis further enhances the flexibility of the marking station. And if you wish to convert to series production, simply remove the side flaps and pass your conveyor belt through.
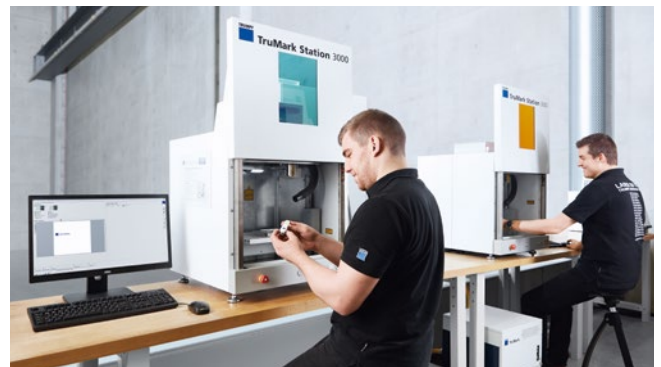
You can also use the TruMark Station 3000 as a desktop workspace or as a stand-alone solution – the supply unit and extractor are integrated into the substructure.

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.

TruMark Station 1000

The marking station for desks: super simple to use.

04
Work in safety
with the highest laser safety class

01
Space-saving
thanks to its compact design

TruMark Station 1000

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 ever from TRUMPF – it will even fit on your desk. The marking station 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

Do you want to mark but not stay in one place? No problem with the TruMark Station 1000. The marking station is extremely compact, weighs just 35 kg, and can be easily transported in the trunk of a car. In this way, it is outstandingly 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. Especially well-suited to small quantities. The right laser for your application is already integrated. The manually adjustable work table makes operation easier.

Quickly and simply marked: Product designations on safety switches.

04

Work in safety
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.

TruMark 5010 Mobile Marker

The flexible, mobile solution for especially large components.

05

Stay flexible

with customer-specific attachments

01

Stay mobile

The marker comes to the component

02

Fully traceable

using durable marking

03

Work comfortably

with manually operated processing unit

04

Mark safely

thanks to intelligent sensors in the processing unit

01

Stay mobile
The marker comes to the component

The TruMark 5010 Mobile Marker really comes into its own when marking large and heavy components: the components don't need to be moved; the air-cooled, mobile marking laser comes to the workpiece.


With the TruMark 5010 Mobile Marker, you can inscribe large and heavy metal components comfortably and safely.

02

Fully traceable
using durable marking

Ensure the traceability of your components. The TruTops Mark software of the TruMark 5010 Mobile Marker enables you to achieve static and variable texts, barcodes and data matrix codes as well as graphics, and logos extremely easily.
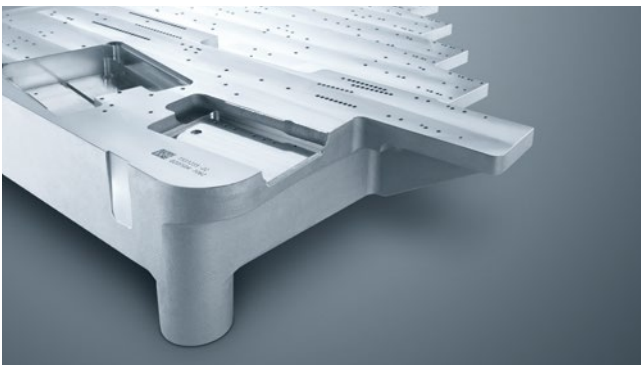
You can ensure the clear traceability of your components using a data matrix code or clear text inscription.

03

Work comfortably
with manually operated processing unit

The manually operated processing unit is ergonomically designed and connected to the mobile supply unit. The touch display, which is integrated into the supply unit, and the specially developed user interface contribute to the comfort of using the TruMark 5010 Mobile Marker.

Simply use the air-cooled, mobile marking laser anywhere you need it. This helps you to reduce nonproductive time and transport effort to and from the marking station.

04

Mark safely
thanks to intelligent sensors in the processing unit

Mobile, laser-safe working without machine enclosure? No problem with the TruMark 5010 Mobile Marker. Thanks to the intelligent sensor system, it achieves the highest laser safety class 1.

05

Stay flexible
with customer-specific attachments

So you can mark any component, no matter what shape. The TruMark 5010 Mobile Marker is easy to expand with customer-specific attachments, e.g. for cylindrical compo-nents. Of course, you can change attachments quickly – thus you stay flexible.

Find out all the key information about mobile laser markers here: www.trumpf.com/s/domt76

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 this one piece of software. And if you do not want to deal with the nitty-gritty of 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 as well as 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 to 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
An object-oriented environment that makes for easy drag-and-drop programming of sequences. It enables you to control complete marking cycles. It also 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. It is conveniently controlled using the software.

Laser Power Calibration
The Laser Power Calibration 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 view

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

thanks 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
thanks 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 whether you wish to use two different cameras for finding the marking position and reviewing to achieve high cycle times, or whether one is sufficient. VisionLine can cope with all lighting conditions, and the stitching function – 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, and just 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% correct and are placed at exactly the right spot.

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

TruServices.
Your Partner
in Performance

To be successful in the future, you need the right services to keep you on track for the long term. Do you want to create the perfect manufacturing environment or 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 a resounding 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.

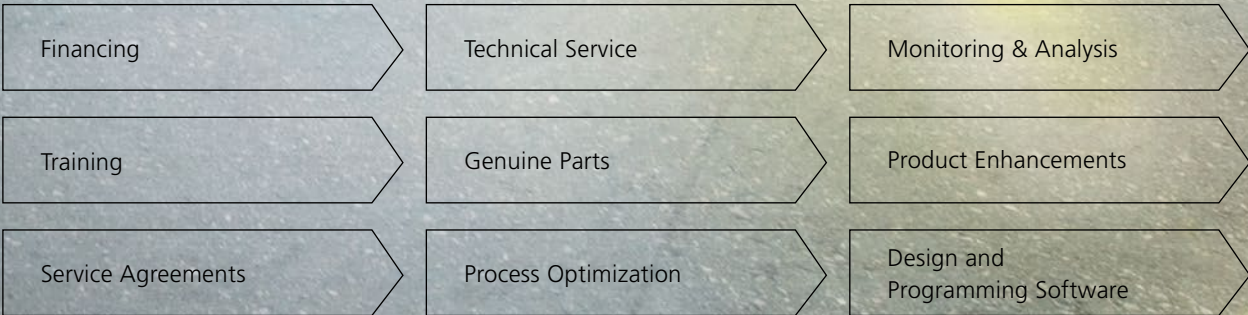## ❯ IMPROVE

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

SUPPORT

IMPROVE

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

Technical Service

Process Optimization

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.

Your processes are influenced by a whole host 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 help, 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.

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

- 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. Plus, you 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. Enabling you to react as quickly as possible.

- Rapidly identify potential ways of increasing productivity

- Track whether the measures you take are successful

- Secure, controlled data transfer.

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 can offer cheaper packages with less hassle and complexity, so you can simply choose the package that best suits 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

- Makes planning and arranging servicing easier

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	mm	410 x 521 x 831	630 x 820 (desktop)/1750 (stand-alone) x 670
Weight (without laser)	kg	35	90 (desktop)/160 (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	mm	250 x 150 x 300	440 x 200 x 350
Max. workpiece weight	kg	5	12
Available axes		Z (manual)	Z
Max. travel	mm	150	200
Traveling speed	m/min	–	3
Rotational axis	mm	65	65
Door		Manual	Motorized
Extractor		External	Integrated, external possible
Laser safety class		1	1

TruMark Series 1000, 3000, 5000, TruMark 6030, TruMark 5010 Mobile Marker,

Technical data						
		TruMark Series 1000	**TruMark Series 3000**			
		1110	**3020**	**3130**	**3230**	**3330**
Beam quality (M²)/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	mm	± 7	± 60	± 60	± 60	± 18
Max. marking field size	mm²	110 x 110	290 x 290	290 x 290	230 x 230	170 x 170
Standard marking field size	mm²	110 x 110	110 x 110	110 x 110	110 x 110	110 x 110
Dimensions						
Processing unit dimensions (L x W x H)	mm	333 x 172 x 263	380 x 138 x 138	380 x 138 x 138	380 x 138 x 138	450 x 138 x 207
Supply unit dimensions (L x W x H)	mm	–	420 x 445 x 465	420 x 445 x 465	420 x 445 x 465	420 x 445 x 465
Installation						
Protection class	IP	54	54	54	54	54
Permitted ambient temperature	°C	15–40	15–40	15–40	15–40	15–40

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
860 x 2000 x 1310	820 x 1790 x 1105	1200 x 2000 x 1200
410	260	612
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
680 x 500 x 700	200 x 190 x 200	1000 x 400 x 500
50/25 (with X/Y-axis)	2 x 10	100/25 (with X/Y-axis)
X | Y | Z	Z	X | Y | Z
300 | 300 | 500/442 (TruMicro Mark)	265	650 | 375 | 400
6 | 6 | 1.5	1	15 | 15 | 0.7
65, 150	65	65, 150
Motorized, available with rotary indexing table	Motorized	Motorized
Integrated, external possible	External, optionally integrated	Integrated, external possible
1, 4 possible	1	1

TruMicro Mark 2020, 2030

TruMark 5010	TruMark Series 5000				TruMark 6030	TruMark 5010 MobileMarker	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	$< 1.3/TEM_{00}$	1.6/Low order mode	$< 1.3/TEM_{00}$
1062 ± 3	1062 ± 3	1062 ± 3	1062 ± 3	1062 ± 3	1030	1062 ± 3	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	1–200	Max. 2000
45; f = 160	41	70	28	70	50	70	34
± 27; f = 254	± 60	± 60	± 60	± 60	± 50	–	–
290 x 290	290 x 290	290 x 290	290 x 290	290 x 290	180 x 180	50 x 70	180 x 180
110 x 110	110 x 110	110 x 110	110 x 110	110 x 110	125 x 125	50 x 30	100 x 100
430 x 175 x 250	414 x 131 x 157	414 x 131 x 157	414 x 131 x 157	414 x 131 x 157	435 x 156 x 205	490 x 190 x 320	180 x 500 x 340
–	420 x 445 x 550	420 x 445 x 550	420 x 445 x 550	420 x 445 x 550	495 x 485 x 220	980 x 460 x 1200	825 x 600 x 1225
54	54	54	54	54	54	40	54
15–40	15–40	15–40	15–40	15–40	15–40	15–35	15–35

Commitment is what drives us

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

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

TruMark   Your partner **47**

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channel:
www.youtube.com/
TRUMPFtube

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. As well as 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 – highly reliable
and with repeat accuracy.

Machine tools for flexible processing of
sheet metal and pipes

Laser cutting, stamping and punching, bending, laser welding: For all processes
in flexible sheet production, we offer you custom-fit machines and automation
solutions, including consultancy, software, and services – enabling you to produce
your products reliably and in high quality.

TRUMPF

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