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.

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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, automatically 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 application has just the right laser available. Rapid laser availability and a highly dynamic scanner ensure short processing 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
What type of user are you?

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.

“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

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

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

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. Black marking negates the need for downstream passivation processes, and therefore decreases the overall process time.

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.
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.

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

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

“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

“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.”

Ricus Müller, senior technical expert for manufacturing technology/process development, Continental Temic microelectronic 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/7ampxy

Find out more about how we can help you at our Laser Application Centers here: www.trumpf.com/s/7ampxy
TruMark 6030

A whole new dimension in marking.

01
High-quality markings on complex 3D surfaces

02
Highly productive laser with fast marking activation

03
Innovative safety concept and interface design
Performance Level e for unlimited switching cycles

04
Perfect machining results due to integrated control

05
Unlimited number of switching cycles due to a design specifically for highly automated applications
High-quality markings on complex 3D surfaces

The TruMark 6030 enables 3D markings, even on complex components. Users can easily create geometries and marking content using the 3D CAD software. The new optical Z axis allows Z travel ranges of up to 100 mm. This eliminates additional costs for a mechanical axis to move the laser head.

Perfect machining results due to integrated control

The TruMark 6030’s closed-loop control ensures perfect machining results over the entire service life. Different frequency ranges, temperature changes or reduced pump output do not influence the laser output.

By using an external modulator, the laser power can be linear-scaled – parameters such as pulse duration or pulse stability are not affected. In addition, each individual laser pulse can be adapted exactly, which prevents crosstalk between the pulses. Softening and run-in behavior at the beginning of vectors are avoided. Strikingly sharp bitmap marks can be realized.

Unlimited number of switching cycles due to a design specifically for highly automated applications

The optical and electronic design and manufacturing technologies used in the TruMark 6030 make it a robust, high-capacity, industrial marking system. The laser head comes standard with the capability of working in ambient temperatures of up to 40°C and, with a rating of IP64, is protected from the manufacturing environment. The unlimited number of switching cycles eliminates the need for certain safety maintenance measures and the associated planned downtime and costs. The laser can simply continue marking and producing components.

Innovative safety concept and interface design

Performance Level e for unlimited switching cycles

A self-monitoring safety concept ensures that there is no risk for the operator at any time or in any situation. Furthermore, it is also possible to integrate the laser into the production environment using OSSD-capable components (Output Signal Switching Device). Depending on how your system is designed, it is also possible to have unlimited switching cycles, meaning that laser maintenance for safety reasons does not have to be performed after a certain number of switching cycles.
TruMicro Mark Series 2000

Precise marking made simple.

01
Maximum process stability and reproducibility
with internal online power regulation

02
Keeping an eye on process reliability
thanks to innovative image processing

03
The complete solution for marking applications
with pulse durations in femtosecond and picosecond ranges

04
Black marking
with ultrashort pulsed marking lasers
Maximum process stability and reproducibility
with internal online power regulation

Maximum process stability for each individual pulse is guaranteed thanks to the patented quadruple closed-loop control. Different frequency ranges, temperature changes or aging processes do not influence the laser output. The closed control circuit enables perfect machining results for your components throughout the entire operating life, thus ensuring the best possible reproducibility.

Keeping an eye on process reliability thanks to innovative image processing

Modular VisionLine image processing automatically detects the position of the component and forwards the information to the higher-level controls. It ensures that the marking process is always carried out at the correct position. The system can read and evaluate (standard) Data Matrix Codes, check writing, detect edges, and learn and retrieve the form of entire components. The autofocus function of the laser uses integrated distance measurement. In addition, the focus positions of the camera and the laser can be set independently of one another. This facilitates laser machining and quality control at several levels.

The complete solution for marking applications
with pulse durations in femtosecond and picosecond ranges

Whether you would like to execute reproducible, corrosion-resistant marking, high-quality engraving or extremely intricate drilling and cutting tasks – the TruMicro Mark Series 2000 is the turnkey solution to do this, using ultrashort pulse lasers. The TruMicro Mark 2000 is available both as an entire system within a TruMark Station and as OEM equipment for integration. It is particularly well suited for producing medical technology products and for delicate applications, such as manufacturing watches, for example:

- Deep black marking using microstructured surfaces
- UDI-compliant product labeling in plain text with barcode or Data Matrix Code traceability
- Micromarking within the size range of several hundredths of a millimeter
- Microproduction technology for structuring, cutting and drilling
- Many additional surface effects are possible thanks to adjustable pulse duration, frequencies, burst and QCW modes

Black marking with ultrashort pulsed marking lasers

Extremely short laser pulses lead to micrometer structures on the surface. The microstructured surface ensures that the directed reflection of the light is reduced and creates a deep blackening of the marking, which is clearly visible from any angle. If the laser pulses used for this marking are ultrashort, the color change will remain corrosion-free in certain parameter ranges. The reason: using an ultrashort laser pulse keeps the heat-affected zone extremely small, thus ensuring sufficient free chrome on the surface to create a self-healing oxide film.
**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

**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

**05**

Consistent performance
across the entire frequency range
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
Flexible 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.

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.

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

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

Joerg M., process and system planner

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.

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

04
Low investment costs thanks to an excellent price/performance ratio
**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.

**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.

**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.

**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.

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

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

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

05 Perfect for all components
thanks to its internal focus position control unit
**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.

**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.

**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.

**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.

**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.

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“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

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.
TruMark Series 1000

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

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

04
Integration made easy
with diverse interfaces
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.

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.

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.

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.

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

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

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.

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

Robust and flexible.

01
Marking of large and heavy components
thanks to the use of a mineral cast plate

02
Easy to operate
thanks to intuitive software

03
Perfect application results
thanks to a large selection of integrated beam sources

04
Batch production specialist
thanks to a large work area
Marking of large and heavy components
thanks to the use of a mineral cast plate

The TruMark Station 7000 marking system offers plenty of space for your workpieces and devices with its large interior dimensions. It is possible to mark individual large or heavy components, or a large number of smaller parts alongside each other in one workpiece holder and process them automatically. The machine is designed to be extremely rigid, and contains a mineral cast plate as a central element. This facilitates precise markings, even for heavy and large components.

Easy to operate
thanks to intuitive software

You can use TruTops Mark 3D marking software to quickly configure the laser process and marking content for your respective application. A further benefit of the software is its intuitive operation, which can also be used to perform complex manufacturing tasks.

You can optimally connect your system to your production environment with additional options. For example, you can easily use your TruTops Mark Module Interface to create process programs, read and write information from and to databases or external sources, automatically generate correct UDI codes, and integrate VisionLine image processing for position recognition and quality assurance. This leads to flexible, easy and error-free manufacturing processes while increasing the traceability and productivity of your production.

Perfect application results
thanks to a large selection of integrated beam sources

A number of lasers with different power classes, wavelengths and pulse durations are available for the TruMark Station 7000. Furthermore, additional options such as a rotary table, focusing lenses, camera systems and lighting provide additional flexibility. For example, rotationally symmetrical workpieces can be fully processed using swivel mechanisms and rotary axes, making many different applications possible.

Batch production specialist
thanks to a large work area

The TruMark Station 7000 can be easily integrated into efficient batch production. Large workpiece carriers for a variety of workpieces can be integrated in the machining room and processed automatically. Automatic loading and unloading of workpiece carriers and connection to a storage system provide an additional boost in productivity.

As a result of its large work area and wealth of options, this station is ideal for handling large lot sizes – especially the variation with the rotary table option. The components are brought to the machining area and processed using a rotary table system. The machine can already be reloaded with components during the machining process.

Further details about the TruMark Station 7000:
www.trumpf.com/s/trumark-station-7000

Customized UDI-compliant marking procedure using the TruTops Mark Module Interface.
TruMark Station 5000

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

01
Universally usable thanks to a wide selection of lasers

02
Work in safety thanks to integrated extractor

03
Flexible integration with the option of transferring workpieces lengthways

04
Can be used anywhere in the production line or as a single workstation
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.

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 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.

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.

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.
TruMark Station 3000

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

01
Just get started
with intuitive operability

02
Work comfortably
because of our focus on ergonomics

03
Compact desktop application
with the TruMark one-box lasers

04
Perfectly equipped
for any application or batch size

05
Mark safely
with a motorized laser protection door and laser safety class 1
TruMark Station 3000 – Products

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.

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.

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.

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.

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.

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

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.

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 marking station for desks: super simple to use.

01
Space-saving thanks to its compact design

02
Easy to transport for maximum flexibility

03
Low initial outlay with an excellent price/performance ratio

04
Work in safety with the highest laser safety class
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.

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.

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.

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.

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

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.

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 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

With third-generation VisionLine image processing, TRUMPF is setting new standards when it comes to object recognition, distance measurement, user-friendliness, and process reliability – tailored to the high requirements in industries such as automobile manufacture, medical technology, and white goods.

01 Process reliability
thanks to automatic component and position recognition as well as autofocus

02 Prepared for any task
thanks to its modular design

03 Marking and reading
on several component levels

04 Simple operation and quality assurance
with an intuitive user interface and attribute library
Process reliability
thanks to automatic component and position recognition as well as autofocus

VisionLine recognizes the placement and position of the component and thus ensures that every marking is in exactly the right place, checking and evaluating it immediately. The system actively prevents markings from being applied twice. At the same time, costly component equipment can be eliminated, which saves costs.

The integrated autofocus function ensures that the distance between the component and the marking laser always remains consistent. Deviations can be reliably determined and then taken into account for the marking process.

Prepared for any task
thanks to its modular design

No matter the task, VisionLine image processing software adapts. To do this, one camera is aimed at the beam path of the laser, and a second camera is laterally aimed at the marking field. They are thus optimally prepared for finding and checking the marking position. Select whether you would like to use two different cameras for finding the marking position and for checking to achieve high cycle times. VisionLine can precisely determine the distance to the workpiece and, using the stitching function – which strings images together – you can even keep an eye on large components with high resolution.

Marking and reading
on several component levels

VisionLine can be used to read bar codes, Data Matrix Codes and texts after laser marking, assess their quality and reliably document the obtained results. This gives you the ability to seamlessly verify that each component has been produced to high quality standards with the corresponding marking content. The system also notifies users if the wrong component has been inserted or if it has already been marked. This helps to eliminate defective parts. The focus positions of the camera and marking laser can be set independently of one another. This facilitates laser processing and use of image processing on several levels of the workpiece, even without using an additional mechanical axis.

Simple operation and quality assurance
with an intuitive user interface and attribute library

The intuitive user interface facilitates setup of the VisionLine image processing software for the operator. Whether setting up a new component requires the use of predefined attributes or defined parameters such as exposure times – the operator quickly and easily achieves the desired result.
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.
TruMark Services

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

IMPROVE
SUPPORT
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
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.

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

<table>
<thead>
<tr>
<th>Technical data</th>
<th>TruMark Station 1000</th>
<th>TruMark Station 3000</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Available marking lasers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>TruMark Series 1000, 3000, 5000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>TruMark 5010</td>
<td></td>
</tr>
<tr>
<td>Dimensions (W x D x H) mm</td>
<td>410 x 607 x 760</td>
<td>630 x 820 (desktop)/</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1750 (stand-alone) x 670</td>
</tr>
<tr>
<td>Weight (without laser, supply unit) kg</td>
<td>35</td>
<td>82 (desktop)/145 (stand-alone)</td>
</tr>
<tr>
<td>Electrical connection (voltage) V</td>
<td>100/240</td>
<td>100/240</td>
</tr>
<tr>
<td>Electrical connection (frequency) Hz</td>
<td>50/60</td>
<td>50/60</td>
</tr>
<tr>
<td>Electrical connection (amperage) A</td>
<td>2.3/2.6 at 230 V</td>
<td>2.33/5 at 230 V</td>
</tr>
<tr>
<td></td>
<td></td>
<td>5.25/10 at 100 V</td>
</tr>
<tr>
<td>Max. power consumption W W</td>
<td>600</td>
<td>500/1000</td>
</tr>
<tr>
<td>Max. workpiece dimensions (W x H x D) mm</td>
<td>250 x 300 x 150</td>
<td>440 x 350 x 200</td>
</tr>
<tr>
<td>Max. workpiece weight kg</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>Available axes Z (manual)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Max. travel mm</td>
<td>150</td>
<td>200</td>
</tr>
<tr>
<td>Max. traveling speed m/min mm</td>
<td>–</td>
<td>3.75</td>
</tr>
<tr>
<td>Rotational axis mm</td>
<td>65</td>
<td>65</td>
</tr>
<tr>
<td>Door</td>
<td>Manual</td>
<td>Motorized</td>
</tr>
<tr>
<td>Extractor</td>
<td>External</td>
<td>Integrated, external possible</td>
</tr>
<tr>
<td>Laser safety class</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>TruMark Station 5000</th>
<th>TruMark Station 5000R</th>
<th>TruMark Station 7000</th>
<th>TruMark Station 7000R</th>
</tr>
</thead>
<tbody>
<tr>
<td>TruMark Series 1000, 3000, 5000, 6030</td>
<td>TruMark Series 3000, 5000</td>
<td>TruMark Series 3000, 5000, 6030, TruMicro Mark Series 2000</td>
<td>TruMark Series 3000, 5000, 6030</td>
</tr>
<tr>
<td>860 × 1310 × 2000/2310</td>
<td>820 × 1790 × 1105</td>
<td>1150 × 1405 × 2000/2600</td>
<td>1150 × 1580 × 2010/2520</td>
</tr>
<tr>
<td>380</td>
<td>260</td>
<td>1050</td>
<td>1300</td>
</tr>
<tr>
<td>115/230</td>
<td>115/230</td>
<td>115/230</td>
<td>120/230</td>
</tr>
<tr>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
<td>50/60</td>
</tr>
<tr>
<td>10/16 at 230 V</td>
<td>10/16</td>
<td>16 at 230 V</td>
<td>16 at 230 V</td>
</tr>
<tr>
<td>20 at 115 V</td>
<td>20 at 120 V</td>
<td>20 at 120 V</td>
<td>20 at 120 V</td>
</tr>
<tr>
<td>1800</td>
<td>2000</td>
<td>1800</td>
<td>1800</td>
</tr>
<tr>
<td>680 × 700 × 500</td>
<td>Rotary plate Ø 600 mm</td>
<td>1000 × 650 × 500</td>
<td>Rotary plate Ø 770 mm</td>
</tr>
<tr>
<td>50/25 (with X/Y-axis)</td>
<td>2 × 10</td>
<td>100/50 (with Y-axis)</td>
<td>35 per side</td>
</tr>
<tr>
<td>X</td>
<td>Y</td>
<td>Z</td>
<td>X</td>
</tr>
<tr>
<td>300</td>
<td>300</td>
<td>500</td>
<td>265</td>
</tr>
<tr>
<td>6</td>
<td>6</td>
<td>3.75</td>
<td>1</td>
</tr>
<tr>
<td>65, 150</td>
<td>65</td>
<td>125</td>
<td>125</td>
</tr>
<tr>
<td>Motorized</td>
<td>Motorized</td>
<td>Motorized</td>
<td>Motorized</td>
</tr>
<tr>
<td>Integrated, external possible</td>
<td>Integrated, external possible</td>
<td>Integrated, external possible</td>
<td>Integrated, external possible</td>
</tr>
<tr>
<td>1, 4 possible</td>
<td>1</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

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
# Technical data

**TruMark Series 1000, 3000, 5000, TruMark 6030, TruMicro Mark 2030**

<table>
<thead>
<tr>
<th>Technical data</th>
<th>TruMark Series 1000</th>
<th>TruMark Series 3000</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>1110</td>
<td>3020</td>
</tr>
<tr>
<td>Beam quality (M²)/intensity distribution</td>
<td>&lt;1,5/TEM&lt;sub&gt;00&lt;/sub&gt;</td>
<td>&lt;1,5/TEM&lt;sub&gt;00&lt;/sub&gt;</td>
</tr>
<tr>
<td>Average power at the workpiece W</td>
<td>5</td>
<td>5.5</td>
</tr>
<tr>
<td>Wavelength mm</td>
<td>1064</td>
<td>1064</td>
</tr>
<tr>
<td>Pulse duration ns</td>
<td>ns</td>
<td>ns</td>
</tr>
<tr>
<td>Pulse repetition frequency kHz</td>
<td>15–100</td>
<td>1–100</td>
</tr>
<tr>
<td>Min. focal diameter µm</td>
<td>50</td>
<td>30</td>
</tr>
<tr>
<td>Max. internal focus position control mm</td>
<td>±7</td>
<td>±60</td>
</tr>
<tr>
<td>Max. marking field size mm²</td>
<td>110 x 110</td>
<td>290 x 290</td>
</tr>
<tr>
<td>Standard marking field size mm²</td>
<td>110 x 110</td>
<td>110 x 110</td>
</tr>
</tbody>
</table>

### Electrical connection values

<table>
<thead>
<tr>
<th>Line voltage</th>
<th>24 V ± 10%</th>
<th>min. 100 V – 15% max. 240 V +10% wide-range input</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power consumption 20 A at 24 V</td>
<td>2.6 A at 230 V 6.0 A at 100 V</td>
<td></td>
</tr>
<tr>
<td>Power kW max. 0.48</td>
<td>max. 0.6</td>
<td></td>
</tr>
<tr>
<td>Line frequency Hz</td>
<td>50/60</td>
<td></td>
</tr>
</tbody>
</table>

### Dimensions

| Processing unit dimensions (W x D x H) mm | 333 x 172 x 264 | 138 x 380 x 138 | 138 x 380 x 138 | 138 x 380 x 138 | 138 x 380 x 207 |
| Supply unit dimensions (W x D x H) mm   | –           | 445 x 420 x 466 | 445 x 420 x 466 | 445 x 420 x 466 | 445 x 420 x 466 |

### Installation

| Protection class IP                      | 54 | 54 | 54 | 54 | 54 |
| Permitted ambient temperature °C         | 15–40 | 15–40 | 15–40 | 15–40 | 15–40 |

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### Technical data

<table>
<thead>
<tr>
<th>TruMark 5010</th>
<th>TruMark Series 5000</th>
<th>TruMark 6030</th>
<th>TruMicro Mark 2030</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>5020</td>
<td>5050</td>
<td></td>
</tr>
</tbody>
</table>
| <1.6/
  Low Order Mode | <2.0/
  Low Order Mode | <1.6/
  Low Order Mode | <1.3/TEM<sub>00</sub> | <1.3/TEM<sub>00</sub> |
| 18.5         | 20                  | 45           | 25                | 20                |
| 1062 ± 3     | 1062 ± 3            | 1062 ± 3     | 1030              | 1030              |
| ns           | ns                  | ns           | ns                | ps/fs             |
| 40           | 41                  | 28           | 50                | 30                |
| 24           | ± 60                | ± 60         | ± 50              | –                 |
| 170 × 170    | 290 × 290           | 290 × 290    | 330 × 330         | 180 × 180         |
| 110 × 110    | 110 × 110           | 110 × 110    | 180 × 180         | 100 × 100         |

- **24 V ± 10%**
  - min. 100 V – 15%
  - max. 240 V +10%
  - wide-range input
  - 90 – 264 wide-range input

- **20 A at 24 V**
  - 3.0 A at 230 V
  - 7.0 A at 100 V
  - 8.5 A at 230 V
  - 15 A at 115 V

- **max. 0.48**
  - max. 0.6
  - max. 1.6

| 54 (50/60) | 54 | 64/54 | 54 |
| 15–40      | 15–40 | 15–40 | 15–35 |

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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.
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.