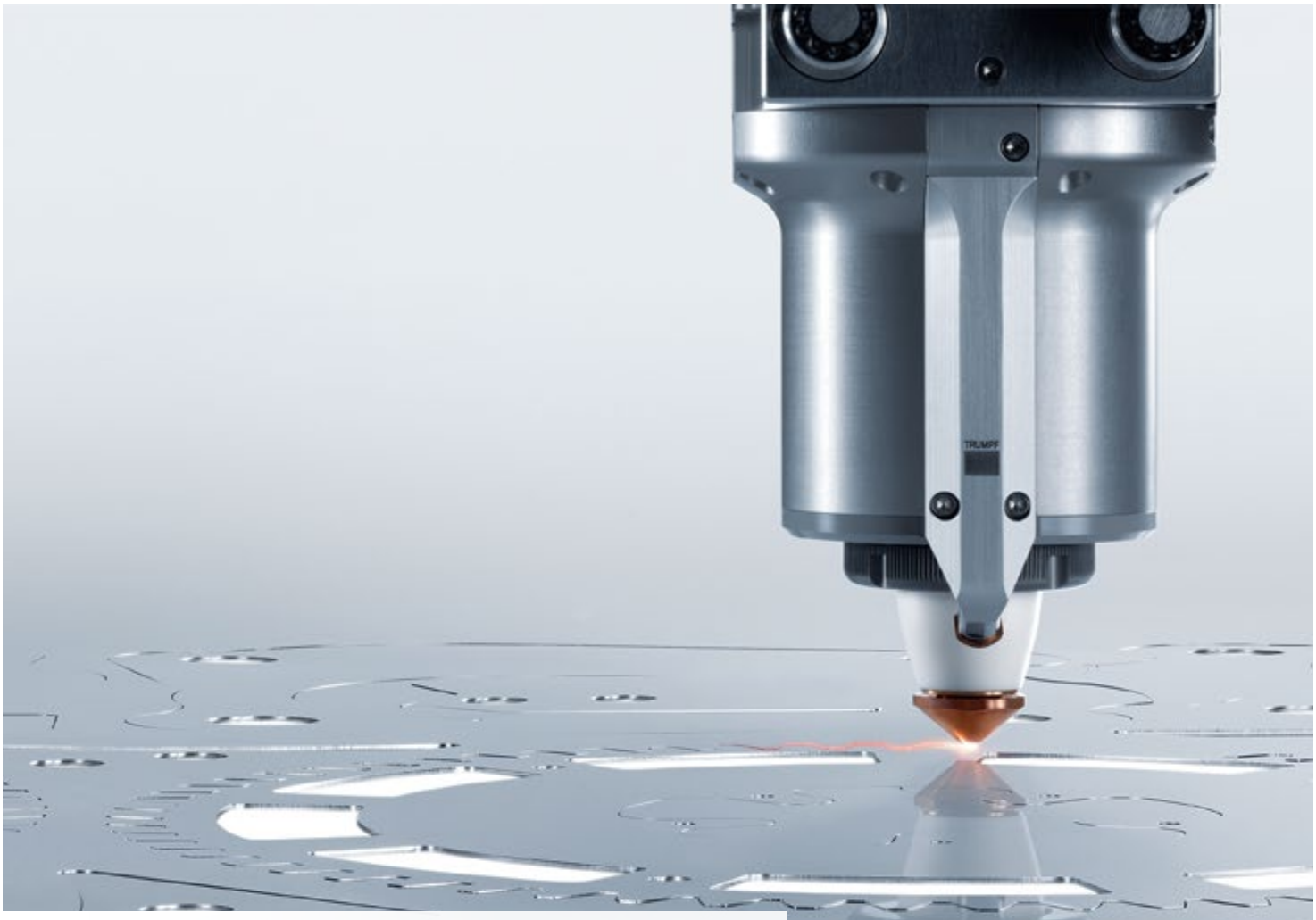


TRUMPF

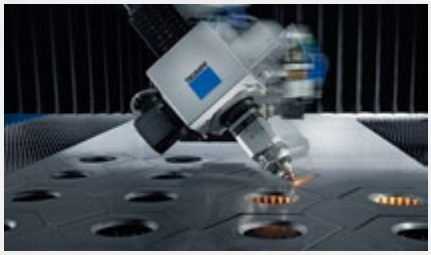
TruLaser

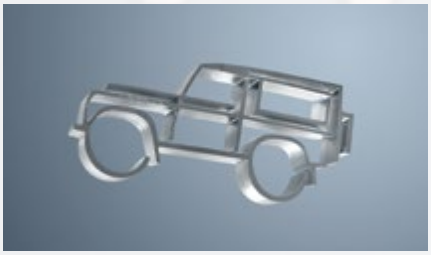
Cost-effective cutting through thick and thin

The best solution for your application

The right laser for your cutting application, the right machine for your production, the automation that matches your material flow – this is what TRUMPF delivers. Our large range of laser cutting machines assures that you receive the right product. The vital questions for choosing the right machine are about your situation: What are your requirements regarding material and quality? How high is your average capacity? What do you need to make your manufacturing as cost-effective as possible?

Laser cutting is not only about cutting times. The entire process is important. Intelligent functions, for instance, help to design single processing steps in a smarter way. A large service network supports you if necessary. With TRUMPF, you receive suitable solutions: perfectly balanced, highly productive and passionately crafted.





Select the right application for your tasks.

Produce variety
4 – 5

Design your processes efficiently and use the full potential of your machine.

More output with intelligent functions
6 – 7

Get to know the TruLaser machines.

Our machines in detail
8 – 29

In this section you can find an overview of the technical details of all TruLaser machines.

Technical data
30 – 35

Select the right automation solution or switch directly over to the fully automatic laser machine.

Automation and TruLaser Center 7030
36 – 41

Our solutions will support you step-by-step on the way to your Smart Factory.

Take charge
42 – 43

With TruServices, you benefit from a package that goes far beyond the machine itself.

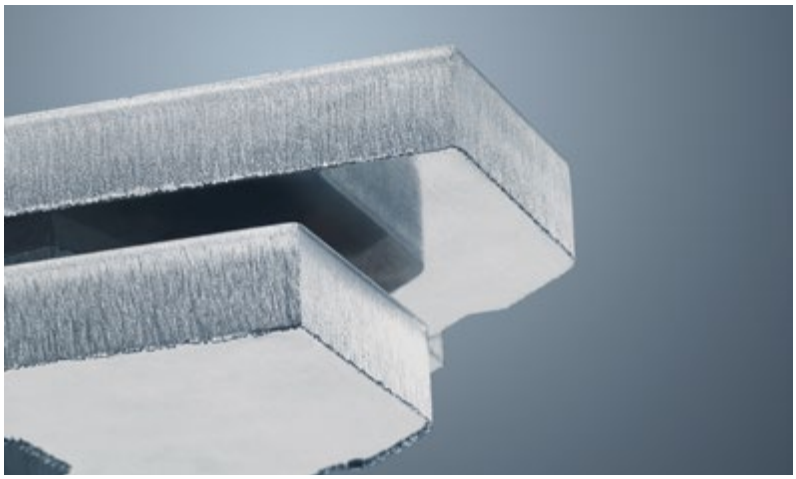
All from one source
44 – 47

Produce variety

From smooth cutting edges on mild steel as thick as a finger to tubes: Thanks to intelligent functions, your 2D laser cutting machine masters an almost infinite variety of contours and materials. And it also proves to be ideal when faced with challenging geometries. Do you make full use of your machine's laser power?

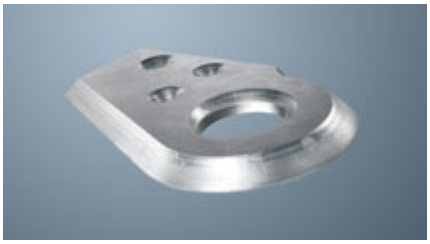
01 TruFiber 24001

02 Nanojoint



03 Gas mix

04 FlexLine



05 Bevel Cut

06 CoolLine

07 EdgeLine

08 Copper/brass

01 **TruFiber 24001, machine: TruLaser Series 3000, 5000**
Laser power: 24 kW
Optional: Yes
Material: Mild steel, stainless steel, aluminum, copper, brass, titanium
Sheet thickness: Mild steel/stainless steel/aluminum 1–60 mm, copper 1–15 mm, brass 1–12 mm, titanium 1–6 mm
Special features: Significantly improved productivity and part quality in fusion cutting for mild steel and stainless steel with medium to very thick sheets

02 **Nanojoint, machine: TruLaser Series 1000, 3000, 5000**
Laser power: From 4 kW
Standard scope of delivery
Material: Mild steel, stainless steel
Sheet thickness: Mild steel 1–20 mm, stainless steel 1–12.7 mm
Special features: Greater process reliability during cutting and automated unloading of sheets or components. Scrap reduction by up to 30%

03 **Gas mix, machine: TruLaser Series 1000, 3000, 5000**
Laser power: From 6 kW
Optional: Yes
Material: Mild steel, aluminum
Sheet thickness: Mild steel 6–20 mm, aluminum 3–15 mm
Special features: Improved part quality is possible due to decreased burr formation with medium to thicker mild steel and aluminum

04 **FlexLine, machine: TruLaser Series 3000, 5000**
Laser power: From 6 kW
Optional: Yes
Material: Mild steel
Sheet thickness: 12–30 mm
Special features: High part quality in various grades of material and surface finishes

05 **Bevel cut, machine: TruLaser Series 3000 Bevel Cut Edition**
Laser power: 12 kW
Standard scope of delivery
Material: Mild steel, stainless steel
Sheet thickness: Mild steel up to 25 mm, stainless steel up to 15 mm with bevel cut
Special features: Versatile manufacturing with angles up to 50° and various bevel types (V, Y, DV, DY) for maximum flexibility and precision

06 **CoolLine, machine: TruLaser Series 1000, 3000, 5000**
Laser power: From 4 kW
Optional: Yes
Material: Mild steel
Sheet thickness: 15–25 mm
Special features: For CoolLine, the cutting process is cooled by spraying a directed water mist around the processing point. This enables delicate and material-efficient mild steel cutting.

07 **EdgeLine, machine: TruLaser Series 1000, 3000, 5000**
Laser power: From 4 kW
Optional: Yes
Material: Mild steel (chamfers, countersinks, radii), stainless steel (radii)
Sheet thickness: Mild steel 2–25 mm, stainless steel 1–8 mm
Special features: Produce chamfers, counterbores and radii on the laser cutting machine, even during the cutting process

08 **Copper/brass, machine: TruLaser Series 1000, 3000, 5000**
Laser power: From 4 kW
Standard scope of delivery
Material: Brass, copper
Sheet thickness: Copper 1–16 mm, brass 1–12.7 mm
Special features: Non-ferrous metals can be cut without restrictions

More output with intelligent functions

Preparing

How is my machine doing?
A glance at the status assessment in **Smart View** shows you the status of key components that affect factors such as cutting capability. With Condition Monitoring, you receive proactive recommended action steps and can also keep an eye on all machine components at all times.

Are my nozzles working properly?
If not, this can lead to burr formation, resulting in parts requiring reworking or reject parts. **Smart Nozzle Automation** switches to the correct nozzle and checks the nozzle status and beam centering. This helps ensure reliability and saves you time.

Is my sheet metal positioned correctly?
This is important in particular if you wish to cut prepunched sheet metal. With **DetectLine,** a camera system precisely determines the position of inserted sheets. This function also helps to check the alignment of the focus position.

Is my lens or protective glass contaminated?
Only replace protective lenses when absolutely necessary: The **online protective glass status check** ensures that you always know the condition of the protective glass of your solid-state laser and can work with consistent quality.

How do I tackle cutting problems?
The **Cutting Guide** supports you with finding the cause for cutting problems. It offers functions for inspection in order to adjust the machine optimally.

Producing

Can I cut inferior material?
Active Speed Control monitors the cutting process in real time. In the event of sheet thickness variations or quality fluctuations such as rust or coating remnants, the system adjusts the correct feed rate on its own. Alternatively, **AdjustLine** chooses robust cutting data before the cutting process starts.

EdgeLine Bevel
The EdgeLine Bevel feature can now do even more: Cut chamfers, counterbores and round edges directly on your laser cutting machine. Rounded edges look better and prevent injuries. Easy programming also allows you to machine chamfers with different angles and counterbores in multiple sizes.

How can I protect my cutting head?
There is a particular danger of collision due to parts tipping over when cutting thin sheet metal. The **collision protection function** minimizes the effects of this – acting as a kind of airbag for your cutting head.

Can I cut quicker and save money at the same time?
The **Highspeed Eco** cutting turbo enables you to double your plate throughput and your feed rate, while reducing your cutting gas consumption by up to 70%. This makes nitrogen cutting with solid-state lasers extremely efficient.

What good is having the quickest machine if your parts keep tipping over? With 2D laser cutting machines, downtimes can quickly take up half of your working time. These downtimes are spent setting up your machine, sorting or rectifying faults. This is why it makes sense to shorten your entire process and permanently ensure that power is converted into output – with intelligent functions from TRUMPF.

Sorting

How can I prevent collisions?
With **Smart Collision Prevention:** Your machine manufactures parts and inside contours in a sequence that intelligently takes parts tipping over into account. This means you can carry out production reliably – without collisions or microjoints.

This function is also available as a test or rental version.

Neat cuts – quick removal
With **BrightLine,** your CO_2 laser can achieve the ultimate in edge quality when cutting stainless steel and structural steel. However, thanks to **BrightLine fiber,** solid-state lasers can also provide exceptionally high-quality cutting results across the entire range of sheet thicknesses and with no reduction in cutting speed. In addition, optimized, high-quality cutting gaps save time in sorting and further processing.

Where does each part belong?
The **Sorting Guide** marks parts by color on a monitor depending on the order, downstream processes or geometry. This prevents mistakes.

Starting the subsequent process

How can I identify my parts?
Consider the next process step while still carrying out cutting: the **Dot Matrix Code** ensures that you always know which part you are working on and what processes need to be carried out on it.

TruConnect
Your Smart Factory

This function is also available as a test or rental version.

I need to reproduce a part quickly
Speed and reuse of leftover sheet metal are crucial factors here. Thanks to the camera support offered by **Drop&Cut,** you can produce parts from existing programs in seconds. This system also enables you to reuse leftover sheet metal.

Can I also cut thick structural steel?
Yes – with **CoolLine,** even tight contours are possible. This function keeps your workpiece consistently cool during cutting. This enables you to cut even delicate parts and to nest workpieces even more tightly.

How do I cut out work steps?
Apply chamfers directly to the 2D laser cutting system: the bevel cut eliminates up to 80% of the processing time and costs for the entire assembly.

To find out which intelligent functions are available with which machine series, have a look at page 34/35.

The Number 1 Choice

No two productions are the same. That's why your applications determine which laser machine is right for you. We make it easier for you to choose thanks to a clearly defined portfolio. And with comprehensive packages where everything fits together harmoniously: machine, laser, automation, software and a service that you can always count on – anytime, anywhere.

Industrial fiber lasers from TRUMPF are like endurance athletes: So convinced are we of their durability that we'll give you 5 years of free Service Parts for your TruFiber laser. This applies to every new 2D laser cutting machine in conjunction with a Service Agreement.

TruLaser Series 1000 Lean Edition

Easy laser cutting – lean and powerful.

Reduced to the essentials for maximum efficiency – robust, intuitive, and safe.

Productivity
Autonomy
Ergonomics
Flexibility
Processing formats
Investment

TruLaser Series 1000

Easy laser cutting – powerful, reliable, safe.

The perfect entry into laser cutting – ideal for building long-term production.

Productivity
Autonomy
Ergonomics
Flexibility
Processing formats
Investment

TruLaser Series 3000

The multipurpose powerhouse – made for maximum flexibility.

Versatile and cost-effective – with smart features and seamless integration into your production.

Productivity
Autonomy
Ergonomics
Flexibility
Processing formats
Investment

TruLaser Series 3000 Bevel Cut Edition

The multipurpose powerhouse – now with bevel cutting.

All the strengths of the 3000 Series, plus precise bevel cuts up to 50° – for fewer steps and even more flexibility.

Productivity
Autonomy
Ergonomics
Flexibility
Processing formats
Investment

TruLaser Series 5000

The pro – dynamic, autonomous, ultraproductive.

Autonomous processes, top availability, and uncompromising quality – the high-end solution for top performance.

Productivity
Autonomy
Ergonomics
Flexibility
Processing formats
Investment

TruLaser Series 1000 Lean Edition

01

Safe and secure operation

thanks to beam guard and enclosed protective housing

02

Collision protection

ensures robust operation

Reduced to the essentials for maximum efficiency – robust, intuitive, and safe.

04

Easy machine operation

thanks to cutting data and Cutting Guide

03

Stable processes

thanks to nanojoints

01

Safe and secure operation

thanks to beam guard and enclosed protective housing

The CE-compliant system meets all TRUMPF quality standards for safe work.
Its carefully designed enclosed protective housing with a beam guard ensures maximum safety during operation.

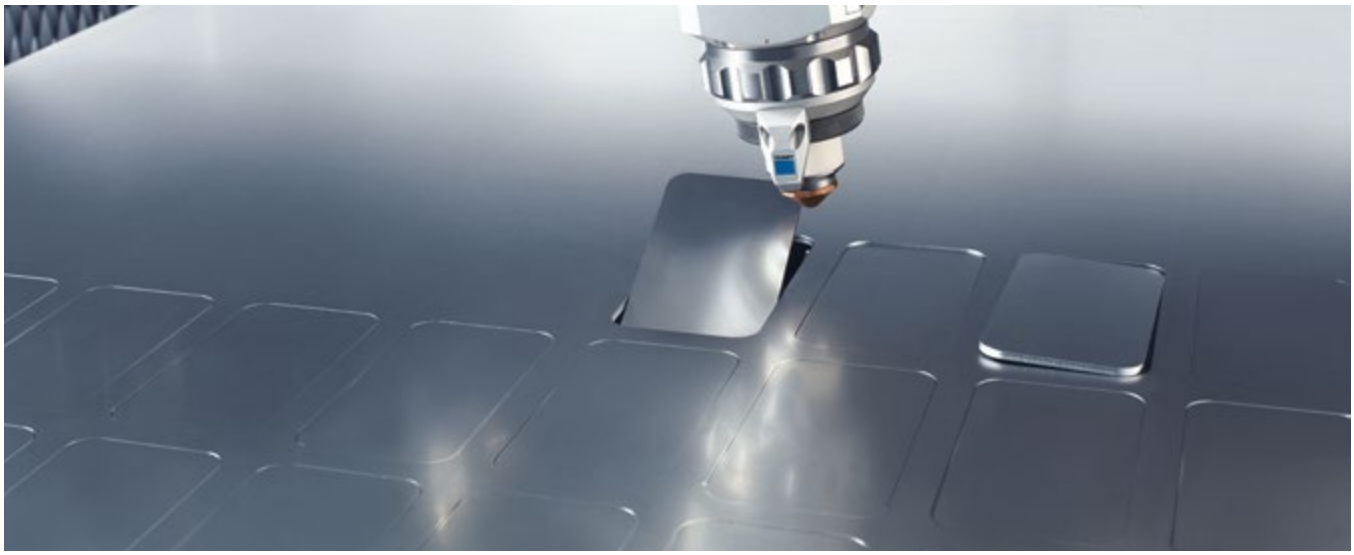
Beam guard and enclosed protective housing guarantee maximum protection during operation.

02

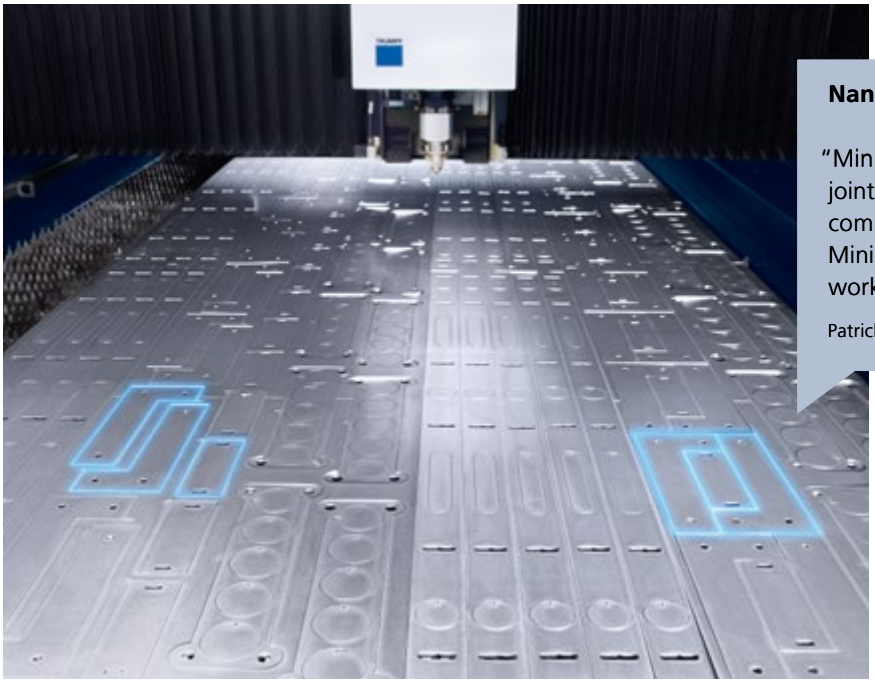
Collision protection

ensures robust operation

Robust and reliable: The collision protection protects your cutting unit from damage.
Thanks to shorter non-productive times, you increase your machine availability and achieve great productivity results.



Collision protection: Protects your cutting unit from damage and reduces downtime for higher productivity.



Nanojoints

"Mini helpers that make a big impact: Nanojoints make it possible for you to process any component geometry safely and productively. Minimal fixing in the scrap skeleton saves reworking."

Patrick Mach, Laser Cutting Development

03

Stable processes

thanks to nanojoints

Nanojoints guarantee reliable machining of all component geometry. Minimal fixings in the scrap skeleton simplifies part removal and usually eliminates the need for rework. This means: no damage to contours, better part quality and time savings compared to microjoints.

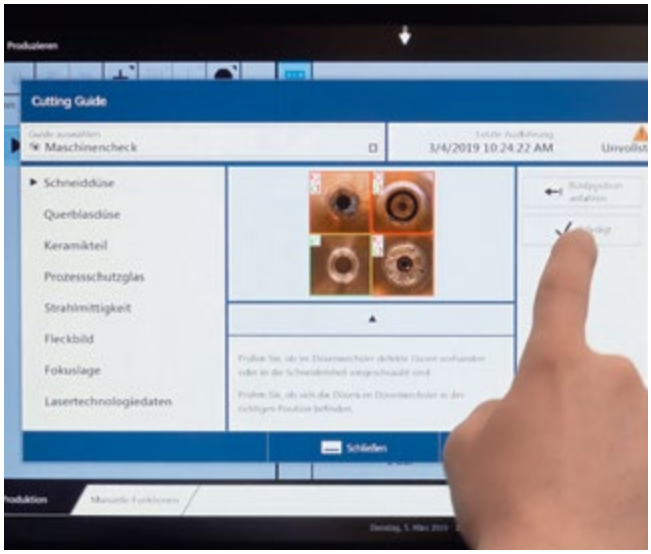
Nanojoints enable precise machining without damage to contours, reducing rework.

04

Easy machine operation

thanks to cutting data and Cutting Guide

Operating made easy: TRUMPF's extensive laser cutting expertise is already built into your machine, in the form of intensively tested cutting data. If you are still experiencing cutting problems, the Cutting Guide helps you to find the cause and configure the machine as best as possible.



Networked cutting data and the Cutting Guide support fast and precise machine operation.

TruLaser Series 1000

01

Cost-effective and productive

with Highspeed Eco and Drop&Cut

02

Robust and reliable

thanks to CoolLine and collision protection

The perfect entry into laser cutting –
ideal for building long-term production.

04

Easy to operate

thanks to Touchpoint and
Cutting Assistant

03

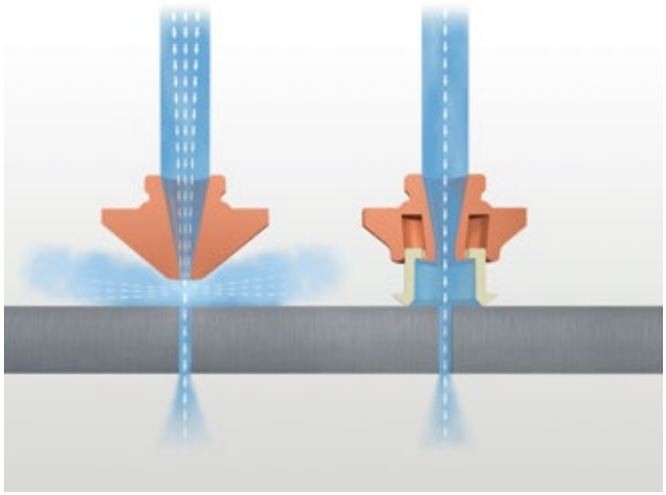
Top parts quality

with BrightLine fiber

01

Cost-effective and productive
with Highspeed Eco and Drop&Cut

You will set speed records with the Highspeed Eco cutting process: Depending on the sheet thickness, the feed rate increases by up to 70%. In addition, you achieve cutting gas savings of around 70%. Drop&Cut helps you make optimal use of remainder sheets. This saves material and time. A camera projects the image of the machine interior onto your user interface, and you can arrange part geometries on the remainder sheet as needed.



Highspeed Eco – clever nozzle: Highspeed Eco reduces your cutting gas consumption by up to 70%.

Drop&Cut: With Drop&Cut, you can produce single parts in seconds.

02

Robust and reliable
thanks to CoolLine and collision protection

With CoolLine your workpiece remains cool – that opens up possibilities for geometries, facilitates closer placement of components, and also ensures reliable cutting of thick mild steel. The collision protection protects your cutting head like an airbag, giving you the ability to manufacture particularly reliably and productively thanks to minimal non-productive time.

With CoolLine, you can even cut tight contours in thick mild steel and thus also increase your process reliability.

03

Top parts quality
with BrightLine fiber

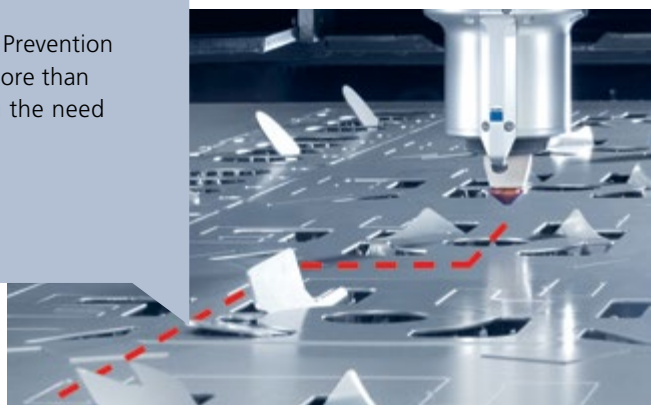
With flexible adjustment of the laser beam and special cutting data, BrightLine fiber converts your solid-state laser into an universal tool. The function enables high-quality cutting results in any sheet thickness. At the same time, you have access to all advantages of thin sheet processing with the solid-state laser, primarily the high speeds.

Smoothest possible cutting edges across the entire sheet thickness range are no problem thanks to BrightLine fiber.

Smart Collision Prevention 5.0

"No need to worry about collisions. In addition, Smart Collision Prevention reduces the processing time in the new single-part mode by more than a third – for sheets of up to 10 mm. Nanojoints also save you the need for reworking."

Marcel Maier, product manager TruLaser



04

Easy to operate

thanks to Touchpoint and Cutting Assistant

The menu navigation on the large Touchpoint works intuitively. Due to the reliable, integrated cutting parameters from TRUMPF, the machine is very easy to operate.

Generously dimensioned and easy to operate – the touch display of the TruLaser Series 1000.

Optimal cutting parameters at the touch of a button: With the Cutting Assistant, you can optimize your cutting results quickly and efficiently. Choose between bandwidth mode or AI-powered optimization suggestions using a manual scanner. This gives you precise objective parameter recommendations, saves on material costs and ensures consistently high cutting quality, even with fluctuating material qualities.

AI-powered analysis with a manual scanner – for precise parameter recommendations in seconds.

TruLaser Series 3000

01

Limitless flexibility

in terms of format, power and options

02

High-quality results

in all sheet thicknesses

03

Energy-saving cooling

with the energy-efficient process cooler

Versatile and cost-effective – with smart features and seamless integration into your production.

04

Versatile automation

for an uninterrupted process chain

05

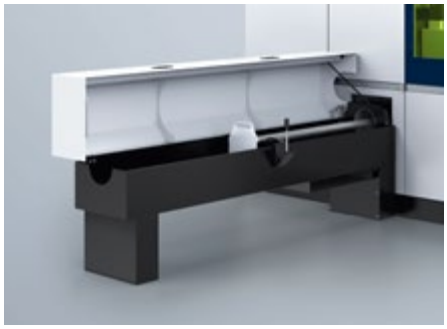
Improve part quality

with the integrated gas mixer

01

Limitless flexibility
in terms of format, power and options

You can completely customize the layout of your machine to suit your needs: You can choose between large format (3 × 1.5 m), max-format (4 × 2 m) or even oversize format (6 × 2.5 m, 8 × 2.5 m). You also have options when it comes to laser power: 4, 6, 9, 12 and 24 kW.



RotoLas enables you to add pipes and profiles to the range of parts you can produce.

03

Energy-saving cooling
with the energy-efficient process cooler

The energy-efficient process cooler cools your machine and laser in one system and reduces energy consumption by up to 50% compared to conventional process coolers. The compact design allows for optimal cooling in the smallest space. Thanks to the intelligent combination of high power and minimum energy consumption, you can reduce your operating costs in a sustainable way.

Reduce your energy costs and optimize the cooling of the machine and laser with the energy-efficient process cooler.

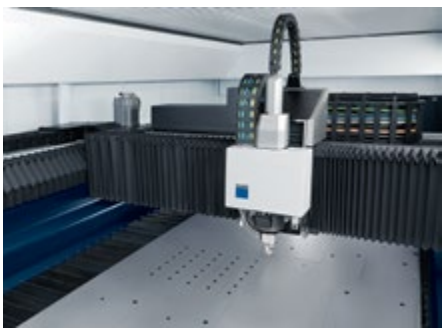
02

High-quality results
in all sheet thicknesses

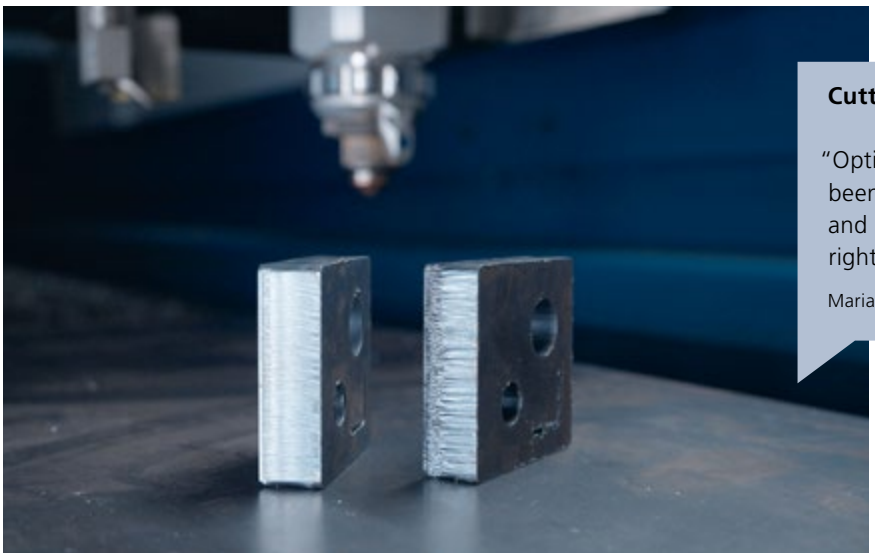
BrightLine fiber turns your solid-state laser into a universal tool: This function provides high-quality cutting results in all sheet thicknesses, while still enabling you to enjoy all of the benefits of thin sheet processing with a solid-state laser, most notably high cutting speeds.

With BrightLine fiber, you can cut a wide variety of materials and sheet thicknesses with the best possible quality.

Zoom cutting unit: Thanks to the large zoom range, the focus position and focal diameter of this cutting unit are completely variable: they automatically adapt to any material.



You can achieve the best results in all sheet thicknesses with the zoom cutting unit.



Cutting Assistant

"Optimizing cutting parameters has never been easier. The Cutting Assistant saves time and material – for the best cutting quality right away."

Maria Rentschler, Product Management TruLaser

04

Versatile automation

for an uninterrupted process chain

With the right automation solution, you can optimize your process chain for specific requirements: Select the required components from a large modular system. From simple loading through to fully automated loading and unloading including part separation and storage connection, everything is now possible with the TruLaser Series 3000.

A strong team: LiftMaster Compact automatically loads and unloads your machine. With the PartMaster, you can manually remove finished parts and grid residue from the transport belt with ease while production is in progress. More information on the topic of automation is available on pages 36 and 37.

05

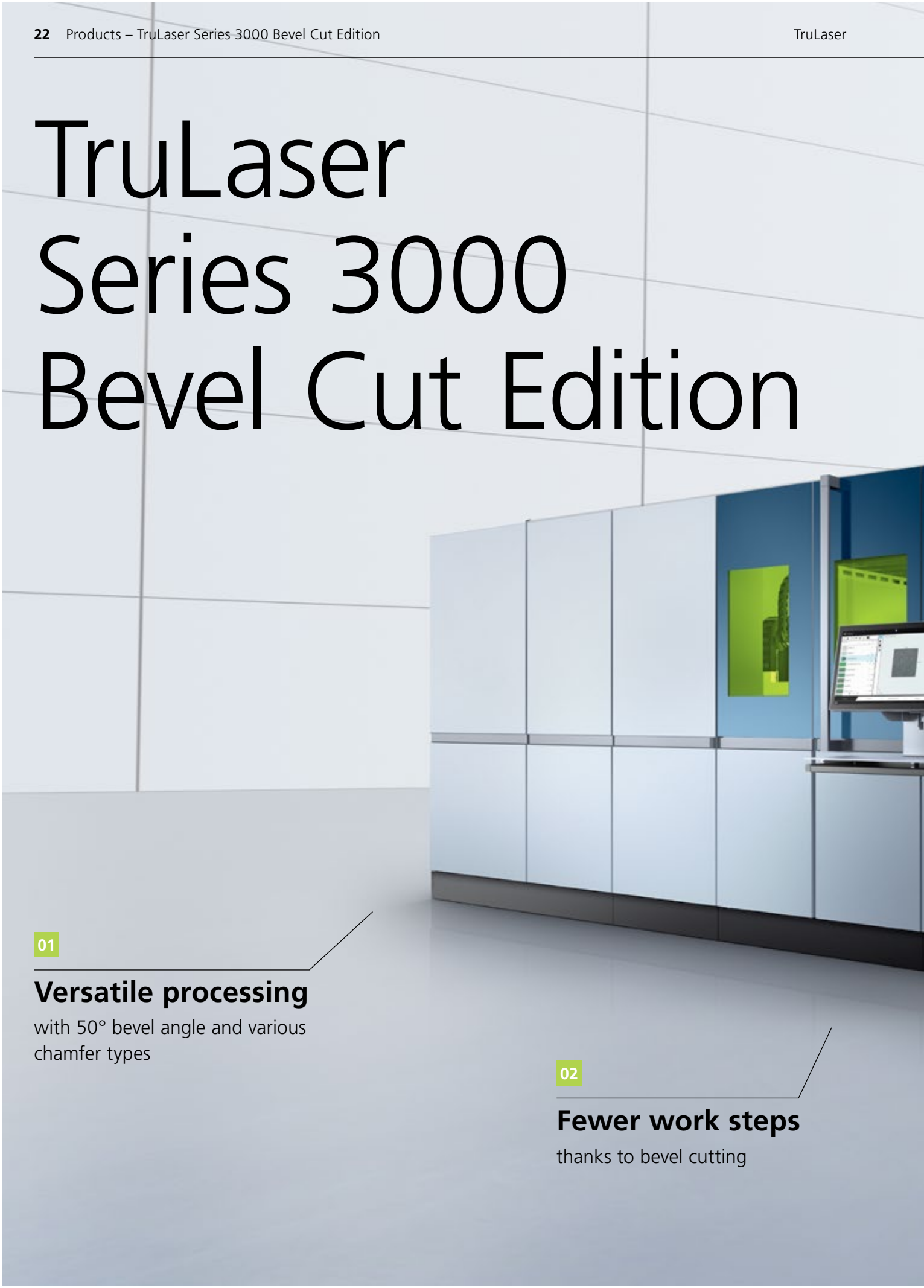
Improve part quality

with the integrated gas mixer

The integrated gas mixer mixes the cutting gases together. The mixing ratio can be calibrated automatically without any operator involvement via the user interface. This reduces rework and improves your part quality.

Increase the quality of your parts and reduce rework to a minimum with the integrated gas mixer.

TruLaser Series 3000 Bevel Cut Edition



01

Versatile processing

with 50° bevel angle and various chamfer types

02

Fewer work steps

thanks to bevel cutting

All the strengths of the 3000 Series, plus precise bevel cuts up to 50° – for fewer steps and even more flexibility.

04

Powerful and dynamic

with 12 kW of laser power

03

Broad range of applications

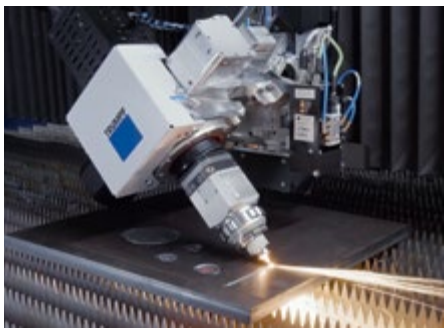
for thin and thick sheets

01

Versatile processing

with 50° bevel angle and various chamfer types

From simple chamfers to complex weld seam preparations – you can process mild and stainless steel up to 25 mm thanks to the the tiltable cutting unit. With angle sizes up to ± 50° and freely selectable bevel types, it significantly exceeds common industry standards.



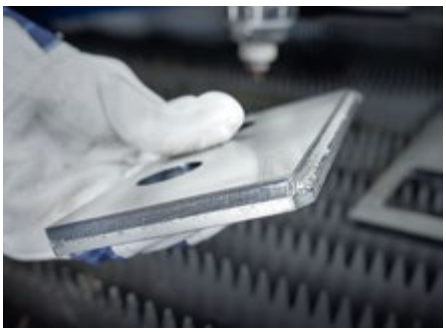
With the TruLaser Series 3000 Bevel Cut, you can cut precise chamfers with angles of up to 50°.

02

Fewer work steps

thanks to bevel cutting

The integrated bevel cut creates weld seams during the cutting process. This eliminates subsequent – often manual – process steps and reduces the costs of the entire assembly.



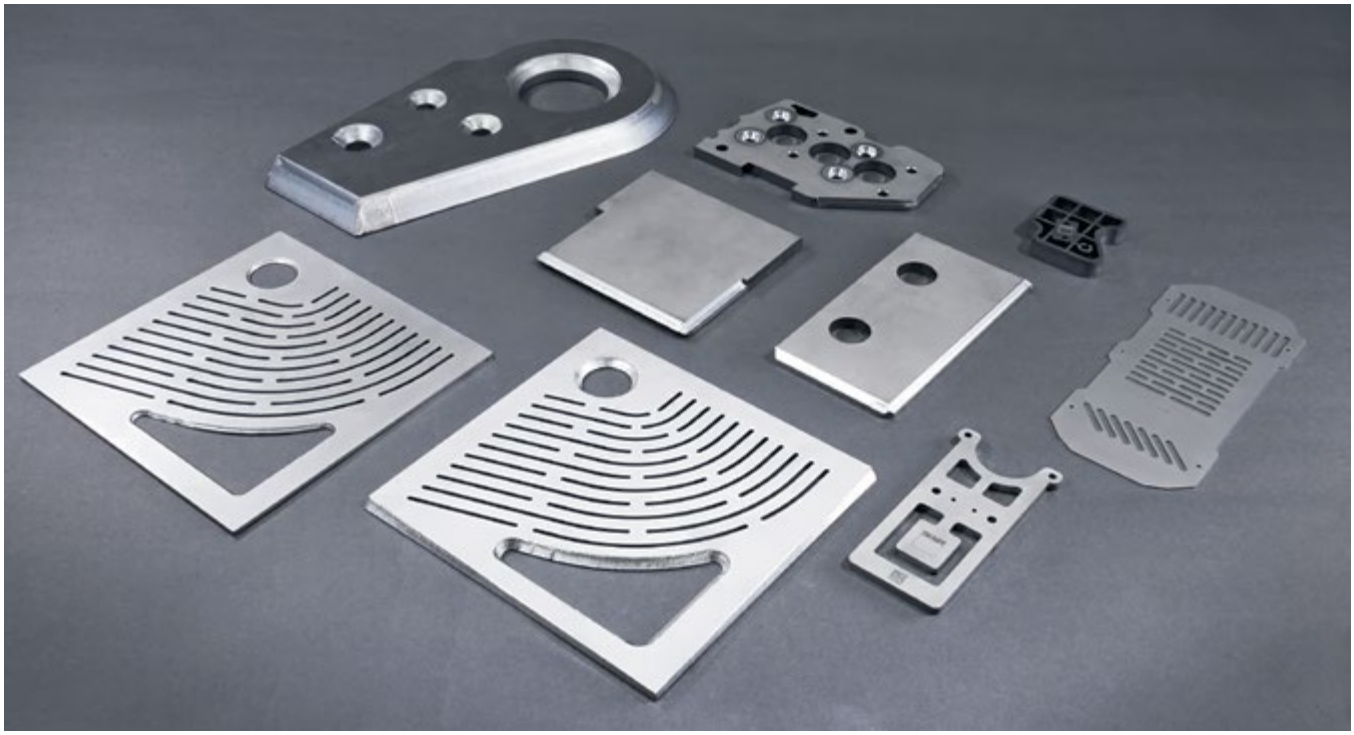
Apply weld seams directly from the machine – this saves subsequent work steps and reduces your costs.

03

Broad range of applications

for thin and thick sheets

From intricate contours in thin metal or bevel cuts in thick sheet metal – this flexible laser cutting machine masters the entire spectrum from 1 to 30 mm as well as a wide variety of materials. A universal machine that already pays off economically from a bevel cut proportion of 5%.



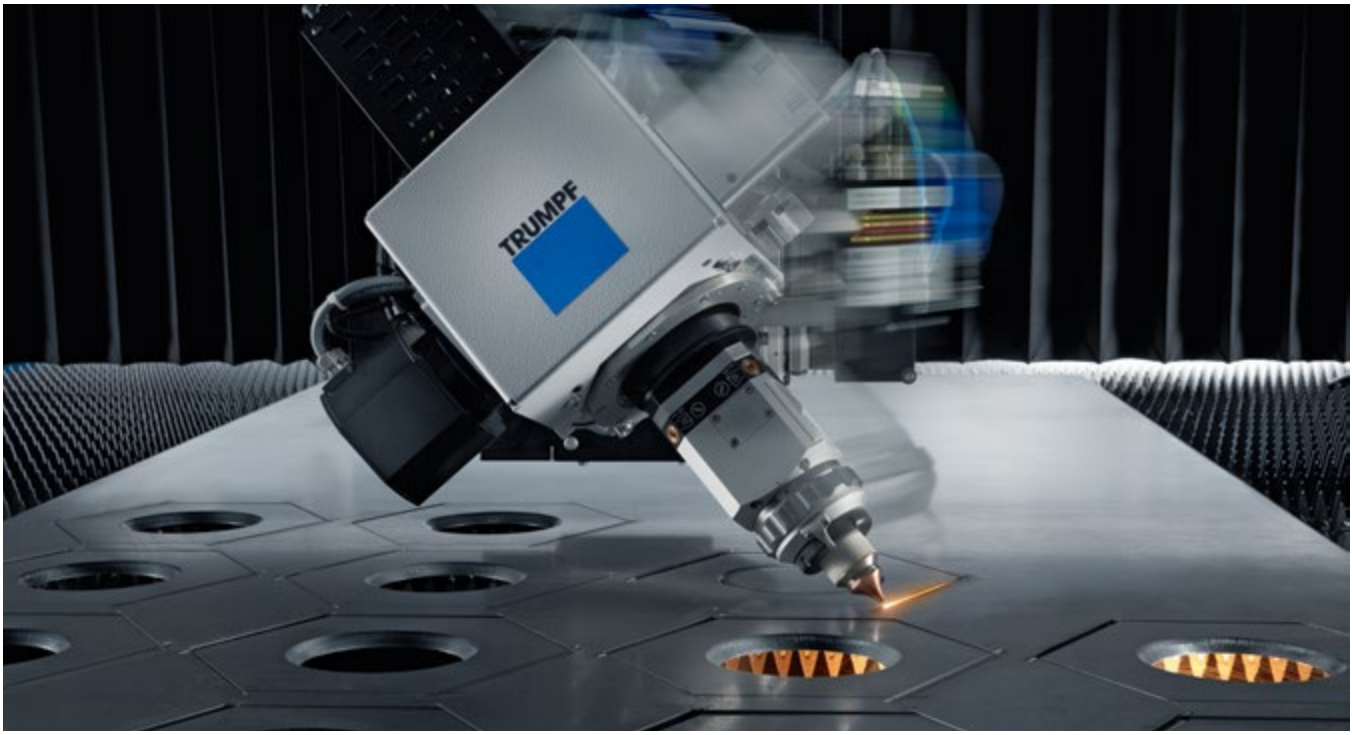
Master the full cutting spectrum from 1 to 30 mm and a variety of materials – for maximum flexibility with every order.

04

Powerful and dynamic

with 12 kW of laser power

The laser brings its 12 kW of laser power to the sheet metal for full productivity while cutting. The ingenious combination of laser source, machine design and control functions enables higher feed rates – from melting to flame cut, from thin to thick sheet.



With 12 kW of laser power, the laser ensures maximum productivity and excellent results in all cutting processes.

TruLaser Series 5000

01

Maximum dynamics

even with complex contours

02

Producing with process reliability

even in fully automated operation

03

High material tolerance

with FlexLine

Autonomous processes, top availability, and uncompromising quality –
the high-end solution for top performance.

05

Semi-autonomous laser cutting

with Active Speed Control

04

Improve availability

thanks to Smart Rerun

01

Maximum dynamics

even with complex contours

The productive machines in the TruLaser Series 5000 can effortlessly handle both thin and thick sheets. With the TruFiber 24001 and highly dynamic drives, they enable highly productive and reliable manufacturing across the entire range of sheet thicknesses. The machines in this range are designed for maximum capacity and are able to convert these high feed rates into sheet throughput.

Use 24 kW of laser power to process a wide array of materials with even greater productivity and top quality results.

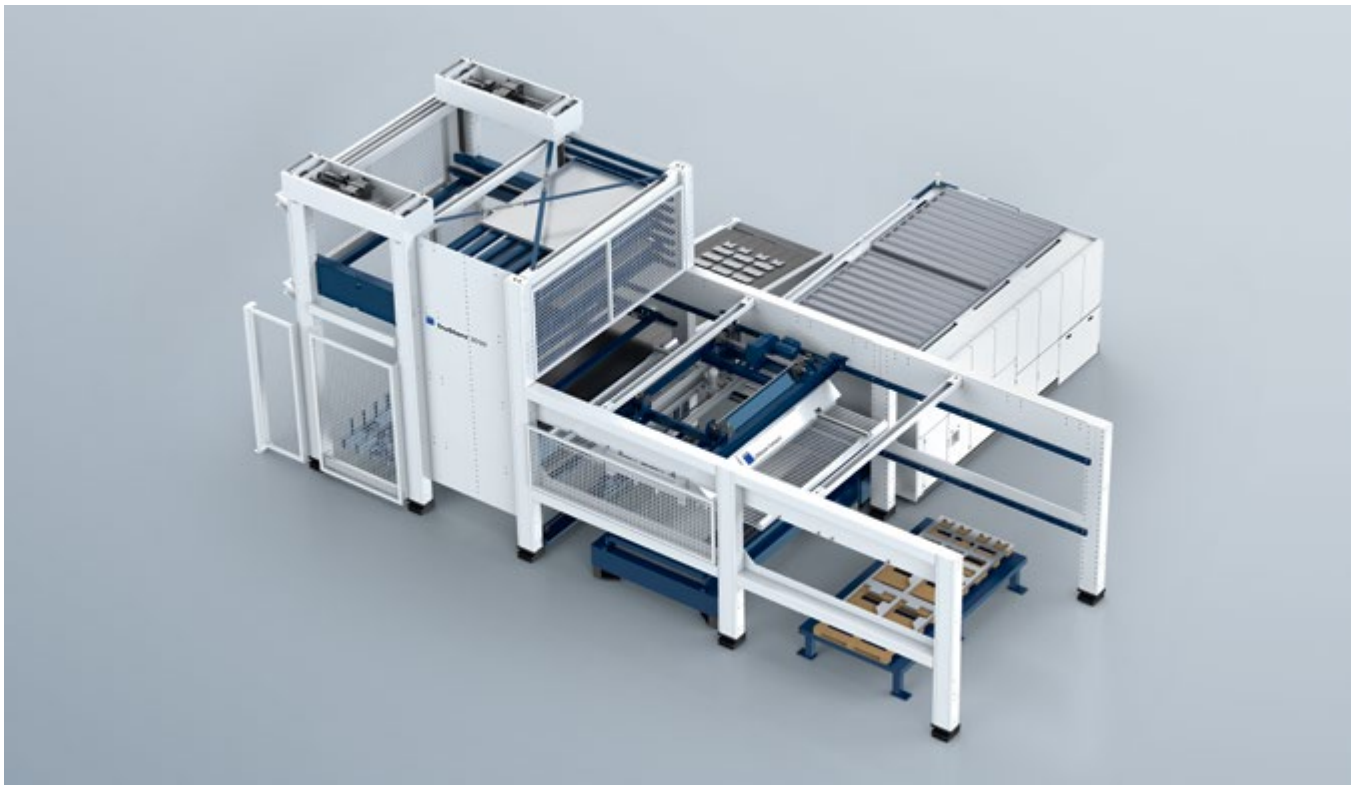
02

Producing with process reliability

even in fully automated operation

Ensuring that the nozzle and lens are in the best possible condition is an important prerequisite for achieving reliable processes and high part quality. Smart Nozzle Automation combines intelligent functions that ensure just that – even in fully automatic operation. With the CoolLine function, you can perform delicate cutting operations, even in thick structural steel. This function cools the workpiece during cutting and enables new geometries, more efficient sheet configuration, and reliable processing of thick structural steel.

Smart Nozzle Automation ensures that the nozzle and lens are kept in the best possible condition.

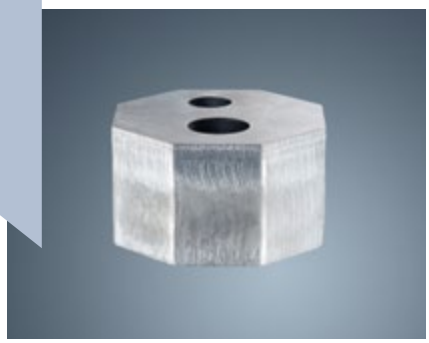


The LiftMaster Compact loads and unloads the TruLaser 5030 fiber particularly quickly.
You can find out more about automation on pages 36 and 37.

TruFiber 24001

"With an impressive 24 kW, the new TruFiber doubles the laser power of the TruLaser Series 5000. This allows you to process components up to three times faster and increase sheet throughput by up to 80% per hour."

Andreas Vollmer, TruLaser technology expert from the demonstration center



03

High material tolerance
with FlexLine

With the FlexLine function, you can cut mild steel of various grades reliably and to a high standard of quality. The combination of specific cutting parameters and a patented nozzle design ensures a particularly high material tolerance. This gives you more flexibility in your production and enables you to save material costs, especially with high sheet thicknesses. In addition, even delicate contours can be safely cut. This allows you to get the most out of your material.

FlexLine: Cut fluctuating material grades robustly, safely and to a high standard.

04

Increase availability
thanks to Smart Rerun

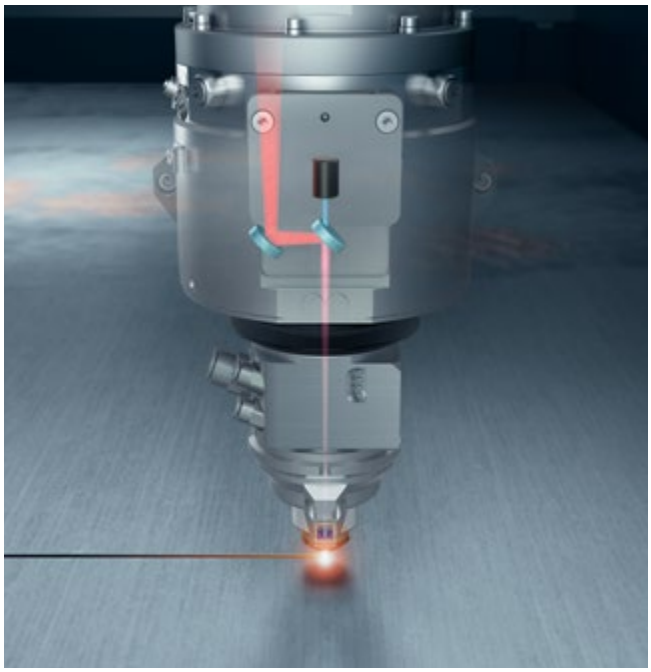
More autonomy, fewer downtimes: With Smart Rerun, your machine carries on producing independently after a slight collision or cutting flaw. It reenters the contour to prevent rejects. It only jumps to the next part if it cannot reenter the contour.

With Smart Rerun, production continues independently after minor collisions or cutting flaws.

05

Semi-autonomous laser cutting
with Active Speed Control

Another milestone on the way to the autonomous machine: Active Speed Control. The system sees through the nozzle into the kerf, monitors the cutting process, and regulates the feed rate on its own. Even in the event of thickness variations in a sheet, or if the sheet has been affected by quality fluctuations such as rust or coating remnants, the system ensures the right feed rate for flame and fusion cutting. Cutting disruptions are prevented which reduces the amount of reject parts significantly.



Active Speed Control, the adaptive feed rate regulation, increases process reliability and relieves operators.

Technical data

We have summarized the technical data for the TruLaser machines for you on these pages.

Technical data					
		TruLaser 1030 Lean Edition	**TruLaser 1040 Lean Edition**	**TruLaser 1060 Lean Edition**	**TruLaser 1030**
Maximum format size that can be processed					
X-axis	mm	3000	4000	6000	3000
Y-axis	mm	1500	2000	2500	1500
Z-axis	mm	116	116	116	116
Workpiece					
Max. weight (up to 6 kW)	kg	900	2000	2900	900
Max. weight (9 kW and higher)[1]	kg	–	–	–	1800
Max. speed					
Simultaneous	m/min	140	140	140	140
Accuracy[2]					
Mean bidirectional positioning error M (ISO 230-2:2014)	mm	0.05	0.05	0.05	0.05
Bidirectional positioning error A (ISO 230–2:2014)	mm	0.06	0.07	0.07	0.06
Available lasers		TruFiber 6001	TruFiber 6001	TruFiber 6001	TruFiber 4000/6001/9001/12001

Laser data					
		TruLaser Serie 1000 Lean Edition	**TruLaser Serie 1000**		
		TruFiber 6001	TruFiber 4000	TruFiber 6001	TruFiber 9001
Max. power	W	6000	4000	6000	9000
Wavelength	nm	1080	1080	1080	1080
Max. sheet thickness					
Structural steel	mm	20/25[3]	22/25[3]	25/32[3]	25/32[3]
Stainless steel	mm	20/25[3]	20/35[3]	25/35[3]	40
Aluminum	mm	15/20[3]	20	25	30
Copper	mm	10	8	10	12.7
Brass	mm	10	8	10	12.7
Power consumption					
Average power consumption during production	kW	15	10	11	14.5

[1] Data relates to a single pallet. When loading several pallets, different values apply. [2] The positioning accuracy data relates to the entire working length. The positioning accuracy is recorded in a production plant in accordance with VDI/DGQ 3441. [3] With cutting package for thick sheets. [4] For vertical cutting. [5] For 50° bevel cut. [6] With universal cutting unit with fully adaptive lens system.

TruLaser 1040	TruLaser 1060	TruLaser 3030	TruLaser 3040	TruLaser 3060	TruLaser 3080
4000	6000	3000	4000	6000	8000
2000	2500	1500	2000	2500	2500
116	116	116	116	116	116
2000	2900	1100	2000	2900	4710
3300	4900	1800	3300	4900	7850
140	140	170	170	170	170
0.05	0.05	0.05	0.05	0.05	0.06
0.07	0.07	0.06	0.07	0.07	0.07
TruFiber 4000/6001/9001/ 12001	TruFiber 4000/6001/9001/ 12001	TruFiber 4000/6001/9001/ 12001/24001	TruFiber 4000/6001/9001/ 12001/24001	TruFiber 4000/6001/9001/ 12001/24001	TruFiber 4000/6001/9001/ 12001/24001

TruLaser Serie 1000	TruLaser Serie 3000				
TruFiber 12001	TruFiber 4000	TruFiber 6001	TruFiber 9001	TruFiber 12001	TruFiber 24001
12000	4000	6000	8000	12000	24000
1080	1080	1080	1080	1080	1080
30/35[3]	22/25[3]	25/32[3]	25/30[6]/32[3]	30/35[3]/50[6],[3]	40/60[3]
40/50[3]	20/35[3]	25/35[3]	40	40/50[3]	40/60[3]
30	20	25	30	30/40[6],[3]	40
12.7	8	10	12.7/16[6]	12.7/16[6]	16
12.7	8	10	12.7	12.7	12.7
16	10	11	14.5	16	27

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

Technical data

We have summarized the technical data for the TruLaser machines for you on these pages.

Technical data				
		TruLaser 3040 Bevel Cut Edition	**TruLaser 3060 Bevel Cut Edition**	**TruLaser 3080 Bevel Cut Edition**
Maximum format size that can be processed				
X-axis	mm	4002[4]/3355[5]	6067[4]/5420[5]	8037[4]/7470[5]
Y-axis	mm	2099[4]/1600[5]	2576[4]/2077[5]	2576[4]/2077[5]
Z-axis	mm	86	86	86
Workpiece				
Max. weight (up to 6 kW)	kg	–	–	–
Max. weight (9 kW and higher)[1]	kg	3300	4900	7850
Max. speed				
Simultaneous	m/min	170	170	170
Accuracy[2]				
Mean bidirectional positioning error M (ISO 230-2:2014)	mm	0.05	0.05	0.05
Bidirectional positioning error A (ISO 230–2:2014)	mm	0.06	0.07	0.07
Available lasers		TruFiber 12001	TruFiber 12001	TruFiber 12001

Laser data		
		TruLaser Serie 3000 Bevel Cut Edition
		TruFiber 12001
Max. power	W	12000
Wavelength	nm	1080
Max. sheet thickness		
Structural steel	mm	35[3]/30[4]/15[5]
Stainless steel	mm	50[3]/40[4]/10[5]
Aluminum	mm	30[4]
Copper	mm	12.7[4]
Brass	mm	12.7[4]
Power consumption		
Average power consumption during production	kW	16

[1] Data relates to a single pallet. When loading several pallets, different values apply. [2] The positioning accuracy data relates to the entire working length. The positioning accuracy is recorded in a production plant in accordance with VDI/DGQ 3441. [3] With cutting package for thick sheets. [4] For vertical cutting. [5] For 50° bevel cut. [6] With universal cutting unit with fully adaptive lens system.

TruLaser 5030	TruLaser 5040	TruLaser 5060
3000	4000	6000
1500	2000	2000
116	116	116
1100	2000	2900
1800	3300	4900
140	140	140
0.05	0.05	0.05
0.06	0.07	0.07
TruFiber 6001/9001/12001/ 24001	TruFiber 6001/9001/12001/ 24001	TruFiber 6001/9001/12001/ 24001

TruLaser Serie 5000			
TruFiber 6001	TruFiber 9001	TruFiber 12001	TruFiber 24001
6000	9000	12000	24000
1080	1080	1080	1080
25/32[3]	30/32[3]	30/50[3]	40/60[3]
25/35[3]	40	40/50[3]	40/60[3]
25	30	30/40[3]	40
10	16	16	16
10	12.7	12.7	12.7
11	14.5	16	27

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

Intelligent functions

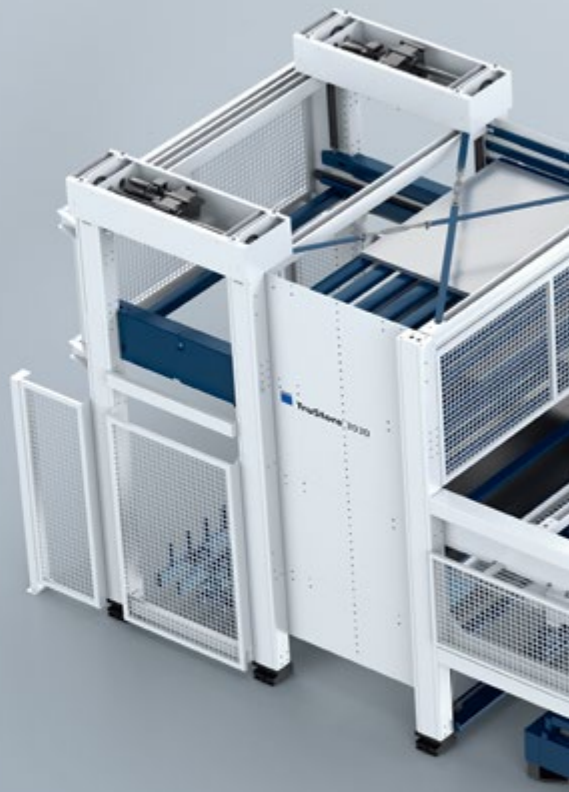
Which intelligent functions are available to you with which machine series?
This table provides you with a simple overview.

Laser type	**TruLaser Series 1000 Lean Edition**	**TruLaser Series 1000**
Active Speed Control		
AdjustLine	■	■
BrightLine fiber		■
Cutting Assistant		■
Cutting Guide	■	■
Condition Monitoring	■	■
CoolLine		■
DetectLine		■
Dot Matrix Code		■
Drop&Cut		■
Dynamic Focus Control		■
EdgeLine Bevel		■
Energy-efficient process cooler		
FlexLine		■
Highspeed		■
Highspeed Eco		■
Integrated gas mixer		■
Collision protection	■	■
Nanojoint	■	■
Online condition checking, protective glass	■	■
PierceLine	■	■
Smart Collision Prevention		■
Smart Nozzle Automation		
Smart Rerun		■

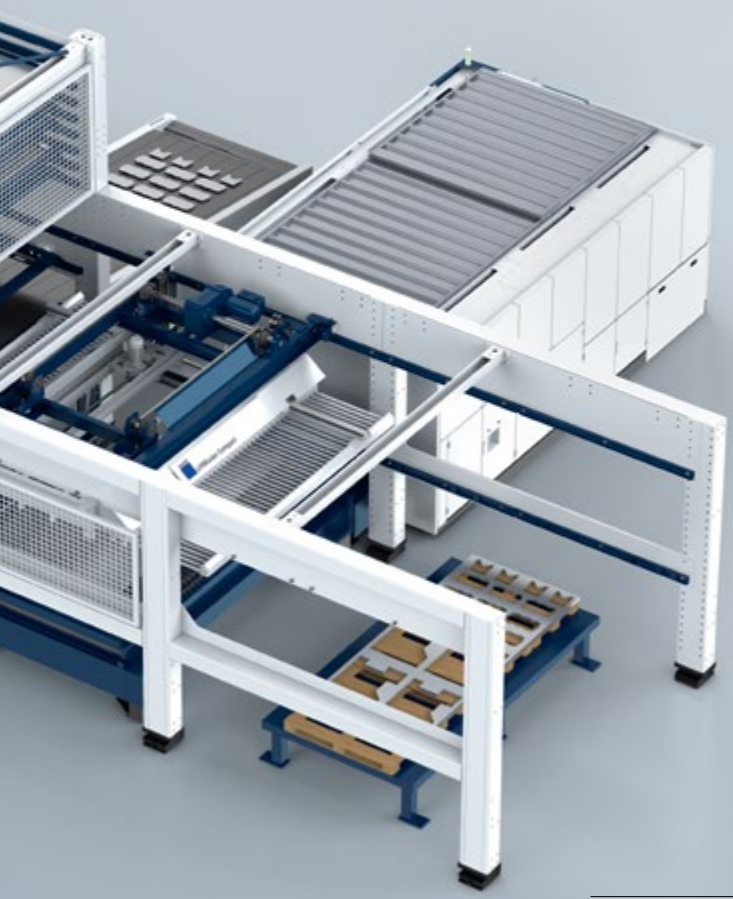
TruLaser Series 3000	**TruLaser Series 3000 Bevel Cut Edition**	**TruLaser Series 5000**
		■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■		■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
■	■	■
		■
■	■	■

Automation is worth it

Automated, your TruLaser cutting machine works even more productively. Select from a large assembly kit of modular automation components. This provides you with a solution tailored precisely to your needs, ranging from semiautomatic loading through to a fully automated machine with a storage connection.



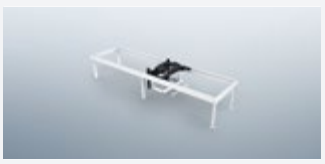
Automation functions	Loading	Loading and unloading	Loading and unloading/ part sorting
	LoadMaster	**LiftMaster Compact**	**LiftMaster**
Combinable machines			
TruLaser Series 1000	■	■	■
TruLaser Series 3000	■	■	■
TruLaser Series 5000	■	■	■



Regardless of the extent to which you wish to automate your processes: you can find the right solution for your production processes on our website and in the automation catalog: **www.trumpf.info/zqi2wh**

Loading and unloading/part sorting

Storage system

LiftMaster Linear	LiftMaster Store LiftMaster Store Linear	SortMaster	TruStore
			
■	■		■
■	■	■	■
■	■	■	■

TruLaser Center 7030

The pro – the compact all-in-one laser system.

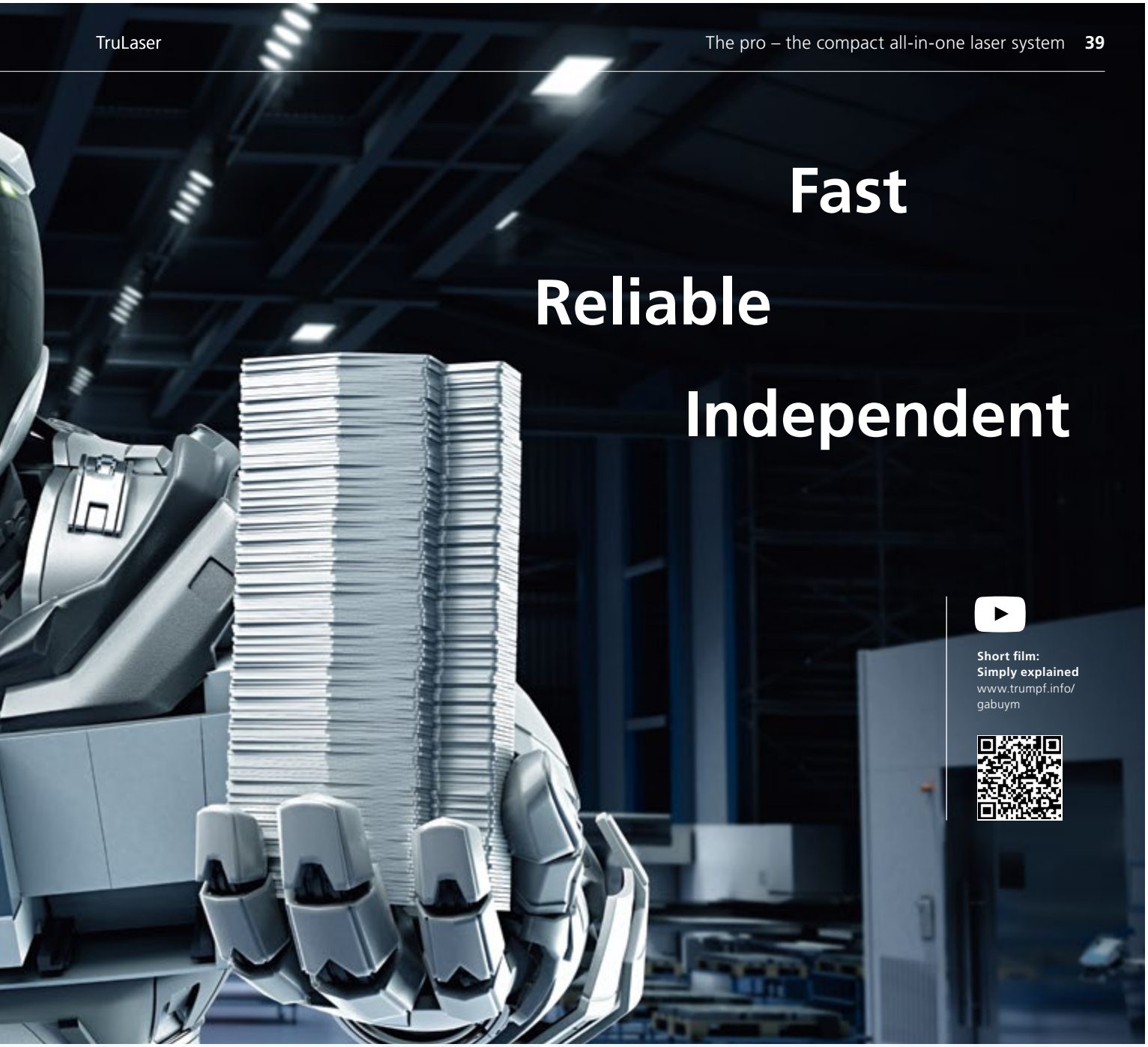
Fully automated from programming to sorting – for maximum efficiency and minimal part costs.

All laser cutting processes come together in the TruLaser Center which greatly reduces your throughput time and part costs. Reworking is no longer needed and you have excellent quality straightaway, without microjoints, without risk of collisions. One major added benefit is the automatic sorting function: Idle state due to manual sorting is now a thing of the past. The machine produces finished parts – so you can increase your number of orders without additional personnel.

Get a dynamic start
With the TruLaser Center 7030, the cutting head and sheet metal move. Thanks to an additional axis at the cutting head and overlapping axis motion, it is extremely powerful and cuts very dynamically with up to 12 kW of perfectly utilized laser power.

Reliable automation
The machine ensures reliable parts handling thanks to integrated automation. Tipping and tilting of workpieces and using microjoints are now things of the past.

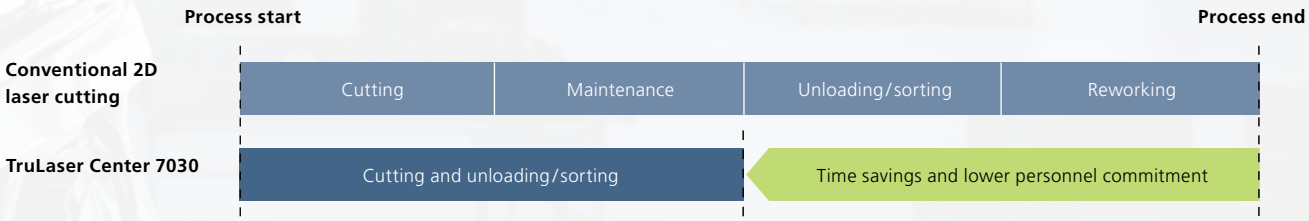
Production around the clock
When connected to a storage system, the fully automatic machine supplies itself with material and stores finished parts, which maximizes utilization. Around the clock, the machine relieves you of tiresome and monotonous work steps and thus relieves the strain on employees.



Fast
Reliable
Independent

Short film:
Simply explained
www.trumpf.info/
gabuym

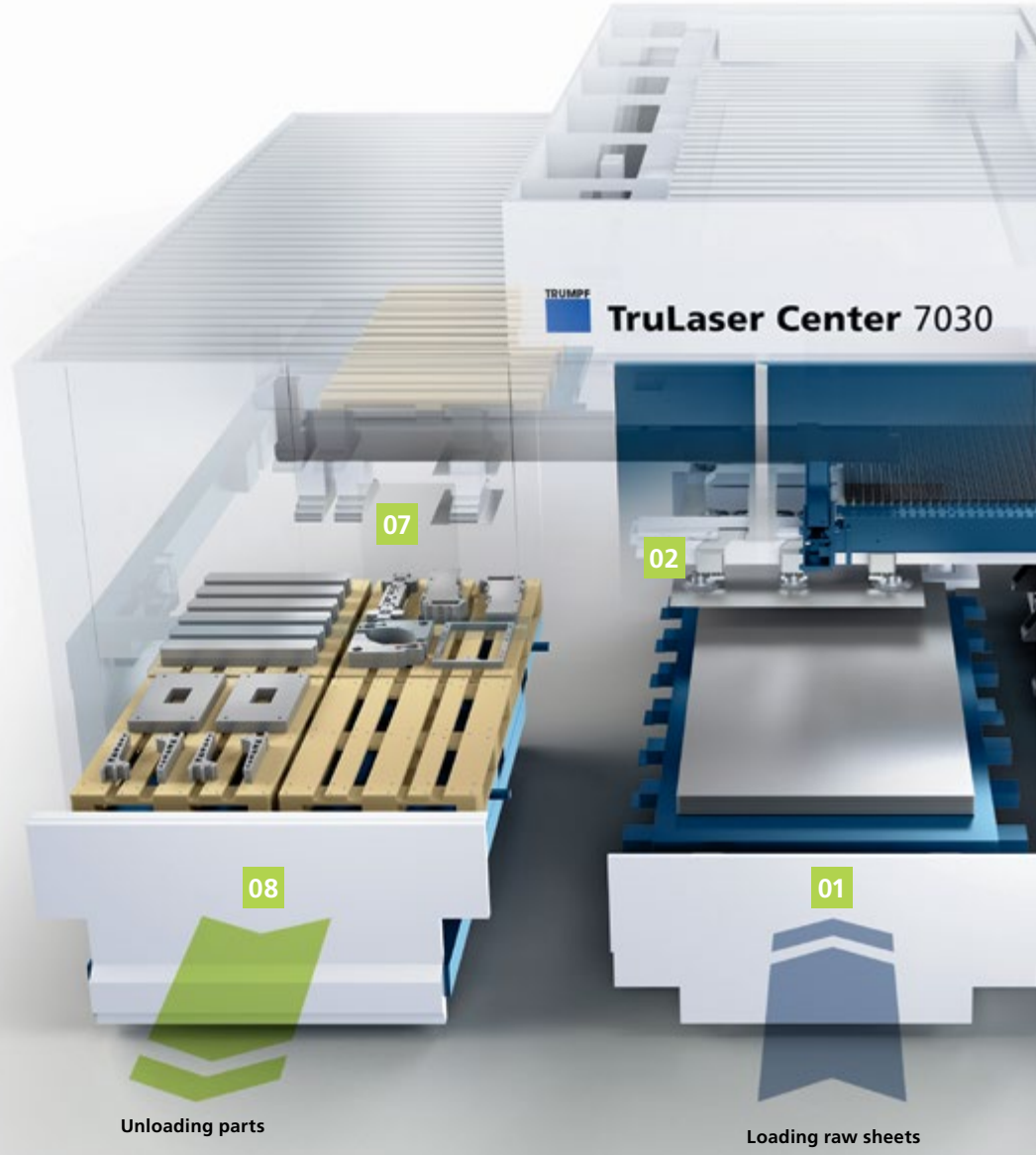
A comparison of the process steps



The result: the TruLaser Center 7030 takes care of all processes involving laser cutting safely and reliably – reducing your processing costs considerably.

Depending on the country, the available product range and data may differ from the details listed here. The technology, equipment, price and available accessories are subject to change. Please contact your local contact person to find out whether this product is available in your country.

Working in perfect harmony for your success

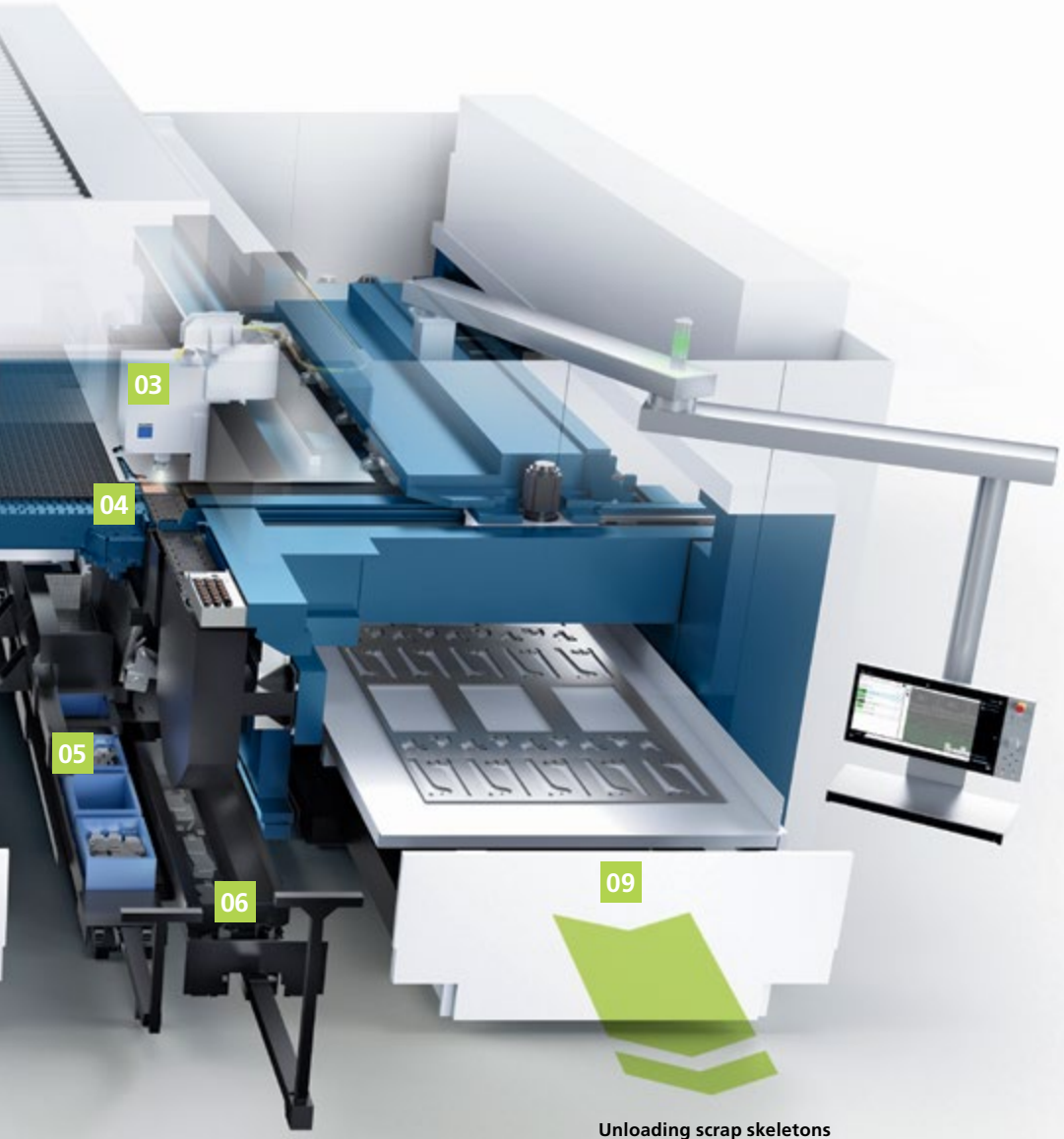


Programming an order
At the press of a button, the TruTops Boost programming system performs a fully automatic calculation for a comprehensive proposal for the cutting, removal, sorting, and depositing of your parts.

Loading raw sheets
The loading cart **(01)** can be loaded parallel to production. The LoadMaster Center **(02)** places the raw sheet on the brush table in the clamping unit. High-performance peeling techniques separate the sheet reliably from the stack.

Cutting parts
The clamping unit moves the sheet in the Y direction, the cutting unit **(03)** processes it in the X direction and also in the Y direction using a highly dynamic additional axis. The SmartGate supports the cutting process.

Anyone who wants to manufacture using laser cutting in an economical way, needs a machine in which all steps are interlinked. This is where the TruLaser Center 7030 scores with the close interaction between integrated intelligence and new automation solutions.



Unloading scrap skeletons

See for yourself:
This is how the TruLaser Center 7030 works:
www.trumpf.info/xvnp0u

Removing parts and scrap
The intelligent SmartGate **(04)** removes slugs, scrap, and small parts reliably. The sorting flap separates finished cut parts from scrap. Finished parts are sorted into eight containers **(05)**. Scrap and slugs fall into a slag cart **(06)**.

Unloading parts onto stacks
The SmartLift uses its pins to push the parts out of the scrap skeleton. The finely structured suction plates of the SortMaster Speed **(07)** remove the cut parts, and sort and stack them on the parts deposit. The suction plates and pins prevent any tilting of the parts.

Unloading finished parts and scrap skeletons
The parts **(08)** are removed from the machine, sorted, and stacked parallel to production. The clamping unit unloads the scrap skeleton onto the sheet skeleton cart **(09)**. A forklift truck can empty this unrushed while the machine is operating.

Your Smart Factory

80 %

Indirect processes make up 80% of your production time – this is where the greatest potential for saving lies.

Discover what potential networked production offers for you with two example scenarios: www.trumpf.com/s/smart-factory

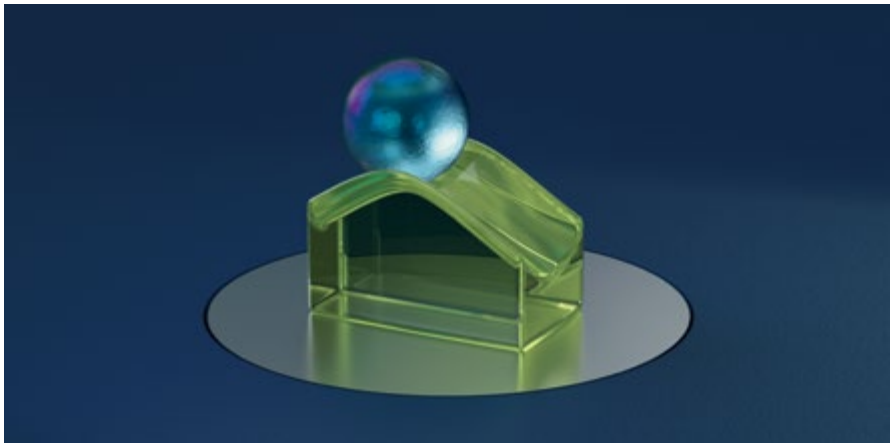
Gain more freedom with networking: You see more, know more, and get the best out of your production system. With TruConnect, the synonym for Industry 4.0 at TRUMPF, you can design your Smart Factory step by step. The pragmatic solutions from TRUMPF support you on your path towards networked production, helping you to make your entire process more transparent, more flexible, and above all more cost-effective.

For companies big and small: From the simple product solution right through to fully networked production

- **Start simply** with machines that are equipped for networking as standard.
- **Customize step by step** with automated machines or autonomous processing cells embedded in a production solution.
- **Enjoy full networking** with a continuous production solution, from order to delivery.

Production flow with Oseon

Integrate your punch laser machines into Oseon – a comprehensive solution for production and material flow control. You have an overview and control of all the relevant processes in your sheet metal processing in just one system: with Oseon, you can optimize your workflows and unleash the potential of your production.



You can find **further information** on networked production here:
www.trumpf.com/s/smart-factory

TruServices. Your Partner in Performance

For a successful future, choose services that will help you progress in the long term: Whether you want to create the best conditions for successful manufacturing, make the most of your TRUMPF laser systems, or have the flexibility to adapt them to changing requirements – together we will find opportunities to maximize your value creation long-term. We will provide you with all-round support as a reliable partner with solutions and service packages for your needs – enabling you to manufacture economically and at a constantly high level.

EMPOWER

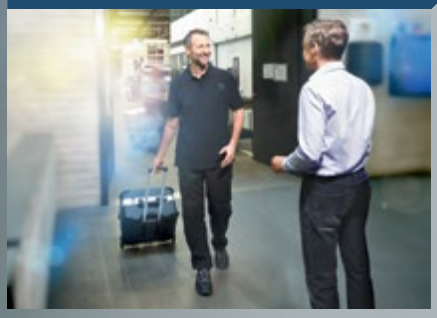
If you want to create the best conditions for successful production, we will support you in this.

Training – reach your full potential with professional development

If you are well trained, you can fully utilize the potential of your lasers, laser systems, machines and software, and secure key competitive advantages. In the laser cutting technology course, for example, you learn how to obtain the best possible cutting quality and determine piercing parameters for special materials.

SUPPORT

If flexibility and availability of equipment in day-to-day operations are essential to you, we can help.



Service app – the app for your service messages

Whether it's a technical problem, software, a spare part or a question concerning maintenance: with the Service app and your free MyTRUMPF account, you can send your service messages quickly and easily to our Technical Service team at any time.

IMPROVE

If you want to gradually focus your production on maximum value creation, we can help you achieve your goal.

Service agreements – get just the service you need

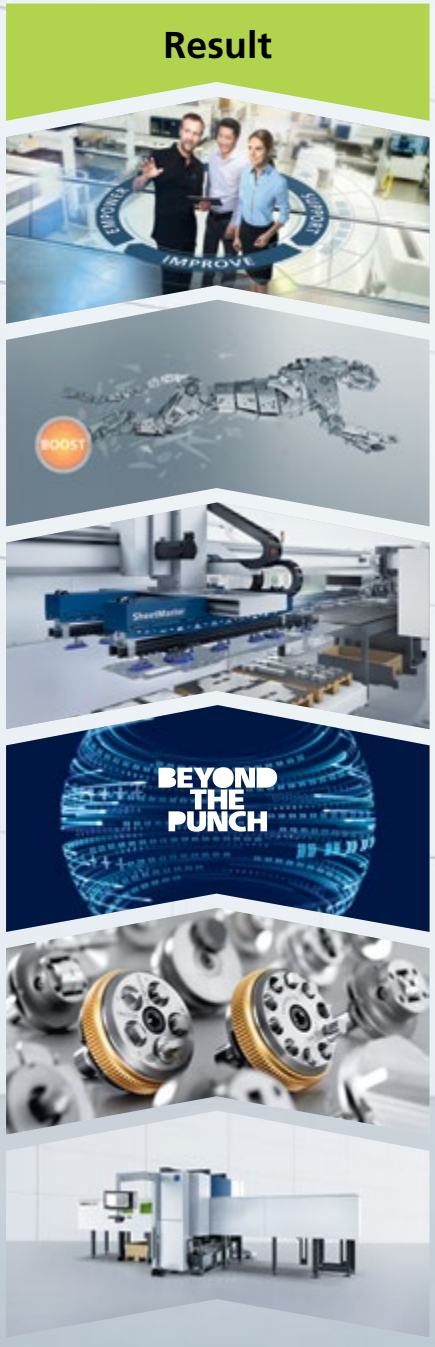
Where system maintenance and servicing are concerned, you will benefit from expert support of the highest quality. Ensure constant maximum machine availability, consistently high production quality, and low operating costs with service agreements from TRUMPF.

- Financing
- Training
- Technical Service
- Genuine parts
- Tools
- Service agreements
- Software
- Process optimization
- Monitoring & analysis
- Product enhancements
- Pre-owned machines

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

Working in perfect harmony for your success

From the machine to the laser and the optical system, to the technology data: Intelligent machine functions are based on the interaction of different components. This is why we focus on integrated solutions down to the last detail – the best basis for your success.



You have an optimally available production system.

TruServices

We are always there for you with our comprehensive range of services and a global service network.

Software

With software solutions from TRUMPF, you can optimize your manufacturing process. The TruTops Boost programming system enables you to perfectly coordinate your software and machine.

Automation

Turn your punch laser machine into a fully automated production center – using turnkey concepts and modular components from a one-stop supplier.

Process expertise

Make the most of all the advantages of punching: we support you along the entire process chain, including design, work preparation, production and optimization.

Punching tools

Always choose the right option from the world's largest range of punching tools – plus expert advice and custom-made products that work right the first time.

Machine

TruMatic machines combine the benefits of punch and laser processing. Be it a small lot size or large series: produce a wide range of parts and solve demanding tasks.

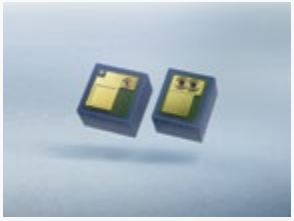
Passion is what drives us

Whether it's production and manufacturing technology, laser technology, or material processing – we develop highly innovative products and services for you which are tailored to your industry and which are absolutely proven and reliable. We put everything we've got into giving you a compelling, competitive edge: expertise, experience, and above all passion.

Check out our YouTube channel:
www.youtube.com/@TRUMPFtube

Machines & systems
Laser cutting, punching, bending, laser welding: With custom-fit machine tools, laser systems and automation from TRUMPF, you can master flexible sheet metal and tube processing. Not forgetting our solutions for additive manufacturing.

Lasers
Whether you are cutting, welding, marking or processing surfaces, lasers from TRUMPF are the universal tools for industrial applications – in the macro, micro and nano ranges. In addition, you will get software solutions and benefit from application knowledge and consulting.



VCSEL solutions & photodiodes
Laser and photodiodes from TRUMPF Photonic Components come into their own in numerous applications: in both the industrial and consumer markets and even in optical data communication. In the TruHeat VCSEL systems, millions of VCSELs (Vertical Cavity Surface Emitting Laser) generate infrared heat, which is used for laser heat treatment.

Power electronics
Nothing's hi-tech without a process power supply: With generators for plasma technology, industrial heating, battery inverter systems or microwave amplifiers, you get power at the frequency and performance you need.

Solutions for your future
Take advantage of digital networking opportunities: we partner with you on the path to networked production, delivering pragmatic, economical solutions that make your processes both more transparent and flexible.

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

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