

2 Trends TruMatic

The best of both worlds

Whether you are a puncher or laser cutter: your customers' quality requirements are on the increase. At the same time, cost pressure is on the increase and batch sizes are decreasing. It is therefore important to make precise calculations – which isn't exactly easy when a part is manufactured on several machines. Your in-house logistics is also becoming more complex. So how do you obtain an overview and reduce your costs? By combining two technologies on a single machine. This simplifies your scheduling as well as your logistics, reduces throughput time – and opens up a tremendous pool of potential orders.



"When I only operated 2D laser cutting machines, I was one of thousands. With my TruMatic, I'm a specialist in producing highly precise combined parts. I can produce these on just one machine much more precisely than I used to on several different machines."

TruMatic Trends 3



"Without combined machines, there were often problems with components requiring several formings. If we forgot a thread, for example, post-production was required. This interrupted our production processes – and didn't bring in any extra revenue either. Nowadays, cutting and threading is carried out fully automatically and accurately on a single machine."



Process parts in 3D

■ Laser processing:

Complete freedom when it comes to contours

■ Logistics:

Automated and transparent solutions

"As a result of **secondary processes** it was previously difficult for us to make **full use of our machines** around the clock. The automation functions on the punch laser machines have solved these problems for us."



TruMatic 1000 fiber	8–11
Small and clever – creates sheets of up to 6 m	m
TruMatic 3000 fiber	_12-15
The productive universal machine	
TruMatic 6000	_16–19
Its CO ₂ laser delivers best quality up to 8 mm	

TruMatic 6000 fiber	20–23
The thin sheet specialist for all materials	
TruMatic 7000	24–27
The economic high-end machine	

Automation ______28–29 Make full use of your machines

Sample calculations TruMatic

A combination that pays off

With a TruMatic machine, you combine all the benefits of punch and laser processing: The punching head reaches standard contours and formings, whereas the laser cuts more complex contours, allowing you to produce a wide range of parts and even complete challenging orders on a single machine – which definitely pays off.

Lean logistics – gain freedom

If you integrate the process steps cutting, punching and forming on a single machine, that will reduce your calculation risk and the floor space required. Reduced waiting times and workflows such as setup and handling allow you to make multiple savings – and win all the way.

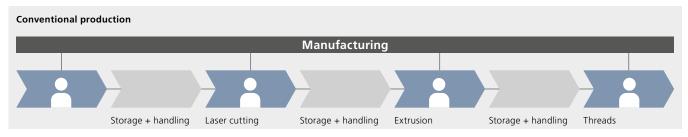
Combined processing – best quality

Combining fits or forming with laser cutting not only reduces the waste you produce, but allows you to manufacture high-precision components in a quality that wasn't possible to achieve when processing on several machines. And that pays off.

Short process chain – simple logistics

With the corresponding automation functions, your TruMatic can handle all parts fully automatically – it takes care of loading, manufacturing, sorting, stacking, unloading, and storage. There are virtually no limits to its loading and unloading capacity. Your machine therefore works round the clock as needed – and pays for itself that much sooner.

Processing on several machines or integrated in a single punch laser machine: Workflows compared



Studies have revealed that intralogistics takes up to 30% of the throughput time. The combined processing is causing this percentage to drop significantly.

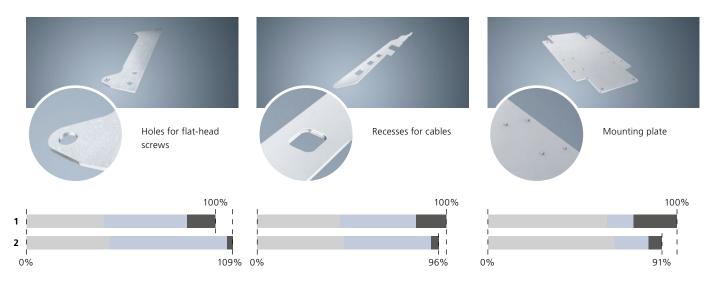


TruMatic Sample calculations

Even with just the laser cut

Laser-cut parts, produced on a 2D laser or punch laser machine

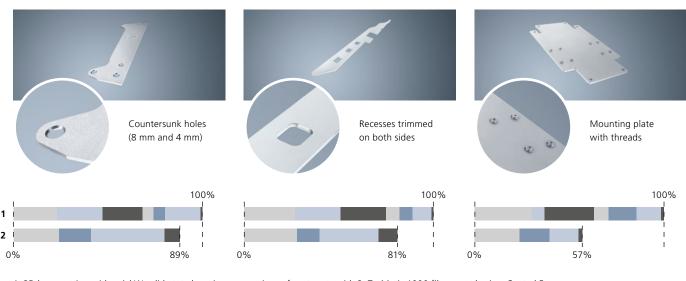
The comparison of part costs shows: Even with traditional 2D parts, the punch laser machine is able to keep up with the pure laser machine, in addition she can remove parts independently.



1: 2D laser cutting with a 4-kW solid-state laser in a comparison of part costs with 2: TruMatic 1000 fiber; cost basis = Central Europe

Parts with formed sections: processing on a punch laser machine or 2D laser machine including follow-up process steps

Parts that require additional processing steps face a risk with regard to quality, calculation and expenditure with each change of process. Therefore, the punch laser machine achieves inbeatable part costs.



Parts logistics

Setup

1: 2D laser cutting with a 4-kW solid-state laser in a comparison of part costs with 2: TruMatic 1000 fiber; cost basis = Central Europe

Process

Work preparation

6 Advantages TruMatic

An ideal strategy for your success



Machine

With the aid of the unique machine concept, the tools demonstrate their strengths as comprehensively as possible: The punching head turns them at breakneck speed to any angle you wish – offering you maximum flexibility. The construction methods used by the TruMatic also avoid interfering contours in easily accessible processing space.



Laser tool

 ${\rm CO_2}$ or solid-state laser: Your intended use determines which laser is best suited to you. For best results, laser, optics, machine and software also need to harmonize perfectly. Which is why we develop and build all lasers ourselves – and provide you with comprehensive support.

Before anyone opts for punch laser processing, they often ask: Does the technology do what it promises to do? Make the right choice: Only TRUMPF offers you 100% integration. Leading worldwide, we develop harmonious overall concepts: Laser, tool system, material flow, sorting of parts, automation and software – all the components of a TruMatic work hand in hand for your success. Benefit from the greatest experience: back in 1979, we were the first suppliers to launch this combined technology onto the market.







Punching tool

Thanks to the large number of designs, polished sections and coatings, you are equipped to fulfill any order. With up to ten punch and die inserts in a single tool, the MultiTool is a true all-round solution – it lets you punch parts with different small punched holes in next to no time. But your TruMatic can do more than simply punch: 90° angles up to 90 mm, threads, a great variety of formings and even lettering can be performed directly on the machine.



The best manufacturing partner for you

Get to know the individual TruMatic machines on the next few pages and find out which is the right partner for you.

TruMatic 1000 fiber

The laser machine at an attractive price that punches, forms and threads – using clever automation in the narrowest of spaces.



Delta Drive

allows the punching head to "fly"

02

Clever removal

of laser-cut small parts

03

Automatic

proper sorting



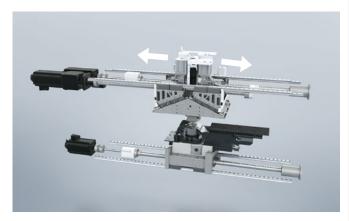
Products – TruMatic 1000 fiber
TruMatic

01

Delta Drive

allows the punching head to "fly"

Compact and dynamic – the sophisticated drive system has been completely re-devised. The patented Delta Drive negates the need for the sheet and supporting table to move in the Y axis, by allowing the punching head to move back and forth. If needed, the punching head moves to the operator and – like the entire internal space – is easily accessible.



Sophisticated: Delta Drive.





03

Automatic

proper sorting

Your machine sorts parts up to 180×180 mm in size automatically. Good parts travel along a chute into an intermediate buffer. Up to four different boxes are placed underneath the machine. The intermediate buffer arrives at the right box and deposits the parts into it. The SortMaster Compact automation also makes your machine more productive. Individually activated suction cups provide high suction cup capacity in the parts to be removed. It can apply suction to narrow tabs and small surfaces and reliably remove small parts.



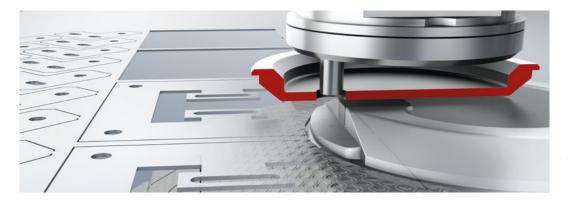
Suction cup slats with individually activated suction cups.

02

Clever removal

of laser-cut small parts

The Delta Drive uncouples punch and die, thereby enabling new punching applications. A highlight of the combined operation is the industry-safe discharge of small, laser-cut parts. The punch punches in a slightly misaligned manner, so small parts such as punched-out pieces slide along a parts chute into available boxes, rather than falling through the die into the scrap container.



The benefit to you: The machine automatically separates small parts into good parts and waste.

04

Automated unloading

of parts up to 400×600 mm

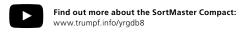
Thanks to the large parts flap, you can unload parts of up to 400×600 mm by automated means. A sensor checks whether the parts fall through the flap. It is therefore easy to remove parts during the punching and lasering process.



24%

floor space

The most compact punch laser machine in the world requires 24% less installation surface than the previous model and even automates in an extremely space-saving manner. The cleverly arranged laser protection also plays a part in this.





11		"	
Working range		Medium format	Large format
Combined processing (X×Y)	mm	2535 × 1250	3000×1500 ^[1]
Max. sheet thickness	mm	6.4	6.4
Max. workpiece weight	kg	150	230
Effective punching force	kN	165	165
Laser data			
Max. laser power	W	9	9
Mild steel	mm	3000	3000
Stainless steel	mm	6	6
Aluminum	mm	5	6
Aluminium	mm	5	5
Speeds			
C-axis punching	U/min	180	180
C-axis tapping		M2-M10	M2-M10
Maximum punching stroke rate (in increments = 1 mm)	1/min	600	600
Maximum punching stroke rate (in increments = 25 mm)	1/min	310	310
Maximum marking stroke rate	1/min	1000	1000
Tools			
Linear magazine: Number of tools/clamps	Items	17/3	21/3
Rotatability of tools		All tools 360°	All tools 360°
Tool size for punching	mm	All tools 76.2	All tools 76.2
Programmable presser foot		Yes	Yes
Tool change time	S	2.4	2.4
MultiTool (5-station) (10-station)		Tools (Ø 16 mm) (Ø 10.5 mm), can be rotated 360°	Tools (Ø 16 mm) (Ø 10.5 mm) can be rotated 360°
Accuracy: Positioning range	mm	± 0.03	± 0.03
Programmable part removal			
Size of part chute punching	mm	180×180	180 × 180
Size of part removal flap laser	mm	400×1250 ^[2]	400×1250 ^[2]

^[1]With repositioning. ^[2]Reliable removal up to a max. part size of 400 mm × 600 mm. Content subject to change without notice. Only specifications in our offer and order confirmation are binding.

TruMatic 3000 fiber

The productive punch laser machine for your sheet metal processing – forming and tapping included.



Scratch-free

thanks to descending die

Simple operation

with the new Touchpoint HMI

Automatic loading and unloading

with automation solutions



Scratch-free

thanks to descending die

The descending die enables scratch-free punching and forming processes. If required, the die can be lowered during positioning, so the sheet does not have any contact with the die – for both punching as well as higher forming dies. When forming downwards, there is no longer the risk of things getting caught.



The descending die ensures scratch-free parts.

02

Simple operation

with the new Touchpoint HMI

It can be very easy to produce punching or punch laser parts – machine operation becomes as intuitive as when using a tablet or smartphone with the new Touchpoint HMI from TRUMPF. It helps you finish the part much more quickly – and even novices will quickly learn how to work with the software.

03

Automatic loading and unloading

with automation solutions

Removal and sorting solutions for small to large parts. The SheetMaster Compact takes over the process-reliable loading of sheets as well as the unloading of microjoint sheets and scrap skeletons. The SortMaster Compact removes and sorts the parts from your punch laser machine fully automatically. Individually controllable suction cups enable optimum part removal, especially for small and complex parts. Your machine automatically sorts parts up to a size of 180 × 180 mm.



The touch display makes work pleasant and easy for the operator.



Good parts enter an intermediate buffer via a part chute.

TruMatic Products – TruMatic 3000 fiber 15

04

Dynamic and compact thanks to Delta Drive and small footprint

With the powerful, dynamic Delta Drive, the TruMatic 3000 fiber works particularly productively. It eliminates the need to move the sheet and support table on the Y-axis, ensuring high productivity and process reliability. Compared to a sheetmover machine, the new TruMatic 3000 fiber saves 25% of the installation area.



Small footprint thanks to compact design.

Technical data				
Working range	Medium format		Large format	
Combined processing (X×Y)	mm	2535 × 1250	3050×1550 ^[1]	
Max. sheet thickness	mm	6.4	6.4	
Max. workpiece weight	kg	150	230	
Effective punching force	kN	180	180	
Laser data				
Average power consumption during production	kW	8	8	
Max. laser power	W	3000	3000	
Mild steel	mm	6	6	
Stainless steel	mm	6	6	
Aluminum	mm	5	5	
Speeds				
C-axis punching	U/min	350	350	
C-axis tapping		M2-M10	M2-M10	
Maximum punching stroke rate (in increments = 1 mm)	1/min	800	690	
Maximum punching stroke rate (in increments = 25 mm)	1/min	400	400	
Maximum marking stroke rate	1/min	1000	1000	
Tools				
Linear magazine: Number of tools/clamps	Items	21/3	21/3	
Rotatability of tools		All tools 360°	All tools 360°	
Tool size for punching	mm	All tools 76.2	All tools 76.2	
Programmable presser foot		Yes	Yes	
Tool change time	S	0.3	0.3	
MultiTool (5s)		Tools (Ø 16 mm), can be rotated 360°	Tools (Ø 16 mm), can be rotated 360°	
MultiTool (10s)		Tools (Ø 10.5 mm), can be rotated 360°	Tools (Ø 10.5 mm), can be rotated 360	
Accuracy: Positioning range	mm	± 0.03	± 0.03	
Programmable part removal				
Size of part chute punching	mm	180×180	180×180	
Size of part removal flap laser	mm	400×600	400×600	

^[1] With repositioning.

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TruMatic 6000

Robust universal talent for high-quality punch laser processing. Reliable and productive, the machine delivers the best quality of parts for materials up to 8 mm thick.



Setup time

cleverly reduced

Robust process

thanks to intelligent assistance systems



18 Products – TruMatic 6000 TruMatic

01

Quality

throughout the line

From combined processing to removal of parts: With its retractable die and brush bed on tables and parts flaps, the machine processes and transports your materials easily and gently. The CO_2 laser TruFlow provides the finest quality edge.



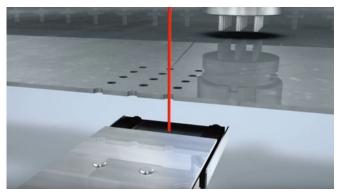
The CO₂ laser TruFlow stands for excellent quality edges.

03

Robust process

thanks to intelligent assistance systems

A variety of "smart functions" makes combined processing more reliable than ever. The machine monitors, for example, the condition of the punch and the correct positioning when loading the sheet. It is able to identify problems independently and even partially solve them – thereby aiding your operator and negating the need for additional work.



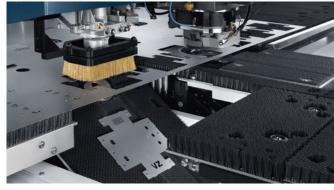
A sensor checks whether the hole was punched, thereby identifying a broken punch as soon as possible.



Setup time

cleverly reduced

The large tool capacity reduces stoppages. As a result of the one-cutting-head strategy, you can process all manner of material types and thicknesses without needing to change the cutting head. This significantly reduces non-productive time, particularly if you are working on different orders in automated mode.





With one cutting head you can process different types and thicknesses of materials.

TruMatic TruMatic 6000 – Products 19

04

Up to 8 mm

Sheet thickness

Technical data

Parts from thin to thick determine your everyday life. With the TruMatic 6000, you can process the entire bandwidth up to a sheet thickness of 8 mm.

05

Energy

used sparingly

The machine saves resources. Alternative controls for highand low-pressure systems ensure, for example, that you only use as much energy for punching as you need.

Working range	Medium forma	t	Large format		
Combined processing (X×Y)	mm	2500×1250		3050×1550 ^[1]	
Max. sheet thickness	mm	8		8	
Max. workpiece weight	kg	150			230
Effective punching force	kN	180		180	
Laser data					
Max. laser power	W	2000	27	00 3200	
Mild steel	mm	8	8	3	8
Stainless steel	mm	4	(5	8
Aluminum	mm	3	4	4	4
Speeds					
C-axis punching	U/min	330		330	
C-axis tapping		M2-M10		M2-M10	
Maximum punching stroke rate (in increments = 1 mm)	1/min	1000		900	
Maximum punching stroke rate (in increments = 25 mm)	1/min	450		430	
Maximum marking stroke rate	1/min	2800			2800
Tools					
Linear magazine: Number of tools/clamps	Items	23/2		23/3	
Rotatability of tools		All tools 360°		All tools 360°	
Tool size for punching	mm	All tools 76.2		All tools 76.2	
Programmable presser foot		Yes		Yes	
Tool change time	S	0.3		0.3	
MultiTool (5s)		Tools (Ø 16 mm), can be ro	tated 360°	Tools (Ø 16 mm), can be rotated 360°	
MultiTool (10s)		Tools (Ø 10.5 mm), can be rotated 360°		Tools (Ø 10.5 mm), can be rotated 360°	
Accuracy: Positioning range	mm	± 0.03		± 0.03	
Programmable part removal					
Size of part removal flap punching	mm	500×500		500×500	
Size of part removal flap laser	mm	500×500		500×500	

^[1] With repositioning.

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TruMatic 6000 fiber

This specialist in thin sheets processes the complete range of materials in a highly productive manner – from steel to aluminum to highly reflective materials such as copper or brass. Another advantage is that the machine is perfectly accessible.



34 m per minute

rapid cutting

01

02

Processes

cleverly thought out

03

Automation

minimizes downtimes



22 Products – TruMatic 6000 fiber TruMatic

01

34 m per minute

rapid cutting

Process sheets extremely quickly: In thin sheet with cutting speeds of up to 34 m/min. Using the TruMatic 6000 fiber allows you to produce day and night in a highly productive manner – with the best energy efficiency thanks to solid-state lasers.



Processes

cleverly thought out

The productive machine combines particularly reliable processes with a large degree of versatility. Its well thought out casing allows you to see into the machine and offers ultimate accessibility even when the solid-state laser is working at full power. Whether tool automation, grid residue removal, SortMaster Box or conveyor belts – the operator reaches all areas.



Quality

that convinces

It meets the high requirements you place on a gentle punch laser processing with extended forming options downwards: The retractable die. Brush beds and parts flaps covered in brushes are gentle to your materials all round.



If necessary, the die pushes downwards, thereby preventing contact between the sheet table and die.



Automation

minimizes downtimes

Thanks to specific safety equipment, you can load automation components such as the SheetMaster and ToolMaster as standard and set up whilst your machine cuts or punches. The one-off concept reduces your downtimes and increases your profit.



Clever: Even with casing, the machine is extremely accessible.

TruDisk

versatile and energy-efficient

Process the entire range of materials using the energy-efficient solid-state laser TruDisk.



By using nitrogen, you can even cut copper and brass with clean cutting edges.

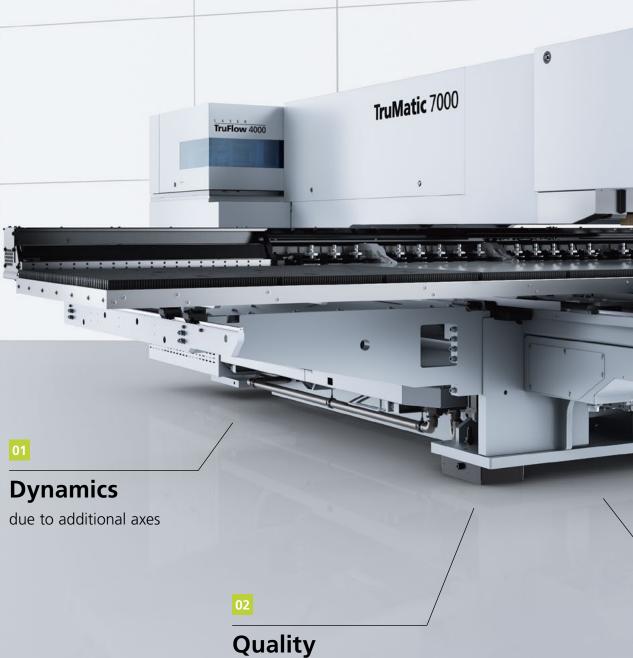
Technical data				
Working range		Medium format	Large format	
Combined processing (X×Y)		2500×1250	3050×1550 ^[1]	
Max. sheet thickness	mm	6.4	6.4	
Max. workpiece weight	kg	150	230	
Effective punching force	kN	180	180	
Laser data	,			
Max. laser power	W	300	00	
Mild steel	mm	6		
Stainless steel	mm	6	;	
Aluminum	mm	5	i	
Speeds				
C-axis punching	U/min	330	330	
C-axis tapping		M2-M10	M2-M10	
Maximum punching stroke rate (in increments = 1 mm)	1/min	1000	900	
Maximum punching stroke rate (in increments = 25 mm)	1/min	450	430	
Maximum marking stroke rate	1/min	2800	2800	
Tools				
Linear magazine: Number of tools clamps	Items	23 3	22 3	
Rotatability of tools		All tools 360°	All tools 360°	
Tool size for punching	mm	All tools 76.2	All tools 76.2	
Programmable presser foot		Yes	Yes	
Tool change time	S	0.3	0.3	
MultiTool (5s)		Tools (Ø 16 mm), can be rotated 360°	Tools (Ø 16 mm), can be rotated 360°	
MultiTool (10s)		Tools (Ø 10.5 mm), can be rotated 360°	Tools (Ø 10.5 mm), can be rotated 360	
Accuracy: Positioning range	mm	± 0.03	± 0.03	
Programmable part removal				
Size of part removal flap punching	mm	500×500	500×500	
Size of part removal flap laser	mm	500×500	500×500	

^[1] With repositioning.

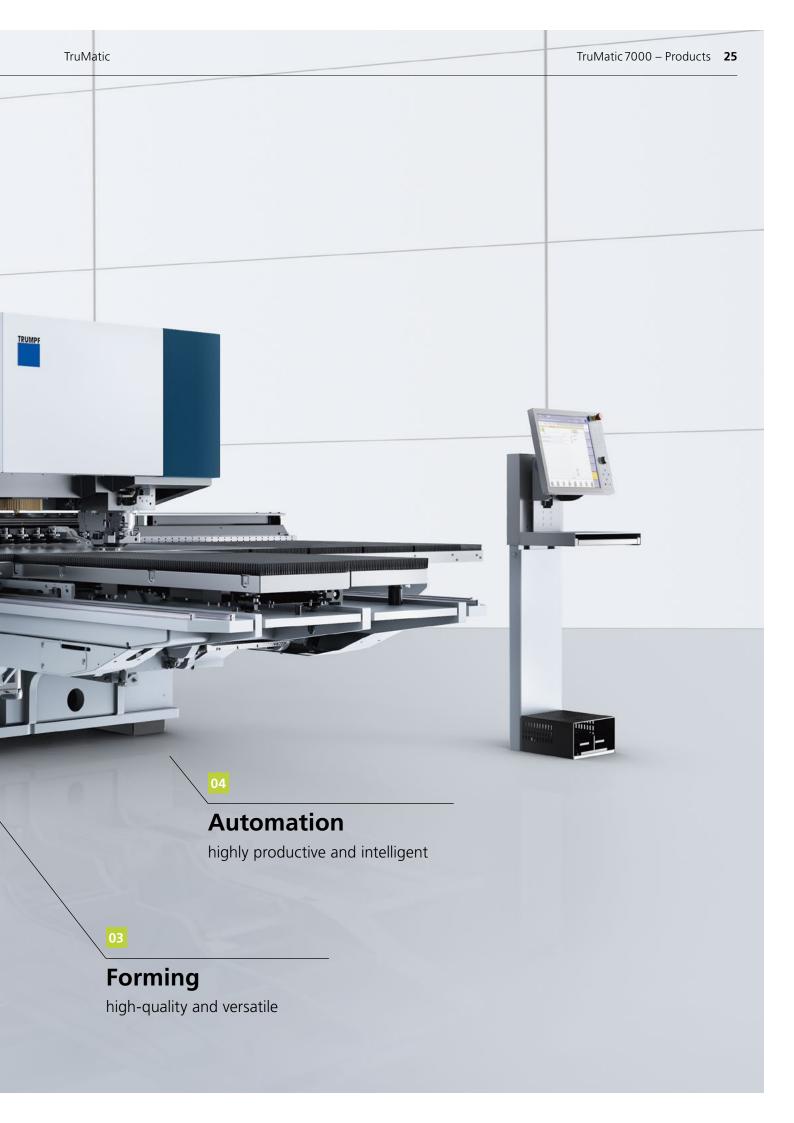
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TruMatic 7000

Productive high-end machine combining the benefits of punch and laser processing while maximizing value for money.



reliable and convincing



26 Products – TruMatic 7000 TruMatic

01

Dynamics

due to additional axes

The TruMatic 7000 is an extremely fast and dynamic machine, particularly if there are frequent changes of direction. Even with delicates, small parts and corners, it plays off its strengths and cuts quickly and economically.



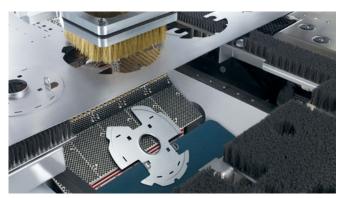
You can even cut small parts and corners in an extremely dynamic manner.

02

Quality

reliable and convincing

From combined processing to parts disposal: Due to the descending die, brush tables, and part removal flaps, the machine processes and transports your material particularly gently. The $\rm CO_2$ laser TruFlow provides a high-quality edge without flash.



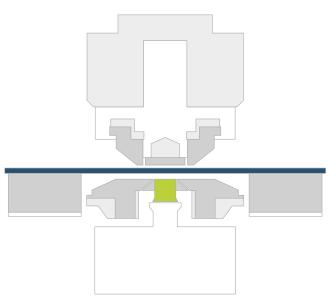
Brush beds gently remove your parts.

03

Forming

high-quality and versatile

The active die ensures the best possible part quality, as it can move both up and down. This enables you to produce previously unheard of sizes and heights – all while increasing your added value by offering complete processing of parts. At the same time, the downward travel motion prevents scratches.



The active die increases your added value.

04

Automation

highly productive and intelligent

Together with the SheetMaster and ToolMaster, the TruMatic 7000 becomes a really fast and reliable solution. The dynamic SheetMaster, for example, unloads up to four parts simultaneously, possesses a flexible suction device positioner and an additional longitudinal axis. What's more, the one-cuttinghead strategy and nozzle changer mean your machine is also ready for running in automated mode.

TruMatic 7000 – Products 27



Together with the SheetMaster and ToolMaster, the TruMatic 7000 becomes a fully automated solution that can run around the clock.

Technical data					
Working range		Medium format	Large format		
Combined processing (X×Y)	mm	2500 × 1250	3050 × 1550 ^[1]		
Max. sheet thickness	mm	8	8		
Max. workpiece weight	kg	200	280		
Effective punching force	kN	220	220		
Laser data					
Max. laser power	W	4000			
Mild steel	mm	8			
Stainless steel	mm	8			
Aluminum	mm	6			
Speeds					
C-axis punching	U/min	500	500		
C-axis tapping		M2 – M10	M2-M10		
Maximum punching stroke rate (in increments = 1 mm)	1/min	1200	1200		
Maximum punching stroke rate (in increments = 25 mm)	1/min	540	540		
Maximum marking stroke rate	1/min	3000	3000		
Tools					
Linear magazine: Number of tools clamps	Items	22 3	21 4		
Rotatability of tools		All tools 360°	All tools 360°		
Tool size for punching	mm	All tools 76.2	All tools 76.2		
Programmable presser foot		Yes	Yes		
Tool change time	S	0.3	0.3		
MultiTool (5s)		Tools (Ø 16 mm), can be rotated 360°	Tools (Ø 16 mm), can be rotated 360°		
MultiTool (10s)		Tools (Ø 10.5 mm), can be rotated 360°	Tools (Ø 10.5 mm), can be rotated 360°		
Accuracy: Positioning range	mm	± 0.03	± 0.03		
Programmable part removal					
Size of part removal flap punching	mm	500×500	500×500		
Size of part removal flap laser	mm	500×500	500×500		
Additional axes for the highest dynamics					
X parallel high speed axis Xp		Yes	Yes		
Y parallel high speed axis Yp		Yes	Yes		

^[1] With repositioning.

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Earn more automatically

Automated, your TruMatic works even more productively – round the clock if necessary. The special thing about it is: You can upgrade any automation components at any time, as TRUMPF machines are designed in such a way that they literally grow with your tasks.



Loading and unloading

With the SheetMaster Compact, you can load raw sheets or pre-cut parts in an automated and reliable manner. You can also unload microjoint tables and scrap skeletons easily and safely.

Loading and unloading + sorting

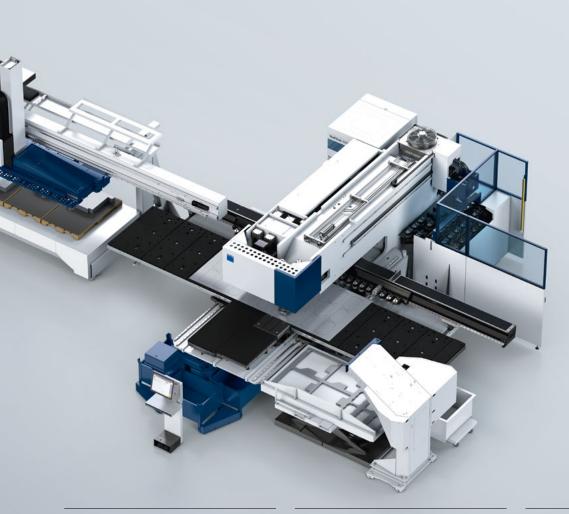
The SheetMaster doesn't just load and unload your machine, it also sorts the parts reliably.

Sorting

The SortMaster Box and the SortMaster Box Linear sort small parts by automated means. With the SortMaster Compact you can sort parts and stack them.

Potential Machines	SheetMaster	SheetMaster Compact	Cart systems	SortMaster Palett	SortMaster Box
	2		- 500		
TruMatic 1000 fiber					
TruMatic 3000 fiber		•			
TruMatic 6000	•		•	•	•
TruMatic 6000 fiber	•		•	•	•
TruMatic 7000			•		

TruMatic Automation 29





Disposal

With the GripMaster and SheetMaster Compact, you can keep a firm handle on scrap skeletons and remainder strips. The ShearMaster disposes of scrap in handy strips.

Changing tools

Automated, your TruMatic changes tools quickly, safely and comfortably – with the ToolMaster, the ToolMaster Linear or a tool changer integrated in the SheetMaster.

Storage connection

With the right storage system, you can simplify the material transfer and production process. Utilize your machines more effectively and save space, time and money.

Sorting function	SortMaster Compact	GripMaster	ShearMaster	Tool changer	TruStore and Large storage
				■ [1] or [2]	
				■ ^[1] or ^[2]	
				[3]	

^[1] SheetMaster with integrated tool changer.

^[2] ToolMaster.

^[3] ToolMaster Linear.

30 Services TruMatic

TruServices. Your partner in performance

Your TruMatic machine has been designed for high performance. If you wish your future to be a success, capitalize on services that you wish to advance long-term, too – and together we will find opportunities to maximize your added value long-term. In us, you will find a reliable partner who will provide you with all-round support, with tailor-made solutions and service packages – enabling you to manufacture economically and at a constantly high level.



SUPPORT

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

IMPROVE

If you want to gradually focus your manufacturing on maximum value creation: we will work together to reach your goal. TruMatic Your partner 31

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.





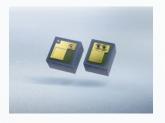
Machines & systems

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.



YouTube channel: www.youtube.com/ @TRUMPFtube



