



# Combining forces to achieve success.

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TruMatic machines combine all the benefits of punching and laser processing. They enable you to produce a broad range of parts and handle even the most challenging jobs successfully. The punching head performs standard contouring and forming tasks, while complex contours are cut by the laser.

In 1979, TRUMPF became the first company to offer this combined technology to its customers. We have been building our own lasers for the industrial manufacturing industry since 1985 and have steadily established ourselves as a world leader in this sector.

#### TruMatic: Benefits at a glance.

- 1 Enhancing your capabilities through a mix of technologies.
- 2 Standard contouring and forming tasks are performed by the punching head.
- The laser produces high-quality results for flowing and irregular contours.
- 4 Exceptional part quality.
- Reduced non-productive times thanks to the one-cutting-head strategy.





#### TruMatic 3000 fiber

**Compact thin-sheet-processing machine.** This highly versatile machine enables the profitable processing of thin sheets and the cost-effective entry into laser welding.



#### TruMatic 6000

**Robust universal machine.** This machine masters every task with reliability and productivity – and its whole performance can be activated quickly and simply.



#### TruMatic 6000 fiber

**Productive thin-sheet-processing machine.** From steel to aluminum to highly reflective materials such as copper or brass: with its solid-state laser, the thin-sheet specialist processes the complete range of materials with high productivity.



#### TruMatic 7000

**Productive high-end machine.** Dynamic, scratch-free and fast – this top-rated combination machine fulfills the most stringent requirements with regard to productivity and part quality.

### Profiting from versatility.

Standard contouring and forming tasks are performed by the punching head.



In addition to punching holes, you can produce three-dimensional contours such as brackets, threads and other forms. The electro-hydraulic punching head takes complete charge of processing your parts, eliminating the need for most downstream processing steps. Other benefits include:

- Versatile and cost-efficient thanks to 360° tool rotation.
- Produces a wide range of forms.
- High-speed processing.
- Top-notch punch contours.
- Fast changeover times.

The laser produces high-quality results for flowing and irregular contours.



Nothing beats lasers when it comes to cutting high-grade outer contours and intricate inner contours. With the slimline laser head of a TruMatic, you can cut right next to formed areas – or even cut on top of them. ControlLine maintains a constant distance between the sheet and the cutting nozzle, resulting in a highly reliable process for fabricating even the most unusual geometries.

- Our lasers provide extraordinary versatility.
- Excellent cut quality.
- Sheets up to 8 mm thickness.
- Intricate contours.
- Our lasers are extremely energy-efficient.

#### Stable yet easily accessible.



All TruMatic machines are manufactured in an open C-frame design which gives you access to both the machine and the workpiece from three sides. With this configuration there is plenty of room for both manual and automated loading and unloading. Our machines are extraordinarily stable, ensuring high levels of accuracy and a long service life.

- Machine is easily accessible from three sides.
- High accuracy levels.
- High-speed unloading through parts chute.
- Modular automation.

## Intelligent punching.



The wear-free ram guidance system combined with the mechanism that actively retracts the punch ensures accurate results and maximum process reliability.



Thanks to 360° rotation, you can punch at whatever angle you like.

#### Versatile and cost-efficient thanks to 360° tool rotation.

Tools fit snugly into the punching head. One of the greatest advantages of the head design is that it can rotate any tool to the angle that is required, regardless of the tool's shape, size or position in the magazine.

#### Benefits of 360° rotation at a glance.

- Ability to position tools at any angle.
- More efficient use of materials thanks to versatile sheet layout.
- Lower number of necessary tools.
- Fast changeover times.
- Lower tool investment is necessary.

### Punching tools and accessories.

#### Wide selection of high-quality punching tools.

For over 40 years, TRUMPF has been providing its customers with top-quality punching tools and much more besides. No matter what challenges you face, we can offer you a range of support – from technical consulting to design assistance, right on to the prompt delivery of your tools.

- Punching tools: Within our leading tool system, Classic, we offer a wide range of shapes and coatings as well as free punch shears. With EasyUse in the standard equipment offer, easy setup is guaranteed.
- Slitting tools: Simple separation contours, the cutting of formed areas or visible edges without nibbling marks can all be performed flexibly and inexpensively.
- Forming tools: By forming the sheet plastically you can do a variety of forming operations. TRUMPF tools enable you to perform the complete processing spectrum reliably on one machine. A very high processing speed and part quality without any visible forming marks can be achieved

- by using roller technology. Furthermore, we also offer you the appropriate solution for specialized applications such as deburring.
- Embossing and marking tools: Whether you are looking to inscribe serial numbers, the year of manufacture or your corporate logo, we can provide the tools you need for fast and efficient marking.
- Tooling accessories: Make set-up and maintenance easier and increase the service life of your tools. Achieve optimal results with precisely calibrated and perfectly sharpened tools.



Slitting tool MultiShear.





Roller deburring tool.

#### TruMatic 7000

#### Productive high-end machine.

The TruMatic 7000 combines the advantages of punching and laser processing in an extremely cost-efficient package. It provides a fast and reliable process for fabricating scratch-free combination parts. In addition, the active die offers you highly versatile forming capabilities.

#### Intelligent automation.

A SheetMaster designed to cater to the top-notch performance of the TruMatic 7000 is available as an extra. It is extremely dynamic, reliable and versatile:

- Achieve high productivity with its dynamic operation and simultaneous unloading of up to 4 parts.
- Maintain superior process reliability with its versatile suction positioning and additional laser axis.
- Automated operation possible with the one-cuttinghead strategy and the nozzle changer.

#### TruMatic 7000: Benefits at a glance.

- Highly dynamic solution.
- **2** Scratch-free punching and laser processing.
- 3 Unique forming capabilities.
- Fast-action parts chute for unloading combination parts.
- 5 Efficient and powerful automation.

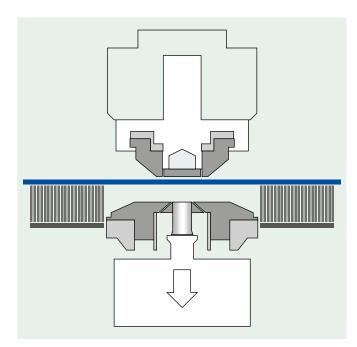


 $\label{thm:continuous} {\sf TruMatic~7000~with~SheetMaster}.$ 

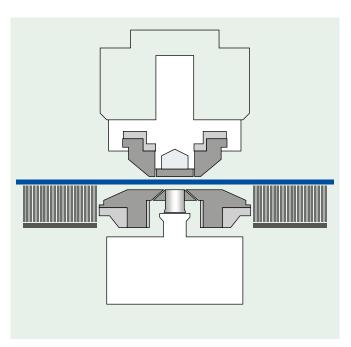
Active die: quality in a new dimension.

- **Scratch-free processing:** Move your sheet into position for punching and forming without scratching.
- Advanced forming capabilities: The active forming stroke from below enables you to achieve entirely new sizes and heights.
- **Optimized process reliability:** Reduces the risk of snagging or catching when cutting out large internal sections.
- More efficient use of materials: Significantly minimizes the clamp dead area during forming, which results in material savings.

- **More user-friendly:** Your machine is programmed more easily, quieter and requires less tool maintenance.
- Option "Integrated flattening": You produce flat parts without needing to post-process even with formed areas.
- **Option "Marking from below":** You mark the underside of the sheet quickly and without complication.



Scratch-free sheet positioning with the active die.



Sheet positioning with a conventional die.



| Tackatical |                 |
|------------|-----------------|
| recrimical | specifications: |

|   | TruMatic 7000 medium format | TruMatic 7000<br>large format |  |  |  |
|---|-----------------------------|-------------------------------|--|--|--|
| Work area (X x Y)                           | Work area (X x Y)           |                               |  |  |  |
| Combined punch/<br>laser operation          | 2500 x 1250 mm              | 3050 x 1550 mm <sup>[1]</sup> |  |  |  |
| Punching operation                          | 2500 x 1250 mm              | 3050 x 1550 mm                |  |  |  |
| Laser operation                             | 2500 x 1250 mm              | 3050 x 1550 mm                |  |  |  |
| Capacity                                    |                             |                               |  |  |  |
| Laser power                                 | 2700 / 3200 / 4000 W        | 2700 / 3200 / 4000 W          |  |  |  |
| Max. sheet thickness                        | 8 mm                        | 8 mm                          |  |  |  |
| Max. punching force                         | 220 kN                      | 220 kN                        |  |  |  |
| Active presser foot (programmable in steps) | 4.5 – 20 kN                 | 4.5 – 20 kN                   |  |  |  |
| Max.<br>workpiece weight                    | 220 kg                      | 280 kg                        |  |  |  |
| Speed                                       |                             |                               |  |  |  |
| X axis                                      | 100 m/min                   | 100 m/min                     |  |  |  |
| Y axis                                      | 60 m/min                    | 60 m/min                      |  |  |  |
| Simultaneous (X and Y)                      | 116 m/min                   | 116 m/min                     |  |  |  |

| Speed                                     |
|---|
| C axis (punching)                         |
| C axis (tapping)                          |
| Max. stroke rate (punching)<br>(E = 1 mm) |
| Max. stroke rate (marking)                |
| Tools                                     |
| Linear magazine                           |
| No. with MultiTool                        |
| MultiTool                                 |
| Tool change time                          |
| Accuracy <sup>[2]</sup>                   |
| Positioning accuracy Pa                   |
| Repeatability Ps                          |



| TruMatic 7000<br>medium format | TruMatic 7000<br>large format |
|--------------------------------|-------------------------------|
|                                |                               |
| 330 rpm                        | 330 rpm                       |
| 330 rpm                        | 330 rpm                       |
| 1200 1/min                     | 1200 1/min                    |
| 2800 1/min                     | 2800 1/min                    |
|                                |                               |
| 22 tools<br>with 3 clamps      | 21 tools<br>with 4 clamps     |
| 22 – 220                       | 21 – 210                      |
| 5/10 station                   | 5/10 station                  |
| 0.3-2.8 s                      | 0.3-2.8 s                     |
|                                |                               |
| ± 0.10 mm                      | ± 0.10 mm                     |
| ± 0.03 mm                      | ± 0.03 mm                     |

|                                    | TruMatic 7000 medium format | TruMatic 7000<br>large format |  |
|------------------------------------|-----------------------------|-------------------------------|--|
| TRUMPF CNC control                 | Rexroth IndraMotion<br>MTX  | Rexroth IndraMotion<br>MTX    |  |
| Programmable chute                 |                             |                               |  |
| Max. part size for punch and laser | 500 x 500 mm                | 500 x 500 mm                  |  |
| Dimensions <sup>[3]</sup>          |                             |                               |  |
| Space requirements                 | 8000 x 6700 mm              | 8070 x 7650 mm                |  |
| Height                             | 2500 mm                     | 2500 mm                       |  |
| Weight                             | 24100 kg                    | 24100 kg                      |  |
| [1] With repositioning             |                             |                               |  |

<sup>[1]</sup> With repositioning.

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

<sup>&</sup>lt;sup>[2]</sup> Achievable workpiece accuracy depends on various factors, including workpiece type, its pretreatment, sheet size and position within the work area. In accordance with VDI/DGQ 3441. Measuring length 1 m.

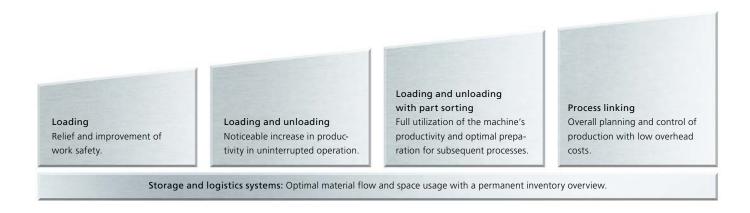
<sup>[3]</sup> Approximate values. Exact specifications can be found in the most recent installation plan.

#### Automation:

# Components that pay off.

#### Profitable and efficient production with automation options from TRUMPF.

Automated machines support the material flow, increase process reliability and enhance productivity. TRUMPF's multi-stage concept offers automation that meets your individual needs – all the way through to completely automated production. The solutions come from a single source and are perfectly tailored to TRUMPF machines.



|                      | SheetMaster | Cart systems | SortMaster Pallet | SortMaster Box |
|----------------------|-------------|--------------|-------------------|----------------|
|                      |             |              |                   |                |
| Compatible machines: |             |              |                   |                |
| TruMatic 3000 fiber  | -           | •            |                   |                |
| TruMatic 6000        |             |              |                   |                |
| TruMatic 6000 fiber  |             |              |                   |                |
| TruMatic 7000        |             |              |                   |                |

<sup>[1]</sup> SheetMaster with integrated tool changer [2] ToolMaster

**SheetMaster:** Fast and reliable loading and unloading, stacking and sorting.

**Cart systems:** Double your loading and unloading capacity by deploying versatile storage and sorting solutions for raw materials and finished parts. Solutions with tracks and belt drives are available.

**SortMaster Pallet:** Sort and stack finished parts on up to six europallets.

**SortMaster Box:** Sort finished parts into four standardized, stackable containers.

**GripMaster:** Fast and reliable removal and stacking of sheet skeletons parallel to the loading process.

**ShearMaster:** Shredding of sheet skeletons during machining operations minimizes process costs in the manufacturing environment.

**Tool changer:** The ToolMaster can load tools particularly fast and expands your capacity by up to 70 tool stations. The SheetMaster with an integrated tool changer offers 40 additional tool stations and a gripper integrated in the suction frame which automatically loads tools onto the linear magazine of the machine.

**TruStore:** Modular and upgradable storage and shelving system provides a well-organized, space-saving storage solution.

**Large Storage Systems:** For special requirements we also offer highly customizable storage solutions in cooperation with our partner, Stopa.

| GripMaster | ShearMaster | Tool changer | TruStore | Large Storage Systems |
|------------|-------------|--------------|----------|-----------------------|
|            |             |              |          |                       |
|            |             |              |          |                       |
|            |             |              |          |                       |
|            |             | <b>[</b> 1]  |          |                       |
|            |             | [1] or [2]   |          |                       |
|            |             | [2]          |          |                       |

#### Software:

### Programmed for success.



TruTops Boost takes you faster than ever from the geometry to the NC program.

TRUMPF's TruTops Boost is the software solution for designing and programming laser, punching and bending machines that lets you increase your performance at the touch of a button. The software combines all order processing steps, from the geometry through to the completed NC program, in a single all-in-one solution. Its intuitive operating philosophy guides you through the software in a simple, process-oriented manner while allowing you to keep an overview of your orders. Thanks to its numerous automated functions, the innovative Boost technology also makes you unbeatably fast. With it, you become more profitable and boost your business!

Talk to your TRUMPF contact to find out when TruTops Boost will be available to you. Until then, our TruTops Punch software can offer you optimum support. We recommend our TruTops Fab software as the ideal production control system for your requirements.

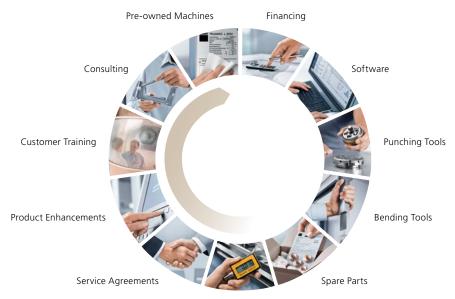
TruTops Boost: Your benefits at a glance.

- From geometry to NC program faster than ever before.
- Everything monitored: Single software solution for all order processes.
- Everything under control: Intuitive user interface supports flexible working.
- Everything faster: Boost technology with productive automated functions.
- Innovative Boost technology + new operating philosophy = TruTops Boost

TruServices:

Service like no other.

#### Throughout the lifecycle of your machine.



Technical Service

Regardless of the TRUMPF technology you use, you will always get the best service. Thanks to the award-winning spare parts logistics at TRUMPF, we guarantee the highest availability of spare parts and provide you with all the products in the shortest time. TRUMPF offers you individual financing solutions quickly and without a lot of paperwork. Our service technicians are highly trained and always available when you need them. A Service Agreement is the ideal way of ensuring the highest availability of your machine. Should your requirements change,

we have flexible upgrading options and technical innovations that will make your machine even better. Our broad range of training courses with experienced trainers and hands-on practice will also give you a head start in understanding and operating your machine.

The TRUMPF Group ranks among the world's leading manufacturers of production technology and industrial lasers. Technical and efficient solutions for our customers have been our focus since 1923. As a leading technology supplier, TRUMPF is a one-stop shop for all of your technology needs: machines, automation, storage technology and services.



