TruLaser Center 7030

The first full-service laser machine
**Makes short work of long processes**

This full-service machine manages your entire process with ease: It simply takes care of everything, from the drawing to the sorted part. The result: Your throughput times drop dramatically.

**A new way of thinking**

Higher cutting speed, higher laser power, higher cut quality: That’s what innovation in the 2D laser cutting field has focused on over the last 30 years. While machines grew ever faster, this increase had an ever smaller effect on throughput rates. Waiting times and labor-intensive downstream activities stood as obstacles in the way to the ideal result\(^1\). That’s why we have taken the entire laser machining process back to the drawing board, and developed a revolutionary machine concept that unites productivity and process reliability.

**Get off to a flying start**

In contrast to the classical 2D laser machine, the TruLaser Center 7030 moves both the cutting head and the sheet. Thanks to an additional axis on the cutting head, the machine achieves outstanding cutting dynamic values. The result is superimposed axis movements, which give the machine an extremely high performance. The new support concept means brush tables and intelligent automation combine to ensure reliable parts handling. The tipping of workpieces, their getting caught up in the skeleton, and the need to use microjoints are all now a thing of the past. This opens up whole new possibilities for the processing of very small and intricate parts.
**Profitable production**

The TruLaser Center 7030 integrates all of the steps into one process. Your benefit: Your throughput time and processing costs drop drastically. This way, you get the optimal profitability out of your laser machining process.

**Comparison of throughput times:**

<table>
<thead>
<tr>
<th></th>
<th>0%</th>
<th>100%</th>
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</thead>
<tbody>
<tr>
<td>Conventional 2D laser cutting</td>
<td>Cutting</td>
<td>Waiting</td>
</tr>
<tr>
<td>TruLaser Center 7030</td>
<td>Cutting and unloading/sorting</td>
<td>53% throughput times 2)</td>
</tr>
</tbody>
</table>

**The result: Processing costs drop by 30%**

2) Compared to an automated solid-state laser machine; two-shift operation; from the raw sheet to the sorted part, ready for further processing.
The perfect interaction 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.
TruLaser Center 7030
The perfect interaction for your success

Whoever wants to make money with laser cutting must take the whole process into consideration. TruLaser Center 7030 was created to achieve just that: We scrutinized all of our components, utterly rethought them, and integrated them in a machine.

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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 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.
Leaves behind the fundamental dilemma of laser processing
Reliable or fast? The TruLaser Center 7030 nullifies for the very first time the classic conflict of laser processing. This full-service machine guarantees process reliability thanks to its integrated intelligence, for example, with the SmartGate, SmartLift and SortMaster Speed. The novel machine concept with its additional axis and superimposed axis movement provide revolutionary productivity.

Reliable cutting and removal of parts

**SmartGate:**
Comprehensive part support

The SmartGate along with the brush table prevent the tilting and unwanted welding of parts. The intelligent support system moves along with the cutting head and provides complete support for your parts. The ejector cylinder automatically finds the best point to push the part out through the scrap skeleton. In the process, the part is fixed between the ejector cylinder and the SmartGate and is released from the scrap skeleton in a guided, downward movement. After this, the SmartGate opens and the part is reliably removed.

**SmartLift & SortMaster Speed:**
Perfect part removal

The SmartLift and SortMaster Speed form a dream team, which is the fastest, most flexible automation system on the market. The cut-out parts are pushed upwards against the suction plate by the pins of the SmartLift. At the same time, the suction plate of the SortMaster Speed fixes the part from above. Fixed in this way, the part is taken out of the scrap skeleton by a synchronous lifting movement. As such, the part is securely held and cannot tilt in the hole. The necessary flexibility comes from the self-activating suction cups of the SortMaster Speed, which can hold and stack even intricate parts with their 9 mm diameter.
Fast
Highly dynamic cutting with a minimum of non-productive time

Optimal dynamics because of the superimposed axis movements

In the machine, the movement of the sheet and that of the cutting head are superimposed. The movement of the sheet is superimposed by the highly dynamic additional axis of the cutting head. This means that you cut corners and complex contours at high speeds. Thanks to this strong combination, you get the most out of the high feed rates of the solid-state laser.

SmartGate:
Intelligent removal of parts, slugs, and scrap within seconds

Within seconds, the SmartGate discharges small parts into up to eight containers. Slugs and scrap fall into a slag cart. Your key for maximum throughput: The removal of rest material causes only minimal interruption to the cutting process – a result of the intelligent control and sensor system of the SmartGate.

SortMaster Speed:
Part sorting in record time

The SortMaster Speed stacks parts at lightning speed and with perfect order on up to eight pallets. As soon as the SortMaster Speed takes the part, the machine continues cutting. The part is taken to its deposit position parallel to production. Because of this there is only minimum interruption to the machining process.
Programming at the press of a button

The TruTops Boost programming system automatically creates a proposal not only for the cutting, but also for the removal, sorting, and depositing of your parts. In doing so, it takes even physical principles into consideration. For example, how the part can best be pushed out of the scrap skeleton, to eliminate any chance of it tipping. This technique cannot be found anywhere else in the world.

Intelligent separation of finished parts and scrap

Using a sorting flap, finished parts are reliably separated from scrap because it can tell a finished part from scrap. The SortMaster Box Linear sorting unit distributes small parts into up to eight containers parallel to production. The containers are assigned intelligently by the software program.

Self-reliant

Unattended operation and plannable work

This processing cell works reliably in unattended shifts. It loads and unloads independently and announces when the operator is needed again. Because of this, he can plan his work at the machine better, and gains time for other tasks. Waiting times, manual sorting, and reworking are a thing of the past. The Touchpoint user interface also enables an intuitive dialog with the machine.
TruLaser Center 7030

The first full-service laser machine:
Takes care of everything – from the drawing to the sorted part.

100% self-reliant

Unloading in record time

Technical data

<table>
<thead>
<tr>
<th>Laser TruDisk 6001</th>
<th>Max. laser output W</th>
<th>mm</th>
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<tr>
<td></td>
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<table>
<thead>
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<th>Working range</th>
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<tr>
<td></td>
<td>Nominal working range, Y axis</td>
<td>mm</td>
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<tr>
<td></td>
<td>Nominal working range, Z axis</td>
<td>mm</td>
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<tr>
<td></td>
<td>Max. workpiece weight weight</td>
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<tr>
<th>Machine dimensions and weight*</th>
<th>Length</th>
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<tbody>
<tr>
<td></td>
<td>Cart width, pushed in/pulled out</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>Height</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>Weight</td>
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<table>
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<tr>
<th>Loading and unloading</th>
<th>Max. loading weight</th>
<th>kg</th>
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<tr>
<td></td>
<td>Dimensions of parts deposit</td>
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<tr>
<td></td>
<td>Max. part size with SmartGate</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>Max. part size with SortMaster Speed</td>
<td>mm</td>
</tr>
<tr>
<td></td>
<td>Min. part size with SmartGate</td>
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<tr>
<td></td>
<td>Min. part size with SortMaster Speed</td>
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<tr>
<td></td>
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<table>
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<tr>
<th>Max. sheet thicknesses</th>
<th>Mild steel</th>
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<tr>
<td></td>
<td>Stainless steel</td>
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</tr>
<tr>
<td></td>
<td>Aluminum, copper, brass</td>
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<tr>
<td></td>
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* Approximate values. Dimensions including all of the modules and the safety areas. The exact data can be found in the respectively valid installation plan. Subject to alteration. Only specifications in our offer and order confirmation are binding.
The first full-service laser machine

Intelligent cutting

Unloading in record time

Quick and reliable

01
100% self-reliant

This compact machine takes over your entire laser cutting process – from the drawing right up to the sorted part. The operator becomes the process manager and can take on other tasks.

02
Unloading in record time

You can look forward to the fastest and most versatile unloading system on the market. The SortMaster Speed removes and stacks both large parts and the smallest of parts with intricate contours at lightning speed.

03
Quick and reliable

The machine unites revolutionary productivity and dynamics with absolute reliability. The additional axis, SmartGate, brush table, and SmartLift all contribute to this.

04
Easy programming

The programming is also fully automatic. TruTops Boost delivers, in one step, thought-through suggestions for the laser cutting, removal, sorting, and depositing of your parts.

05
Intelligent cutting

At the right place, at the right time: Before the SmartGate discharges a part, the clever cutting process component ensures that your workpiece cannot tilt.

This fully automatic overall concept lowers your processing costs by up to 30%¹ and opens up possibilities never before dreamed of.

¹ Compared to an automated solid-state laser machine; with two-shift operation or more; from the raw sheet to the sorted part ready for further processing.
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(find out more at www.trumpf.info/quality)