

TruBend Center:

Panel bending  
on the road to  
success.

# Unparalleled bending.

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With the TruBend Center's unique panel bending technology, TRUMPF unlocks the widest range of parts for this machine class. Create complex components quickly and with flexibility, well beyond what is possible with classic panel bending products. From detailed edges to large-scale forms, you can produce parts well suited for a broad range of industrial uses and applications. And, with the automatic tool changer, all this can be achieved in a highly productive way and without tool setups.

In panel bending, sheets are inserted horizontally and fixed in place by blank holders. Upper and lower bending tools are mounted directly on the bending frame. A bend is formed by the movement of the bending tool. In this process, only the tool moves during the bending operation. The workpiece remains stationary in the horizontal position and does not need to be held by the operator.

## TruBend Center: Benefits at a glance.

- 1 Highly productive bending.
- 2 Maximum part flexibility.
- 3 Automatic setup.
- 4 Optimal accuracy.
- 5 Easy operation.

## A broader bending range.

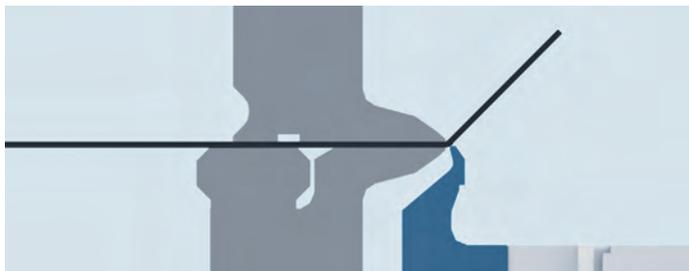
The TruBend Center's machine concept allows you unprecedented formats in panel bending technology, such as extremely short side lengths, deep boxes and small profiles, as well as part with formed sections, recesses, diverse radii or multiple negative bends.

Your machine independently completes all of the bending steps for each component edge – the operator only needs to insert and turn the sheets. Everything else is completed by the 2-axis

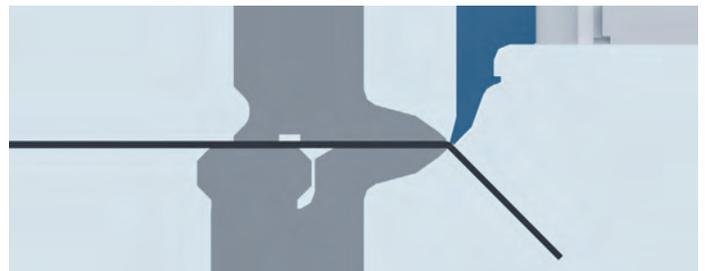
part manipulator and the tools. The ergonomic handling of workpieces is remarkably user-friendly and also provides an significant productivity advantage.

Various bending methods are available to fulfill every requirement. Production is especially flexible due to the ingenious combination of automatic and manual parts handling. The TruBend Center merges speed and versatility for unprecedented productivity.

## Diverse bending methods.



For a positive bending operation the side is bent upwards.



For a negative bending operation the side is bent downwards.



Folds with the blank holder.

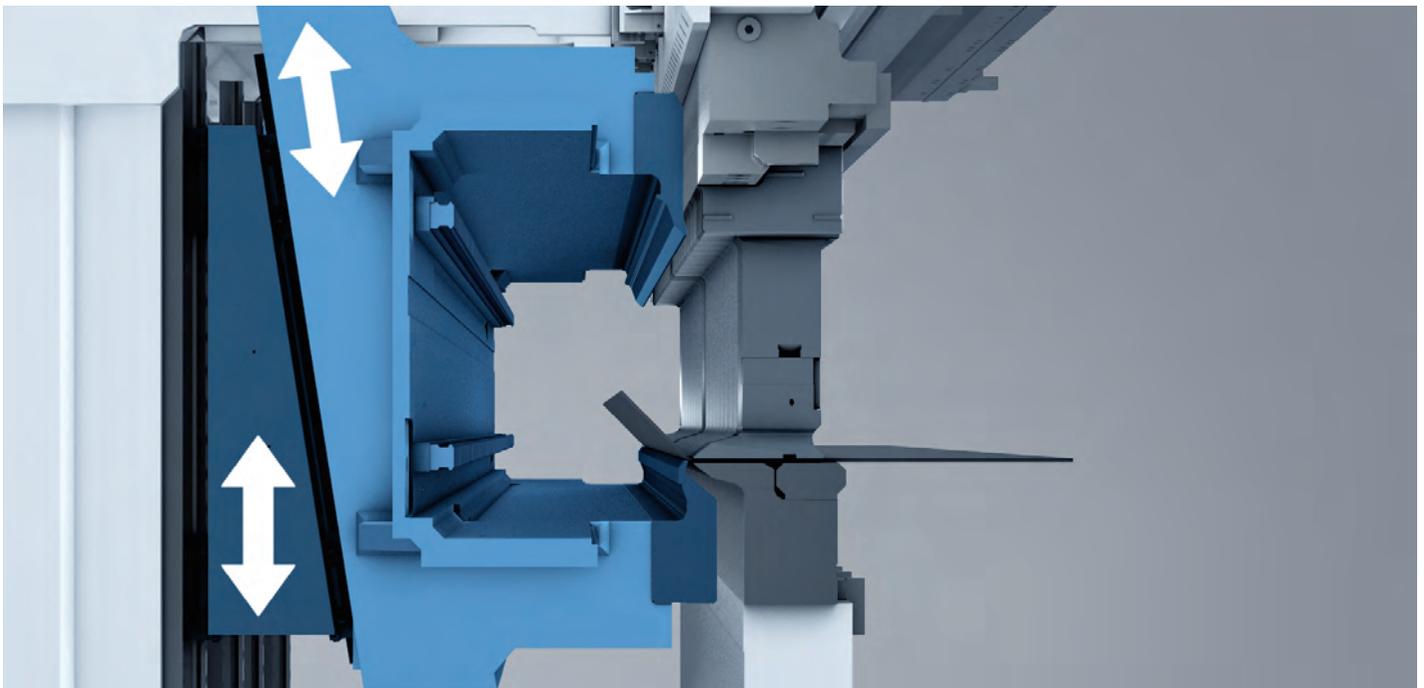


Components with different radii are created with up to five bends per second.

## Convincing functions.

### Driven to perfection.

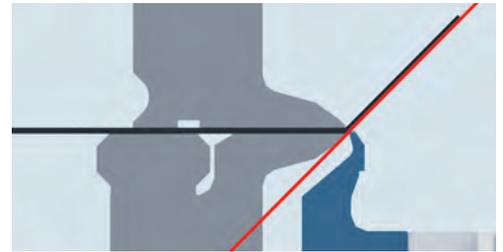
With its ingeniously simple continuous path control, the TruBend Center's innovative angle drive provides optimal accuracy. The interaction of the two axes creates an ideal travel path, protecting the surface of your workpiece. In addition, the construction of the drive makes your TruBend Center especially robust for industrial environments.



Both axes of the angle drive combine to produce the ideal travel path.

## An eye for the perfect angle.

The optical angle assistant supports the operator during the loading of new components. Its integrated camera conveys a visual representation of the actual angle to the control. The target angle is also shown automatically. During machining, the operator can monitor the angle and adjust it as necessary. With the help of the optical angle assistant, even the first piece is a good piece – an invaluable advantage.



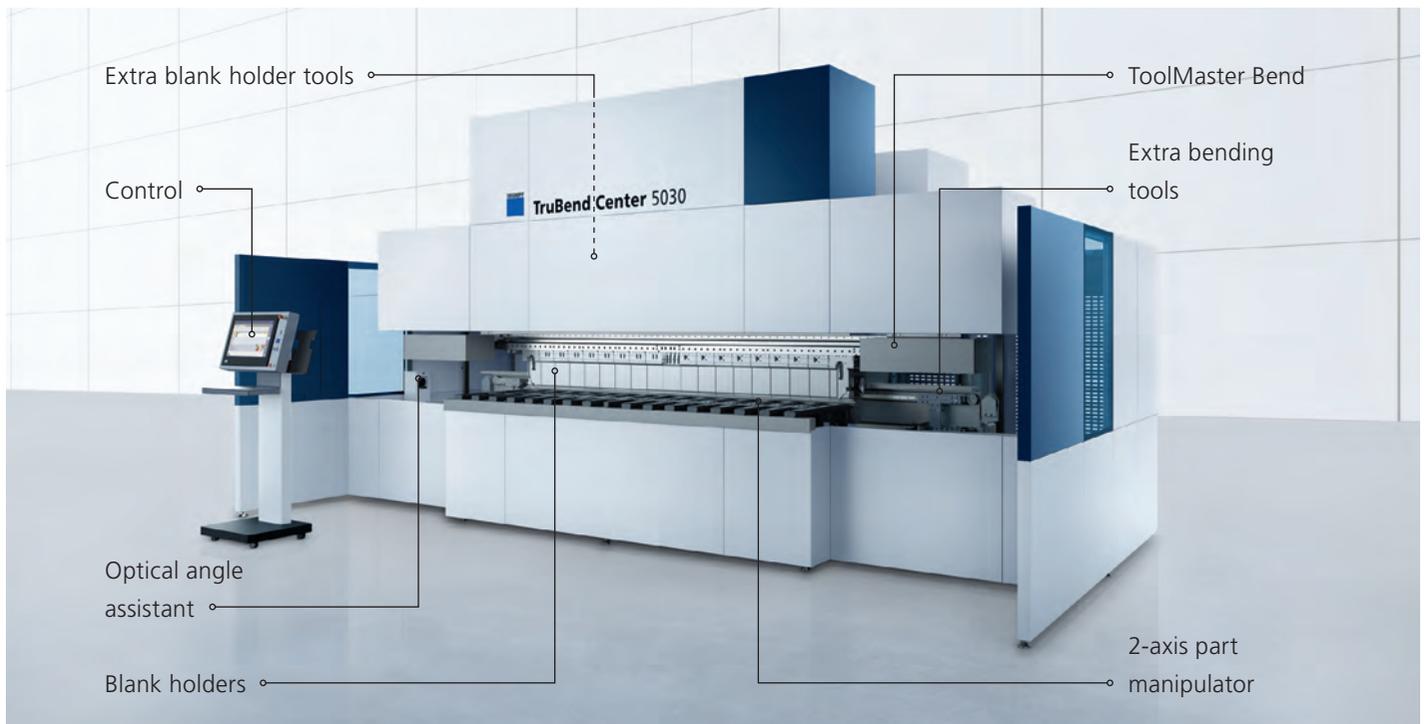
The optical angle assistant ensures exact angles starting with the very first part.

## Perfectly positioned.

Parts are positioned reliably on the sophisticated backgauge system. Then the blank holders secure the metal blank and the backgauge fingers return to their resting position.



High-precision positioning due to the backgauge.



## Important assistants.

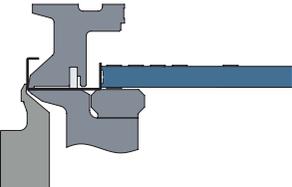
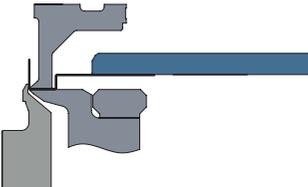
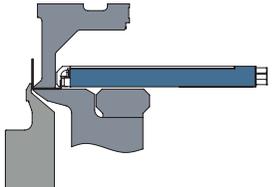
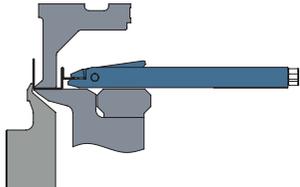


### Two axes, infinite possibilities.

The operator loads the sheet. The 2-axis part manipulator takes over and automatically positions the sheet for all component edge bends. The part manipulator can travel forwards and backwards. With the additional vertical axis, parts can be fixed at different positions. In addition, the vertical axis ensures that parts with negative bends can be removed reliably. This results in a significant increase in part flexibility. This also allows you to produce very small profiles or components with multiple downward bends, for example. Parts with preformed sections or cutouts can also be processed reliably.

### Efficient part handling.

The 3-surface suction module has suction cups on the front, top and bottom sides. TRUMPF offers additional gripper systems for parts that do not provide sufficient suction surface. For these, primarily smaller parts magnet and gripper modules are used.

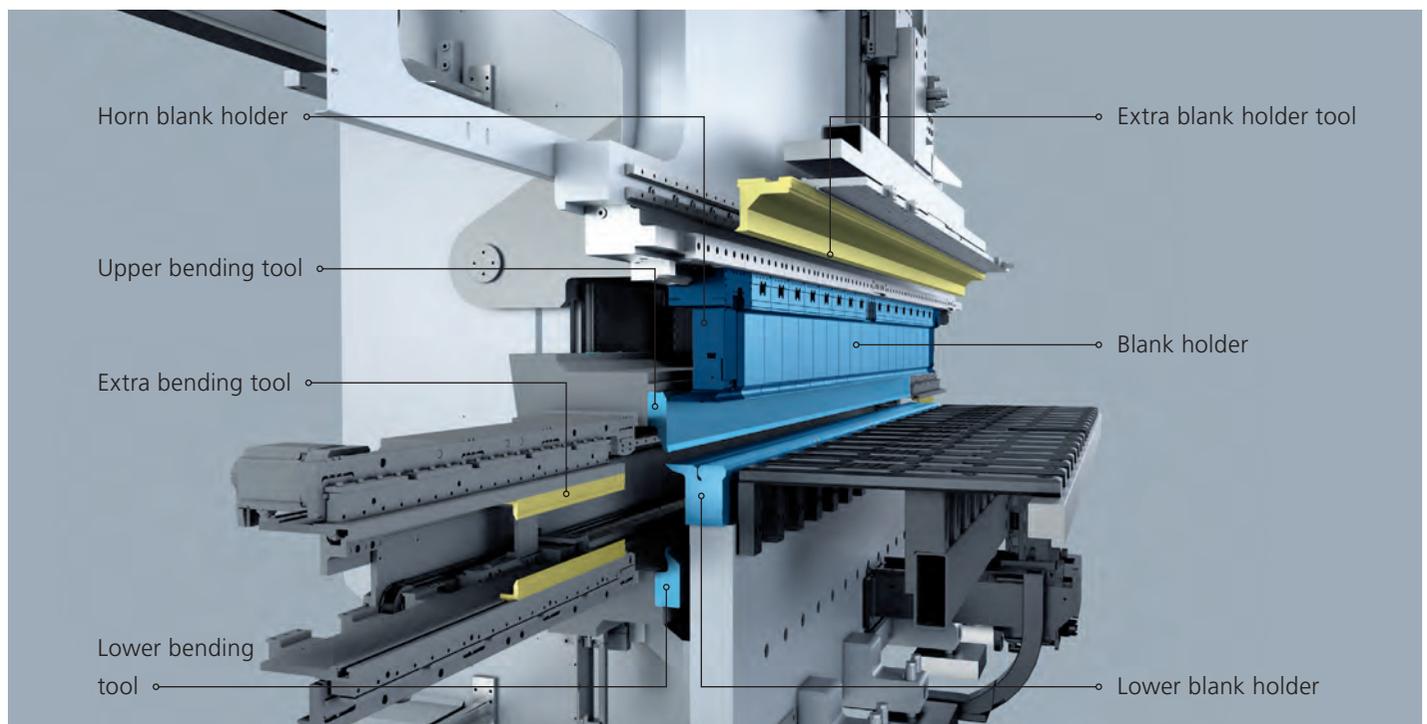
3-surface suction module	Magnetic module	Gripper module – vertical	Gripper module – horizontal
			
			

## Tools for every challenge.

With the TruBend Center's standard tools, you can successfully handle the majority of all possible applications. For special geometries, your machine has sophisticated additional tools.

- Depending on the part geometry, special blank holders prevent collisions and increase the machine's application flexibility.
- Additional bending tools are automatically loaded as needed and are available for parts with staggered bends.

Due to the extensive range of perfectly compatible tools, you gain maximum part flexibility and cost-effectiveness.



## Tools for every challenge.

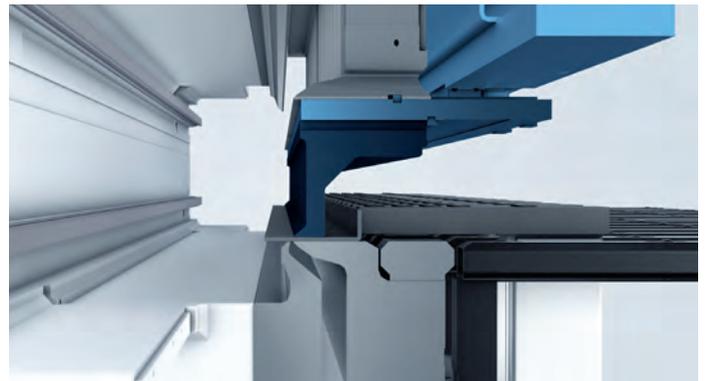
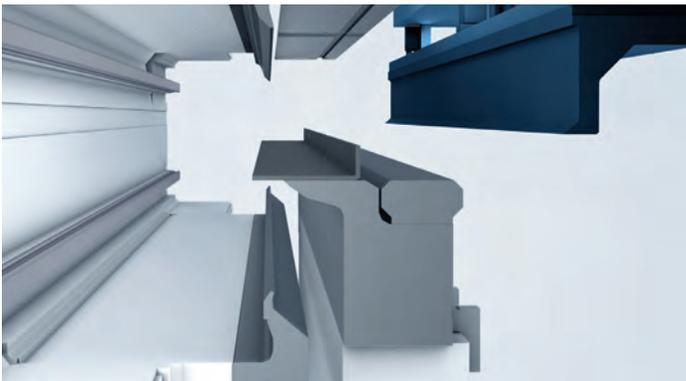


### Horn blank holder

You can very easily produce boxes with internal bends using the horn blank holders. The so-called “horns” move diagonally into and out of place. Because of this, the blank holder can move downwards without colliding with a previously bent side. This is a simple and yet impressive technique.

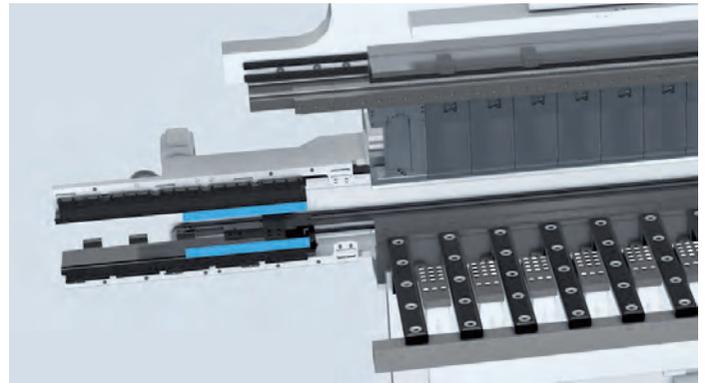
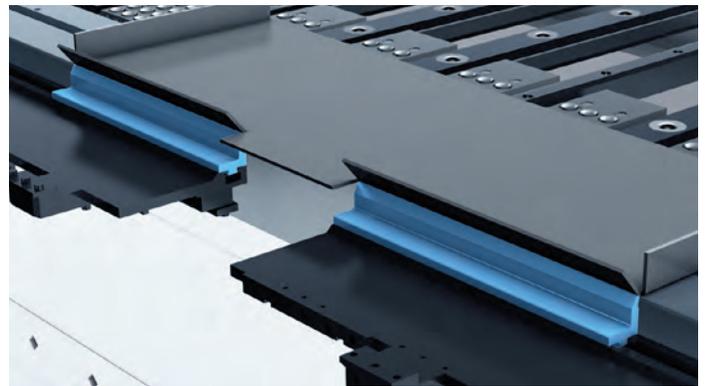
### Extra blank holder tool

The extra blank holder tools expand your application range so that you can also produce very small profiles or parts with formed sections near bending lines. The machine automatically swivels in the extra blank holder tools as needed. There is no need to remove or modify the standard blank holders. This concept enables you to make full use of your machine’s potential.



## Extra bending tool

Extra bending tools can be loaded automatically to bend flanges or staggered bends. These tools are found on the right and left sides of the machine. The tools are deployed from their lateral resting place as needed, move to the correct position and work autonomously on the sheet, without help from the remaining bending tools.



## Automatic tool changer

The integrated tool changer, ToolMaster Bend, automatically sets up the correct blank holders. It reduces your workload even more by preventing setup errors, shortening your tool setup time and enabling the profitable manufacture of components in single part production.

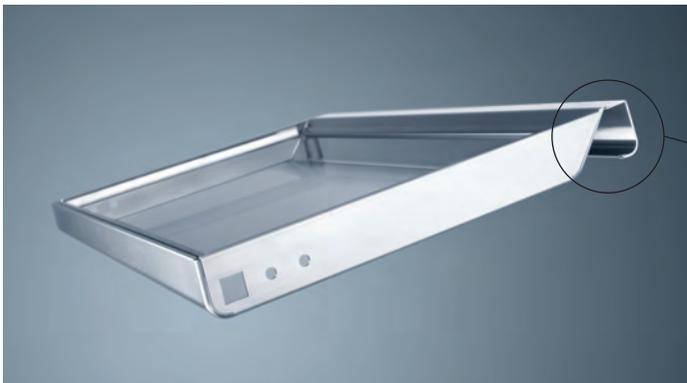
Endless  
application  
variety.



Mild steel housing cover, 0.12 in. thick.



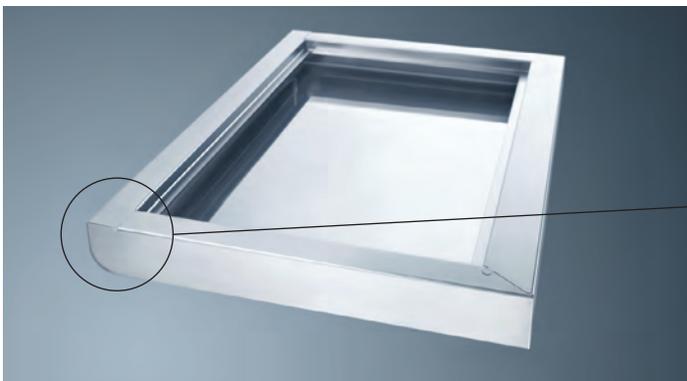
Optimal accuracy, even for thicker materials.



Stainless steel drawer, 0.04 in. thick.



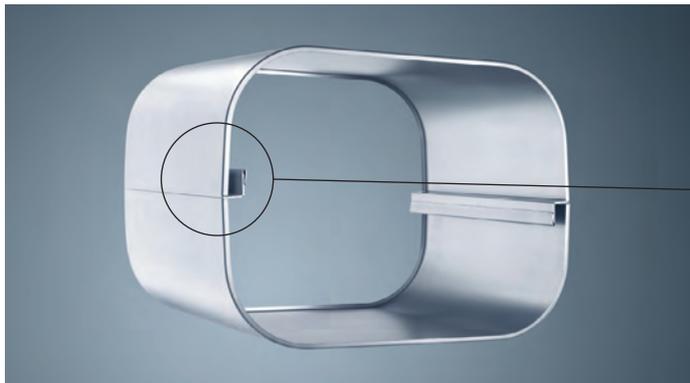
Radial bending with a doubled sheet.



Stainless steel display housing, 0.04 in. thick.



Short side in combination with a radius bend.



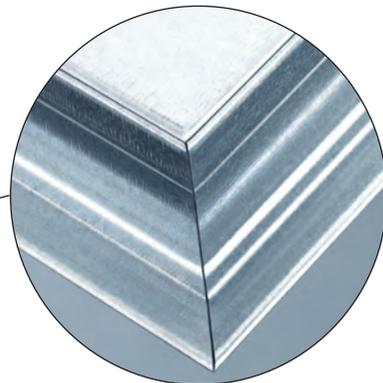
Mild steel container, 0.03 in. thick, made of two parts.



Highest accuracy during production of slide-in connections.



Mild steel guard sheet, 0.04 in. thick, made of two parts.



High repeat accuracy for a vast variety of bends.

**Technical data**

	<b>TruBend Center 5030</b>
Max. bending length	123 in.
Min. bending length	3 in.
Min. bending depth (standard tool)	5.25 in.
Min. bending depth (ENW <sup>(1)</sup> )	1.5 in.
Max. box height	8.5 in.
Max. mild steel thickness	0.12 in.
Max. stainless steel thickness	0.08 in.
Max. aluminum thickness	0.12 in.
Min. material thickness	0.02 in.

**Travel and range before stop**

Travel path in X direction for 2-axis part manipulator	13.5 in.
Stroke of 2-axis part manipulator	5.5 in.

<sup>(1)</sup> ENW (Extra blank holder).

Subject to change. Only specifications in our quote and order confirmation are binding.



**Center 5030**



TruServices:

Service like  
no other.

Throughout the lifecycle of your machine.

Regardless of the TRUMPF technology you use, you will always get the best service. With our award-winning spare parts logistics at TRUMPF, we guarantee the highest availability of spare parts and provide you with all of the products you need 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 upgrade 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.



TRUMPF is certified according to ISO 9001:2008

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