

A man in a black tuxedo and bow tie is smiling and holding a large bundle of silver metal tubes. The background is a blurred industrial setting with overhead lights. A white text box is overlaid on the image, and a blue-tinted inset shows a laser cutting process.

TruLaser Tube:

Optimal tube
and
profile cutting

Giving you the edge in laser tube processing.

The TRUMPF Group ranks among the worldwide leading manufacturers of laser and production technology. Technical solutions for our customers have been our focus since 1923. Our innovations set the standard in machine and power tools for sheet metal fabrication, tube processing, laser and medical technology. Since 1993, TRUMPF has offered tube cutting axes for laser machines. We launched our first fully automated laser cutting machine for tubes and profiles in 1999. Today, we are the technology and world market leaders in industrial lasers

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and laser systems. We are continually developing new processes and increasingly more powerful machines while consistently implementing innovations targeted to our users' requirements. Our corporate image is characterised by the highest demands in quality and reliable customer care. You can count on us for every project. Our comprehensive services range from planning your configuration to optimising your workflow.



Why TruLaser Tube machines are so convincing.

The all-rounder.

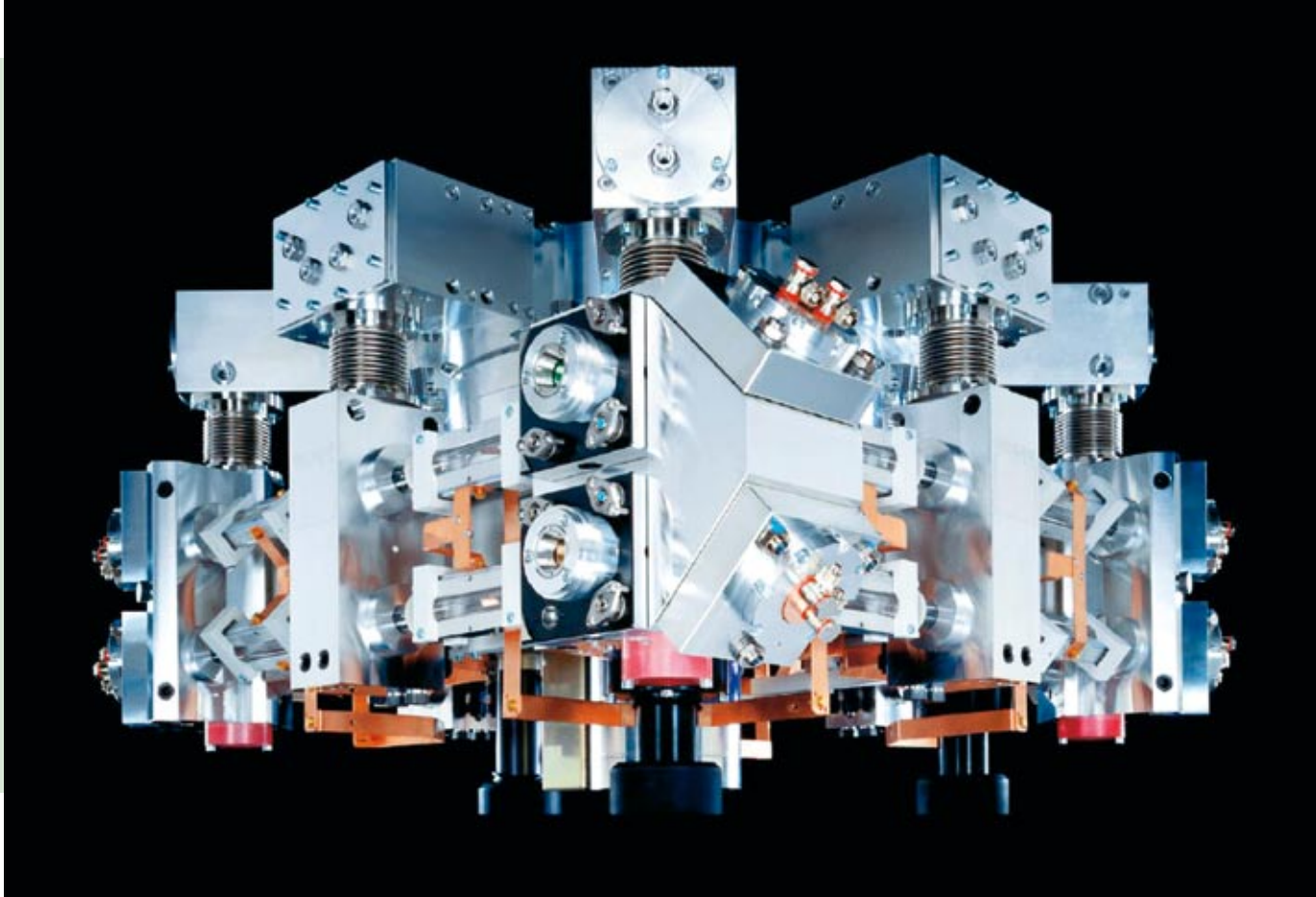
It's hard to imagine our daily life without tubes and profiles. Whether they frame, support or function as piping, tubes and profiles are adaptable to their respective requirements. With their variety of shapes and materials, they are a cost-effective solution when it comes to function and load.

Smart down to the finished part.

With a laser beam, you can cut almost any tube contour, no matter how complex it might be. A laser's strength lies in its ability to process the most varying material types and thicknesses nearly warp-free, because the laser cuts without touching the material. The contours are smooth and parts are assembly ready without re-finishing work.

If that isn't enough, the laser cuts contours and long tubes in one work step. Tube construction is now possible because the laser simplifies production and reduces follow-up steps. The expenses for welding, for example, are considerably less through bulge and plug-in connections. Positioning aids with tappings and holes make parts assembly easier. Programming tools prevent assembly errors. The TruLaser Tube's ability to produce precise interlocking connectors significantly reduces welding costs. Fixturing is virtually eliminated and parts can be welded without requiring secondary operations. Compared to conventional processes such as sawing, marking, drilling, deburring or punching, production costs with lasers are much lower.





Proven a thousand times over.

TruFlow lasers have proven themselves a thousand times over in everyday manufacturing. The thermally and mechanically stable design ensures high long-term stability. With better beam quality and smooth adjustable output, the laser meets all requirements. The higher the maximum laser power, the higher the cutting speed you can achieve. A maintenance-free, magnetically suspended turbo radial blower, high-frequency excitation and low gas consumption combine to keep the operating costs low.

Faster to the finish.

With a TruLaser Tube, you are prepared to meet all market requirements. Control and programming ensure smooth implementation from the drawing to the finished part. And you can automate your machine. This optimises workflows and speeds up logistics. The path from your drawing to an accurately produced product has never been shorter.

TruLaser Tube 5000



TruLaser Tube 5000

Max. outer circle diameter	150 mm
Max. tube material length	6,500 mm
Max. finished part length	3,000 mm/6,000 ¹ mm
Max. workpiece weight	20 kg/m

Laser data

Max. power

Max. wall thicknesses

Mild steel
Stainless steel
Aluminum

TruFlow 2000

2,000 W

6.4 mm
4 mm
3 mm

TruFlow 2700

2,700 W

6.4 mm
5 mm
4 mm

TruFlow 3200

3,200 W

6.4 mm
5 mm
4 mm

¹ Value applies to larger model (option).

All around flexibility.

The TruLaser Tube 5000 is the machine for fully automated processing of tubes and profiles with maximum flexibility. Whether you're adding complex contours and notches on the tubes; working with light, thin-walled tubes or with large, heavy ones; or with tubes that have square, round, or oval cross-cuts – the machine's strengths are obvious.

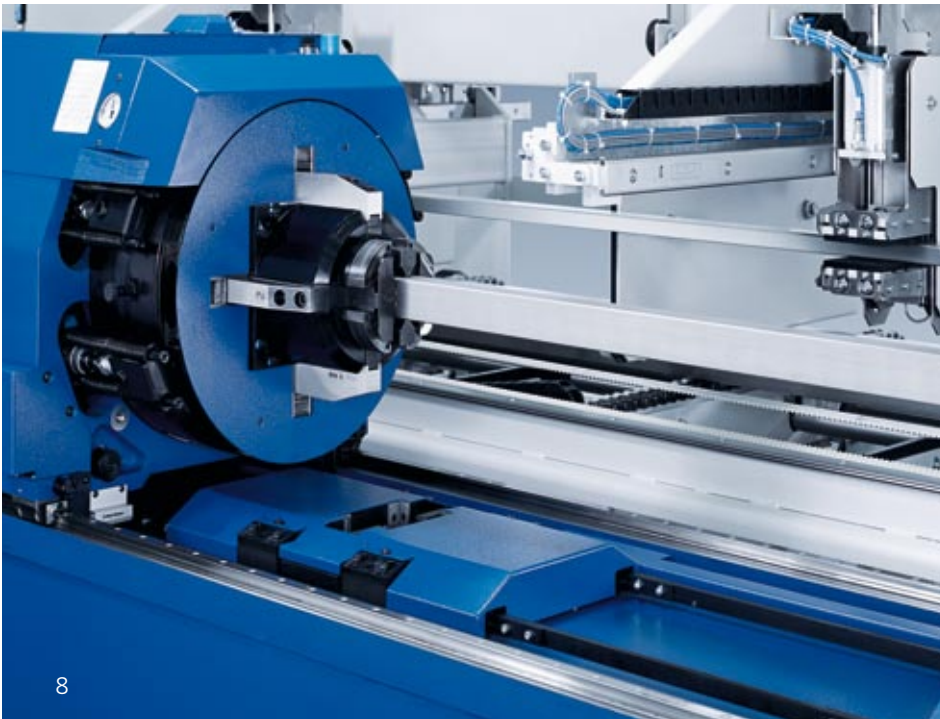


Cutting with a system.

With the TruLaser Tube 5000, all components work together harmoniously – from the laser machine and the beam guidance system to the rotating units, the system control and the modules for handling tubes and profiles.

You can align individual tubes on the transport tracks or clamp them into the jaw chuck manually. The jaw chucks are equipped with self-centring parallel clamping units. Together with the rotation and feeding station and the second rotary axis located directly on the cutting head, the jaw chucks ensure that the workpieces are accurately processed.

Self-centering chucks ensure that the workpieces are positioned accurately.

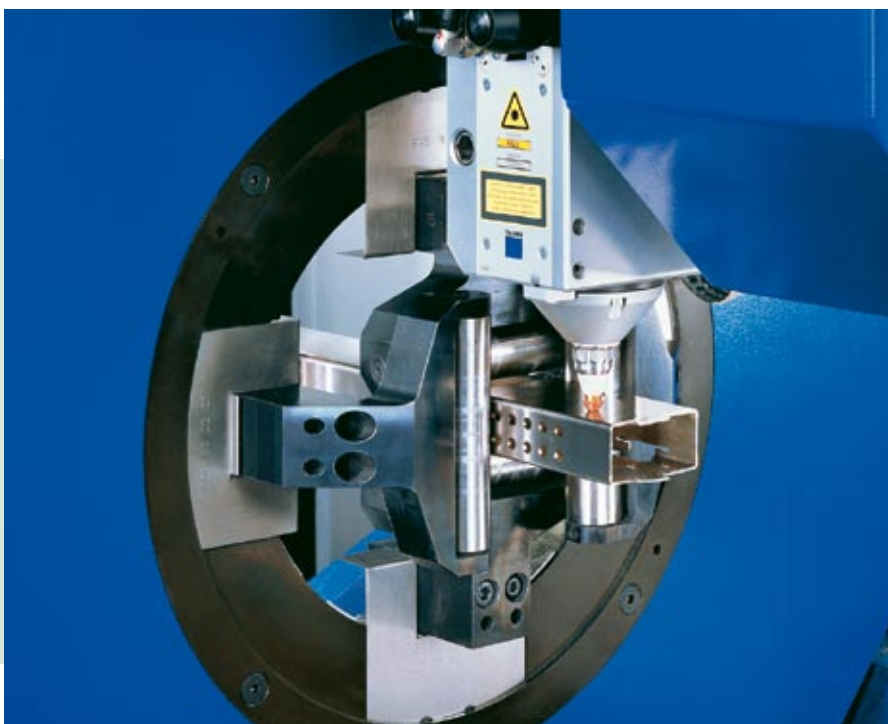




Finished parts are gently removed by means of a brush table.

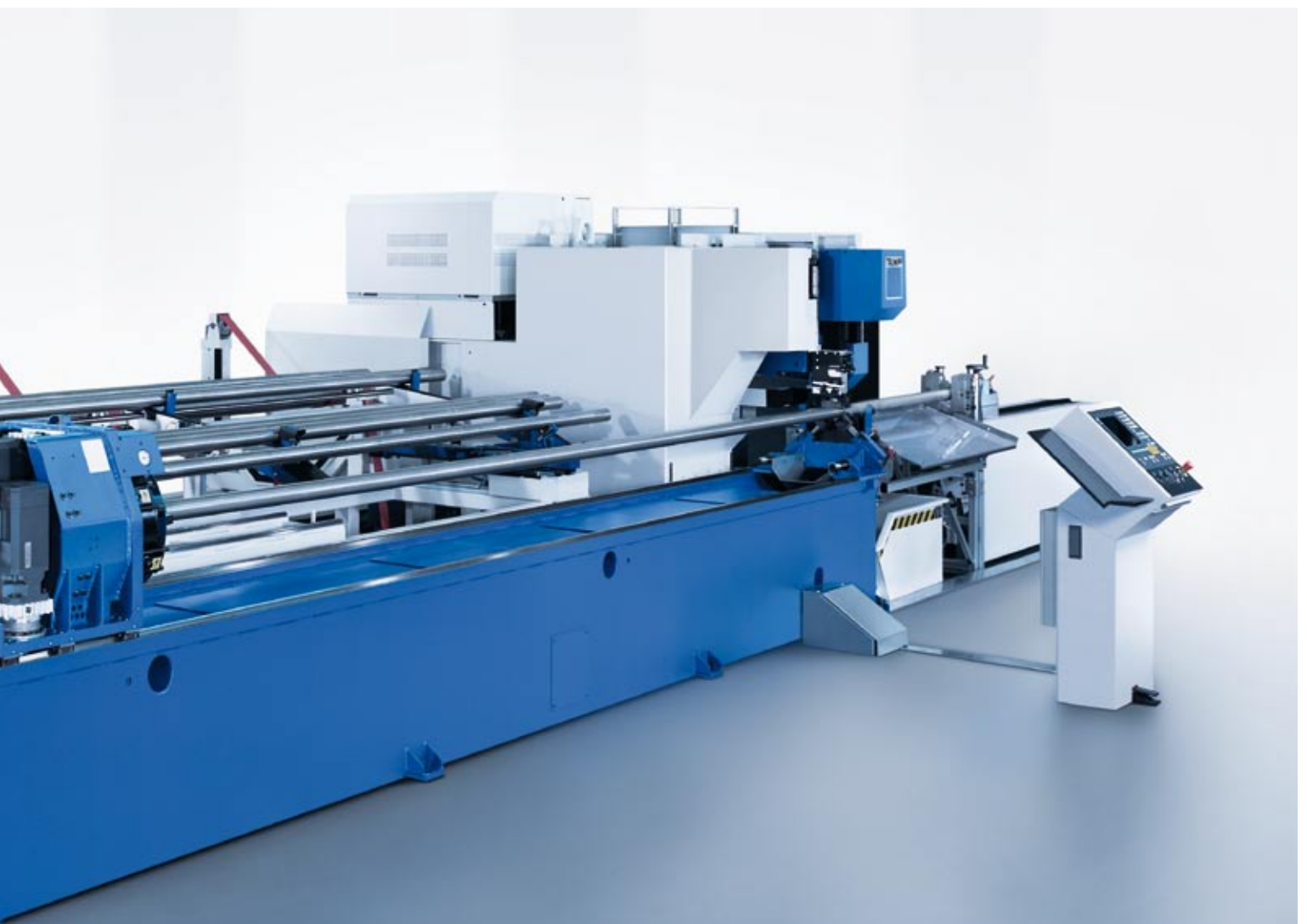
Finished parts are discharged by a gentle brush table that also functions well as an accessible finished parts buffer. A chute transports small parts up to 300 mm long from the work area. Larger parts can be removed directly from the removal station, or they can be fed into a container.

Wide clamping rollers guide the workpieces precisely to the cutting head.



TruLaser Tube 3000





TruLaser Tube 3000

Max. outer circle diameter	150 mm
Max. tube material length	6,000 mm/9,500 ¹ mm
Max. finished part length	20 – 1,500 mm
Max. workpiece weight	20 kg/m

¹ Value applies to larger model (option).

Laser data

Max. power

Max. wall thicknesses²

Mild steel
Stainless steel
Aluminum

TruFlow 2000

2,000 W

6.4 mm
4 mm
3 mm

TruFlow 2700

2,700 W

6.4 mm
5 mm
4 mm

TruFlow 3200

3,200 W

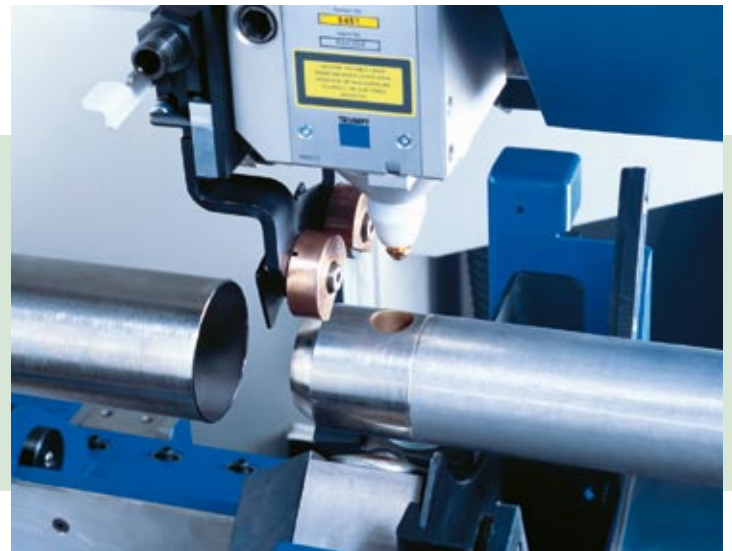
6.4 mm
5 mm
4 mm

² Max. wall thickness when using an accumulator 4 mm.

Cutting tube lengths cleanly.

A typical application for the TruLaser Tube 3000 is cutting of quality tubes, especially those made of stainless steel. The cutting areas are oxide-free, burr-free and dry. The TruLaser Tube 3000 achieves this high cutting quality even with thinwall tubes. The non-contact, pressure-free laser process makes this possible.

The accumulator leaves the inside of the tubes spatter-free and clean.





The part removal station of the TruLaser Tube 3000.

Extraction, accumulation, removal.

Slag and steam are by-products of laser cutting. The accumulator/spatter collector gathers finished tubes as well as extracts the spatter produced by the laser cutting process, thus, the inside of the tube remains spatter free. But the accumulator can do even more: it removes all processed tube sections batch by batch and automatically unloads them. Whether you can use the accumulator depends on the wall thickness-to-diameter ratio of the tube. We will gladly advise you.

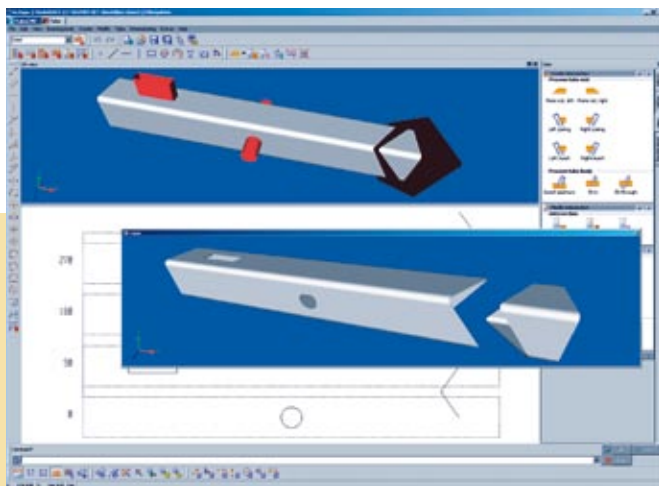
TruTops:

Programmed
for
SUCCESS.

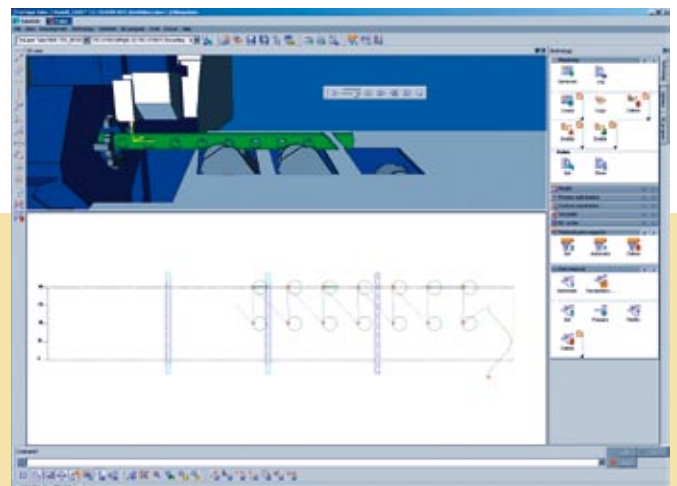
We have developed our TruTops Tube software especially for TruLaser Tube 5000 applications. From the idea to the finished part, the software utilises all of TRUMPF's expertise.

It contains stored standard procedures for various cuts, laser tables and additional rules. TruTops Tube, which takes into account the LoadMaster Tube, is so clearly arranged that you can easily operate the software.

3-D display of tube construction.



Workflow simulation.





Just three steps to the NC program.

In the first step, you draw the tube geometry in TruTops Tube.

In the second step, the software defines the process and generates the NC data. In addition, TruTops Tube analyses the cutting geometries and calculates the contours. The program can even master complex tasks, such as processing tube corners with square cross-sections without manual intervention. TruTops Tube reviews the processing parameters you have defined, for example, for contour damage.

In the third step, the NC data is transferred directly to the machine. Processing can then begin.

As a hardware platform, TruTops Tube requires only one standard PC running the Windows® operating system. The software is easy to integrate into your company's network and connect to the TruLaser Tube 5000 with the online connection.

Automation:

A strong team.

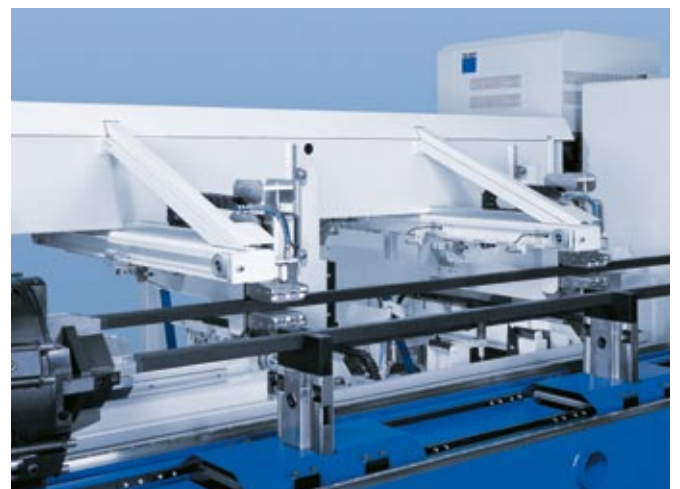


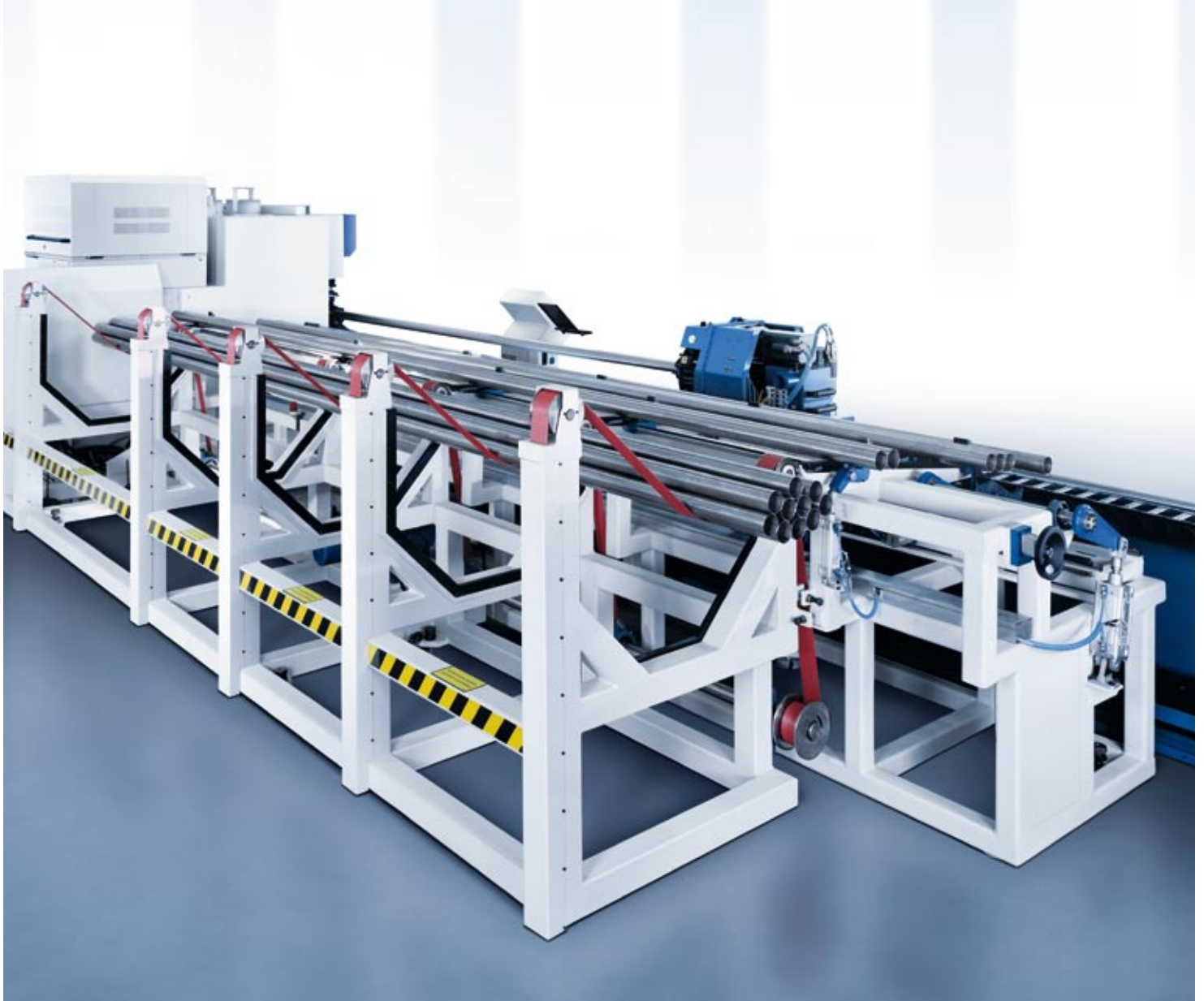
LoadMaster Tube for the TruLaser Tube 5000.

The LoadMaster Tube reduces run times and, therefore, costs. It prepares the raw material in a precisely timed manner. The retrofitting times are minimal, allowing you to bridge idle times or, if needed, operate additional shifts. Moreover, automation reduces the risk of operating errors and thus improves the quality of the workpiece.

Tubes and profiles are usually delivered as a bundle. You feed them into the TruLaser Tube 5000 with the help of a bundle magazine, which is part of the LoadMaster Tube loading system. After the tube length is measured, the separating device feeds the material to a gripper system that aligns the tubes and transfers them to the machine.

Universal gripper system for tubes and profiles.





LoadMaster Tube for the TruLaser Tube 3000.

With the TruLaser Tube 3000, you load the round tubes that are to be processed into the bundle magazine. From there, they roll into the separation unit. This feeds the tubes directly into the machine. Processing can then begin.

Automatic separation of round tubes.



TruServices:

We are
there
for you.

Guidance right from the start.

Our service begins even before you decide to buy or lease the TruLaser Tube. We provide comprehensive consulting services to help you discover which machine you really need. If you'd like, we can also help you appraise your used machine.

Money matters.

Through various financing or leasing options, we help you plan your investment. Leasing allows you to remain liquid; investment-related taxes are not incurred. Also, leasing doesn't affect your balance sheet. Your balance sheet figures, an important criteria for a credit rating according to the Basel II agreement, won't be adversely affected by leasing.

It's a go.

After delivery, your TruLaser Tube is operational in the shortest time possible. Since the machine, laser, programming, control were developed for one another at TRUMPF, there are no interface problems.

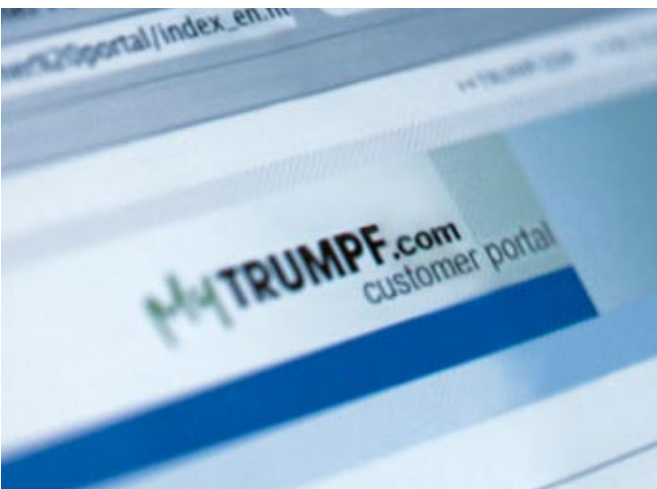




Comprehensive support.

We support you with customised services that go above and beyond the entire life cycle of your TruLaser Tube. We will maintain the machine and upgrade it with new functions upon request. We will train you and your employees so that you can take full advantage of the potential of your TruLaser Tube. If needed, our specialists will optimise the machine parameters

on site and help you upgrade parts to improve costs, production speed and quality. If it should ever be necessary, our service technicians, with your permission, can connect to your machine via modem and access your control system. As a result down time and on-site technician visits are reduced. Should you need a spare part, we are available 24/7, 365 days a year.



TRUMPF is certified according to DIN EN ISO 9001 and VDA 6.4

