

PARTNERSHIP IN THE WORLD OF TUBES

BRINGING TOGETHER EXPERTISE FOR YOUR TUBE PRODUCTION

TRUMPF | Solution Partner

transfluid
The solution for tubes.

Partnership **transfluid x** TRUMPF

TWO MARKET LEADERS. ONE SOLUTION.

The partnership between transfluid and TRUMPF enables highly flexible combinations of laser tube cutting systems, tube bending and forming technologies, as well as fully automated tube manufacturing solutions.

As one of the market and technology leaders in machine tools and laser technology, **TRUMPF** offers a comprehensive portfolio for laser tube processing, covering both tube cutting and the 3D processing of bent or formed tubes.

transfluid Maschinenbau GmbH is recognized worldwide as one of the leading partners for tube bending and tube processing machinery. The company's mission is clear: to ensure maximum value creation for its customers.

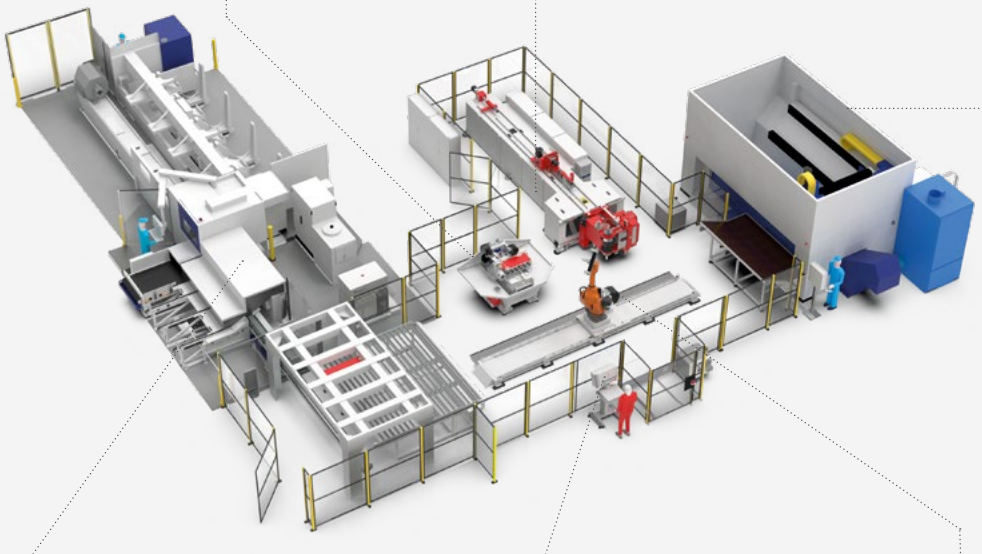
Both companies share a strong spirit of innovation and a clear focus on customer requirements. By combining their expertise, transfluid and TRUMPF provide solutions that cover the entire tube processing value chain – from laser cutting and tube bending to downstream processing and forming operations.

Depending on production requirements, these solutions can be implemented as standalone machines with the appropriate interfaces or as fully automated production cells.

t form *COMBI*LINE

t bend *VARIO*LINE

TRUMPF TruLaser Cell
3D laser tube cutting system



TRUMPF TruLaser Tube
Laser tube cutting machine

t project *BENDING*SOFTWARE

t bend *ROBO*LINE

The list is an example. Additional functions can also be integrated.

BENEFITS AT A GLANCE

Tube cutting and processing with the TRUMPF TruLaser Tube

⊕ Highly dynamic and flexible cutting process

Tubes and profiles with diameters of up to 254 mm and wall thicknesses of up to 14 mm (e.g. structural steel) can be cut to size. Further processing such as holes, miter cuts, and much more are possible.

⊕ Setup-free cutting process

The clamping technology enables fast changeovers between different materials and cross-sections without the need for retooling.

⊕ Integrated weld seam detection and alignment

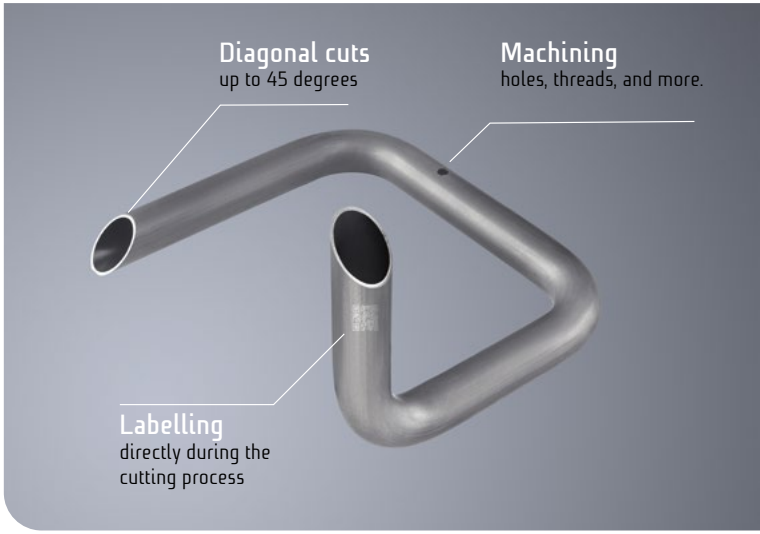
Ensures controlled weld seam positioning in subsequent processing steps.

⊕ Labelling options

Markings and labels can be applied directly during processing. This allows the individualized tubes to be tracked throughout the subsequent production process.

⊕ Loading and unloading options

A wide range of tube geometries and profiles can be integrated into the production process and transferred to downstream operations using various system configurations.

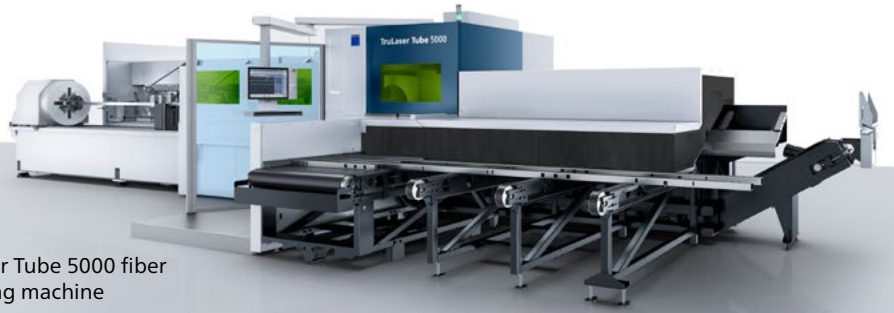


⊕ Flexible manufacturing

Tubes and profiles that do not require bending can also be cut and processed (e.g. for welded structures, frame constructions, or innovative tubular designs).

⊕ Comprehensive software solutions

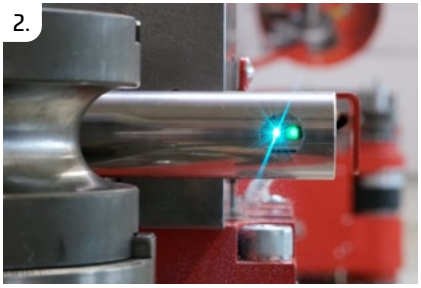
Perfectly coordinated software solutions ranging from cut optimisation (nesting) to comprehensive production planning tools.



TRUMPF TruLaser Tube 5000 fiber
Laser tube cutting machine

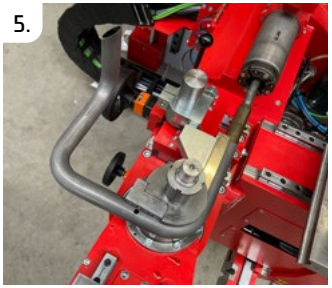
INTEGRATED TUBE PROCESSING

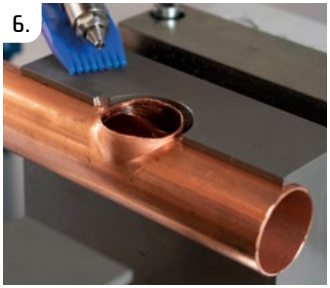
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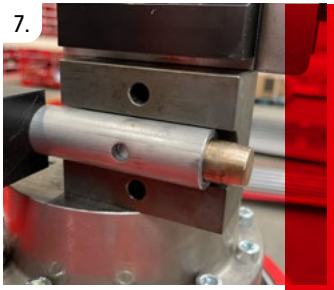

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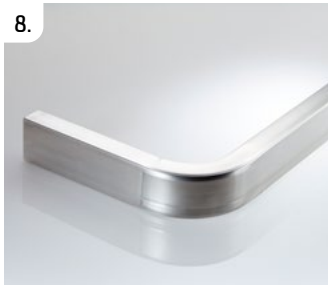
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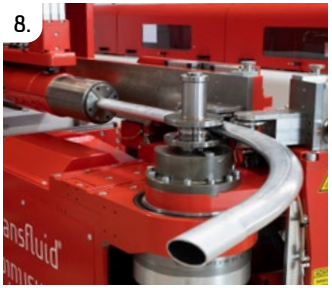

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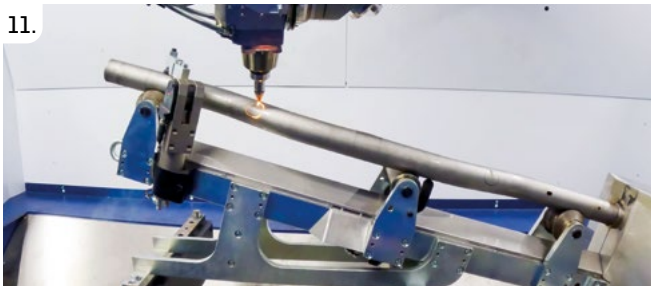
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FOR EVERY REQUIREMENT

1. LOADING

Tube loading can be performed manually, fully automatically, or via direct transfer from the laser tube cutting machine.

2. ALIGNMENT

Alignment of the tubes based on the laser-cut features (e.g. via hole detection).

3. RETRIEVAL OF PROCESS PARAMETERS

Reading and processing of the component labelling.

4. FORMING

An almost limitless variety of shapes can be achieved with the highest level of precision.

5. BENDING PROCESS

Highly efficient CNC bending technology for both simple and complex bending applications.

6. COLLARING

Collaring or forming T-pieces based on previously made laser-cut features.

7. PUNCHING

Punching on the bending machine can be used as an additional process when holes are located too close to the bending area.

8. MATERIAL OPTIONS

transfluid machines can also be equipped for bending profiles, oval tubes, and square profiles.

9. SOFTWARE

Material compensation database, enabling accurate production from the very first part.

10. AUTOMATION

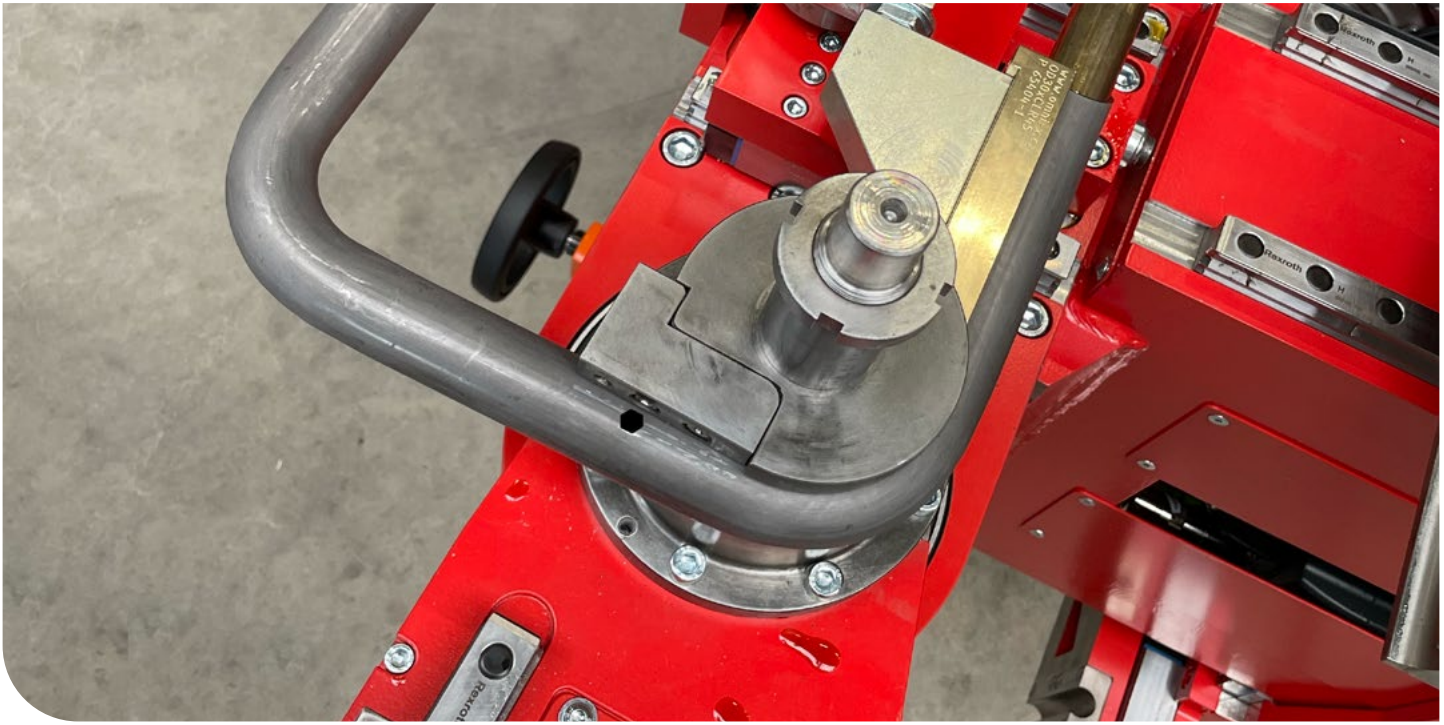
Standalone or fully integrated solutions are available for high-volume, small-batch, or single-part production.

All systems are designed and manufactured by transfluid to match the bending machines, ensuring optimal integration and maximum functionality.

11. 3D LASER PROCESSING OF BENT TUBES AND PROFILES

Contours that cannot be introduced prior to the bending process can be fed fully automatically to a TruLaser Cell 3D for final processing.

THE COMPLETE PROCESS CHAIN



SEAMLESSLY CONNECTED.
EFFICIENTLY MANUFACTURED.

The seamless integration of TRUMPF laser tube cutting machines into transfluid production cells and manufacturing lines delivers significant competitive advantages.

The combination of both technologies creates a continuous process chain – from digital design and laser cutting to automated downstream processing and finishing.

Users benefit from maximum flexibility, high process reliability, and efficient manufacturing workflows.

The result: increased productivity, improved quality and cost-effective tube processing from a single source.

Your benefits from the strong partnership between TRUMPF and transfluid:

- Customized solutions tailored precisely to your requirements
- Combined expertise from two global market leaders
- Centralised project management by a general contractor, if required
- Attractive financing options
- Comprehensive consulting and support throughout selection, project planning, and implementation
- Excellent after-sales service

AUTOMATED. DIGITAL. EFFICIENT.

DIGITALLY CONNECTED

A seamless workflow – from digital design to the finished tube geometry

With **TRUMPF Tube Design**, the process begins in the digital engineering stage: tube and profile components are precisely developed in 3D and defined for manufacturability.

The resulting CAD data provides the foundation for seamless processing throughout the entire production chain.

The data is transferred directly to the **t project** ***BENDING****SOFTWARE*, where it is intelligently prepared for the bending process. Components are analysed, unfolded and automatically converted into optimised bending sequences and machine programs.

The hardware solutions from both manufacturers are digitally interconnected. As a result, the entire manufacturing process becomes more transparent, flexible, and cost-effective. Thanks to the continuous digital data chain, processing takes place without manual intermediate steps, saving time and significantly reducing programming effort.

» Direct interfaces between the systems minimize data transfer errors and enhance process reliability.

» Optimised bending processes are achieved through the automatic generation of efficient bending sequences based on the design data.

» Maximum flexibility is ensured, as design modifications can be incorporated into the manufacturing process quickly and directly.

» The efficient and close collaboration between design, laser processing, and bending technology enables consistent data, reproducible results, stable processes, reduced scrap rates, and higher product quality.

This creates a seamless digital workflow, from design and processing through to final tube bending, without data interruptions and with maximum process reliability.

AUTOMATED MANUFACTURING

Can be fully automated as part of an integrated tube processing cell.

VERSATILITY

The flexibility of laser tube processing offers unprecedented possibilities for component design across a wide range of industries.

Complex designs can be laser-cut into tubes that cannot be achieved using conventional cutting methods.

POST-PROCESSING

Extensive post-processing options for bent or formed tubes are available using flexible 3D laser processing systems such as the TruLaser Cell 5030 and TruLaser Cell 8030.

PROFITABILITY

Time and cost savings in production through the reduction of process steps such as sawing, drilling, and deburring.

The automated connection to the bending cell eliminates manual handling steps and reduces the potential for errors.

transfluid GmbH 09.2026

transfluid
The solution for tubes.

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