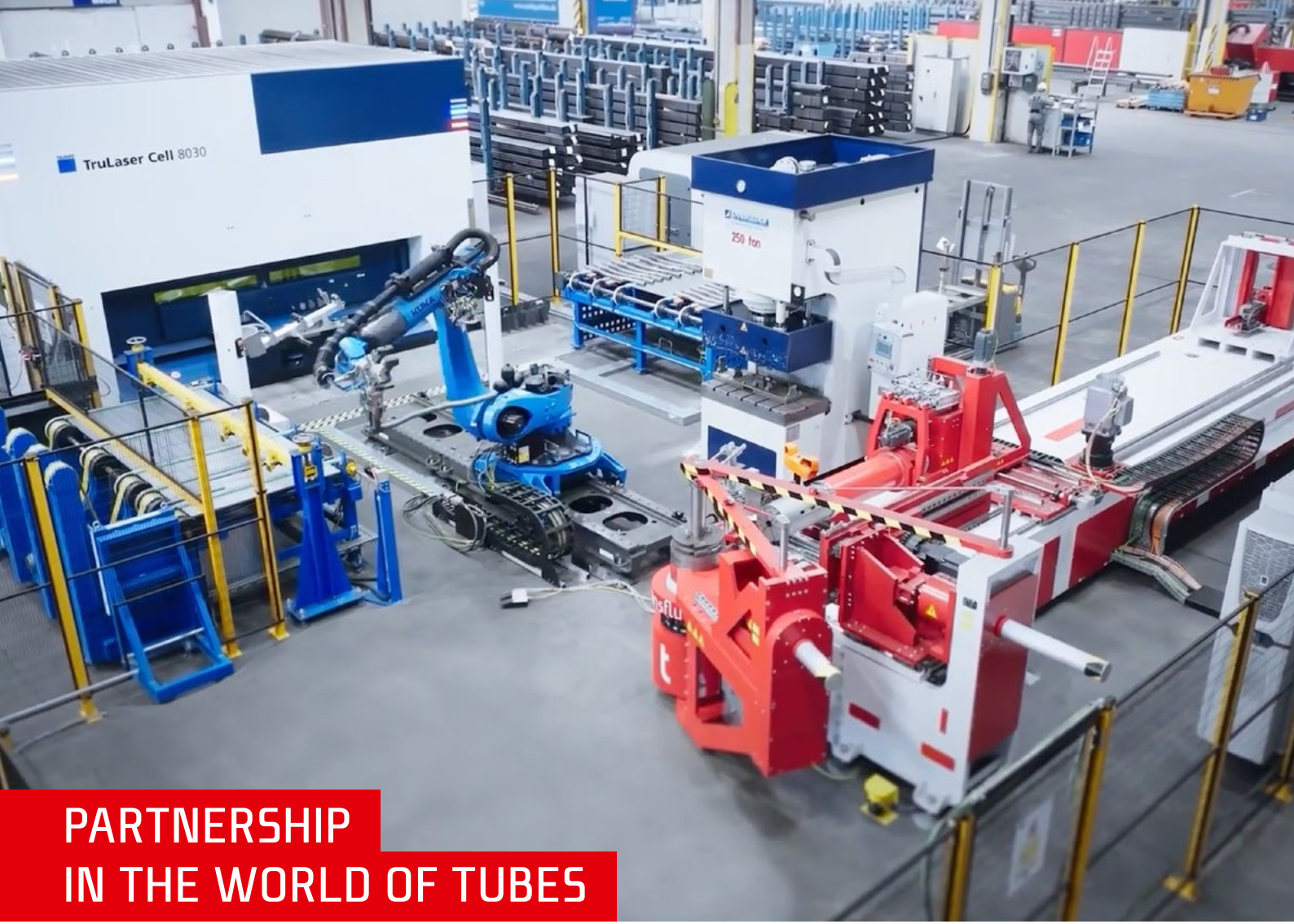


PARTNERSHIP IN THE WORLD OF TUBES

transfluid and TRUMPF have joined forces
to optimize your tube manufacturing process.

TRUMPF | Solution Partner

transfluid
The solution for tubes.

QUALITY, COMPETENCE AND EXPERIENCE

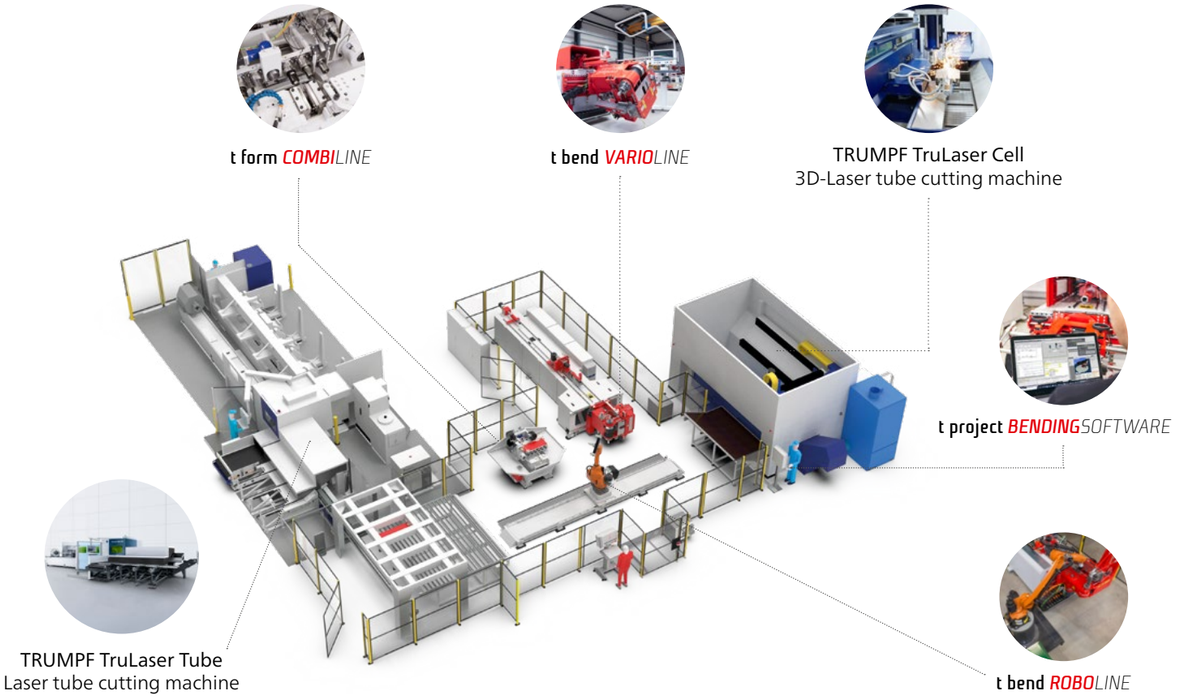
The partnership between TRUMPF and transfluid enables highly flexible combinations between laser tube cutting systems and tube bending/forming technologys, as well as fully automated tube manufacturing concepts:

As one of the market and technology leaders in machine tools and laser systems, TRUMPF offers a comprehensive range in the field of laser tube processing for both cutting and 3D post-processing of bent or formed tubes.

A globally popular partner for the manufacture of tube bending machines and tube processing machines, transfluid Maschinenbau GmbH attaches great importance to guaranteeing the customer the best possible added value.

Both companies are united by a strong drive for innovation with a focus on the customer and customer requirements. For this reason, transfluid and TRUMPF are joining forces to provide solutions for the complete tube processing chain, from laser cutting to bending and further processing.

On request, as stand-alone machine solutions with corresponding interfaces or as fully automatic production cells.



ADVANTAGES AT A GLANCE

Cutting tubes with TRUMPF TruLaser Tube:

1. Highly dynamic and highly flexible cutting process

Tubes and profiles with diameters of up to 254 mm and wall thicknesses of up to 10 mm (e.g. structural steel) can be cut to size. Further processing such as holes, thread cutting etc. is possible.

2. Setup-free cutting process

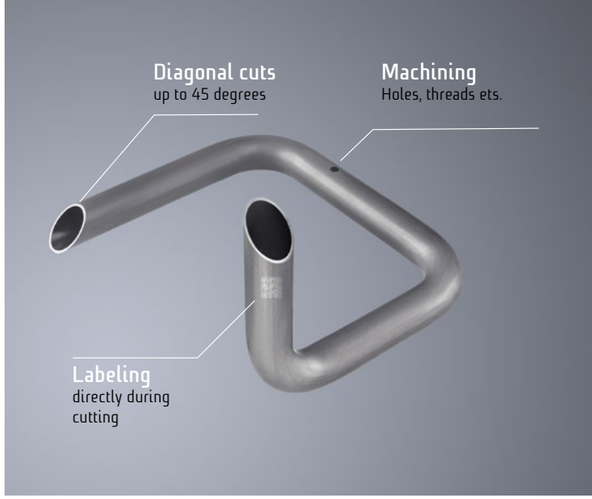
The clamping technology allows quick changeover between materials and cross-sections without retooling.

3. Integrated weld seam detection and alignment

This ensures the controlled seam position also in the subsequent process.

4. Labeling option

Marking and labeling can already be carried out during laser cutting. The individualized tubes can thus be tracked during the further production process.



5. Loading and unloading options

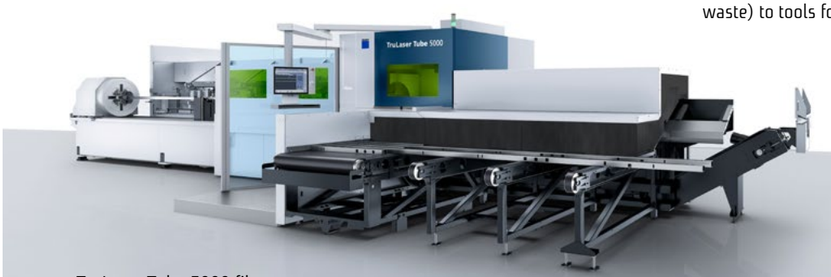
Round tubes, profiles, square or rectangular tubes can be introduced into the machining processes and fed to downstream processes using a variety of systems.

6. Flexible production

Tubes and profiles that do not need to be bent can also be cut and machined (e.g. for welded constructions, frame constructions, innovative tube constructions).

7. Extensive software

Perfectly coordinated software, from nesting (to optimize cutting waste) to tools for complete production planning.



TruLaser Tube 5000 fiber
Laser tube cutting machine

FURTHER PROCESSING THROUGH THE transfluid PRODUCT PORTFOLIO

1. LOADING

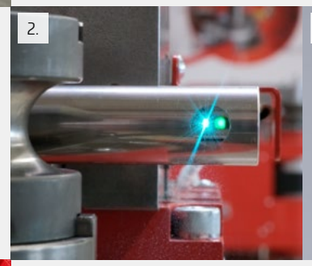
Manual or fully automatic loading of the tubes; direct transfer from the laser tube cutting machine is also possible.

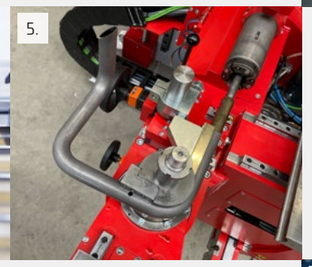
2. ALIGNMENT

Alignment of the tubes based on lasered features (e.g. hole detection).

3. RETRIEVAL OF PROCESS PARAMETERS

Reading and processing of the component labeling.





4. FORMING

Limitless variety of shapes executed with the greatest precision.

5. BENDING PROCESS

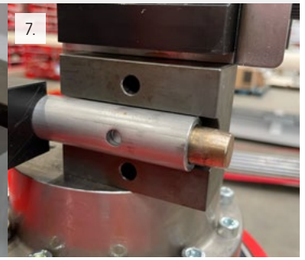
Highly efficient CNC bending technology for small and large bending tasks.

6. COLLARING

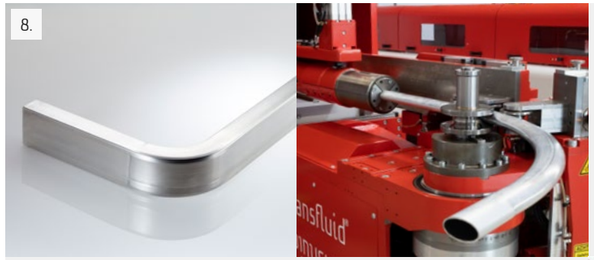
Collaring or forming of T-pieces via laser cuts made in advance.

7. PUNCHING

Additional punching on the bending machine, when holes are too close to the bending area.



THE RIGHT SYSTEM FOR EVERY REQUIREMENT

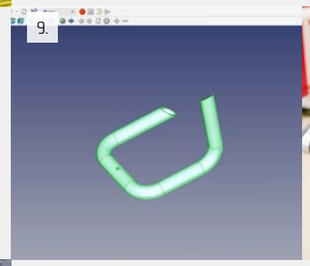


8. MATERIAL VARIATIONS

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

9. SOFTWARE

Database for compensation of material data, so that the first piece can already be manufactured with an accurate fit.



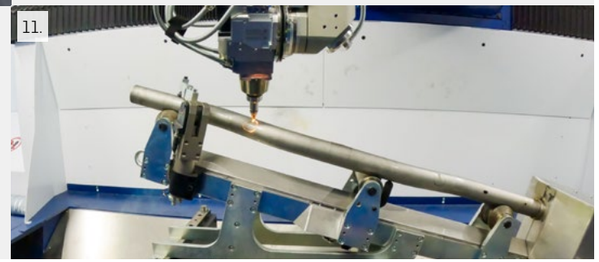
10. AUTOMATION

Stand-alone or fully automated solutions for large series, small series or single piece production are possible.

All systems are designed and produced by transfluid to match the bending machines. This ensures optimal integration and functionality.

11. 3D LASER PROCESSING OF BENT TUBES AND PROFILES

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



COMPLETE PROCESS CHAIN IN TUBE PROCESSING

Through the smooth integration of TRUMPF Laser tube cutting machines into transfluid production cells or production lines, enormous competitive advantages can be achieved.

1. DIGITALLY CONNECTED

SEAMLESS WORKFLOW – FROM DIGITAL DESIGN TO FINISHED TUBE GEOMETRY

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

The generated CAD data forms the basis for seamless downstream processing along the entire production chain.

These data are transferred directly into **transfluid software t project**, where intelligent preparation for the bending process takes place: components are analyzed, unfolded, and automatically converted into optimal bending sequences and machine programs.

The hardware of both manufacturers is digitally connected, making the overall process more transparent, flexible, and economical.

Thanks to the end-to-end data chain, everything is processed without manual intermediate steps, saving time and significantly reducing programming effort.

Direct interfaces between the systems minimize transfer errors and increase process reliability.

Optimized bending processes result from the automatic generation of efficient bending sequences based on the design data.

Maximum flexibility is ensured, as design adjustments can be quickly incorporated directly into the production process.

Efficient collaboration between design, laser processing, and bending technology enables consistent data, reproducible results, stable processes, reduced scrap, and higher quality.

This creates a fully digital, end-to-end workflow – from design through processing to the final tube bending – without media breaks and with maximum process reliability.

2. AUTOMATIC PRODUCTION

Can be fully automated as part of a complete tube processing cell.

3. VERSATILITY

The flexibility of laser tube processing offers unprecedented opportunities for the component design across all industries.

Complex designs can be cut into tubes that are not possible with conventional cutting methods.

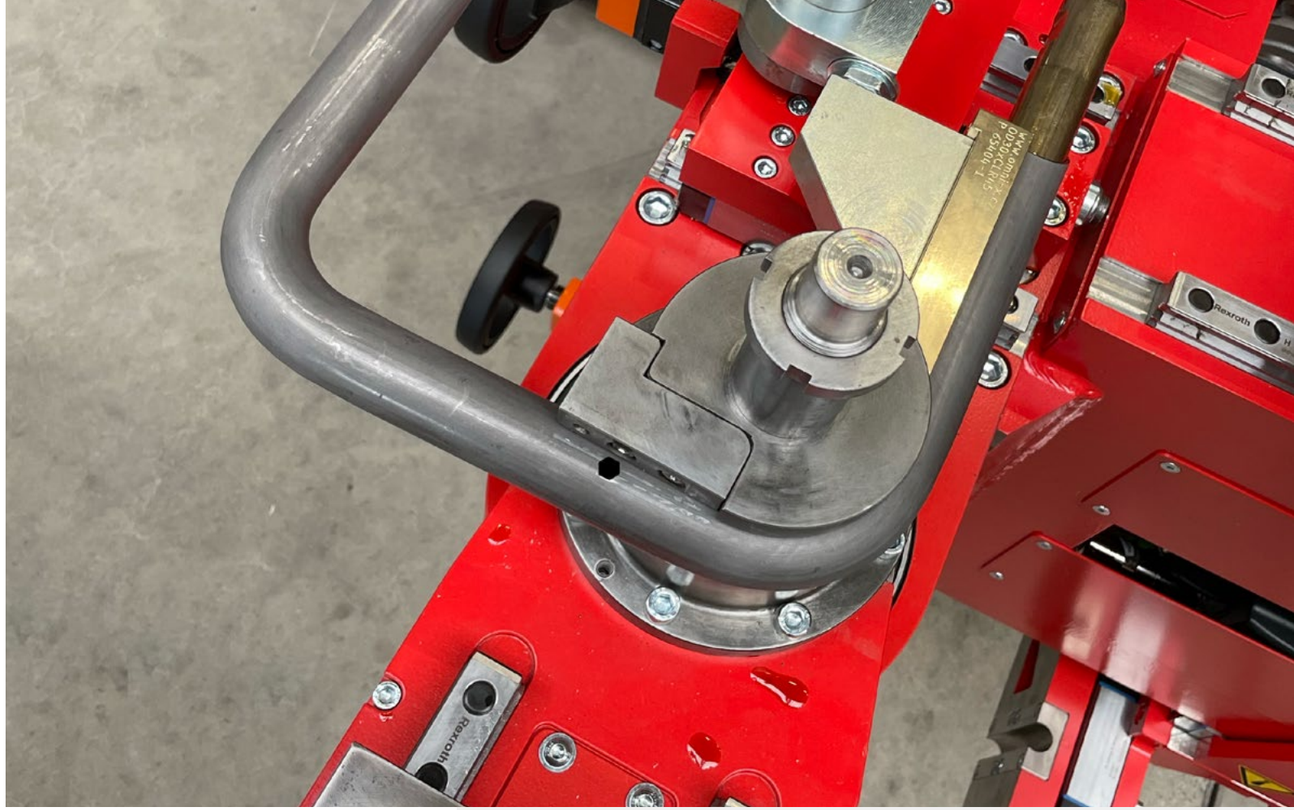
4. POST-PROCESSING

Extensive possibilities for post-processing of bent or formed tubes with flexible 3D laser tube cutting systems such as the TruLaser Cell 5030 or TruLaser Cell 8030.

5. PROFITABILITY

Time and cost savings in production due to the reduction of work steps such as sawing, drilling and deburring.

The automatic connection to the bending cell eliminates manual work steps and reduces the susceptibility to errors.



Additional benefits from the strong partnership between TRUMPF and transfluid:

- Customised solutions tailored to requirements
- Bundled know-how from two world market leaders
- On request, central project management by a main contractor
- Attractive financing offers
- Continuous advice and support in the selection process, project planning and implementation
- Perfect after-sales service

transfluid
The solution for tubes.

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