TOX® Press systems

Compact presses, standard presses
and special machines



Production facilities, from small to large
Versatile, efficient and customized



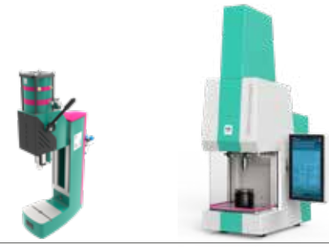
As an experienced technology and system provider on the market, we offer compact presses, press systems, and press components. We also offer manufacturing tools for clinching, punching, embossing, pressing, bending, and much more. All processes require stable and powerful components that ensure precise and effective manufacturing.

We have the right solution with our TOX® Presses. Whether manual workstations, automated C-frame presses, 2- or 4-column presses – the functional design of TOX® Presses based on the modular principle allows for simple and economical adaptation to your specifications.

In addition to stand-alone operation, our press systems can also be connected to form automated solutions. Our team will be happy to provide you with comprehensive advice.

Compact presses

Our portfolio starts with compact presses. Optimally coordinated table presses from the TOX® FinePress family (pressing forces of 2 - 57 kN) and the TOX® FlexPress Compact (pressing forces of 0.05 - 60 kN). As a standard product or customized to your requirements on request.



Press system TOX® ecoLine



The attractively priced standard press equipped with a pneumatic drive. Pressing forces of 10 kN - 150 kN.

TOX® FlexPress Station



The electric press for precise joining connections. Ergonomic, safe, and efficient. Pressing forces from 0.05 kN to 200 kN.

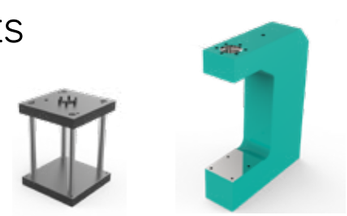
Special machines

Thanks to our unique modular design, we can offer virtually any configuration, from standard presses to customized special machines. We offer robust, durable, and economical presses with everything needed to meet customer requirements. Pressing forces of 0.05 - 2000 kN.



Press frames and components

Thanks to our comprehensive production facilities we manufacture most of our components in-house. That is why we offer them both as individual components and in combination with TOX® Drive systems.



TOX® FinePress: manual assembly presses with press forces 2 – 57 kN

The TOX® FinePress program increases the productivity in your company thanks to its flexibility, quality and value – even with just a small investment. The sturdy benchtop presses are characterized by their precise guidance and flexible options. With the toggle press, rack and pinion press, pneumatic press with manual approach or purely pneumatic press versions we have the right solution for almost all manual work stations.

Three frame sizes are available for each series. All models are available for immediate delivery from stock. The bench presses are equipped with a quick-clamping system for tool changes and a 360° adjustable pull lever. A variety of retrofittable accessories are also available.

The proven TOX® FinePress is ideal for assembly, crimping, stamping, punching, and embossing, as well as for all applications involving high-strength metals.

ADVANTAGES

- Best price performance ratio
- Extensive accessories
- Precision-guided ram
- Low-friction movement
- Pressing monitoring capable
- Hand lever adjustable 360°



TOX® FinePress Accessories

Stroke counter (ZEZ / ZPZ)
Electric or pneumatic counter, that tracks the produced amounts.



Position sensor (ZW)
Potentiometric displacement measurement system, consisting of a displacement sensor, cable, mounting bracket, and cable accessories.



Return stroke lock
For toggle, rack and pinion presses. Prevents premature return of the lever.



3-in-1 tool holder (ZA)
3-in-1 solution for cylindrical fitting bore



Tool holder (ZAK)
with force sensor



Sliding table (ZHST)
Simplifies the insertion of piece parts and has an integrated damping.





Rack and pinion presses
The rack and pinion presses ensure a constant force curve throughout the entire working stroke.

- Adjustable press forces 2 kN - 4 kN
- Simple tools and simple tool changes
- Three framesizes: type S (standard), type L (enlarged working height) and type W (enlarged projection)



Toggle presses
The toggle presses are equipped with a linear ball rail for more flexibility and easier operation.

- Adjustable press forces 2 kN - 25 kN
- High-precision functionality, no setting of the guide required
- Three framesizes: type S (standard), type L (enlarged working height) and type W (enlarged projection)



Pneumatic presses
Those presses are driven by a pneumatic cylinder. The high press forces are suitable for processes requiring pressing, forming and joining.

- Adjustable press forces up to 57.5 kN
- End position damping, stroke adjustment and end position monitoring included as standard
- Three framesizes: type S (standard), type L (enlarged working height) and type W (enlarged projection).



TOX® FlexPress Compact: Efficient workplace with press forces of 0.05 - 60 kN

The TOX® FlexPress Compact is an electric manual workstation for precise work results with seamless process monitoring. Proven mechanics and decades of expertise in press construction meet process monitoring with state-of-the-art features and a sophisticated control concept.

The press is driven by electromechanical servo drives TOX® ElectricDrive. Drives of the type EQe-K and EXe-K with integrated force and displacement sensors are installed for this purpose. The press structure consists of a welded frame on which the drive, safety device, enclosure, and drive cover are mounted. This design promises durability and creates a pleasant noise level.

ADVANTAGES

- The presses are available in four performance levels with maximum pressing forces of 5 kN, 10 kN, 30 kN, and 60 kN, covering a force range of approximately 0.05 kN to 60 kN, depending on the version and operating conditions.
- Whether clinching, riveting, press fitting, etc., all TOX® technologies can be implemented
- Seamless process and quality monitoring using new TOX® Software on the 15“ control panel
- Low space requirement due to particularly compact footprint and integrated control cabinet



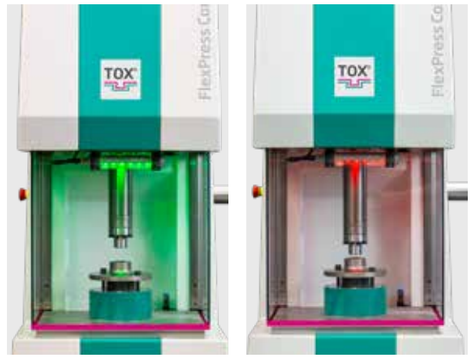
Sliding table
Sliding tables place components with pinpoint accuracy and are particularly for precise insertion work outside the work area. (Option)





TOX® Lift table
Height-adjustable base frame, which fulfills ergonomic requirements in shift operation with changing workers. (Option).





High flexibility
The TOX® FlexPress Compact combines flexibility in application with intuitive control and seamless process monitoring.
Thanks to simple tool changes, all processes controlled by TOX® can be used within a very short time. You can then evaluate your data directly on the control panel or on the higher-level control system—the interfaces are already in place.

ESD-certification
The TOX® FlexPress Compact iis ESD-certified according to the standard IEC DIN EN 61340-5-1. The compact workstation effectively protects products from the dangers of electrostatic discharge (ESD).
The FlexPress Compact offers maximum safety and quality in the manufacture of sensitive electronic components.

Safety and Ergonomics
The workspace illuminated by LEDs (RGBW) provides visual feedback on the process. It is immediately apparent whether the process performed is OK, and work can continue without having to look at the control panel.

- High-speed, self-locking safety door
- Expansion options via E/A module in work area

TOX® ecoLine: Standard press with press forces of 2 kN - 150 kN - fast delivered



The complete press consists of standardized components and impresses with simplicity, fast delivery times and attractive conditions. Defined and certified standards are the basis for all extension levels of the TOX® ecoLine and enable flexible configuration. When making your selection, you have numerous options to choose from This standard press system has press forces of 2 - 150 kN.

ADVANTAGES

- C-frame-bench press on base frame
- Pneumohydraulic drive with 4 press force categories and 2 power stroke version
- Carriage-guided ram
- Total stroke: max. 200 mm
- Projection: 200 mm
- Press opening: approx. 400 mm
- 2-hand safety controls
- Process monitoring selectabl



TOX® ecoLine with TOX® Powerpackage

This press consists of standardized components and has a pneumohydraulic drive system.

- 4 pressing force categories:
  20 kN / 40 kN / 80 kN / 150 kN
  (line-Q and line-X)
- 2 power stroke versions:
  6 - 12 mm or 12 - 22 mm
- Oil pressure sensor
- EPW 500 for process monitoring

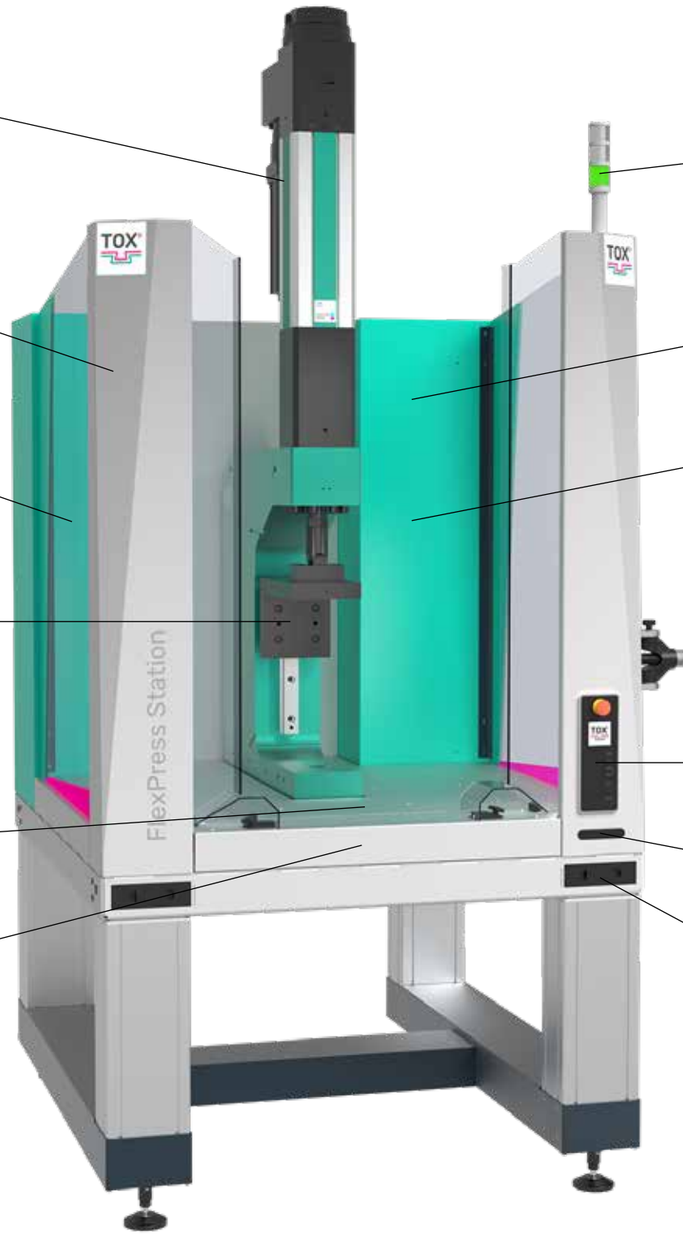
The TOX® ecoLine press will be equipped according to your wishes.

TOX® FlexPress Station: Electric press for precise joining connections

The TOX® FlexPress Station is a modular assembly workstation for forming and joining processes. Proven mechanics with perfect press construction meet innovative process monitoring and a well-developed control concept.

ADVANTAGES

- Versatile modular system architecture
- Easy integration into production lines
- Highest process and operational reliability
- Intelligent software for networked production processes



TOX® ElectricDrive
Servo drives with forces of 0.05 - 200 kN

Pressframe
Robust and durable steel construction

RGBW lighting
in the workspace shows the status of the process

Large working space
Equipped with CMB frame or with 2- or 4-column press frames

Working space access
Safety thanks to two-hand controls or optional light curtain or safety door

Removable base
for safe and clean cable management

Control cabinet on the reverse side
Decentralised installation level for integration of your own components

Signal light
Clear indication of machine status

Control cabinet
on the reverse side

Decentralised installation level
for integration of other components

TOX® UDI Panel 15“
Control, process monitoring and analysis tool in one. Optionally available in 21“ and with increased performance.

Control panel
Configuration of up to 4 individual work processes

Lift table (optional)
Stepless height adjustment with 4 memory buttons (memory function)

Integrated fork pockets
for easy lifting and moving of the press

Three types of presses

The TOX® FlexPress Station can be ordered in 3 different press types.



C-frame



2-column press



4-column press

Three Safety Options



Basis
Operation with 2-hand-control



Lightcurtain
Operation with control panel and start button



Electrical safety door
Operation with control panel and start button.

From standard to individual: C-Frames for pressing forces of 2 - 2000 kN

Our standard TOX® Press Frames provide the basis for your individual press system. The frames are available in various designs and their dimensions are individually tailored. The slim and sturdy C-frames offer an outstanding price performance ratio and are ideally suited for forming, joining, fastener insertion, pressing, stamping, and arking.



TOX® C-Frame Benchtop Presses



CEB / CMB Series

The flexible design can be implemented into a machine and robot cell or as a stand-allone press.

– Pressing force up to 300 kN



MC Series

With the height-adjustable console it can be used as a tabletop machine, but also be integrated into special purpose machines, transferdevices and production lines.

– Pressing force up to 150 kN



MCC Series

This cost-effective cast design can be used as an individual press or in conjunction with feeding or tool changing systems. Because of its flexibility and versatility it is ideal for pressing, marking or bending.

– Pressing force up to 150 kN

TOX® C-Frame Presses

TOX® C-Frame Press PC series

The slim design provides open access from three sides.The welded and stress relieved frame body has minimum deflection.

– Pressing force up to 2000 kN



CEC Series

Sturdy, cast construction with large depth guarantees accurately guided tools even with long strokes.

– Pressing force up to 84 kN



CEU Series

Sturdy welded construction with low deflection. The press bed is height adjustable and can be easily removed.

– Pressing force up to 140 kN



CEJ Frame Series

The flexible modular kit system of the CEJ series is perfect in combination with the TOX® Robot tongs drives and suitable for various tool geometries.

– Pressing force up to 80 kN



Standard to individual:
Sets for pressing forces of 2 - 2000 kN

The TOX® Press frames form the foundation of a custom press system. They come in various designs, and their dimensions can be customized to meet specific needs. When it comes to achieving optimal pressing and punching results with large tool spaces, the symmetrical press layout of 2- and 4-column designs stands out.

Combined with the right components — such as the drives, control systems, process monitoring, tooling set, and safety devices — you receive a press system tailored to your specific requirements.



TOX® 2-Column Press MB / MBG series

The 2-column/2-plate construction MB series with a slide or ball bearing guided ram plate combines high load-bearing capacity with small dimensions. The MBG series offers a large tool assembly space.

– Pressing force up to 2000 kN





TOX® 4-Column Press MA/MAG series

The 4-column design distributes the load optimally over the entire pressing surface. The MAG series offers a large tool assembly space and allows for an individual customization, includinga non-rotating tool holding fixture or guided ram plate.

– Pressing force up to 2000 kN





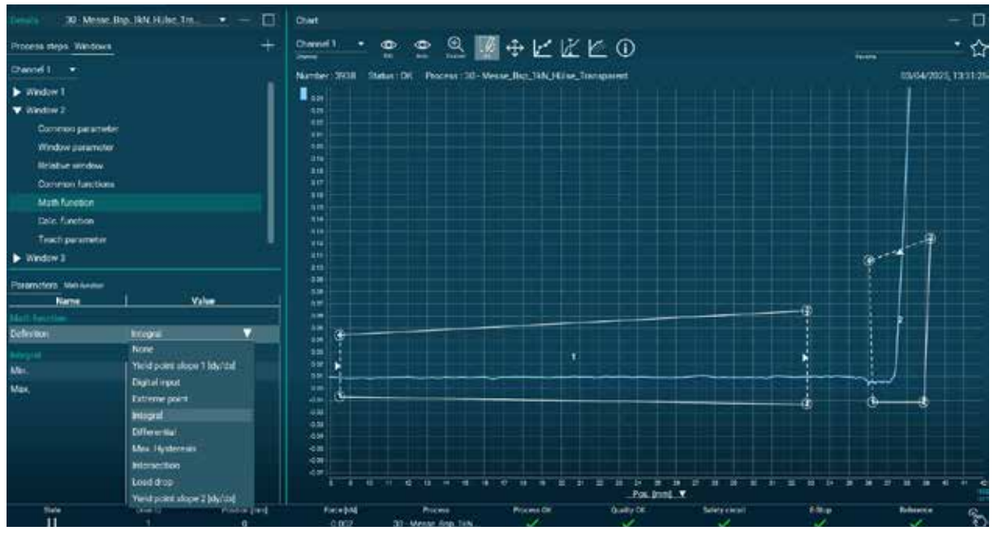
Controls and process monitoring for highest production quality

TOX® Software

The TOX® Software is the comprehensive solution for the operation of your plants. In addition to pure operation, detailed visualizations and data evaluations can be viewed and processes can be configured.

The software also impresses with its modern, intuitive UI design with dashboard and widget functions. These allow easy customization of the user interface, resulting in screens that are perfectly adapted to each operator. Simply install the software on your Windows PC or use our TOX® UDI Panel. Communication takes place in real time, guaranteeing high repeat accuracy and maximum process control performance.





Technical Data

- For all TOX® ElectricDrive
- 5 windows per process freely defineable
- 1000 software programs
- 2 channels e.g. force 1 / force 2 on position
- Flexible fieldbus with 32 words
- 10 tracks in one diagram
- 5000 diagram points per track

TOX® UDI Panel

Touchpanel panel with an integrated PC: The TOX® UDI Panel enables the control and visualisation of your system as well as the storage and processing of all process data. The powerful PC in a robust, milled aluminum housing is available in three sizes for mounting on the support arm or as a built-in version.

Perfect for monitoring and optimising your production processes. Thanks to its advanced technology, it offers you a comprehensive process monitoring solution and ensures that you always have an overview of your systems.



10" 15" 21"

TOX® EPW 600

The TOX® EPW 600 provides precise process monitoring, in which the exact functional relationships between force and displacement are verified. These compact devices are particularly suitable for use at simple manual workstations.



- Window technology for processes
- Especially made for manual workstations
- Panel and wall-mounted version
- Touchscreen 7“ and 10“

TOX® EPW 500

The EPW 500 is a cost-effective solution and was developed specifically for manual workstations. With its 128 measurement programs, 10 windows per test program, and ring buffer for 1000 values with timestamps you can optimise your work processes and increase efficiency without compromising on quality.



- For TOX® ElectricDrive and TOX® Powerpackage
- Cost-effective solution
- Especially made for manual workstations
- 128 Measuring programs
- Touchscreen 7“

Safe and fully equipped
With safety systems and accessories

TOX® Safety

We provide the highest safety standards in accordance with the latest EC standards, complete with a declaration of conformity and CE marking. For maximum safety for your employees and processes.

- Vertical, pneumatic safety door with one-hand start button
- Safety guard enclosure with three-sided protection made of aluminum profiles
- Makrolon panels with two-hand start button
- Safety (light) curtain for access and entrapment protection with one-hand start button
- Hold-up device for safe maintenance





TOX® Accesoires

With our accessories, we can meet most customer requirements:

- Sliding tables
- Rotary indexing tables
- Indexing tables
- Pick-and-place devices
- Robotic assembly
- Targeting system with light spot

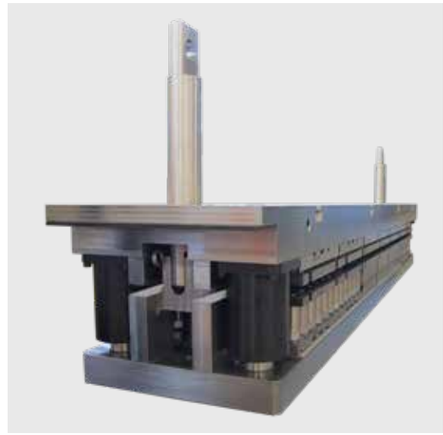




TOX® Toolings

TOX® offers the only guaranteed, reliable way to use clinching technology! We can draw on thousands of tool combinations already implemented in our database. If your specific material combination or application is not yet available, we will determine the appropriate tool set.

Beyond clinch technology, TOX® also provides complete tool sets and multi-point tools for automated manufacturing. Our in-house tool design and manufacturing capabilities implement project-specific requirements and deliver ready-to-use press systems from a single source. This allows you to benefit from seamless, needs-based service with a single point of contact and technology specialist.



Single components for press forces up to 2000 kN

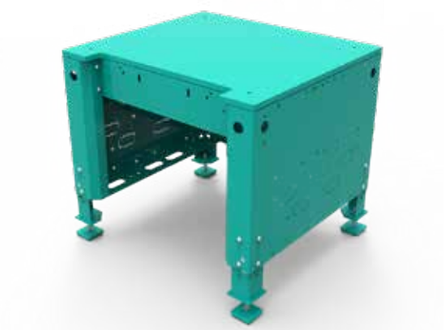


Thanks to our comprehensive production facilities we manufacture most of our components in-house. That is why we offer them both as individual components and in combination with TOX® Drive systems

We offer C-frames and 2- or 4-column presses in custom sizes and also the safety technology.







C-frame table presses



Type CEB



Type CMB



Type MC



Type MCC

C-frame upright presses



Type PC



Type CEC

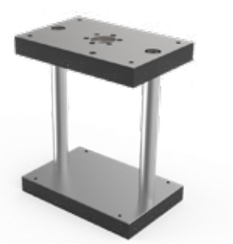


Type CEU

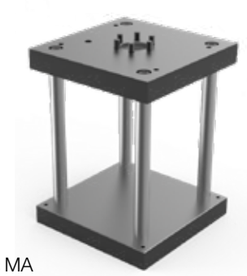


Type CEJ

Column presses

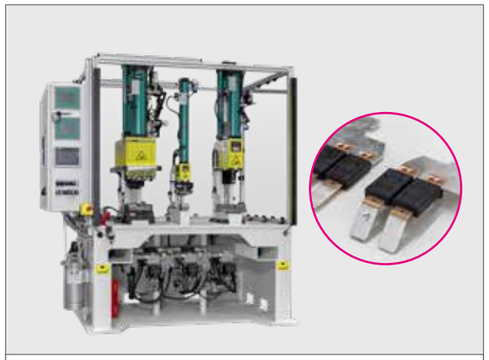


Type MB



Type MA

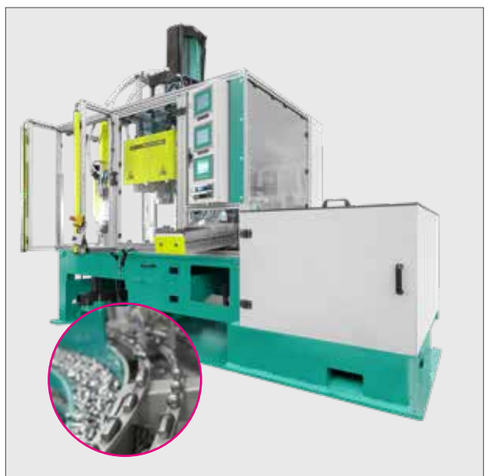
Applications in real life
Individual and flexible



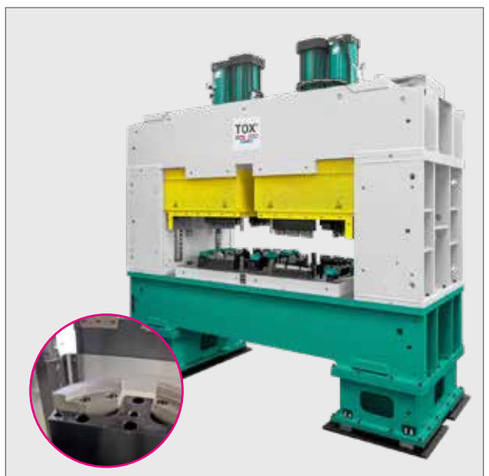
TOX® Press
for eClinching of fuse-components.



TOX® Press
C-frame with one guiding column.



TOX® Press
that presses in 16 rivets in one step.



TOX® Press with punching tools
It punches sunroofs-cutouts into sheet metal.



TOX® Press (4-column) with a multitool



TOX® Press system series MAG
for producion of batterypacks.



TOX® Press with 4 TOX® Powerpackages
for joining fuse parts in sheet metals.



TOX® Press
with a multi point clinching tool.



TOX® Press
in the home appliances industry.
It joins housing parts of refrigerators.

Your Partner for future-proof solutions. Globally networked. Regionally based.

Joining is tradition

For over 45 years, TOX® has been a leader in providing innovative solutions for sheet metal joining and drive technology. As an international family-owned business with its headquarters in Weingarten (Baden-Württemberg) we develop intelligent systems for joining, press-fitting, and clinching — from individual components to complex production systems.

TOX® stands for the highest quality, durability and depth of integration.







Technologies are our DNA

TOX® determines the ideal technology for the respective application in advance in its in-house test laboratory. Preliminary tests are carried out and analyzed using samples and test parts.

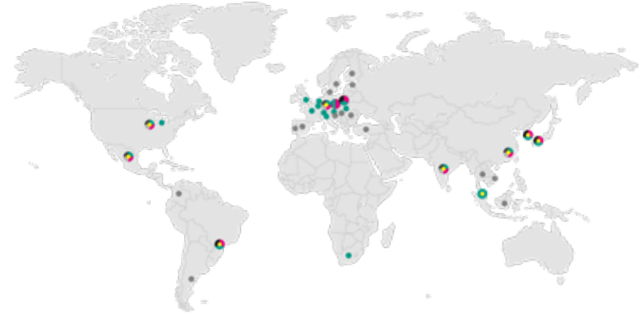
The results provide important parameters, such as the required pressing force or tool geometry, which are incorporated into the system configuration and processing technology. Final test reports verifiably ensure the quality of the joint.







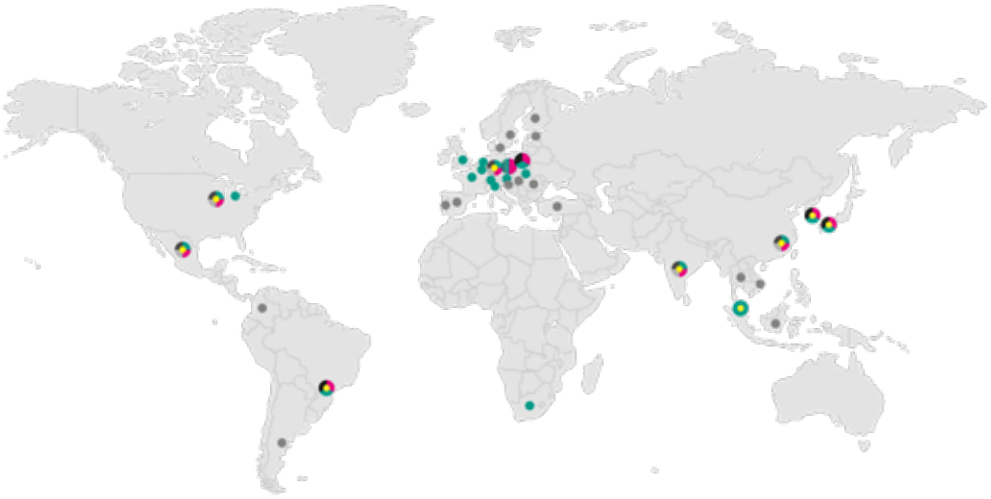




German Engineering meets global Innovation

Our headquarters and technology center are located in Weingarten (Baden-Württemberg). With 17 branches worldwide and a broad network of sales partners, we offer global proximity and comprehensive service.

Five production sites – in Germany, the USA, China, India and Mexico – ensure highest quality wherever our customers are.



TOX® PRESSOTECHNIK SE & Co. KG
Riedstrasse 4
88250 Weingarten / Germany

Find your local contact at:
www.tox.com

317814 / 60.202604.en Subject to technical modifications.