

TOX®  PRESSOTECHNIK

# TOX®-Presses

C-Frame presses

Column presses

Small presses



# TOX<sup>®</sup>-Presses

## Output forces from 2 – 2000 kN, intelligently monitored

Clinching, punching, fastener insertion and marking – all applications require stable components that ensure precise tool guidance. We have the appropriate solution with TOX<sup>®</sup>-Presses. Whether this involves manual workstations, automated C-frame presses or 2- or 4-column presses – the functional design of the TOX<sup>®</sup>-Press modular kit principle allows easy and economic adaptation to your specifications. In addition to stand-alone models, our press systems can also be combined with automated solutions.

### Drives **1**

- Pneumohydraulic drives TOX<sup>®</sup>-Powerpackage
- Electromechanical drives TOX<sup>®</sup>-ElectricDrive
- TOX<sup>®</sup>-Hydraulic cylinder with external pressure intensifier

### The modular kit principle

The ideal solution for your application: When it comes to choosing a standard press, you have numerous options. The TOX<sup>®</sup> modular kit principle makes it easy. To meet any further requirements, we can develop versions that exactly match your specification for dimension and function.



### Typical applications



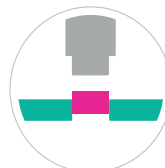
Clinching, TOX<sup>®</sup>-  
Sheet metal joining



Riveting



Pressing-in,  
Insertion of  
functional elements



Assembling,  
Press fitting



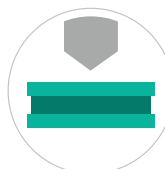
Punching, piercing



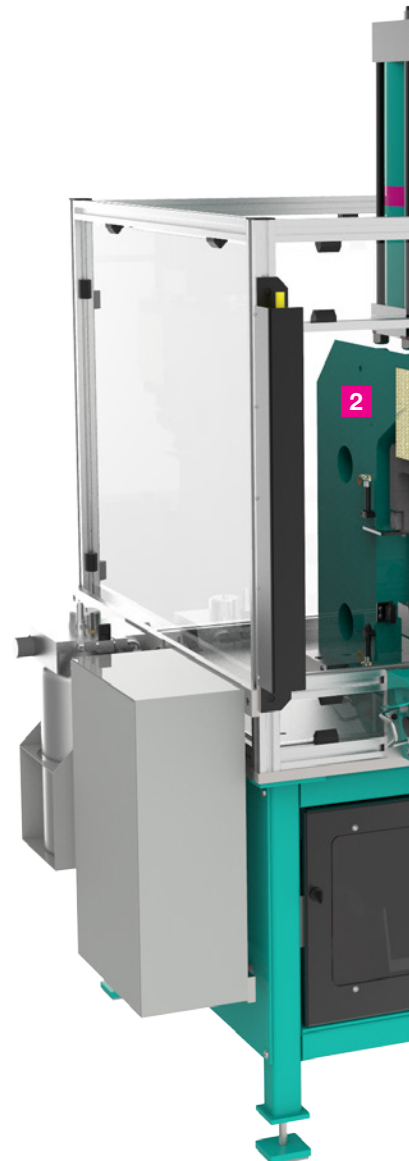
Embossing,  
marking



Tightening, clamping



Pressing, compressing

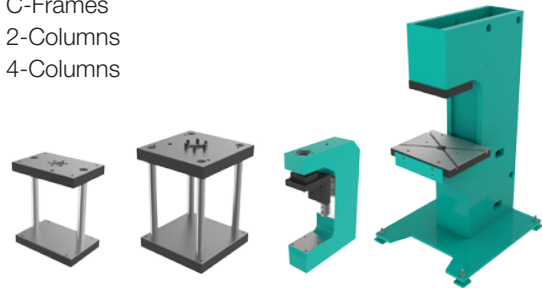




**Press body 2**

machined or welded versions

- C-Frames
- 2-Columns
- 4-Columns



**Tools 3**

- Clinching tools
- Press/stamping tools and setting heads
- Punching tools

**Control systems 4**

- 1-hand start + additional safety modules
- 2-hand safety control systems
- 2-hand safety control systems with PLC
- Foot pedal control systems + additional safety modules
- External impulse control systems



**Base frames 5**

- Steel tube welded
- Steel panel bolted
- Aluminum extrusion
- Custom sizes possible



# Components

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Additional modules ensure added value: More press safety, better process monitoring and easy plant integration

## TOX®-Safety Guard Enclosure

- Aluminum or steel frame
- Polycarbonate
- Wire mesh

## Light curtain

- Access protection
- Rear area protection



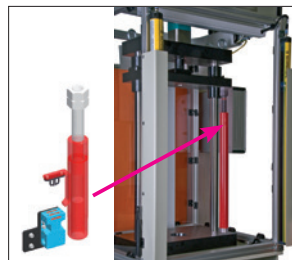
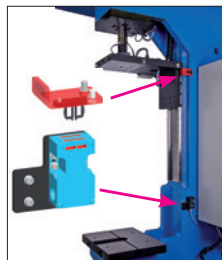
## Safety door

- Pneumatic door
- Rolling door



## TOX®-Restraint Device

- Angular variant
- Rod variant



## TOX®-Safety Device CLX

- Part of the foot pedal control system





**Workpiece handling**

- Sliding tables
- Rotary indexing tables
- Shuttle tables
- Pick and Place
- Robot placement



**TOX®-Pressing Monitor**

Monitoring of processes by means of

- Window technique
- Envelope curves

Multiple possibilities

- Multi-channel evaluations
- Bus interfaces
- Data backup



**TOX®-Accessories**

- Target equipment for exact positioning
- Tool couplings
- Sensors for
  - travel
  - force
  - pressure



# TOX®-FinePress

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 bench-top 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.

## Advantages

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

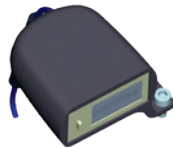
### Guide quality – the core and guarantee for best results. **1**

- Robust guidance using recirculating ball guides
- No adjusting of the guide tolerance
- No readjusting



### Stroke counter

- Electrical (battery) or pneumatical
- 8-digit display



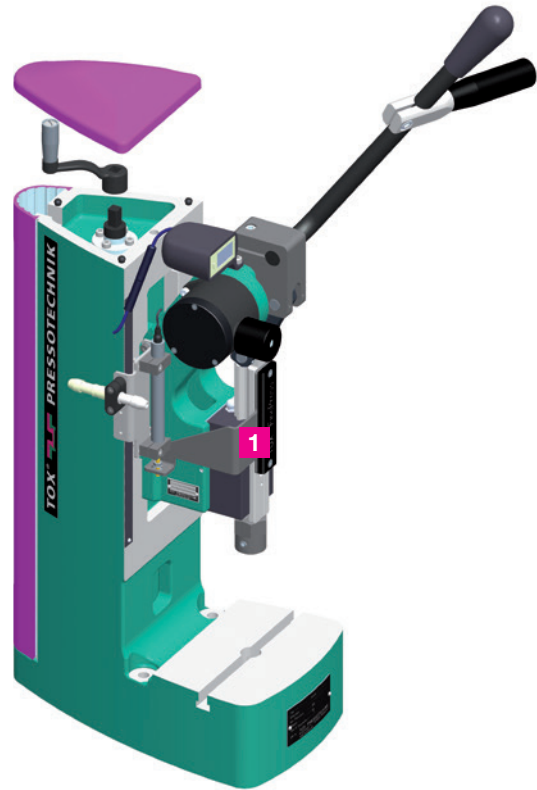
### Tool fixture ZA

- 3-in-1 solution for cylindrical clamping with and without thread or with set screw



### Tool holding fixture ZAK with force sensor

- For all bench top presses TOX®-FinePress



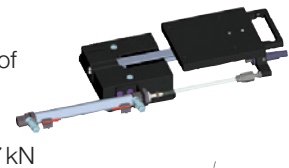
### Return stroke lock

- For toggle and rack and pinion presses
- Prevents premature return of the lever



### Slide table

- Allows loading outside of press area
- Integrated damping
- For all presses up to 57 kN



### Potentiometric position sensing ZW

- Easy mounting on return stroke lock and press head



# Small presses 2 – 57 kN

## The right size for every application

The benchtop presses TOX®-FinePress are available in four series, each with three frame sizes and covering a press force range from 2 kN to 57 kN.

They are fitted with a rapid clamping system for re-tooling and a 360° adjustable hand lever.

### Standard

**S**

### Enlarged open height

**L**

### Enlarged throat depth

**W**

#### Toggle presses KF

- Low effort
- High working force



#### Rack and pinion presses ZF

- Constant force
- Low force at the hand lever
- High working force



#### Pneumatic presses PF

- Multi-chamber pneumatics
- Adjustable stroke length
- Position sensing or travel measuring system (optional)



#### Pneumatic presses with manual approach PFH

- Hand lever toggle mechanism for approach stroke
- Pneumatic power stroke with stroke adjustment
- EC-type examination certificate



# TOX<sup>®</sup>-Presses from 2 – 2000 kN

## TOX<sup>®</sup>-Press Frames to fit your application

Our standard TOX<sup>®</sup>-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.

When it comes to optimal pressing and stamping over large tooling areas the symmetrical press construction of the 2- and 4-column design is best. In combination with the appropriate components, such as drive, control system, tool set and also safety devices, you receive a press system tailored to your needs.

### TOX<sup>®</sup>-C-Frame Benchtop Presses

#### CEB/CMB Series

The use of flame-cut steel parts ensures flexible construction of the CEB series. It can be implemented into a machine and robot cell or as a stand-alone press. The tool ram of the CMB series, which is guided by linear bearings, eliminates the need for further tool guidance.

- Press force up to 300kN



### TOX<sup>®</sup>-C-Frame and C-Bow Presses

#### CEU Series

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

- Press force up to 140kN



#### MCC Series

The MCC series uses compact, sturdy and inexpensive cast construction to be operated as an individual press or in conjunction with feed or tool changing systems. The flexibility and versatility of the MCC series makes it ideal for pressing, marking or bending.

- Press force up to 150kN



#### CEC Series

The CEC series sturdy, cast construction with large depth for use in combination with the pneumohydraulic drive TOX<sup>®</sup>-Powerpackage RZ or electro-mechanical drive TOX<sup>®</sup>-ElectricDrive EPMR guarantees accurately guided tools even with long strokes.

- Press force up to 84kN



#### MC Series

The height-adjustable console makes the MC series particularly flexible. It can be used as a tabletop machine, and can also be integrated into special purpose machines, transfer devices and production lines.

- Press force up to 150kN



#### CEJ C-Frame Series

The flexible modular kit system of the CEJ series is optimized in conjunction combinable with our TOX<sup>®</sup>-Robot tongs drives and suitable for various tool geometries.

- Press force up to 80kN







**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.

- Press force up to 2000 kN

**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 also offers a large tool assembly space.

- Press force up to 2000 kN



**TOX®-4-Column Press MA/MAG series**

The 4-column construction of the MA series distributes the load optimally over the entire pressing surface and minimizes deflection. The MAG series also offers a large tool assembly space. The modular construction allows for an individual customization, including, for example, a non-rotating tool holding fixture or a 4-column guided ram plate.

- Press force up to 2000 kN



# TOX<sup>®</sup>-Controls

Only a machine that is adapted to your specific production needs achieves the required efficiency and the desired production capability. An important component is a well-thought-out control system, which is intuitive and reliable to use, while offering a maximum number of functions at the same time.

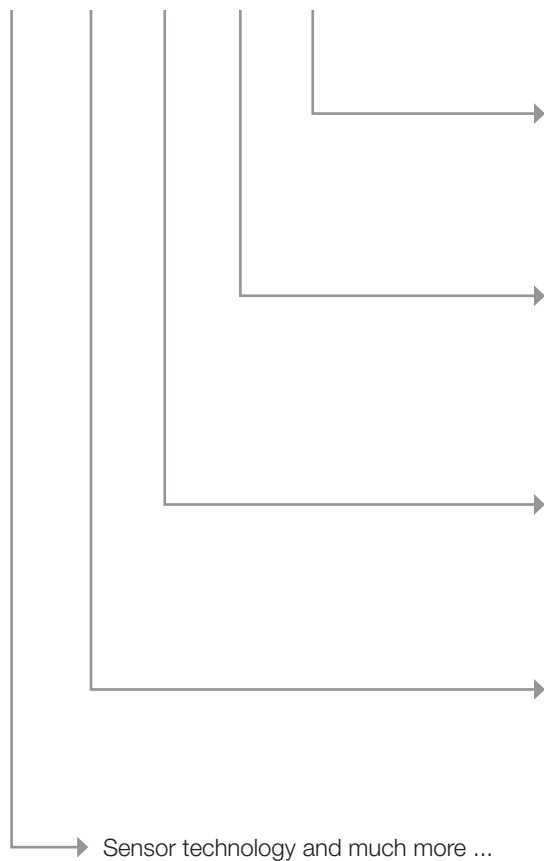
Choose the control system (TOX<sup>®</sup>-Controls) suitable for your press from our extensive standard range. All meet the latest technical safety standards and guidelines of the German Occupational Safety and Health Administration as well as European Directive DIN EN 13736 for pneumatic presses (local standards available upon request).

## Basic equipment of the TOX<sup>®</sup>-Control systems

- 2-hand safety control systems
- 1-hand/foot stand + additional safety modules
- external impulse control systems/interfaces



## Optional integration of further components



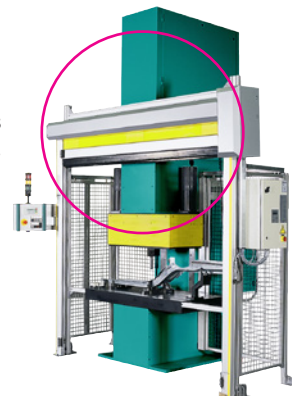
Operating panel (Touchscreen)

Process monitoring



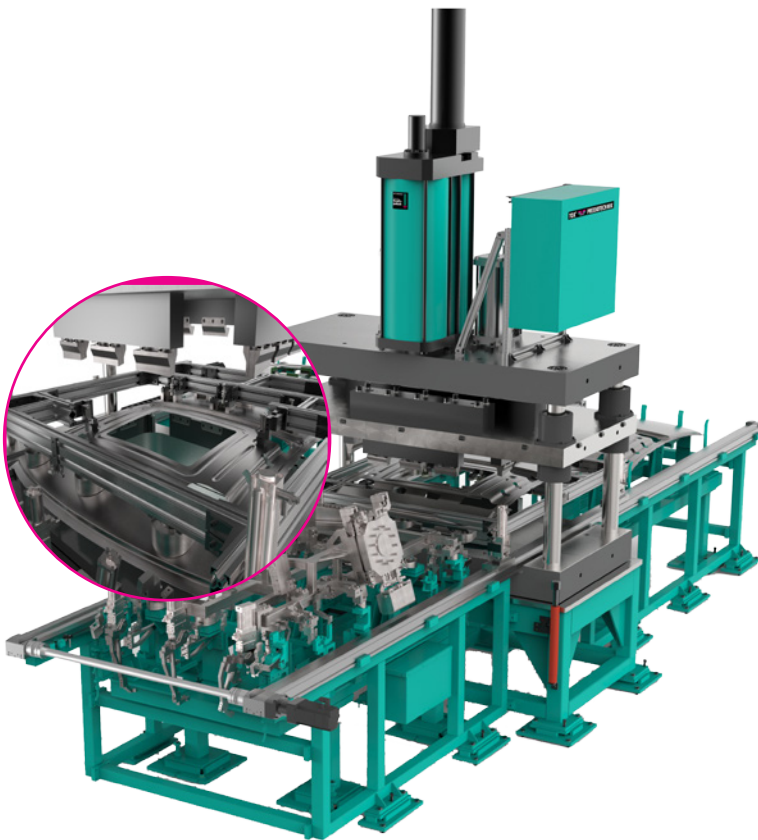
Safety controls with Light curtain

Safety control systems with lifting door and roller door



## Typical applications

We design, plan and build complete presses and special machines



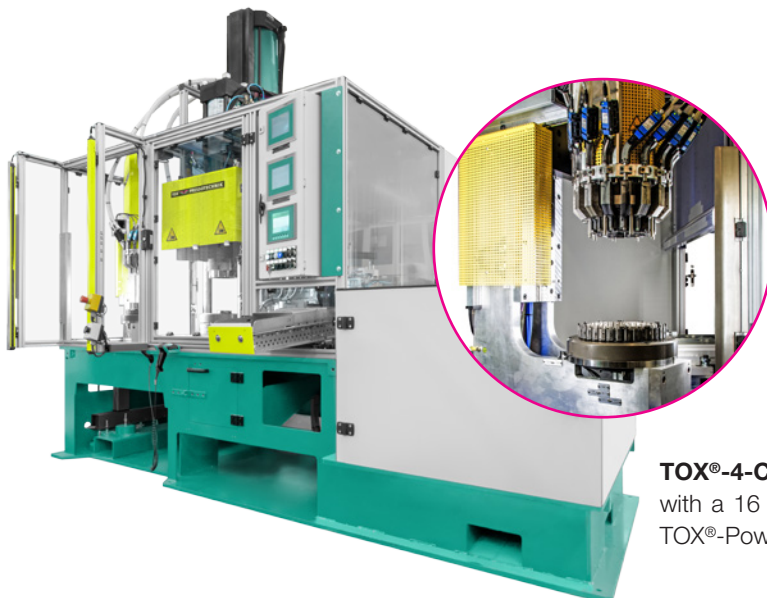
### TOX®-4-Column Press MAG series

designed as a punch press with pneumohydraulic drive TOX®-Powerpackage, workpiece holder, transfer unit and slug removal conveyor



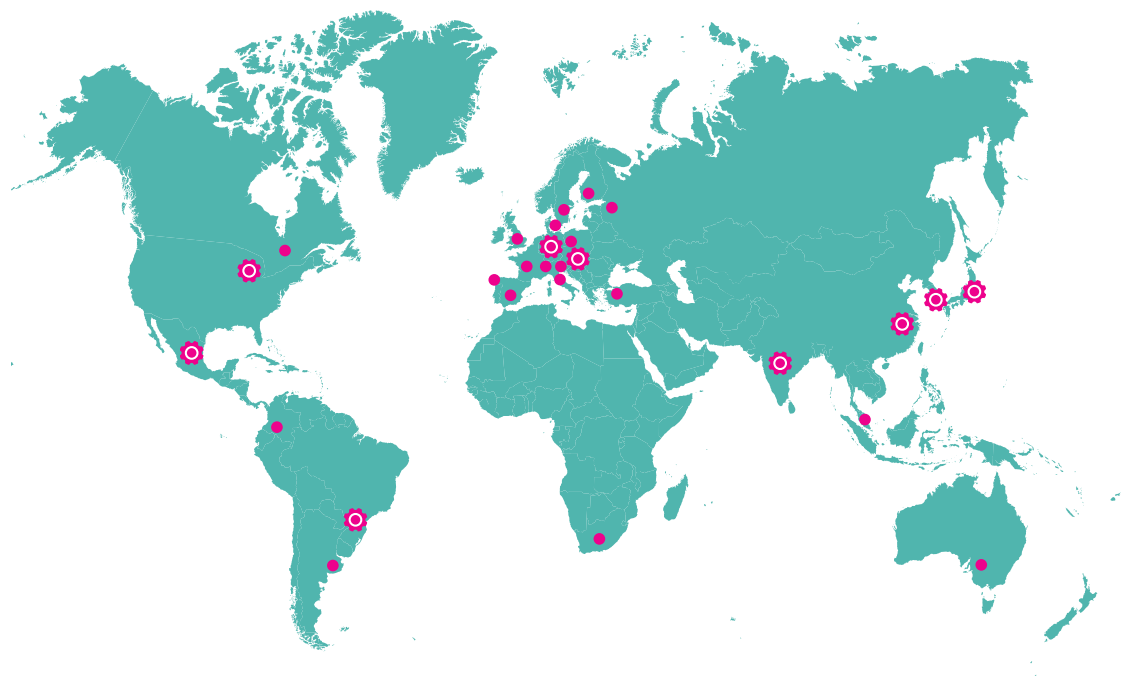
### TOX®-C-Frame Press CMB series

with electromechanical servo drive TOX®-ElectricDrive, safety controller with pneumatic door and touchscreen



### TOX®-4-Column Press MAG series

with a 16 tool riveting system, pneumohydraulic drive TOX®-Powerpackage, light curtain and transfer unit



**TOX®  PRESSOTECHNIK**

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

TOX® PRESSOTECHNIK L.L.C.  
4250 Weaver Parkway  
Warrenville, IL 60555 (USA)

Find your local contact at:  
[tox-pressotechnik.com](http://tox-pressotechnik.com)

317872 / 60.202001.us Subject to technical modifications.