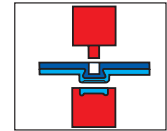


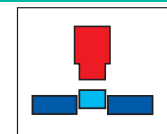
# Applications

*TOX® PRESSOTECHNIK –  
application driven solutions*

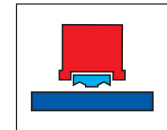
Clinching



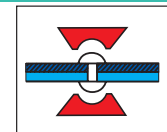
Assembling



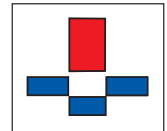
Self-Piercing



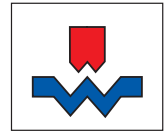
Riveting



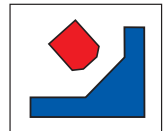
Punching



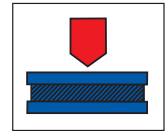
Coining



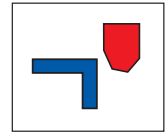
Clamping



Pressing



Bending



TOX®-Production Systems



## Modular drives ...

The **TOX®-Powerpackage** – the energy-saving pneumatic cylinder with integrated oil system and automatically initiated power stroke. Press force from 2 to 2000 kN, total stroke up to 400 mm, and power stroke up to 80 mm.

**TOX®-ElectricDrive** – the modular constructed electric spindles offer 0.25 – 400 kN press forces, from the individual drives or a complete high performance production cell where precision and flexibility are essential.

**TOX®-Hydraulic cylinder.** This Powerpackage version can be used for applications and machines where there are space limitations. The force range is between 2 kN and 750 kN.



## .... for modular presses!

No matter if you manufacture with manual work-stations, automated C-frames, two or four column presses – **TOX®-Presses** are designed to suit your application. Used for clinching, punching, coining, pressing or bending – our presses offer the most flexibility and meet your requirements.

The **TOX®-FinePresses** are harmonised for high quality production with a low budget investment. Out of the modular kit system we design what fits your applications the best.

Our press systems can be combined to complete automated solutions for your high performance production.

TOX® – You can rely on traditional quality.



## At different applications ...

**Sheet metal joining** from TOX® PRESSOTECHNIK – means riveting without a rivet. This world-wide well-proven technique stands for the joining of sheet metal components with reduced investment and lowest running costs.

**TOX®-Punching and Coining** technology offers complete solutions for all punching or coining applications by means of modular hand, machine and robot tongs.

With the **TOX®-Fastener-Insertion system** we are able to provide complete solutions for most nuts and studs insertion tasks.

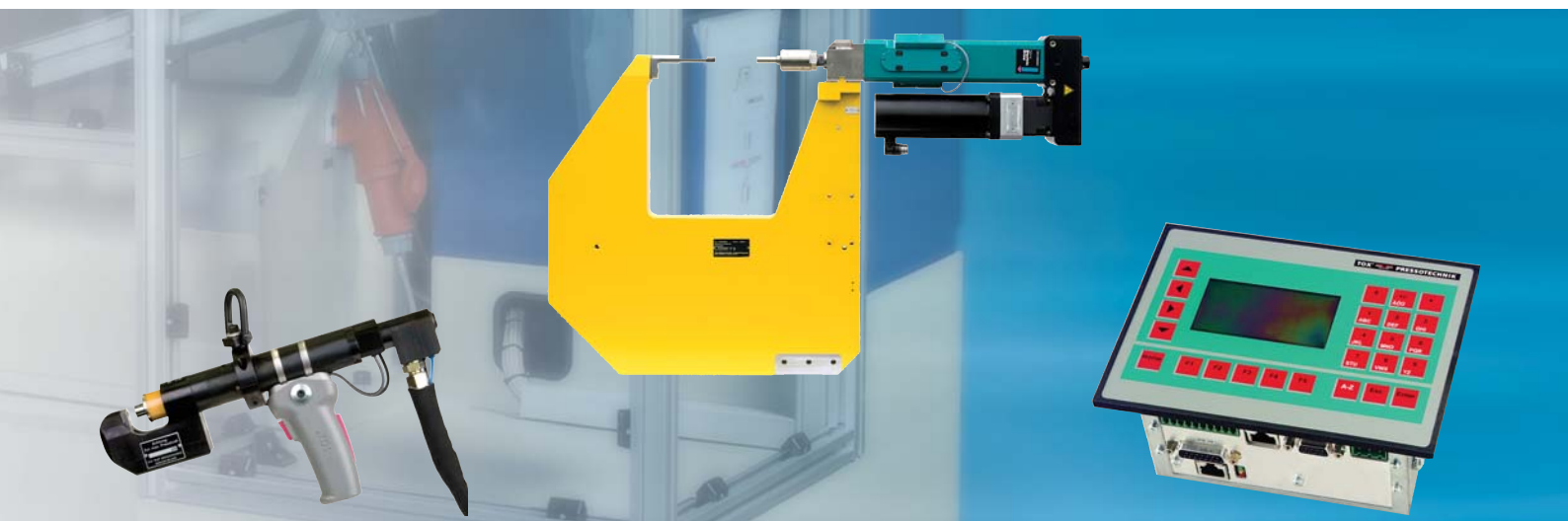


## .... the quality at a glance!

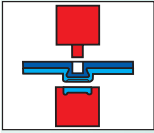
**TOX®-Tongs** are available as TOX®-Mini-Tongs, TOX®-Manual Tongs with 1-hand or 2-hand controls, TOX®-Machine and Robot Tongs with the well proven TOX® drives.

Any special tongs can be supplied. Thanks to the extensive experience we will provide reliable, robust and economical manufacturing solutions.

With the **TOX®-Controls** and the **TOX®-Process and Pressing Monitoring** your processes are well kept in check.



# Joining – Assembling



## Clinching TOX® sheet metal joining

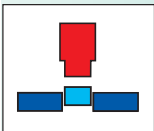


For many metal joinings, TOX®-Clinching is the optimal, most favourable and environmentally sound solution.

### Your distinct advantages:

- + sheet metal joining using only the parent materials
- + best solution even for different material combinations
- + total sheet thicknesses from 0.3 mm up to 12 mm
- + no damage to the surface
- + no contamination or rework
- + can also be used with intermediate layers such as glue or paper
- + no heat generation / no sparks
- + high dynamic strength
- + long tool life
- + excellent process monitoring capabilities
- + decades of experience

*Cost effective process*



## Assembling Press-fitting Mounting

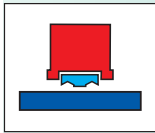


Pressing-in and pressing-on of bushings and bearings, production of precise force-fitting assemblies – for example using the TOX®-Powerpackage, already well-proven in thousands of applications.

### Your solid advantages:

- + pressing-in and pressing-on via force or distance
- + absolute precision
- + utmost repetitive accuracy
- + noticeable reduction of the stick-slip effect
- + highly flexible
- + minimum stress loading on piecepart
- + reduced noise level
- + harmonized controls and pressing monitoring

# Assembling – Joining, Forming



## Inserting Fastener-Insertion Insertion of function elements

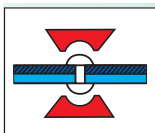


What would you like to assemble?

- Pierce nuts, pierce rivets, pierce studs
- Rivet nuts, rivet studs
- Self-piercing elements
- Full or semi-tubular rivets
- Special elements

### Use our complete solutions:

- + pressframes, insertion machines
- + custom built fixtures designed for your pieceparts
- + insertion tooling (swage head)
- + singulator and feeding techniques
- + harmonized controls and pressing monitoring



## Riveting Crimping Flaring



No matter what or how you want to produce:

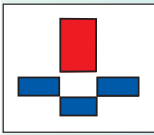
- sheet metal
- tubes, rings, hose crimping
- full tubular rivets, bolts
- cable trains
- collar beading
- crimp connections
- and many others



### We offer you standardized but highly flexible products:

- + from individual up to series production
- + tools tailored to your special application
- + for applications with or without additional material or components

# Processing – Cutting, Forming



## Punching Piercing Shearing



In principle, it does not matter whether you want to process sheet metal, plastics, cardboard, textiles or foils:

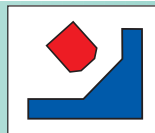
- closed and open cuts
- forming cuts; even/planar and solid cut edges
- single or several piercing holes during one stroke
- piercing, feeding and calibrating during one stroke

### Our devotion to quality results in maximal profit for you:

- + clean cut edges
- + precise tool guidance
- + minimal installation space due to integrated damping of cutting impact
- + quick and quiet
- + optimal scrap management



## Coining Marking Stamping



## Tensioning Clamping

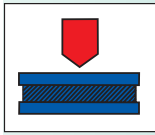


You have to identify your products? You need to hold a part safely for additional work?

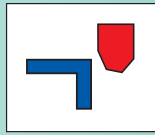
### Our extensive experience can help you:

- + metallic or non-metallic materials
- + use of date stamp, application of serial numbers
- + marking tools with manual and/or automatic switching
- + numbers, signs, symbols, embossed text
- + projection stamping
- + concave stamping
- + nozzle stamping, collar stamping, countersunk stamping

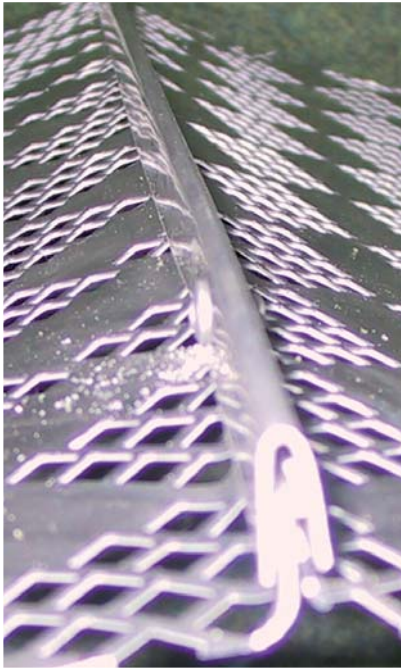
# Processing - Forming



**Pressing  
Compressing**



**Bending  
Straightening**



There are lots of application possibilities for our TOX®-Tongs, pressframes and presses.

### Did you ever imagine?

- + forming of fish filets
- + sensitive pressing of pizza dough
- + dewatering of raw cheese
- + pressing of lenses for eyeglasses
- + forming of delicious nuggets
- + preforming of green compacts/bodys (blank sinter parts)

## TOX®-Production Systems



Not quite enough? Do you wish to combine all or several production processes? For the manufacture of your products, we can offer individual solutions with components from the TOX® standard program.

### You can find us in the following industries:

- Automotive
- White goods
- Electrical industry
- Construction industry
- Food industry
- Packaging industry
- and many others



**Please contact us!**



**Our Worldwide Sales and Service Network**

**Product Range**

TOX®-Powerpackage



TOX®-PowerKurver



TOX®-ElectricDrive



TOX®-FinePress



TOX®-Presses



TOX®-Controls  
TOX®-Monitoring



TOX®-Joining-  
Systems



TOX®-Tongs



TOX®-Punching  
TOX®-Coining



TOX®-Press-Fitting



TOX®-Production  
Systems



TOX® PRESSOTECHNIK GMBH & CO. KG  
 Riedstrasse 4  
 D-88250 Weingarten  
 Tel. +49 (0) 7 51 / 50 07-0  
 Fax +49 (0) 7 51 / 5 23 91  
 E-Mail: info@tox-de.com  
 www.tox-en.com