

TOX® PRESSOTECHNIK at the SPS Nuremberg 2024

## With intelligent solutions for smart production

The focus of the TOX® PRESSOTECHNIK appearance at the SPS 2024 (November 12 to 14, Nuremberg) is networked production. The servo press system TOX® ElectricDrive Core is one of the highlights at booth 1-401 in hall 1. The combination of drive, control and software with integrated process monitoring is quickly installed, collects data and thus fulfills all requirements for predictive maintenance.

With the TOX® ElectricPowerDrive, a powerful servomotor provides the optimum drive torque. A screw drive converts this directly into a linear motion that acts directly on the working piston. The efficient combination of a maintenance-free motor and screw drive develops press forces from 0.02 to 1000 kilonewtons.

The TOX® EdgeUnit – a small box that is mounted directly on the servo drive as a decentralized intelligence unit – collects all sensor data and passes it on to the TOX® PowerModule Core, which forms the heart of the TOX® ElectricDrive Core system. The PowerModule is a servo converter and the central intelligence of the drive control in one and has a field bus interface through which it communicates with the higher-level control.

The drive system is controlled via the TOX® Software. It combines parameterization, operation, process monitoring, diagnostics and evaluation, as well as quality data management.

The system is rounded off by a scalable safety concept - from STO to a patented safety brake concept to SLS - precisely tailored to the customer's requirements.

### Store and process data

At the trade fair, TOX® will also be showing the TOX® UDI (Universal Data Interface) panel as an intelligent addition to the products of the latest software generation. This has an integrated PC and works with the TOX® software on a hardened Linux operating system for optimal IT security. The user can control the system, visualize the processes, and store and process process data using the built-in touch screen. The central element of the intuitive panel is the implemented TOX® Software with so-called middleware functionality. It processes data from processes and then makes it available for various communication standards such as MQTT or OPC UA. In addition, the user can store the information on the internal hard disk or on the server via the network. Relevant process data is displayed using the intuitive TOX® Software.

Users can apply the panel wherever TOX® Software 3.x is in use, for example with the drive solution TOX® ElectricDrive Core. This allows quality data to be stored and transferred to the cloud. The specialists have already integrated the control panel as standard at the assembly station TOX® FlexPress Compact as the central intelligence and visualization of the user interface. Processing results are clearly displayed and, if necessary, transferred to higher-level systems.

## Data acquisition and process monitoring

Optimize your processes with our advanced process monitoring / process monitor (PMO).

In today's fast-paced business world, efficiency is the key to success. The state-of-the-art process monitoring solution provides users with the tools they need to optimize manufacturing operations and maximize productivity.

The modular control system from TOX® allows sensor data from other drive systems and processes to be measured, recorded and monitored, and quality data to be transferred to the cloud via various interfaces and formats, for example as a json file via MQTT or OPC UA. At the same time, it is a flexible modular system – the decentralized box (EdgeUnit) can be operated in conjunction with the associated control system (ProcessMonitorControl Core) on a PC with the TOX® software or combined with the 21" UDI panel and further servo presses of the TOX® ElectricDrive Core series.

## Why TOX® Process Monitoring?

- Real-time monitoring: Keep an eye on all your processes in real time and react immediately to deviations.
- Data analysis: Use comprehensive analysis to make informed decisions and achieve continuous improvement.
- Automated reports: Get automatically generated reports that provide valuable insights into your process performance.
- Ease of use: Our intuitive user interface makes it easy to implement and use, without the need for

## Increase efficiency and reduce costs

With our process monitoring solution, you can identify critical processes, optimize resource utilization and improve the quality of your products and services. Trust in our expertise and take the next step towards a more efficient future.

Contact us today to learn more!

**TOX® at SPS 2024: Hall 1, Booth 1-401**

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**Meta description:** TOX presents intelligent solutions for smart production at the SPS 2024: The TOX ElectricDrive Core system and the TOX UDI Panel

**Keywords:** TOX PRESSOTECHNIK; TOX; SPS 2024; TOX ElectricDrive Core; TOX ElectricPowerDrive; TOX EdgeUnit; TOX UDI Panel; integrated touch screen; TOX PMO; process monitoring; data storage; assembly; production; ergonomics; safety

### Captions:



**Image 1:** The servo press system TOX ElectricDrive Core is an efficient solution for networked manufacturing.



**Image 2:** The TOX UDI panel combines the control and visualization of a system with the storage and processing of relevant process data. It is available as a mobile hand-held operating device or as a built-in or built-on variant in three sizes.

**Images:** TOX® PRESSOTECHNIK GmbH & Co. KG

## About the company:

TOX® is a supplier of presses, systems and components for sheet metal joining and assembly technology. Since its foundation in 1978, the family-owned company has developed into a global player with over 1,500 employees worldwide, over 500 of whom work at the headquarters in Weingarten near Ravensburg. The success story began with a pneumohydraulic drive – the TOX® Powerpackage. In addition to pneumohydraulic drives, the “Components” division now also includes electromechanical drives, as well as controllers, sensors and software for process monitoring and quality assurance. In addition to a wide range of presses, the systems division includes manual, machine and robot tongs. Another mainstay is modern sheet metal joining technology, which also includes the TOX® Clinching Technology, with which the company is now the market leader.

TOX® drives, processes and systems are used by automotive manufacturers and their suppliers as well as in industrial companies for household appliances, electronic components, furniture and much more. Special versions of the TOX® drives are also approved for use in the food industry.

TOX® is present worldwide: 18 subsidiaries, including in the USA and South America, Europe and South Africa, India, China and the entire Asia-Pacific region. 20 agencies in many other markets support and advise customers locally.

## For further information:

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