

TOX® at SPS 2026 in Nuremberg

Integrated Control and Process Monitoring for Various Drive Technologies

At SPS – Smart Production Solutions – taking place November 24–26, 2026, in Nuremberg, TOX® will demonstrate how different drives and processes can be seamlessly integrated into a common control and software environment. The TOX® Control System will be the centerpiece of the exhibition in Hall 1, Booth 1-401. The platform connects electromechanical TOX® ElectricDrive drives and pneumohydraulic TOX® power packs using the same software, which can be operated via the same interfaces and already includes comprehensive process monitoring. In addition, third-party systems can be integrated into the same platform via our ProcessMonitor. The trade show portfolio is rounded out by the TOX® EPW600 and CEP600 monitoring devices.

A Platform for Control and Process Monitoring

With the TOX® Control System, TOX® pursues a comprehensive approach to the control, monitoring, and evaluation of industrial pressing and assembly processes. Electromechanical servo drives from the TOX® ElectricDrive series, TOX® pneumatic-hydraulic power packs, and connected third-party systems can all be operated within a single software environment. External actuators, such as pneumatic cylinders with force and stroke monitoring, can also be integrated into the process monitoring system.

The TOX® software serves as the central operating and software environment. Processes can be configured, visualized, and evaluated. At the same time, relevant measurement and quality data are recorded and made available for further processing. This allows different drive concepts and applications to be implemented on a common technological basis without requiring separate operating and monitoring solutions for each process.

This consistency extends from the electromechanical TOX® ElectricDrive through the pneumohydraulic TOX® PowerPack to the TOX® ProcessMonitor for additional monitored processes. For machine builders and operators, this reduces the number of different interfaces and operating concepts and simplifies the integration of various technologies within a production facility.

With the integration of the TOX® Kraftpaket into the TOX® Control System, TOX® is introducing a world first to the market. The pneumohydraulic drive series can now be operated via the same software and features the same interfaces as the electromechanical TOX® ElectricDrive drives, including the already integrated, comprehensive process monitoring. This makes the compressed-air-powered drive system—which has proven itself over decades—part of a common control and software platform. In addition, third-party systems can be integrated via the TOX® ProcessMonitor. The measurement portfolio is complemented by the TOX® EPW600 and CEP600 monitoring devices.

Making Process Data Available to Higher-Level Systems

Another key focus of the TOX® Control System is the consistent acquisition and provision of process and quality data. The integrated process monitoring, for example, records force-displacement curves and enables the monitoring of defined process limits and the detection of deviations.

Via standardized data interfaces, the recorded information can be transmitted to higher-level production and quality systems. Communication standards such as MQTT and OPC UA enable, for example, the transmission of quality and process data to customer-side servers or cloud systems. This means that the data is not only available directly at the machine but can also be used for documentation, traceability, and further analysis.

Greater Accuracy in Force Measurement

At SPS 2026, TOX® will also present an advanced version of its force measurement technology. Thanks to the increased measurement accuracy, forces will be recorded much more precisely in the future, allowing even minor changes in the process to be captured more reliably. Based on the current state of development, TOX® expects an improvement in force measurement accuracy by a factor of 5 to 10 compared to previous solutions.

The higher measurement accuracy expands the possibilities for process evaluation, particularly in demanding assembly and joining processes. Process windows can be analyzed in greater detail, and deviations can be recorded more precisely. This feature thus integrates into the end-to-end approach encompassing control, process monitoring, and quality data acquisition.

Compact Process Monitoring with the EPW600 and CEP600

The measurement portfolio is complemented by the TOX® EPW600 and CEP600 monitoring devices, which were already presented at SPS 2025. The EPW600 is used to monitor press-fit operations and evaluates force-displacement curves for this purpose. The CEP600 is specifically designed for monitoring clinching processes. It can map up to twelve channels, making it suitable for applications where multiple measurement points within a system need to be monitored.

Both devices can be integrated into existing plant environments and operated using TOX® software. They thus complement the scalable system architecture with compact solutions for applications where process monitoring is the primary focus.

With its exhibition presence at SPS 2026, TOX® will demonstrate the breadth of a unified control and software platform: from electromechanical and pneumohydraulic drives, through the monitoring of external processes, to the transfer of quality data to higher-level IT systems.

TOX® at SPS 2026: Hall 1, Booth 1-401

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Service for editorial offices:

Meta title: TOX® at SPS 2026: End-to-End Control and Process Monitoring

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Keywords: TOX PRESSOTECHNIK; SPS 2026; TOX Control System; TOX ElectricDrive; TOX Kraftpaket; TOX ProcessMonitor; EPW600; CEP600; process monitoring; force measurement; quality data; MQTT; OPC UA; automation; Smart Factory

Image captions:

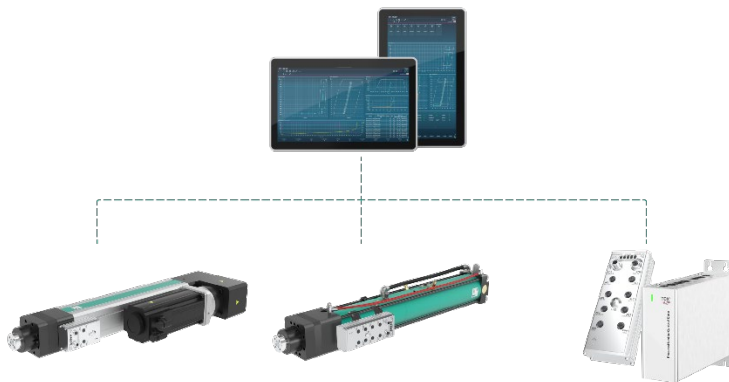


Image 1: TOX® Software—a platform for end-to-end control and process monitoring: With TOX® Software, you can control and monitor TOX® ElectricDrive, TOX® Kraftpaket, and connected third-party systems end-to-end within a unified operating and software environment.



Image 2: The TOX® EPW600 process monitoring unit enables precise real-time analysis of press-fitting operations and supports quality assurance in assembly.

Image: TOX® PRESSOTECHNIK SE & Co. KG

About the company:

TOX® is a supplier of presses, systems as well as components for sheet metal joining and assembly technology. Since its foundation in 1978, the family business has become a global player with more than 1500 employees worldwide, over 500 of which are based at the headquarters in Weingarten near Ravensburg, Germany. The success story started with one pneumohydraulic drive – the TOX® Powerpackage. The “Components” division now includes pneumohydraulic and electromechanical drives as well as controls, sensors and software for process monitoring and quality assurance. In addition to a large range of presses, the system range comprises manual, machine and robot tongs. Another mainstay are modern sheet metal joining procedures, also incorporating the TOX® Clinching Technology, which makes the company today’s market leader.

Drives, processes and systems from TOX® can be found at automotive manufacturers and their suppliers as well as at industrial businesses for household appliances, electronic components, furniture and much more. Special versions of the TOX® Drives are also approved for the food industry.

TOX® is represented worldwide: 17 subsidiaries, amongst others in the USA and South America, Europe and South Africa, India, China and the entire Pacific Region. 18 representatives in many other markets support and advise local customers.

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