

TOX® PRESSOTECHNIK at SPS 2025 in Nuremberg

Intelligent drive technology and precise process monitoring for networked production

TOX® will present innovative solutions for digital manufacturing at the SPS – Smart Production Solutions – trade fair in Nuremberg from November 25 to 27, 2025. In Hall 1, Booth 1-401, the company will showcase its modular drive technology TOX® ElectricDrive Core, powerful control units, and new process monitoring systems – including, for the first time, the EPW600 press fit monitoring system and the CEP600 clinch monitoring system.

Modular drive solutions for smart manufacturing

The focus of the trade fair presentation is the TOX® ElectricDrive Core system, which combines drive, control, sensor technology, and software into an integrated solution. The central element is the TOX® PowerModule Core, which, as a servo converter with fieldbus interface, also represents the central intelligence of the system. The TOX® EdgeUnit, mounted directly on the drive, performs decentralized acquisition of all process data and transmits it in bundled form to the PowerModule.

The electromechanical drives of the TOX® ElectricPowerDrive series convert torque precisely into linear motion using a maintenance-free motor and a screw drive. They cover a pressing force range from 0.02 to 1,000 kilonewtons and can be intuitively parameterized, controlled, and monitored using the TOX® software. The software maps all central functions such as operation, diagnostics, evaluation, and quality data acquisition—an important basis for predictive maintenance and networked manufacturing.

Intelligent data interfaces and operating solutions

TOX® presents the TOX® UDI Panel as a supplement to the drive solution. The human-machine interface is based on a hardened Linux operating system and offers standardized communication interfaces such as OPC UA, MQTT, or JSON through middleware functionality. Process data can be stored and processed locally or in the network. The UDI Panel is available in various designs—as a handheld device or built-in version—and is used as standard in the TOX® FlexPress Compact assembly workstation, among other applications.

New process monitoring solutions: EPW600 and CEP600

Two newly developed systems for process monitoring are particular highlights at the trade fair:

- The EPW600 press-fit monitoring system was designed for demanding press-fit applications. It analyzes force-displacement curves in real time, detects deviations immediately, and enables reliable process control.
- The CEP600 clinch monitoring system is specially designed for monitoring clinching processes. It can also be operated independently, offers extensive analysis functions, and supports standard-compliant quality assurance in the joining process.

Both modules can be flexibly integrated into existing plant environments—either via a PC-based interface with the TOX® software or via a panel such as the TOX® UDI.

Contact us today to learn more!

TOX® at SPS 2025: Hall 1, Booth 1-401

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Service for editorial offices:

Meta title: TOX® at SPS 2025: Intelligent drive and monitoring systems for networked production

Meta description: TOX® PRESSOTECHNIK will be showcasing powerful servo drives, modular process monitoring, and digital interfaces for smart manufacturing at SPS 2025 in Nuremberg.

Keywords: TOX PRESSOTECHNIK; SPS 2025; ElectricDrive Core; ElectricPowerDrive; EPW600; CEP600; Process monitoring; UDI Panel; Industry 4.0; Predictive maintenance; Smart factory; Data analysis; Force-displacement monitoring; Manufacturing automation

Image captions:

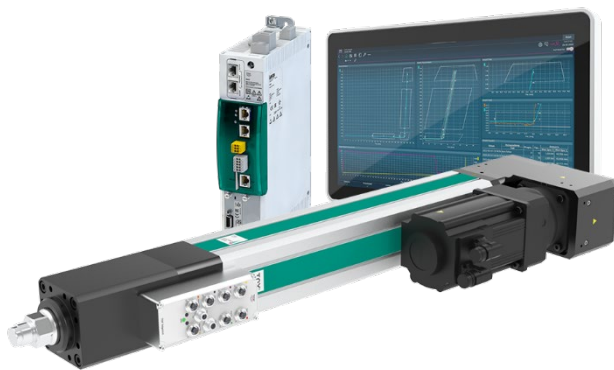


Image 1: The modular TOX® ElectricDrive Core system combines drive, control, sensor technology, and software for force-controlled processes in networked production.



Image 2: The TOX® UDI Panel serves as a central interface for controlling, visualizing, and analyzing process data—compatible with OPC UA, MQTT, and other industry standards.



Image 3: The TOX® EPW600 process monitoring unit enables precise real-time analysis of press-fit 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: 18 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.

Press release



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