

NEW SERVICE PACK

MS sonxOS V1.0 SP8 Px Release for series machines MS sonxTOP

With the release of SP8, you have the opportunity to benefit from extended functions in terms of flexibility, efficiency, user-friendliness and connectivity. Via the installation, new functionalities can be activated that provide additional benefits in your production environment.

We invite you to make an appointment with your contact person to find out more about the new features and to further optimize your processes. Your contact will be happy to go through the details and ensure that the new functions are optimally integrated into your work processes.

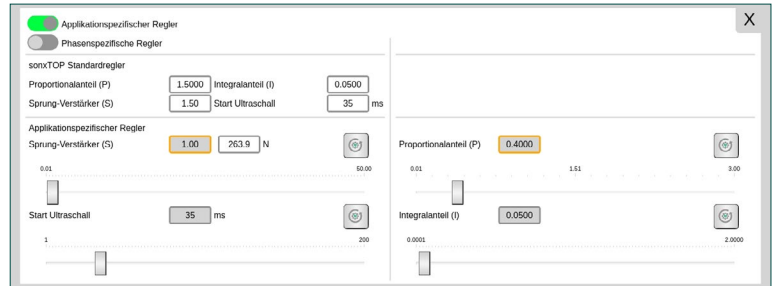
INNOVATIONS

- **Flexibility:**
Optimization of force control
- **Efficiency:**
4 processor cores (previously 2), that means faster data processing and a faster user interface, compensation of component tolerances with patented MS Gradient gradient cut-off
- **User-friendliness:**
User management via SIEMENS Batch Reader, up to 10 self-configurable buttons
- **Connectivity:**
Communication via OPC UA

1. OPTIMIZED FORCE CONTROL

The force regulator in the machine has been further optimized so that it reacts even better to the various materials. In expert mode, it is now also possible to optimize the controller and it is even possible to define each individual welding phase.

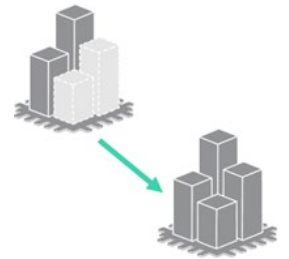
- HMI access to standard controllers
- Controller adjustable for each welding phase
- Controllers are saved in the application
- License content: Ultrasonic Setup Advanced



2. MULTICORE UPGRADE

The performance increase from a dual-core to a quad-core has many advantages, such as better performance and parallel processing of several tasks.

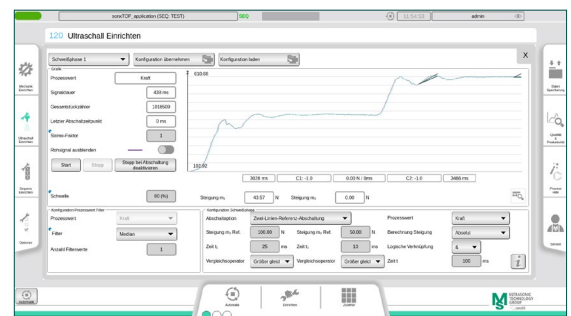
- From SP8, 4 processor cores
- Increased performance, resulting in faster data processing and HMI speed
- Advanced task management in sonxOS
- More HMI performance with real-time processing



3. COMPENSATION OF COMPONENT TOLERANCES THROUGH GRADIENT SHUTDOWN

Until now, welding has only been controlled by force or time. For component tolerances of injection molded parts, there can be larger deviations.

Problem	Dimensional tolerances in injection-molded parts lead to fluctuating process shutdowns in the ultrasonic welding process with conventional shutdown options.
Goal	The ultrasonic welding process must react to tolerance fluctuations in the parts in order to achieve stability and reproducibility and thus reduce the number of NOK parts.
Result	MS Gradient → Monitoring the course of the change (gradient or increase) of a value over a certain distance.
Additionally	The shutdown must be based on process value curves. To do this, the process must monitor the time change as a switch-off criterion. To make an entire welding process safe, this switch-off can be combined with other criteria (time, relative distance, etc.).



4. USER MANAGEMENT WITH SIEMENS BATCH READER

To make user management easier and more secure, a SIEMENS Batch Reader can now be integrated, providing many benefits such as security, error prevention, personalized access rights and settings, logging and monitoring.

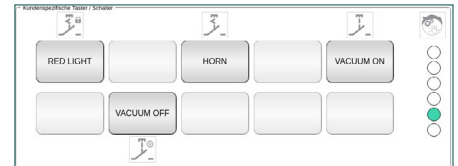
- Simple user management via RFID
- Registration via UID (Universally Unique Identifier)
- Setup via configuration cards
- Many available wireless protocols (frequency 13.56 MHz)



5. VARIABLE CONFIGURABLE BUTTONS

The new function for integrating your own buttons with specific functions directly on the HMI interface opens up new possibilities for further optimizing the machine for your own processes.

- Integrate up to 10 self-configurable buttons with the HMI Button Manager
- Use on the automatic screen
- Even more individual adaptation to your own process



6. COMMUNICATION VIA OPC UA

OPC UA is an industry standard for communication and data exchange in automation technology and Industry 4.0. The use of OPC UA offers several advantages for communication in industrial applications, such as platform independence, manufacturer independence, security, scalability and seamless integration into IT systems.

- Alternative to communication via the MS Gateway
- Communication with the management system via OPC UA protocol
- No hardware required
- Compatible with management systems and PLC controls
- All information is available (last weld, errors ...)
- Complete external control (welding start, external parameterization ...)



7. FURTHER INNOVATIONS OF THE SP8

- MS Sequence extensions (OPC, clamping assistant, component counter ...)
- MS logical assistant extensions (clamping assistant, function blocks (AND/ OR ...), cycle flags, internal machine functions)
- New Ultrasonic Setup profile → Positioning profile (direct positioning without force control). For example, food slicing
- MS Network extensions (folder information, connection information)
- MS Gateway extensions (signals, trace)

