

Sonic Welder

Sonic Welder is a new generation of modular ultrasound welders which meets the requirements of Industry 4.0.



The solutions implemented in SONIC WELDER ensure:

- ▶ Local and remote control
- ▶ High efficiency and quality of the welding process
- ▶ E-diagnostics of the system
- ▶ Archiving and viewing operational history
- ▶ Self-diagnostics of internal conditions
- ▶ Performance of functional and technical requirements for state of the art ultrasound welding and cutting systems

SONIC WELDER

smart
ultrasonic
systems



GOLD MEDALS WITH HONORS
INTERNATIONAL INNOVATION EXHIBITIONS
„BARCELONA INNOVA 2017”
„VALENCIA INNOVA 2018”

Wi-Fi



micro

RS485



Łukasiewicz

Instytut Tele- i Radiotechniczny

itr.org.pl

Welder types

Type	Nominal frequency [kHz]	Nominal power [kW]	Table dimension [mm]	Transmitter	Booster	Power supply
SW520	20	5	340x250	20kHz/5kW, titanium	titanium	AC 230 V, 25 A, air 6 bar
SW320	20	3	340x250	20kHz/5kW, titanium	titanium	AC 230 V, 16 A, air 6 bar
SW220	20	2	340x250	20kHz/5kW, titanium	titanium	AC 230 V, 10 A, air 6 bar
SW230	30	2	300x200	30kHz/3kW, titanium	titanium	AC 230 V, 10 A, air 6 bar
SW240	40	1	300x200	40kHz/1kW, titanium	titanium	AC 230 V, 10 A, air 6 bar

Functional features

- ▶ Control panel with a 7 inch touch graphical display
- ▶ Menu with intuitive operation of the welder function
- ▶ Ultrasound generator built into the body
- ▶ e-diagnostics of the entire welding system
- ▶ Digitally adjustable pressure force of the vibrating system
- ▶ User access control: operator, administrator, servicing
- ▶ Possibility of modifying the vibrating system resonant frequency scanning resolution and scope, which ensures correct cooperation with non-standard resonance systems.
- ▶ Data archiving – waveform recording and logging
- ▶ Possibility of recording the configuration of the waveform recorder and logger on a pendrive attached to the USB connector on the front plate
- ▶ Tree operation modes:
 - ✔ set energy mode
 - ✔ set time mode
 - ✔ continuous operation mode
- ▶ Setting/editing of the welding cycle from the control panel level
- ▶ Real time measurement and visualisation of the technological process parameters
- ▶ Archiving/restoring the settings from an USB drive
- ▶ Measurement and visualisation of power signal parameters
- ▶ Welding cycle counters and log
- ▶ Adjustable mechanical bumper
- ▶ Generator's power stage safety functions
- ▶ Transducer and ultrasound system safety functions

Optional equipment

Communication interfaces

1	RS232
2	WiFi

Accessories

A	soundproofed cabin
B	stand for the welding machine

Order specification

The order should specify: welder type, communication interfaces and accessories, in this order.

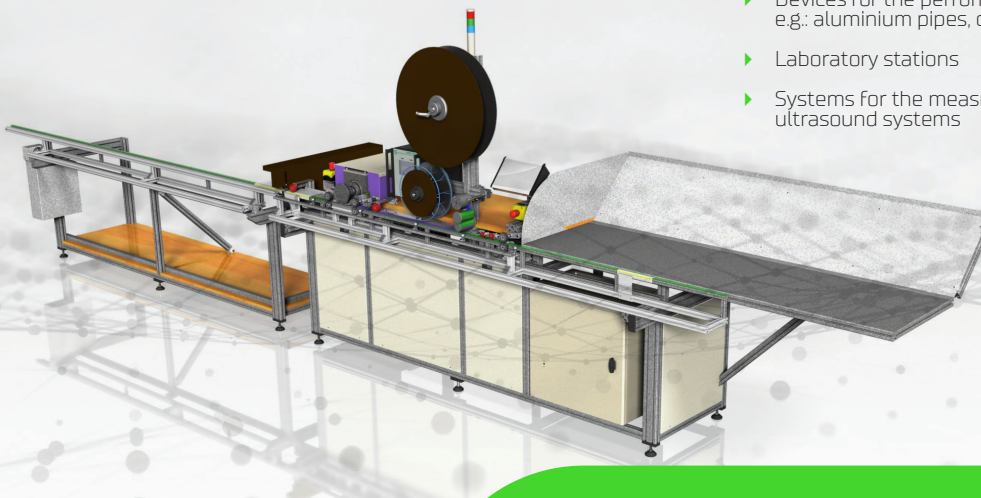
Examples:

SW520 / WiFi/RS232/B	5 kW welder, 20 kHz, with RS232 and WiFi interface with a welder base
SW320 / A	3 kW welder, 20 kHz with a soundproof cabin

Special purchases

Łukasiewicz Research Network – Tele & Radio Research Institute also offers non-standard devices:

- ▶ Multi-head device for simultaneous welding and cutting of multilayered polypropylene cloth
- ▶ Automatic lines for performing of ultrasound welding based technological processes
- ▶ Devices for the performance of continuous welding technologies, e.g.: aluminium pipes, construction profiles
- ▶ Laboratory stations
- ▶ Systems for the measurement of parameters of vibrating ultrasound systems



PN-EN ISO 9001:2015-10



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