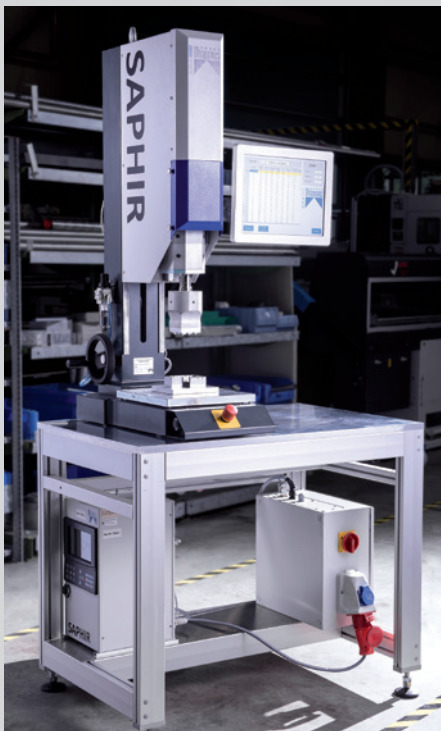


Ultrasonic welding machine

USM SAPHIR DIGITAL for highest quality standards))



- Digital Generator Technology up to 5000 W Power
- User friendly process control with several welding modes
- Graphical demonstration of welding process
- Operation via 15" Touch Screen Display, optional 7"
- 4 password levels protected
- Automatic mode with visualizing of last 20 welded parts in comparison to reference welding
- Counter with access control
- Set up mode with handling availability of automated elements
- Set up mode with sample welding
- Connection of external control to the PC touch
- Data back-up and export via USB or Ethernet interface
- Programmable speed for downwards movement
- Proportional valve technology permits forces selection in Newton
- Remote maintenance & network connection
- High torsion rigidity for high welding forces

Ultrasonic Welding Machine:

The SAPHIR DIGITAL welding machine has been developed and designed for high quality demand in the plastic industry. The high torsion rigidity of the column makes it possible to realize high welding forces. The adjustable slide and the efficiently dimensioned adjusting plate allow that differently shaped and sized applications can be welded on the same machine. The modular configuration enables the use of different frequencies. The standard frequencies are 20, 30, 35 kHz.

	USM SAPHIR 35 kHz	USM SAPHIR 20 kHz
Machine		
Dimension (LxWxH)	320 x 912 x 510 mm	550 x 600 x 1140 mm
Weight	60 kg	160 kg
Interfaces	RS232/485, USB	
Linear encoder	25 & 50 mm, optional 100 mm	
Air cylinder (Ø)	16/20/32/40	50/63/80
Cylinder stroke	Standard 50 mm	Standard 100 mm
Generator		
Dimension (LxWxH)	235 x 270 x 440 mm	
Weight	12 kg	
Power range	400 - 1000 W	2000 - 5000 W



Accessories:

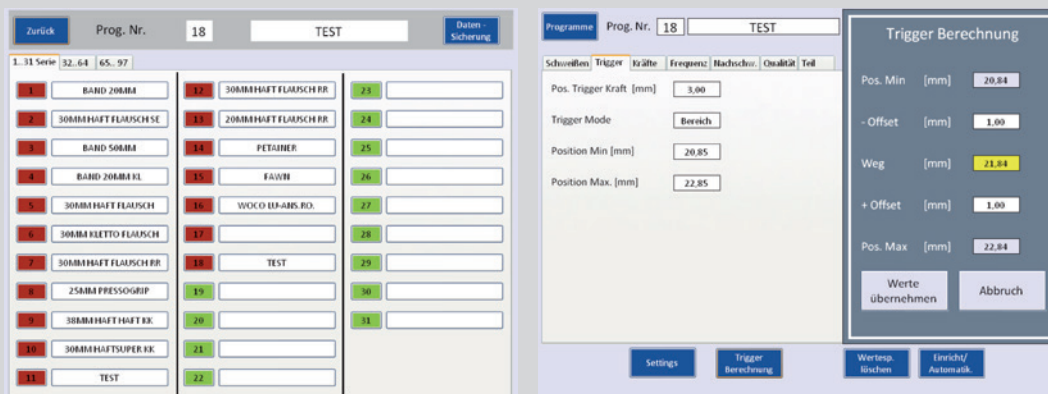
- Sound enclosure
- Rotating table
- Sliding table
- Pressure clamping
- Foil indexing device

SAPHIR control

The SAPHIR control offers consistent process control, fast access timing, operator convenient and constant welding quality. In combination with the generator, the control can be used for welding machines and actuator systems. The welding modes Time, Energy, Absolute depth and Relative depth (DRM) enable to find the perfect parameters to weld an application.

Additional functions for round or sliding table, sound enclosure, clamping device are available.

Data exchange or protection backups can be provided through a USB interface or network connection. The service levels of the SAPHIR control are protected by different password levels which can be personalized according to the medicine standards (FDA CRF 21 Part 11).



Welding modes of the SAPHIR control:

Time: Welding process stops after reaching selected time.

Energy: Welding process stops after reaching selected energy.

Absolute depth: Welding process stops after reaching the selected linear encoder position.

Relative depth (DRM): Welding process starts after registering the selected trigger force and stops after reaching selected relative depth.

Force Profiling:

For shortening the cycle time a programmable down force can be set up next to trigger and welding force. The force profiling is generated by a pneumatic proportional valve and saved in Newton.

The melting process itself can be executed repetitively and controlled by choosing several adjustable welding forces. This guarantees an optimal melting for form-locked and force-locked joints.

Support activities:

- Consulting of application engineering
- Product research and development
- Joint design consulting
- Welding trials in our application laboratory
- Sonotrode design using Finite elements (FEA)
- Sonotrode manufacturing
- Pilot-run series and small series production
- Toll manufacturing



Weber Ultrasonics Group Worldwide))

The Weber Ultrasonics Group is one of the world's leading technological companies and is represented in over 50 countries by five subsidiaries. Groundbreaking ideas, continuity and consistent internationalisation define our leading position in the market.

Over 2,000 customers worldwide from the most wide-ranging of industry sectors currently benefit from the ultrasonic solutions of Weber Ultrasonics. Together with our sales partners in Europe, Asia and the USA, we guarantee top product and service quality.

The Weber Ultrasonics Group is divided into three business segments, whereby each business segment is represented by a subsidiary:

- » Ultrasonic cleaning
- » Ultrasonic welding, cutting and special applications
- » Environmental technology

Weber Ultrasonics Surface Technology is among the most innovative and competent suppliers in the areas of ultrasonic cleaning and is one of the world market leaders in ultrasonic components for surface technology.
www.weber-ultrasonics.de

Weber Ultrasonics Weld & Cut is a byword for optimum ultrasonic welding solutions. The company develops, produces and sells high-grade ultrasonic welding components and machines for welding and cutting thermoplastic materials.
www.wuwc.de

Weber Entec concentrates on the plant manufacturing of ultrasound-relevant applications in the field of environmental technology, and in particular on the ultrasonic treatment of biogenic substances (disintegration).
www.weber-entec.com

Weber Ultrasonics America, based in Clarkston, Michigan near Detroit, produces and sells the ultrasonic solutions of the entire group in North and South America.
www.weber-ultrasonics-america.com

Weber Ultrasonics Asia is the Group's fifth subsidiary and is responsible for sales and distribution of the ultrasonic cleaning and welding products in the entire Asian market.
www.weber-ultrasonics.asia

Sales partners Weber Ultrasonics Weld & Cut

China, India & South Asia

Josh D. Kramlick
www.weber-ultrasonics.asia

Germany

Perfect Plastic Welding
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Hungary

Weber Ultrasonics Magyarország Kft.
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Development & Prototypes
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Poland

SonicTech Ultradźwięki
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Spain

Ultrasonidos Gala, S.A.
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Taiwan

DKSH Taiwan Ltd.
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