

**Sonosystems**®

Schunk Sonosystems

ultra fast. ultra strong. ultrasonic.

# Ultra What??



## How does it work?

Ultrasonic welding is a future-oriented process that combines metals by means of ultrasound. In addition to copper and aluminium connections, metal-glass connections are also possible. The materials are placed on top of each other and moved against each other at low pressure and high-frequency mechanical vibrations. In a fraction of a second, a permanent, strong and metallurgically pure welded joint with excellent physical properties is created.



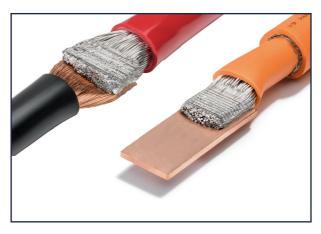
Spot welding: the spot weld can be welded a few times square millimeters up to 100 square millimeters in size



Cross section of a cascade (aluminium-copper connection)

# What for?

Our products are complete system solutions from a single source. In addition to the standard machine program, Schunk offers a modular system concept. It enables the integration of ultrasonic systems into complex assembly lines.



During the production of wire harnesses, both Strand knots as well as strands welded at terminals. Cross sections: 0.13 - 200 mm<sup>2</sup>.



In **battery production**, Schunk Sonosystems covers the complete range of applications from cell production to interconnection and battery contacting.

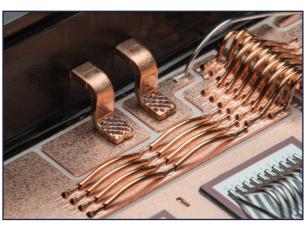
### The advantages:

- √ without thermal load of the components
- √ high-quality and economically superior alternative to other welding processes
- √ no additional materials necessary
- √ very good electronic monitoring of the welding process possible
- √ complete system solutions from a single source



### Minic-III:

- Strand applications
- Cross section: 0,26 30 mm<sup>2</sup>
- Material: Copper, Aluminium, Mixed connections



In power electronics, high-performance modules such as IGBTs (Insulated-Gate Bipolar Transistors) or IPMs (Intelligent Power Modules) are increasingly being produced by ultrasonic welding.



In the field of **cooling technology**, copper tubes are cut with ultrasonic welding machines and welded gas-tight so that the refrigeration circuit is hermetically sealed.

# On the safe side

Software solutions from pre-assembly to production



- Visualization software for the entire welding process
- Manual input and optimization of welding parameters
- Recording and redundant storage of all welding results
- Statistical evaluation of welding results



### **SPC**-SERVER

- Production management for pre-assembly
- Centralized storage of all welding results
- Job administration



### SEQUENCER

- Production management, for example for customer-specific harness production (KSK)
- Intelligent production control and job distribution to the welding systems in the production line
- Standardized interface for data exchange with the production systems in your plant

# young, experienced, worldwide, local



The wire harnesses of most automobile manufacturers are welded with our machines.



We are the world market leader in ultrasonic metal welding.



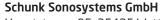
We are a young and innovative team with over 40 years of experience in ultrasonic metal welding.



Our machines are developed and manufactured in Germany.







Hauptstrasse 95, 35435 Wettenberg, Germany

Phone: +49 (0)641 803-0 www.schunk-sonosystems.com

