



ultra fast. ultra strong. **ultrasonic.**

Sonosystems®

**SCHUNK  
SONOSYSTEMS**

**ULTRASONIC  
WELDING  
FOR  
COOLING  
TECHNOLOGY**



Follow us on  
**LinkedIn**  
@Schunk Sonosystems

# ABOUT US

ultra fast. ultra strong. **ultrasonic.**

Our 400 employees worldwide develop and produce our innovative ultrasonic welding equipment - and together with our representatives we are always close to our customers. In addition to our headquarters in Wetzlar (Germany), we have locations in Boston (USA), Toluca (Mexico), Kenitra (Morocco), Taicang (China), Ansan City (South Korea) and Yokohama (Japan). Furthermore we have a worldwide sales and service network.

## APPLICATION AREAS



### WIRE HARNESS

- ↳ Wire - Wire | Wire - Terminal
- ↳ X-/Y-Splices
- ↳ Cascade | Mixed-Connections
- ↳ Ground and high current contacts
- ↳ Busbars | Flat Flex Wires
- ↳ High Voltage Applications



### BATTERY

- ↳ Battery modules
- ↳ Li-Ion Technology
- ↳ Capacitors
- ↳ Anode/cathode connections
- ↳ Copper/Tab connections



### POWER ELECTRONICS

- ↳ IGBT Modules
- ↳ IPM Modules
- ↳ Cell contacting Systems
- ↳ Signal Terminals to substrates



### COOLING TECHNOLOGY

- ↳ Copper tubes for refrigeration circuits
- ↳ Capillary tubes for thermostats
- ↳ EX-certified



### SERVICE

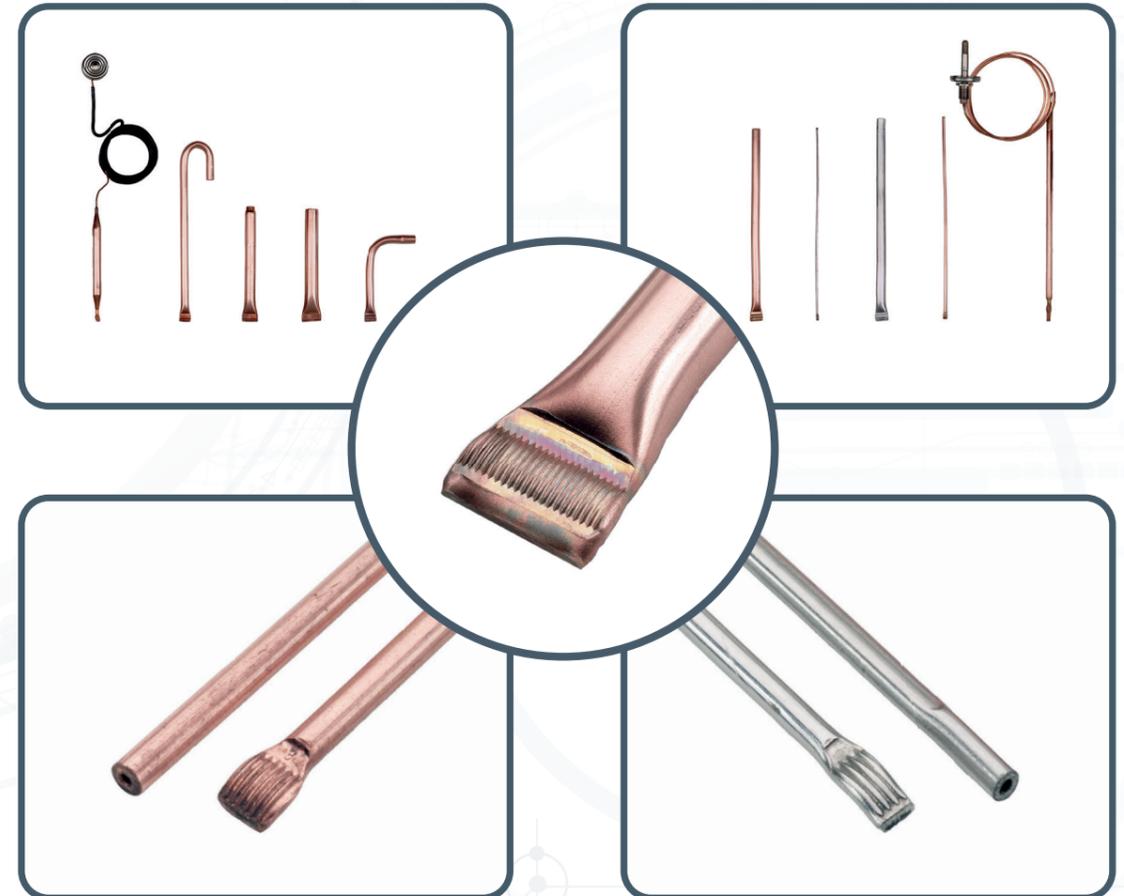
- ↳ Technical advice and support
- ↳ Process development and integration
- ↳ Software development
- ↳ Training system



# COOLING TECHNOLOGY

## ULTRASONIC WELDING IN THE FIELD OF COOLING TECHNOLOGY

In the field of cooling technology, refrigerators and air conditioning systems are equipped with refrigeration circuits made of copper tubes in which a refrigerant circulates. These tubes are cut with the aid of an ultrasonic welding machine and welded gas-tight at the same time so that the refrigeration circuit is hermetically sealed.



## KOBRA-2-PRO-EX



### FEATURES

- Machine Design in accordance with CE regulations
- Ex-proof Design certified by third party (for operation under explosive industrial environments - Zone 2)
- Easy and safe calibration procedure supported by auxiliary tools (Magnetic Calibration Unit - MCU)
- Robust mechanical and electrical design of 3.500 W Power
- User - friendly interface with touch screen
- Monitoring of welding position usage



## KOBRA-2-PRO-EX

- Wide application range: outer diameter up to 10mm can be processed without changing tools
- Correct Tube Position Sensor (CTP) for excellent weld joints with "ready to weld" signal
- Process control through indicating lights on equipment handle
- Dynamic process control (real time monitoring of tube final height, welding energy and time)
- Several alarm counters for process control, welding tool lifetime optimization and equipment maintenance
- Welding series of tubes using different welding parameters (Sequence Welding)
- Barcode reader for data traceability and loading of welding recipes
- Import and Export function for welding recipes and welding results
- Full network capability and MES Data Transferring
- Easy and fast exchange of welding tools (Sonotrode and Anvil)
- Guided maintenance procedure (as per operation manual)
- Design for one or two hands operation
- Reliable After-Sales Support worldwide



# OUR LOCATIONS

## GERMANY

Schunk Sonosystems GmbH  
+49 641 803 0  
sonosystems@schunk-group.com

## USA

Schunk Sonosystems North America  
+1 978 658-9400  
sonosystems.usa@schunk-group.com

## MOROCCO

Schunk Sonosystems Maroc  
+212 660 695749  
sonosystems.maroc@schunk-group.com

## CHINA

Schunk Sonosystems China  
+86 512 53443110  
sonosystems.china@schunk-group.com

## JAPAN

Schunk Carbon Technology Japan K.K.  
+81 45 470 2339  
sonosystems.japan@schunk-group.com

## SOUTH KOREA

Schunk Carbon Technology Ltd  
+82 31 491 2722  
dong-gyun.choi@kr.schunk-group.com



All our local support teams  
you find on our webpage

[www.schunk-sonosystems.com](http://www.schunk-sonosystems.com)

Schunk Sonosystems GmbH  
Hauptstraße 95  
35435 Wettenberg  
Germany

Follow us on

**LinkedIn**

@Schunk Sonosystems



+49 641 803 0



sonosystems@schunk-group.com



[www.schunk-sonosystems.com](http://www.schunk-sonosystems.com)