



Your partner for user related total solutions  
in the area of resistance welding

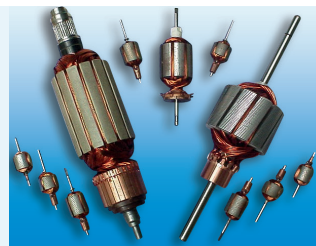
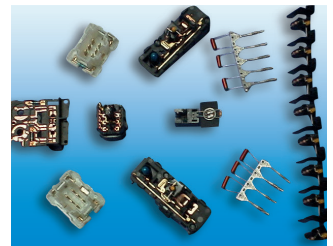
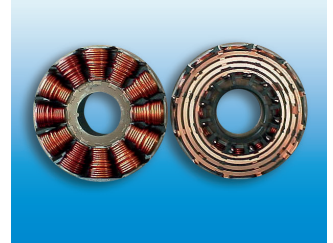
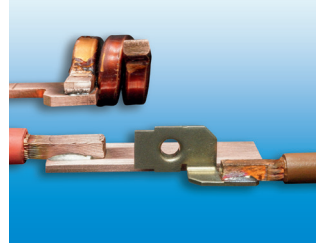
# TECHNICAL CONSULTING

Globalization of markets and increasing individualization of demands require fast application of new technologies and reduction of the time period from product development to massproduction. For any company-internal Engineering Team a challenging task, which can often only be solved by using of external ressources.

We offer you in the area of the resistance welding engineering the technical competence and the flexibility, which you have to expect from an external partner. Our focus are the customer-oriented design and implementation of a total solution.

## Our Focus:

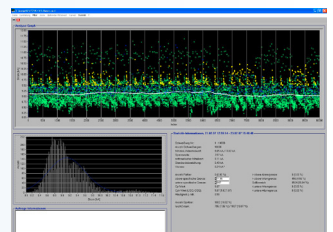
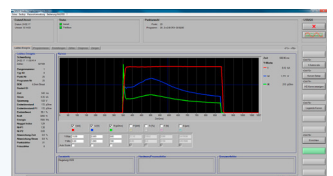
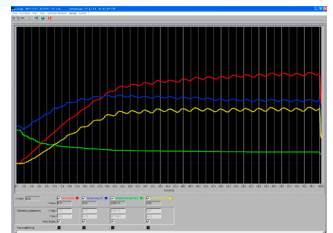
- Resistance Welding
- Microwelding
- Insulated wire welding (Hot-Staking)
- Thermocompression welding
- Resistance soldering
- Compacting
- Brazing



Based on our long experience we are able to manage tasks related to resistance welding engineering in a optimal and comprehensive way. We afford you a service offering for the economic production of high-quality products.

## Our Business Activities:

- Carry out first welding tests
- Manufacture parts of small series
- Technical consultation at stages of development
- Support at the commissioning of machines

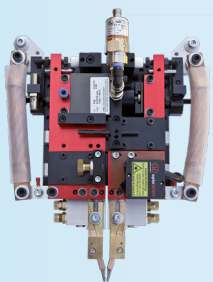
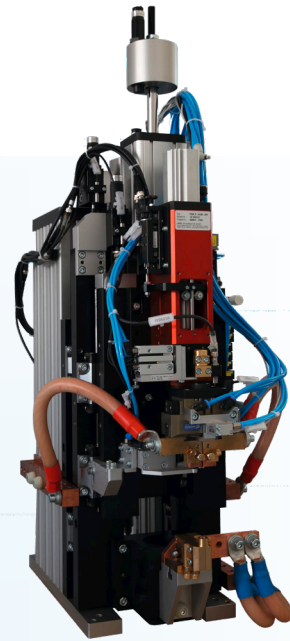


# WELDING HEADS AND PINCERS

The base of an efficient and reliable manufacturing concept is the choice of the right mechanics.

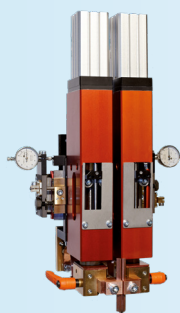
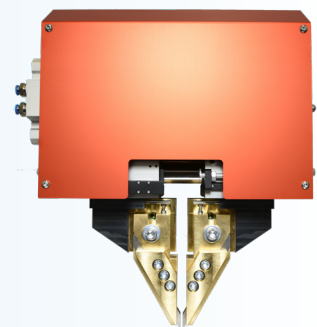
## Our range of products:

- Pneumatic welding heads
- Welding heads with motor-driven system
- Gap and step welding heads
- Floating or centric closing welding gun
- Lifting unit
- Special electrodes and devices for insulated wire welding and thermocompression welding



### Pneumatic welding pincers

- Floating, centric and with lifting cylinder
- Force range from 10 N - 7,762 N



### Pneumatic welding heads

- Also available as double head
- Force range from 1 N - 16,965 N



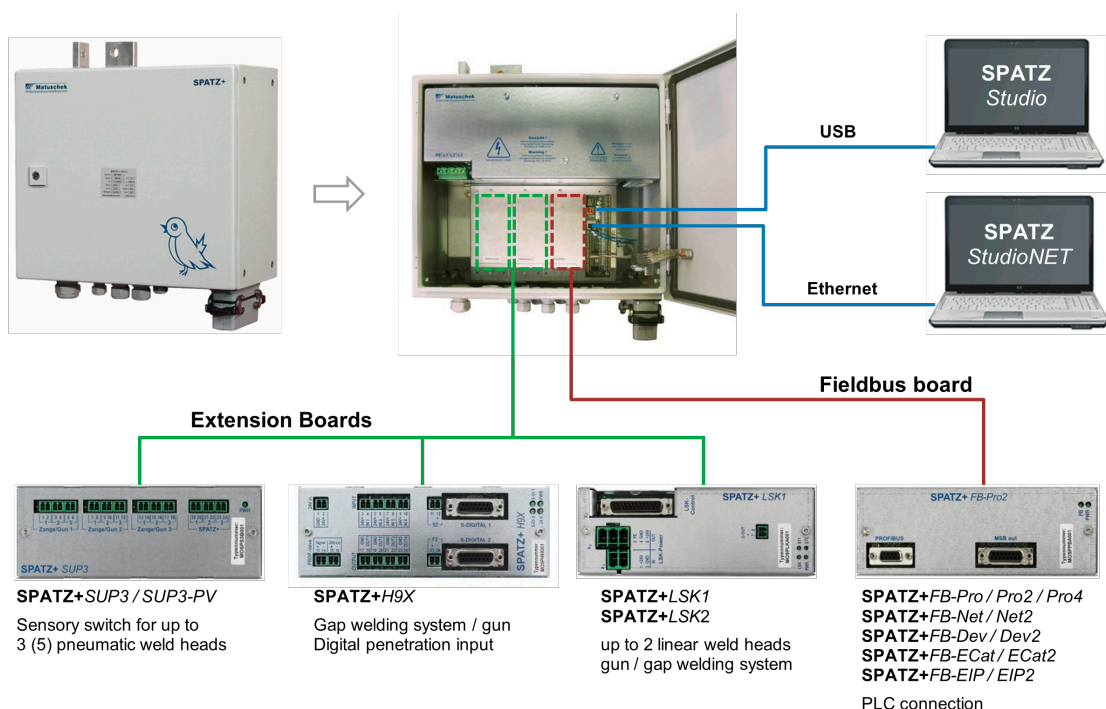
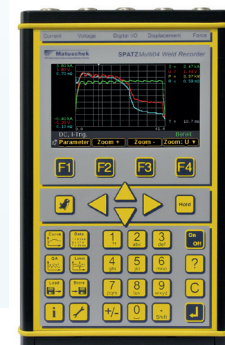
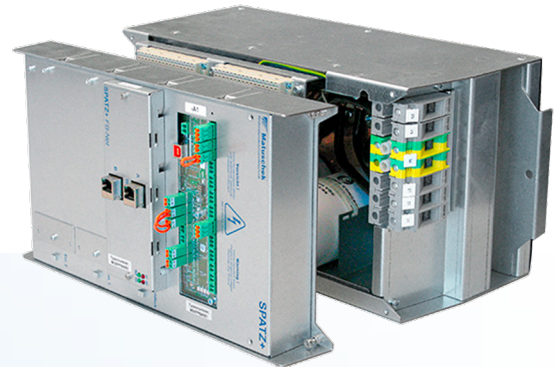
# WELDING CONTROLS

With MATUSCHEK Messtechnik GmbH we have a cooperation which supplies the most modern welding control technique since 1985. Their in-house engineering team and their deliveries to well known industrial users guarantee the ongoing enhancement of hard- and softwaresystems.

Among other things the correct selection of the control- and the measurement-technique are determining factors for the quality of the welded joint. Therefore we offer you a preliminary analysis.

## Our Process Measuring and Control Technology:

- 20 kHz – High-Frequency Inverter Technique from 100 A to 65 kA
- 1 kHz – Medium-Frequency Inverter Technique up to 65 kA
- Mobile measuring instrument systems
- Force- and displacement systems
- Software for the connecting link between production, quality control and process engineering
- Welding quality assurance software



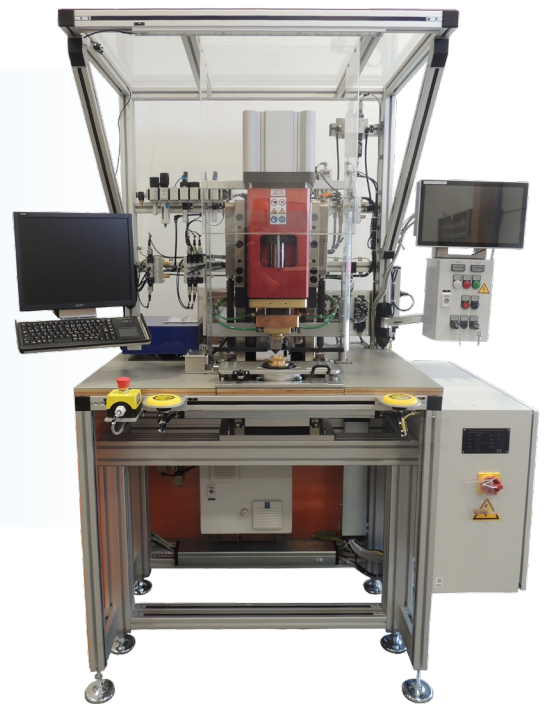


# SYSTEM SOLUTION

## Manufacturing Concepts:

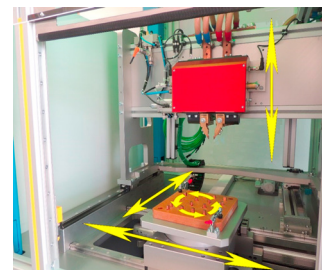
- Simple manual working station
- Semi automated manual working station with pneumatic or manual sliding devices
- Part automated manual working station with pneumatic rotating device
- Manual working station according to ESD (Electro Static Discharge)

Flexibility with respect to high quantities and product variants is often an important factor for the specification of the manufacturing concept. This can be often only ensured by the use of manual working station.



## 4-axis welding cell:

- Compact design
- Completely adapted to your application
- Programming of welding programs and axis positions via a PC
- Incl. 19" touch screen monitor
- Large travel ranges
- Maintenance-free servomotors
- Latest generation SPATZ+ welding control system

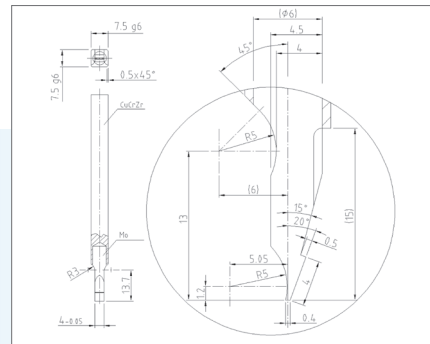


Your solution for flexible welding applications in the laboratory or small series production. The simple programming enables complex components with up to 50 welding points to be produced. The automatic process is triggered by a start button. An automatic bulkhead ensures the safety of the user. The welding result is automatically evaluated and NOK parts are displayed.

# ELECTRODES

The correct choice of electrode in material and shape affects the quality of the weld joint. Welding electrodes not only transfer the welding current to the workpiece, but also apply the electrode force. Therefore they must satisfy both electrical and mechanical requirements in the same way. Shape, mass and electrode material and their electrical and thermal conductivities – have a direct effect on the heat balance of the welding process.

We offer you different electrode material depending on kind of the materials to be welded together.



## Our Electrodes:

- CuCrZr
- CuCoBe
- CuWo
- TZM
- Tungsten
- Molybdenum

The Lingl welding engineering supplies standard- and special electrodes adapted to the welding process in the highest quality.



**LINGL**  **SCHWEISSTECHNIK**  
ResistanceWelding

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