

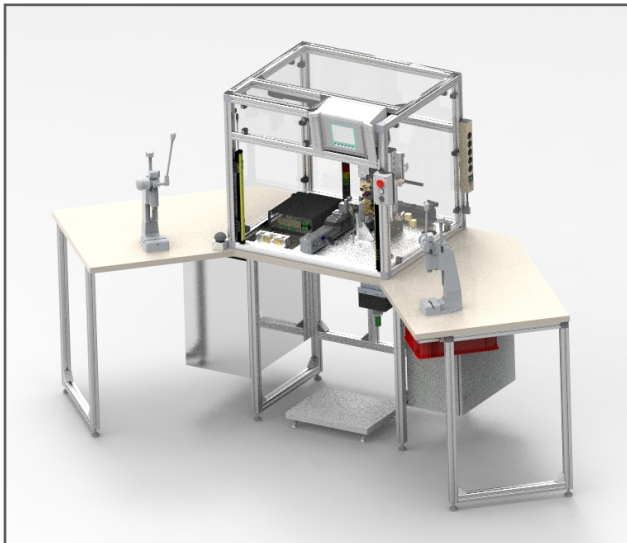
## Special machine construction

### Competencies

- Engineering
- Process development
- Construction
- Fabrication
- Assembly
- Commissioning
- Electrical Installation / Software

### Development of handling, recording and positioning concepts

- Resistance welding
- Forming of electronic components
- Micro-instance cutting techniques
- Testing & measuring of components and units
- Joining technology
- Automatic assembly systems based on linear and rotary transfer technology



## Services

### Welding laboratory

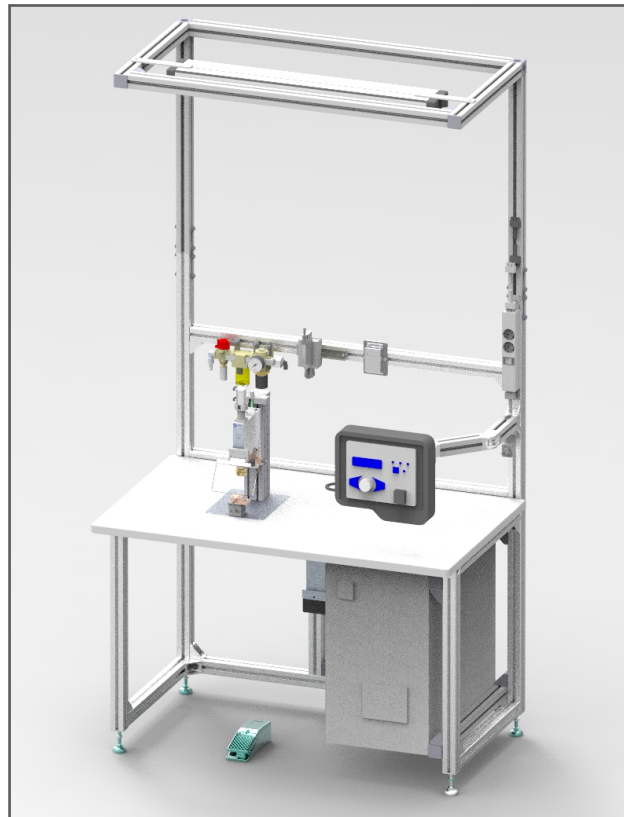
Sample welding, microscopic analyses and tear samples ensure your quality requirements.

### Contract welding

We implement your individual requirements quickly and practically at our location.

### Seminars

Experienced experts teach you the user-related theory and practice of resistance welding.



Precisely to your success

Micro-resistance welding technology  
&  
Special machine construction



KombiTec GmbH • An der Römerstr. 1 • D-87488 Betzigau  
Tel.: +49 831 960 398 - 0 • Fax: +49 831 960 398 - 10  
[info@kombitec.de](mailto:info@kombitec.de) • [www.kombitec.de](http://www.kombitec.de)

# Micro-resistance welding technology

## Procedure

Resistance welding is a process with which almost all metals can be joined. The current is introduced via the electrodes. They press the parts to be joined together under pressure and heat. The heat is generated by the overcoming resistance in the connection zone.

## Services

- Spot welding
- Gap welding
- Step welding
- Hot-Staking (enamelled wire welding)
- Thermocompression welding
- Compacting
- Hot caulking
- Resistance soldering
- Process monitoring
- 50 Hz and inverter direct current technology

## Advantages

- Metallurgical compound (alloy)
- Mechanical and thermal resilience
- Corrosion resistance
- Unlimited lifetime
- High process reliability
- Small electrical contact resistance
- Selective controlled heating
- No filler materials
- Minimum time requirement (approx. 0.1s)
- Exemplary environmentally friendly process

# Products

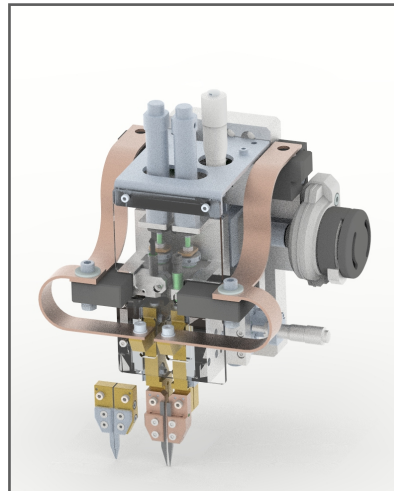
## Welding heads

Welding forces from 0.1N to 7,000N



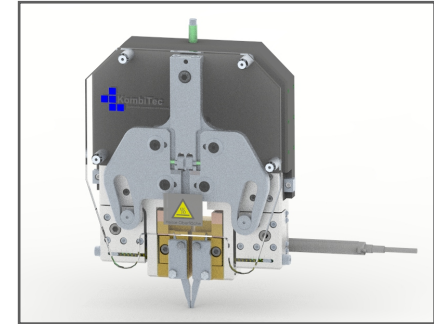
## Double heads

Welding forces from 8N to 200N



## Welding pincers

Welding force from 8N to 300N



## Compacting tools

Compacting in the range of 0.1 - 12.0mm<sup>2</sup>

