

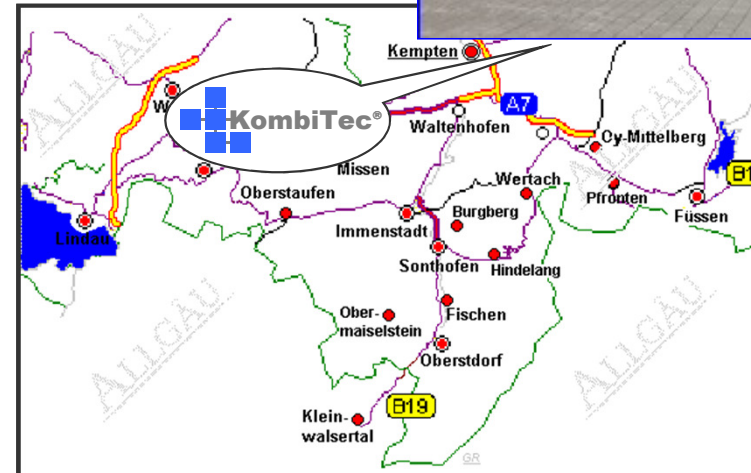


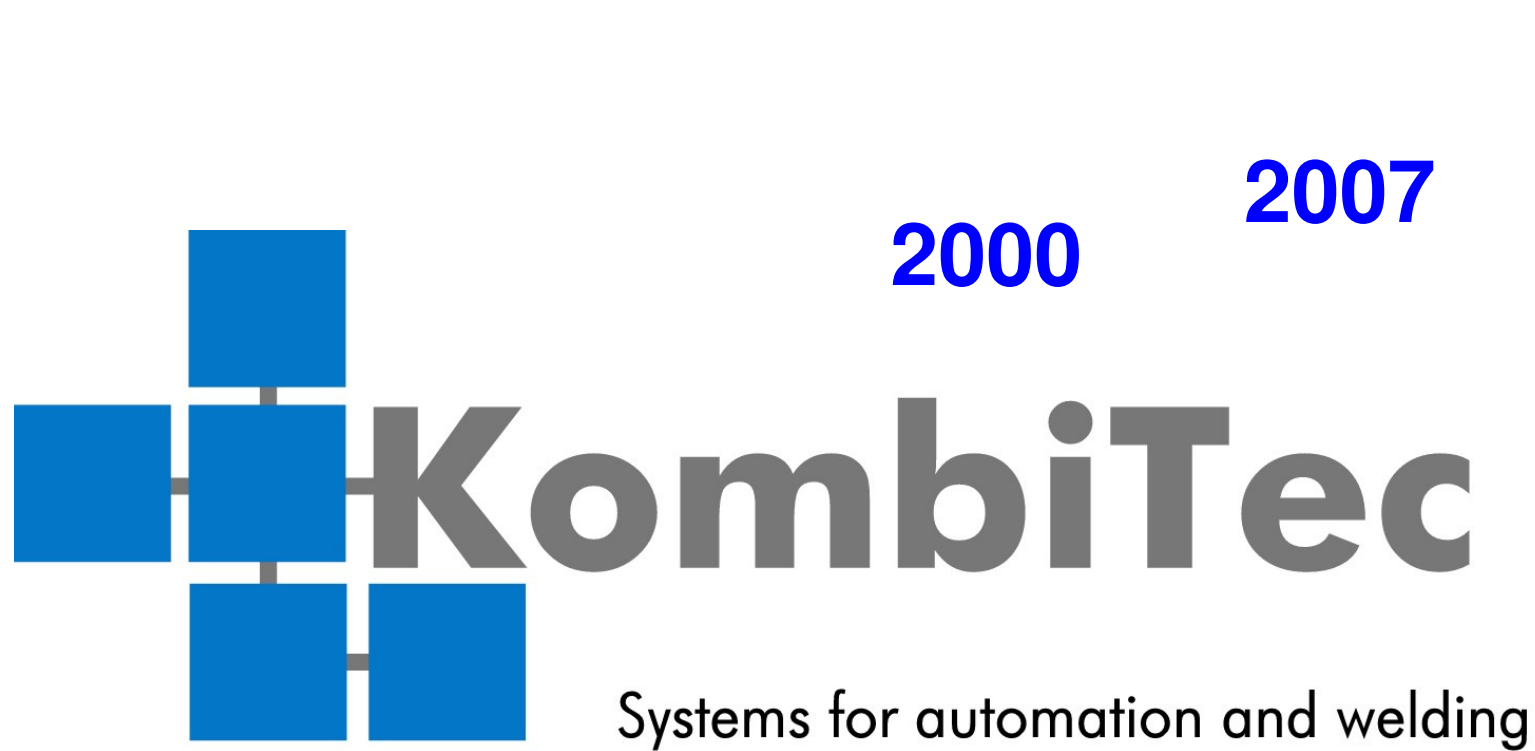
14. Juni 2016

Brankovice



KombiTec in Allgäu / Southern Germany

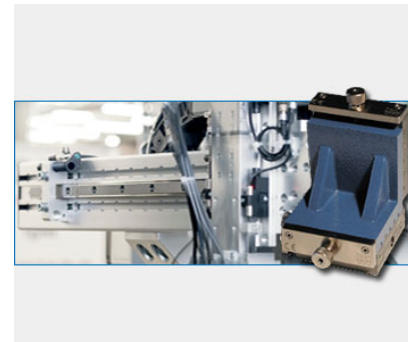
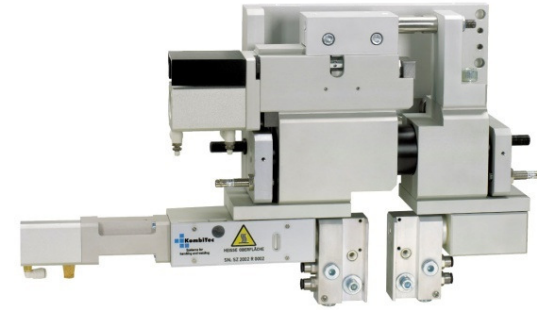




Employee: 12
Company management: Kai Rienkens

Business Divisions KombiTec

- Micro resistance welding technology
- Special engineering
- Automation systems
domino-modul AG
- Slides
Bandi + Gerber
- Wage welding / outsourcing
- Seminars



What our customers can expect:

- **Innovative and future-oriented action**
- **Expertise in all areas of micro-resistance welding**
- **Realization of individual requirements**



What our customers can expect:

- World-wide located service-offices for spot-welding machines, in cooperation with:

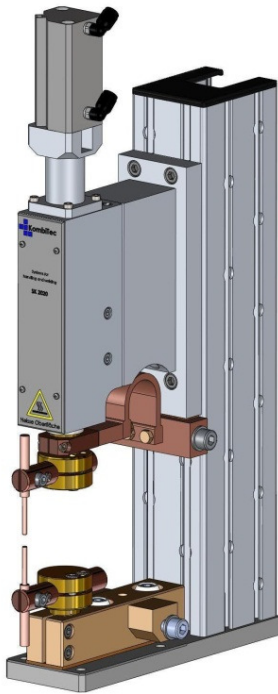


Harms & Wende GmbH & Co. KG

- Powerful network with selected technology and support service companies

Welding head SK 2020 E - perfino®

perfect price – excellent precision



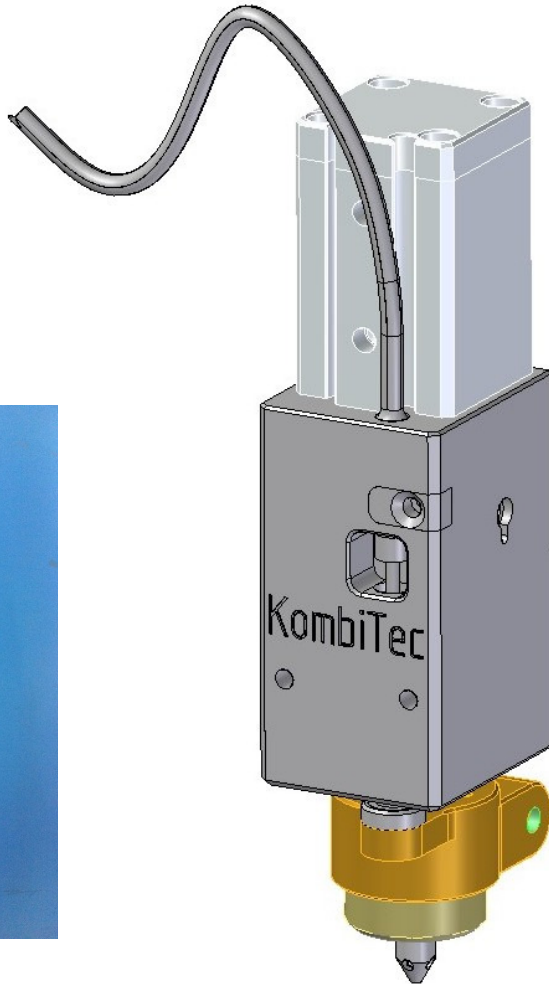
- Maximum 500N welding force

Welding head SK 2015 E



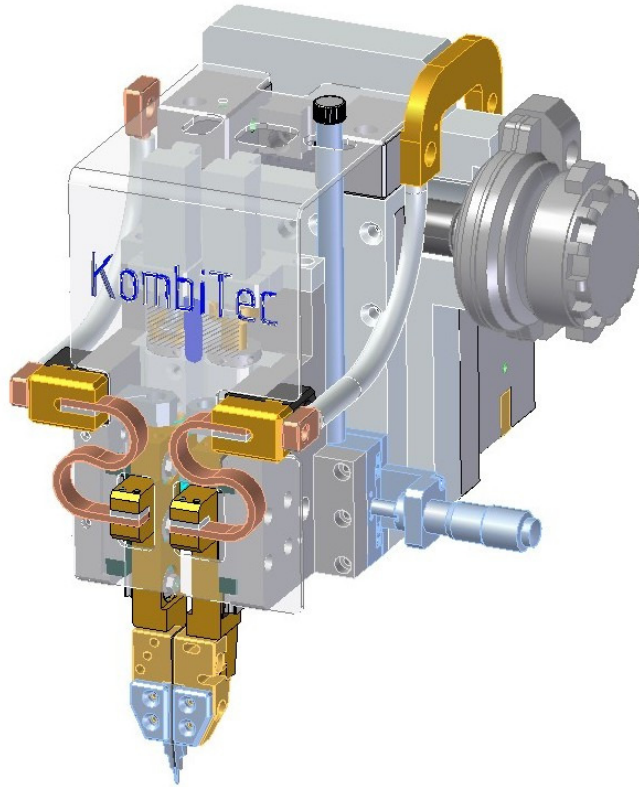
- Maximum 200N welding force

Welding head SK 2012



- Maximum 140N welding force
- Hub: 8mm
- Wide: 32mm
- Deep: 40mm
- Height: 140mm
- Weight: ca. 432g

Welding head DK 2004



- 0,2 - 10N welding force
- Stroke: 10mm
- Wide: **147mm**
- Height: **220mm**

Welding head DK 2015



- Maximum 200N welding force

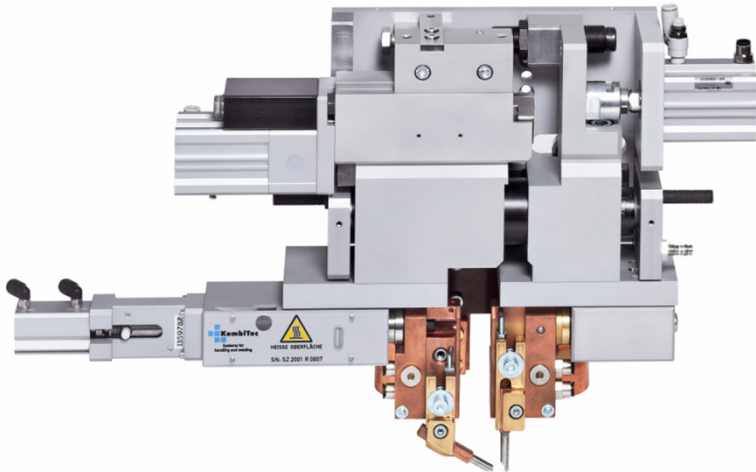
Welding head SK 2110

Welding head SK 2350



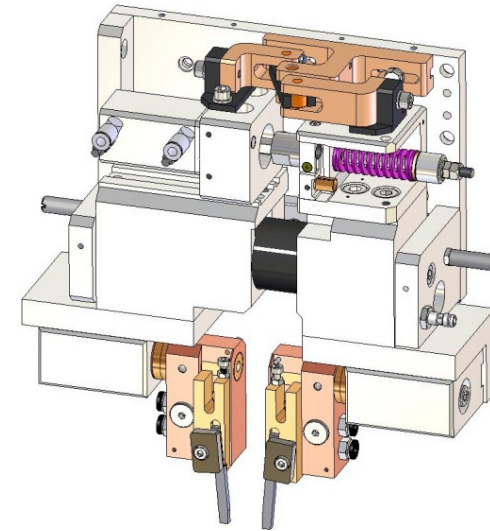
- Maximum 1100N welding force
- Maximum 3.000N welding force

Welding tong SZ 2002



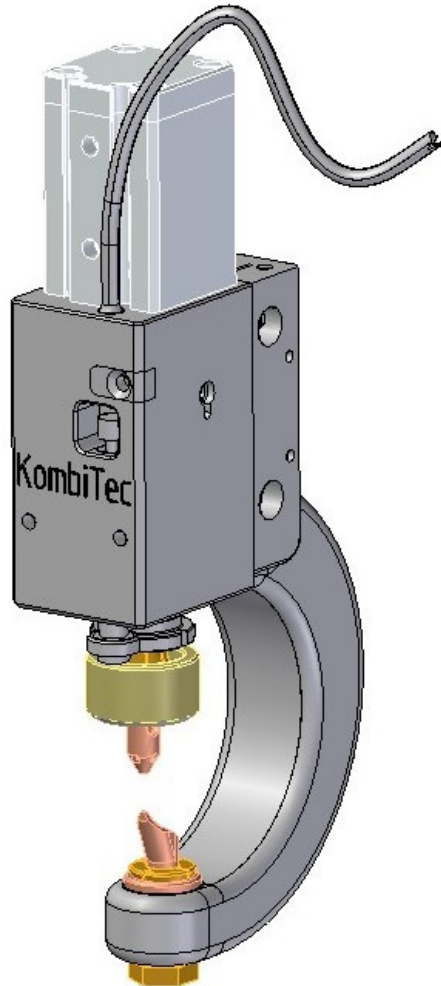
- Maximum 150N welding force

Welding tong SZ 2005



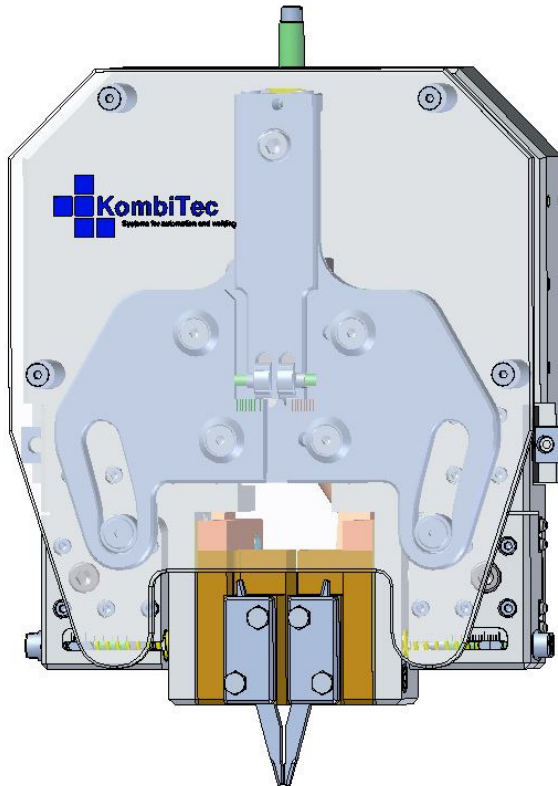
- Maximum 300N welding force

Welding tong SZ 2012 C



- Maximum 140N welding force
- Wide: 32mm
- Deep: 81mm
- Height: 183mm
- Weight: ca. 784g

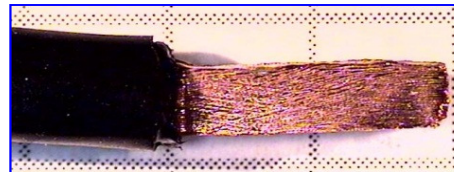
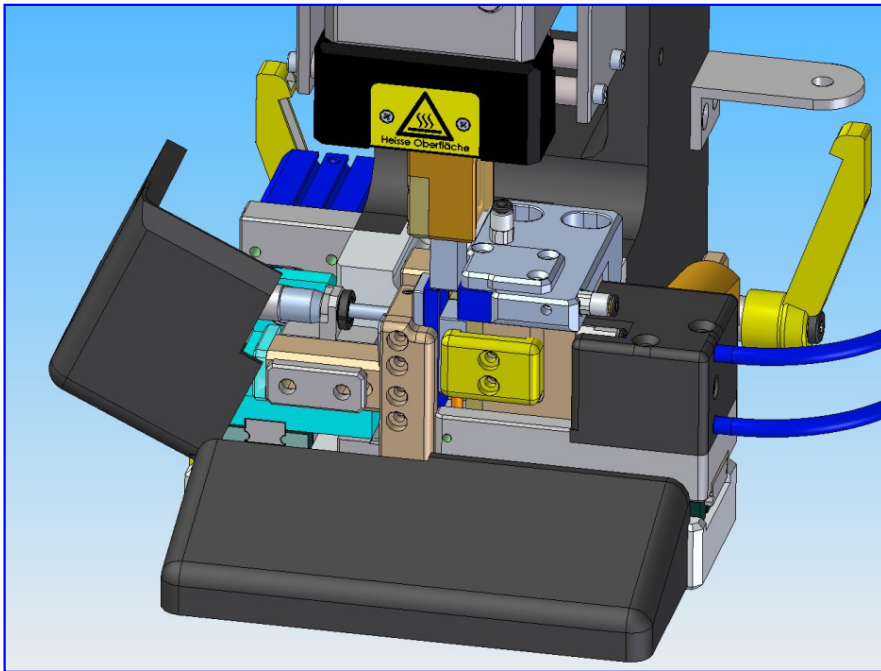
Welding tong SZ 2030



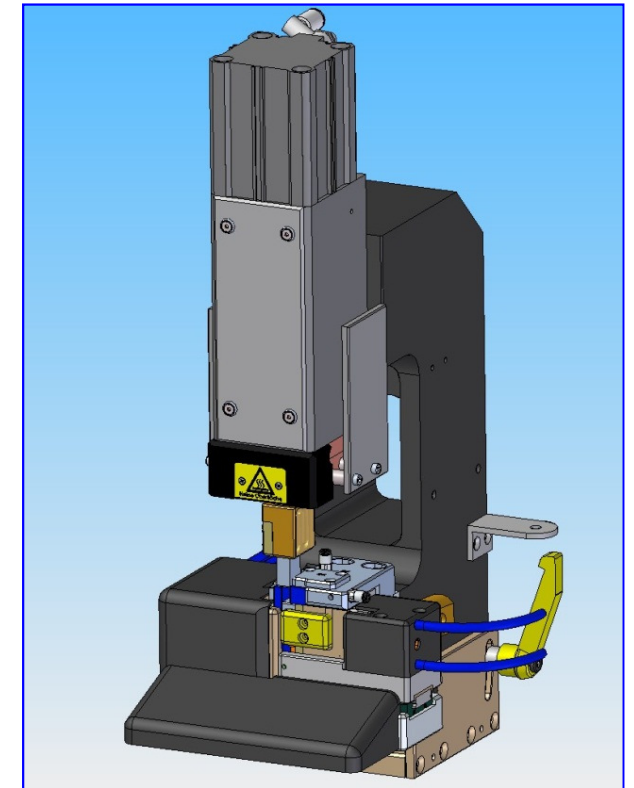
- Maximum 300N welding force
- Wide: 185mm
- Deep: 66mm
- Height: 262mm
- Weight: ca. 4,9kg

Compacting – easy and safe

0,5mm² - 12,0mm²



1,5mm²



KompaTec²

compacting – easy and safe

0,5mm² - 5,0mm²

Gefördert durch:



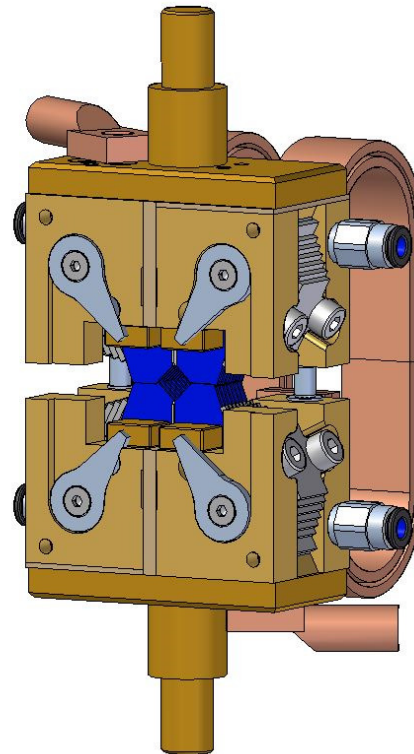
Bundesministerium
für Wirtschaft
und Technologie



aufgrund eines Beschlusses
des Deutschen Bundestages

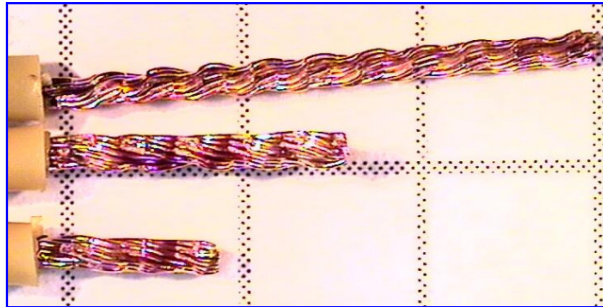
KompaTec² compacting – easy and safe

From 0,5mm² to 5,0mm²

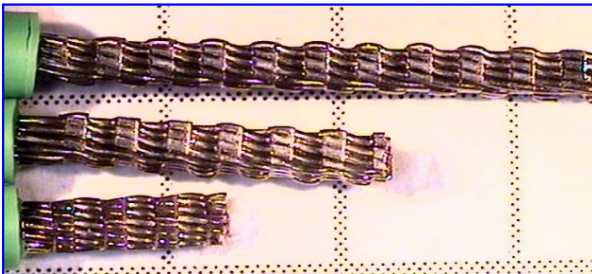


KompaTec² compacting – easy and safe

0,5mm² - 5,0mm²



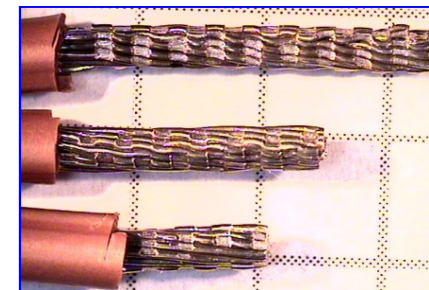
0,5mm²



AWG14 0,75mm²



1,5mm² Hochflexibel



AWG16 1,0mm²

Gefördert durch:

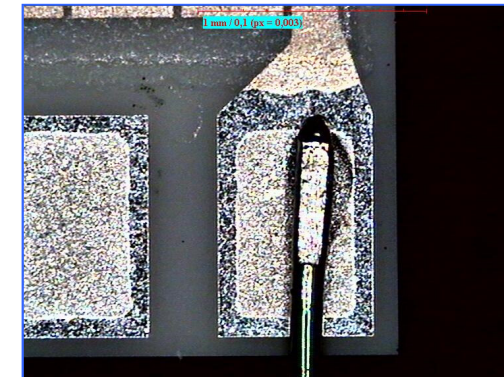
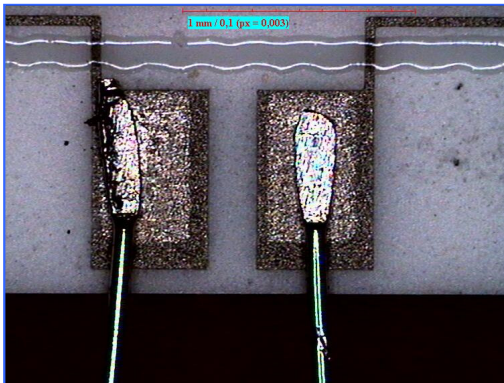
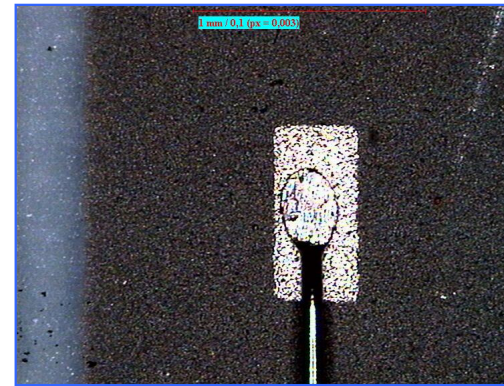
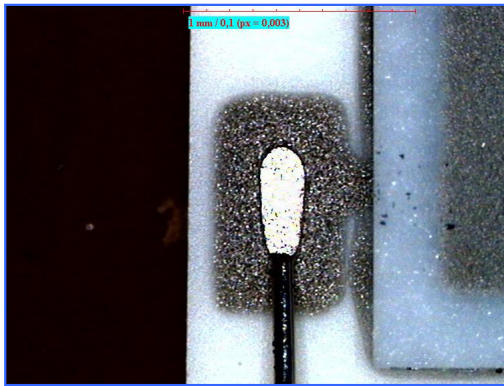


aufgrund eines Beschlusses
des Deutschen Bundestages



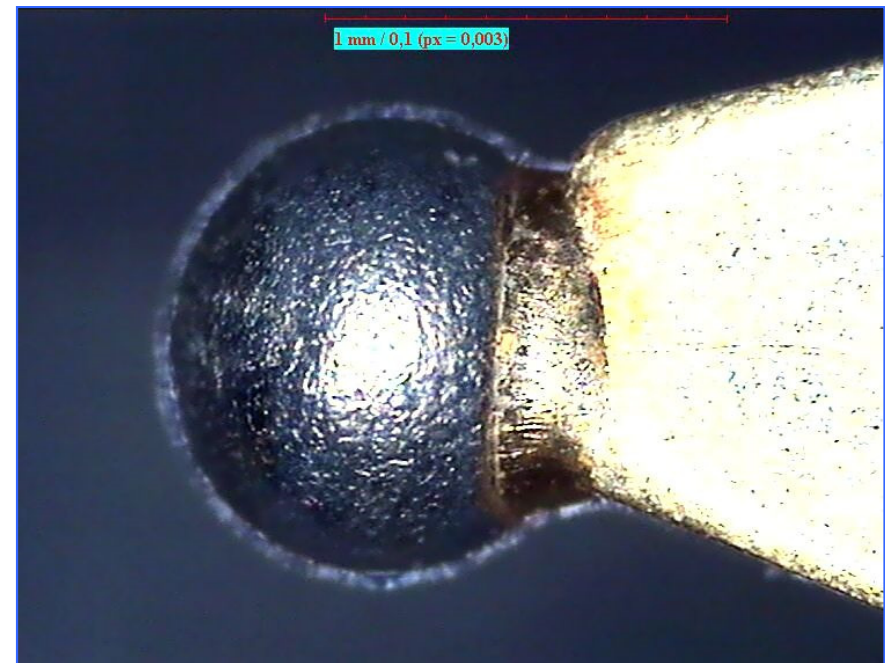
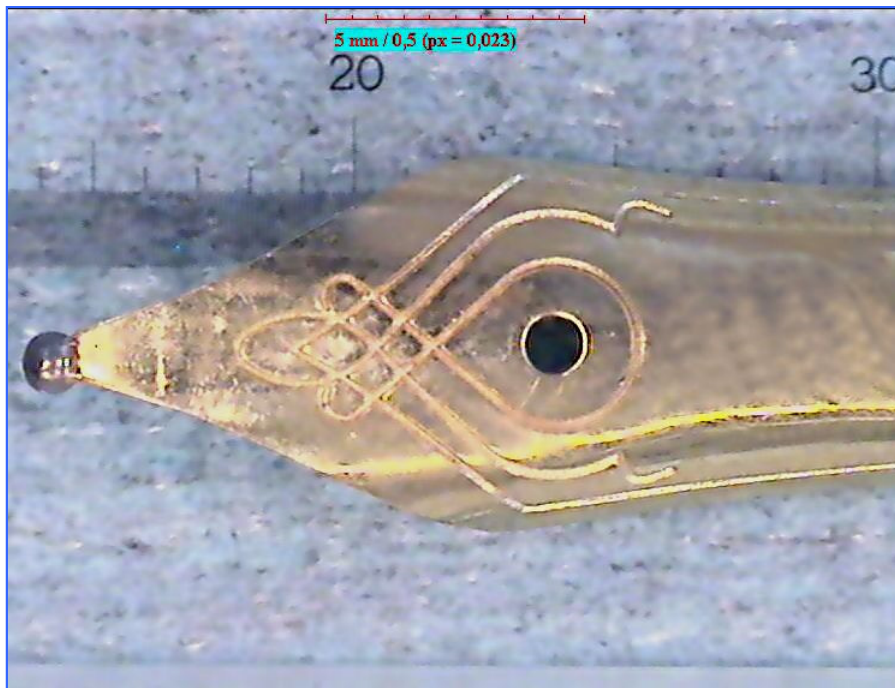
Coated ceramic substrates

Welding of 0,1 mm platinum wires on coated ceramic substrates



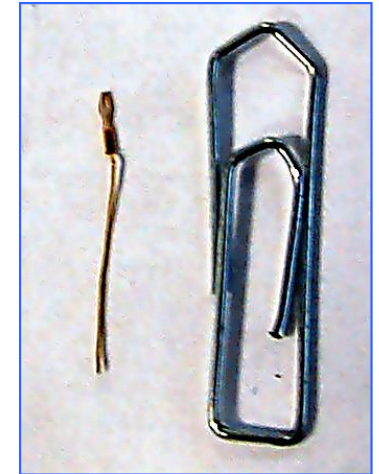
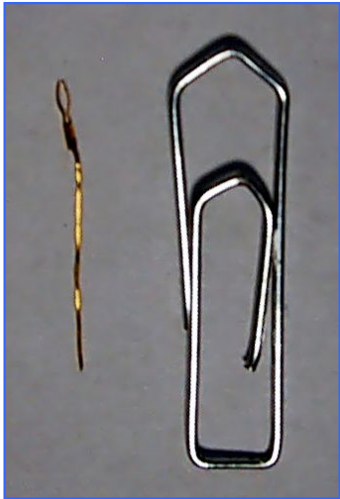
Iridium ball on a stamped-bent part

Golden stamped-bent part, 14 carat



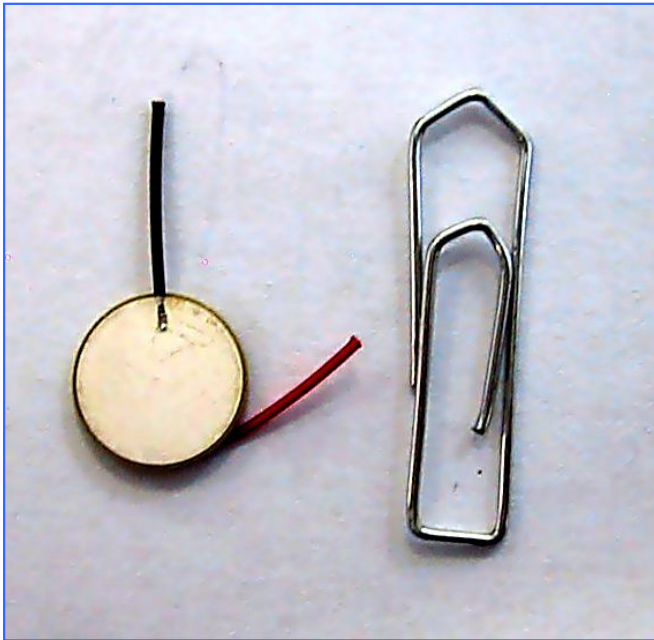
Subminiature contact spring

Welding of a contact pin for subminiature plug



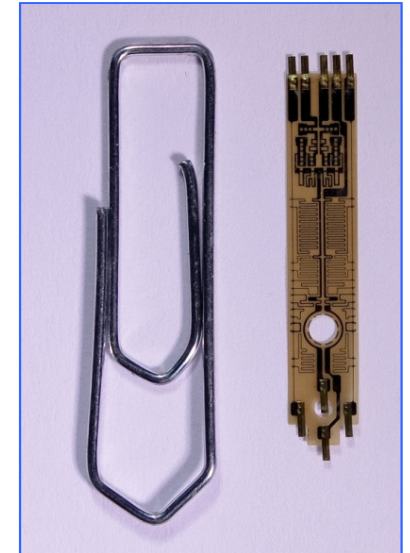
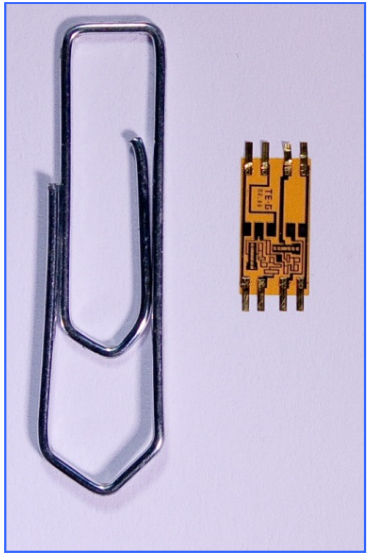
Gap welding on piezoceramic

Pigtail welded on piezoceramic without any other materials



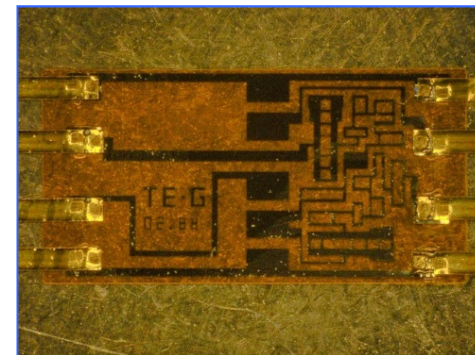
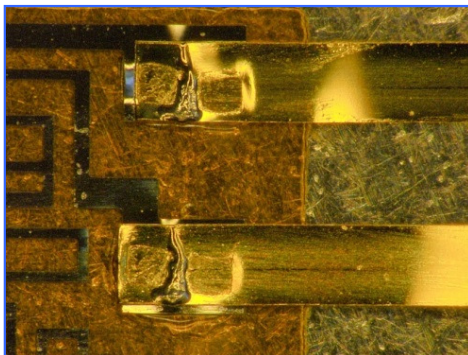
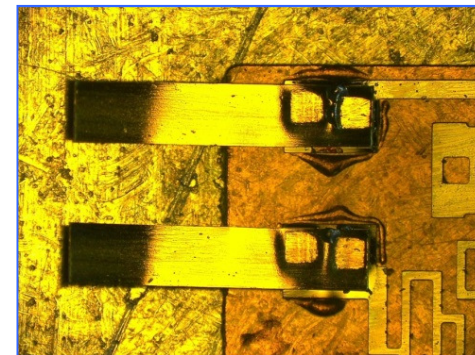
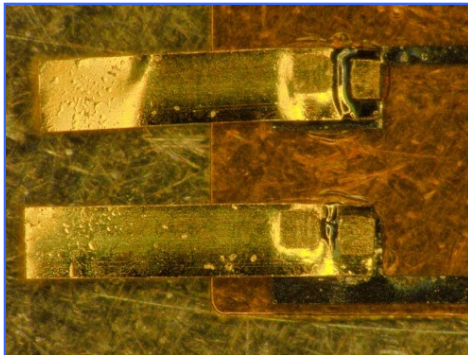
Golden band welding machine

Micro dimensions golden bands with 20 μ m thickness are welded on 5 μ m chrome-nickel coating. Carrier material: Kapton; Electrode area: 0.2x0.2mm; Electrode gap 0.05mm



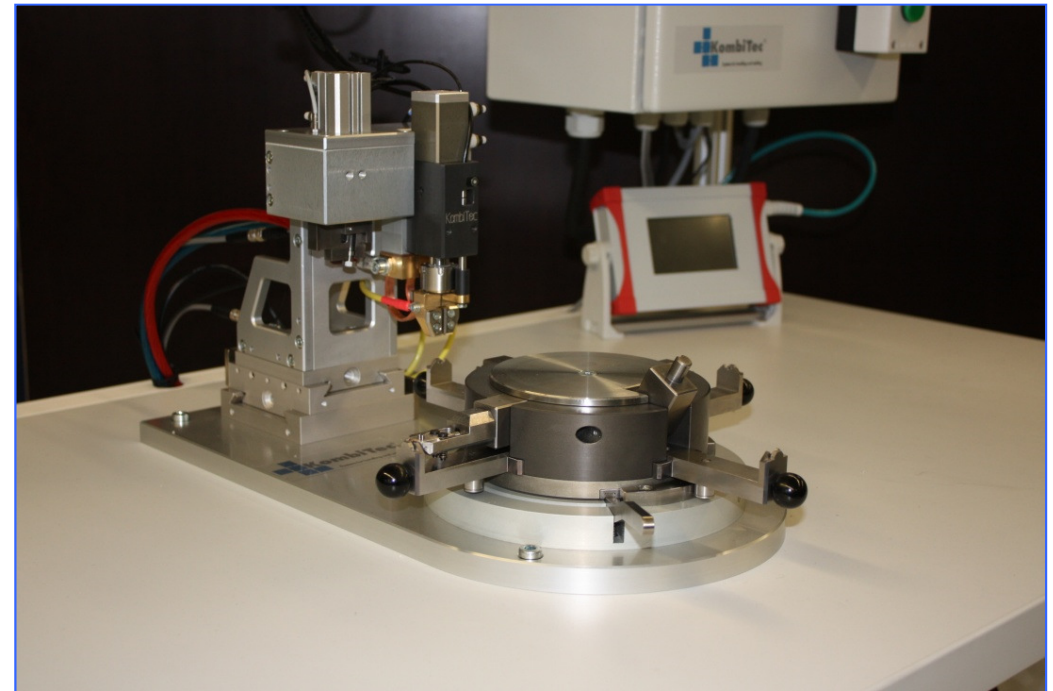
Golden band welding machine

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Carrier material: Kapton; Electrode area: $0.2 \times 0.2\text{mm}$; Electrode gap 0.05mm



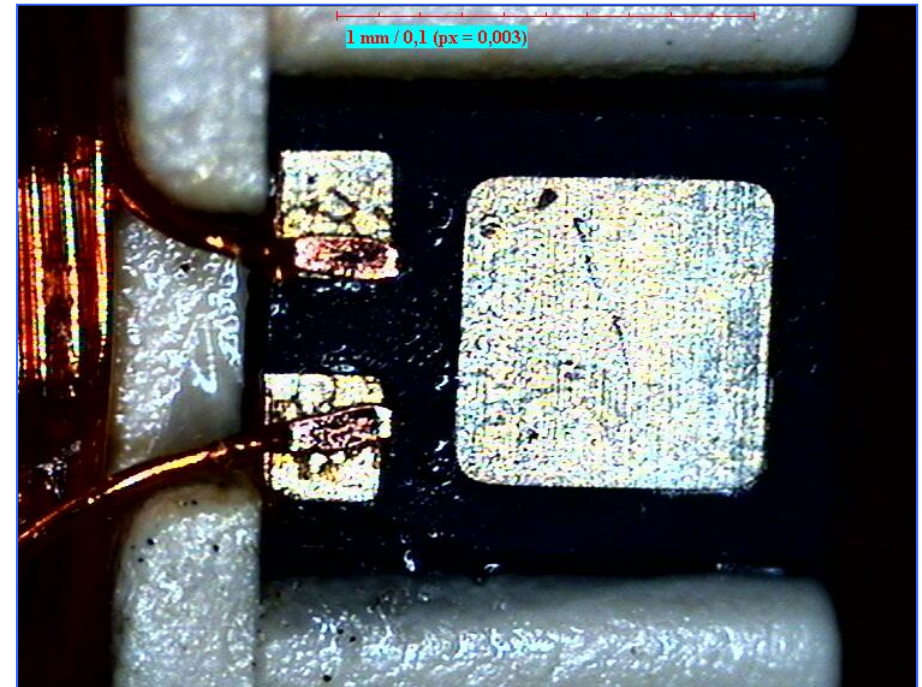
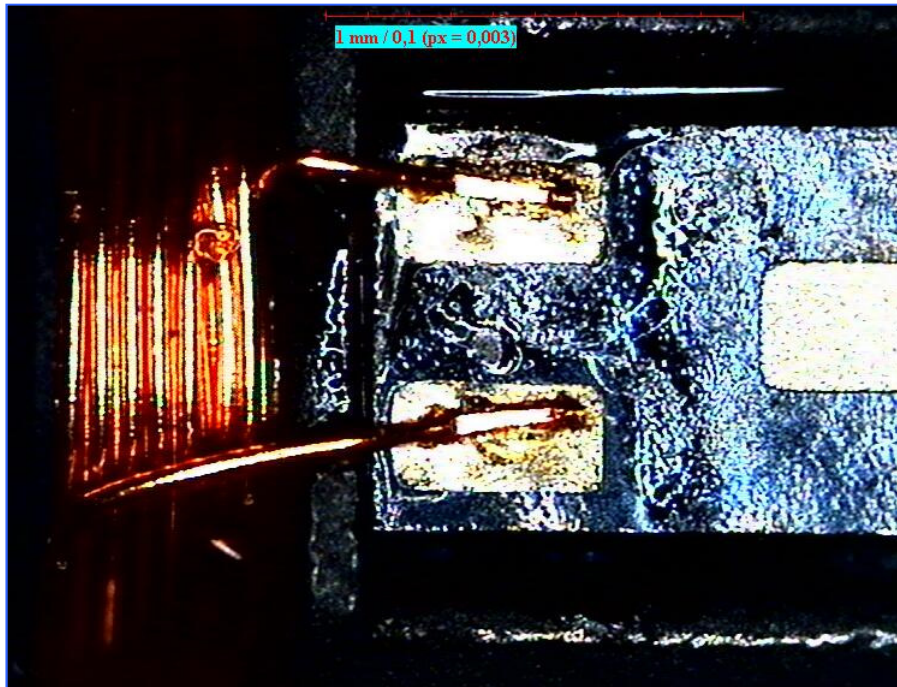
Thermode welding machine

40µm enamelled copper wire; hot bar welded on a RFID chip



Thermode welding machine

40µm enamelled copper wire; hot bar welded on a RFID chip

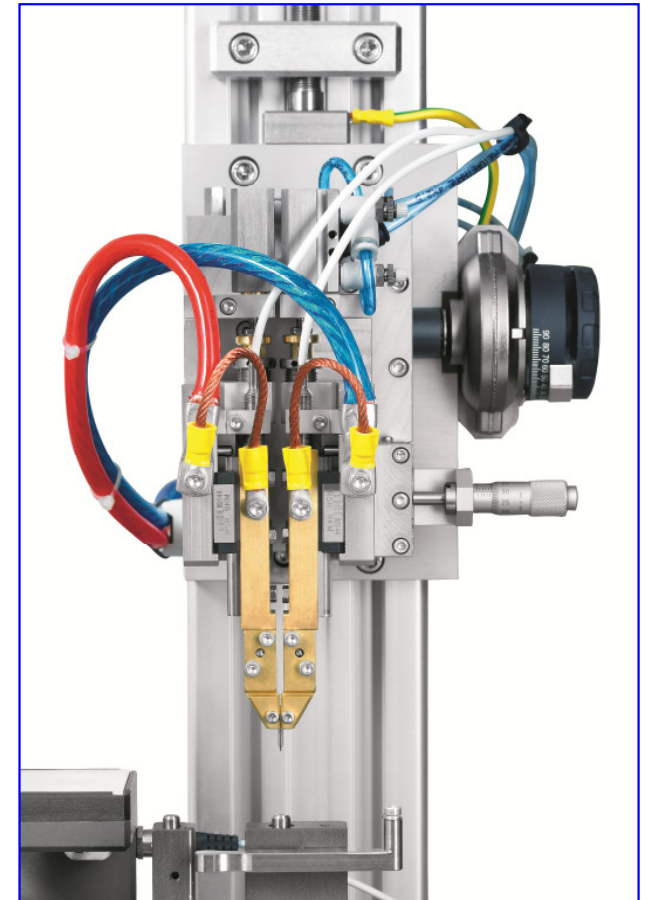
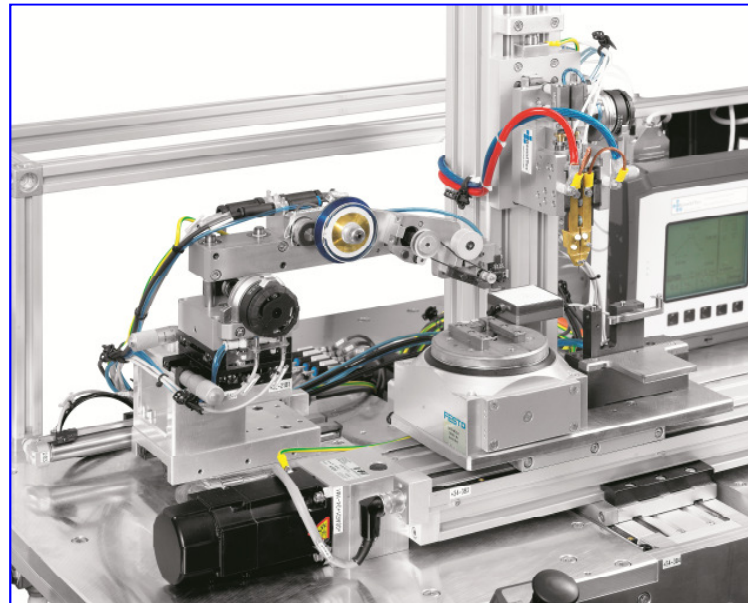
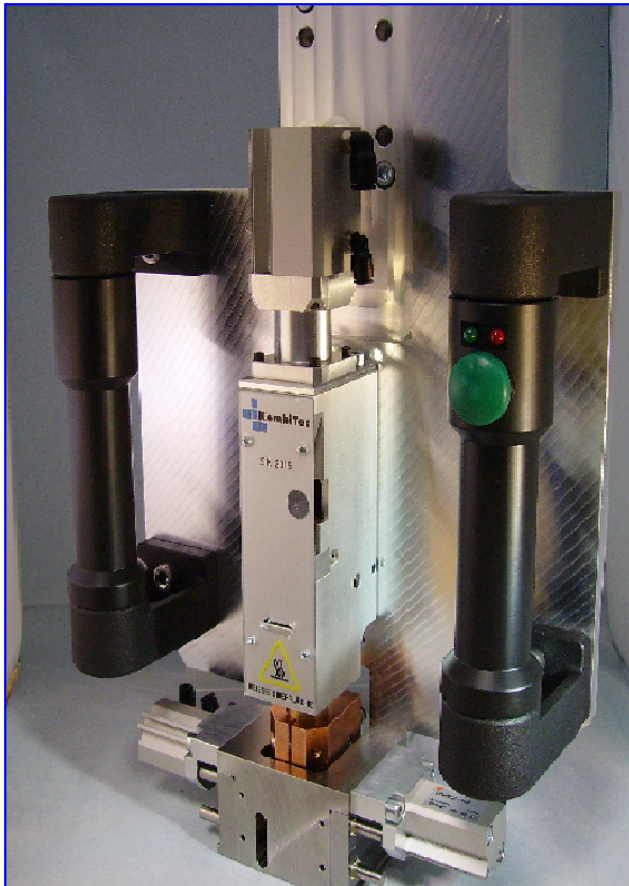


Why special engineering & resistance welding technology?

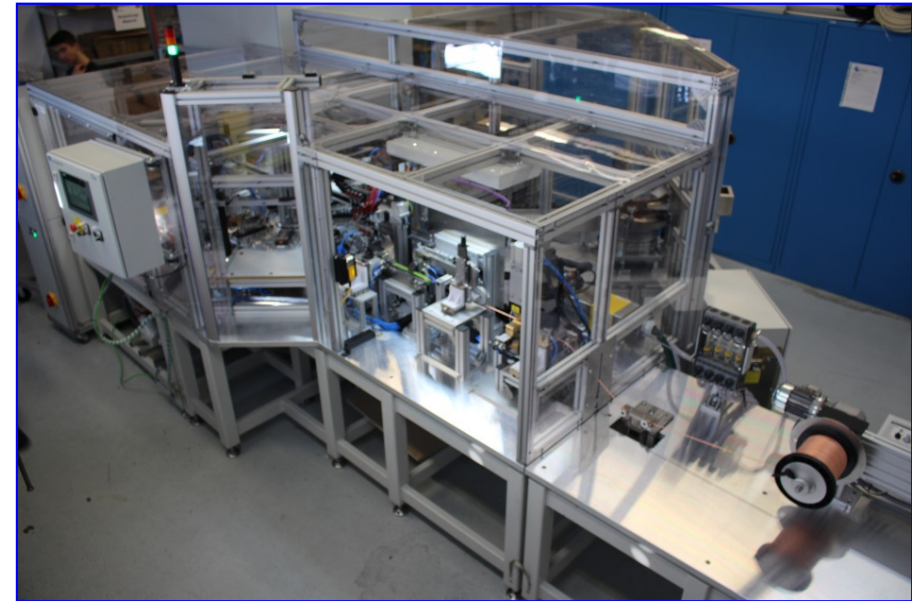
Smaller and more detailed assembly components require highest precision in terms of hard-facing.

Our individual one-stop solutions give our customers a perfect project handling and hence reliability.

Special solutions in resistance welding technology



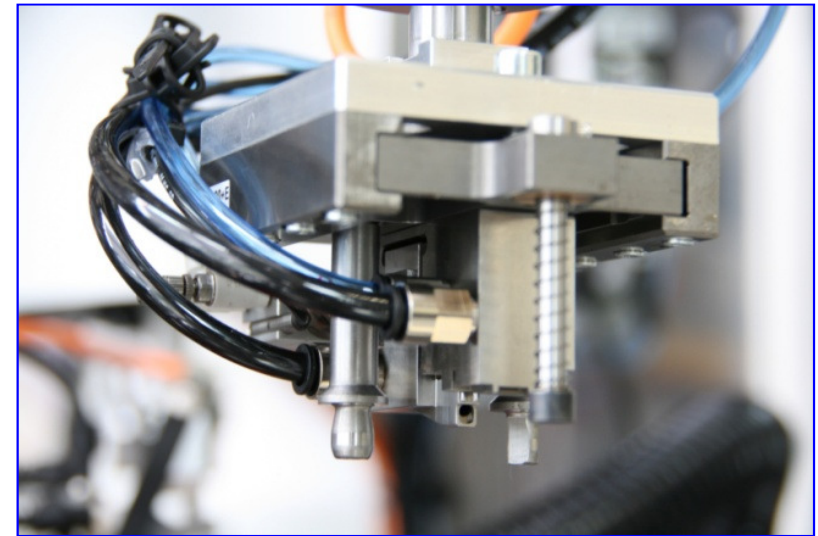
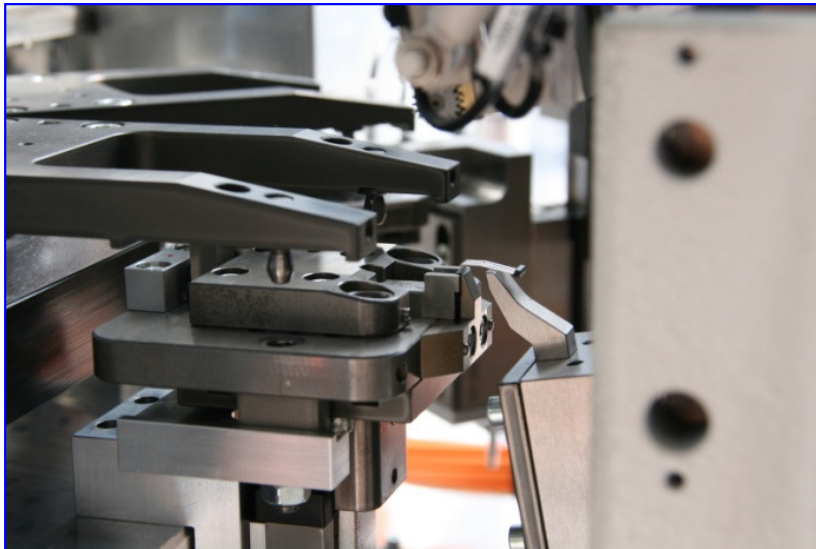
Special solutions for manual-, halfautomatic and automatic work stations



Solutions in special engineering

Automatic cutting-bending-mounting machines for IC-processing

Bending pliers for lead-frames on electronic assembly
(Rotary table – 8 stations)

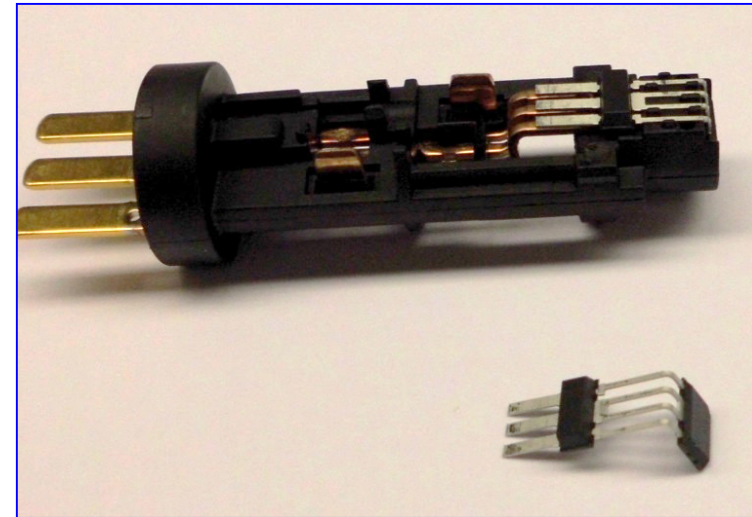
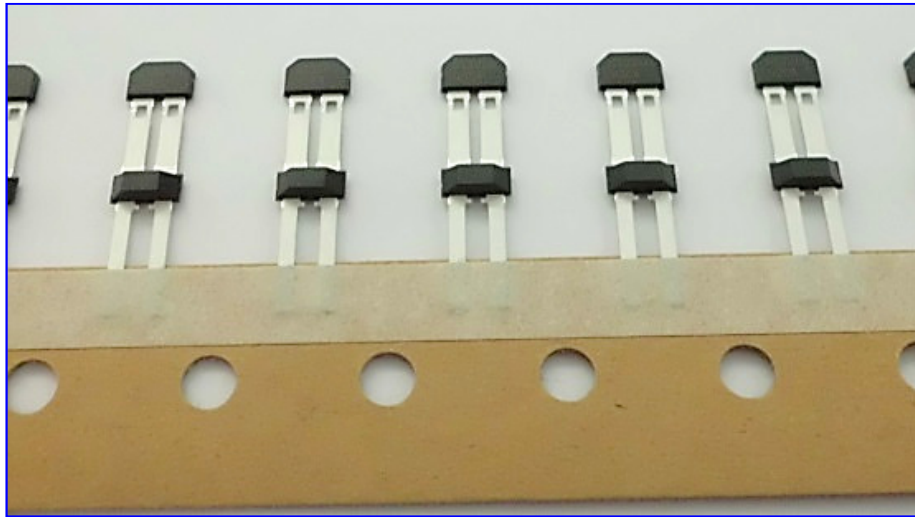


Miniature fitting gripper with float balancer
Fitting force is equivalent to mass of gripper

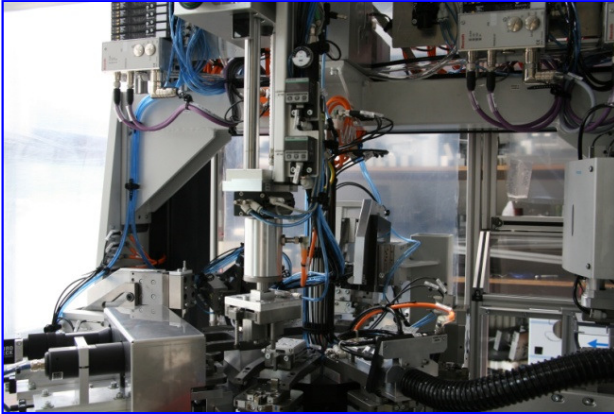
Solutions in special engineering

Automatic cutting-bending-mounting machines for IC-processing

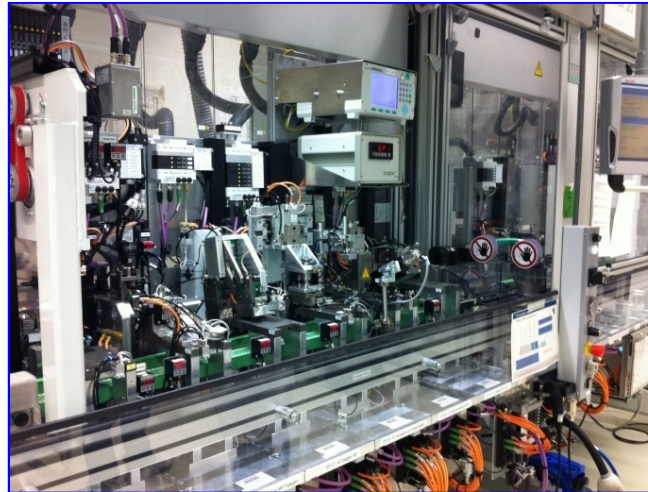
IC-cutting and bending in one tool, transferred into a hot-moulded plug,
with hot-bar fixed and welded at 3 points



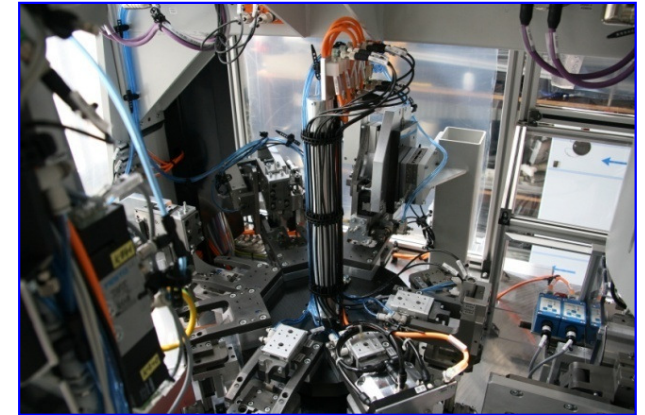
Special solutions in engineering



Camera monitoring



Longitudinal table (DTF)



Rotary table

Thank you for your attention!





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