



# Company Presentation

Heicks Industrieelektronik GmbH





#### Company presentation of Heicks Industrieelektronik GmbH



- Heicks Industrieelektronik GmbH, founded in 1986, is a medium-sized, owner-managed company with approx. 160 qualified employees.
- On more than 6000 m<sup>2</sup> production area we offer competent full service for high quality electronic components and assemblies.





1999

2005

2007

2008

2011

2016

2019

approx. 6.000m<sup>2</sup>

production area,

120 employees

painting lines

2021

**Expansion of** production capacities to include new SMD machines and two 2023

**Expansion of** manufacturing technologies to include an X-ray counting device, PCB marking laser,

> 3D inline paste inspection, 3D

inline AOI, new modern selective soldering system,

cable packaging

Amplification of SMD assambly

Removal to current enterprise location in Geseke in NRW, 25 employees

Implementation of Parylene coating assambly

First Certification acc. DIN EN ISO 9001

**Expanding** production area by 2700m<sup>2</sup>

Aviation Certification acc. **DIN EN ISO 9001 &** EN/AS 9100

> leader Parylene Recertification acc. DIN EN ISO

European-Market-

9001:2015 und EN

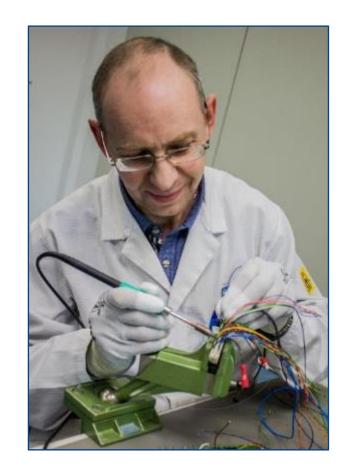
9100:2018



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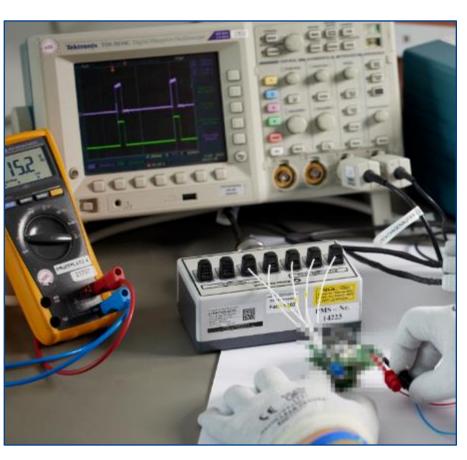


- Circuit unbundling and layout
- Complete material procurement
- SMD & THT assembly
- Manually soldering
- Mechanically soldering of assembly groups
  - Wave soldering
  - Selective soldering / nitrogen atmosphere
  - SMT-soldering / nitrogen atmosphere
- Fitting of assemblies to complete devices





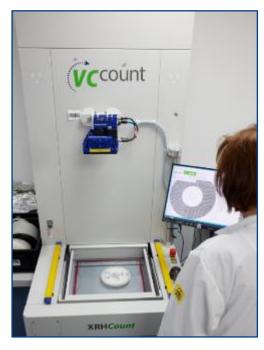




- Testing of electronic assemblies or of the complete devices with 3D AOI System, ICT, FKT or High-End-Flying-Probe
- Coating and Potting of assemblies
- Parylene coating of assemblies
- Setup of test devices and test systems
- Cable packaging
- Construction of harnesses for test devices
- Partial removal of gold surface / solder resist







### X-ray counter XRHCount

Using X-ray technology and the latest image processing, components on SMD rolls are counted within approx.

10 seconds and transferred to the ERP system after confirmation from the operator.

Source: VisiConsult X-ray Systems & Solutions GmbH



# PCB marking laser INSIGNUM 4000 with CO<sup>2</sup> laser

Integrated turning station enables labeling on both sides within the system

- Smallest module sizes ≥ 0.127 mm ≥ 5 mil
- Highest accuracies
- incl. inlet belts and outlet belts





### Equipment - SMD



**JUKI KE 2080 L** 



JUKI FX-3 L



Reflow soldering system SMT Quattro Peak® L N<sub>2</sub>



#### **3D-Inline-SPI SAKI 3Si-LS2**

evaluates/inspects solder paste deposit quality on PCBs

Source: Selecs GmbH



#### **Reflow soldering system**

VXP + nitro 3500 (type 734)

Quelle: www.rehm-group.com



**RS-1 TS** (RS-1)

RS-1 TSC

(RS-1 with camera-system VCS I)

- High speed of up to 42,000 bp/h
- High flexibility
  - Component height 25 mm
  - Component size 0201 (metric) ~ 74 mm/50x150mm
  - Placement accuracy ± 0,035 mm (Cpk ≥ 1)

Source: www.juki-smt.com





processing and final inspection / measurement during the placement process

Source: Selecs GmbH





### Equipment – Soldering facilities





Selective soldering system – leaded AND lead-free ERSA Ecoselect 350



#### new modern Selective soldering system

**ERSA Versaflow 455** 

- Latest generation of machines
- Parallel process by separating fluxes, preheating and soldering



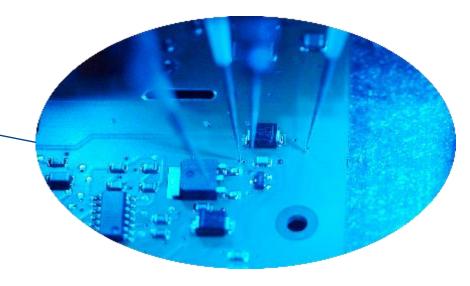
Wave soldering system – leaded AND lead-free ERSA POWERFLOW e N<sub>2</sub>



## Equipment – Testing equipment









**ICT-Tester** 



High-End-Flying-Probe



**FKT-Tester** 









Wire Stripper Komax Mira 230 Q and 340 Q

Komax automatic cut and insulation machine Kappa 320

Cable assembly for small and medium batch sizes (quantity 1 to max. 1500 cables per batch)





#### Equipment – Painting line

Heicks

Processing of a wide variety of paints from the manufacturers Peters Lacke, Humiseal and Henkel is possible



# **Painting shop ProtectoXC2020**

Rehm Thermal Systems GmbH incl. inlet belt and outlet belt

Source: Rehm Thermal Systems GmbH



DIMA Group BV – Elite Coater incl. Inlet belts and outlet belts

Source: epp.industrie.de









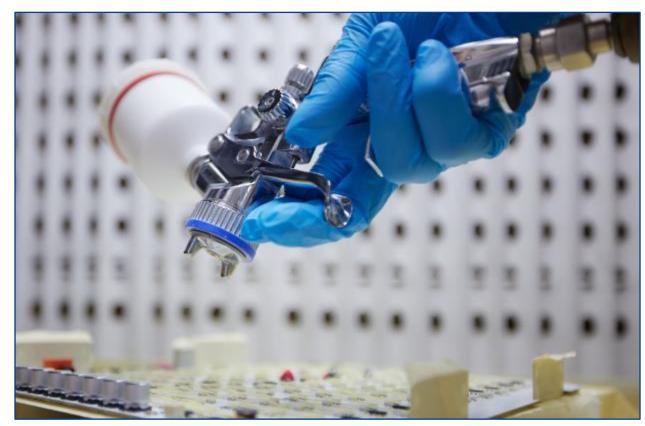
## **UV-curing oven Spectro UV-500**

- modular system
- constant UV-emission
- low heat development
- wide UV-range
- bezel at the input and output to prevent interference from UV light on the circuit boards

Source: DIMA SMT Systems









manual painting
with a wide variety of paints from the
manufacturers Peters Lacke,
Humiseal and Henkel

manual component casting with silicones, adhesives, etc.



### Equipment – Depanelling





# stand-alone depanelling system **SAR-1300 Mono-Smart**

- maximum milling accuracy by high-precision linear motor axes and the modern control technology
- panel feeding possible with one or two shuttle axes
- shortest cycle times by high-speed linear motor axes and minimal dead times

Source: SCHUNK GmbH & Co. KG





# High-End Hybrid-Rework Station Ersa HR 600/2

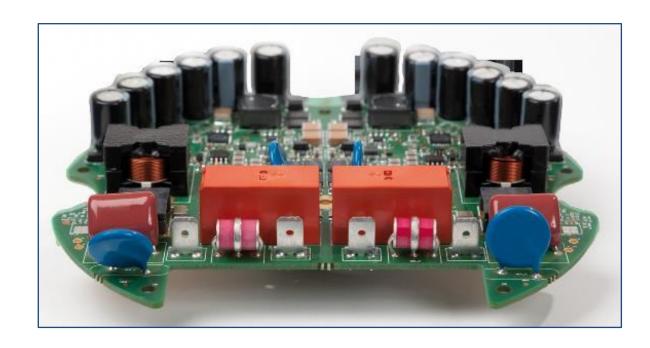
- Process-reliable, automated soldering and desoldering processes
- Automated component placement
- Hybrid heating head with two heating zone for effective thermal transfer
- extensive, high-performance IR bottom heating in three zones











LED control electronics









**Dopplersimulator MDS 24** 

for electronic calibration and functional testing of the angular measurement capability of vehicle radars with 24GHz frequency



**Dopplersimulator MDS 77** 

for electronic calibration and functional testing of the angular measurement capability of vehicle radars with 77GHz frequency





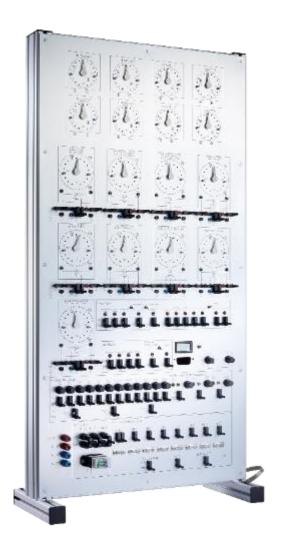








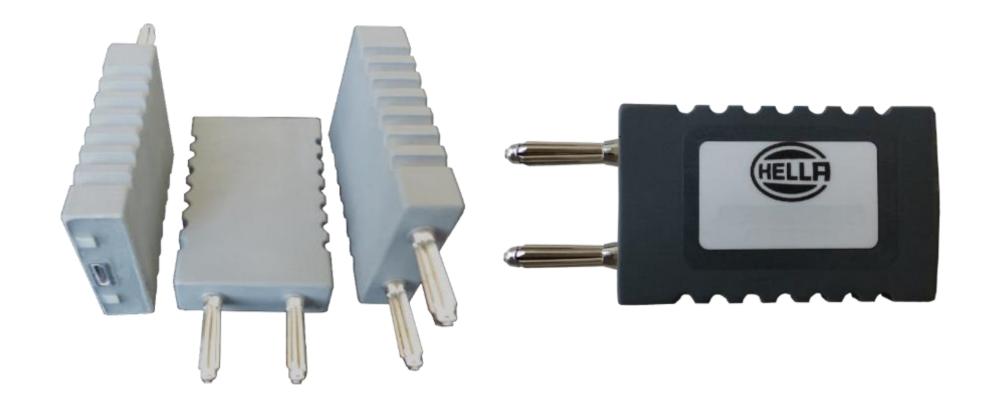
Wiring harness for testing purposes in the automotive industry



Test device for automotive industry



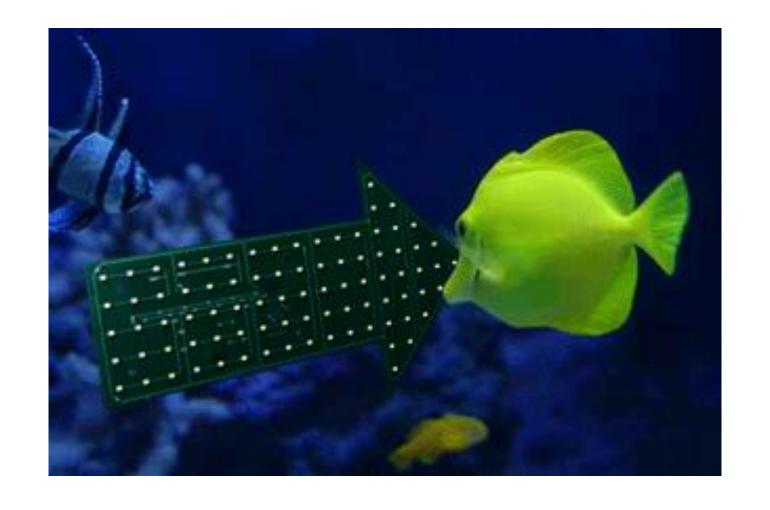






Cast assembly for the automotive sector

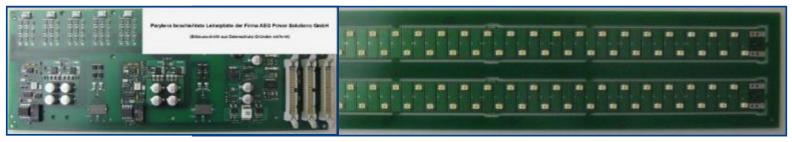














HIMA Paul Hildebrandt GmbH + Co KG



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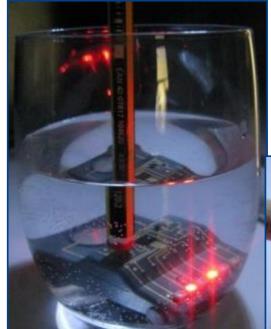


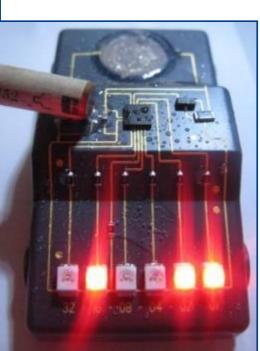


Electronic manufacturing and parylene coating for UAVs (remote controlled drone)











Aluminium injected molded part with electronic components fitted in the form of a "light bulb", including Parylene Coating LPKF



Research association "Räumliche Elektronische Baugruppen 3-D MID e.V." FAPS – chair for manufactoring automation and production systems



3-D MID (Molded Interconnect Device) Demonstrators



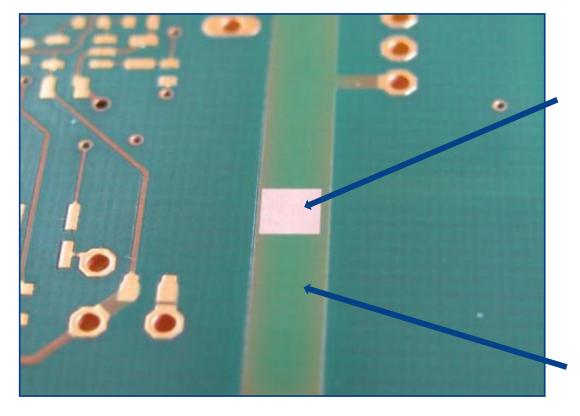


Aqueous cleaning services
HFE-process as cleaning service









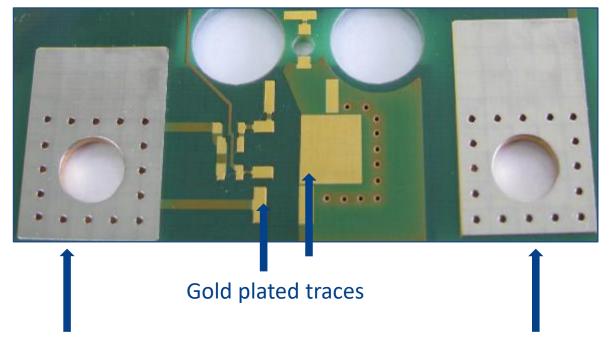
Solder resist has been removed partially from trace

Trace with green solder resist









Gold layer has been removed partially

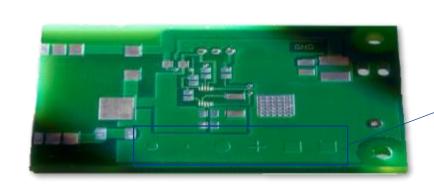
Gold layer has been removed partially

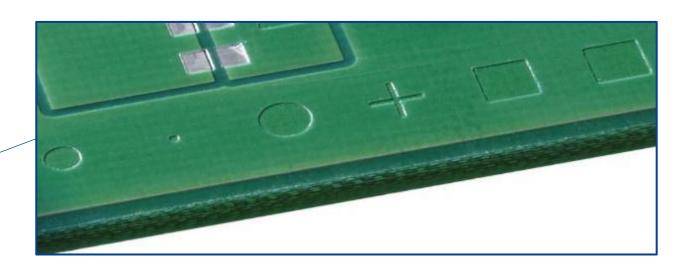






- Manual Protection with special protective masks
- Manually removing of the protective mask after parylene coating
- Unmask of coated areas with a special laser









# "Not a single defect product must leave the company."

Dipl.-Ing. R. Heicks, CEO











# Thanks for your attention



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