



## BONDJET BJ935

HEAVY WIRE BONDER

The Hesse & Knipps GmbH as technology leader has designed the only heavy wire bondhead with non destructive pull test and a unique transducer integrated sensor for 100% quality monitoring in real-time. Further outstanding features are high speed and the largest bonding area. Advanced features available only on BONDJET BJ935 are designed to meet your present and future requirements and greatly enhance productivity.

### New Benchmark for Heavy Wire Bonders

#### Advanced Features and Process Advantages

- ▶ E-Box: patented solution for optimized tool change and programmable alignment marks for guide, cutter and bond wedge
- ▶ Maintenance-free solid state joints
- ▶ Closed loop force control programmable, wire: from 0 cN up to 1400 cN ribbon: from 0 cN up to 4000 cN
- ▶ Touchdown and deformation sensor without signal delay
- ▶ Active cutting bondhead
  - ▶ Accurate positioning of the cutter and therefore repeatable precise and programmable cutting depth
  - ▶ Better access into tight packages as no pusher is needed
  - ▶ Extended cutter lifetime

#### Quality

- ▶ Quality monitoring by high resolution deformation and transducer current and ultrasonic frequency measurement
- ▶ Integrated, non-destructive pull test wire up to 450 cN, ribbon up to 1000 cN
- ▶ Quality test, free programmable for each wire
- ▶ Process integrated Quality Control (PiQC) for advanced quality monitoring in real time (patented)

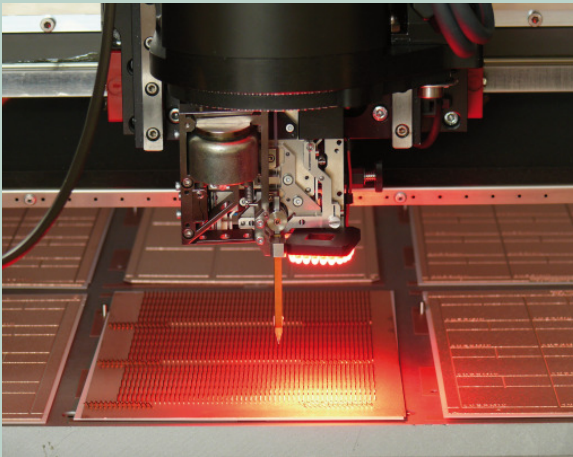
#### Speed

- ▶ up to 3 wires/s

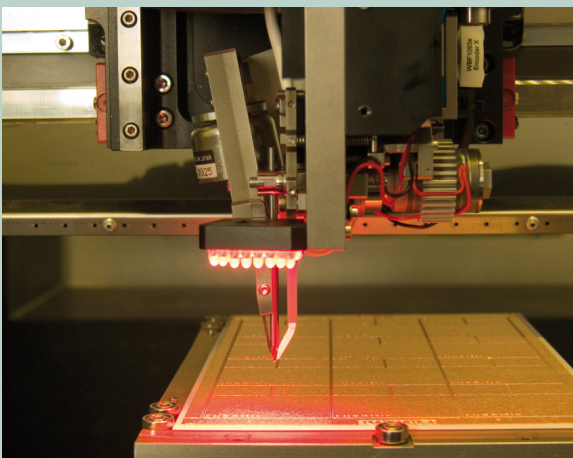
#### Accuracy

- ▶ 2  $\mu\text{m}$  at 3  $\sigma$  repeatability at each position in the large work area
- ▶ 3  $\mu\text{m}$  at 1/3 px pattern recognition system accuracy

# BONDJET BJ935



BJ935 heavy wire bondhead



BJ935 ribbon bondhead

## Working area

- ▶ X/Y: 254 mm x 244 mm (10" x 9.6")
- ▶ Z: 50 mm (2")
- ▶ P-rotation: 400°

## Ultrasonics

- ▶ Digital ultrasonic generator
- ▶ Frequency: 10 kHz up to 600 kHz, power: 50 W optional 100 W
- ▶ Transducers available: 40 kHz, 60 kHz and 100 kHz

## Wire

- ▶ Al, Au, Cu (aluminium, gold, copper)
- ▶ 100 µm up to 500 µm (4 mil up to 20 mil)

## Ribbon

- ▶ 0.075 mm x 0.75 mm up to 0.3 mm x 2 mm

## In-line capabilities

- ▶ Single lane handler
- ▶ Integrated PLC controller
- ▶ Standard SMEMA input & output ports

## Machine dimensions

- ▶ Footprint: 670 mm x 1320 mm (26.4" x 52")
- ▶ Height: 1897 mm (74.7")
- ▶ Weight: approx. 1100 kg

## Power supply

- ▶ 220V - 230V, 50 Hz - 60 Hz, 2,2 kW  
(200V - 240V with USV option)

## Available options

- ▶ Backcut or frontcut bondheads with active cutter
- ▶ Network program upload / download
- ▶ CAD data import
- ▶ Fieldbus support
- ▶ E-Box: reproducible setup for cutter, wire guide and bond wedge
- ▶ PiQC with transducer integrated sensor

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