



Customized Die Bonding Solutions with Swiss Precision

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About Tresky

- Manufacture Customized Die Attach, Flip Chip Bonding and Sorting Systems
- Founded in 1980
- Over 1200+ Systems installed worldwide
- Offices
 - Tresky AG - Headquarters
Thalwil, Switzerland
 - Tresky Germany
Berlin, Germany
 - Tresky USA
Morganville, NJ



From R&D to Production



T-4909

Manual Top Down
Alignment



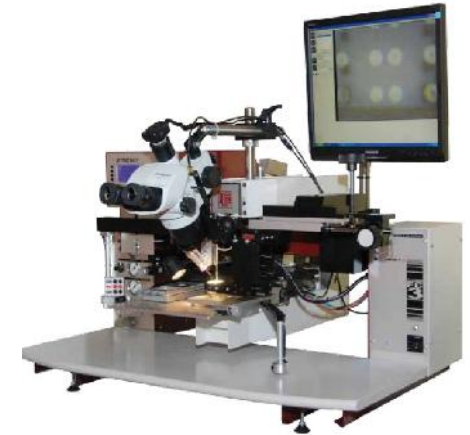
T-3000/2 M

Manual XY with Manual Z
Top Down or Flip Chip
Alignment



T-3000/2 FC3

Manual XY with Auto Z
Top Down or Flip Chip
Alignment



T-3000FC3-HF

Manual XY with Auto Z
Top Down or Flip Chip
Alignment
Force Up to 50kg



T-6000-L

Fully-Automated
8 μ m @ 3sigma

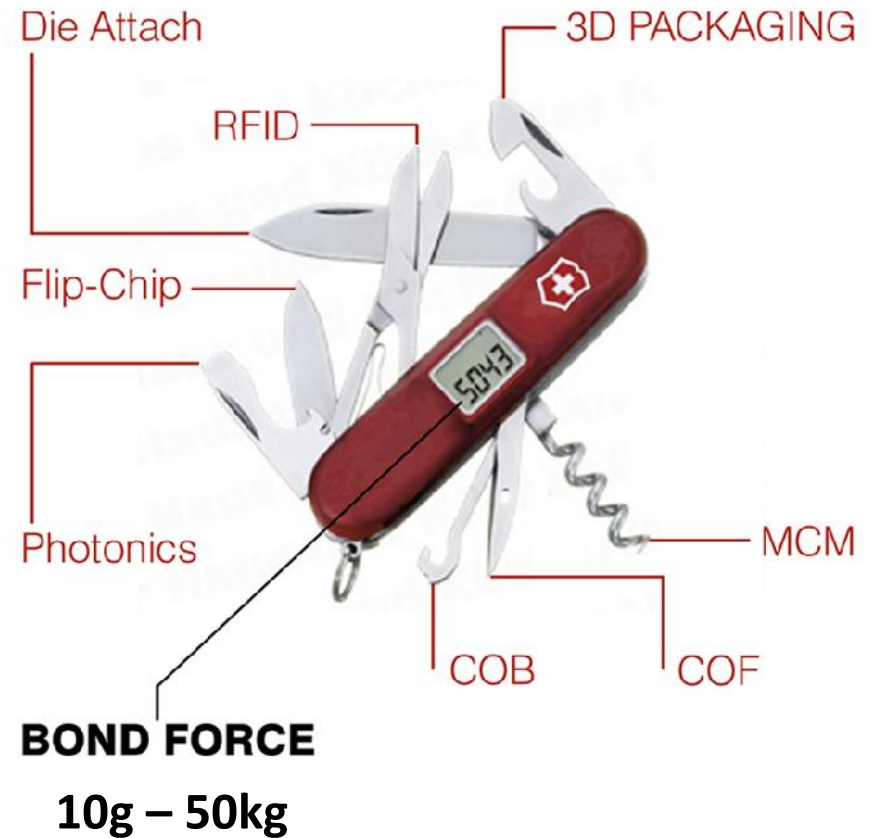


T-8000

Fully-Automated
5 μ m @ 3 sigma

Advantages

- Versatility
- Upgradeable
- Accuracy and Repeatability
- True Vertical Technology™
- Simple, User-friendly



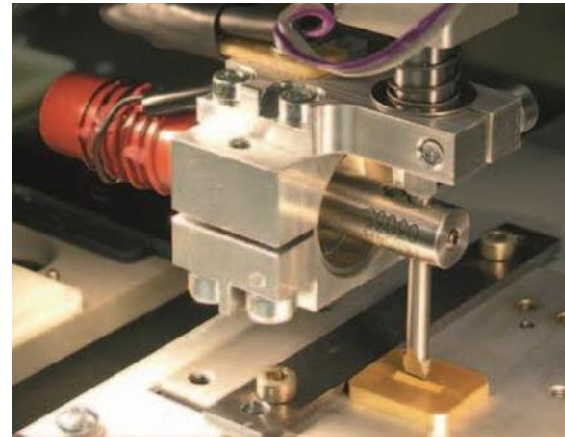
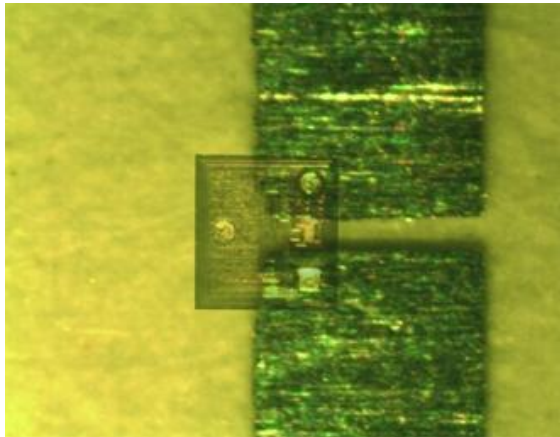
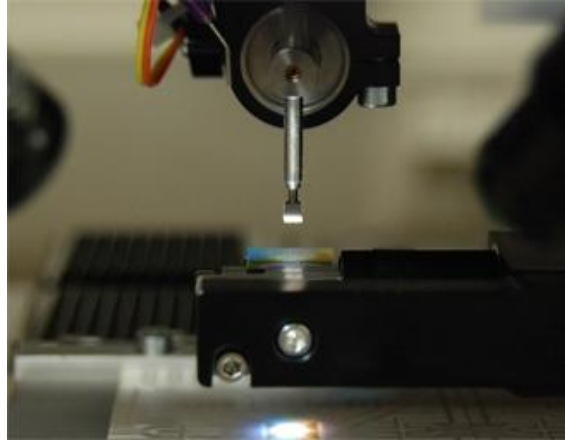
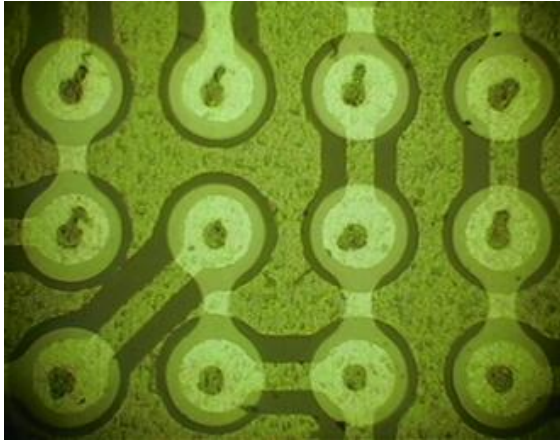
T-3000/2-FC3

Semi-Automated Flip Chip Eutectic Die Bonding System



- Z axis with 1 μ m resolution
- 1g Bond Force Control
- Alignment Resolution: 0.5 μ m
- Placement Area: 220 x 220mm
- Pick from up to 8inch wafer
- Bond Force: 15g – 400g
- Beamsplitter with Live Images
- Adjustable Optics for varying thickness samples

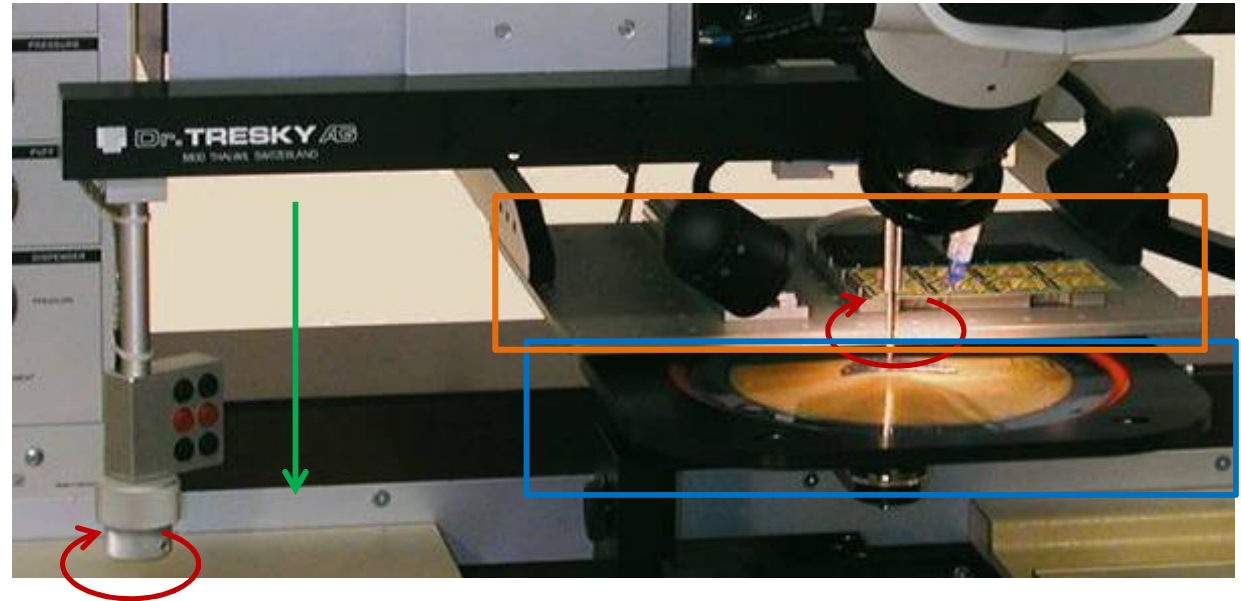
T-3000/2-FC3 Applications



- Eutectic Bonding
- Epoxy Bonding
- Thermocompression
- Ultrasonic/Thermosonic
- Flip Chip/2.5/3D
- Stamping/Flux Dipping
- Surface Mount
- Sorting

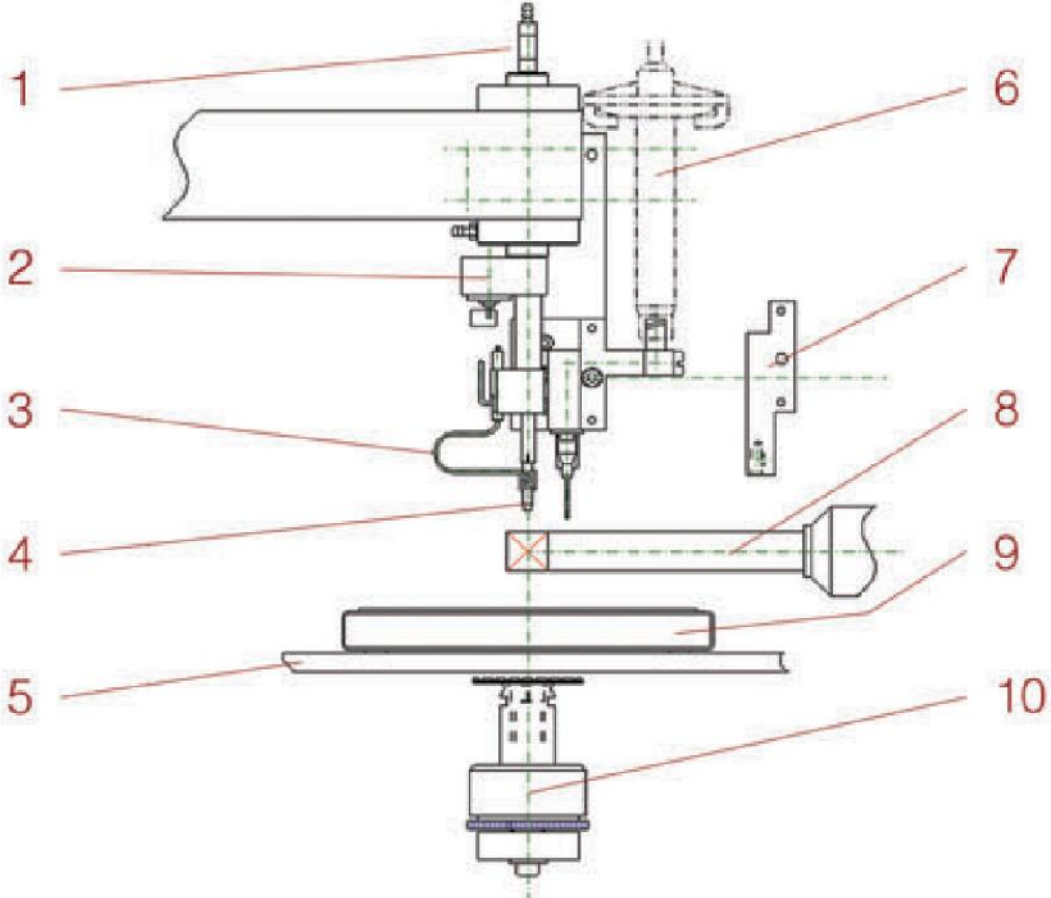
T-3000/2-FC3 Differentiators

- Bonding Arm only has Z motion - True Vertical Technology™
- 360° Theta control of spindle
- XY Alignment performed by table
- Pick from Wafer using patented die ejector



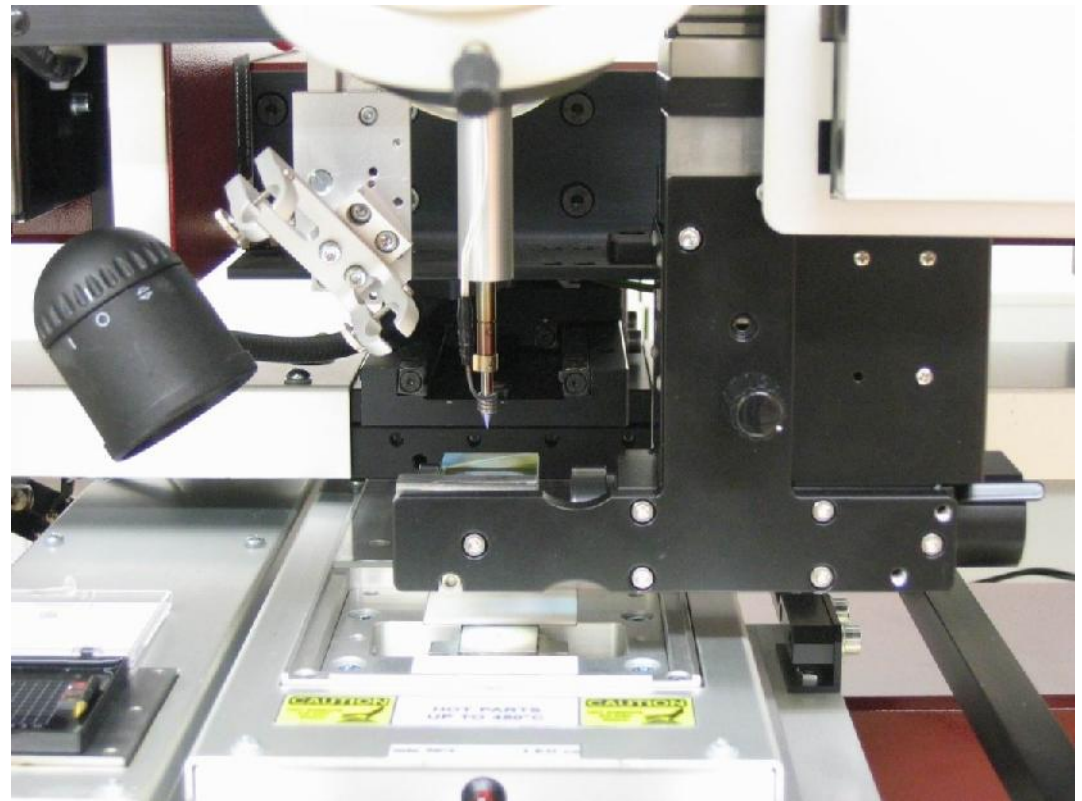
- Capable of multiple processes without changeover

Tresky True Vertical Technology™

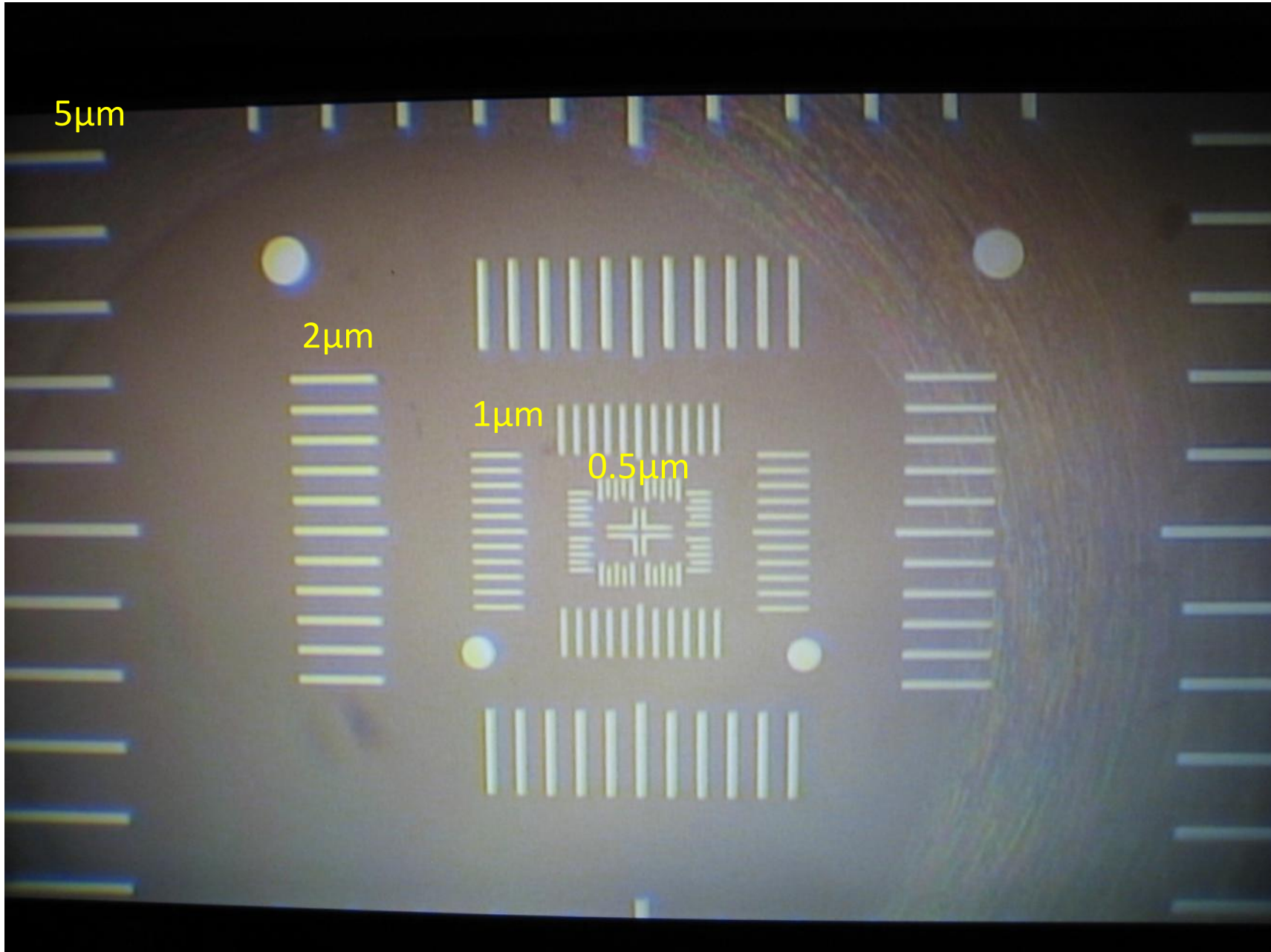


Tresky True Vertical Technology™

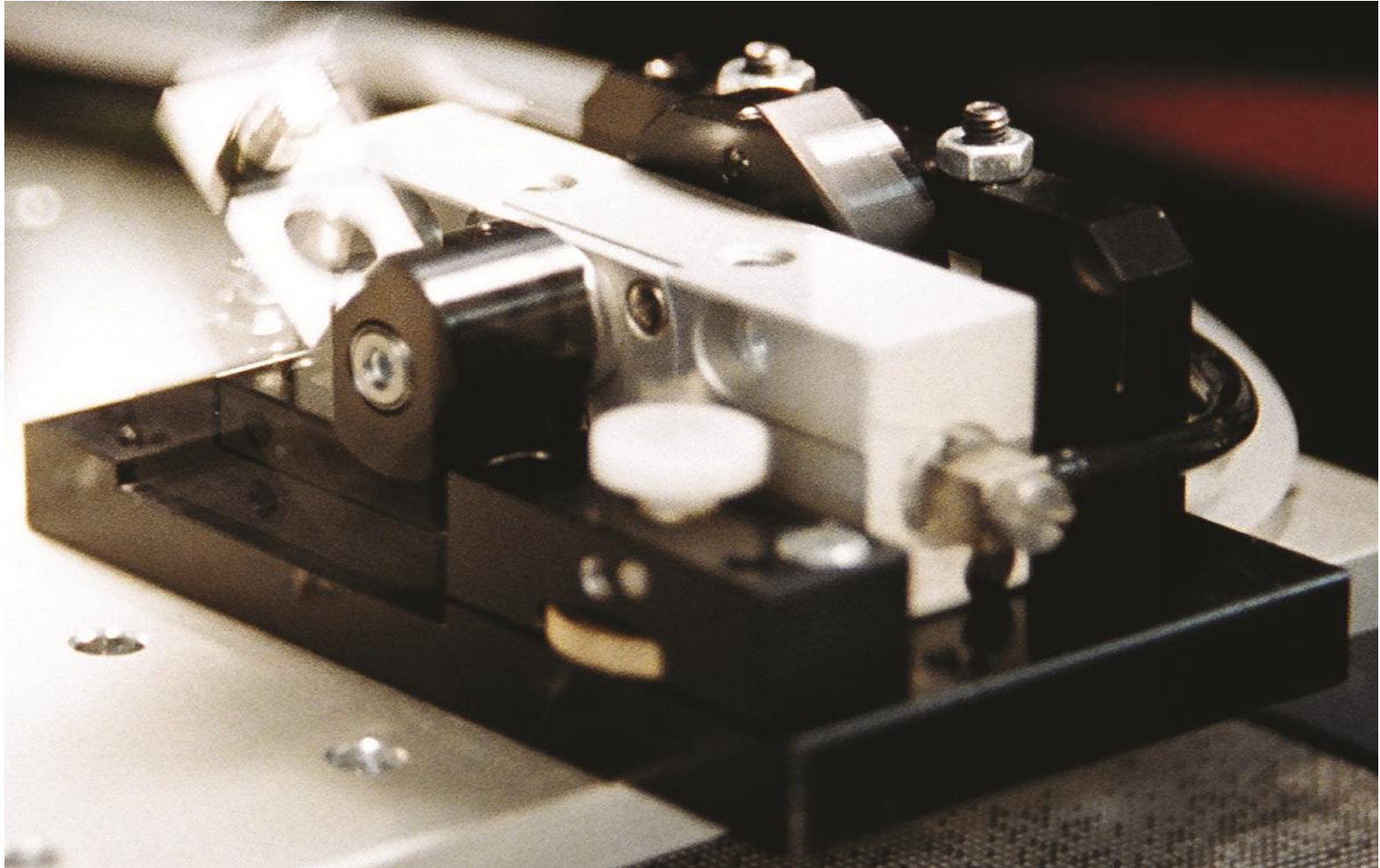
- True Vertical Technology™
- Beam Splitter with Zoom Optics and Camera enabling a simultaneous view of the substrate and chip
- 0.5 μ m alignment resolution
- LED illumination (Top and Bottom) and Coaxial illumination
- 23X optical zoom camera
- FOV 0.3 to 6.5mm
- Multiple Point Alignment available
- Motorized fixed point engagement or Multiple point movement



Tresky Flip Chip Optics

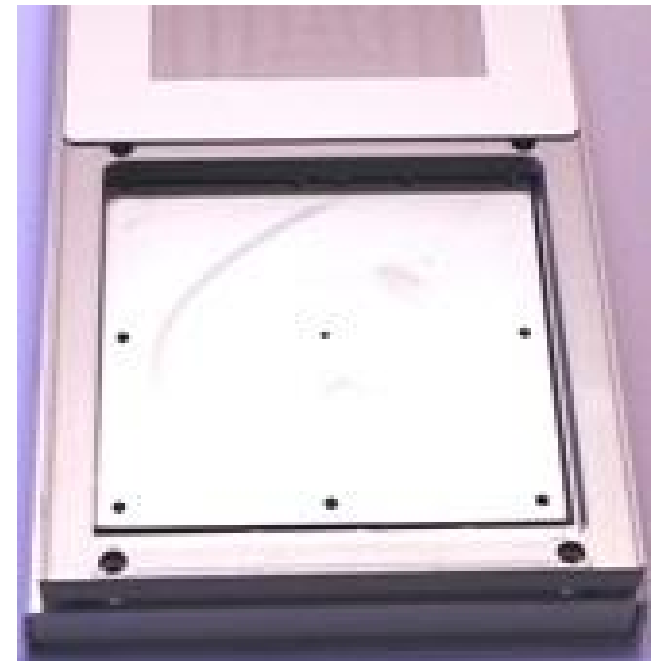


Tresky Chip Flipper



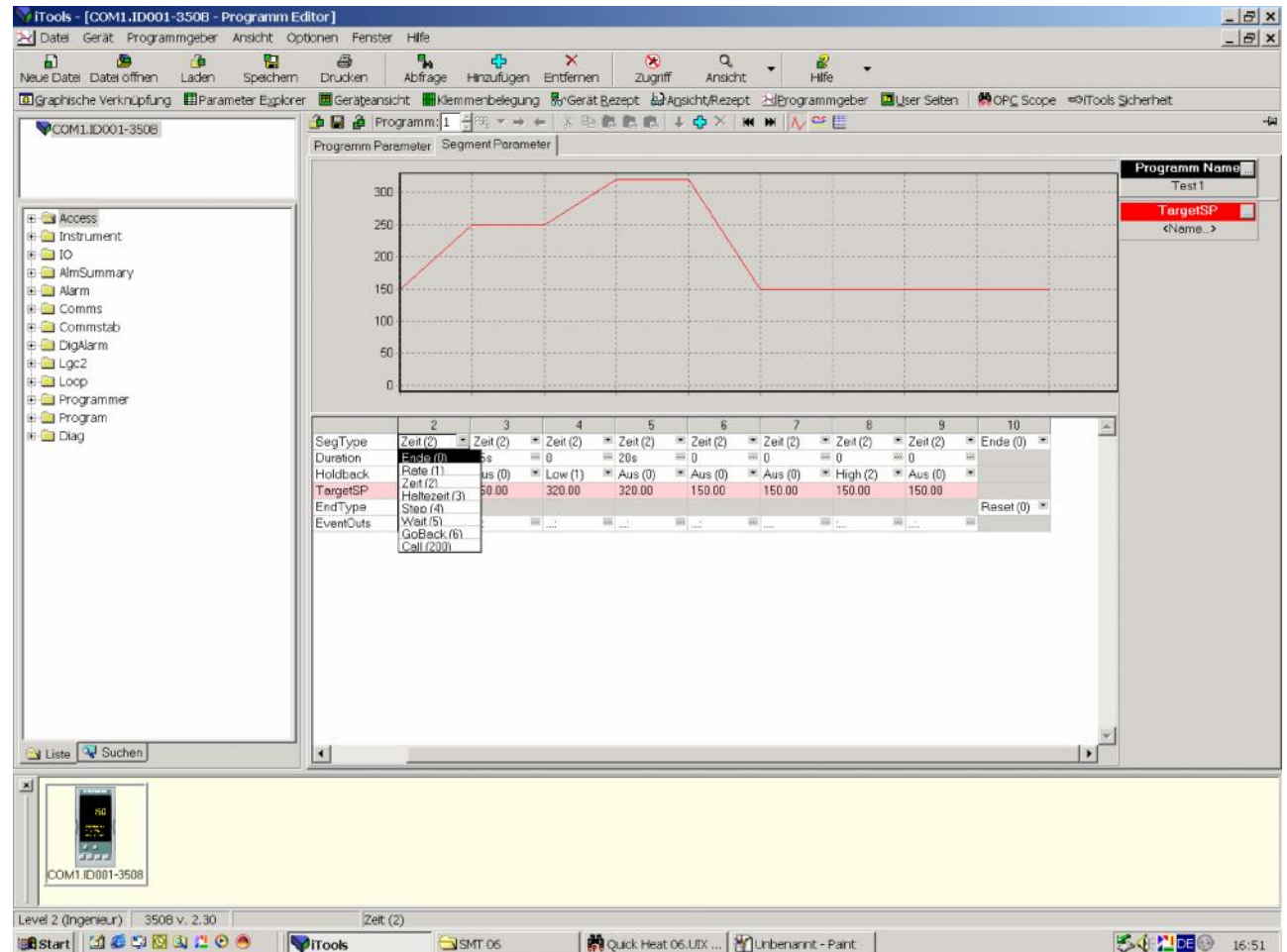
Tresky Eutectic Bonding

- 20x20 mm Programmable Heating Plate
 - 400C max; 18C/sec
 - Integrated Cooling
 - Inert Gas Chamber available
- 52 x 52 mm Programmable Heating Plate
 - 400C max; 30C/sec
 - Integrated Cooling
 - Inert Gas Blanket available
- 100 x 100 mm Programmable Heating
 - 400C max; 25C/sec
 - Integrated Cooling
 - Inert Gas Chamber Available
- Static Heating Plates Available



Tresky Eutectic Programming via iTools

- Program
 - Temperatures
 - Ramp rates
 - Dwell times
 - Forming gas
- Watch it as it happens



T-3000/2-FC3 Summary



- Accurate
- Repeatable
- Versatile
- R&D to Low Volume Production
- Easy to Use
- Full Range Bond Force
- Multiple Applications
- Low cost of ownership