Datacon 8800 TC *advanced*

Advanced capabilities at smallest footprint

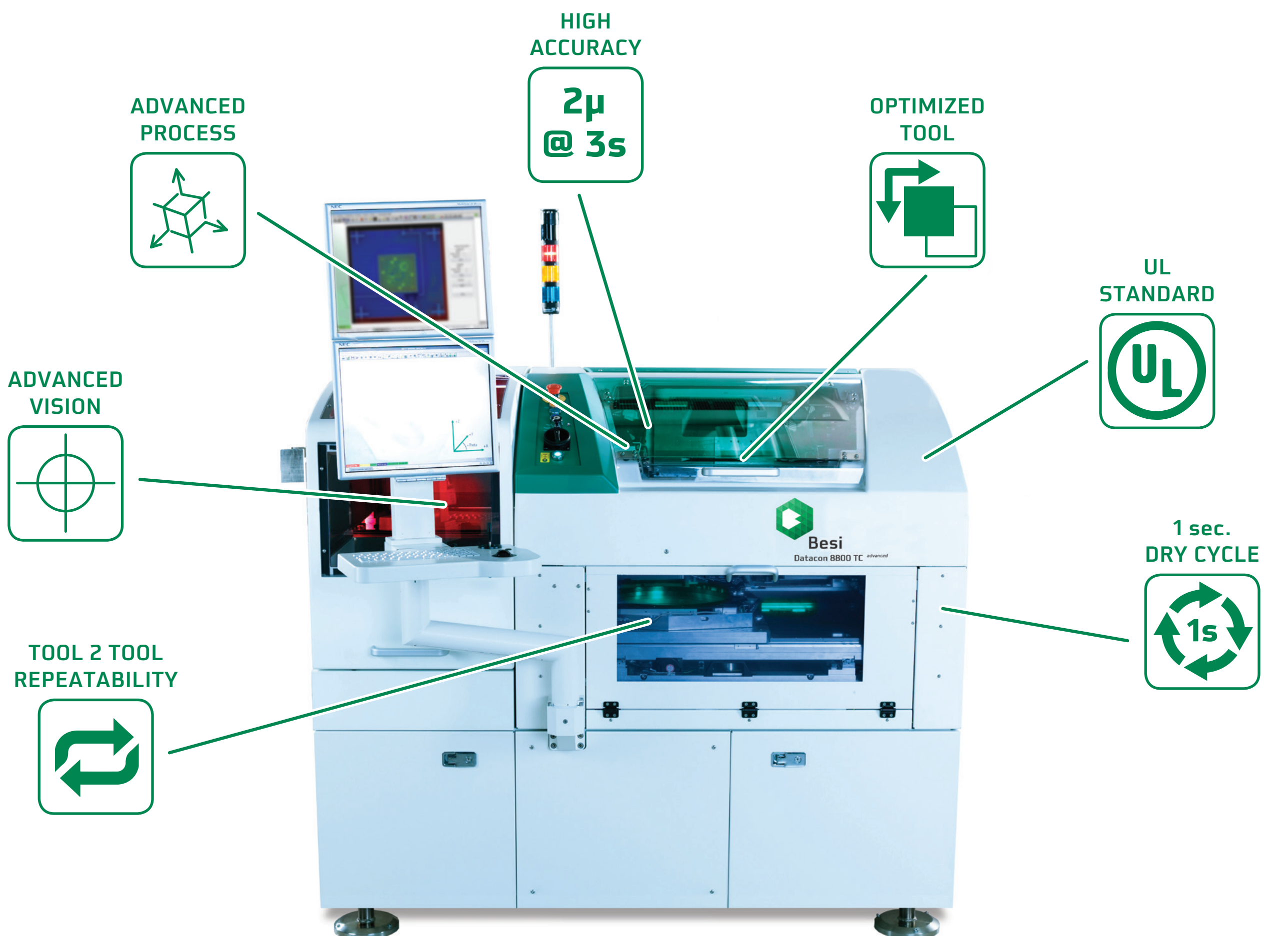
Thermo Compression bonding is the key technology for current 2.5D/3D C2S and C2W packaging, with TC-CUF as the currently established process for 3D memory, HPC and mobile applications.

The Datacon 8800 TC *advanced* sets the new benchmark based on the proven 8800 concept with total process control, advanced capabilities and unsurpassed production stability. With its unique and complete new Advanced Hardware architecture, unique 7-Axis Bond head and Advanced Process capabilities, the Datacon 8800 TC *advanced* is the essential tool of reference of current TSV applications.

Future Proof Equipment

Highlights

- Ultra Fine Pitch Capability
- Enhanced Thermo Compression Bond Control
- 7-Axis Bond Head
- Highest Productivity on Smallest Footprint



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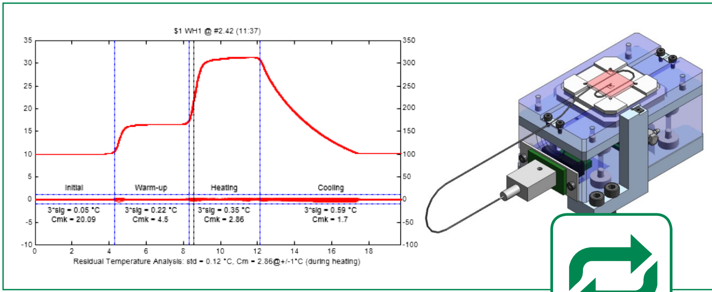
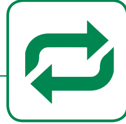
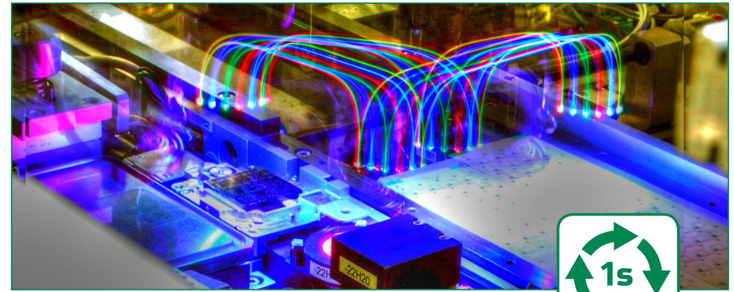




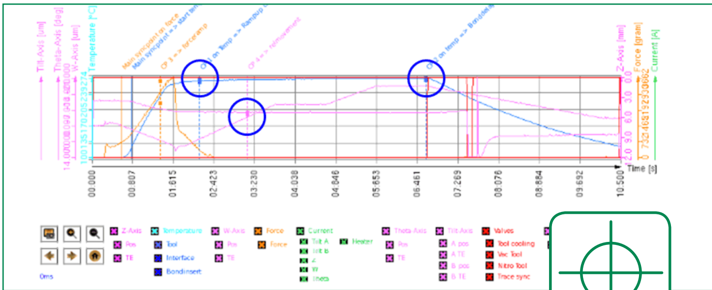
Tool 2 Tool repeatability

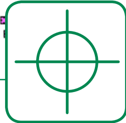
- Advanced TC-CUF Yield Control
- Yield and down-time prevention caused by flux
- Trajectory controlled heating and cooling
- New thermal stress resistant tool holder
- Accurate temperature calibration station



Next generation control platform

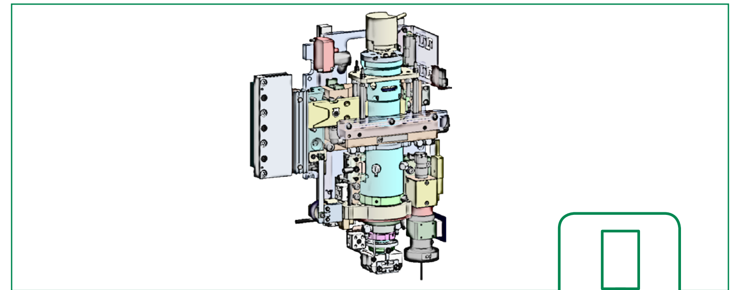
- New motion control - New hardware & software
- Enhanced trajectory control - Reduced latency times
- More computing power - Process variable tracing

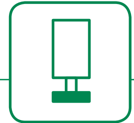




Integrated Monitoring & Alarming

- Alarm window setup for any process variable
- Process variable monitoring against defined alarm window
- Escaping alarm window generates machine stop and alarm
- Monitoring results available via SECS/GEM





7-Axis / 250N Bond Head

- 3 Actuators for positioning - X, Y, Theta
- 2 Axes for bond control - Z, W
- 2 Actuators for auto tilt setup - A, B

Feature	Datacon 8800 FC QUANTUM *advanced*	Datacon 8800 CHAMEO *advanced*	Datacon 8800 TC *advanced*
Local accuracy	5 µm @ 3s	3 µm @ 3s	2 µm @ 3s
Global accuracy	-	5 µm @ 3s	5 µm @ 3s
Vision system	2 Mpix, 12 x 12 mm FOV	4 MPix, 6 x 6 mm FOV	2 MPix, 12 x 12 mm FOV
Strips, Boats, Panels	200 mm	340 mm	260 mm
C2W	8"	12"	12"
Fluxer	✓	opt.	✓
Multi Chip	-	✓	✓
UPH (dipping process)	>9000	6000	1000
UPH (FO-WLP/ no dipping)	-	>7000	4000
Clean Class	ISO 6	ISO 5 (opt.)	ISO 5 (opt.)
Face-down	✓	✓	✓
Face-up	-	opt.	opt.
Tape & Reel	(roadmap)	(roadmap)	(roadmap)
FOUP load port	-	opt.	opt.
Temperature	-	opt. (constant)	Rapid Tool Heating & Cooling
Pre-Heat Station	-	opt.	✓
Local Reflow	-	-	✓
Lead Time	4 weeks	8-10 weeks	8-10 weeks