

Precision. Integration. Connectivity.

# Smart Factory Core Processes:

## 3D Micro Component Assembly - Custom Part Handling and Assembly

- SMD Assembly
- Die Bonding, Stacking, and Sorting
- Flip-Chip Bonding
- Active Alignment
- Touch-down Placement
- Glass Solder Assembly
- Active Laser Mounting
- Active Camera Mounting

## 3D Dispensing from Pico to Micro

- Adhesive Dispensing
- Underfill
- Glob Top
- Dam and Fill
- UV Gluing / UV Bonding
- Direct Dispensing
- Fluxing
- Pin Transfer
- Solder Paste Dispensing
- 3D Path Dispensing
- Jetting
- Horizontal Jetting

## Heating Processes

- Thermal Curing
- UV Curing
- Annealing and Preheating

## Auxiliary Processes

- Deionization
- Cleanroom Filter Units

## Host Computer Connection and Digital Interfaces

- Tracibility - Process Tracking, Quality Assurance
- CR- and Barcode, RFID-Recognition
- Remote Control
- SECS GEM
- OPC UA
- WEB Interfaces

## Laser Soldering

- Laser Soldering with Paste
- Laser Soldering with Wire Feed
- Laser Soldering of Micro-Wires

## Inspection

- 3D Position Recognition / Alignment
- 3D Optical Inspection
- 3D White Light Interferometry
- Optical Anomaly Detection
- Die-Level Inspection
- Single Die Probe and Test
- High Voltage Single Part Test

## Specialized Processes

- Plasma Cleaning
- Sintering
- Screwing / Bolting
- Heat Staking
- Punching – Solder ribbon punching
- Bending – Trim and Form
- Folding – Flex foil forming