

# Technology innovations 2022

## Investment volume: 3.0 million €

In order to continue to meet the requirements of our customers, GEMAC is investing over 3.0 million euros in a completely new production technology in 2022. At the heart of this is the new Fuji NXT III production line, which in the future will assemble components up to a size of 0201 mm three times as quickly and efficiently with precision and high quality. The line is completed by a new solder paste printer including a 3D solder paste inspection system, a full convection reflow soldering system and an automatic coating machine.



### SMD Line Fuji NXT III

- High increase in efficiency and quality due to high level of precision and speed
- High placement density of smallest components (up to 0201 mm)
- Optimal pick-up of large and uneven parts (e.g. connectors)
- Teaching of the components takes place in parallel via external camera
- Up to 83,400 components per hour
- Tripling of previous speed
- 24-hour service | remote maintenance
- Automatic calibration

- |                        |                          |
|------------------------|--------------------------|
| 1 Loading module       | 4 Pick and Place Machine |
| 2 Solder paste printer | 5 Reflow oven            |
| 3 SPI                  | 6 Unloader module        |

**NXT III**



### Solder paste printer EKRA SERIO 4000 Compact

- Dynamic scalability - all settings can be flexibly adapted to individual needs at any time
- Live view of the entire substrate for visual support during program creation
- Remote maintenance



### 3D-Solder paste inspection system Göpel electronic SPI Line-3D

- Exact three-dimensional measurement of the applied solder paste:  
Form | Area | Volume | Coplanarity | Height | Bridges | X/Y Offset
- Speed-optimized camera head
- 180 frames per second at a resolution of 4 megapixels
- High precision 3D image capture using fringe projection technology



### Full convection reflow soldering system SMT R360

- With patented Quattro Peak Plus concept for extremely complex assemblies in high-volume production
- Reliable transport system from single to multiple track concepts
- Tool-free maintenance for all SMT systems | Remote maintenance
- Sustainable electricity and nitrogen saving concept
- Stable cooling performance, no loss of power over the operating time due to the use of smooth cooling plates



### Depaneling machines BJC CNC milling cutter Typ HS-5700N-DSV

- Stress-free and dust-free cutting of panels in any contours
- Consistently high quality due to high repeatability of milling operations combined with the use of a high-frequency spindle with high concentricity (up to 40,000 1 / min)
- Equipment with two tables ensures high throughput
- Programming is done by CCD camera in the teach-in process
- By means of visual positioning system deviations are detected and corrected independently

### ERP System proAlpha 8.X

- Administration of contracts in contract management
- Introduction of Electronic Components (additional components for electronics production)
- Integration of BOM Connector
  - Extended manufacturer database
  - Electronics parts list
  - Extended parts master, pool parts and more

**PRO ALPHA**