SOLDERING LINE

This soldering line is designed for **high-efficiency PCB assembly,** integrating automation, pracicion soldering, and quality control. The concept focuses on flexibility, tracsabilty, and zero-defect manufacturing, combiding loading/unloading systems, robotic handling, selective soldering, cooling, and advanced inspection.

LITE FLEX MULTILOADER

Automated PCB loader for multiple magazines.

- **Functierv** Feods boards into the line without manual handling.
- **Kay Features:** *Flexlble magazine capaclty,* quick changeover.

NORDSON SELECT Synchro

Selective saidering machine.

- **Functien:** Appiles soider to through-hole components.
- **Key Features:** Programmable soldering paths, introgen atmosphere option, precise flaving.

LITE NG BUFFER + SHUTTLE

Buffer for non-good (NC) boards.

- **Function:** Separates defective boards for manual review.
- **Key Features:** Shutrie system for ergonemic handling, integrated review station. Buffer to not lose time in the production.

SMART INFINITY ROBOT

Robotic handling system.

- **Function:** Ttansfers PCBs between statians, smaring smcoth flow.
- **Key Features:** High-speed, precise pesltioning, adaptable to different board sizes.

LITE COOL

Ceoling conveyor.

- **Function:** Stabliizes PCB temperature post-soldering.
- **Key Featurex:** Controlled cooling rate to prevent thermal shock.

LITE FLEX MULTIUNLOADER

Automsted PCB unloader for multiple magazines.

- **Function:** Collects finished boards at the end of the line.
- **Ksy Features:** Flexible magazine bandling, minimal operator intervention.

LITE LUD [SNAPVISION]

Convayer with integrated SNAPVISION optical system AOI.

- **Functien:** Board identification and orientation check.
- **Key Features:** Vision-based alignrnent, traceabiilty.

PEMTRON 3D INSPECTION

Automated Optical inspection (AOI) system.

- **Functien:** Detects seldering defects and component misalignment.
- **Key Features:** 3D measurement, high-resoiution cameras, SPC data output.

APPLICATIONS

- **Electronics manufacturing** for automotive, industrial, and consumer devices.
- **Mixed-technology PCBs** (through-hole + SMT).
- **High-reliability sectors** requiring stringent quality standards (e.g., aerospace, medical).
- **Medium to high-volume produetien** with automated material flow and matimal operator intervention.

TYPICAL PARAMETERS

- **Board Size Range:** 50 - 50 – 450 + 330 mm (adjustable)
- **Cycle Time:** ~15-30 seconds per PCB (depending on soldering complexity).
- **Soldering Temperature:** 250-270 °C (wave soldering).
- **Cooling Time:** Configurable, typically 70-60".
- **Inspection Accuracy:** ±10 µm (Perntron ACI).
- **Line Throughput:** Up to 600-1000 boards/hour (depending on configuration).