



Big production line for LED products assembling

This solution is mainly designed for mass-scaled production of LED lighting systems and LED screens.

Line capacity: **82 000 CPH**

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Korean SMT Solutions – the best is available for you.



Stop choosing between the best and the affordable.

The line is designed for assembling of PCBs up to 680 x 460 mm; it corresponds to most popular demands of LED lighting market.

This PCB size allows assembling both classic LED lines and entire PCB of the popular Armstrong lamp.

The line speed is 82,000 CPH according to IPC-9850; it is enough for production of 120 – 150 Armstrong lamps per hour or 400 – 700 LED stripes.

The line holds 200 feeders 8 mm to assemble lamp PCBs, power supply units, control boards, and other more complex products with vast number of various SMD components.

This is a universal solution. The machines work with all up-to-date LED and SMD packaging – reels, sticks, pallets, and bulk components.

Line specification	Vendor	Model
PCB loader to line	SJ Inno tech	SLD-120F
Solder paste screen printer	SJ Inno tech	HP-680S
Intermediate conveyor	SJ Inno tech	SCC-900X
SMD pick-and place system	Mirae	Mx-400L
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Visual check work table	SJ Inno tech	SWT-900F
Solder paste reflow oven	TSM	A70-j132
Cooling conveyor	SJ Inno tech	SCL-900F
Functional control and sorting system	SJ Inno tech	LSC-900F
PCBs NG buffer	SJ Inno tech	SRB-100F
PCB unloader from line	SJ Inno tech	SUD-120F



Options list:

For SMD pick-and-place system

- Classic reel tape feeders (C-Feeder) for tape 8 – 88 mm
- High-speed reel tape feeders (eX-Feeder) for tape 8 – 88 mm
- Stick feeder for 6 sticks
- Automatic bulk feeder (LSM2)
- Manual tray holder for IC in JEDEC pallets

For solder paste printer

- Pneumatic support pins
- Automatic adding of solder paste
- Microclimate support system

For solder paste reflow oven

- Thermal profiler to control temperature at PCB surface
- Oven modification for nitrogen atmosphere soldering is possible
- Possibility to combine chain and mesh conveyers for simultaneous operation

Line specification:

- PCB size: from 50 x 50 mm up to 680 x 460 mm
- Speed according to IPC-9850: 82,000 CPH for LEDs and chip components
- Components: from 01005 up to 18 x 18 mm (or 24 x 18 mm for connectors), max. height of component 10 mm
- Quantity of 8 mm feeders: 200 ea.
- Component placing precision: $\pm 50 \mu\text{m}$ (at 3σ)
- Solder paste application control: 2D vision system
- Built-in functional control system
- Oven: 13 heating zones, 2 cooling zone



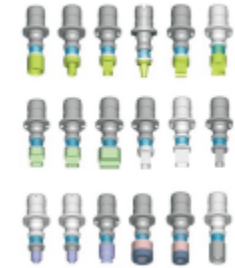
Automatic bulk feeder LSM2

Designed for work with SMD LEDs in bulk. One machine could contain up to 2 feeders. LSM2 allows increasing capacity since no time is spent for feeder reloading, allows lowering the cost of purchased components due to no package, allows lowering the rubbish output, and allows controlling LED polarity and operability before placing. The components are supplied evenly for simultaneous picking (up to 6 pieces at a time).

- Supply speed up to 15,000 CPH;
- LED automatic electric testing and sorting before picking;
- Protection from feeding of inverted LEDs.

This solution contains functional control system for ready product to sort defect PCBs into special NG buffer for subsequent repair. Thus, we get operable and OK product ready for further stages of lamp assembling. This system could detect defects of expensive components batch before ending of the components in tape; this allows not only reduce product defects greatly, but present the evidence of defective batch to component supplier.

Special vacuum nozzles are used for LED placing, they are designed together with world leading LED vendors.



Special nozzles for LED components

**INLINE
FUNCTIONAL
CONTROL**

