



High performance flexible line with online quality control on all the assembly stages

This solution will suit the up-to-date demanding manufacturers with mass product.

Line capacity: **160 000 CPH**

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### Korean SMT Solutions – the best is available for you.



Stop choosing between the best and the affordable.

In the conditions of frequently changing demands of the current market, the manufacturers would like to have a flexible production for timely manufacturing of product and for quality control to correspond all the up-to-date requirements.

Korean SMT Solutions company offers the solution for big enterprises manufacturing different products with large batches.

According to current tendency towards downsizing of components and, as a consequence, to lessening of pad size, it becomes necessary to control the quality of assembled product on all the stages.

This solution uses three quality control systems, one after each process step: 3D control system of solder paste application after screen stencil printer; optical inspection system of components placing correctness after pick-and-place systems, and soldering quality optical control of ready product after reflow oven. Information on each product goes to the common database; that enables tracking the product on each assembly stage and responding to errors during assembly timely (the operator's monitor displays picture of PCB part from three system simultaneously).

The line contains the most up-to-date pick-and-place systems for SMD components from 01005 up to 50 x 50 mm with speed up to 160,000 CPH.

Line specification	Vendor	Model
PCB loader to line	SJ Inno tech	SLD-120F
Solder paste screen printer	SJ Inno tech	HP-680S
Solder Paste Inspection	Mirtec	MS-15
Sorting conveyer	SJ Inno tech	KNC-600X
SMD pick-and place system	Mirae	MR-40L
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SMD pick-and place system	Mirae	MR-40LP
Optical inspection control	Mirtec	MV-7Xi
NOK PCBs buffer	SJ Inno tech	SRB-100F
Solder paste reflow oven	TSM	A70-N153S
3D optical inspection	Mirtec	MV-9
PCBs NG buffer	SJ Inno tech	SRB-100F
PCBs unloader	SJ Inno tech	SUD-120F



## Options list:

### For SMD pick-and-place system

- Trolley with feeder bases for quick changeover to a new product
- Offline programming software for faster creation of programs
- System of barcode reading from component reels for convenient work of electronic warehouse
- 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
- Manual tray holder for IC in JEDEC pallets
- Automatic tray feeder for 20 JEDEC pallets
- Software for remote monitoring and statistics collection from the line in online mode

### 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
- Nitrogen connection option
- 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: 160,000 CPH for chip components and 4,500 CPH for IC
- Components: from 01005 up to 50 x 50 mm (or 90 x 30 mm for oblong components), max. height of component 18 mm
- Quantity of 8 mm feeders: 450 ea.
- Component placing precision:  $\pm 25 \mu\text{m}$  (at  $3 \sigma$ )
- Common monitoring and control system from the product in online mode
- Solder paste application control: 3D system
- Optical inspection of component placing after pick-and-place systems
- 3D inspection of component soldering quality
- Laser control of IC leads soldering
- Oven: 15 heating zones, 3 cooling zone

