



EP PIN INSERTION MACHINES

Product Brochure

EP PIN INSERTION MACHINES

TE's EP pin insertion machine offers a cost effective, precise, and high-speed solution for PCB processing with customizable machine features to fit your production needs in automotive, energy, industrial, consumer electronics and appliances applications.

Equipped with 3 fixed heads (max. 4 heads as optional), the EP pin insertion machine can process various types of pins at high speed through flexible changeover with tool conversion kit. High quality insertion is guaranteed with precise motional control enabled by the servo drive x-y rotational worktable, anvil, and feeder along with force vs. distance curve monitoring. Our machine is highly customizable with a Pick and Place solution integration option and supports additional feature consolidation based on customer requirements.



Cost-effective



High Speed



Quality Control



Customizable

Product Features	Benefits
Cost-effective	<ul style="list-style-type: none"> Processes various pin types with 3 fixed heads (max. 4 heads as optional) Flexible changeover with tool conversion kit to go with different pins
High Speed	<ul style="list-style-type: none"> Mass production can be supported with 4.5 strokes per second insertion speed
Quality Control	<ul style="list-style-type: none"> Servo driven x-y rotational worktable, anvil, and feeder allows precise motion control Force vs. distance curve monitoring ensures the quality of insertion Manufacturing execution system (MES) and data traceability features improve quality control and manufacturing efficiency
Customizable	<ul style="list-style-type: none"> Quick changeover with tool conversion kit Pick and Place solution integration to process PCB Additional features consolidated into the base machine based on customer needs

Industries

- Automotive
- Energy
- Industrial
- Consumer Electronics
- Appliances

Applications

- PCBs
- Connector Stitching
- Plastic Housings
- Power Modules e.g. IGBTs

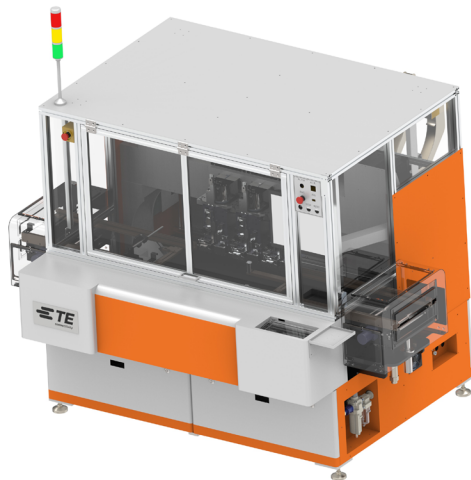
Machine Standard Features

- CAM driven base head by servo motor
- 3 fixed heads (max. 4 heads)
- Flexible changeover with conversion kit
- Servo driven x-y rotational worktable, anvil, and feeder
- 4.5 strokes per sec insertion speed (at 2.54mm pitch)
- Force vs. Distance curve monitoring (real-time curve tracking)
- Flexible PCB support
 - Overall support by Pallet
 - PCB hole support by Anvil
- Onsite force calibration
- Vision camera for PCB position compensation
- Production data collection
- Barcode scan (PCB, Reel)

Technical Details

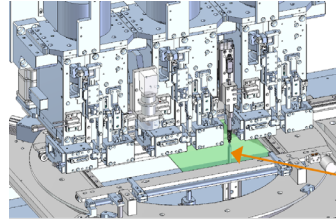
Description	Specification
Applicable PCB size	Min. 80 x 50mm, Max. 330 x 250mm
PCB transportation direction	L→R or R→L
X-Y table speed	22.5m/min
PCB Loading time	3.0 sec (flow on belt)
Max. Force & accuracy	2,000N & 5% FS
Dimension & Weight	L1910 x W1408 x H1562mm, 1,500kg
Air pressure	5-6 kgf/cm ²
Air consumption	200 NI/min
Electrical power	Single phase, 220V, 50-60Hz, 4KW
PC specification	Windows10 64bit, Intel i7 CPU with RAM 32GB

Customizable Add-on Features



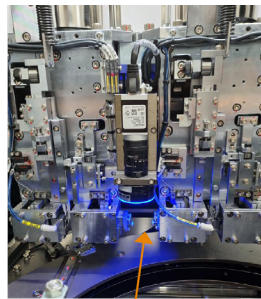
Optional Integrations

PCB thickness measurement



located at
base frame

Rework process with vision camera



camera with blue LED light inspects
missing pins at high speed

Automatic first pin cut-off

Automatic rail width control

Compatible Products

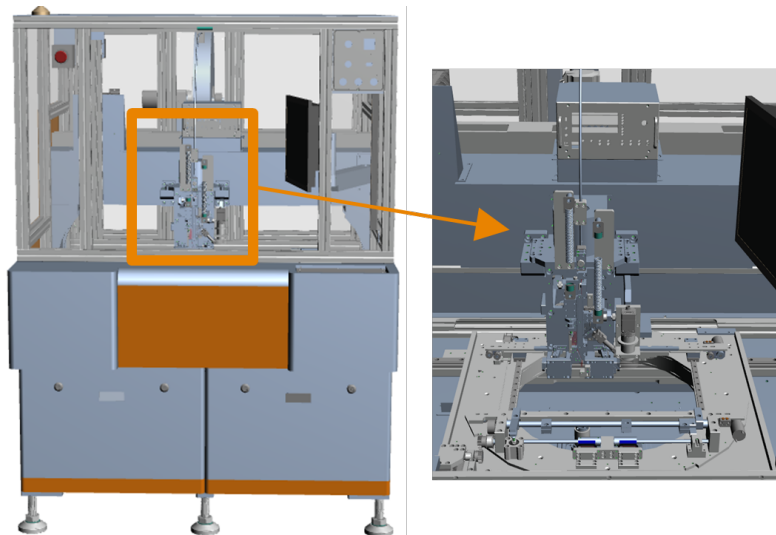
Contacts

- Press fit / non-press fit (solder)
- Pins & tabs & sockets
- Fuse holders
- Fork contacts
- F-Posts 90°
- Board to board contacts
- Continuous wire
- Special contacts
- Holetite (on mylar tape)
- Screw sockets (bulk)
- Contacts which need bending

EP Lite: Single Head Pin Insertion Machine for Low-volume Production

Standard Features

- PLC control
- Smaller footprint than standard EP
- CAM base head driven by servo motor
- Servo driven x-y, anvil, and feeder
- Single insertion mode only
- Flexible changeover with tool conversion kit (if applicable)
- 1 stroke per sec insertion speed (at 2.54mm pitch)
- Safety guard with curtain sensor
- PCB handling manually
- Not applicable with rotational axis
- Pin detection under PCB
- Hole position teaching by laser sensor (not applicable with vision camera)
- Rework by manual position teaching



Optional Features

- Force vs. distance curve monitoring
- Production data collection
- Customized MES with barcode scan

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Contact Us

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