

# LINE OF PIN INSERTION MACHINES

## P100 Pin Insertion Machine

### Machine

- Stand alone
- Manual PCB/panel loading
- For mid-volume level production up to 5 million contacts per shift and year
- Up to 2 insertion heads

### Standard Features

- Servo driven base insertion head
- Conversion kits compatible with P300/P360/P550
- Freely programmable insertion angle
- Easy changeover of the conversion kits within < 10 min
- Adjustable PCB support to provide production flexibility
- Lower support tool equipped with pin presence check
- Clinching in lower tooling possible
- Easy-to-use touch screen allowing simple programming and automatic setup

### Quality Management

- In line with Industry 4.0 standards
- Customized for individual Manufacturing Execution Systems (MES) solutions
- Force monitoring
- Force vs. distance monitoring
- Pin presence detection
- Vision system for accuracy
- Tool management
- Machine capability study



### Products

#### Tools for wide range of TE and non-TE contacts available for:

- Press-fit contacts
- Solder contacts
- Pins and tabs
- Sockets
- Spring contacts
- Continuous wire
- F-post

#### Options for P100

- 1.5 insertion cycles per second at 5.08 mm pitch
- Fixed base tool
- Max number of base tools: 2
- Reel unwinder
- XY table
- Manual loading of PCB
- Light curtain
- Pneumatic anvil
- Vision system
- Insertion force monitoring
- Force vs. distance monitoring
- Tool setup check
- PCB scan
- Data collect
- MES connector
- Production data

### Machine Performance of P100

- Insertion force max 900 N
- PCB size max 420 x 360 mm (16.5 x 14 in)
- PCB size min 30 x 30 mm (1.2 x 1.2 in)
- Insertion area 300 x 310 mm (11.8 x 12 in)
- Camera inspection area without tool changer  
400 x 310 mm (15.8 x 12.2 in)
- PCB thickness : 1 - 4 mm (.04 - .157 in)
- Max height of components/top side: 30 mm (1.2 in)
- Max height of components/bottom side:  
25 mm (.985 in)
- Insertion speed of pin : max 150 mm/sec (5.9 in/sec)
- Reel/outer diameter : < 800 mm (31.5 in)

### General Machine Data of P100

- Supply voltage: 230 V
- System frequency: 50/60 Hz
- Phases: 1
- Power consumption during production: 1.8 kW
- Power consumption during standby: 600 W
- Air pressure: 500 - 800 kPa
- Air consumption : 100 l/min
- Operating temperature: 10 - 35 °C
- Storage temperature: 10 - 50 °C
- Humidity: 10 - 60 % (non-condensing)
- Footprint (W x D x H):  
143 x 110 x 170 cm (56.3 x 43.3 x 67 in)
- Sound pressure level (machines with light curtain):  
< 80 dB(A)
- Painted surfaces RAL 7035

