

## Vertical Pin Inserter IPV



**The Eberhard Vertical Pin Inserter IPV is a high-performance automation solution engineered for demanding electronics manufacturing environments. Designed with a compact vertical concept, IPV combines German engineering quality with high dynamic performance to deliver maximum output, stable quality, and minimal floor-space usage. Built for manufacturers who must balance throughput, flexibility, and cost efficiency, IPV ensures reliable pin insertion across a wide range of PCB applications.**

### **PRECISION THAT EMPOWERS RELIABLE ELECTRONICS**

A mechanically cam-driven insertion head enables up to 220 strokes per minute, delivering stable process even at maximum speed. With integrated force monitoring, IPV ensures precise, repeatable insertion and best-in-class microstrain results. The results show high first-pass yield, reduced scrap, and consistent production quality.

### **IN-LINE FLEXIBILITY & COMPACT FOOTPRINT**

The vertical insertion module is designed for shorter production lines and can be used as an extension for existing IPD or IPQ lines. Its compact design maximizes output per square meter, and SMEMA compatibility ensures a seamless integration. Results are a higher production capacity with lower investment per line.

### **HIGH-PRECISION PLACEMENT**

The system is designed for high-mix production, supporting all standard PCB pin types with single- or multiple-pin insertion. 180° pin rotation allows handling of complex layouts, and an optional vacuum gripper protects sensitive PCB surfaces. The result is a flexible system replacing multiple dedicated machines.

# At a Glance & Technical Highlights

**eberhard**  
INSERTION TO PERFECTION

## At a Glance

- Up to 220 insertion strokes/min
- Maximum insertion force >> support of all common PCB pin types
- Compact vertical machine concept
- Stable insertion quality with force monitoring
- Fast changeover and low tooling cost
- Scalable platform for future capacity growth

## Smart Automation Features

- Insertion force & stroke measurement with process data logging
- PCB camera for fiducial recognition and automatic offset correction
- Linear servo drives for fast and precise PCB positioning
- Automatic PCB width adjustment
- SMEMA interface for in-line production

## PCB Handling Range

- PCB size: 100 × 100 mm to 400 × 400 mm
- Maximum component height: 40 mm on both PCB sides

## Compact Machine Dimensions (1-Head Module)

- Width × Depth × Height: 1600 × 1400 × 2210 mm
- Depth incl. de-reeler: 2550 mm

## Scalable Platform – Invest Today, Grow Tomorrow

- Configurable from 1 to n insertion heads
- Capacity expansion without changing the base machine
- Optional integration of special assembly heads (odd-form placement)



Video



Contact

**eberhard**

Eberhard AG Automations- und Montagetechnik • Auchttertstrasse 35  
D-73278 Schlierbach • Tel. +49 7021 7274-0 • www.eberhard-ag.com