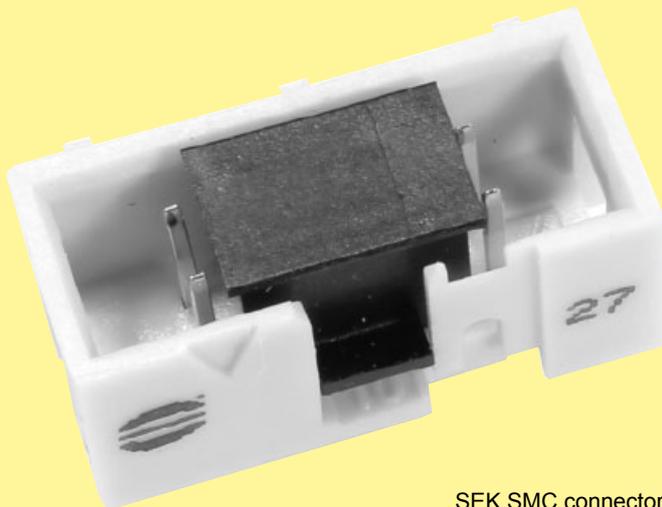


The continuing trend towards miniaturisation has revolutionised the assembly of electronic components. For the past 15 years, most components have been secured directly to the pcb surface by means of Surface Mount Technology (SMT). By dispensing with drilled holes on the pcb, a space saving of up to 70 percent is achieved.

Today, typical components such as ICs, resistors, capacitors, inductors, and connectors with straight terminal pins are almost exclusively fitted using SMD (Surface Mount Device) technology in mass production. In contrast, angled SMD connectors at the edge of the board have not been successful because of tolerance problems (co-planarity) and stresses during mating.



SEK SMC connector

## “Pin in Hole Intrusive Reflow\*”

In this process, the connector is inserted into plated through holes in a comparable way to conventional component mounting. All other components can be assembled on the pcb surface.

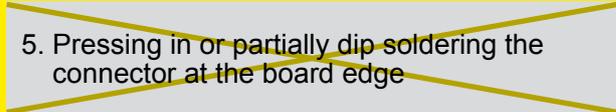
The components are positioned using pick-and-place machines. These automatic assembly machines differ according to whether the components are small, lightweight or bulky. Connectors, compared to ICs, are considered bulky (odd form). They are more difficult to grip, due to their comparatively heavy weight and larger size. But machines for odd form components, provide the higher insertion power, necessary to fit the components into pcb holes, which are filled with solder paste. Generally modern SMC production lines are equipped with both types of machine. Therefore the "Pin in Hole Intrusive Reflow" process entails no extra investment costs for the user.

### Conventional assembly process:

1. Application of solder paste
2. Positioning the components
3. Positioning odd form components
4. Reflow soldering
5. Pressing in or partially dip soldering the connector at the board edge
6. Quality inspection

### “Pin in Hole Intrusive Reflow” assembly:

1. Application of solder paste
2. Positioning the components
3. Positioning odd form components
4. Reflow soldering
5. Pressing in or partially dip soldering the connector at the board edge
6. Quality inspection



\* Also known as Pin-in-Paste or Through Hole Reflow (THR)