PRESS-FIT TECHNOLOGY
A COST-EFFECTIVE ALTERNATIVE TO SOLDERING PROCESSES
BASIC TECHNOLOGY

Press-fit technology, which has been around for some 25 years now, is a solderless connection method. It consists in force-fitting an oversized contact pin into the plated through hole of a printed circuit board (PCB). The high radial pressure produces a deformation, resulting in a gas-tight electrical connection of high quality.

This difference in pin cross section and hole diameter results in a deformation of either the PCB hole or the cross section of the pin during the insertion process of pin into PCB hole. There are two major types of press-fit sections:

A compliant pin which compresses as a result of insertion into the PCB through hole (Fig.A):

With radial elasticity in the contact zone, the deformation takes place on the contact side.

Fig.A: Cross-section compliant pin

COMPLIANT PRESS-FIT TECHNOLOGY BY PRECI-DIP

We have been producing contacts, sockets and connectors with press-fit terminations for over ten years.

The specific design of our compliant pin is based on a «modified eye of a needle» principle with particular attention paid to material geometry, elasticity characteristics, and surface finish. Its main features are:

- Elastic deformation over the total range of the hole tolerance
- High retention force, in spite of the low insertion force (well below generally admitted maximum values)
- Gas-tight contact zone without any damage (chipping) to hole metallisation
- Low, constant electrical contact resistance
- Complies with IEC60352-5 standard

They are available for plated hole diameters of 0.6, 0.7, 0.9 and 1.0 mm, according to IEC standards. They are compatible with PCB finishes in tin, copper, or gold over nickel.
TECHNICAL SPECIFICATIONS

ADVANTAGES OF PRESS-FIT OVER SOLDER-BASED TECHNOLOGY

The basic advantages of press-fit technology are obvious, in particular when it comes to adding contacts or connectors to a soldered SMD board:

- Efficient, reliable and quick assembly of connectors, without any mounting accessories (screws, brackets, etc.)
- No soldering problems (such as thermal load on PCB and components, degassing, hole filling on multilayer, bridging, cold soldering joints...)
- No residues on PCB and connector contact area, affecting reliability
- Complete re reparability (connectors can be easily exchanged)

Press-fit connections are easily added to a SMD board after reflow soldering of the components, as the hole metallisation is not affected by this process.

ASSEMBLY WITH THE PRINTED CIRCUIT BOARD

Assembly of press-fit connectors and sockets with the PCB requires only simple tooling which can be installed on a small press: a base plate with holes corresponding to the hole pattern of the PCB and an upper tool.

More sophisticated equipment (semi-automatic or automatic for volume production) is also available on the market.

RoHS COMPLIANCE

ENJOY THE BENEFITS
HEADED FOR SUCCESS

Awards from prestigious institutions and customers. Major certifications. Worldwide recognition. For ongoing innovation, perfect teamwork, environmental responsibility as well as entrepreneurial excellence and sustained growth. In short, for swiss quality.

- COMPLETE RANGE OF HIGHLY RELIABLE INTERCONNECT COMPONENTS
- DIVERSE FIELDS OF APPLICATION
- IN-HOUSE MANUFACTURING – FROM RAW MATERIAL TO FINISHED PRODUCT
- EFFECTIVE MANAGEMENT SYSTEM
- HIGHLY SKILLED AND MOTIVATED WORKFORCE
- STRONG CUSTOMER SUPPORT
- CUSTOM DESIGN
- COMPETITIVE PRICING, FLEXIBILITY AND SWISS QUALITY
- WORLDWIDE PRESENCE
- PRESTIGIOUS CLIENT BASE

CHOOSE THE BEST CONNECTION
AROUND THE WORLD

More than 100 Distributors around the world distribute PRECI-DIP products across the five continents.