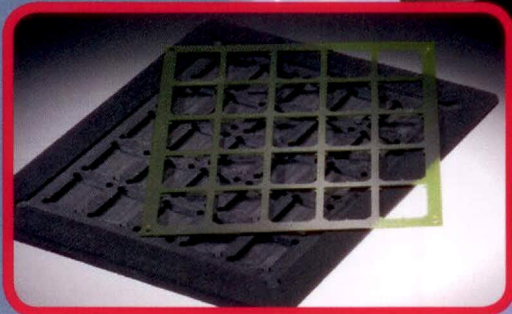


# DND Production Tooling

Tooling plays an important role in the production of Print Circuit Boards. In order to ensure an un-interrupted production process the PCB needs to be manufactured in an accurately- dimensioned and dimensionally-stable tool. DND manufactures a wide range of production tooling for the electronics industry.



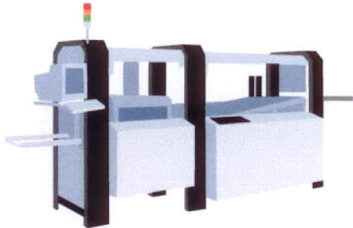
DND Production Tooling is so designed and manufactured that it fits seamlessly into your production process, thereby ensuring absolute production reliability. The tooling is used in the following applications, among others:

DND Production Tooling is made strictly in accordance with your specifications. Top-quality materials, CNC guided production with special tools and more than ten years experience form the perfect basis for faultless and speedy realization. The PCB's Gerber information is converted directly to the CNC machines via our CAD/CAM system. And of course we are in a position to work from "just" a prototype.

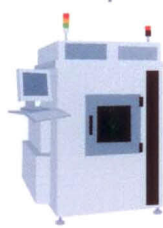
Our engineers are highly qualified and are widely experienced in the fields of both electronic and mechanical engineering. The supplied data undergo a standard evaluation and, where necessary, we make suggestions for further production efficiency.

## Production of conventional THT PCBs

Wave Solder



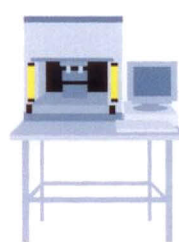
X-ray



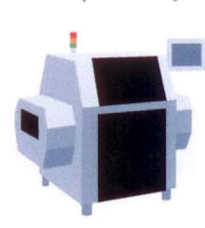
Depanel



Press-Fit



Specialty

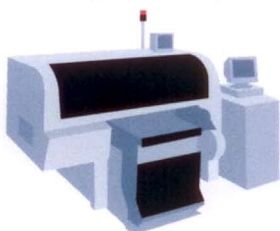


## Production of SMT and flexible PCBs

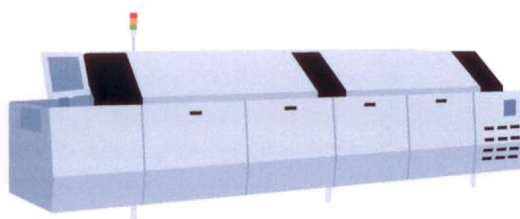
Paste Print



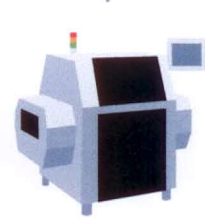
Pick & Place

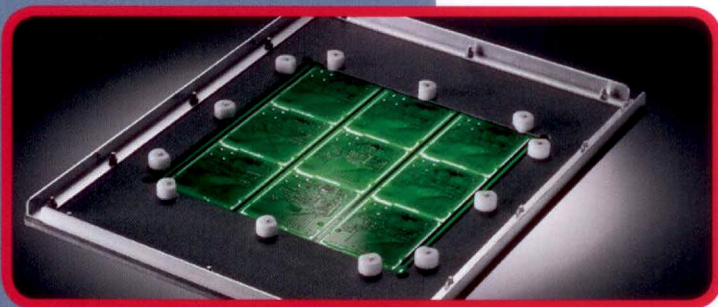


Reflow



Inspect





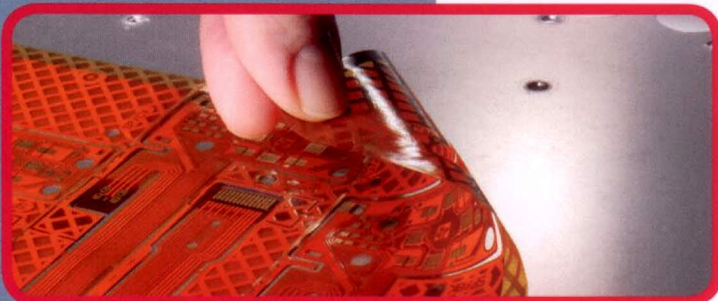
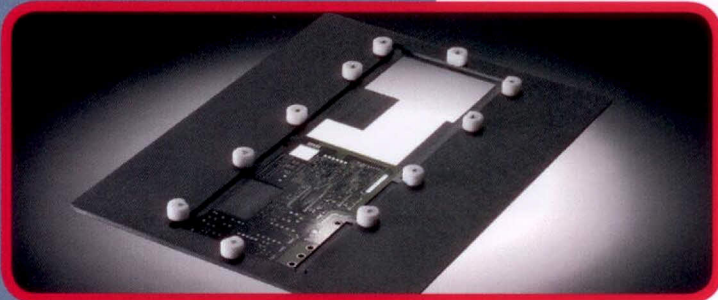
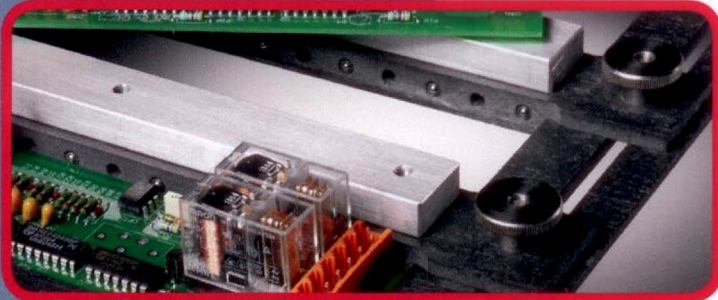
Thanks to our combined know-how of electronics and mechanics, and our extensive production facility, we can, in principal, realize every tool as customized to your requirements. Here are a number of examples of Carriers.

**Solder carriers**, for the conventional THT (Through Hole Technology) soldering process for the soldering or masking of components.

- Conventional solder carriers
- Adjustable 'finger' carriers
- Interchangeable solder carriers with outer frame

**SMT carriers**, for the SMT production process

**Speciale carriers**, for the production of flexible PCBs (including automotive applications)



For DND Production Tooling we make exclusive use of top-quality materials which we process on our CNC machines using diamond milling, hard metal drilling and milling.

Depending on application we recommend the following materials:

- Durostone CHP760, CAS761, CAG762, CCR-766
- CDM Delmat 68.650, 68.610
- Aluminium
- Acrylic plastic (Perspex)
- Delrin
- FR4 , Cemml
- Silicone carrier

#### Advantages of DND Production Tooling

- Improved quality through specially-made tooling
- Higher output
- Standardization of production tooling
- ESD-safe working
- Prevents flexing of the PCB
- Eliminates taping or masking of selective parts
- Free forming of the PCB
- No flooding of the PCB.
- Less excess flux on the top surface of the print
- Fixing of troublesome components by means of an upper fixing frame
- Extra fiducials on SMT carriers for Vision Systems



D&D Mechatronics bv  
Lampersveldpad 5  
5446BS Wanroij  
T +31 (0)485 322102  
F +31 (0)485 322724  
www.d-d.nu  
info@d-d.nu