

# Depaneling-scoring systems

## DP SERIES: manual depaneling pliers



A manual depaneling tool to separate larger sheets of multiple PCB panels in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus (tab) must not exceed 2.5 mm.

ESD-safe handles version available.

Maximum PCB thickness 2mm; minimum distance isthmus 16mm; maximum cutting force 7kg

order code	ESD order code	blade thickness mm (")	cutting force (kg)
<b>DP 15 N</b>	<b>DP 15 N D</b>	<b>1.5 (.059")</b>	<b>3</b>
<b>DP 18 N</b>	<b>DP 18 N D</b>	<b>1.8 (.070")</b>	<b>3</b>
<b>DP 20 N</b>	<b>DP 20 N D</b>	<b>2.0 (.078")</b>	<b>3</b>
<b>DP 23 N</b>	<b>DP 23 N D</b>	<b>2.3 (.090")</b>	<b>7</b>
<b>DP 24 N</b>	<b>DP 24 N D</b>	<b>2.4 (.094")</b>	<b>7</b>
<b>DP 25 N</b>	<b>DP 25 N D</b>	<b>2.5 (.098")</b>	<b>7</b>

## DPP SERIES: pneumatic depaneling tools



Pneumatic depaneling tool. The DPP is suitable for the quick, economic and secure separation of PCBs, leaving the cut edges well finished. The interchangeability of the blades, made from special steel in various thicknesses, enable it to satisfy all customer requirements. (Isthmus length 1÷3 mm)

Maximum PCB thickness 1,6mm; minimum distance isthmus 11mm; maximum cutting force 80kg

order code	ESD order code	blade thickness mm (")	Spare part - central blade
<b>DPP 20 N</b>	<b>DPP 20 N D</b>	<b>2.0 (.078")</b>	<b>L20 - 2.0 mm (.078")</b>
<b>DPP 23 N</b>	<b>DPP 23 N D</b>	<b>2.3 (.090")</b>	<b>L23 - 2.3 mm (.090")</b>
<b>DPP 24 N</b>	<b>DPP 24 N D</b>	<b>2.4 (.094")</b>	<b>L24 - 2.4 mm (.094")</b>
<b>DPP 25 N</b>	<b>DPP 25 N D</b>	<b>2.5 (.098")</b>	<b>L25 - 2.5 mm (.098")</b>

## SDP



"DPP TANDEM" Depaneling system from 1 to 5 pneumatic heads and blades of: 2-2.3-2.4-2.5 mm

PCB specifications when you use DPP TANDEM:

**MAX PCB THICKNESS:** 1.6mm

**BLADE THICKNESS:** 2.5 – 2.4 –2.3- 2 mm

**ISTHMUS:** 1÷4 mm – Tol. 0 +0.1 mm

**MAX N° OF HEADS:** 5

**MIN DISTANCE BETWEEN TWO HEADS:** 55 mm

**MAX DISTANCE BETWEEN TWO HEADS:** 425 mm

How to order: SDP-...-ST-... SDP - heads number (from 1 to 5) - ST - blade thickness (2.5; 2.4; 2.3; 2)

it is possible to use also the "T" blade: Cutting force 140 kg

## DPB



"DPP MONO" Depaneling system with 1 pneumatic head

PCB specifications when you use DPP MONO:

**MAX PCB THICKNESS:** 1.6mm

**BLADE THICKNESS:** 2.5 – 2.4 –2.3- 2 mm

**ISTHMUS:** 1÷4 mm

Cutting force 190 kg

minimum distance isthmus 13mm;

To change the cutting blade, it is needed to change only the single blade: SDP-...LT.. or SDP-...LTT

How to order:

DPB-1-SDP-...LT (or LTT)

DPB-1-SDP- blade thickness (2.5; 2.4; 2.3; 2).

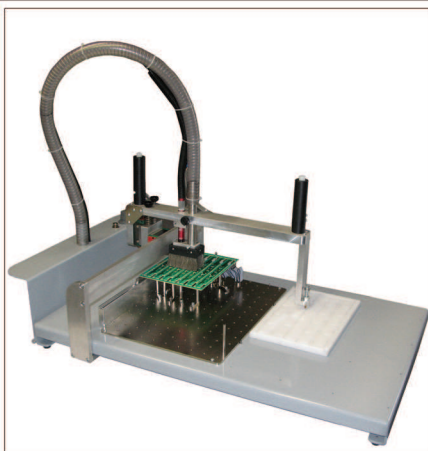
The DPP is supplied with the "L" blade but it is possible to order also the "T" blade





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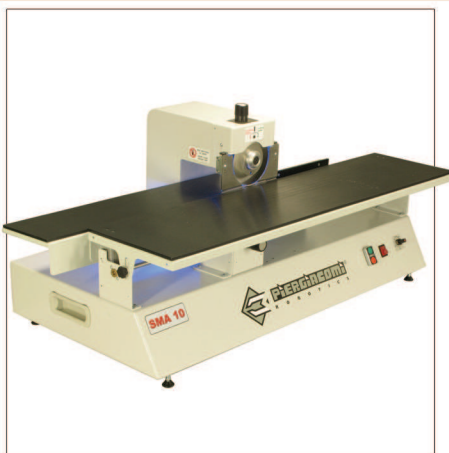
## DPF



The DPF is a manual depaneling system able to solve needs of depanelizing of small series where the use of an hand-tools could aggravate the product of an excessive labour and where the use of an automatic depanelizing would not justify the cost of amortization.

- doesn't submit mounted components (not even those mounted close to isthmus) to any stress
- very easy to manage also for not trained workers
- low manual strength is needed
- suitable to be used even with boards mounting components sensitive to electrostatic charges
- vacuum system makes perfectly clean the whole depaneling operation

## SMA 10



SMA10 is a machine designed to separate Printed Circuit Boards previously scored. It works either on traditional materials like CEM1 and FR4 as well as on Aluminium substrates (MCPCB). SMA10 can depanel both short and long boards bare or populated (maximum component height is 32 mm). The alignment system allows three degrees of regulation. The height of the reference plan in relation to the cutting tool. Then a sharp guide allows to easily position the scored line aligned with the cutting tool and finally a mechanical reference assures the correct positioning of the panel. The sharp guide can be easily adjusted to compensate different scoring depth. After the separation, the separated panel remains on a different plane also adjustable in height to allow a good positioning even in case of panels with components on both sides. The cutting tools have a diameter of 125 mm and the lower tool is motorized with controlled speed adjustable from 0 to 100 rpm. The upper tool can be controlled in height, thus controlling the distance from the lower tool and adapt to different material thicknesses.

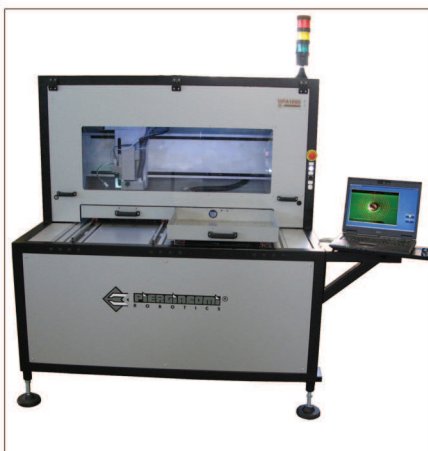
## DPA 100



DPA100 is a semi-automatic depaneling system.

Using a vertical milling cutter this system allows to cut isthmus in any direction, following linear or circular lines. DPA100 functioning is performed by a Personal Computer which manages: PLC which manages machine's digital input and output spindle positioning control system an high resolution USB camera for the self learning of jobs and other activities PC works on Microsoft Windows XP (or higher) using therefore and user friendly interface. DPA100 allows to pass to a new job in a quick and easy thanks to the simple self learning software.

## DPA 1000



DPA1000 is an automatic depaneling system. Using a vertical milling cutter this system allows to cut isthmus in any direction, following linear or circular lines. DPA1000 functioning is performed by a Personal Computer which manages:

- PLC which manages machine's digital input and output
  - spindle positioning control system
  - an Inverter for cutting speed control
  - an high resolution USB camera for the self learning of jobs and other activities
- PC works on Microsoft Windows XP (or higher) using therefore and user friendly interface. DPA1000 allows to pass to a new job in a quick and easy thanks to the simple self learning software. Furthermore, thanks to the double work table, it is possible to reduce the circuits upload and download time increasing productivity. For small production, this feature allows to work on different circuits at the same time.