

INSTRUCTION MANUAL
MONO Depannelling – Mod. DPB-1
Rev. 02

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NOTICE

The manufacturer reserves the right to change or modify the information contained in this manual at any time without prior warning.

1. SECURITY REGULATIONS



Before any kind of adjustment or registration to be performed on the machine, be sure the compressed air supply system is not connected.

WARNING!!! Piergiacomini Sud S.r.l. refuses all responsibilities for any damage caused to operators if the machine's case has been removed or modified; therefore it is strictly forbidden to perform any maintenance or registration while the machine is in use.



This type of symbol on the tool means: "DO NOT PUT YOUR HANDS" between the blades of the tool during operation.



Always use protective glasses while the tool is operating.

2. INTRODUCTION

The increasing use of SMT technology has brought about radical changes in the compliancing of PCBs.

At the moment the boards are multiplied within the same square, connected to one another by isthmus following the trimming and surrounded by a frame.

At the end of assembly process, the need to separate the boards without damaging them becomes necessary as long as they are not :

- 1) Exerted to flexing which will damage the components;
- 2) Exposed to dust in order to not contaminate the PCBs;

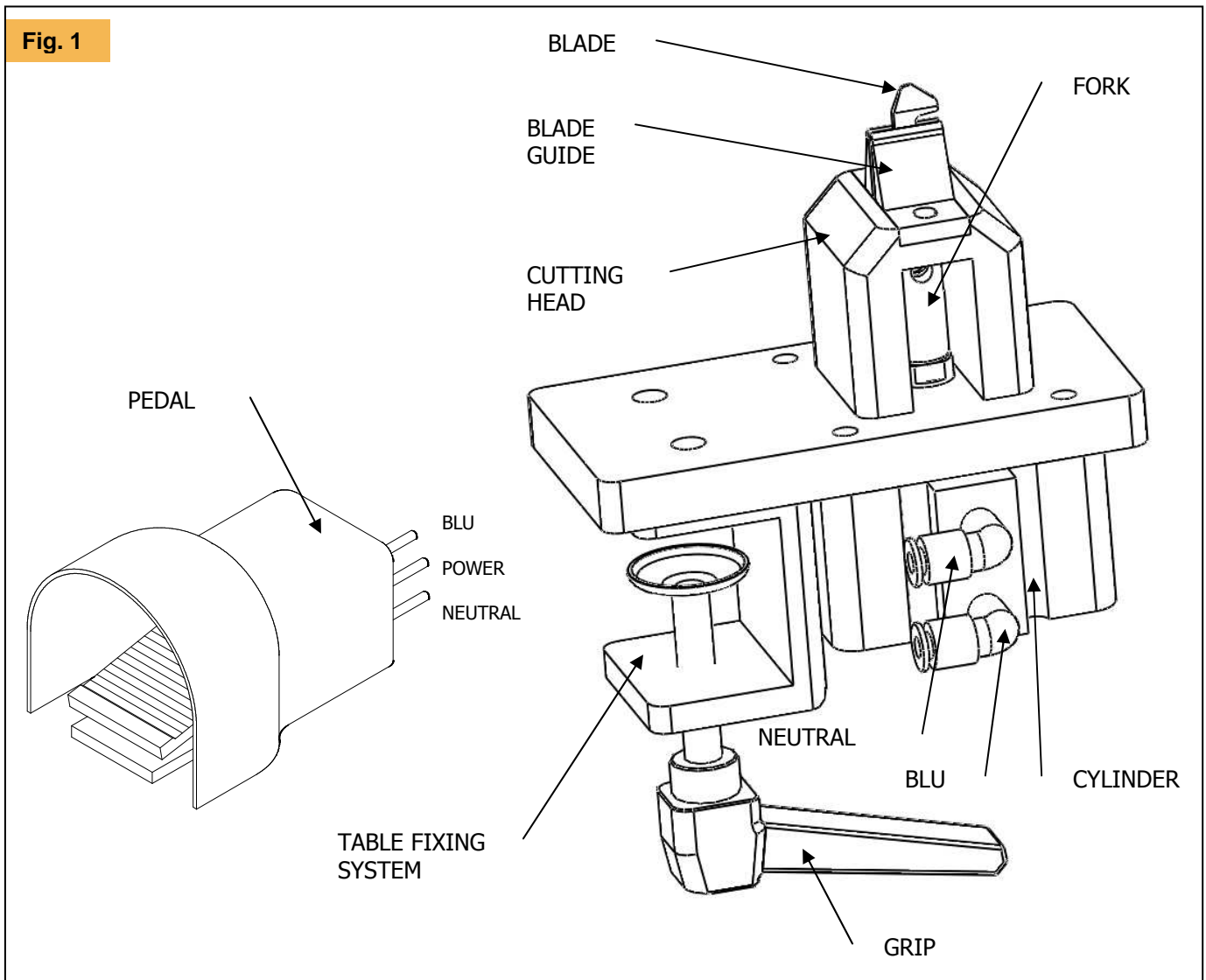
With the use of machines presently on the market, it is possible to carry out this separation, but the problem of elevated costs arises.

Today the problem of DEPANNELLING (that is removing the isthmus caused by milling or shearing that in the end has be removed) is overcome by the use of the DPP MONO Mod. DPB-1, which has been specially designed to eliminate the problems of DEPANNELLING, taking into account, above all, the costs, the DPP MONO Mod. DPB-1 is precise pneumatic machine, mechanical simple, that needs very little servicing and does not create dust.

Furthermore the surface subjected to cutting does not need any further finishing.

This machine is extremely versatile in that it is possible to remove the central blade (see chapter 8) and substitute it with another of a different thickness (2,5 – 2,4 – 2,3 – 2 mm) in order to be able to freely insert it into any milled slot.

3. INSTALLATION OF THE MACHINE

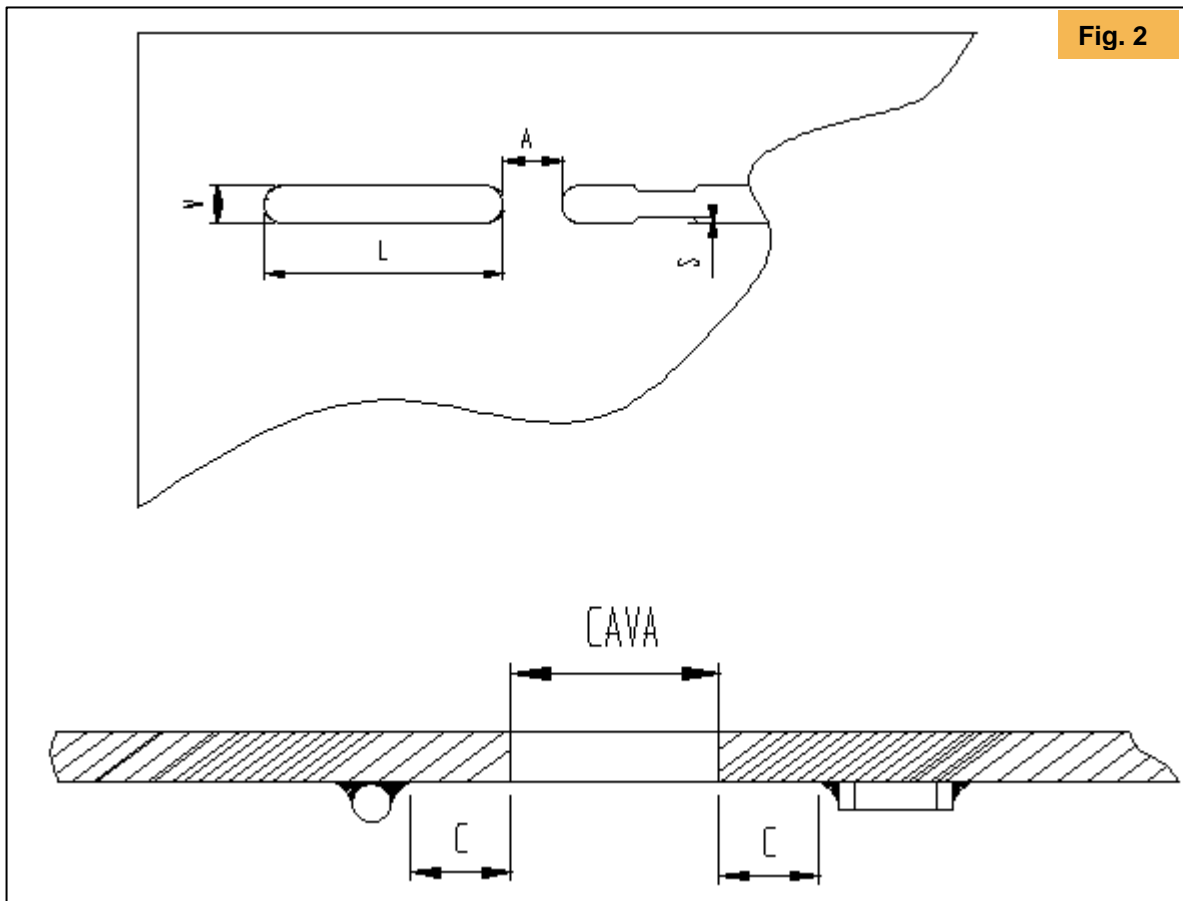


The machine is supplied with all the parts already assembled except compressed air connection. Fasten the depaanning machine at a working bench using the fixing system shown in the upon picture by moving the grip;
 The connection of the tube command pedal and of the cylinder have to be done accordingly their colours as shown in Figure 1 : BLUE (input) e NEUTRAL (output).
 Connect the power tube to a compressed air source.
 Put the command pedal in a place accessible only to the operator.
 The air supply has to be done with low lubricated air at a pressure of 6 -7 bar.

4. PCB SPECIFICATIONS

PCB THICKNESS:	1.6 mm max
SLOT LENGTH (L):	max. 70 mm - min. 13 mm
SLOT WIDTH (V):	2.5 - 2.4 - 2.3 - 2.0 mm (standard blade)
SLOT WIDTH TOLERANCE:	0 - 0.02 mm
DISTANCE BETWEEN SLOTS (A):	from 1 mm to 4 mm - toll. 0 +0.1 mm
PROTRUSION AFTER CUTTING:	S max = 0.05 mm

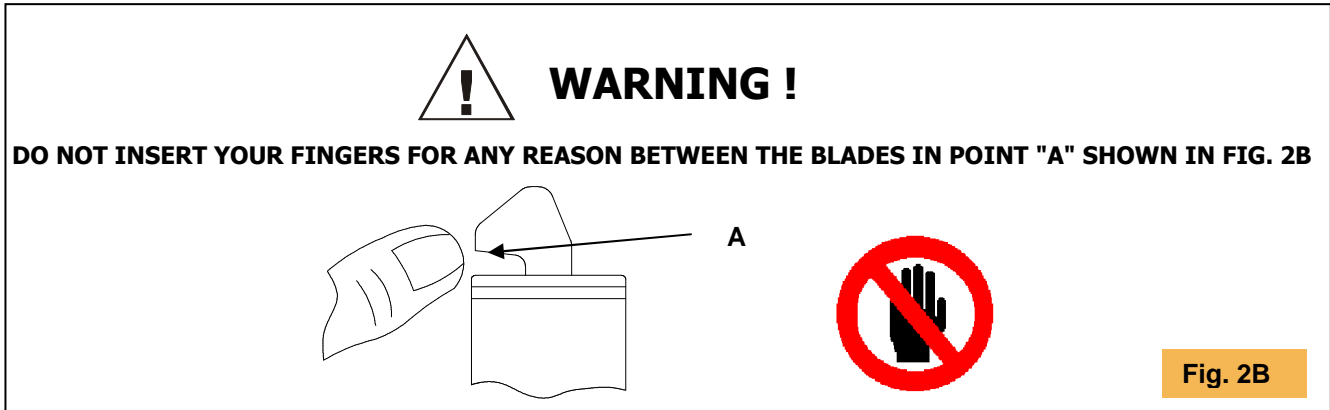
5. PCB DESIGN



LOWER AREA OF PCB FREE OF COMPONENTS (C): 1.9mm min

6. USE OF THE MACHINE

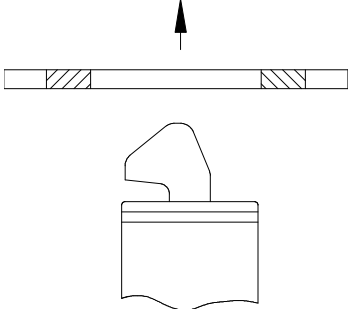
The use of the Depanelling MONO Mod. DPB-1 is very simple and does not require any particular technical notions. The following sequence of diagrams illustrates how to use it correctly.



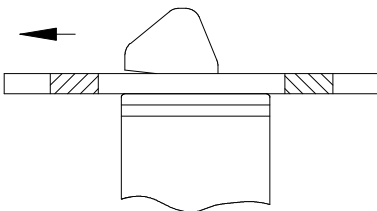
Always use protective glasses while the tool is operating.

OPERATIONAL PHASES:

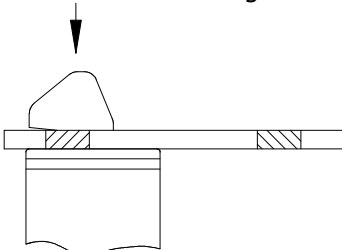
1. Put the blade into the slot



2. Move the blade along the slot in the direction shown by the arrow until you reach the first isthmus to remove



3. While holding the PCB against the two blades guide, lightly press the pedal.



7. MAINTENANCE

7.1 NORMAL SERVICING

EVERY DAY :

Blow away any residual cut material from the blade and blade guides with a jet of compressed air.

7.2 EXTRA SERVICING

EVERY MONTH :

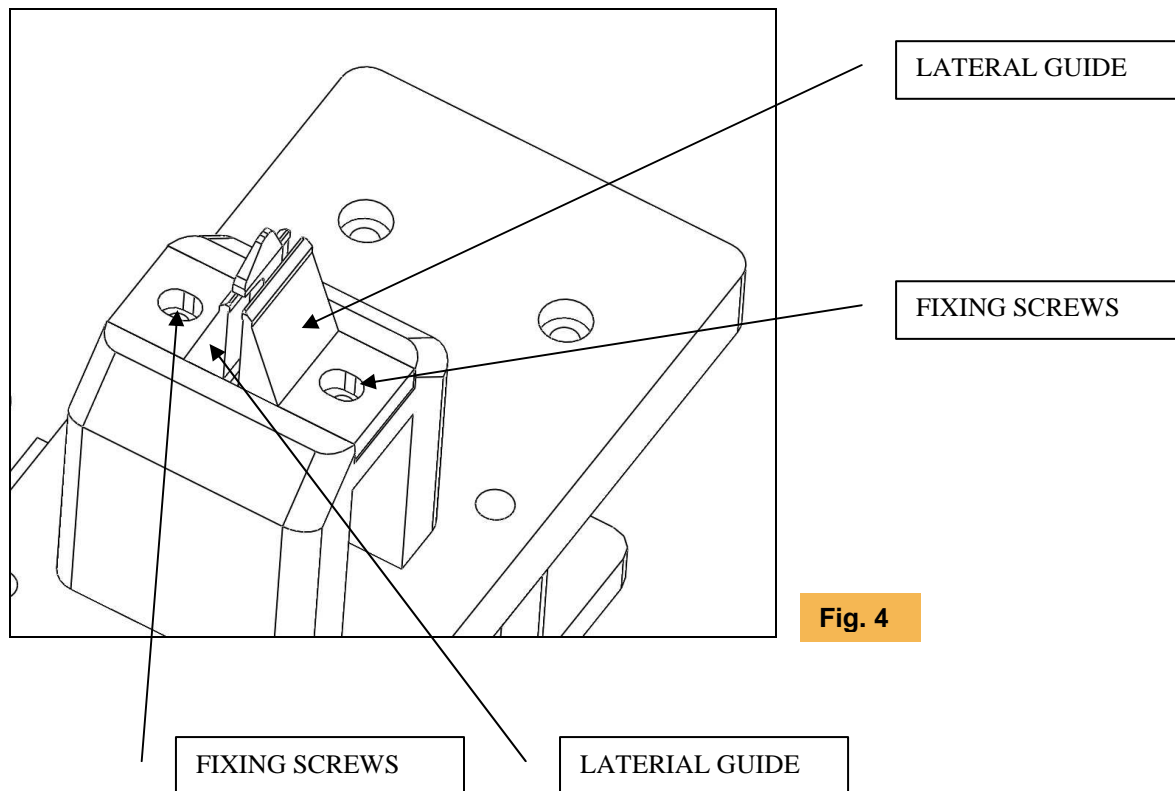
Check maintenance of the pneumatic system and the fixing of the screws.

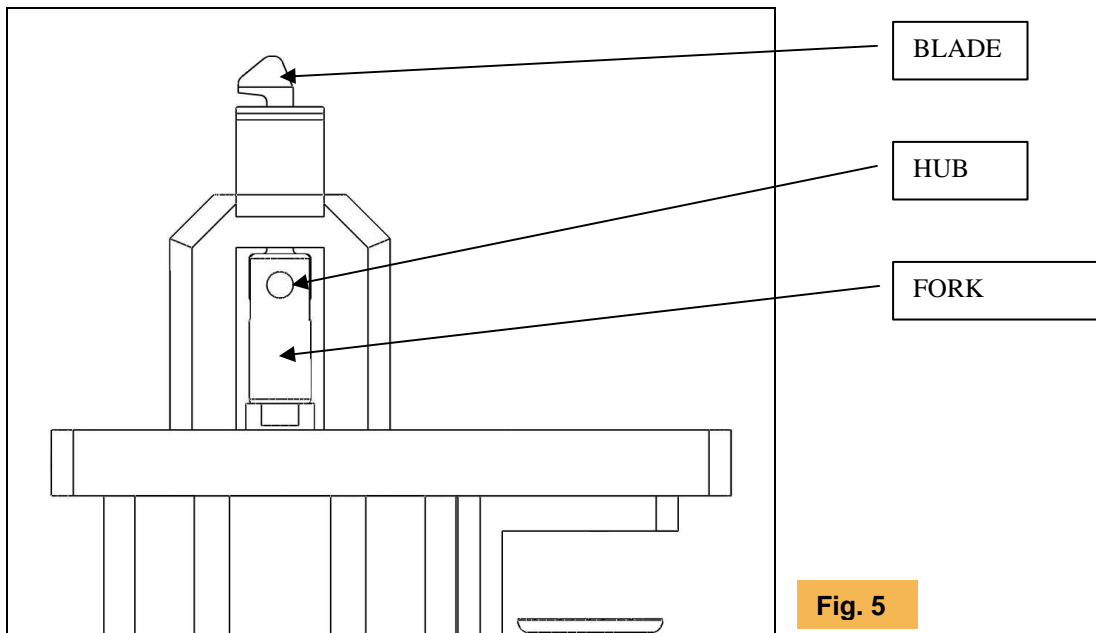
8. BLADE REPLACEMENT

1. Unscrew the fixing screws using the hexagonal key (Fig.4)
2. Widen the lateral guide.
3. Remove the hub from the fork. (Fig. 5)
4. Take off the blade.

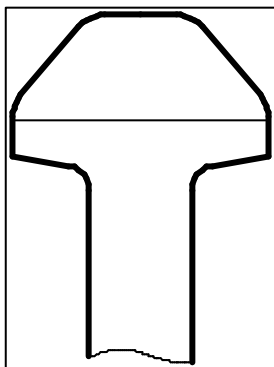
BLADE MOUNTING:

Act above points 1-2-3-4 on the contrary.





9. SPECIAL BLADES



T form blade: it's possible to require and install on the tool a blade with a T form, in order to obtain a double cutting blade (Fig.6). This T form is proper for particular cutting rapid works.

The set up of this T blade please refer to CHAPTER 8.

Special blades suitable for your purposes are produced at request!

Fig. 6

10. TECHNICAL INFORMATION

Characteristics:

Compressed air pressure :	6 - 7 Bar – Tube Ø6
Blade :	tempered steel
Blade thickness :	Standard 2.5 - 2.4 - 2.3 – 2.0 mm
Approximative dimensions :	L=155mm W=80mm H=200 mm
Weight :	2,5 Kg.

TECHNICAL ASSISTANCE:

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CONFORMITY DECLARATION

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MACHINE DESCRIPTION : **DPP MONO – Mod. DPB-1**
Pneumatic machine for depannelling

THE **DPP MONO Mod. DPB-1** MACHINE IS IN CONFORMITY WITH THE ESSENTIAL REQUISITES OF THE FOLLOWING STANDARD OR HARMONISED NORMS AND CORRELATED DIRECTIVES :

DIRECTIVE 98/37/CE

EN 12100-1 Safety of the machinery. Essential concepts, General design principles.
Part 1 – Base terminology methodology..

EN 12100-2 Safety of the machinery. Essential concepts, General design principles.
Part 2 – Specifies and technical principles.

EN 294 Safety of the machinery. Safety distance for preventing upper limbs to reach dangerous places.

EN 1050 Safety of the machinery. Principles for the risks evaluation.

Monteprandone li 08 - 07 - 2008

General Manager



