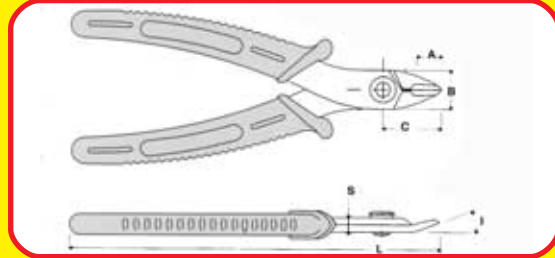


## CUTTING - NIPPERS

Specially developed for the electronic, these tools are made out a special carbon steel, with elastic, ergonomic PVC handles, in two versions:

ESD black (10<sup>6</sup> - 10<sup>9</sup> Ω)  
INSULATING blue

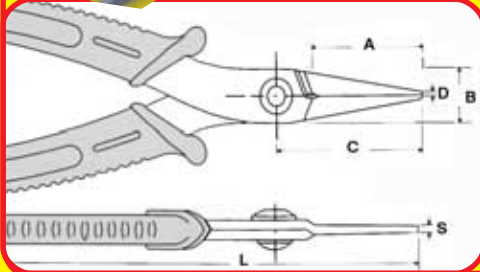
A patented safety clip to prevent the cut lead to spring out dangerously is available.



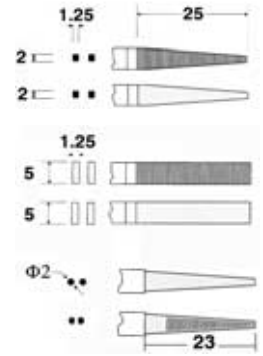
USE	TYPE OF CUT	WT	dia.max Copper wire		DIMENSIONS						CODE	HANDLES		SAFETY CLIP
			gr.	mm	AWG	A	B	C	S	L		I	ESD black	
<b>normal</b> For lead diameter to 1mm	Clean cut 	60	1,02	18	8	13,5	20	5	138	21°	TRE 03 NB TRE 03 AB TRE 03 NBD TRE 03 ABD	• •	• •	• •
<b>normal</b> For lead diameter to 1,3mm	Clean cut 	65	1,30	16	8	13,5	20	5	128	21°	TR 30 TR 30 A TR 30 D TR 30 AD	• •	• •	• •
<b>normal</b> with 45° bending nose for lead diameter to 1,3mm	Clean cut 	65	1,30	16	8	13,5	20	5	128	45°	TR 2550 TR 2550 D	•	•	
<b>normal</b> for lead diameter to 2mm	Clean cut 	75	2,05	12	8	13,5	20	6	128	21°	TR 58 R TR 58 RA TR 58 RD TR 58 RAD	• •	• •	• •
<b>heavy</b> for lead diameter to 2,5mm	Blunt cut 	100	2,59	10	12	16,5	25	6	148	21°	TRR 58 TRR 58 A TRR 58 D TRR 58 AD	• •	• •	• •
<b>micro</b> for lead diameter to 0,8mm	Clean cut 	45	0,81	20	8	9,5	18	4	118	21°	TR 20 M TR 20 MA TR 20 MD TR 20 MAD	• •	• •	• •
<b>micro</b> for lead diameter to 1mm	Clean cut 	60	1,02	18	8	10	18	5	128	21°	TR 25 P TR 25 PA TR 25 PD TR 25 PAD	• •	• •	• •
<b>micro</b> with 48° bending nose for lead diameter to 0,6mm	Clean cut 	45	0,64	22	8	9,5	18	4	118	48°	TR 2050 M TR 2050 MD	•	•	
<b>micro</b> reversed cut with 48° bending nose specially developed for IC leads	Clean back cut  	45	0,64	22	8	9,5	18	4	118	48°	TR 20 TM TR 20 TMD	•	•	

## PLIERS

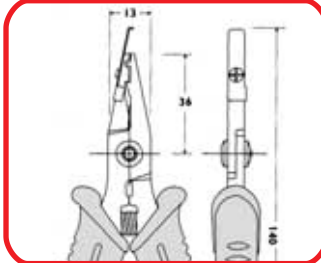
Professional pliers developed for the electronics industry.  
Short, long, rounded pliers, with smooth or serrated nose.  
Extension D is for the Black Dissipative PVC handles ( $10^6-10^9\Omega$ ).



	A	B	C	D	S	L	Peso gr.
PN 5005 PN 5005 D	25	13	36	1,3	2	140	97
PN 5006 PN 5006 D	25	13	36	1,3	2	140	97
PN 5007 PN 5007 D	25	13	39	1,3	5	140	97
PN 5008 PN 5008 D	25	13	39	1,3	5	140	97
PN 5025 PN 5025 D	23	13	32	2	2	138	95
PN 5025 Z PN 5025 ZD	23	13	32	2	2	138	95



## PREFORMING WITH CURL



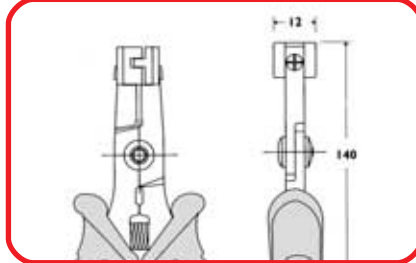
Professional tool specially designed to cut and preform components in a single operation.  
Variable length by means of an adjustable stop.

**PNR5000** PVC blue handles  
**PNR5000D** black dissipative ESD handles  
( $10^6-10^9\Omega$ )

Max. diam.: copper lead 1mm/18AWG  
 $a_{min} = 3$   
 $a_{max} = 16$   
1.5

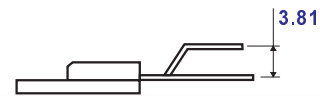


## PREFORMING TO220

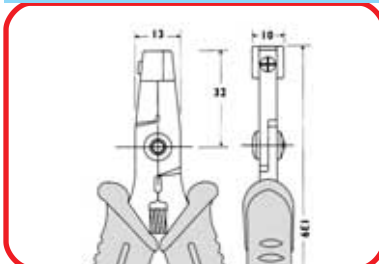


Professional tool specially designed to preform with central lead out of 3.81mm.

**PN5050** PVC blue handles  
**PN5050D** black dissipative ESD handles  
( $10^6-10^9\Omega$ )

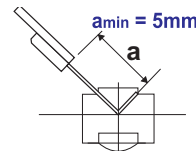


## PREFORMING AT 90°



Professional tool specially designed to preform components at 90°.

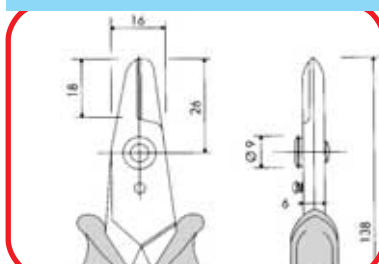
**PN5040** PVC blue handles  
**PN5040D** black dissipative ESD handles  
( $10^6-10^9\Omega$ )



Max. diam.: copper lead 1mm/18AWG



## SHEARS



An easy-handly shear, designed for the electronic.

Copper wire: max.diameter 1.63mm(14AWG)

**CS 30** PVC blue handles

**CS 30 D** black dissipative ESD handles  
( $10^6-10^9\Omega$ )

Free rotation  
cap



Chrome-Molybdenum-  
Vanadium alloy, with a  
black tip

SLOT



PHILLIPS



## PRECISION SCREWDRIVERS

PVC	Dissipativo	Misure
PG1-0	PG1-0-D	1,2x60
PG1-1	PG1-1-D	1,5x60
PG1-2	PG1-2-D	1,8x60
PG1-3	PG1-3-D	2,5x75
PG1-4	PG1-4-D	3,0x100
PG1-5	PG1-5-D	3,0x150
PG2-0	PG2-0-D	PH000 2,5x60
PG2-1	PG2-1-D	PH00 2,5x60
PG2-1/75	PG2-1/75-D	PH00 2,5x75
PG2-2	PG2-2-D	PH0 3,0x60
PG2-2/75	PG2-2/75-D	PH0 3,0x75
PG2-2/100	PG2-2/100-D	PH0 3,0x100
PG2-2/150	PG2-2/150-D	PH0 3,0x150

TORX



TAMPER  
RESISTANT



PG4-0X	PG4-0X-D	Tx5x50
PG4-0	PG4-0-D	Tx6x50
PG4-1	PG4-1-D	Tx7x50
PG4-2	PG4-2-D	Tx8x60
PG4-3	PG4-3-D	Tx9x60
PG4-4	PG4-4-D	Tx10x60
PG4-5	PG4-5-D	Tx15x60
PG5-0X	PG5-0X-D	TRx5x50
PG5-0	PG5-0-D	TRx6x50
PG5-1	PG5-1-D	TRx7x50
PG5-2	PG5-2-D	TRx8x60
PG5-3	PG5-3-D	TRx9x60
PG5-4	PG5-4-D	TRx10x60
PG5-5	PG5-5-D	TRx15x60

## AUTOMATIC FORMING TOOLS

This tool is hand operated, adjustable, useful to obtain a U-form for axial components.

Adjustable pitch from 12 to 50mm.

Max. Body diameter :

20mm.

Max. Lead diameter :

0.8mm

7915.592

U-form plier - mod.PR/2



## PCB ASSEMBLY FIXTURES

A professional line of assembly jigs for PCB's, designed to simplify placing and soldering of electronic components.

The PCSA0 is the smallest jig and is supplied with only one sliding rail.

PCSA1,2,4 are supplied with central and two sliding rails as standards.

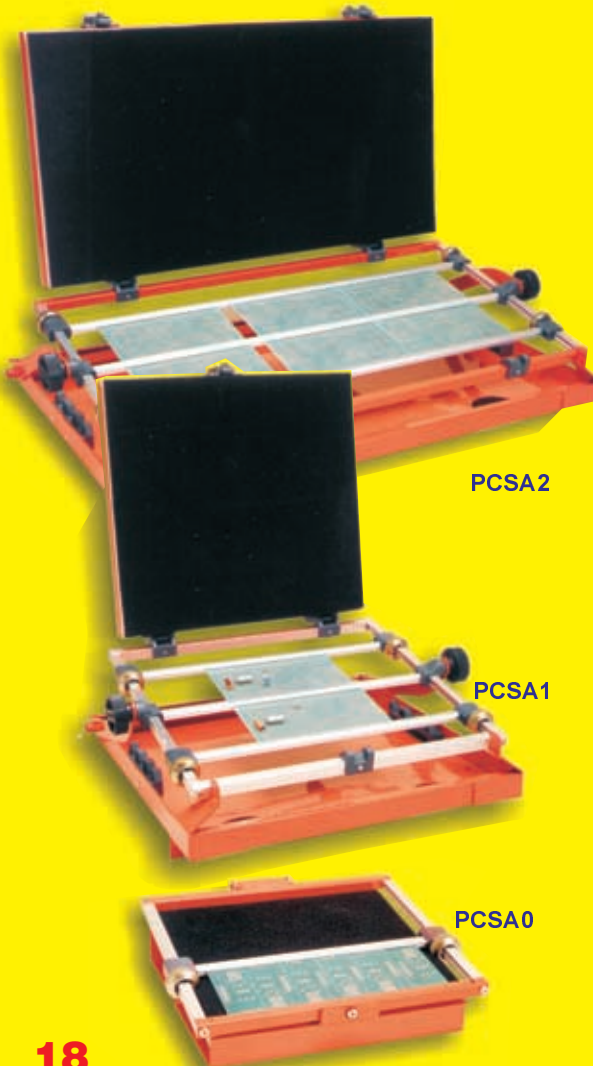
Additional rails may be added to accommodate a larger number of small boards.

The frame and lid assembly may be detached from the mounting base.

After mounting the components on the PCB's, the foam back lid is attached and closed, and the whole assembly is lifted and rotated for soldering.

An ingenious design of the base permit an adjustable working angle on both side of the PCB's.

The jig is varnished steel, and the component pressing foam is in conductive material.



PCSA2

PCSA1

PCSA0

7915.597 PCSA0 PCB's holder, max. working dimensions 210 x 180mm

7915.599 PCSA1 PCB's holder, max. working dimensions 270 x 220mm

7915.601 PCSA2 PCB's holder, max. working dimensions 500 x 220mm

7915.605 PCSA4 PCB's holder, max. working dimensions 500 x 350mm

7915.608 Additional sliding rail for PCSA0

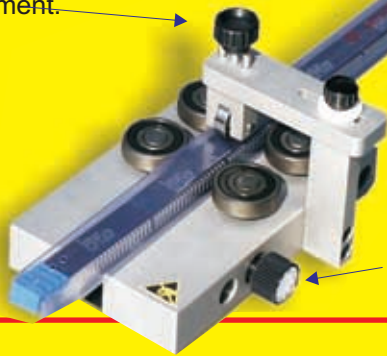
7915.610 Additional sliding rail for PCSA1

7915.612 Additional sliding rail for PCSA2 and PCSA4



## PINS ALIGNER

Down pressure of vertical bearing adjustment.



Setting of the pin distance:  
0.3" - 0.9"  
7 - 24mm

Pin aligner suitable for integrated circuits MOS and CMOS, from 4 to 64 pins.  
Operation is made by sliding the packaging tube between the 4 metal rollers.  
Easy adjustment of the pitch by means of the setting knob.

7804.711

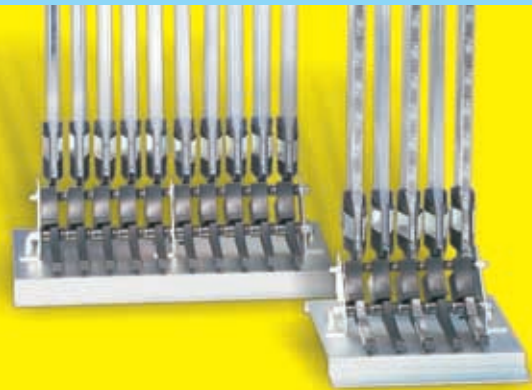
PINS Aligner

## I.C. DISPENSER

Moulded in conductive polypropylene they are ideal for use in an ESD work station.

Each gravity fed module is equipped with an adjustable tongue allowing easy feeding of the components.

7804.703	3 way IC dispenser Pitch 7,62mm (0.3")
7804.705	5 way IC dispenser Pitch 7,62mm (0.3")
7804.707	10 way IC dispenser Pitch 7,62mm (0.3")
7804.709	15way IC dispenser Pitch 7,62mm (0.3")



## MICROPIC SMD vacuum handling system

It is a professional hand-held pick and place unit for the handling of small and fragile components (SMD and others).

Micropic is a lightweight and ergonomically shaped ESD safe pen, absolutely self-sufficient, without needing of tube or cable connections.

It consists of two sections : Vacuum Module and Energy Module, simply plugged together. The unique Micro Vane Pump produces the vacuum for picking up the components, a filter fitted in the tip protects the pump from dust particles.

The Energy Module can be easily separated from the Vacuum Module and replaced by the Reserve Module, which, when not in use, should be stored in the recharge position of the tool rack.

At the front of the rack there are locations for four pick up nozzles.

Micropic is designed to be held vertically and, with a pick nozzle in place, is used to pick and place components.

The switch conveniently located at the front of the Vacuum Module allows the vacuum to be switched on for pick up and switched off for placement.



7915.750 MICROPIC complete Vacuum Handling System  
Power adapter 230V 50-60Hz

7915.751 MICROPIC complete Vacuum Handling System  
Power adapter 110V 50-60Hz

The complete system consists of:

MICROPIC pen, Vacuum and Energy modules, Reserve Energy Module, Base unit with electronic control charger, Power adapter  
Straight tips: 0.6-1.3-2mm, Angle tips: 1.3-2mm, Suction cups: 6-10-20mm

