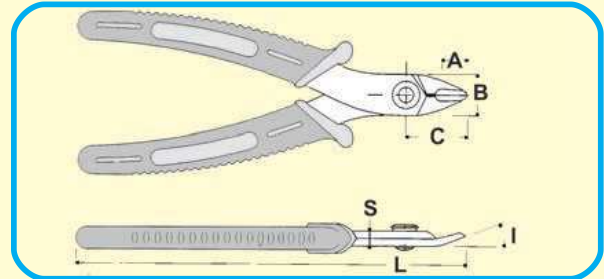


# CUTTING NIPPERS

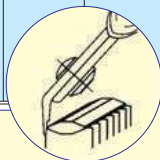
Specially developed for the electronic, these tools are made out a special carbon steel, with elastic, ergonomic PVC handles, in two versions:

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

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



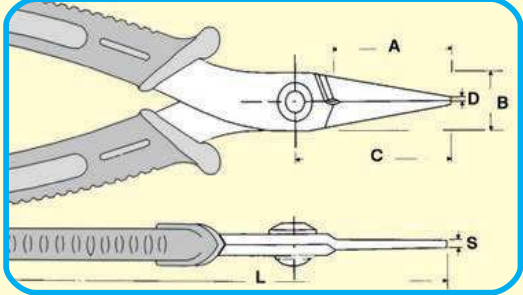
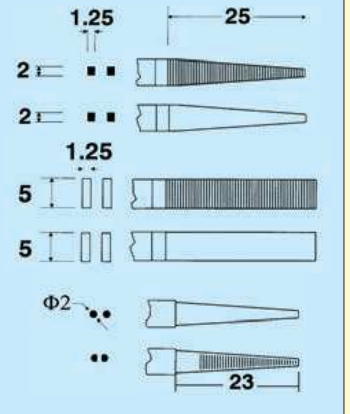
| USE  | TYPE OF CUT        | WT  | dia.max Copper wire |    | DIMENSIONS |      |    |   |     |     | CODE   | HANDLES          |           | SAFETY CLIP |
|--|--------------------|-----|---------------------|----|------------|------|----|---|-----|-----|--|------------------|-----------|-------------|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



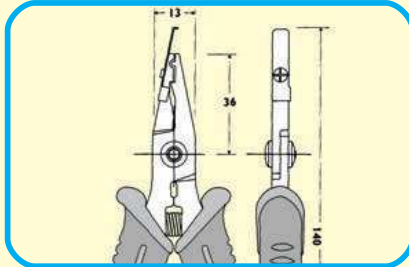
# PLIERS

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<br>PN 5005 D    | 25 | 13 | 36 | 1,3 | 2 | 140 | 97       |
| PN 5006<br>PN 5006 D    | 25 | 13 | 36 | 1,3 | 2 | 140 | 97       |
| PN 5007<br>PN 5007 D    | 25 | 13 | 39 | 1,3 | 5 | 140 | 97       |
| PN 5008<br>PN 5008 D    | 25 | 13 | 39 | 1,3 | 5 | 140 | 97       |
| PN 5025<br>PN 5025 D    | 23 | 13 | 32 | 2   | 2 | 138 | 95       |
| PN 5025 Z<br>PN 5025 ZD | 23 | 13 | 32 | 2   | 2 | 138 | 95       |



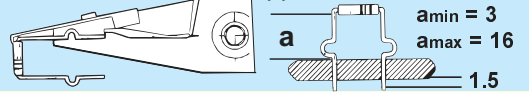
## PREFORMING WITH CURL



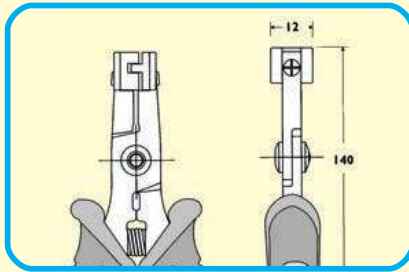
Professional tool specially designed to cut and preform components in a single operation.  
Variable length by means of an adjustable stop.

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

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

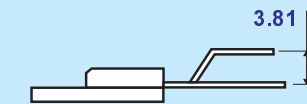


## PREFORMING TO220

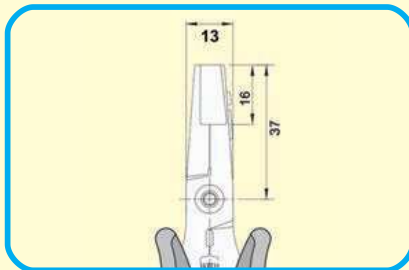


Professional tool specially designed to preform with central lead out of 3.81mm.

**PN5050/17D** black dissipative ESD handles ( $10^6-10^9\Omega$ )

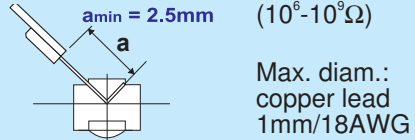


## PREFORMING AT 90°



Professional tool specially designed to preform components at 90°.

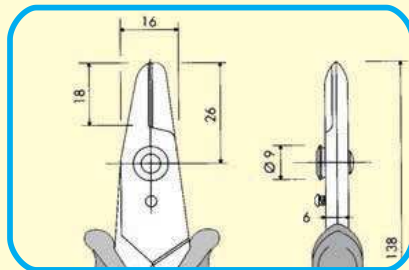
**PN5040/7D** black dissipative ESD handles ( $10^6-10^9\Omega$ )



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

# PRECISION SCREWDRIVERS

Free cap rotation



Chrome-Molybdenum-Vanadium alloy, with a black tip

| PVC       | Dissipative | Dimensions   |
|-----------|-------------|--------------|
| 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 |

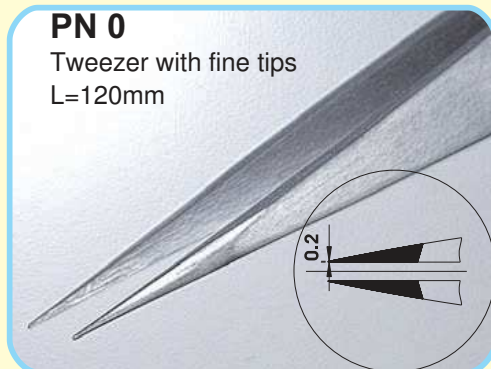
## TWEEZER

Precision tweezers made out of high quality steels, meet with the standards of the electronic industry.

Further models upon request.

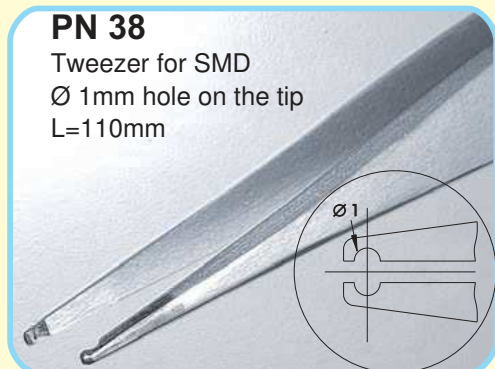
### PN 0

Tweezer with fine tips  
L=120mm



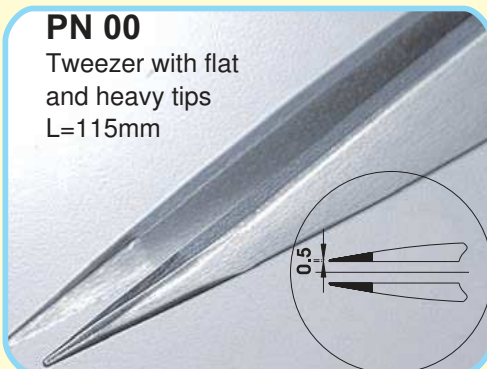
### PN 38

Tweezer for SMD  
Ø 1mm hole on the tip  
L=110mm



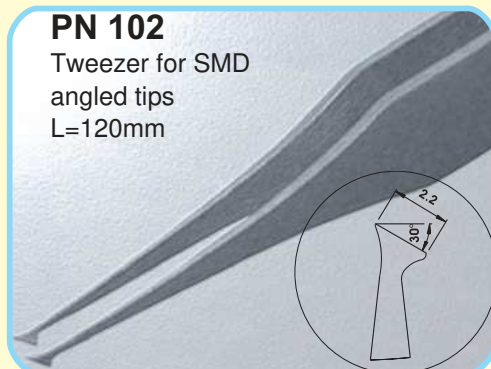
### PN 00

Tweezer with flat and heavy tips  
L=115mm



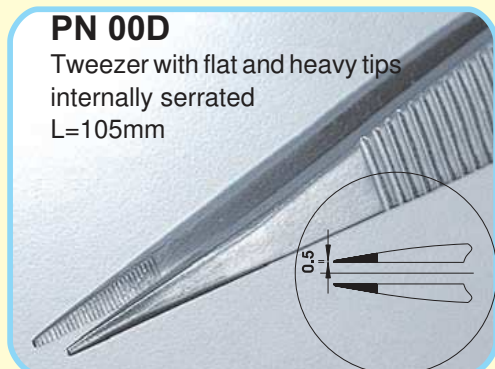
### PN 102

Tweezer for SMD  
angled tips  
L=120mm



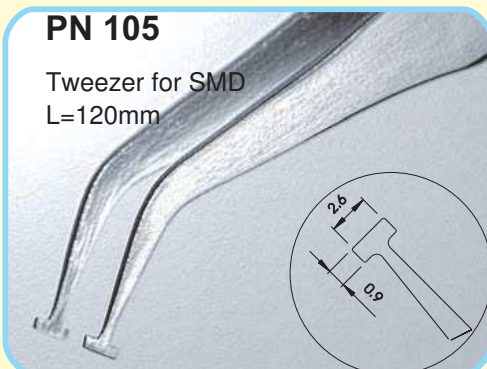
### PN 00D

Tweezer with flat and heavy tips  
internally serrated  
L=105mm



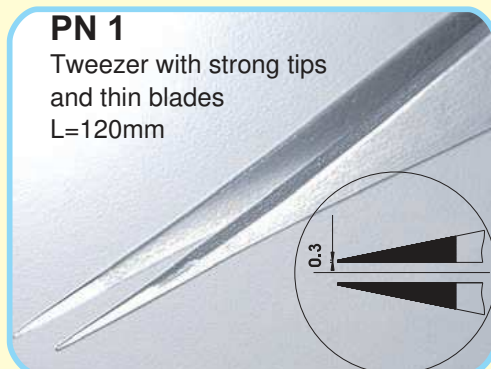
### PN 105

Tweezer for SMD  
L=120mm



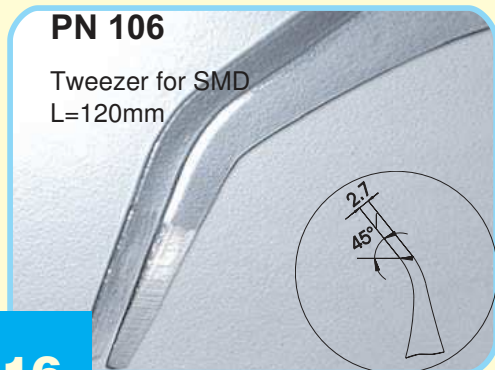
### PN 1

Tweezer with strong tips  
and thin blades  
L=120mm



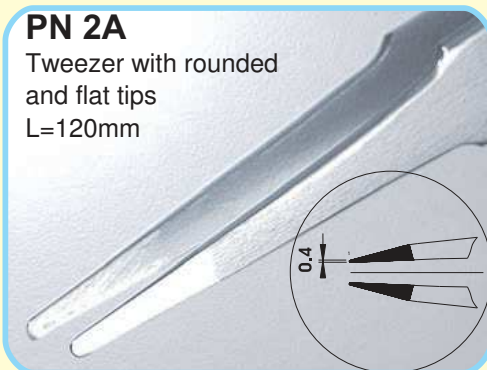
### PN 106

Tweezer for SMD  
L=120mm



### PN 2A

Tweezer with rounded  
and flat tips  
L=120mm



### PN 109

Tweezer for SMD  
L=120mm

