

# Products catalogue

[www.piergiacomini.com](http://www.piergiacomini.com)

cutters  
pliers  
special tools  
shears & wire strippers  
tools for optic fibres  
extractors  
cable strippers  
cable cutters  
tweezers  
precision screwdrivers  
soldering and desoldering accessories  
forming equipment  
cutting equipment  
crimping equipment  
depaneling/scoring equipment



**PIERGIACOMINI**

QUALITY HAND TOOLS



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cutters

# Cutters Flush cut

| Order code | Type of cut | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | safety clip  | clip type |
|------------|-------------|-------------|--------------------|-------------------------|----|--------------|-----------|
| TR 20 M    |             | 132         | 3                  | 0.81                    | 20 | TR 20 M A    | AF        |
| TR 20 SM   |             | 132         | 3                  | 0.81                    | 20 | TR 20 SM A   | AF        |
| TR 25 P    |             | 132         | 3.5                | 1.02                    | 18 | TR 25 P A    | AF        |
| TR 25      |             | 138         | 5                  | 1.30                    | 16 | TR 25 A      | AF        |
| TR E 03 NB |             | 138         | 3                  | 1.30                    | 16 | TR E 03 AB   | AF        |
| TR 25 L    |             | 160         | 3                  | 1.30                    | 16 | TR 25 L A    | AF        |
| TR 25 L 25 |             | 160         | 3                  | 1.30                    | 16 | TR 25 L 25 A | AF        |
| TR 30      |             | 138         | 5.5                | 1.30                    | 16 | TR 30 A      | AL        |
| TR 30 58 R |             | 138         | 6.5                | 1.63                    | 14 | TR 30 58 R A | AL        |
| TR 58 R    |             | 138         | 9                  | 2.05                    | 12 | TR 58 R A    | AL        |
| TRR 58 G   |             | 160         | 1.5                | 2.59                    | 10 | -            | -         |
| TR 5000 R  |             | 138         | 8                  | 2.00                    | 12 | TR 5000 R A  | AF        |
| TR 5000 PR |             | 138         | 5                  | 1.30                    | 16 | TR 5000 PR A | AF        |

## Rounded flush cut

| Order code | Type of cut | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | safety clip | clip type |
|------------|-------------|-------------|--------------------|-------------------------|----|-------------|-----------|
| TR 25 B    |             | 138         | 5                  | 1.02                    | 18 | -           | -         |
| TR 30 B    |             | 138         | 5.5                | 1.02                    | 18 | -           | -         |
| TR 5000 B  |             | 138         | 12                 | 1.63                    | 14 | -           | -         |
| TRR 5000 B |             | 150         | 15                 | 2.05                    | 12 | -           | -         |
| TRR 58 B   |             | 160         | 3                  | 2.05                    | 12 | -           | -         |
| TR 5000 PG |             | 138         | 5                  | 1.02                    | 18 | -           | -         |

## Chamfered cut

| Order code | Type of cut | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | safety clip | clip type |
|------------|-------------|-------------|--------------------|-------------------------|----|-------------|-----------|
| TR 30 58   |             | 138         | 8.5                | 1.63                    | 14 | TR 30 58 A  | AL        |
| TR 58      |             | 138         | 11                 | 2.05                    | 12 | TR 58 A     | AL        |
| TRR 58     |             | 160         | 15                 | 2.59                    | 10 | TRR 58 A    | AL        |
| TR 5000    |             | 138         | 12                 | 2.05                    | 12 | TR 5000 A   | AF        |
| TR 5000 P  |             | 138         | 8                  | 1.30                    | 16 | TR 5000 P A | AF        |
| TRR 5000   |             | 138         | 14                 | 2.59                    | 10 | TRR 5000 A  | AF        |

## Flush cut at different height

| Order code | Type of cut | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | safety clip | clip type |
|------------|-------------|-------------|--------------------|-------------------------|----|-------------|-----------|
| TR 25 15   |             | 138         | 5                  | 1.30                    | 16 | -           | -         |
| TR 25 15 L |             | 160         | 3                  | 1.30                    | 16 | -           | -         |
| TR 5000 W  |             | 147         | 3.5                | 1.30                    | 16 | -           | -         |
| TR 5000 10 |             | 147         | 5.5                | 1.30                    | 16 | -           | -         |
| TR 5000 13 |             | 147         | 5.5                | 1.30                    | 16 | -           | -         |
| TR 5000 15 |             | 147         | 5.5                | 1.30                    | 16 | -           | -         |
| TR 30 15 V |             | 144         | 3                  | 1.02                    | 18 | -           | -         |
| TR 30 10   |             | 138         | 5.5                | 1.30                    | 16 | -           | -         |
| TR 30 15   |             | 138         | 5.5                | 1.30                    | 16 | -           | -         |
| TR 50 15   |             | 138         | 8                  | 1.60                    | 14 | -           | -         |
| TR 50 20   |             | 138         | 8                  | 1.60                    | 14 | -           | -         |

## Oblique or vertical cut

| Order code | Type of cut | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | safety clip | clip type |
|------------|-------------|-------------|--------------------|-------------------------|----|-------------|-----------|
| TR 20 VM   |             | 132         | 2                  | 0.64                    | 22 | -           | -         |
| TR 30 V    |             | 144         | 3                  | 1.02                    | 18 | -           | -         |
| TR 5000 V  |             | 147         | 3.5                | 1.30                    | 16 | -           | -         |
| TR 25 50   |             | 135         | 5                  | 1.30                    | 16 | -           | -         |
| TR 20 50 M |             | 131         | 2                  | 0.64                    | 22 | -           | -         |
| TR 30 T    |             | 137         | 2.5                | 1.02                    | 18 | -           | -         |
| TR 20 TM   |             | 129         | 2                  | 0.64                    | 22 | -           | -         |
| TR 5045 V  |             | 147         | 3                  | 1.30                    | 16 | -           | -         |

## Induction & tungsten blades treatment

| Order code | Type of cut | copper wire<br>Ø mm awg |    | iron wire<br>Ø mm awg |    | steel wire<br>Ø mm awg |    | safety clip | clip type |
|------------|-------------|-------------------------|----|-----------------------|----|------------------------|----|-------------|-----------|
| ITR 30     |             | 1.30                    | 16 | 1.02                  | 18 | -                      | -  | ITR 30 A    | AL        |
| ITR 58 R   |             | 2.05                    | 12 | 1.63                  | 14 | -                      | -  | ITR 58 R A  | AL        |
| ITRR 58 G  |             | 2.59                    | 10 | 1.63                  | 14 | -                      | -  | -           | -         |
| ITR 30 58  |             | 1.63                    | 14 | 1.30                  | 16 | -                      | -  | ITR 30 58 A | AL        |
| ITR 58     |             | 2.05                    | 12 | 1.63                  | 14 | -                      | -  | ITR 58 A    | AL        |
| ITRR 58    |             | 2.59                    | 10 | 1.63                  | 14 | -                      | -  | -           | -         |
| ITR 5000   |             | 2.05                    | 12 | 1.63                  | 14 | -                      | -  | ITR 5000 A  | AF        |
| TTR 5000   |             | 2.05                    | 12 | 1.63                  | 14 | 0.6                    | 22 | TTR 5000 A  | AF        |
| TTR 5500   |             | 2.59                    | 10 | 2.05                  | 12 | 0.8                    | 20 | -           | -         |



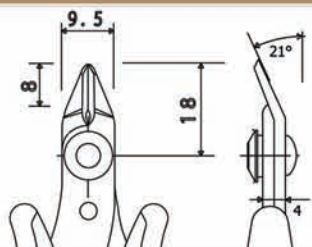
# Cutters *flush cut*

## TR 20 M



### TR 20 M

Tool for a flush cut. The reduced head's dimension and its pointed shape, allow access to difficult to reach areas. Steel thickness 2.0 mm. Tool length 132mm. Safety clip for holding wire scraps securely after cutting available. ESD-safe handles version available

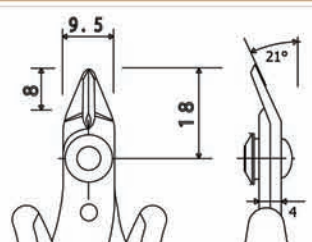


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 20 M    | TR 20 M D      | TR 20 M A   |            | AF             | 3                  | 0.81                | 20                |

## TR 20 SM



**TR 20 SM:** Tool for a flush cut. The reduced head's dimension and its pointed shape, allow access to difficult to reach areas. Similar to TR 20 M but with rounded edges. Safety clip for holding wire scraps securely after cutting available. Steel thickness 2.0mm. Tool length 132mm. ESD-safe handles version available.

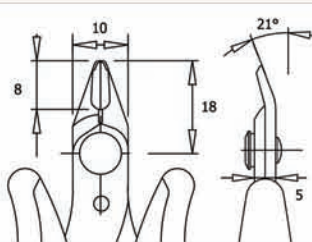


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 20 SM   | TR 20 SM D     | TR 20 SM A  |            | AF             | 3                  | 0.81                | 20                |

## TR 25 P



**TR 25 P:** Tool for a flush cut. With very sharp cutting edges, it is ideal for very delicate work in electronics, allowing access to difficult to reach areas. Safety clip for holding wire scraps securely after cutting available. Steel thickness 2.5mm. Tool length 132mm. ESD-safe handles version available

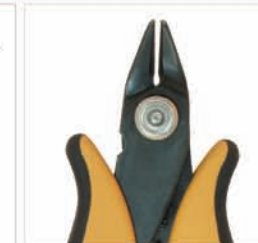
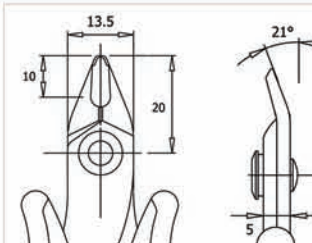


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25 P    | TR 25 P D      | TR 25 P A   |            | AF             | 3.5                | 1.02                | 18                |

## TR 25



**TR 25:** Tool for a flush cut. One of the most popular cutting tool. Safety clip for holding wire scraps securely after cutting available. Steel thickness 2.5mm. Tool length 138mm. ESD-safe handles version available

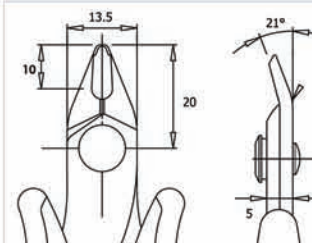


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25      | TR 25 D        | TR 25 A     |            | AF             | 5                  | 1.30                | 16                |

## TR E 03 NB



**TRE 03 NB:** Tool for a flush cut. Purposely designed as the simplified version of the TR 25 but with the same main characteristics. Safety clip for holding wire scraps securely after cutting available. Steel thickness 2.5mm. Tool length 138mm. ESD-safe handles version available

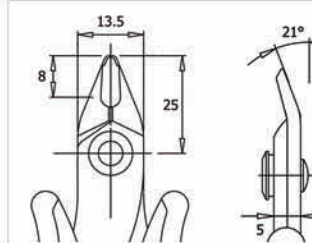


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR E 03 NB | TR E 03 NB D   | TR E 03 AB  |            | AF             | 3                  | 1.30                | 16                |

## TR 25 L



**TR 25 L:** Tool for a flush cut. Same characteristics as TR 25, but specially designed with longer handles to reduce the force needed by the operator. Safety clip for holding wire scraps securely after cutting available. Steel thickness 2.5mm. Tool length 160mm. ESD-safe handles version available



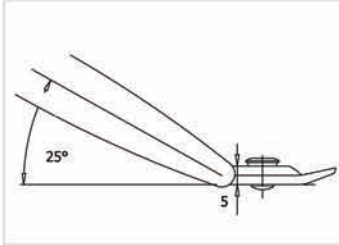
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25 L    | TR 25 L D      | TR 25 L A   |            | AF             | 3                  | 1.30                | 16                |



### TR 25 L 25



**TR 25 L 25:** Tool for a flush cut. The special 25° angle allows the use in difficult to reach areas and its longer handles reduce the force needed by the operator. Safety clip for holding wire scraps securely after cutting available. Steel thickness 2.5mm. Tool length 160mm. ESD-safe handles version available

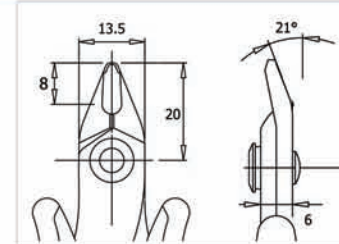


| Order code | ESD Order code | Safety clip  | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|--------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25 L 25 | TR 25 L 25 D   | TR 25 L 25 A |            | AF             | 3                  | 1.30                | 16                |

### TR 30



**TR 30:** Tool for a flush cut. One of the most popular cutting tool. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available

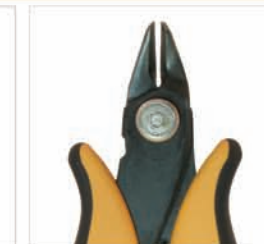
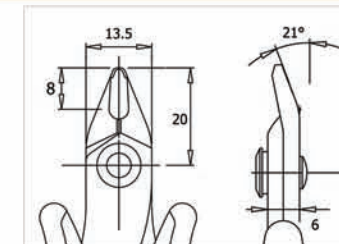


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30      | TR 30 D        | TR 30 A     |            | AL             | 5.5                | 1.30                | 16                |

### TR 30 58 R



**TR 30 58 R:** Tool for a flush cut. Due to the special treatment of the blades, it is suitable for cutting ferrous material. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available

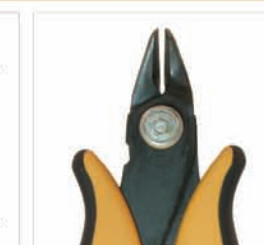
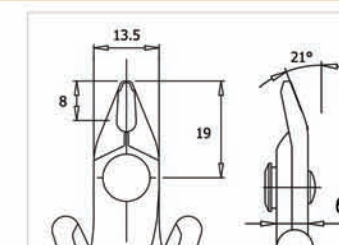


| Order code | ESD Order code | Safety clip  | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|--------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 58 R | TR 30 58 R D   | TR 30 58 R A |            | AL             | 6.5                | 1.63                | 14                |

### TR 58 R



**TR 58 R:** Tool for a flush cut. The special treatment of the blades make this tool particularly suitable for the cutting of ferrous material. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available

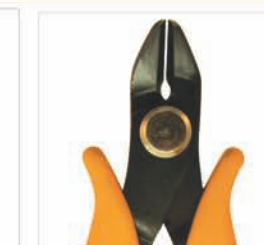
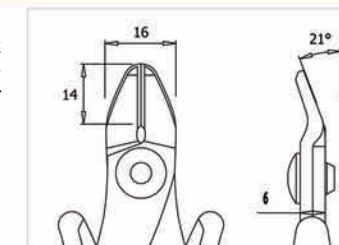


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 58 R    | TR 58 R D      | TR 58 R A   |            | AL             | 9                  | 2.05                | 12                |

### TRR 58 G



**TRR 58 G:** Very strong tool for a flush cut, suitable, apart from work in electronics, also to be used in the jewellery's and for the cutting of rubber seal. Steel thickness 3.0mm. Tool length 160mm. ESD-safe handles version available

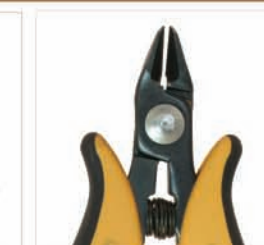
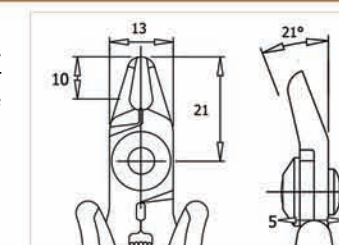


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TRR 58 G   | TRR 58 G D     | -           | -          | -              | 1.5                | 2.59                | 10                |

### TR 5000 R



**TR 5000 R:** Strong tool for a flush cut. Safety clip for holding wire scraps securely after cutting available (order code TR 5000 R A). Safety clip type AF. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available

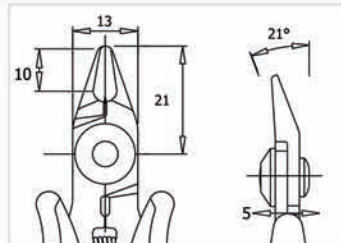


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 R  | TR 5000 R D    | TR 5000 R A |            | AF             | 8                  | 2.00                | 12                |

## TR 5000 PR

**TR 5000 PR**

Strong tool for a flush cut. With very sharp cutting edges it allows access to difficult to reach areas. Safety clip for holding wire scraps securely after cutting available. Steel thickness 5.0mm. Tool length 138mm  
ESD-safe handles version available



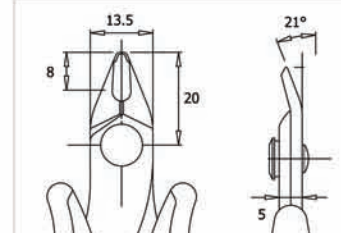
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|--------------------|-------------------|
| TR 5000PR  | TR 5000PR D    | TR 5000PR A |            | AF             | 5                  | 1.30               | 16                |

## Cutters *rounded flush cut*

## TR 25 B



**TR 25 B:** Tool for a flush well finished cut. Lightweight and easy to handle with swelled blades, leaving the cut well finished. Suitable for work with plastic. Steel thickness 2.5mm. Tool length 138mm.  
ESD-safe handles version available

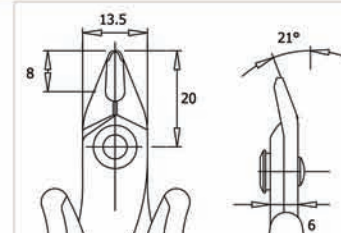


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|--------------------|-------------------|
| TR 25 B    | TR 25 B D      | -           |            | -              | 5                  | 1.02               | 18                |

## TR 30 B



**TR 30 B:** Tool for a flush finished cut. Lightweight and easy to handle with swelled blades, leaving the cut well finished. Suitable for work with plastic. Steel thickness 3.0mm. Tool length 138mm  
ESD-safe handles version available

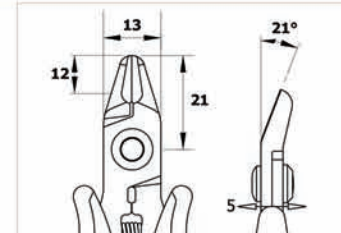


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|--------------------|-------------------|
| TR 30 B    | TR 30 B D      | -           |            | -              | 5.5                | 1.02               | 18                |

## TR 5000 B



**TR 5000 B:** Strong tool for flush finished cut. Suitable for work with plastic. Steel thickness 5.0mm. Tool length 138mm.  
ESD-safe handles version available

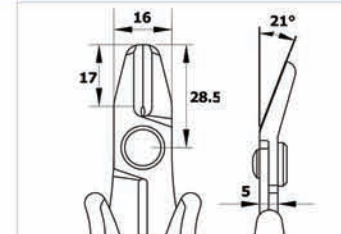


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|--------------------|-------------------|
| TR 5000 B  | TR 5000 B D    | -           |            | -              | 12                 | 1.63               | 14                |

## TRR 5000 B



**TRR 5000 B:** Strong tool for flush finished cut. Suitable for work with plastic. Steel thickness 5.0mm. Tool length 150mm.  
ESD-safe handles version available

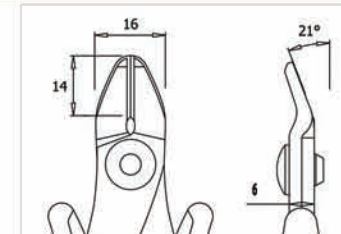


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|--------------------|-------------------|
| TRR 5000 B | TRR 5000 BD    | -           |            | -              | 15                 | 2.05               | 12                |

## TRR 58 B



**TRR 58 B:** Strong tool for flush finished cut. Steel thickness 3.0mm. Tool length 160mm.  
ESD-safe handles version available



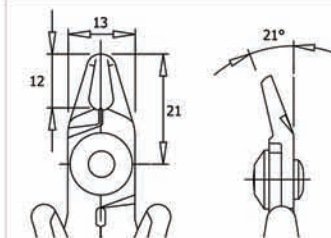
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|--------------------|-------------------|
| TRR 58 B   | TRR 58 B D     | -           |            | -              | 3.0                | 2.05               | 12                |



## TR 5000 PG



**TR 5000 PG:** Strong flush cutter with pointed, well finished cutting blades. Suitable for trimming in the plastic field. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available



cutters

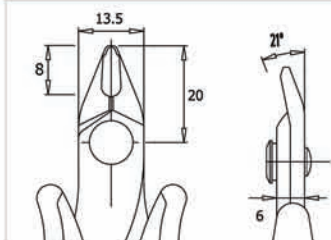
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 PG | TR 5000 PG D   | -           | -          | -              | 5                  | 1.02                | 18                |

## Cutters *chamfered cut*

### TR 30 58



**TR 30 58:** Tool for a chamfered cut. The special treatment of blades make this tool particularly suitable for the cutting of ferrous material. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available

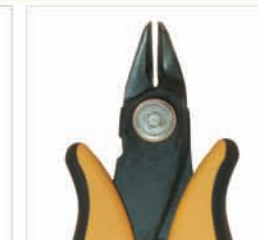
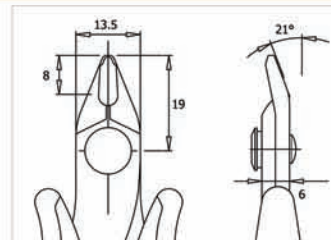


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 58   | TR 30 58 D     | TR 30 58 A  | AL         | 8.5            | 1.63               | 14                  |                   |

### TR 58



**TR 58:** Tool for a chamfered cut. The special treatment of blades make this tool suitable for the cutting of ferrous material. Stronger version of TR3058. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available

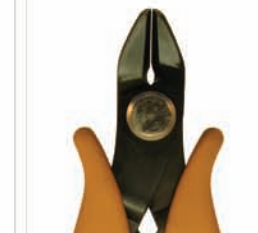
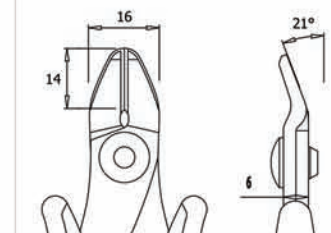


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 58      | TR 58 D        | TR 58 A     | AL         | 11             | 2.05               | 12                  |                   |

### TRR 58



**TRR 58:** Strong tool for a chamfered cut. For cutting quite resistant materials. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 160mm. ESD-safe handles version available

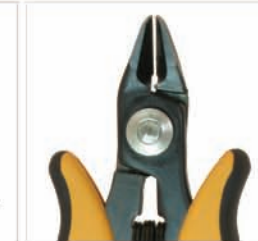
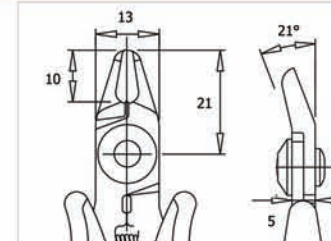


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TRR 58     | TRR 58 D       | TRR 58 A    | AL         | 15             | 2.59               | 10                  |                   |

### TR 5000



**TR 5000:** Strong tool for a chamfered cut. Safety clip for holding wire scraps securely after cutting available. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available

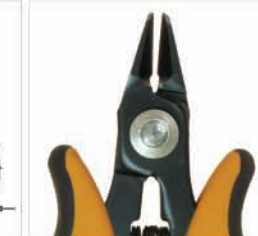
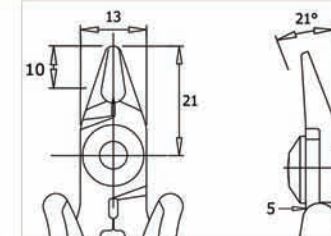


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000    | TR 5000 D      | TR 5000 A   | AF         | 12             | 2.05               | 12                  |                   |

### TR 5000 P



**TR 5000 P:** Strong tool for a chamfered cut with pointed cutting blades. Safety clip for holding wire scraps securely after cutting available. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available

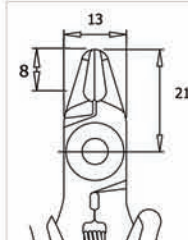


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 P  | TR 5000 P D    | TR 5000 P A | AF         | 8              | 1.30               | 16                  |                   |

## TRR 5000

**TRR 5000**

Strong tool for a chamfered cut. Ideal to cut materials of a resistant nature. Safety clip for holding wire scraps securely after cutting available. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available



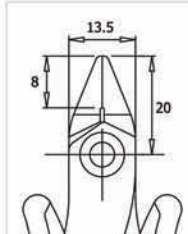
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TRR 5000   | TRR 5000 D     | TRR 5000 A  |            | AF             | 14                 | 2.59                | 10                |

## Cutters *flush cut at different height*

## TR 25 15



**TR 25 15:** Tool for a reverse flush cut. Terminal wire cut at 1.5mm from the surface. Steel thickness 2.5mm. Tool length 138mm. ESD-safe handles version available

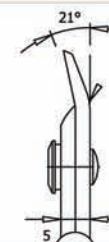
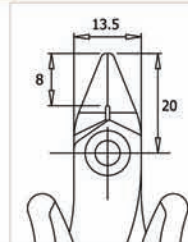


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25 15   | TR 25 15 D     | -           |            | -              | 5                  | 1.30                | 16                |

## TR 25 15 L



**TR 25 15 L:** Tool for a reverse flush cut. Terminal wire cut at 1.5mm from the surface. Same characteristics as TR 25 15, but designed with longer handles reduce the force needed by the operator. Steel thickness 2.5mm. Tool length 160mm. ESD-safe handles version available.

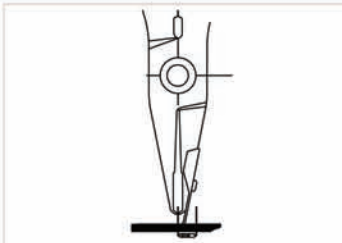


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25 15 L | TR 25 15 L D   | -           |            | -              | 3                  | 1.30                | 16                |

## TR 5000 W



**TR 5000 W:** Tool for a front, flush cut, for working in difficult to reach areas. It is possible to adjust the cutting height from the surface (from 0 to 5mm). Steel thickness 5.0mm. Tool length 147mm. ESD-safe handles version available.

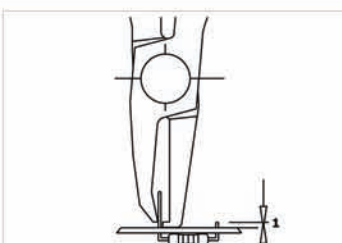


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 W  | TR 5000 W D    | -           |            | -              | 3.5                | 1.30                | 16                |

## TR 5000 10



**TR 5000 10:** Tool for a front cut, ideal for access in difficult to reach areas. It cuts the component lead at 1mm from the surface. Steel thickness 5.0mm. Tool length 147mm. ESD-safe handles version available.

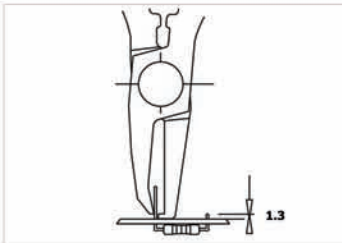


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 10 | TR 5000 10 D   | -           |            | -              | 5.5                | 1.30                | 16                |

## TR 5000 13



**TR 5000 13:** Tool for a front cut, ideal for access in difficult to reach areas of PCBs. It cuts the component lead at 1.3mm from the surface. Steel thickness 5.0mm. Tool length 147mm. ESD-safe handles version available.



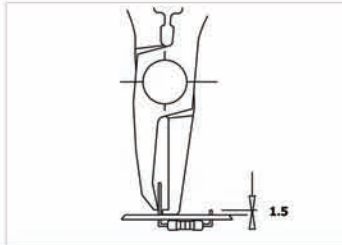
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 13 | TR 5000 13 D   | -           |            | -              | 5.5                | 1.30                | 16                |



**TR 5000 15**



**TR 5000 15:** Tool for a front cut, ideal for access in difficult to reach areas of PCBs. It cuts the component lead at 1.5mm from the surface. Steel thickness 5.0mm. Tool length 147mm. ESD-safe handles version available.

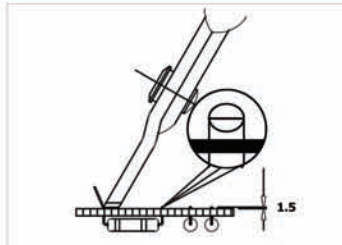


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 15 | TR 5000 15 D   | -           | -          | -              | 5.5                | 1.30                | 16                |

**TR 30 15 V**



**TR 30 15 V:** Tool for a front cut, angles at 60°. It cuts the component lead at 1.5mm from the surface. Steel thickness 3.0mm. Tool length 144mm. ESD-safe handles version available.

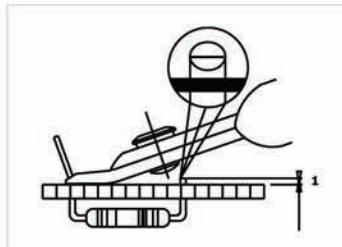


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 15 V | TR 30 15 V D   | -           | -          | -              | 3                  | 1.02                | 18                |

**TR 30 10**



**TR 30 10:** Tool for a clean, flush cut. Conceived for cutting component wires 1mm from the surface. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available.

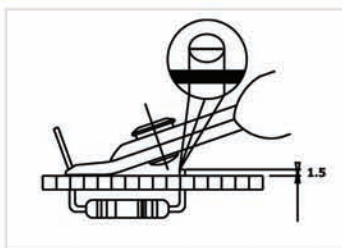


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 10   | TR 30 10 D     | -           | -          | -              | 5.5                | 1.30                | 16                |

**TR 30 15**



**TR 30 15:** Tool for a perfect clean and flush cut. It cuts the component lead at 1.5mm from the surface. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available.

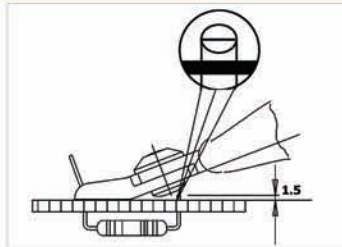


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 15   | TR 30 15 D     | -           | -          | -              | 5.5                | 1.30                | 16                |

**TR 50 15**



**TR 50 15:** Strong tool for a clean and flush cut. It cuts the component lead at 1.5 mm from the surface. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available.

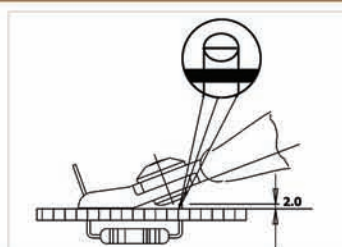


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 50 15   | TR 50 15 D     | -           | -          | -              | 8                  | 1.60                | 14                |

**TR 50 20**



**TR 50 20:** Strong tool for a clean and flush cut. It cuts the component lead at 2 mm from the surface. Steel thickness 5.0mm. Tool length 138mm. ESD-safe handles version available.



| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 50 20   | TR 50 20 D     | -           | -          | -              | 8                  | 1.60                | 14                |

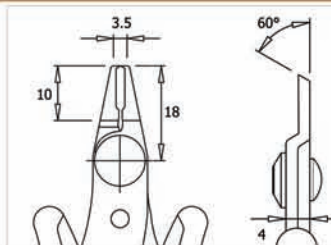
# Cutters *oblique or vertical cut*

## TR 20 VM



### TR 20 VM

Tool for a front, flush cut. The reduced size and the special 60° angle permits the tool to be easily used in difficult to reach areas.  
Steel thickness 2.0mm. Tool length 132mm  
ESD-safe handles version available

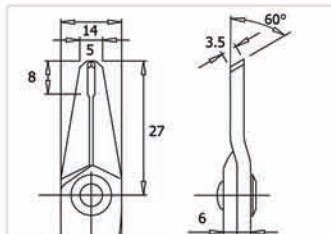


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 20 VM   | TR 20 VM D     | -           | -          | -              | 2.0                | 0.64                | 22                |

## TR 30 V



**TR 30 V:** Tool for a front, clean, flush cut. The special 60° angle permits the tool to be easily used in difficult to reach areas.  
Steel thickness 3.0mm. Tool length 144mm.  
ESD-safe handles version available

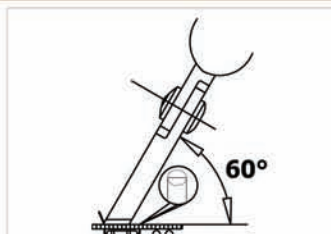


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 V    | TR 30 V D      | -           | -          | -              | 3                  | 1.02                | 18                |

## TR 5000 V



**TR 5000 V:** Special 60° angled tool for a front, flush cut, ideal to work in difficult to reach areas. Similar to TR 30 V but with 5mm steel thickness.  
Steel thickness 5.0mm. Tool length 147mm.  
ESD-safe handles version available

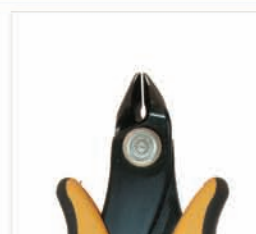
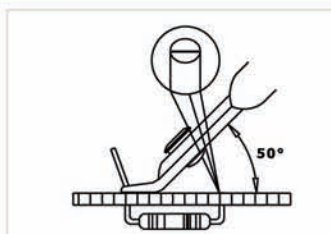


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5000 V  | TR 5000 V D    | -           | -          | -              | 3.5                | 1.30                | 16                |

## TR 25 50



**TR 25 50:** Tool for a flush cut, with inclined 50° blades, for specific work in electronics.  
Steel thickness 2.5mm. Tool length 135mm.  
ESD-safe handles version available

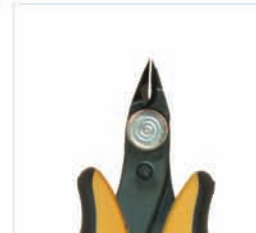
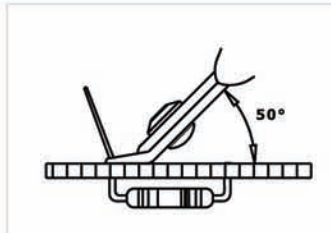


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 25 50   | TR 25 50 D     | -           | -          | -              | 5                  | 1.30                | 16                |

## TR 20 50 M



**TR 20 50 M:** Particularly thin nose tool for a flush cut with inclined 50° blades. Ideal to work in difficult to reach areas.  
Steel thickness 2.0mm. Tool length 131mm.  
ESD-safe handles version available

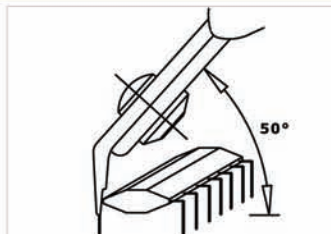


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 20 50 M | TR 20 50 M D   | -           | -          | -              | 2                  | 0.64                | 22                |

## TR 30 T



**TR 30 T:** Tool 50° angled for the cutting of integrated circuit pins.  
Steel thickness 3.0mm. Tool length 137mm.  
ESD-safe handles version available

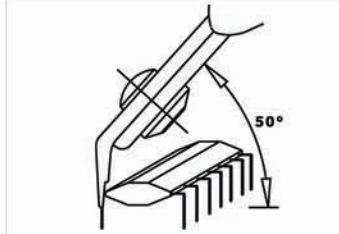


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 30 T    | TR 30 T D      | -           | -          | -              | 2.5                | 1.02                | 18                |

## TR 20 TM



**TR 20 TM:** Tool for the cutting of integrated circuit pins. The reduced size of the its blades, angled at 50°, allows the pins cut when pins are very close to each other. Steel thickness 2.0mm. Tool length 129mm. ESD-safe handles version available

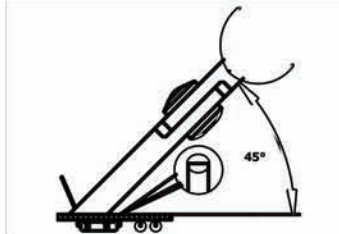


| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 20 TM   | TR 20 TM D     | -           | -          | -              | 2                  | 0.64                | 22                |

## TR 5045 V



**TR 5045 V:** Tool for a front, flush cut, 45°angled. Steel thickness 5.0mm. Tool length 147mm. ESD-safe handles version available



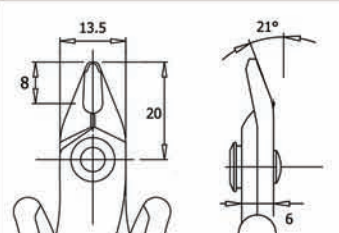
| Order code | ESD Order code | Safety clip | Order code | Type of spring | Cutting force (kg) | Copper wire ( Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|------------|----------------|--------------------|---------------------|-------------------|
| TR 5045 V  | TR 5045 V D    | -           | -          | -              | 3                  | 1.30                | 16                |

# Cutters *induction/tungsten blade treatment*

## ITR 30



**ITR 30:** Strong tool for a flush cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available.

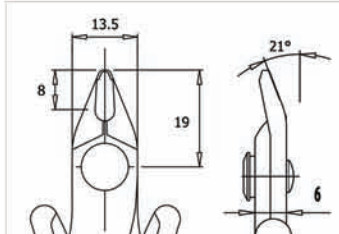


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire ( Ø mm/awg) | Steel wire ( Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|--------------------------|------------------------|
| ITR 30     | ITR 30 D       | ITR 30 A    | -          | AL     | 1.30/16               | 1.02/18                  | -/-                    |

## ITR 58 R



**ITR 58 R:** Strong tool for a flush cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm.

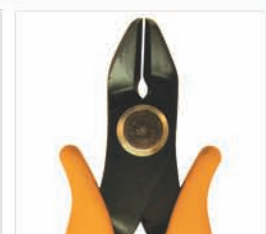
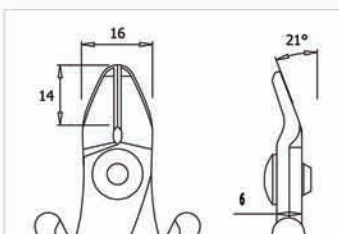


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire ( Ø mm/awg) | Steel wire ( Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|--------------------------|------------------------|
| ITR 58 R   | ITR 58 R D     | ITR 58 R A  | -          | AL     | 2.05/12               | 1.63/14                  | -/-                    |

## ITRR 58 G



**ITRR 58 G:** Strong tool for a flush cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials. Steel thickness 3.0mm. Tool length 160mm. ESD-safe handles version available

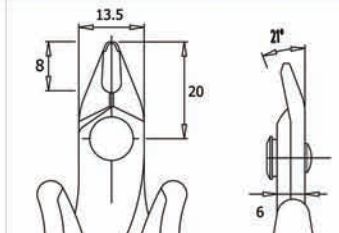


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire ( Ø mm/awg) | Steel wire ( Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|--------------------------|------------------------|
| ITRR 58 G  | ITRR 58 G D    | -           | -          | -      | 2.59/10               | 1.63/14                  | -/-                    |

## ITR 30 58



**ITR 30 58:** Strong tool for a chamfered cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials. Safety clip for holding wire scraps securely after cutting available. Steel thickness 3.0mm. Tool length 138mm. ESD-safe handles version available

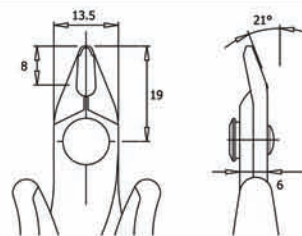


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire ( Ø mm/awg) | Steel wire ( Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|--------------------------|------------------------|
| ITR 30 58  | ITR 30 58 D    | ITR 30 58 A | -          | AL     | 1.63/14               | 1.30/16                  | -/-                    |

## ITR 58

**ITR 58**

Strong tool for a chamfered cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials. Safety clip for holding wire scraps securely after cutting available  
Steel thickness 3.0mm. Tool length 138mm.  
ESD-safe handles version available

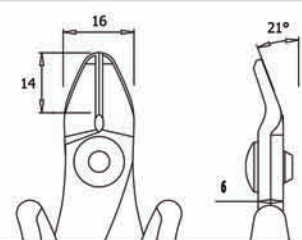


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire (Ø mm/awg) | Steel wire (Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|-------------------------|-----------------------|
| ITR 58     | ITR 58 D       | ITR58 A     |            | AL     | 2.05/12               | 1.63/14                 | -/-                   |

## ITRR 58



**ITRR 58:** Strong tool for a chamfered cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials.  
Steel thickness 3.0mm. Tool length 160mm.  
ESD-safe handles version available

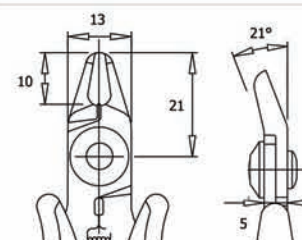


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire (Ø mm/awg) | Steel wire (Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|-------------------------|-----------------------|
| ITRR 58    | ITRR 58 D      | -           |            | -      | 2.59/10               | 1.63/14                 | -/-                   |

## ITR 5000



**ITR 5000:** Strong tool for a chamfered cut. Special INDUCTION treatment of blades. For the cutting of copper and ferrous materials. Safety clip for holding wire scraps securely after cutting available  
Steel thickness 5.0mm. Tool length 138mm.  
ESD-safe handles version available

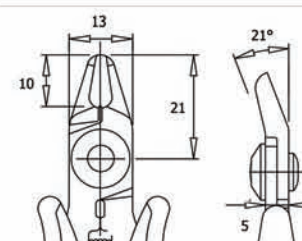


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire (Ø mm/awg) | Steel wire (Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|-------------------------|-----------------------|
| ITR 5000   | ITR 5000 D     | ITR 5000 A  |            | AF     | 2.05/12               | 1.63/14                 | -/-                   |

## TTR 5000



**TTR 5000:** Strong tool for a chamfered cut. Special TUNGSTEN treatment of blades. Ideal for the cutting of copper, ferrous materials and other hard components such as steel. Safety clip for holding wire scraps securely after cutting available  
Steel thickness 5.0mm. Tool length 138mm.  
ESD-safe handles version available

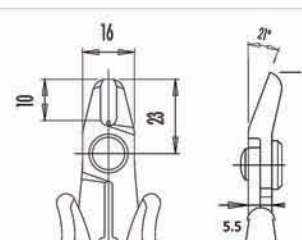


| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire (Ø mm/awg) | Steel wire (Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|-------------------------|-----------------------|
| TTR 5000   | TTR 5000 D     | TTR 5000 A  |            | AF     | 2.05/12               | 1.63/14                 | 0.6/22                |

## TTR 5500



**TTR 5500:** Strong tool for a chamfered cut. Special TUNGSTEN treatment of blades. Ideal for the cutting of copper, ferrous materials and other hard components such as steel wire. Stronger than TTR5000.  
Steel thickness 5.5mm. Tool length 155mm.  
ESD-safe handles version available



| Order code | ESD Order code | Safety clip | Order code | Spring | Copper wire (Ømm/awg) | Ferrous wire (Ø mm/awg) | Steel wire (Ø mm/awg) |
|------------|----------------|-------------|------------|--------|-----------------------|-------------------------|-----------------------|
| TTR 5500   | TTR 5500 D     | -           |            | -      | 2.59/10               | 2.05/12                 | 0.8/20                |

# Pliers pointed short nose pliers



pliers

| Order code     | Tip | hrc   | weight (gr) | length (mm) | Esd code         | Notes                                      |
|----------------|-----|-------|-------------|-------------|------------------|--|
| <b>PN 2001</b> | ■ ■ | 48-50 | 78          | 146         | <b>PN 2001 D</b> | serrated, pointed short nose pliers        |
| <b>PN 2002</b> | ■ ■ | 48-50 | 78          | 146         | <b>PN 2002 D</b> | smooth, pointed short nose pliers          |
| <b>PN 20 M</b> | ■ ■ | 48-50 | 60          | 136         | <b>PN 20 M D</b> | smooth, pointed short nose pliers          |
| <b>PN 5001</b> | ■ ■ | 48-50 | 98          | 146         | <b>PN 5001 D</b> | serrated, pointed, short nose pliers; 5 mm |
| <b>PN 5002</b> | ■ ■ | 48-50 | 98          | 146         | <b>PN 5002 D</b> | smooth, pointed, short nose pliers; 5mm    |

## Flat short nose pliers

| Order code     | Tip | hrc   | weight (gr) | length (mm) | Esd code         | Notes                                  |
|----------------|-----|-------|-------------|-------------|------------------|--|
| <b>PN 2003</b> |     | 48-50 | 78          | 146         | <b>PN 2003 D</b> | serrated flat short nose pliers        |
| <b>PN 2004</b> |     | 48-50 | 78          | 146         | <b>PN 2004 D</b> | smooth flat short nose pliers          |
| <b>PN 5003</b> |     | 48-50 | 98          | 146         | <b>PN 5003 D</b> | serrated, flat, short nose pliers; 5mm |
| <b>PN 5004</b> |     | 48-50 | 98          | 146         | <b>PN 5004 D</b> | smooth, flat, short nose pliers; 5mm   |

## Pointed long nose pliers

| Order code       | Tip | hrc   | weight (gr) | length (mm) | Esd code           | Notes                                      |
|------------------|-----|-------|-------------|-------------|--------------------|--|
| <b>PN 2005</b>   | ■ ■ | 48-50 | 78          | 160         | <b>PN 2005 D</b>   | serrated pointed long nose pliers          |
| <b>PN 2006</b>   | ■ ■ | 48-50 | 78          | 160         | <b>PN 2006 D</b>   | smooth pointed long nose pliers            |
| <b>PN 2015</b>   | ● ● | 48-50 | 78          | 160         | <b>PN 2015 D</b>   | serrated pointed, rounded long nose pliers |
| <b>PN 2016</b>   | ● ● | 48-50 | 78          | 160         | <b>PN 2016 D</b>   | smooth pointed, rounded long nose pliers   |
| <b>PN 2002 M</b> | ● ● | 48-50 | 64          | 155         | <b>PN 2002 M D</b> | smooth pointed, rounded long nose pliers   |
| <b>PN 5005</b>   | ■ ■ | 48-50 | 100         | 154         | <b>PN 5005 D</b>   | serrated, pointed, long nose pliers; 5mm   |
| <b>PN 5006</b>   | ■ ■ | 48-50 | 100         | 154         | <b>PN 5006 D</b>   | smooth, pointed, long nose pliers; 5mm     |

## Flat long nose pliers

| Order code     | Tip | hrc   | weight (gr) | length (mm) | Esd code         | Notes                                   |
|----------------|-----|-------|-------------|-------------|------------------|---|
| <b>PN 2007</b> |     | 48-50 | 78          | 160         | <b>PN 2007 D</b> | serrated flat long nose pliers          |
| <b>PN 2008</b> |     | 48-50 | 78          | 160         | <b>PN 2008 D</b> | smooth flat long nose pliers            |
| <b>PN 2017</b> | ●   | 48-50 | 78          | 160         | <b>PN 2017 D</b> | serrated flat, rounded long nose pliers |
| <b>PN 2018</b> | ●   | 48-50 | 78          | 160         | <b>PN 2018 D</b> | smooth flat, rounded long nose pliers   |
| <b>PN 5007</b> |     | 48-50 | 100         | 154         | <b>PN 5007 D</b> | serrated, flat, long nose pliers; 5mm   |
| <b>PN 5008</b> |     | 48-50 | 100         | 154         | <b>PN 5008 D</b> | smooth, flat, long nose pliers; 5mm     |

## Rounded nose pliers

| Order code       | Tip | hrc   | weight (gr) | length (mm) | Esd code           | Notes                                       |
|------------------|-----|-------|-------------|-------------|--------------------|---|
| <b>PN 5028</b>   | ●   | 48-50 | 100         | 154         | <b>PN 5028 D</b>   | long nose pliers one round and one flat jaw |
| <b>PN 5025 C</b> | ● ● | 48-50 | 78          | 147         | <b>PN 5025 C D</b> | rounded nose and cutting tip                |



pliers

|                  |       |     |     |                    |  |
|------------------|-------|-----|-----|--------------------|--|
| <b>PN 5025</b>   | 48-50 | 98  | 154 | <b>PN 5025 D</b>   | smooth rounded long nose pliers        |
| <b>PN 5025 Z</b> | 48-50 | 98  | 154 | <b>PN 5025 Z D</b> | serrated rounded long nose pliers      |
| <b>PN 5025/1</b> | 48-50 | 98  | 146 | <b>PN 5025/1 D</b> | smooth rounded short nose pliers Ø 1.6 |
| <b>PN 5025/2</b> | 48-50 | 100 | 154 | <b>PN 5025/2 D</b> | smooth rounded long nose pliers Ø 1    |
| <b>PN 5025/3</b> | 48-50 | 98  | 146 | <b>PN 5025/3 D</b> | smooth rounded short nose pliers Ø 1   |

## Bent nose pliers

| Order code        | Tip | hrc   | weight (gr) | length (mm) | Esd code            | Notes   |
|-------------------|-----|-------|-------------|-------------|---------------------|---|
| <b>PN 2002 PM</b> |     | 48-50 | 64          | 147         | <b>PN 2002 PM D</b> | Smooth pointed rounded nose pliers bent at 45°  |
| <b>PNB 2005</b>   |     | 48-50 | 78          | 152         | <b>PNB 2005 D</b>   | Serrated pointed long nose pliers bent at 45°   |
| <b>PNB 2006</b>   |     | 48-50 | 78          | 152         | <b>PNB 2006 D</b>   | Smooth pointed long nose pliers bent at 45°     |
| <b>PNB 2007</b>   |     | 48-50 | 78          | 152         | <b>PNB 2007 D</b>   | Serrated flat long nose pliers bent at 45°      |
| <b>PNB 2008</b>   |     | 48-50 | 78          | 152         | <b>PNB 2008 D</b>   | Smooth flat long nose pliers bent at 45°        |
| <b>PNB 2015</b>   |     | 48-50 | 78          | 152         | <b>PNB 2015 D</b>   | Serrated sharp, rounded nose pliers bent at 45° |
| <b>PNB 2016</b>   |     | 48-50 | 78          | 152         | <b>PNB 2016 D</b>   | Smooth sharp, rounded nose pliers bent at 45°   |
| <b>PNB 2017</b>   |     | 48-50 | 78          | 152         | <b>PNB 2017 D</b>   | Serrated flat, rounded nose pliers bent at 45°  |
| <b>PNB 2018</b>   |     | 48-50 | 78          | 152         | <b>PNB 2018 D</b>   | Smooth flat, rounded nose pliers bent at 45°    |

## Pliers *pointed short nose pliers*

### PN 2001

|  |   |  |  |
|--|---|--|--|
|  | <p><b>PN 2001:</b> The PN 2001 is a serrated, pointed short nose pliers suitable to be used with all type of components. Steel thickness 3.0mm. ESD-safe handles version available.</p> |  |  |
|--|---|--|--|

| Order code     | ESD Order code   | Hrc          | Weight (gr) | Length (mm) |
|----------------|------------------|--------------|-------------|-------------|
| <b>PN 2001</b> | <b>PN 2001 D</b> | <b>48-50</b> | <b>78</b>   | <b>146</b>  |

### PN 2002

|  |   |  |  |
|--|---|--|--|
|  | <p><b>PN 2002:</b> The PN 2002 is a smooth, pointed short nose pliers suitable to be used with all type of components. Steel thickness 3.0mm. ESD-safe handles version available.</p> |  |  |
|--|---|--|--|

| Order code     | ESD Order code   | Hrc          | Weight (gr) | Length (mm) |
|----------------|------------------|--------------|-------------|-------------|
| <b>PN 2002</b> | <b>PN 2002 D</b> | <b>48-50</b> | <b>78</b>   | <b>146</b>  |

### PN 20 M

|  |  |  |  |
|--|--|--|--|
|  | <p><b>PN 20 M:</b> Smooth pointed short nose pliers, specially designed for delicate work in electronics. Steel thickness 2.0mm. ESD-safe handles version available.</p> |  |  |
|--|--|--|--|

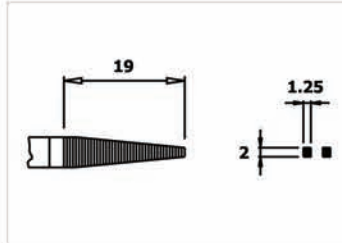
| Order code     | ESD Order code   | Hrc          | Weight (gr) | Length (mm) |
|----------------|------------------|--------------|-------------|-------------|
| <b>PN 20 M</b> | <b>PN 20 M D</b> | <b>48-50</b> | <b>60</b>   | <b>136</b>  |



## PN 5001



**PN 5001:** Serrated, pointed, short nose pliers. For the general handling of all types of components. Steel thickness 5.0mm.  
ESD-safe handles version available.

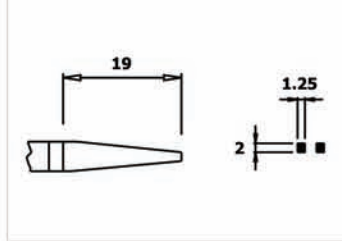


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5001    | PN 5001 D      | 48-50 | 98          | 146         |

## PN 5002



**PN 5002:** Smooth, pointed, short nose pliers. For the general handling of all types of components. Steel thickness 5.0mm.  
ESD-safe handles version available.



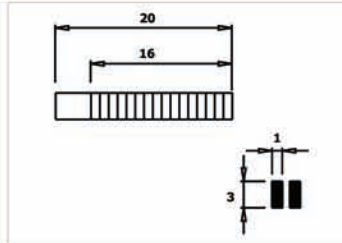
| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5002    | PN 5002 D      | 48-50 | 98          | 146         |

# Pliers *flat short nose pliers*

## PN 2003



**PN2003:** The PN 2003 is a serrated, flat short nose pliers suitable to be used with all type of components. Steel thickness 3.0mm.  
ESD-safe handles version available.

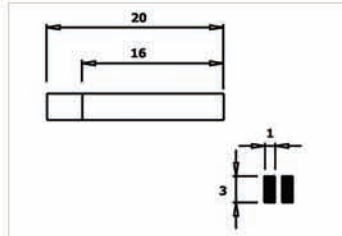


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2003    | PN 2003 D      | 48-50 | 78          | 146         |

## PN 2004



**PN 2004:** The PN 2004 is a smooth, flat short nose pliers suitable to be used with all type of components. Steel thickness 3.0mm.  
ESD-safe handles version available.

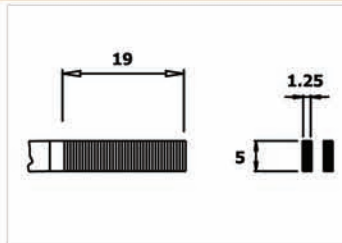


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2004    | PN 2004 D      | 48-50 | 78          | 146         |

## PN 5003



**PN 5003:** Serrated, flat, short nose pliers. For the general handling of all types of components. Steel thickness 5.0mm.  
ESD-safe handles version available.

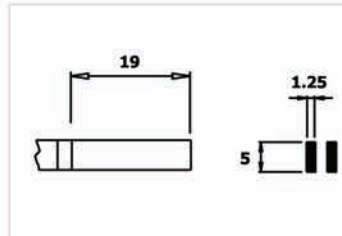


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5003    | PN 5003 D      | 48-50 | 98          | 146         |

## PN 5004



**PN 5004:** Smooth, flat, short nose pliers. For the general handling of all types of components. Steel thickness 5.0mm.  
ESD-safe handles version available.



| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5004    | PN 5004 D      | 48-50 | 98          | 146         |





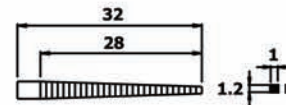
pliers

# Pliers *pointed long nose pliers*

## PN 2005



**PN 2005:** The PN 2005 is a serrated, pointed long nose pliers ideal to be used in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

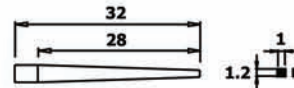


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2005    | PN 2005 D      | 48-50 | 78          | 160         |

## PN 2006



**PN 2006:** The PN 2006 is a smooth, pointed long nose pliers ideal to be used in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

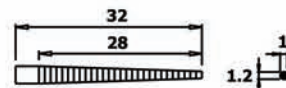


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2006    | PN 2006 D      | 48-50 | 78          | 160         |

## PN 2015



**PN2015:** Serrated pointed, long nose pliers, with rounded external edges suitable for the handling of components in high density areas without causing damage. Steel thickness 3.0mm. ESD-safe handles version available.

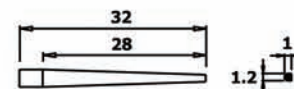


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2015    | PN 2015 D      | 48-50 | 78          | 160         |

## PN 2016



**PN 2016:** Smooth pointed, long nose pliers, with rounded external edges suitable for the handling of components in high density areas without causing damage. Steel thickness 3.0mm. ESD-safe handles version available.

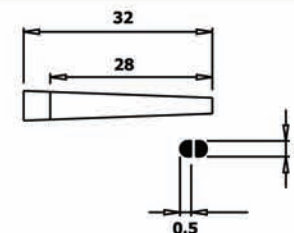


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2016    | PN 2016 D      | 48-50 | 78          | 160         |

## PN 2002 M



**PN 2002 M:** Smooth, pointed long nose pliers, with rounded external edges and very thin tips. Ideal for the handling of components in high density area with no risk of damage. Steel thickness 2.0mm. ESD-safe handles version available.

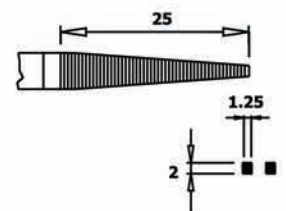


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2002 M  | PN 2002 M D    | 48-50 | 64          | 155         |

## PN 5005



**PN 5005:** Serrated, pointed, long nose pliers. For the general handling of all types of components. Steel thickness 5.0mm. ESD-safe handles version available.

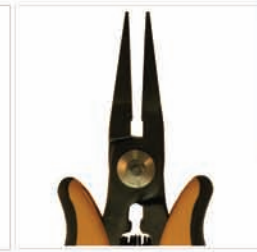
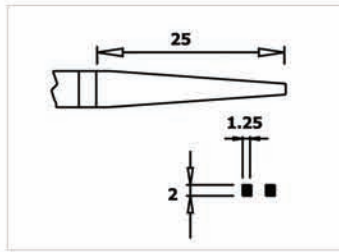


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5005    | PN 5005 D      | 48-50 | 100         | 154         |

## PN 5006



**PN 5006:** Smooth, pointed, long nose pliers. For the general handling of all types of components. Steel thickness 5.0mm. ESD-safe handles version available.



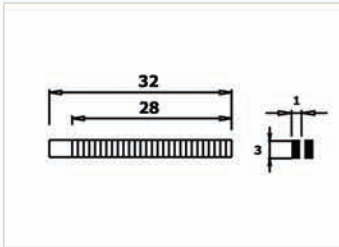
| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5006    | PN 5006 D      | 48-50 | 100         | 154         |

# Pliers *flat long nose pliers*

## PN 2007



**PN 2007:** The PN 2007 is a serrated, flat long nose pliers ideal to be used in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

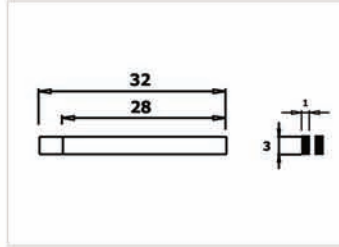


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2007    | PN 2007 D      | 48-50 | 78          | 160         |

## PN 2008



**PN2008:** The PN 2008 is a smooth, flat long nose pliers ideal to be used in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

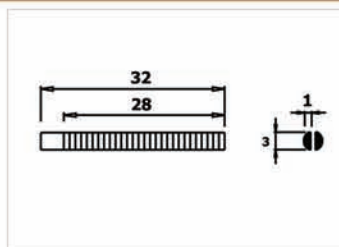


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2008    | PN 2008 D      | 48-50 | 78          | 160         |

## PN 2017



**PN 2017:** Serrated flat, long nose pliers, with rounded external edges suitable for the handling of components in high density areas without causing damage. Steel thickness 3.0mm. ESD-safe handles version available.

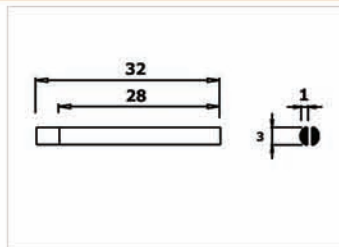


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2017    | PN 2017 D      | 48-50 | 78          | 160         |

## PN 2018



**PN 2018:** Smooth flat, long nose pliers, with rounded external edges suitable for the handling of components in high density areas without causing damage. Steel thickness 3.0mm. ESD-safe handles version available.

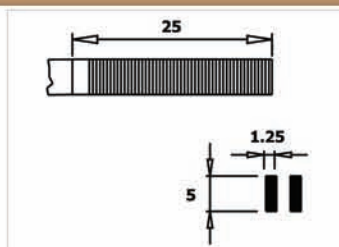


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2018    | PN 2018 D      | 48-50 | 78          | 160         |

## PN 5007



**PN 5007:** The PN 5007 is a serrated flat long nose pliers ideal for the handling of components in poorly accessible areas and where a strong grip is needed. Steel thickness 5.0mm. ESD-safe handles version available.



| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5007    | PN 5007 D      | 48-50 | 100         | 154         |

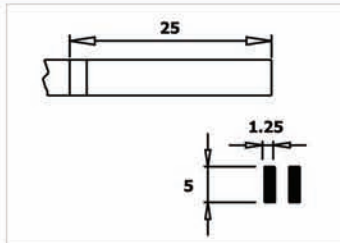




### PN 5008



**PN 5008:** Smooth, flat, long nose pliers, ideal for the handling of components in poorly accessible areas and where a strong grip is needed. Steel thickness 5.0mm. ESD-safe handles version available.



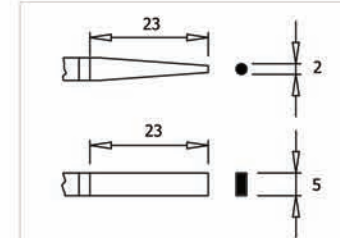
| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5008    | PN 5008 D      | 48-50 | 100         | 154         |

## Pliers *rounded nose pliers*

### PN 5028



**PN 5028:** Special long nose pliers, with one flat and one round jaw. Steel thickness 5.0mm. ESD-safe handles version available.

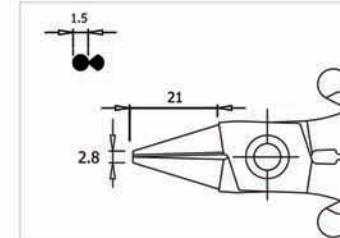


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5028    | PN 5028 D      | 48-50 | 100         | 154         |

### PN 5025 C



**PN 5025 C:** Special pliers, rounded nose and cutting tip with induction treatment. Cutting force 3kg- copper wire 1.02 (Ø mm) - 18 (awg) Thickness 5 mm. ESD-safe handles version available.

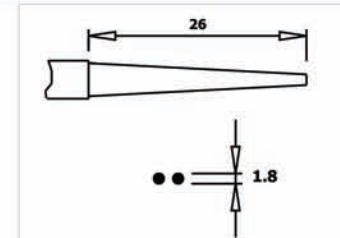


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5025 C  | PN 5025 C D    | 48-50 | 78          | 147         |

### PN 5025



**PN 5025:** Smooth rounded long nose pliers ideal for the handling of components in dense areas without causing damages. Tips diameter 1.8mm. Nose length 26mm. Steel thickness 5.0mm. ESD-safe handles version available.

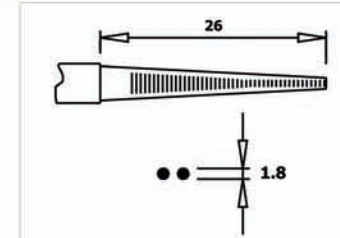


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5025    | PN 5025 D      | 48-50 | 98          | 154         |

### PN 5025 Z



**PN 5025 Z:** Serrated rounded long nose pliers, ideal for the handling of components in high density areas without causing damages. Tips diameter 1.8 mm. Nose length 26mm. Steel thickness 5.0mm. ESD-safe handles version available.

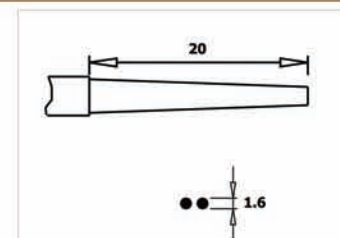


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5025 Z  | PN 5025 Z D    | 48-50 | 98          | 154         |

### PN 5025/1



**PN 5025/1:** Smooth rounded short nose pliers, ideal for the handling of components in high density areas without causing damage. Tips diameter 1.6 mm. Nose length 20mm. Steel thickness 5.0mm. ESD-safe handles version available.

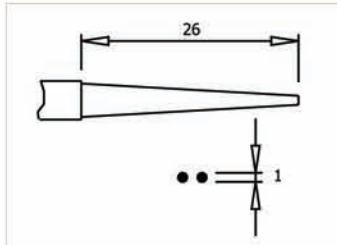


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5025/1  | PN 5025/1 D    | 48-50 | 98          | 146         |

## PN 5025/2



**PN 5025/2:** Smooth rounded long nose pliers, ideal for the handling of components in high density areas without causing damage. Tips diameter 1.0 mm. Nose length 26mm. Steel thickness 5.0mm. ESD-safe handles version available.

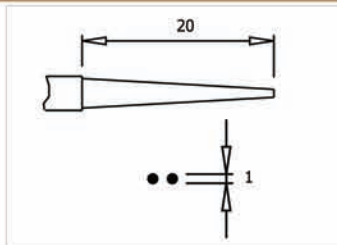


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5025/2  | PN 5025/2 D    | 48-50 | 100         | 154         |

## PN 5025/3



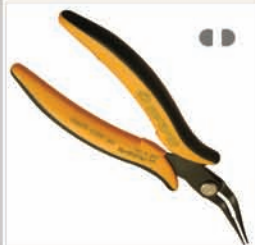
**PN 5025/3:** Smooth rounded short nose pliers, ideal for the handling of components in high density areas without causing damage. Tips diameter 1.0 mm. Nose length 20mm. Steel thickness 5.0mm. ESD-safe handles version available.



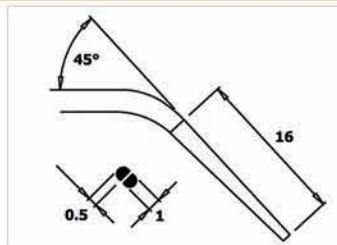
| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 5025/3  | PN 5025/3 D    | 48-50 | 98          | 146         |

# Pliers *bent nose pliers*

## PN 2002 PM



**PN2002 PM:** Smooth, 45° angled long nose pliers with rounded external edges. Thanks to its shape, it gives a wide angle of vision of the work area. Steel thickness 2.0mm. ESD-safe handles version available.

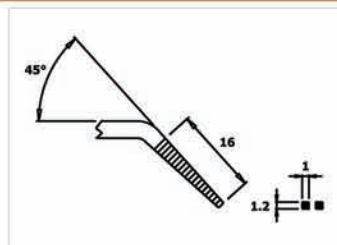


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PN 2002 PM | PN 2002 PM D   | 48-50 | 64          | 147         |

## PNB 2005



**PNB 2005:** Serrated pointed long nose pliers bent at 45°. Thanks to its shape, it gives a wide angle of vision of the work area and suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

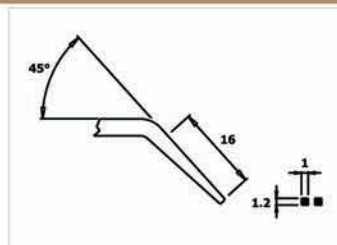


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2005   | PNB 2005 D     | 48-50 | 78          | 152         |

## PNB 2006



**PNB 2006:** Smooth pointed long nose pliers bent at 45°. Thanks to its shape, it gives a wide angle of vision of the work area and suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

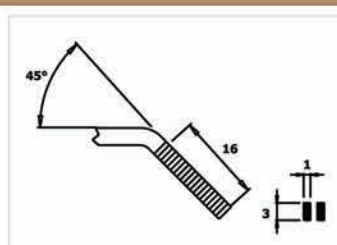


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2006   | PNB 2006 D     | 48-50 | 78          | 152         |

## PNB 2007



**PNB 2007:** Serrated flat long nose pliers bent at 45°. Thanks to its shape, it gives a wide angle of vision of the work area and suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.



| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2007   | PNB 2007 D     | 48-50 | 78          | 152         |



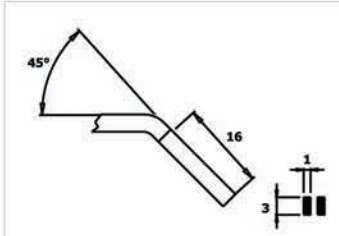
pliers



### PNB 2008



**PNB 2008:** Smooth flat long nose pliers bent at 45°. Thanks to its shape, it gives a wide angle of vision of the work area and suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

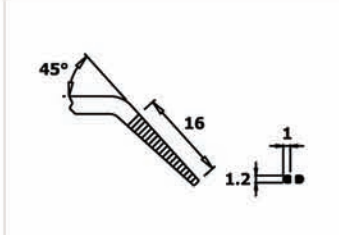


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2008   | PNB 2008 D     | 48-50 | 78          | 152         |

### PNB 2015



**PNB 2015:** The PNB 2015 has a serrated, pointed and externally rounded nose, bent at 45°, suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

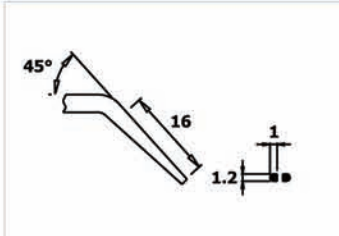


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2015   | PNB 2015 D     | 48-50 | 78          | 152         |

### PNB 2016



**PNB 2016:** Smooth pointed, externally rounded nose pliers bent at 45°, suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

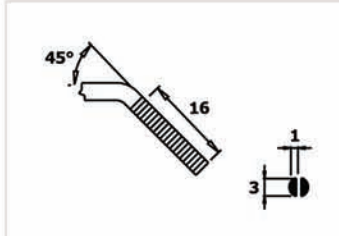


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2016   | PNB 2016 D     | 48-50 | 78          | 152         |

### PNB 2017

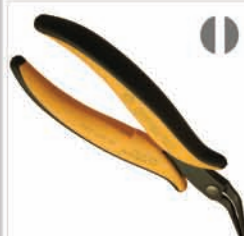


**PNB 2017:** Serrated flat, externally rounded nose pliers bent at 45°, suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.

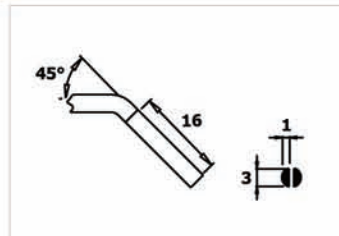


| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2017   | PNB 2017 D     | 48-50 | 78          | 152         |

### PNB 2018









**PNB 2018:** Smooth flat, externally rounded nose pliers bent at 45°, suitable for the handling of components in difficult to reach areas. Steel thickness 3.0mm. ESD-safe handles version available.







| Order code | ESD Order code | Hrc   | Weight (gr) | Lenght (mm) |
|------------|----------------|-------|-------------|-------------|
| PNB 2018   | PNB 2018 D     | 48-50 | 78          | 152         |



# Special tools "C" shape forming pliers

| Order code         | Tip   | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | Notes  |
|--------------------|---|-------------|--------------------|-------------------------|----|--|
| <b>PNR 30D</b>     |  | 145         | 3                  | 1.02                    | 18 | C shape forming pliers. ESD safe handles.  |
| <b>PNG 5000D</b>   |  | 150         | 3                  | 1.02                    | 18 | C shape forming pliers. ESD safe handles.  |
| <b>PNR 5000D</b>   |  | 150         | 3                  | 1.02                    | 18 | cutting and C shape forming pliers. ESD safe handles.  |
| <b>PNR 5010D</b>   |  | 150         | 3                  | 1.02                    | 18 | it cuts & forms in a double opposite C shape the component wire in one step. ESD safe handles. |
| <b>PTR 30 CD</b>   |  | 150         | 3                  | 1.02                    | 18 | C shape forming pliers which cuts the residual part at 3mm. ESD safe handles.                  |
| <b>PTR 30 C/5D</b> |  | 150         | 3                  | 1.02                    | 18 | C shape forming pliers which cuts the residual part at 4mm. ESD safe handles.                  |


## "U" shape forming pliers

| Order code       | Tip   | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |       | Notes                                     |
|------------------|---|-------------|--------------------|-------------------------|-------|---|
| <b>PPR 5000D</b> |  | 150         | 3                  | 0.6-0.8                 | 22-20 | U shape forming pliers. ESD safe handles. |
| <b>PPR 5001D</b> |  | 150         | 3                  | 0.6-0.8                 | 22-20 | U shape forming pliers. ESD safe handles. |
| <b>PPR 5002D</b> |  | 150         | 3                  | 0.6-0.8                 | 22-20 | U shape forming pliers. ESD safe handles. |
| <b>PPR 5003D</b> |  | 150         | 3                  | 0.6-0.8                 | 22-20 | U shape forming pliers. ESD safe handles. |












## "90°" forming pliers

| Order code         | Tip   | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | Notes   |
|--------------------|---|-------------|--------------------|-------------------------|----|---|
| <b>PN 5040/90D</b> |  | 158         | 3                  | 1.30                    | 16 | cutting and 90°shape forming pliers. ESD safe handles |
| <b>PN 5040/7D</b>  |  | 158         | 3                  | 1.30                    | 16 | 90°shape forming pliers. ESD safe handles.            |

## "L" shape forming pliers

| Order code       | Tip   | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | Notes   |
|------------------|---|-------------|--------------------|-------------------------|----|---|
| <b>PTR 30 LD</b> |  | 150         | 3                  | 1.02                    | 18 | cutting and L shape forming pliers. ESD safe handles. |

## "TO" forming pliers

| Order code         | Tip   | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | Notes   |
|--------------------|---|-------------|--------------------|-------------------------|----|---|
| <b>PN 5050D</b>    |  | 155         | 3                  | 1.30                    | 16 | forming of the central lead of TO 220, 3.81mm pitch. ESD safe handles.                      |
| <b>PN 5050/3D</b>  |  | 158         | 3                  | 1.30                    | 16 | forming of the central lead of TO247 & TO220, 5.08mm pitch. ESD safe handles.               |
| <b>PN 5050/14D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of the central lead of TO 220, 3.0mm pitch. ESD safe handles.                       |
| <b>PN 5050/15D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of the central lead of TO 220, 2.54mm pitch. ESD safe handles.                      |
| <b>PN 5050/04D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of side leads of TO 247 and TO220, 5.08mm pitch. ESD safe handles.                  |
| <b>PN 5050/10D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of side leads of TO 220 and TO 247, 2.54mm pitch. ESD safe handles.                 |
| <b>PN 5050/60D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of TO220 & TO247; side leads at 1.5 mm pitch and central lead at 3.5 mm pitch. ESD. |
| <b>PN 5050/16D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of side leads of TO 247 and TO220, 3.81mm pitch. ESD safe handles.                  |
| <b>PN 5050/19D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of 5 leads TO220; 1-3-5 leads at 4mm and 2-4 leads at 1.5mm. ESD safe handles.      |
| <b>PN 5050/38D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of 1-3-5 leads of TO220 at 3.0mm pitch (5 leads). ESD safe handles.                 |
| <b>PN 5050/54D</b> |  | 158         | 3                  | 1.30                    | 16 | forming of 1-3-5 leads of TO220 at 2.54mm pitch (5 leads). ESD safe handles.                |





|                    |  |     |   |      |    |  |
|--------------------|--|-----|---|------|----|--|
| <b>PN 5050/36D</b> |  | 158 | 3 | 1.30 | 16 | forming of 2-4 dei TO220 leads of TO220 at 3.0mm pitch (5 leads). ESD safe handles.              |
| <b>PN 5050/53D</b> |  | 158 | 3 | 1.30 | 16 | forming of 2-4 dei TO220 leads of TO220 at 2.54mm pitch (5 leads). ESD safe handles.             |
| <b>PN 5050/6D</b>  |  | 155 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving longer of 2.54mm the central lead. ESD safe handles.            |
| <b>PN 5050/7D</b>  |  | 155 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving longer of 2.54mm the side leads. ESD safe handles.              |
| <b>PN 5050/17D</b> |  | 158 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving longer the central lead by 3.81mm. ESD safe handles.            |
| <b>PN 5050/21D</b> |  | 155 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving the 1-3-5 leads shorter of 2.54mm than 2-4 leads (5 leads). ESD |
| <b>PN 5050/37D</b> |  | 158 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving the 2-4 leads shorter of 2.54mm than 1-3-5 leads (5 leads). ESD |
| <b>PN 5050/46D</b> |  | 158 | 3 | 1.30 | 16 | forming of TO 220 (5 leads) at 90° leaving the 2-4 leads shorter of 3.81mm than 1-3-5 leads. ESD |
| <b>PN 5050/47D</b> |  | 158 | 3 | 1.30 | 16 | it forms TO 220 (7 leads) at 90°, leaves the 2-4-6 leads shorter of 2.54mm than 1-3-5 leads. ESD |
| <b>PN 5050/49D</b> |  | 158 | 3 | 1.30 | 16 | forming of the central lead of TO 92 at 2.54mm pitch. ESD safe handles.                          |
| <b>PN 5050/25D</b> |  | 158 | 3 | 1.30 | 16 | forming of the central lead of TO 92 at 1.27 mm pitch. ESD safe handles.                         |

### form & cut of small ICS

| Order code       | Tip | Lenght (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | notes   |
|------------------|-----|-------------|--------------------|-------------------------|----|---|
| <b>PNI 5000D</b> |     | 150         | 3                  | 0.80                    | 20 | cutting and forming pliers of small ICS. ESD safe handles.                        |
| <b>PNI 5015D</b> |     | 155         | 5                  | 0.64                    | 22 | clean cut at adjustable height from the surface of a leads row. ESD safe handles. |

### cut & press pliers

| Order code    | Tip | Lenght (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | notes                                   |
|---------------|-----|-------------|--------------------|-------------------------|----|---|
| <b>TS 30D</b> |     | 138         | 9                  | 1.02                    | 18 | cut and press pliers. ESD safe handles. |

### cut & bend pliers

| Order code         | Tip | Lenght (mm) | cutting force (kg) | copper wire<br>Ø mm awg |    | notes   |
|--------------------|-----|-------------|--------------------|-------------------------|----|---|
| <b>TP 30D</b>      |     | 138         | 3                  | 1.02                    | 18 | cut and bend pliers. ESD safe handles.  |
| <b>TP 5000/15D</b> |     | 147         | 3                  | 1.02                    | 18 | cut and bend of the component fixing it on the circuit board. ESD safe handles. |

### pliers for seeger manipulation

| Order code     | Tip | Lenght (mm) | notes   |  |  |
|----------------|-----|-------------|---|--|--|
| <b>P1</b>      |     | 155         | tool for the application of straight seegers      |  |  |
| <b>P2</b>      |     | 155         | tool for the application of straight seegers      |  |  |
| <b>PP1</b>     |     | 150         | tool for the application of seegers; 90° nosetool |  |  |
| <b>PP2</b>     |     | 150         | for the application of seegers; 90° nose          |  |  |
| <b>PN 5030</b> |     | 155         | tool for the manipulation of seegers              |  |  |

### pliers for contacts insertion

| Order code       | Tip | Lenght (mm) | hrc   | weight (gr) | notes  |
|------------------|-----|-------------|-------|-------------|--|
| <b>PPN 04 NB</b> |     | 170         | 46-48 | 115         | pliers for the insertion of contacts in multipolar connectors; dimensions 16-18-20 |
| <b>PPN 05 NB</b> |     | 170         | 46-48 | 115         | pliers for the insertion of contacts in multipolar connectors; dimensions 12-16    |
| <b>PPN 06 NB</b> |     | 170         | 46-48 | 115         | pliers for the insertion of contacts in multipolar connectors; dimensions 20-22-26 |





## pliers for pins separation

| Order code | Tip | length (mm) | cutting force (kg) | Notes               |
|------------|-----|-------------|--------------------|---------------------|
| PN 5050/5  |     | 152         | 3                  | pin separation tool |

## rounded nose pliers with cutting tip

| Order code | Tip | length (mm) | cutting force (kg) | copper wire<br>Ø mm awg | Notes                              |
|------------|-----|-------------|--------------------|-------------------------|------------------------------------|
| PN 5025 C  |     | 147         | 3                  | 1.02 18                 | round nose pliers with cutting tip |

## pneumatic tools

| Order code                | Tip | max cutting<br>force (kg) | copper wire<br>Ø mm awg | plastic wire<br>(mm) | Notes  |
|---------------------------|-----|---------------------------|-------------------------|----------------------|--|
| TPP TP 6000               |     | 50                        | 1.02 18                 | -                    | pneumatic cut and press tool                       |
| TPP TP 6000-15            |     | 70                        | 1.02 18                 | -                    | pneumatic cut and bend tool                        |
| TPP TR 6000               |     | 90                        | 1.60 14                 | -                    | pneumatic cutter; chamfered cut                    |
| TPP TR 6000 C             |     | 110                       | 1.80 13                 | -                    | strong pneumatic cutter; chamfered cut             |
| TPP TR 6000 A             |     | 90                        | 1.60 14                 | -                    | pneumatic cutter with safety clip; chamfered cut   |
| TPP TR 6000 R             |     | 90                        | 1.60 14                 | -                    | pneumatic cutter; flush cut                        |
| TPP TR 6000 PR            |     | 90                        | 1.30 16                 | -                    | pneumatic cutter; flush cut and pointed tip        |
| TPP TM 6000               |     | 190                       | - -                     | 7                    | pneumatic cutter; flush cut ideal for plastic wire |
| TPP TR 6000 V             |     | 80                        | 1.30 16                 | -                    | pneumatic cutter; 60° bent nose, front flush cut   |
| TPP TR 6000<br>(10-13-15) |     | 90                        | 1.60 14                 | -                    | pneumatic cutter; flush cut at different height    |
| TPP TS 6000               |     | 80                        | 1.30 16                 | -                    | pneumatic cut and press                            |
| Order code                | Tip | max cutting<br>force (kg) | copper wire<br>Ø mm awg | iron wire<br>(mm)    | Notes  |
| TPP TM 6000 R             |     | 190                       | 2.60 10                 | 2                    | pneumatic cutter; flush cut                        |
| TPP TM 6000 S             |     | 190                       | 2.60 10                 | 2                    | pneumatic cutter; chamfered cut                    |

## pin strip cut pliers

| Order code | Notes   |
|------------|---|
| STR 50     | Special tool for Pin Strip cut. Suitable for straight and angled Pin Strip. |

## pins aligners

| Order code | Notes  |
|------------|--|
| SAL 01 SP  | pins aligner with press for integrated MOS and CMOS from 4 to 64         |
| SAL 01 NN  | pins aligner without press for integrated MOS and CMOS from 4 to 64 pins |

## torque spanners

| Order code | Notes   |
|------------|---|
| CHD 08 01  | torque spanner for M8 nuts with torque setting of 1 Nm ±10% |

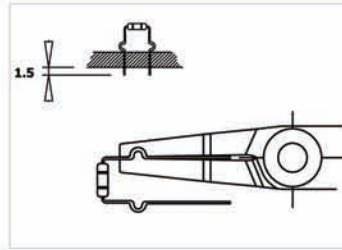


# Special tools "C" shape forming pliers

## PNR 30 D



**PNR 30 D:** Special forming tool that C shapes the component wire. Bent at 45°. Steel thickness 3mm. Tool length 145mm. ESD-safe handles.

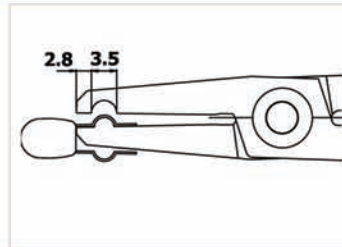


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNR 30 D   | 145         | 3                  | 1.02               | 18                |

## PNG 5000 D



**PNG 5000 D:** Special tool for the forming of components in a C shape. Its special radius enables components to be formed with no stress. Steel thickness 5mm. Tool length 150mm. ESD-safe handles

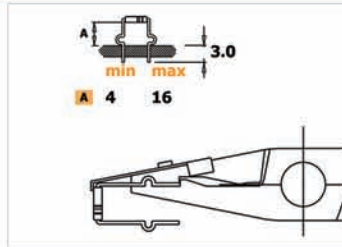


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNG 5000 D | 150         | 3                  | 1.02               | 18                |

## PNR 5000 D



**PNR 5000 D:** A special tool that cuts and forms the component wire in one operation. Length setting is carried out by means of a sliding stop (A min 4 max 16). Steel thickness 5.0mm. Tool length 150mm. ESD-safe handles

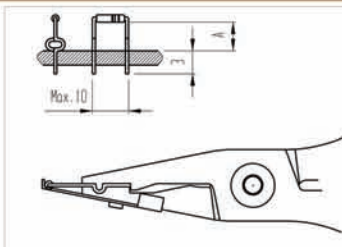


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNR 5000 D | 150         | 3                  | 1.02               | 18                |

## PNR 5010 D



**PNR 5010 D:** Forming pliers that cuts and forms in a double opposite C shape the component wire in one operation. Length setting is carried out by means of a sliding stop (A min 4 max 16). Steel thickness 10mm. Tool length 150mm. ESD-safe handles

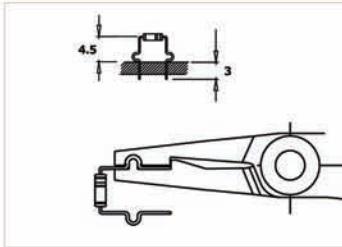


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNR 5010 D | 150         | 3                  | 1.02               | 18                |

## PTR 30 C D



**PTR 30 CD:** Pliers which forms the component wire in a C shape and cuts off the residual part. Residual component lead's length 3mm. Steel thickness 3.0mm. Tool length 150mm. ESD-safe handles

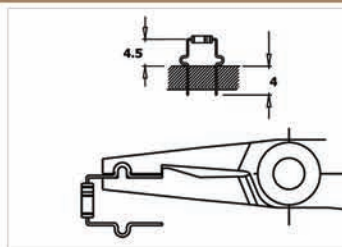


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PTR 30 CD  | 150         | 3                  | 1.02               | 18                |

## PTR 30 C/5D



**PTR 30 C/5D:** Pliers which forms the component wire in a C shape and cuts off the residual part. Residual component lead's length 4mm. Steel thickness 3.0mm. Tool length 150mm. ESD-safe handles



| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PTR 30 C/5D | 150         | 3                  | 1.02               | 18                |

# Special tools "U" shape forming pliers



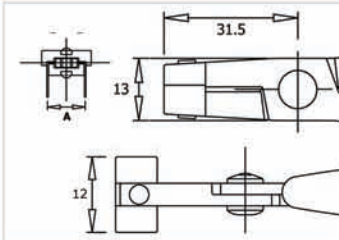
special tools

## PPR 5000D



**PPR 5000D:** It forms the component wire in a U shape  
A=7.62

ESD-safe handles.



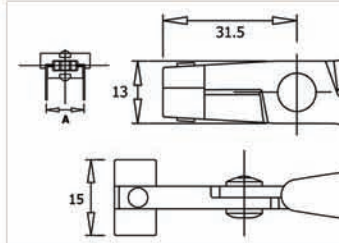
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5000D  | 150         | 3                  | 0.6-0.8            | 22-20             |

## PPR 5001D



**PPR 5001D:** It forms the component wire in a U shape  
A=10.16

ESD-safe handles.



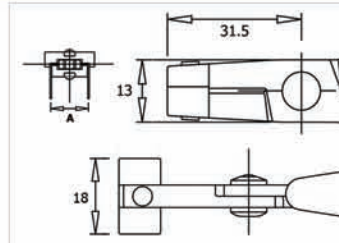
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5001D  | 150         | 3                  | 0.6-0.8            | 22-20             |

## PPR 5002D



**PPR 5002D:** It forms the component wire in a U shape  
A=12.70

ESD-safe handles.



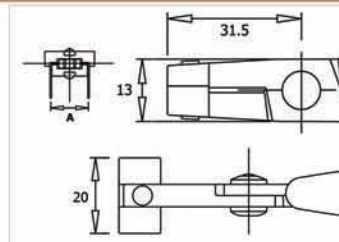
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5002D  | 150         | 3                  | 0.6-0.8            | 22-20             |

## PPR 5003D



**PPR 5003D:** It forms the component wire in a U shape  
A=15.24

ESD-safe handles.



| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5003D  | 150         | 3                  | 0.6-0.8            | 22-20             |

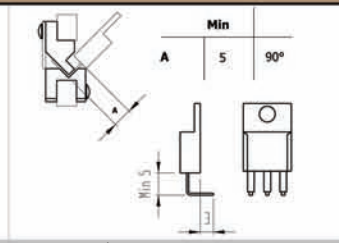
# Special tools "90°" forming pliers

## PN 5040/90D



**PN 5040/90D:** Special pliers which cuts and forms the component wire at 90° in one step. It is possible to adjust the length by means of a sliding stop. Steel thickness 5.0mm. Tool length 158mm.

ESD-safe handles.

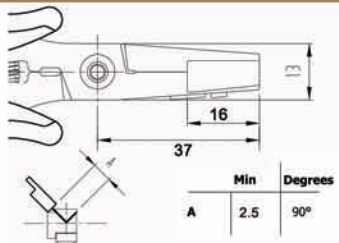


| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5040/90D | 158         | 3                  | 1.30               | 16                |

## PN 5040/7D



**PN 5040/7D:** Special pliers which forms the component wire at 90°. With adjustable stop to adjust the forming distance (A). Max forming width 16mm to allow TO220 and TO247 forming components. This item combines both PN5040 and PN5040/5 articles. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.



| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5040/7D | 158         | 3                  | 1.30               | 16                |

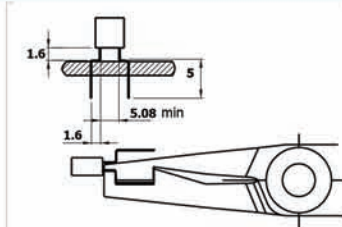


# Special tools "L" shape forming pliers

## PTR 30 LD



**PTR 30 LD:** Tool that forms the component wire in a L shape and cuts off the residual part. Steel thickness 3.0mm. Tool length 150 mm. ESD-safe handles



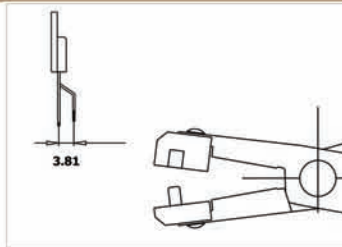
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PTR 30 LD  | 150         | 3                  | 1.02               | 18                |

# Special tools "TO" forming pliers

## PN 5050D



**PN 5050D:** Special tool for the forming of central lead of TO 220 with 3.81mm pitch. Steel thickness 5.0mm. Tool length 155mm. ESD-safe handles.

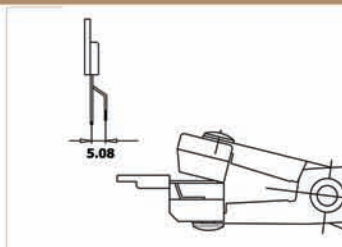


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050D   | 155         | 3                  | 1.30               | 16                |

## PN 5050/3D



**PN 5050/3D:** Special tool for the forming of central lead of TO 247 and TO 220, 5.08mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

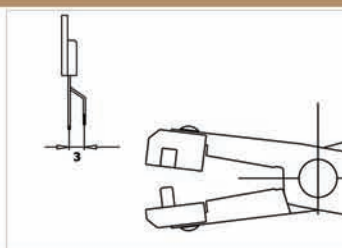


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/3D | 158         | 3                  | 1.30               | 16                |

## PN 5050/14D



**PN 5050/14D:** Special tool for the forming of central lead of TO 220, 3.0 mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

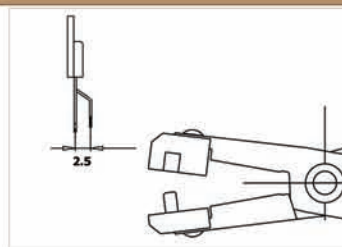


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/14D | 158         | 3                  | 1.30               | 16                |

## PN 5050/15D



**PN 5050/15D:** Special tool for the forming of central lead of TO 220, 2.54mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.



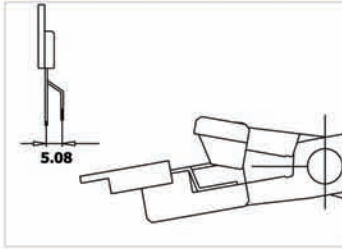
| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/15D | 158         | 3                  | 1.30               | 16                |



**PN 5050/04D**



**PN 5050/04D:** Special tool for the forming of side leads of TO 247 and of TO220, 5.08mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

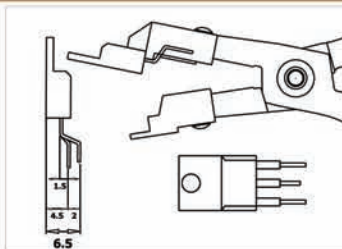


| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/04D | 158         | 3                  | 1.30               | 16                |

**PN 5050/60D**



**PN 5050/60D:** Special pliers designed to form the TO-220 and the TO-247 leads. It forms the side leads at 1.5mm pitch and the centre lead at 3.5mm. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

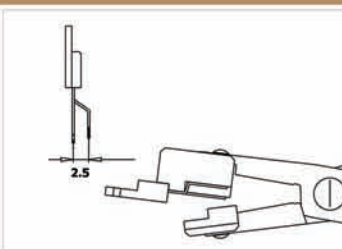


| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/60D | 158         | 3                  | 1.30               | 16                |

**PN 5050/10D**



**PN 5050/10D:** Special pliers designed to form the two TO220 and TO 247 side leads at 2.54mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

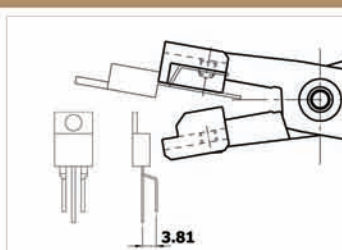


| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/10D | 158         | 3                  | 1.30               | 16                |

**PN 5050/16D**



**PN 5050/16D:** Special pliers designed to form the TO 247 and TO220 side leads at 3.81mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

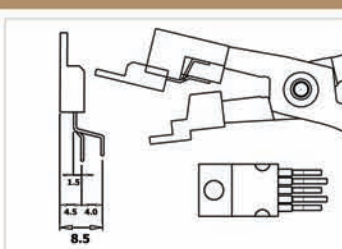


| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/16D | 158         | 3                  | 1.30               | 16                |

**PN 5050/19D**



**PN 5050/19D:** Special pliers designed to form the TO220 component leads (5 leads). It forms the 1-3-5 leads at 4mm pitch and the 2-4 leads at 1.5mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

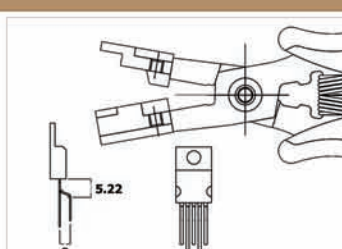


| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/19D | 158         | 3                  | 1.30               | 16                |

**PN 5050/38D**



**PN 5050/38D:** Special pliers designed to form the TO220 component leads (5 leads). It forms the 1-3-5 leads at 3mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.



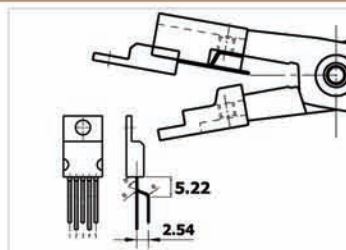
| Order code  | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/38D | 158         | 3                  | 1.30               | 16                |



### PN 5050/54D



**PN 5050/54D:** Special tool designed to form TO220 component (5 leads). It forms 1-3-5 leads at 2.54 mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

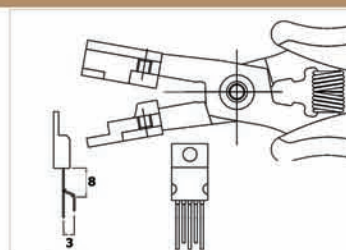


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/54D | 158         | 3                  | 1.30               | 16                |

### PN 5050/36D



**PN 5050/36D:** Special tool designed to form TO220 component (5 leads). It forms 2-4 leads at 3 mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

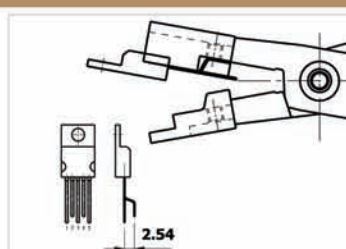


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/36D | 158         | 3                  | 1.30               | 16                |

### PN 5050/53D



**PN 5050/53D:** Special tool designed to form TO220 component (5 leads). It forms 2-4 leads at 2.54 mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

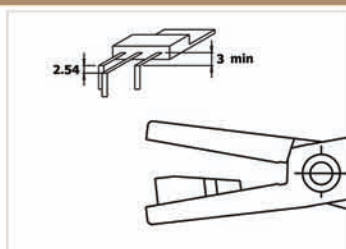


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/53D | 158         | 3                  | 1.30               | 16                |

### PN 5050/6D



**PN 5050/6D:** Special pliers that enables TO220 component leads to be bent at a 90°angle in a single operation, in such a way that the central lead will be 2.54mm longer than the side leads. It is possible to adjust the distance by a sliding foil (min. 3mm). Steel thickness 5.0mm. Tool length 155mm. ESD-safe handles.

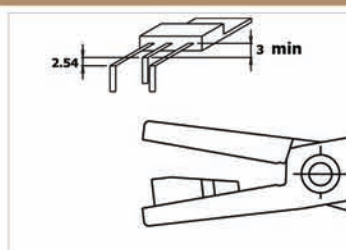


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/6D | 155         | 3                  | 1.30               | 16                |

### PN 5050/7D



**PN 5050/7D:** Special pliers that enables TO220 component leads to be bent at a 90°angle in a single operation, in such a way that the central lead will be 2.54mm shorter than the side leads. It is possible to adjust the distance by a sliding foil (min 3 mm). Steel thickness 5.0mm. Tool length 155mm. ESD-safe handles.

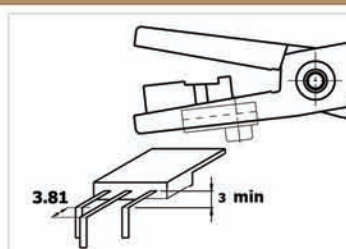


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/7D | 155         | 3                  | 1.30               | 16                |

### PN 5050/17D



**PN 5050/17D:** Special pliers that enables TO220 component leads to be bent at a 90°angle in a single operation, in such a way that the central lead will be 3.81mm longer than the side leads. It is possible to adjust the distance by a sliding foil (min. 3mm). Steel thickness 5.5mm. Tool length 158mm. ESD-safe handles.



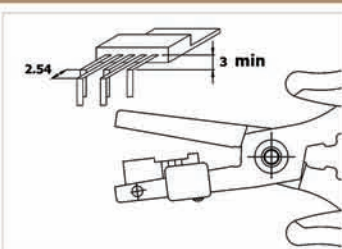
| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/17D | 158         | 3                  | 1.30               | 16                |



### PN 5050/21D



**PN 5050/21D:** Special pliers that enables TO220 component leads (5 leads) to be bent at a 90°angle in a single operation, in such a way that 1-3-5 leads will be 2.54mm shorter than 2-4 leads. It is possible to adjust the distance by a sliding foil (min. 3mm). Steel thickness 5.0mm. Tool length 155mm. ESD-safe handles.

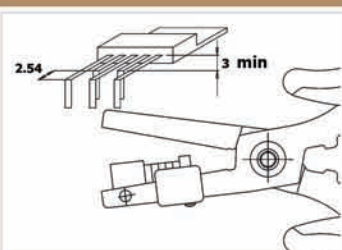


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/21D | 155         | 3                  | 1.30               | 16                |

### PN 5050/37D



**PN 5050/37D:** Special tool that enables TO220 component leads (5 leads) to be bent at a 90°angle in a single operation, in such a way that 2-4 leads will be 2.54 mm shorter than 1-3-5 leads. It is possible to adjust the distance by a sliding foil (min. 3mm). Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

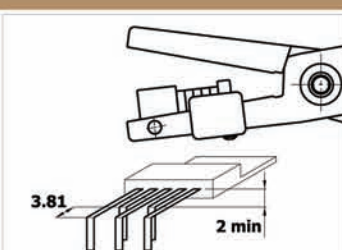


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/37D | 158         | 3                  | 1.30               | 16                |

### PN 5050/46D



**PN 5050/46:** Special tool that enables TO220 component leads (5 leads) to be bent at a 90°angle in a single operation, in such a way that 2-4 leads will be 3.81 mm shorter than 1-3-5 leads. It is possible to adjust the distance by a sliding foil (min. 3mm). Steel thickness 5.5mm. Tool length 158mm. ESD-safe handles.

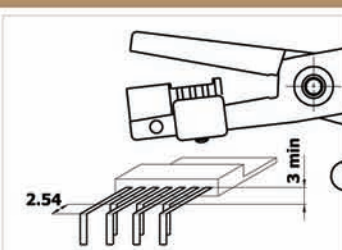


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/46D | 158         | 3                  | 1.30               | 16                |

### PN 5050/47D



**PN 5050/47D:** Special tool that enables TO220 component leads (7 leads) to be bent at a 90°angle in a single operation, in such a way that 2-4- 6 leads will be 2.54 mm shorter than 1-3-5-7. It is possible to adjust the distance by a sliding foil (min. 3mm). Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

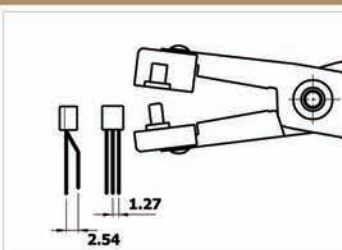


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/47D | 158         | 3                  | 1.30               | 16                |

### PN 5050/49D



**PN 5050/49D:** Special pliers designed to form the central lead of TO 92 with 2.54mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.

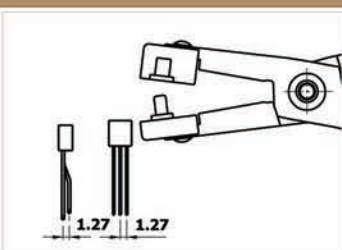


| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/49D | 158         | 3                  | 1.30               | 16                |

### PN 5050/25D



**PN 5050/25D:** Special pliers designed to form the central lead of TO 92 with 1.27mm pitch. Steel thickness 5.0mm. Tool length 158mm. ESD-safe handles.



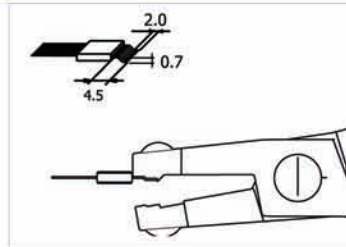
| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/25D | 158         | 3                  | 1.30               | 16                |

## Special tools *cut of small ICs pliers*

### PNI 5000D



**PNI 5000D:** Special pliers which forms and cuts the IC pins in one operation. Steel thickness 5mm. Tool length 150mm. ESD-safe handles.

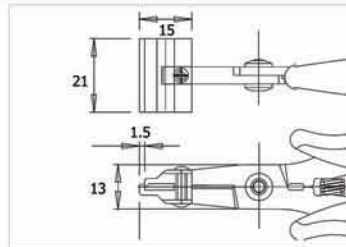


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNI 5000D  | 150         | 3                  | 0.80               | 20                |

### PNI 5015D



**PNI 5015D:** Special tool for a clean and flush cut at adjustable height from the surface of a pins line. It is possible to adjust the distance by a sliding foil (min. 1,5-max.10 mm). Steel thickness 5mm. Tool length 155mm. ESD-safe handles.



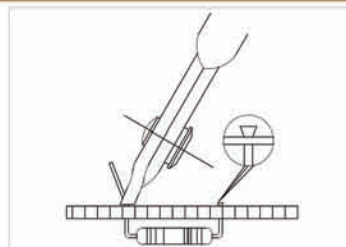
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNI 5015D  | 155         | 5                  | 0.64               | 22                |

## Special tools *cut & press pliers*

### TS 30D



**TS 30D:** A special tool that cuts and presses the component wire against the PCB in one operation. Steel thickness 3mm. Tool length 138mm. ESD-safe handles.



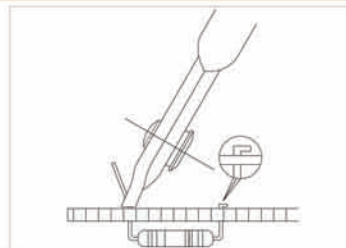
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| TS 30D     | 138         | 9                  | 1.02               | 18                |

## Special tools *cut & bend pliers*

### TP 30D



**TP 30D:** A special tool that cuts and bends the component wire against the PCB in one operation. Steel thickness 3mm. Tool length 138mm. ESD-safe handles.

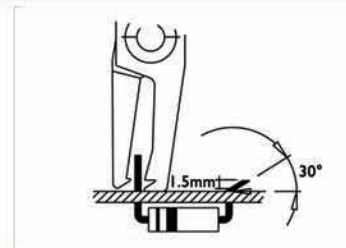


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| TP 30D     | 138         | 3                  | 1.02               | 18                |

### TP 5000/15D



**TP 5000/15D:** Special tool for end cutting, ideal when needed to access in dense areas of PCBs. It cuts and bends the component lead in one operation, fixing it to the circuit board. Steel thickness 5mm. Tool length 147mm. ESD-safe handles.



| Order code  | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| TP 5000/15D | 147         | 3                  | 1.02               | 18                |

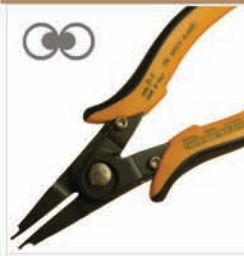


# Special tools *pliers for seeger manipulation*

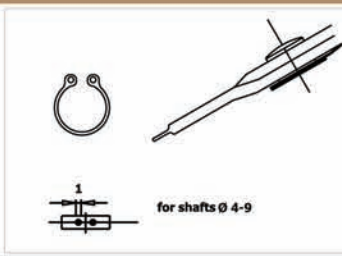


special tools

## P1

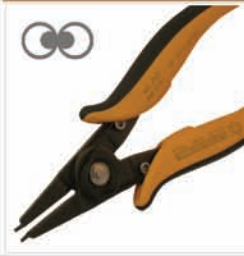


**P1:** Seeger ring pliers to fit and remove circlips and seeger rings from shafts. For shaft  $\varnothing$  4-9. Steel thickness 2.5mm. Tool length 155mm. ESD-safe handles version available

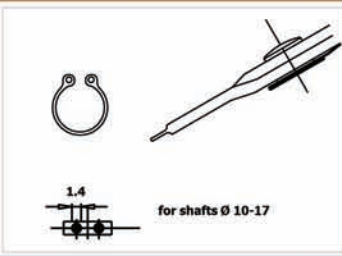


| Order code | ESD Order code | Lenght (mm) | For shafts ( $\varnothing$ mm) | Tip diameter ( $\varnothing$ mm) |
|------------|----------------|-------------|--------------------------------|----------------------------------|
| P1         | P1 D           | 155         | 4-9                            | 1.0                              |

## P2



**P2:** Seeger ring pliers to fit and remove circlips and seeger rings from shafts. For shaft  $\varnothing$  10-17. Steel thickness 2.5mm. Tool length 155mm. ESD-safe handles version available

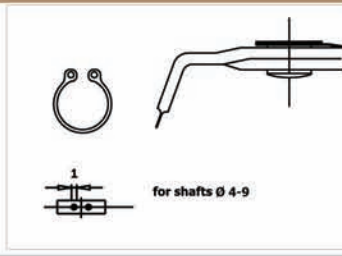


| Order code | ESD Order code | Lenght (mm) | For shafts ( $\varnothing$ mm) | Tip diameter ( $\varnothing$ mm) |
|------------|----------------|-------------|--------------------------------|----------------------------------|
| P2         | P2 D           | 155         | 10-17                          | 1.4                              |

## PP1



**PP1:** Seeger ring pliers to fit and remove circlips and seeger rings from shafts. 90° angled nose. For shaft  $\varnothing$  4-9. Steel thickness 2.5mm. Tool length 150mm. ESD-safe handles version available

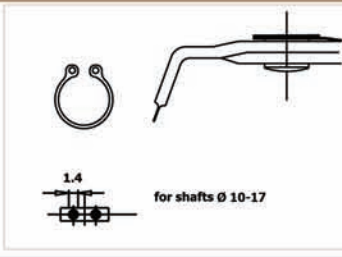


| Order code | ESD Order code | Lenght (mm) | For shafts ( $\varnothing$ mm) | Tip diameter ( $\varnothing$ mm) |
|------------|----------------|-------------|--------------------------------|----------------------------------|
| PP1        | PP1 D          | 150         | 4-9                            | 1.0                              |

## PP2

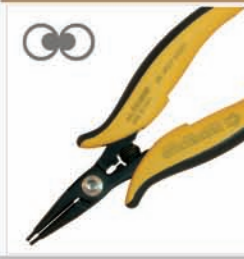


**PP2:** Seeger ring pliers to fit and remove circlips and seeger rings from shafts. 90° angled nose. For shaft  $\varnothing$  10-17. Steel thickness 2.5mm. Tool length 150mm. ESD-safe handles version available

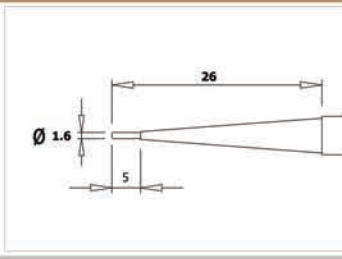


| Order code | ESD Order code | Lenght (mm) | For shafts ( $\varnothing$ mm) | Tip diameter ( $\varnothing$ mm) |
|------------|----------------|-------------|--------------------------------|----------------------------------|
| PP2        | PP2 D          | 150         | 10-17                          | 1.4                              |

## PN 5030



**PN 5030:** Pliers for the removal or insertion of internal seeger rings. For shafts  $\varnothing$  14-30mm. Steel thickness 5mm. Tool length 155mm. ESD-safe handles version available



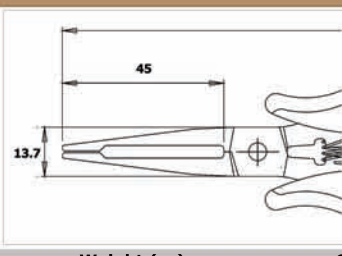
| Order code | ESD Order code | Lenght (mm) | For shafts ( $\varnothing$ mm) | Tip diameter ( $\varnothing$ mm) |
|------------|----------------|-------------|--------------------------------|----------------------------------|
| PN 5030    | PN 5030 D      | 155         | 14-30                          | 1.6                              |

# Special tools *pliers for contact insertion*

## PPN 04 NB



**PPN 04 NB:** Special tool for the insertion of contacts into multi-polar connectors. The ergonomic grip is curved on the bottom to make easier the insertion push. Contact dimension: 16-18-20. Tool length 170mm. ESD-safe handles version available

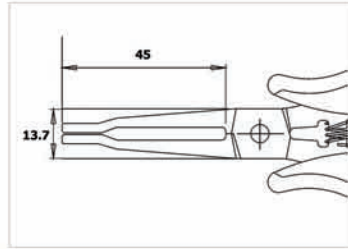


| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Contacts dimensions ( $\varnothing$ mm) |
|------------|----------------|-------------|-------------|---|
| PPN 04 NB  | PPN 04 NB D    | 170         | 115         | 16-18-20                                |

**PPN 05 NB**



**PPN 05 NB:** Special tool for the insertion of contacts into multi-polar connectors. The ergonomic grip is curved on the bottom to make easier the insertion push.  
Contact dimension: 12-16  
Tool length 170mm  
ESD-safe handles version available

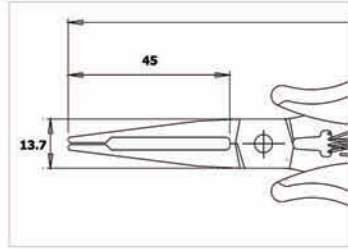


| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Contacts dimensions (Ø mm) |
|------------|----------------|-------------|-------------|----------------------------|
| PPN 05 NB  | PPN 05 NB D    | 170         | 115         | 12-16                      |

**PPN 06 NB**



**PPN 06 NB:** Special tool for the insertion of contacts into multi-polar connectors. The ergonomic grip is curved on the bottom to make easier the insertion push.  
Contact dimension: 20-22-26  
Tool length 170mm  
ESD-safe handles version available



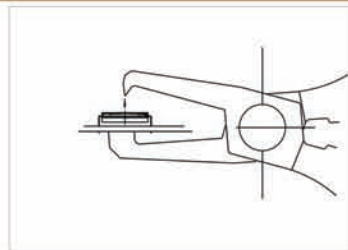
| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Contacts dimensions (Ø mm) |
|------------|----------------|-------------|-------------|----------------------------|
| PPN 06 NB  | PPN 06 NB D    | 170         | 115         | 20-22-26                   |

**Special tools** *pliers for pins separation*

**PN 5050/5**



**PN 5050/5:** Special tool for the separation of pins (Jumper) in DIP (Dual In Line package).  
Steel thickness 5mm. Tool length 152mm  
ESD-safe handles version available



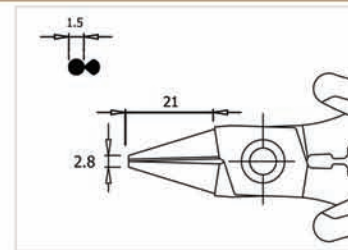
| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Cutting force (kg) |
|------------|----------------|-------------|-------------|--------------------|
| PN 5050/5  | PN 5050/5 D    | 152         | 100         | 3                  |

**Special tools** *rounded nose pliers with cutting tip*

**PN 5025 C**



**PN 5025 C:** Pliers with rounded nose and cutting tip. Used for the electronics but also ideal for making rosaries (with the same pliers it is possible to make loops and bends and to cut wire). Great for chain assembly.  
Induction treatment on tips. Steel thickness 5mm.  
ESD-safe handles version available



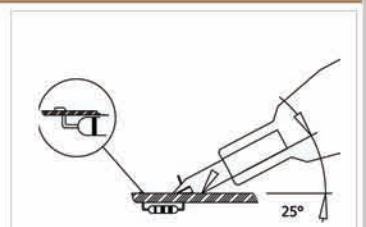
| Order code | ESD Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|--------------------|--------------------|-------------------|
| PN 5025 C  | PN 5025 C D    | 147         | 3                  | 1.02               | 18                |

**Special tools** *pneumatic tools*

**TPP TP 6000**



**TPP TP 6000:** Pneumatic cutting and bending tool which blocks the component to the PCB.  
Different blades available on request.



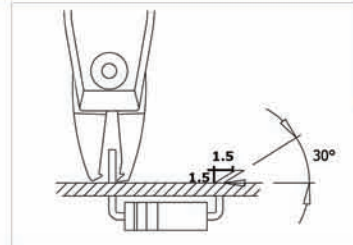
| Order code  | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TP 6000 | 50                 | 1.02               | 18                | -                 |



### TPP TP 6000-15



**TPP TP 6000-15:** Pneumatic cutting and bending tool which blocks the component to the PCB. Similar to TPP-TP-6000 but with a different head shape, ideal for working in difficult to reach areas. Different blades available on request

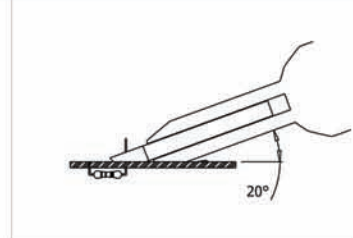


| Order code     | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|----------------|--------------------|--------------------|-------------------|-------------------|
| TPP TP 6000-15 | 70                 | 1.02               | 18                | -                 |

### TPP TR 6000



**TPP TR 6000:** Pneumatic chamfered cutting tool. Different blades available on request.

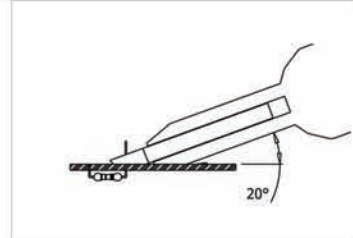


| Order code  | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 | 90                 | 1.60               | 14                | -                 |

### TPP TR 6000 C



**TPP TR 6000 C:** Pneumatic chamfered cutting tool. Short and strong blades. Different blades available on request.



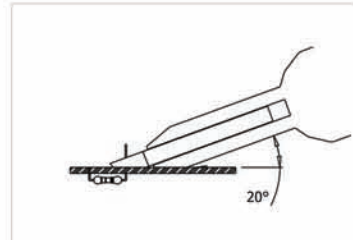
| Order code    | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 C | 110                | 1.80               | 13                | -                 |

### TPP TR 6000 A



**TPP TR 6000 A:** Pneumatic chamfered cutting tool. Safety clip included. Different blades available on request.

ESD-safe handles version available

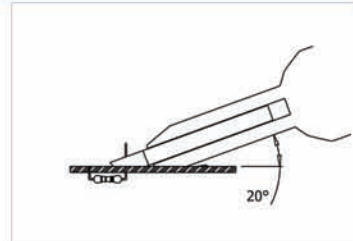


| Order code    | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 A | 90                 | 1.60               | 14                | -                 |

### TPP TR 6000 R



**TPP TR 6000 R:** Pneumatic flush cutting tool. Different blades available on request.

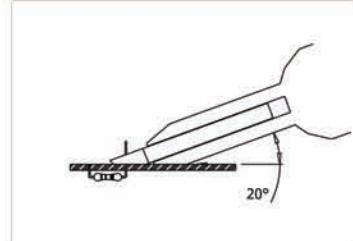


| Order code    | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 R | 90                 | 1.60               | 14                | -                 |

### TPP TR 6000 PR



**TPP TR 6000 PR:** Pneumatic flush cutting tool with pointed tips. Different blades available on request.



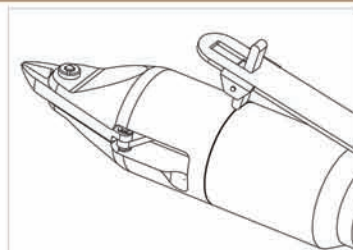
| Order code     | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|----------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 PR | 90                 | 1.30               | 16                | -                 |



### TPP TM 6000



**TPP TM 6000:** pneumatic cutter; flush cut ideal for plastic wire  
Different blades available on request.

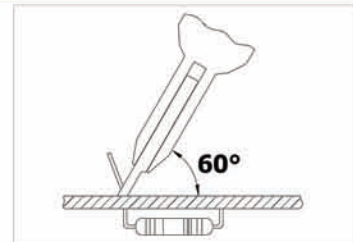


| Order code  | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TM 6000 | 190                | -                  | -                 | 7                 |

### TPP TR 6000 V



**TPP TR 6000 V:** Pneumatic tool. Flush front cut 60° angled. It allows to work in difficult to reach areas  
Different blades available on request.



| Order code    | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 V | 80                 | 1.30               | 16                | -                 |

### TPP TR 6000 (10-13-15)



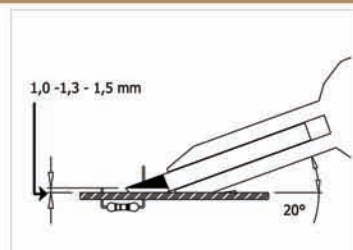
**TPP TR 6000 (10-13-15):** Pneumatic flush cutting tool at different height from the surface.

available blades:

**TPP TR 6000 10:** 1.0mm height from the surface.

**TPP TR 6000 13:** 1.3mm height from the surface.

**TPP TR 6000 15:** 1.5mm height from the surface.

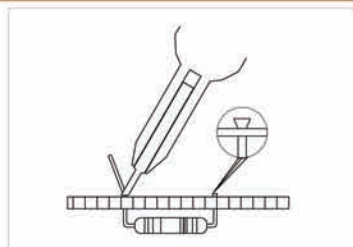


| Order code             | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|------------------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 (10-13-15) | 90                 | 1.60               | 14                | -                 |

### TPP TS 6000



**TPP TS 6000:** Cut and press pneumatic tool which blocks the component on the circuit board.  
Different blades available on request.

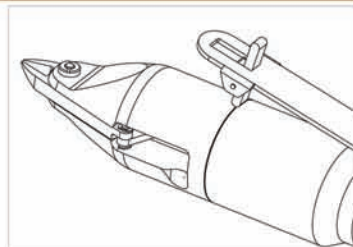


| Order code  | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TS 6000 | 80                 | 1.30               | 16                | -                 |

### TPP TM 6000 R



**TPP TM 6000 R:** Pneumatic strong flush cutting tool with safety lever.  
Different blades available on request

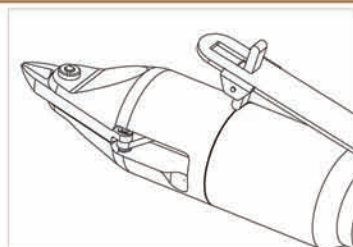


| Order code    | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Iron wire (mm) |
|---------------|--------------------|--------------------|-------------------|----------------|
| TPP TM 6000 R | 190                | 2.60               | 10                | 2              |

### TPP TM 6000 S



**TPP TM 6000 S:** Pneumatic strong chamfered cutting tool with safety lever.  
Different blades available on request.



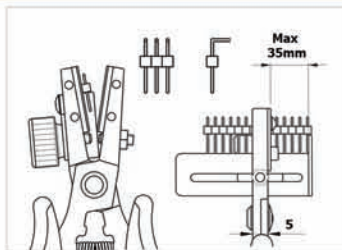
| Order code    | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Iron wire (mm) |
|---------------|--------------------|--------------------|-------------------|----------------|
| TPP TM 6000 S | 190                | 2.60               | 10                | 2              |

# Special tools *pin strip cut pliers*

## STR 50



**STR 50:** Special tool designed to cut both straight and angled PIN STRIP. The adjustable blade allows to set different strip pitch (min. 3 mm - max. 35 mm). Cutting blade for angled pin strip included. It is possible to customize the adjustable blade's length. Steel thickness 5mm. ESD-safe handles version available



special tools

| Order code | ESD Order code | Length (mm) | Cutting force (kg) | Weight (gr) | Pitch adjustment (mm) |
|------------|----------------|-------------|--------------------|-------------|-----------------------|
| STR 50     | STR 50 D       | 150         | 6                  | 100         | min 3 - max 35        |

## STR 50 K



**STR 50 K:** Kit for STR 50. The STR50 if requested can be supplied together with a special kit useful for the general replacement of all parts subject at wear.

**Notes:**

**Inside the kit:** Adjustable blade; Fixed blade; Knob; Cutting blade; Fixing screw; Screwdriver; Plastic tool for blade adjustment;



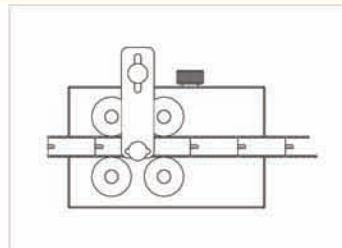
# Special tools *pins aligners*

## SAL 01 SP



**SAL 01 SP:** Pins aligner with press for integrated MOS and CMOS from 4 to 64 pins

pins width (0.3" a 0.6" ) - ( 7,6 - 15,2 mm)

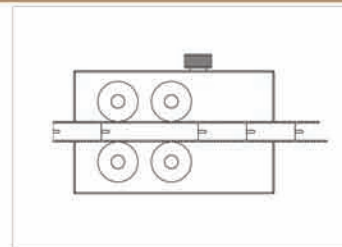


## SAL 01 NN



**SAL 01 NN:** Pins aligner without press for integrated MOS and CMOS from 4 to 64 pins

pins width (0.3" a 0.6" ) - ( 7,6 - 15,2 mm)



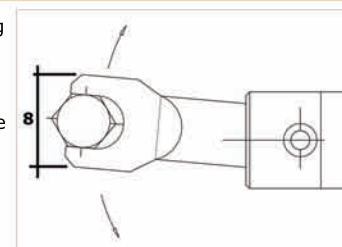
# Special tools *torque spanner*

## CHD 08 01



**CHD 08 01:** Torque spanner for hexagonal nuts with torque setting of 1 Nm ±10%.

Different tightening torques to those shown in the catalogue can be supplied.





shears

# Shears shears

| Order code | Tip | (Ø mm) | (awg) | Length (mm) | Esd code   | Notes  |
|------------|-----|--------|-------|-------------|------------|--------|
| CS 30      |     | 1.30   | 16    | 144         | CS 30 D    | shears |
| CS 30 L    |     | 1.30   | 16    | 152         | CS 30 L D  | shears |
| CSO 30     |     | 1.63   | 14    | 148         | CSO 30 D   | shears |
| CSP 30/5   |     | 1.63   | 14    | 165         | CSP 30/5 D | shears |

## wire strippers

| Order code | Tip | (Ø mm)       | (awg)       | Length (mm) | Esd code | Notes                               |
|------------|-----|--------------|-------------|-------------|----------|-------------------------------------|
| SF 30      |     | 0.20÷0.64    | 32-22       | 141         | SF 30 D  | adjustable wire stripper fixed wire |
| SFF 30     |     | 0.32÷0.51    | 28-24       | 141         | SFF 30 D | stripper                            |
| PST 0.5    |     | 0.5          | 24          | 125         | -        | pulling action wire stripper        |
| PST 0.6    |     | 0.6          | 22          | 125         | -        | pulling action wire stripper        |
| PST 0.8    |     | 0.8          | 20          | 125         | -        | pulling action wire stripper        |
| PST 1.0    |     | 1.0          | 18          | 125         | -        | pulling action wire stripper        |
| SF 40/1    |     | 0.25÷1.0     | 30-18       | 50X55       | -        | flat wire stripper                  |
| SF 40/2    |     | 1.3÷1.8      | 16-13       | 50X55       | -        | flat wire stripper                  |
| PCC1       |     | -            | -           | 115         | -        | wire stripper for co-axial cables   |
| PS 4÷10    |     | 4÷10/0.8÷2.6 | 6÷000/20÷10 | 115         | -        | wire stripper                       |
| PRF 0      |     | 0.8÷2.6      | 20÷10       | 115         | -        | wire scraper pliers                 |

## multi-use shears

| Order code | Tip | (Ø mm)     | (awg) | Length (mm) | Esd code   | Notes                            |
|------------|-----|------------|-------|-------------|------------|----------------------------------|
| CS 30 X    |     | 1.63       | 14    | 150         | CS 30 X D  | shears and pliers                |
| CS 30 XZ   |     | 1.63       | 14    | 150         | CS 30 XZ D | shears for soldering iron tips   |
| CSF 30     |     | s0.4÷c1.3* | 26-16 | 144         | CSF 30 D   | shears and wire stripper         |
| CSF 30 S   |     | 0.4÷1.0    | 26-18 | 144         | CSF 30 S D | shears /adjustable wire stripper |
| CSP 30/1   |     | 0.25÷0.81  | 30-20 | 165         | CSP 30/1 D | shears, wire stripper and pliers |
| CSP 30/2   |     | 0.81÷2.59  | 20-10 | 165         | CSP 30/2 D | shears, wire stripper and pliers |
| CSP 30/3   |     | 10         | 000   | 165         | CSP 30/3 D | cable cutter pliers              |
| CSP 30/7   |     | 0.4÷1.3    | 26-16 | 165         | CSP 30/7 D | shears, wire stripper and pliers |
| CSP 30/9   |     | 0.64       | 22    | 165         | CSP 30/9 D | shears, wire stripper and pliers |

## shears for rubber seals \*w :wire diameter for wire stripper function; s\* wire diameter for shears function

| Order code | Tip | (Ø mm) | (awg) | Length (mm) | Esd code   | Notes                             |
|------------|-----|--------|-------|-------------|------------|-----------------------------------|
| CSP 30/8   |     | -      | -     | 178         | CSP 30/8 D | straight /45° rubber seals cutter |
| CSP 30 G   |     | -      | -     | 155         | CSP 30 G D | rubber seals cutter               |


|                  |   |   |   |     |                    |                     |
|------------------|---|---|---|-----|--------------------|---------------------|
| <b>CSP 30 GL</b> |   | - | - | 165 | <b>CSP 30 GL D</b> | rubber seals cutter |
| <b>CSP 30 GR</b> |  | - | - | 155 | <b>CSP 30 GR D</b> | rubber seals cutter |



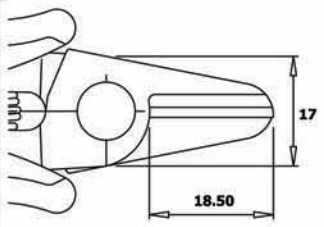
shears


## Shears *shears*

### CS 30




**CS 30:** Easy to handle shears, designed for use in electronics but also used for the most desperate tasks. ESD-safe handles version available.



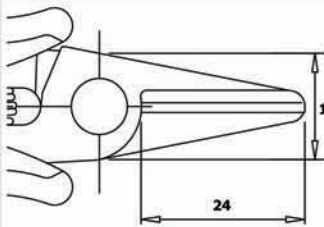



| Order code   | ESD Order code | Ø mm        | awg       | Weight (gr) | Lenght (mm) |
|--------------|----------------|-------------|-----------|-------------|-------------|
| <b>CS 30</b> | <b>CS 30 D</b> | <b>1.30</b> | <b>16</b> | <b>80</b>   | <b>144</b>  |

### CS 30 L



**CS 30 L:** Easy to handle shears, designed for use in electronics but also used for the most desperate tasks. Similar to CS 30 but longer. ESD-safe handles version available.



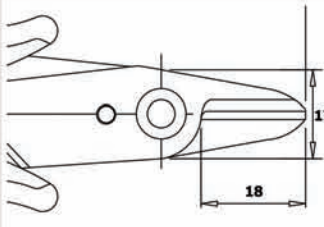


| Order code     | ESD Order code   | Ø mm        | awg       | Weight (gr) | Lenght (mm) |
|----------------|------------------|-------------|-----------|-------------|-------------|
| <b>CS 30 L</b> | <b>CS 30 L D</b> | <b>1.30</b> | <b>16</b> | <b>82</b>   | <b>152</b>  |

### CSO 30




**CSO 30:** Easy to handle shears, designed for use in jewellery. ESD-safe handles version available.



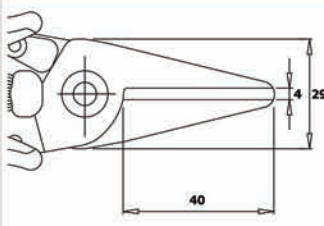



| Order code    | ESD Order code  | Ø mm        | awg       | Weight (gr) | Lenght (mm) |
|---------------|-----------------|-------------|-----------|-------------|-------------|
| <b>CSO 30</b> | <b>CSO 30 D</b> | <b>1.63</b> | <b>14</b> | <b>80</b>   | <b>148</b>  |

### CSP 30/5



**CSP 30/5:** Strong shears, can be used for different tasks in electronics or hobby fields. ESD-safe handles version available.






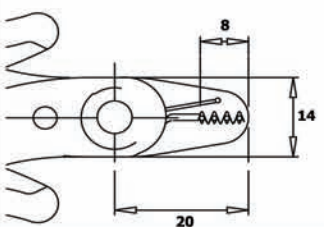
| Order code      | ESD Order code    | Ø mm        | awg       | Weight (gr) | Lenght (mm) |
|-----------------|-------------------|-------------|-----------|-------------|-------------|
| <b>CSP 30/5</b> | <b>CSP 30/5 D</b> | <b>1.63</b> | <b>14</b> | <b>102</b>  | <b>165</b>  |


## Shears *wire strippers*

### SF 30



**SF 30:** Pliers for Ø mm 0.20÷0.64 fitted with elastic part that enables the stripping of the insulating sleeve of cables without damaging the conductor wires. ESD-safe handles version available.





| Order code   | ESD Order code | Ø mm             | awg          | Weight (gr) | Lenght (mm) |
|--------------|----------------|------------------|--------------|-------------|-------------|
| <b>SF 30</b> | <b>SF 30 D</b> | <b>0.20÷0.64</b> | <b>32-22</b> | <b>78</b>   | <b>141</b>  |

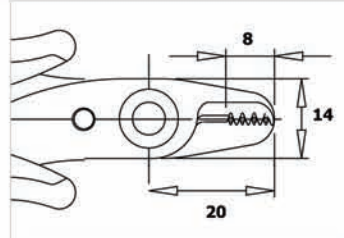


**SFF 30**



**SFF 30:** Fixed wire stripper for  $\varnothing$  mm 0.32÷0.51. Different cutting capacities to those shown are available.

ESD-safe handles version available.



| Order code | ESD Order code | $\varnothing$ mm | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|------------------|-------|-------------|-------------|
| SFF 30     | SFF 30 D       | 0.32÷0.51        | 28-24 | 76          | 141         |

**PST 0.5-0.6-0.8-1.0**



**PST 0.5-0.6-0.8-1.0:** Pulling action strippers. Light weight, inexpensive and rapid to use, PST is available in 4 versions:

| order code | mm  | awg |
|------------|-----|-----|
| PST 0.5    | 0.5 | 24  |
| PST 0.6    | 0.6 | 22  |
| PST 0.8    | 0.8 | 20  |
| PST 1.0    | 1.0 | 18  |

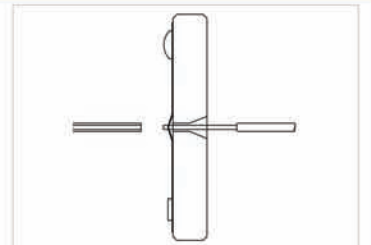


| Order code          | ESD Order code | $\varnothing$ mm | awg         | Weight (gr) | Lenght (mm) |
|---------------------|----------------|------------------|-------------|-------------|-------------|
| PST 0.5-0.6-0.8-1.0 | -              | 0.5-0.6-0.8-1.0  | 24-22-20-18 | 33          | 125         |

**SF 40/1**



**SF 40/1:** SF-40-1 is a reliable tool easy to handle and very fast to use. Due to its singular flat shape and its lightness it can be easily carried in one's pocket. Wire stripper for diameters from 0.25mm to 1mm. (30-18 AWG). For use in electronics.

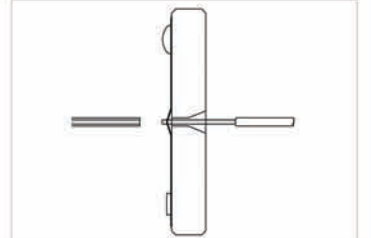


| Order code | ESD Order code | $\varnothing$ mm | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|------------------|-------|-------------|-------------|
| SF 40/1    | -              | 0.25÷1.0         | 30-18 | 22          | 50x55       |

**SF 40/2**



**SF 40/2:** SF-40-2 is a reliable tool easy to handle and very fast to use. Due to its singular flat shape and its lightness it can be easily carried in one's pocket. Wire stripper for diameters from 1.3mm to 1.8mm. (16-13 AWG). For electro-technical work.

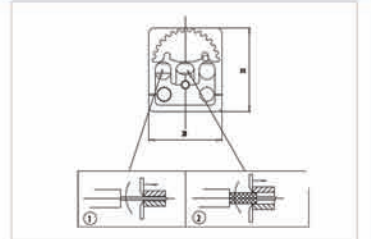


| Order code | ESD Order code | $\varnothing$ mm | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|------------------|-------|-------------|-------------|
| SF 40/2    | -              | 1.30÷1.8         | 16-13 | 22          | 50x55       |

**PCC1**



**PCC1:** Wire stripper for co-axial cables with double function as showned in picture:  
 1) insert the cable in the correct hole at the side, press and turn the tool 90° at the same time and pull.  
 2) insert the cable in the central hole, press and turn the tool 90° at the same time and pull.

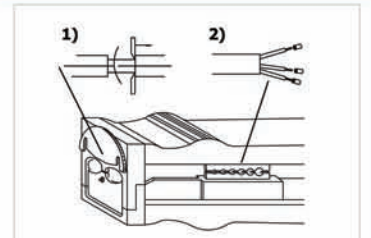


| Order code | ESD Order code | $\varnothing$ mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------------------|-----|-------------|-------------|
| PCC1       | -              | -                | -   | 50          | 115         |

**PS 4÷10**



**PS 4÷10:** Wire stripper with double function as shown in picture:  
 1) wire stripper for the external cover: insert the cable into one of the frontal holes, press, turn the tool 90° around and then pull back. From  $\varnothing$  4 to 10 mm (AWG 6-000)  
 2) wire stripper for internal wires: insert one of the internal wires into one of the appropriate lateral holes, press and pull back. From  $\varnothing$  0.8 to 2.6 mm (AWG 20-10)



| Order code | ESD Order code | $\varnothing$ mm | awg         | Weight (gr) | Lenght (mm) |
|------------|----------------|------------------|-------------|-------------|-------------|
| PS 4÷10    | -              | 4÷10/0.8÷2.6     | 6÷000/20÷10 | 50          | 115         |

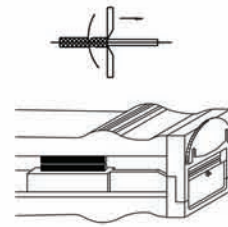


**PRF 0**



**PRF 0:** Wire scraper pliers.

How to use it: Insert the wire between the 2 edges up to the point where one wishes to strip and then pull back the tool. If needed repeat this operation several times while turning the wire.



shears

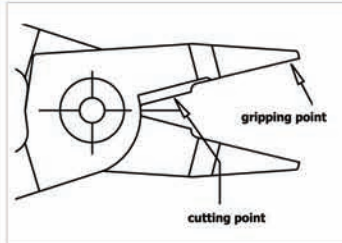
| Order code | ESD Order code | Ø mm    | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|---------|-------|-------------|-------------|
| PRF 0      | -              | 0.8÷2.6 | 20÷10 | 50          | 115         |

**Shears** *multi-use shears*

**CS 30 X**



**CS 30 X:** Shears and pliers in the same tool; designed for use where both functions are required. Steel thickness 3.0mm. ESD-safe handles version available.



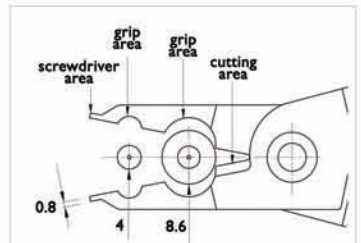
| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CS 30 X    | CS 30 X D      | 1.63 | 14  | 82          | 150         |

**CS 30 XZ**



**CS 30 XZ:** Special multi purpose shears:

- 1) the upper part of the blade can be used as a screwdriver for loosening the screw in the soldering iron; screwdriver tip thickness 1.6mm= (0.8+0.8)
  - 2) the two holes can be used to remove two different sizes of tip, even when they have reached a high temperature; Ø holes grip areas: 8.6mm and 4.0mm
  - 3) the cutting section is used for cutting the nozzle of de-soldering pumps.
- Steel thickness 3.0mm. ESD-safe handles version available

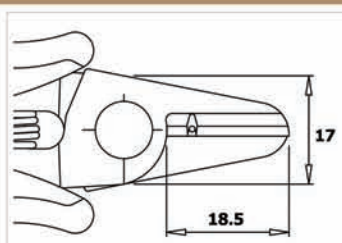


| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CS 30 XZ   | CS 30 XZ D     | 1.63 | 14  | 82          | 150         |

**CSF 30**



**CSF 30:** Multi-use tool that can be used both as shears (Ø 1.3mm-16 AWG) and wire strippers (Ø 0.4mm-26 AWG). ESD-safe handles version available (order code CSF 30 D). \*w: wire diameter for wire stripper function; s\* wire diameter for shears function

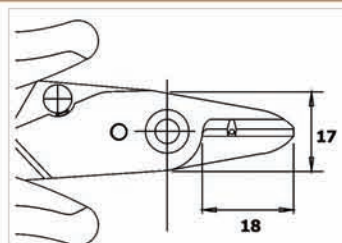


| Order code | ESD Order code | Ø mm       | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|------------|-------|-------------|-------------|
| CSF 30     | CSF 30 D       | s0.4÷c1.3* | 26-16 | 80          | 144         |

**CSF 30 S**



**CSF 30 S:** Shears and adjustable wire stripper for wires from 0.4 to 1.0mm (26 - 18 AWG). ESD-safe handles version available

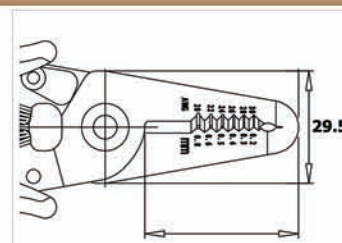


| Order code | ESD Order code | Ø mm    | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|---------|-------|-------------|-------------|
| CSF 30 S   | CSF 30 SD      | 0.4÷1.0 | 26-18 | 80          | 144         |

**CSP 30/1**



**CSP 30/1:** Very strong multi-use tool. It can be used as: Shears, Multi-diameter Wire stripper, pliers. ESD-safe handles version available



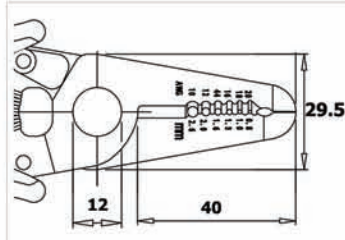
| Order code | ESD Order code | Ø mm      | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|-----------|-------|-------------|-------------|
| CSP 30/1   | CSP 30/1D      | 0.25÷0.81 | 30-20 | 102         | 165         |



**CSP 30/2**



**CSP 30/2:** Very strong multi-use tool. It can be used as: Shears, Multi-diameter Wire stripper, pliers. ESD-safe handles version available

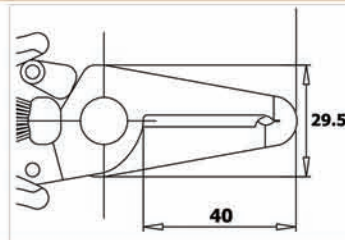


| Order code | ESD Order code | Ø mm      | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|-----------|-------|-------------|-------------|
| CSP 30/2   | CSP 30/2 D     | 0.81÷2.59 | 20-10 | 102         | 165         |

**CSP 30/3**



**CSP 30/3:** Multi-use tool that can be used ad Shears or Pliers. Ideal for work on electric cables. Ø max 10 mm (000 AWG). ESD-safe handles version available.

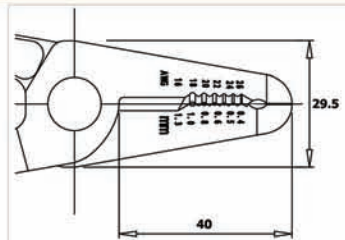


| Order code | ESD Order code | Ø mm   | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|--------|-----|-------------|-------------|
| CSP 30/3   | CSP 30/3 D     | max 10 | 000 | 102         | 165         |

**CSP 30/7**



**CSP 30/7:** Very strong multi-use tool. It can be used as: Shears, Multi-diameter Wire stripper, pliers. ESD-safe handles version available.

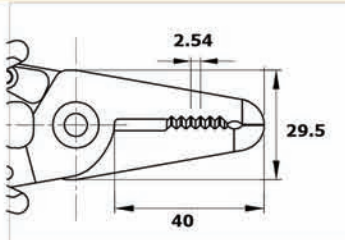


| Order code | ESD Order code | Ø mm    | awg   | Weight (gr) | Lenght (mm) |
|------------|----------------|---------|-------|-------------|-------------|
| CSP 30/7   | CSP 30/7 D     | 0.4-1.3 | 26-16 | 102         | 165         |

**CSP 30/9**



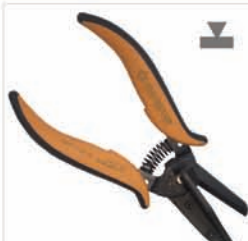
**CSP 30/9:** Very strong multi-use tool. It can be used as: Shears, Multi-holes wire stripper, pliers. Ideal for stripping flat wires (max. 6 wires 0.64 mm -22 AWG and 2.54mm pitch). ESD-safe handles version available.



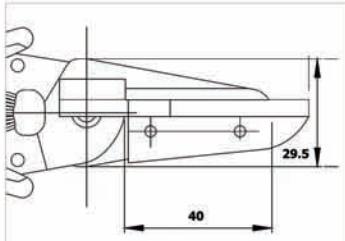
| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CSP 30/9   | CSP 30/9 D     | 0.64 | 22  | 102         | 165         |

**Shears** shears for rubber seals

**CSP 30/8**



**CSP 30/8:** Tool for a straight and a 45° angled cut of rubber or plastic seals. ESD-safe handles version available

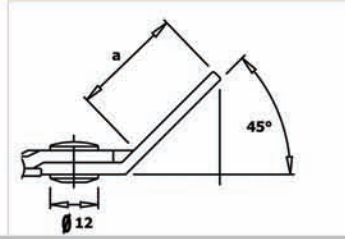


| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CSP 30/8   | CSP 30/8 D     | -    | -   | 165         | 178         |

**CSP 30 G**



**CSP 30 G:** Tool designed with 45° angle for cutting rubber or plastic seals, insulation and similar materials. Many and varied uses. a=25 ESD-safe handles version available

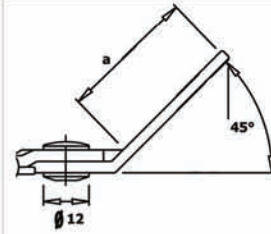


| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CSP 30 G   | CSP 30 G D     | -    | -   | 110         | 155         |

## CSP 30 GL



**CSP 30 GL:** Tool designed with 45° angle for cutting rubber or plastic seals, insulation and similar materials. Many and varied uses.  
a=35  
ESD-safe handles version available

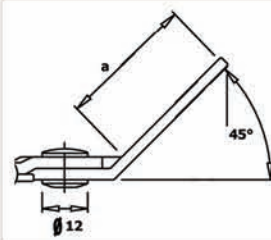


| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CSP 30 GL  | CSP 30 GL D    | -    | -   | 110         | 165         |

## CSP 30 GR



**CSP 30 GR:** Tool designed with 45° angle for the flush cutting rubber or plastic seals, insulation and similar materials. Many and varied uses.  
a=25  
ESD-safe handles version available



| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CSP 30 GR  | CSP 30 GR D    | -    | -   | 110         | 155         |



optic fibres

# Optic fibres shears & wire strippers

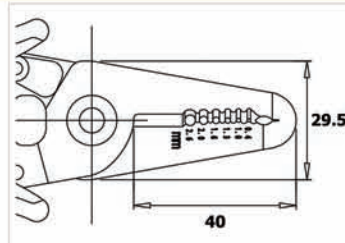
| Order code       | Type of cut | Optic fibres (Ø mm) | Optic fibres (awg) | Weight (gr) | Lenght (mm) | Notes   |
|------------------|-------------|---------------------|--------------------|-------------|-------------|---|
| <b>CCS 10 NB</b> |             | 0.4÷2.6             | 26-10              | 105         | 165         | fixed shear-wire stripper for optic fibres    |
| <b>CCS 11 NB</b> |             | 0.2÷1.0             | 32-18              | 90          | 148         | shear-wire stripper for kevlar & optic fibres |
| <b>CCS 12 NB</b> |             | -                   | -                  | 90          | 148         | shear designed to cut Kevlar                  |
| <b>CCS 13 NB</b> |             | 0.13                | 36                 | 90          | 148         | shear-wire stripper for kevlar & optic fibres |
| <b>CCS 15 NB</b> |             | 0.25/0.9/2.0        | 30/19/12           | 90          | 148         | shear-wire stripper for kevlar & optic fibres |
| <b>CCS 18 NB</b> |             | 0.18                | 33                 | 90          | 148         | shear-wire stripper for kevlar & optic fibres |

# Optic fibres shears & wire strippers

## CCS 10 NB



**CCS 10 NB:** Fixed shear-wire stripper at 0.4-1.0-1.3-1.6-2.0-2.6mm ESD-safe handles version available.

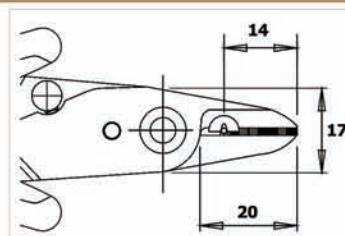


| Order code       | ESD Order code     | Ø mm           | awg          | Weight (gr) | Lenght (mm) |
|------------------|--------------------|----------------|--------------|-------------|-------------|
| <b>CCS 10 NB</b> | <b>CCS 10 NB D</b> | <b>0.4÷2.6</b> | <b>26-10</b> | <b>105</b>  | <b>165</b>  |

## CCS 11 NB



**CCS 11 NB:** Shear-wire stripper designed to cut kevlar and to strip optic fibres; it is adjustable from 0.2 to 1mm ESD-safe handles version available.

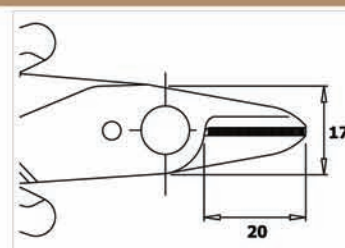


| Order code       | ESD Order code     | Ø mm           | awg          | Weight (gr) | Lenght (mm) |
|------------------|--------------------|----------------|--------------|-------------|-------------|
| <b>CCS 11 NB</b> | <b>CCS 11 NB D</b> | <b>0.2÷1.0</b> | <b>32-18</b> | <b>90</b>   | <b>148</b>  |

## CCS 12 NB



**CCS 12 NB:** Shear designed for the cutting of kevlar. ESD-safe handles version available.

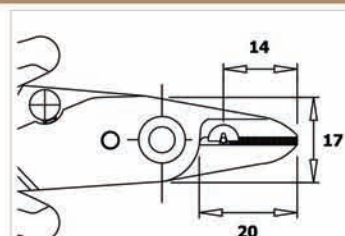


| Order code       | ESD Order code     | Ø mm     | awg      | Weight (gr) | Lenght (mm) |
|------------------|--------------------|----------|----------|-------------|-------------|
| <b>CCS 12 NB</b> | <b>CCS 12 NB D</b> | <b>-</b> | <b>-</b> | <b>90</b>   | <b>148</b>  |

## CCS 13 NB



**CCS 13 NB:** Shear-wire stripper designed to cut kevlar and to strip optic fibres. Fixed at 0.13 mm. ESD-safe handles version available.

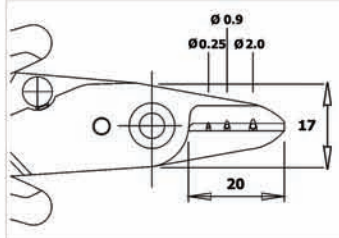


| Order code       | ESD Order code     | Ø mm        | awg       | Weight (gr) | Lenght (mm) |
|------------------|--------------------|-------------|-----------|-------------|-------------|
| <b>CCS 13 NB</b> | <b>CCS 13 NB D</b> | <b>0.13</b> | <b>36</b> | <b>90</b>   | <b>148</b>  |

## CCS 15 NB



**CCS 15 NB:** Shear-wire stripper for optic fibres. Fixed at 0.25-0.9-2.0mm. ESD-safe handles version available.

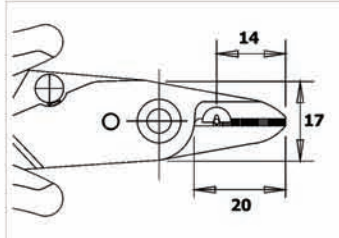


| Order code | ESD Order code | Ø mm         | awg      | Weight (gr) | Lenght (mm) |
|------------|----------------|--------------|----------|-------------|-------------|
| CCS 15 NB  | CCS 15 NB D    | 0.25-0.9-2.0 | 30-19-12 | 90          | 148         |

## CCS 18 NB



**CCS 18 NB:** Shear-wire stripper designed to cut kevlar and to strip optic fibres. Fixed at 0.18 mm. ESD-safe handles version available.



| Order code | ESD Order code | Ø mm | awg | Weight (gr) | Lenght (mm) |
|------------|----------------|------|-----|-------------|-------------|
| CCS 18 NB  | CCS 18 NB D    | 0.18 | 33  | 90          | 148         |





## Extractors for PLCC

| Order code | Component | Pins number | Extraction force (kg) | Weight (gr) | Lenght (mm) | Notes                                 |
|------------|-----------|-------------|-----------------------|-------------|-------------|---------------------------------------|
| PLCC 32    |           | 32          | 2.5                   | 53          | 142         | extraction of PLCC 32 from the socket |
| PLCC 44    |           | 44          | 2.5                   | 57          | 142         | extraction of PLCC 44 from the socket |
| PLCC 52    |           | 52          | 3.0                   | 58          | 142         | extraction of PLCC 52 from the socket |
| PLCC 68    |           | 68          | 3.0                   | 62          | 142         | extraction of PLCC 68 from the socket |
| PLCC 84    |           | 84          | 3.5                   | 67          | 142         | extraction of PLCC 84 from the socket |

## Extractors for Ics

| Order code | Component | Pins number | Extraction force (kg) | Weight (gr) | Lenght (mm) | Notes   |
|------------|-----------|-------------|-----------------------|-------------|-------------|---|
| PN 5020    |           | 14-20       | 4                     | 120         | 158         | insertion and extraction of integrated circuits |
| PN 5032    |           | 22-32       | 4                     | 155         | 158         | insertion and extraction of integrated circuits |
| PN 5034    |           | 28-40       | 4                     | 175         | 158         | insertion and extraction of integrated circuits |

## Extractors for SMT COAX

| Order code   | Component | Pins number | Extraction force (kg) | Weight (gr) | Lenght (mm) | Notes                            |
|--------------|-----------|-------------|-----------------------|-------------|-------------|----------------------------------|
| SMT COAX 0.8 |           | -           | 1.5                   | 68          | 78.5        | extraction of SUHNER MMCX SERIES |
| SMT COAX 1.6 |           | -           | 1.5                   | 68          | 78.5        | extraction of SUHNER MMCX SERIES |
| EES 20       |           | -           | 3                     | 78          | 77          | extraction of SUHNER MMCX SERIES |

## Extractors for PLCC

### PLCC 32

**PLCC 32:** Extractor tool designed for the extraction of 32 pin PLCC type integrated circuits from the socket. ESD safe version is NOT AVAILABLE

| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Lenght (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PLCC 32    | -              | 2.5                   | 32          | 53          | 142         |

### PLCC 44

**PLCC 44:** Extractor tool designed for the extraction of 44 pin PLCC type integrated circuits from the socket. ESD safe version is NOT AVAILABLE.

| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Lenght (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PLCC 44    | -              | 2.5                   | 44          | 57          | 142         |

### PLCC 52

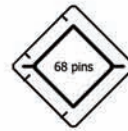
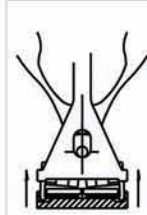
**PLCC 52:** Extractor tool designed for the extraction of 52 pin PLCC type integrated circuits from the socket. ESD safe version is NOT AVAILABLE.

| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Lenght (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PLCC 52    | -              | 3.0                   | 52          | 58          | 142         |

## PLCC 68



**PLCC 68:** Extractor tool designed for the extraction of 68 pin PLCC type integrated circuits from the socket. ESD safe version is NOT AVAILABLE.

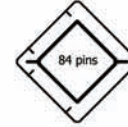
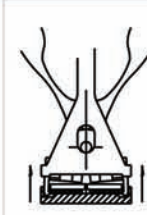


| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PLCC 68    | -              | 3.0                   | 68          | 62          | 142         |

## PLCC 84



**PLCC 84:** Extractor tool designed for the extraction of 84 pin PLCC type integrated circuits from the socket. ESD safe version is NOT AVAILABLE.



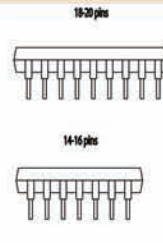
| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PLCC 84    | -              | 3.5                   | 84          | 67          | 142         |

# Extractors for ICs

## PN 5020



**PN 5020:** Extractor tool specially designed for the insertion and extraction of integrated circuits from 14 pins up to 20 pins. Supplied with a block for straighten pins. ESD-safe handles version available

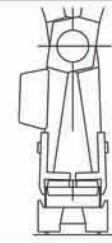
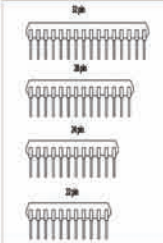


| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PN 5020    | PN 5020 D      | 4.0                   | 14-20       | 120         | 158         |

## PN 5032



**PN 5032:** Extractor tool specially designed for the insertion and extraction of integrated circuits from 22 pins up to 32 pins. Supplied with a block for straighten pins. ESD-safe handles version available

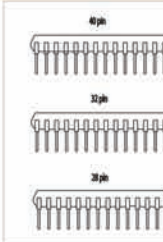


| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PN 5032    | PN 5032 D      | 4.0                   | 22-32       | 155         | 158         |

## PN 5034



**PN 5034:** Extractor tool specially designed for the insertion and extraction of integrated circuits from 28 pins up to 40 pins. Supplied with a block for straighten pins. ESD-safe handles version available



| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| PN 5034    | PN 5034 D      | 4.0                   | 28-40       | 175         | 158         |

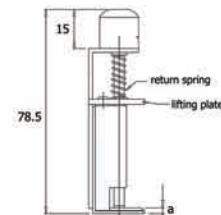
# Extractors for SMT COAX

## SMT COAX 0.8



**SMT COAX 0.8:** Extractor for SUHNER MMCX SERIES connectors.

a = 0.8



| Order code   | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|--------------|----------------|-----------------------|-------------|-------------|-------------|
| SMT COAX 0.8 | -              | 1.5                   | -           | 68          | 78.5        |

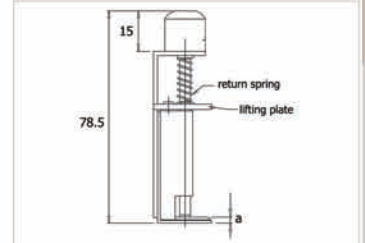


### SMT COAX 1.6



**SMT COAX 1.6:** Extractor for SUHNER MMCX SERIES connectors.

a= 1.6

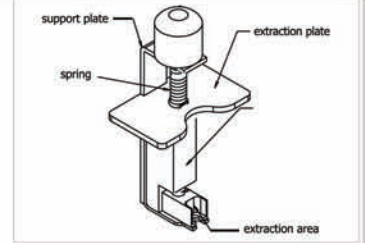


| Order code   | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|--------------|----------------|-----------------------|-------------|-------------|-------------|
| SMT COAX 1.6 | -              | 1.5                   | -           | 68          | 78.5        |

### EES 20



**EES 20:** Extractor for SUHNER SMPX SERIES straight connectors.



| Order code | ESD Order code | Extraction force (kg) | Pins number | Weight (gr) | Length (mm) |
|------------|----------------|-----------------------|-------------|-------------|-------------|
| EES 20     | -              | 3.0                   | -           | 78          | 77          |



# Cable strippers adjustable with and without knife



cable strippers

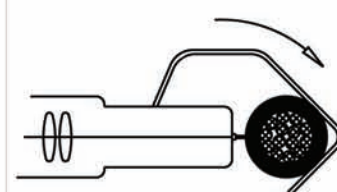
| Order code     | Cable (Ø mm) | Weight (gr) | Lenght (mm) | Notes  |
|----------------|--------------|-------------|-------------|--|
| <b>SC 1/S</b>  | 4-16         | 70          | 140         | cable stripper with adjustable internal blade                              |
| <b>SC 2/S</b>  | 8-28         | 70          | 140         | cable stripper with adjustable internal blade                              |
| <b>SC 3/1C</b> | 8-28         | 80          | 190         | cable stripper with adjustable internal blade and external knife           |
| <b>SC 4/2C</b> | 8-28         | 80          | 177         | cable stripper with adjustable internal blade and external knife with hook |
| <b>SC 5/ST</b> | 28-35        | 66          | 150         | cable stripper with adjustable internal blade                              |
| <b>SC 6/ST</b> | 35-50        | 73          | 165         | cable stripper with adjustable internal blade                              |

# Cable strippers adjustable with and without knife

## SC 1/S



**SC 1/S:** Cable stripper with adjustable internal blade for Ø 4-16mm cables. Supplied with internal spare blade.

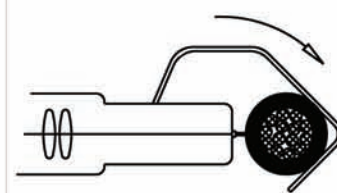


| Order code | ESD Order code | Cables Ø mm | Weight (gr) | Lenght (mm) |
|------------|----------------|-------------|-------------|-------------|
| SC 1/S     | -              | 4-16        | 70          | 140         |

## SC 2/S



**SC 2/S:** Cable stripper with adjustable internal blade for Ø 8-28mm cables. Supplied with internal spare blade.

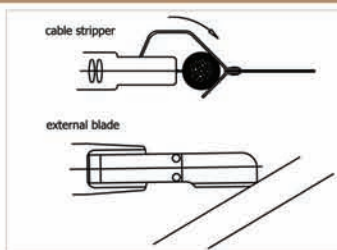


| Order code | ESD Order code | Cables Ø mm | Weight (gr) | Lenght (mm) |
|------------|----------------|-------------|-------------|-------------|
| SC 2/S     | -              | 8-28        | 70          | 140         |

## SC 3/1C



**SC 3/1C:** Cable stripper with adjustable internal blade and external single sided knife. For Ø 8-28mm cables. Supplied with internal spare blade. We suggest to purchase this tool together with the protective cover.

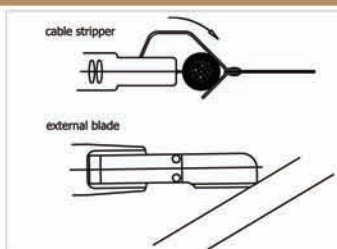


| Order code | ESD Order code | Cables Ø mm | Weight (gr) | Lenght (mm) |
|------------|----------------|-------------|-------------|-------------|
| SC 3/1C    | -              | 8-28        | 80          | 190         |

## SC 4/2C



**SC 4/2C:** Cable stripper with adjustable internal blade and external single sided knife with hook. For Ø 8-28mm cables. Supplied with internal spare blade. We suggest to purchase this tool together with the protective cover.



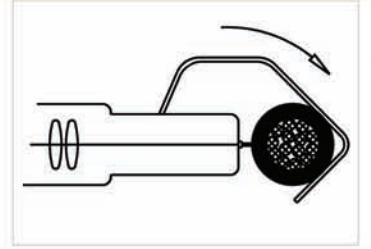
| Order code | ESD Order code | Cables Ø mm | Weight (gr) | Lenght (mm) |
|------------|----------------|-------------|-------------|-------------|
| SC 4/2C    | -              | 8-28        | 80          | 177         |



### SC 5/ST



**SC 5/ST:** Cable stripper with adjustable internal blade for Ø 28-35mm cables. Supplied with internal spare blade.

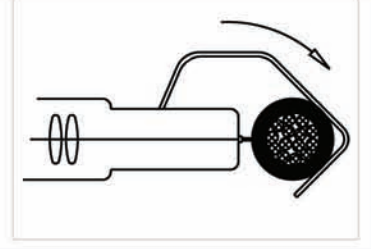


| Order code | ESD Order code | Cables Ø mm | Weight (gr) | Lenght (mm) |
|------------|----------------|-------------|-------------|-------------|
| SC 5/ST    | -              | 28-35       | 66          | 150         |

### SC 6/ST



**SC 6/ST:** Cable stripper with adjustable internal blade for Ø 35-50mm cables. Supplied with internal spare blade.



| Order code | ESD Order code | Cables Ø mm | Weight (gr) | Lenght (mm) |
|------------|----------------|-------------|-------------|-------------|
| SC 6/ST    | -              | 35-50       | 73          | 165         |

# Cables cutters

| Order code     | Cable (Ø mm) | Weight (gr) | Lenght (mm) | Notes                                    |
|----------------|--------------|-------------|-------------|--|
| <b>TC 14</b>   | 14           | 130         | 180         | wire cutters for cables 14mm             |
| <b>TC 18</b>   | 18           | 180         | 180         | wire cutters for cables 18mm             |
| <b>TC 18 M</b> | 18           | 180         | 180         | wire cutters with spring for cables 18mm |



cable cutters

## Cable cutters

### TC 14



**TC 14:** Manual wire cutter designed for the cut of electrical cables max Ø 14 mm Cu e Al. With spring and stop.



| Order code   | Cutting force (kg) | Cables Ø mm | Weight (gr) | Lenght (mm) |
|--------------|--------------------|-------------|-------------|-------------|
| <b>TC 14</b> | <b>7.0</b>         | <b>14</b>   | <b>130</b>  | <b>180</b>  |

### TC 18



**TC 18:** Manual wire cutter designed for the cut of electrical cables max Ø 18 mm Cu + Al.



| Order code   | Cutting force (kg) | Cables Ø mm | Weight (gr) | Lenght (mm) |
|--------------|--------------------|-------------|-------------|-------------|
| <b>TC 18</b> | <b>15</b>          | <b>18</b>   | <b>180</b>  | <b>180</b>  |

### TC 18 M



**TC 18 M:** Manual wire cutter designed for the cut of electrical cables max Ø 18 mm Cu + Al. With spring and stop.



| Order code     | Cutting force (kg) | Cables Ø mm | Weight (gr) | Lenght (mm) |
|----------------|--------------------|-------------|-------------|-------------|
| <b>TC 18 M</b> | <b>15</b>          | <b>18</b>   | <b>180</b>  | <b>180</b>  |



# Tweezers *general purpose*

tweezers

0



tweezers with fine tips. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 0          | 120         | 4 3/4"     | SA      |

0A



tweezers with very fine tips, ideal for watch-repairers

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 0A         | 120         | 4 3/4"     | SA      |

0C9



flat tweezers with very fine tips and thin blades (same as "0" but 90 mm long)

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 0C9        | 90          | 3 1/2"     | SA      |

0C10



flat tweezers with very fine tips and thin blades (same as "0" but 100 mm long)

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 0C10       | 100         | 4"         | SA      |

0C11



flat tweezers with very fine tips and thin blades (same as "0" but 110 mm long)

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 0C11       | 110         | 4 1/4"     | SA      |

1



tweezers with strong tips and thin blades for generic purpose. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 1          | 120         | 4 3/4"     | SA      |

2



tweezers with sharp blades and strong tips, for generic purpose. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 2          | 120         | 4 3/4"     | SA      |

3



tweezers with strong tips and thin blades, ideal for microelectronic applications. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 3          | 120         | 4 3/4"     | SA      |

3C



tweezers with strong tips and thin blades, ideal for microelectronic applications. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 3C         | 110         | 4 1/4"     | SA      |

**P**

tweezers with strong tips, for general purpose

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| P          | 120         | 4 3/4"     | SA      |

**S**

tweezers with fine tips for general purpose

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| S          | 120         | 4 3/4"     | SA      |

**SA**

tweezers with very strong tips for general purpose

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| SA         | 120         | 4 3/4"     | SA      |

**SB**

tweezers with very fine tips for general purpose

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| SB         | 120         | 4 3/4"     | SA      |

**4**

tweezers with very fine and sharp tips

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 4          | 110         | 4 1/4"     | SA      |

**4A**

tweezers with sharp and strong tips

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 4A         | 110         | 4 1/4"     | SA      |

**5**

tweezers with very fine and sharp tips, ideal for SMD applications. ESD version available.

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 5          | 110         | 4 1/4"     | SA      |

**5B**

tweezers with very fine and sharp tips, ideal for SMD applications; tips bent at 40° for a better visual of the work area

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 5B         | 110         | 4 1/4"     | SA      |

**5C**

tweezers with sharp and strong tips, ideal for SMD applications; similar to 5 but shorter

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 5C         | 100         | 4"         | SA      |

**51S**

tweezers with very fine tips bent at 40° for handling of micro components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 51S        | 120         | 4 3/4"     | SA      |

**65A**

tweezers with long, thin handles and very fine tips bent at 40°. Suitable for the gripping of generic micro chips and micro components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 65A        | 135         | 5 1/4"     | SA      |

**SS**

tweezers with very fine tips, long and thin handles, ideal for operating close to heat sources

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| SS         | 140         | 5 1/2"     | SA      |

**2AB**

tweezers with rounded and flat tips for general purpose

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 2AB        | 120         | 4 3/4"     | SA      |

**5A**

tweezers with very fine, sharp and oblique tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 5A         | 115         | 4 1/2"     | SA      |

**7**

tweezers with very fine and bent tips for an easier grip in high density areas. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 7          | 120         | 4 3/4"     | SA      |

**7A**

tweezers with very fine and bent tips for easier grip in high density areas (same as 7 but with stronger tips). ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 7A         | 120         | 4 3/4"     | SA      |

**7B**

tweezers with very fine and bent tips for easier grip in high density areas (same as 7 but with blades internally serrated)

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 7B         | 120         | 4 3/4"     | SA      |

**7E**

tweezers with very fine and bent tips for easier grip in high density areas (same as 7 but with flat tips)

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 7E         | 120         | 4 3/4"     | SA      |

**00**

tweezers with flat and thick tips for general purpose. ESD version available.

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 00         | 120         | 4 3/4"     | SA      |

**00B**

tweezers with flat and thick tips, externally serrated for general purpose

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 00B        | 120         | 4 3/4"     | SA      |

**00C**

tweezers with flat and thick tips for general purpose; (same as 00 but with shorter handles)

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 00C        | 105         | 4 1/8"     | SA      |

**00D**

tweezers with flat and thick tips, internally serrated (on the tips) and externally serrated (on the handles). ESD version available.

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 00D        | 120         | 4 3/4"     | SA      |

**2A**

tweezers with rounded and flat tips for general purpose. ESD version available.

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 2A         | 120         | 4 3/4"     | SA      |

**26**

tweezers with very strong and flat tips

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 26         | 135         | 5 1/4"     | SA      |

**27**

tweezers with very strong and flat tips. Same as 26 but with thinner blades

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 27         | 135         | 5 1/4"     | SA      |

**231**

tweezers with internally serrated tips for general purpose

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 231        | 120         | 4 3/4"     | SA      |

**A**

tweezers with strong and precise tips for bending wires and components

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| A          | 115         | 4 1/2"     | SA      |



**AA**



tweezers with strong gripping action. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| AA         | 130         | 5"         | SA      |

**AC**



tweezers with strong tips, externally serrated for a safer grip

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| AC         | 110         | 4 1/4"     | SA      |

**F**



tweezers with rounded and flat tips for general purpose (same as 2A but with larger tips)

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| F          | 120         | 4 3/4"     | SA      |

**H**



tweezers with swallow-shaped head and fine tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| H          | 90          | 3 1/2"     | SA      |

**PSF**



tweezers with flat and large tips for general purpose

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| PSF        | 125         | 5"         | SA      |

**13S**



tweezers with strong, flat and serrated tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 13S        | 120         | 4 3/4"     | SA      |

**19**



tweezers for assembly, serrated internally and externally on the handles

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 19         | 160         | 6 1/4"     | SA      |

**19P**



tweezers for assembly, serrated internally on tips and externally on handles. Same as 19 but with bent tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 19P        | 160         | 6 1/4"     | SA      |

**C3**



tweezers internally serrated, curved with pivot direction

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| C3         | 145         | 5 3/4"     | SA      |



**33A**

tweezers with bent tips, with reverse action, ideal to be used during soldering operations

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 33A        | 150         | 6"         | SA      |

**232**

tweezers with smooth tips and strong gripping action

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 232        | 150         | 6"         | SA      |

**233**

tweezers internally serrated and strong gripping action

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 233        | 160         | 6 1/4"     | SA      |

**2AT**

tweezers with rounded and flat teflon tips for general purpose

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 2AT        | 120         | 4 3/4"     | SA      |

**110N**

nylon acid proof tweezers

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 110N       | 110         | 4 1/4"     | NYLON   |

**11**

tweezers with strong tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 11         | 120         | 4 3/4"     | NICHEL  |

**12**

tweezers with strong tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 12         | 120         | 4 3/4"     | NICHEL  |

Tweezers with a length up to 165 mm - 6 2/4" can be supplied in kit of 6-8-12 pieces

**Tweezers** *cutting tip***15**

tweezers with short and cutting flat blades

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 15         | 115         | 4 1/2"     | CARBON  |

**15A**

tweezers for cutting springs and small wires; cutting tip

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 15A        | 115         | 4 1/2"     | CARBON  |

**15AC**

tweezers for cutting springs and small wires; cutting tip; same as 15A but with smaller head

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 15AC       | 105         | 4 1/8"     | CARBON  |

**15AP**

tweezers for cutting springs and small wires; cutting tip; same as 15A but with parallel cut along the blades

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 15AP       | 115         | 4 1/2"     | CARBON  |

**D**

tweezers for cutting small wires

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| D          | 95          | 3 3/4"     | INOX    |

Tweezers with a length up to 165 mm - 6 2/4" can be supplied in kit of 6-8-12 pieces.

## Tweezers *for component or wire handling*

**6**

tweezers with fine hook-shaped tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 6          | 115         | 4 1/2"     | SA      |

**8**

tweezers for bending and straightening wires and small pins

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 8          | 115         | 4 1/2"     | SA      |

**18**

tweezers for straightening or flattening small wires

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 18         | 110         | 4 1/4"     | SA      |

**29D/16/22/28**

tweezers with curved tips for removing dips, mm16, 22, 28

| Order code   | Lenght (mm) | Lenght (") | Version |
|--------------|-------------|------------|---------|
| 29D/16/22/28 | 152         | 6"         | SA      |

**30D/16/22/28**

tweezers with curved tips for removing dips, mm16, 22, 28

| Order code   | Length (mm) | Length (") | Version |
|--------------|-------------|------------|---------|
| 30D/16/22/28 | 152         | 6"         | SA      |

**31D/28/40**

tweezers with large and flat tips for removing dips, mm 28 or 40

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 31D/28/40  | 140         | 5 1/2"     | SA      |

**62A**

tweezers with flat, rounded and bent tips for handling of small wafers and flat parts

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 62A        | 120         | 4 3/4"     | SA      |

**150/1.5**

tweezers for insertion and extraction of micro components; tips diameter 1.5mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 150/1.5    | 120         | 4 3/4"     | SA      |

**150/3**

tweezers for insertion and extraction of micro components; tips diameter 3mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 150/3      | 120         | 4 3/4"     | SA      |

**151**

tweezers for insertion and extraction of micro components; tips diameter 3mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 151        | 125         | 5"         | SA      |

**571**

tweezers for gripping and assembly of components with Ø 2.5-5mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 571        | 145         | 5 3/4"     | SA      |

**572**

tweezers for gripping and assembly of cylindrical components with Ø 2.5-5mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 572        | 145         | 5 3/4"     | SA      |

**573**

tweezers with angled tips for gripping and assembly of cylindrical components with Ø 2.5-5mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 573        | 145         | 5 3/4"     | SA      |



## 574



tweezers for gripping and assembly of flat components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 574        | 145         | 5 3/4"     | SA      |

## 575



tweezers with ears for components extraction

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 575        | 145         | 5 3/4"     | SA      |

## 577



tweezers for assembly of components, ideal for handling in vertical position

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 577        | 145         | 5 3/4"     | SA      |

## 578



tweezers for handling and assembly of cylindrical components Ø 2mm

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 578        | 120         | 4 3/4"     | SA      |

## 579



tweezers with angled tips, for handling and assembly of cylindrical components Ø 2mm

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 579        | 120         | 4 3/4"     | SA      |

## 580



tweezers for handling and assembly of flat components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 580        | 120         | 4 3/4"     | SA      |

## 581



tweezers with ears for components extraction

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 581        | 120         | 4 3/4"     | SA      |

## PC



tweezers for electrical connections

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| PC         | 90          | 3 1/2"     | SA      |

Tweezers with a length up to 165 mm - 6 2/4" can be supplied in kit of 6-8-12 pieces.

# Tweezers *for wafer handling*



tweezers

## 3D



tweezers with three teeth for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 3D         | 130         | 5 1/8"     | SA      |

## 3DT



tweezers with three teflon teeth for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 3DT        | 130         | 5 1/8"     | SA      |

## 4D



tweezers with four teeth with flat lower tip for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 4D         | 125         | 5"         | SA      |

## 4DW



tweezers with flat lower tip for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 4DW        | 125         | 5"         | SA      |

## 5D



tweezers with five teeth with flat lower tip for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 5D         | 125         | 5"         | SA      |

## 5DW



tweezers with flat lower tip for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 5DW        | 130         | 5 1/8"     | SA      |

## 6D



tweezers with six teeth with flat lower tip for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 6D         | 125         | 5"         | SA      |

## 6DWF



tweezers with six teeth with bent lower tip for wafer handling

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 6DWF       | 125         | 5"         | SA      |

## 34A



tweezers with flat tips for handling of very small parts

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 34A        | 120         | 4 3/4"     | SA      |

**35A**

tweezers for handling of flat parts like wafers and flat capacitors

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 35A        | 120         | 4 3/4"     | SA      |

**36A**

tweezers for wafer handling with stop

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 36A        | 120         | 4 3/4"     | SA      |

**37S**

tweezers for assembly of components, ideal for handling in vertical position

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 37S        | 120         | 4 3/4"     | SA      |

**85A**

tweezers for wafer handling

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 85A        | 120         | 4 3/4"     | SA      |

**85C**

tweezers for wafer handling

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 85C        | 120         | 4 3/4"     | SA      |

**85L**

tweezers for wafer handling

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 85L        | 120         | 4 3/4"     | SA      |

**321**

tweezers with large and rounded tips ideal for handling of wafers

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 321        | 120         | 4 3/4"     | SA      |

Tweezers with a length up to 165 mm - 6 2/4" can be supplied in kit of 6-8-12 pieces.

## Tweezers *with reverse action*

**OR**

tweezers with fine tips and thin blades with reverse action

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| OR         | 115         | 4 1/2"     | SA      |

**2AR**

tweezers with rounded and flat tips for general purpose with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 2AR        | 120         | 4 3/4"     | SA      |

**4R**

tweezers with very fine and sharp tips with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 4R         | 110         | 4 1/4"     | SA      |

**5AR**

tweezers with very fine, sharp and oblique tips with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 5AR        | 115         | 4 1/2"     | SA      |

**7R**

tweezers with very fine and bent tips for easier grip in high density areas; with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 7R         | 115         | 4 1/2"     | SA      |

**AAR**

tweezers with strong gripping action; with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| AAR        | 125         | 5"         | SA      |

**102R**

tweezers for handling of chips and SMD components; angled tips for fatigue reduction; with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 102R       | 120         | 4 3/4"     | SA      |

**103R**

tweezers with bent tips for handling of chips and SMD components; angled tips for fatigue reduction; with reverse action

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 103R       | 120         | 4 3/4"     | SA      |

**33**

tweezers with reverse action, ideal to be used during soldering operations

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 33         | 150         | 6"         | SA      |

**33A**

tweezers with bent tips, with reverse action, ideal to be used during soldering operations

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 33A        | 150         | 6"         | SA      |



# Tweezers *for SMD*

**38**



tweezers with a hole on the tip, Ø 1mm, for handling of wires and small components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 38         | 120         | 4 3/4"     | SA      |

**40A**



tweezers with a rhombus-shaped hole on its tip, for handling of wires and small components Ø 0.71mm

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 40A        | 120         | 4 3/4"     | SA      |

**102**



tweezers for handling of chips and SMD components; angled tips for fatigue reduction

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 102        | 120         | 4 3/4"     | SA      |

**102R**



tweezers for handling of chips and SMD components; angled tips for fatigue reduction; with reverse action

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 102R       | 120         | 4 3/4"     | SA      |

**103**



tweezers with bent tips for handling of chips and SMD components; angled tips for fatigue reduction

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 103        | 120         | 4 3/4"     | SA      |

**103R**



tweezers with bent tips for handling of chips and SMD components; angled tips for fatigue reduction; with reverse action

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 103R       | 120         | 4 3/4"     | SA      |

**104**



tweezers for handling of SMD components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 104        | 120         | 4 3/4"     | SA      |

**105**



tweezers for handling of SMD components; bent tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 105        | 120         | 4 3/4"     | SA      |

**106**



tweezers for handling of SMD components

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 106        | 120         | 4 3/4"     | SA      |





107

tweezers for handling of SMD components; hole in the tips  $\varnothing$  0.75mm

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 107        | 120         | 4 3/4"     | SA      |

108



tweezers for handling of SMD components

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 108        | 120         | 4 3/4"     | SA      |

109



tweezers for handling of SMD components

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 109        | 120         | 4 3/4"     | SA      |

110



tweezers for handling of SMD components

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 110        | 120         | 4 3/4"     | SA      |

111



tweezers for handling of SMD components

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 111        | 120         | 4 3/4"     | SA      |

Tweezers with a length up to 165 mm - 6 2/4" can be supplied in kit of 6-8-12 pieces.

## Tweezers *for jeweller's*

33



tweezers with reverse action, ideal to be used during soldering operations

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 33         | 150         | 6"         | SA      |

33A



tweezers with bent tips, with reverse action, ideal to be used during soldering operations

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| 33A        | 150         | 6"         | SA      |

AA



tweezers with strong gripping action. ESD version available.

| Order code | Length (mm) | Length (") | Version |
|------------|-------------|------------|---------|
| AA         | 150         | 6"         | SA      |



**WI**



tweezers with flat strong tips suitable for the jewellery's works, stainless steel

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| WI         | 150         | 6"         | INOX    |

**233**



tweezers internally serrated and strong gripping action

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 233        | 160         | 6 1/4"     | SA      |

**19P**



tweezers for assembly, serrated internally on tips and externally on handles. Same as 19 but with bent tips

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 19P        | 160         | 6 1/4"     | SA      |

**00**



tweezers with flat and thick tips for general purpose. ESD version available.

| Order code | Lenght (mm) | Lenght (") | Version |
|------------|-------------|------------|---------|
| 00         | 120         | 4 3/4"     | SA      |

Tweezers with a length up to 165 mm - 6 2/4" can be supplied in kit of 6-8-12 pieces.







For other products related to jeweller's area please visit our website [www.piergiacomini.com](http://www.piergiacomini.com) or ask for the specific documentation at [piergiacomini@piergiacomini.com](mailto:piergiacomini@piergiacomini.com)

**ESD tweezers.**








Available models: 0, 00, 00D, 1, 2, 2A, 3, 3C, 5, 7, 7A, AA




## Precision screwdrivers *slot*

| Order code | Esd order code | tip   | Dimensions (mm) | Total length (mm) | Blade (Ømm) |
|------------|----------------|---|-----------------|-------------------|-------------|
| PG1-0      | PG1-0 D        |  | 1.2x60          | 160               | 2.5         |
| PG1-1      | PG1-1 D        |  | 1.5x60          | 160               | 2.5         |
| PG1-2      | PG1-2 D        |  | 1.8x60          | 160               | 2.5         |
| PG1-3      | PG1-3 D        |  | 2.5x75          | 175               | 2.5         |
| PG1-4      | PG1-4 D        |  | 3.0x100         | 200               | 3.0         |
| PG1-5      | PG1-5 D        |  | 3.0x150         | 250               | 3.0         |








## Precision screwdrivers *phillips*

| Order code | Esd order code | tip   | Dimensions (mm) | Total length (mm) | Blade (Ømm) |
|------------|----------------|---|-----------------|-------------------|-------------|
| PG2-0      | PG2-0 D        |    | PH-000 2.5x60   | 160               | 2.5         |
| PG2-1      | PG2-1 D        |    | PH-00 2.5x60    | 160               | 2.5         |
| PG2-1/75   | PG2-1/75 D     |    | PH-00 2.5x75    | 175               | 2.5         |
| PG2-2      | PG2-2 D        |    | PH-0 3.0x60     | 160               | 3.0         |
| PG2-2/75   | PG2-2/75 D     |   | PH-0 3.0x75     | 175               | 3.0         |
| PG2-2/100  | PG2-2/100 D    |  | PH-0 3.0x100    | 200               | 3.0         |
| PG2-2/150  | PG2-2/150 D    |  | PH-0 3.0x150    | 250               | 3.0         |




## Precision screwdrivers *pozdriv*

| Order code | Esd order code | tip   | Dimensions (mm) | Total length (mm) | Blade (Ømm) |
|------------|----------------|---|-----------------|-------------------|-------------|
| PG3-0      | PG3-0 D        |  | PZ-0 3.0x60     | 160               | 3.0         |

## Precision screwdrivers *torx*





| Order code | Esd order code | tip   | Dimensions (mm) | Total length (mm) | Blade (Ømm) |
|------------|----------------|---|-----------------|-------------------|-------------|
| PG4-0X     | PG4-0X D       |  | T5x50           | 150               | 3.5         |
| PG4-0      | PG4-0 D        |  | T6x50           | 150               | 3.5         |
| PG4-1      | PG4-1 D        |  | T7x50           | 150               | 3.5         |
| PG4-2      | PG4-2 D        |  | T8x60           | 160               | 3.5         |
| PG4-3      | PG4-3 D        |  | T9x60           | 160               | 3.5         |
| PG4-4      | PG4-4 D        |  | T10x60          | 160               | 3.5         |
| PG4-5      | PG4-5 D        |  | T15x60          | 160               | 3.5         |

## Precision screwdrivers *tamper resistant*

| Order code | Esd order code | tip   | Dimensions (mm) | Total length (mm) | Blade (Ømm) |
|------------|----------------|---|-----------------|-------------------|-------------|
| PG5-0X     | PG5-0X D       |  | TR5x50          | 150               | 3.5         |
| PG5-0      | PG5-0 D        |  | TR6x50          | 150               | 3.5         |
| PG5-1      | PG5-1 D        |  | TR7x50          | 150               | 3.5         |





|              |                |   |         |     |     |
|--------------|----------------|---|---------|-----|-----|
| <b>PG5-2</b> | <b>PG5-2 D</b> |  | TR8x60  | 160 | 3.5 |
| <b>PG5-3</b> | <b>PG5-3 D</b> |  | TR9x60  | 160 | 3.5 |
| <b>PG5-4</b> | <b>PG5-4 D</b> |  | TR10x60 | 160 | 3.5 |
| <b>PG5-5</b> | <b>PG5-5 D</b> |  | TR15x60 | 160 | 3.5 |

**ESD VERSION**



All screwdrivers can be supplied both in the normal or ESD version. Different colour of handles available as well according on customer's request.

**Precision screwdrivers** *displays*

**ESP 42**



**ESP 42:** Carton display containing 42 screwdrivers

(PG2-0; PG2-1; PG2-2; PG3-0; PG4-0; PG4-1; PG4-2)

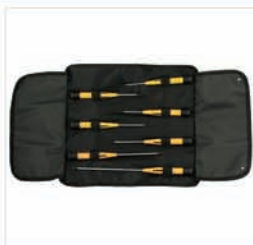
**ESP 36**



**ESP 36:** Carton display containing 36 screwdrivers

(IT CONTAINS items: PG1-0/1/2/3/4/5).

**BPG7-1**



**BPG7-1:** Wallet for 7 screwdrivers up to customer choice.

Dimensions 22 x 28 cm.

**BPG7-2**



**BPG7-2:** Wallet for 7 screwdrivers up to customer choice.

Dimensions 28 x 28 cm.

Suitable also for longer screwdrivers such as PG1-5 or PG 2-2/100.

**BPG6-1**



**BPG6-1:** Wallet for 6 screwdrivers up to customer choice

**BLISTERPACK FOR SCREWDRIVERS**



**BLISTERPACK:** blisterpack for 7 precision screwdrivers at customer choice.

**APGIR**



**APGIR:** Plastic hook for single screwdriver; different colours available

# Soldering and desoldering accessories

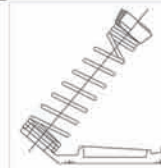


## PS..M..GR..



Soldering iron support comprising base (PS), spring (M..) and ferrule (GR..)

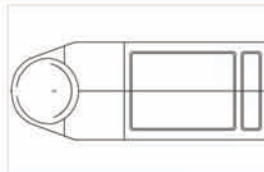
With sponge included.



## PS



Universal aluminium base. Tip cleaning sponge included.



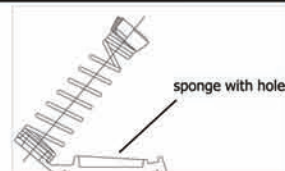
## SNPFPS



Cleaning sponge with hole for aluminium base PS

**Standard:** dimensions 60x50mm

**Extra:** dimensions 70x54mm



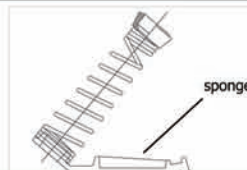
## SNPPS



Cleaning sponge for aluminium base PS

**Standard:** dimensions 60x50mm

**Extra:** dimensions 70x54mm

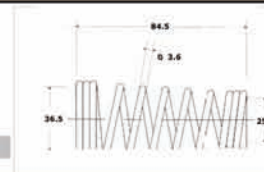


## MCC



very short black phosphated spring.

| Length (mm) | Large side diameter (mm) | Small side diameter (mm) | Wire(Ø mm) |
|-------------|--------------------------|--------------------------|------------|
| 84.5        | 36.5                     | 25.2                     | 3.6        |

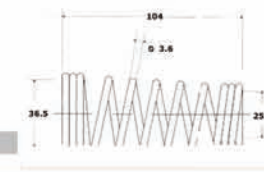


## MC



short black phosphated spring.

| Length (mm) | Large side diameter (mm) | Small side diameter (mm) | Wire(Ø mm) |
|-------------|--------------------------|--------------------------|------------|
| 104         | 36.5                     | 25.2                     | 3.6        |

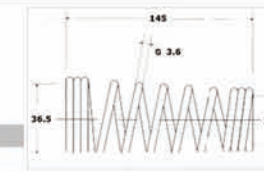


## ML



long black phosphated spring.

| Length (mm) | Large side diameter (mm) | Small side diameter (mm) | Wire(Ø mm) |
|-------------|--------------------------|--------------------------|------------|
| 145         | 36.5                     | 25.2                     | 3.6        |

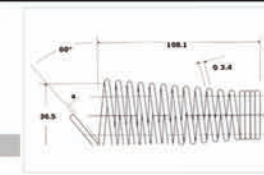


## MG



nickel-plated spring with hook.

| Length (mm) | Large side diameter (mm) | Small side diameter (mm) | Wire(Ø mm) |
|-------------|--------------------------|--------------------------|------------|
| 108.1       | 36.5                     | 25.2                     | 3.4        |

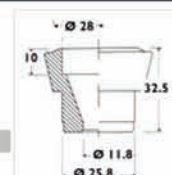


## GR1



ferrule for soldering iron support.

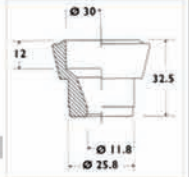
| Height | Upper hole (Ø mm) | Lower hole (Ø mm) | Lower edge(Ø mm) | Upper edge height (mm) |
|--------|-------------------|-------------------|------------------|------------------------|
| 32.5   | 28                | 11.8              | 25.8             | 10                     |



**GR2**

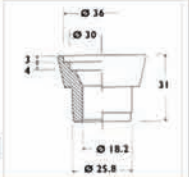
ferrule for soldering iron support.

| Height | Upper hole (Ø mm) | Lower hole (Ø mm) | Lower edge(Ø mm) | Upper edge height (mm) |
|--------|-------------------|-------------------|------------------|------------------------|
| 32.5   | 30                | 11.8              | 25.8             | 12                     |

**GR3**

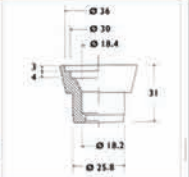
ferrule for soldering iron support.

| Height | Upper hole (Ø mm) | Lower hole (Ø mm) | Lower edge(Ø mm) | Upper edge height (mm) |
|--------|-------------------|-------------------|------------------|------------------------|
| 31     | 30-36             | 18.2              | 25.8             | 3-4                    |

**GR4**

ferrule for soldering iron support.

| Height | Upper hole (Ø mm) | Lower hole (Ø mm) | Lower edge(Ø mm) | Upper edge height (mm) |
|--------|-------------------|-------------------|------------------|------------------------|
| 31     | 18.4-30-36        | 18.2              | 25.8             | 3-4                    |

**GR5**

ferrule for soldering iron support.

| Height | Upper hole (Ø mm) | Lower hole (Ø mm) | Lower edge(Ø mm) | Upper edge height (mm) |
|--------|-------------------|-------------------|------------------|------------------------|
| 31     | 33                | 11.8              | 25.8             | 12                     |

**PD UNIVERSAL**

a tool for sucking away the residual solder during desoldering operations; (length 215mm)

**PD UNIVERSAL D**

ESD tool for sucking away the residual solder during desoldering operations; (length 215mm)

**PD 03**

a tool for sucking away the residual solder during desoldering operations; same as PD UNIVERSAL D but shorter; (length 201mm)

**PD 03 D**

ESD tool for sucking away the residual solder during desoldering operations; same as PD UNIVERSAL D but shorter; (length 201mm)

**DS 2500**

Solder dispenser with guiding tube that keeps the working area tidy and reduces solder waste. It is possible to add a second reel using the optional device DS-2500-AB. In the back of the dispenser it is possible to insert different hand tools to be used by the operator while soldering (such as soldering pump, tweezers, pliers or screwdrivers)

# Forming systems



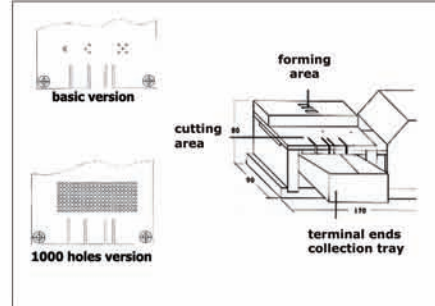
forming system

## 2000 S STANDARD VERSION



2000S is a pneumatic machine for the forming and cutting (standard height 3mm) of untaped electronic component terminals. 2000 S is supplied with a further cutting mask (1.5mm height). Several forming masks are available on request.

Holes diameter: 1.2  
Eyelet diameter: 1.0



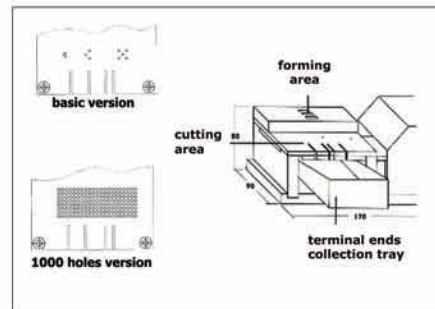
| Order code             | Cutting capacity comp/h | Holes diameter Ø mm | Eyelet diameter Ø mm | Weight (gr) | Dimensions |
|------------------------|-------------------------|---------------------|----------------------|-------------|------------|
| 2000S STANDARD VERSION | 1000-1500               | 1.2                 | 1.0                  | 4.0         | 170x90x80  |

## 2000 S 1000 HOLES VERSION



2000S is a pneumatic machine for the forming and cutting (standard height 3mm) of untaped electronic component terminals. 2000 S is supplied with a further cutting mask (1.5mm height). Several forming masks are available on request.

Holes diameter: 1.2  
Eyelet diameter: 1.0



| Order code               | Cutting capacity comp/h | Holes diameter Ø mm | Eyelet diameter Ø mm | Weight (gr) | Dimensions |
|--------------------------|-------------------------|---------------------|----------------------|-------------|------------|
| 2000S 1000 HOLES VERSION | 1000-1500               | 1.2                 | 1.0                  | 4.0         | 170x90x80  |

## 2000 SE STANDARD VERSION

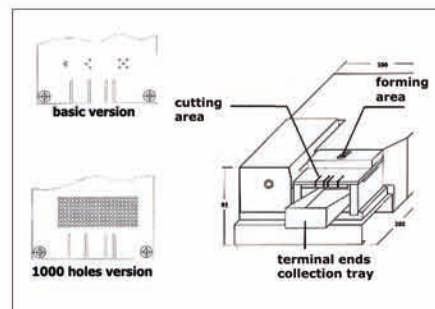


2000 SE is an electric machine for the forming and cutting (standard height 3mm) of untaped electronic component terminals. 2000 SE is supplied with a further cutting mask (1.5mm height). Several forming masks are available on request.

Holes diameter: 1.2  
Eyelet diameter: 1.0

Go to forming masks

This system is supplied with a IP 220V plug - plug adaptor with GP 220V/240V plug type.



| Order code              | Cutting capacity comp/h | Holes diameter Ø mm | Eyelet diameter Ø mm | Weight (gr) | Dimensions |
|-------------------------|-------------------------|---------------------|----------------------|-------------|------------|
| 2000SE STANDARD VERSION | 1300-1800               | 1.2                 | 1.0                  | 10.0        | 200x280x95 |

## 2000 SE 1000HOLES VERSION

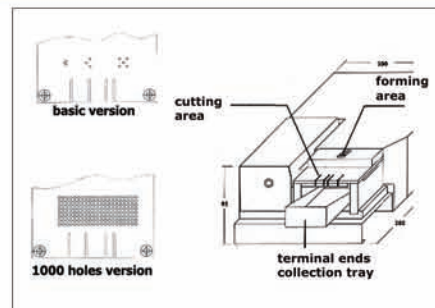


2000 SE is an electric machine for the forming and cutting (standard height 3mm) of untaped electronic component terminals. 2000 SE is supplied with a further cutting mask (1.5mm height). Several forming masks are available on request.

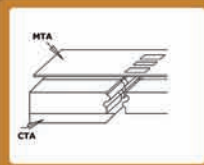
Holes diameter: 1.2  
Eyelet diameter: 1.0

Go to forming masks

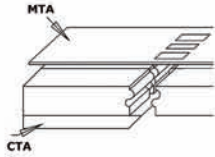
This system is supplied with a IP 220V plug - plug adaptor with GP 220V/240V plug type.



| Order code                | Cutting capacity comp/h | Holes diameter Ø mm | Eyelet diameter Ø mm | Weight (gr) | Dimensions |
|---------------------------|-------------------------|---------------------|----------------------|-------------|------------|
| 2000SE 1000 HOLES VERSION | 1300-1800               | 1.2                 | 1.0                  | 10.0        | 200x280x95 |

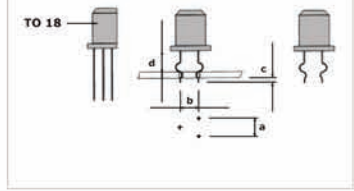


## PREF A - TO 18



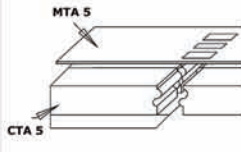
It forms and cuts 2.54 pitch transistors. It is possible to increase the D measure by spacing the MTA mask

\* The "c" value is referred to boards of 1.5mm thickness



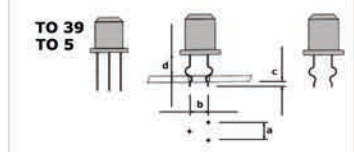
| Order code     | a (mm) | b (mm) | c* (mm) | d (mm) |
|----------------|--------|--------|---------|--------|
| PREF A - TO 18 | 2.54   | 1.27   | 1.40    | 4.00   |

## PREF A5 - TO 39 - TO5



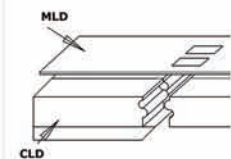
It forms and cuts 5.08 pitch transistors. It is possible to increase the D measure by spacing the MTA5 mask

\* The "c" value is referred to boards of 1.5mm thickness



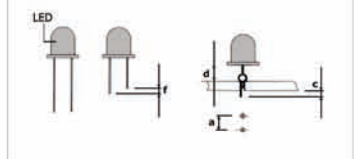
| Order code            | a (mm) | b (mm) | c* (mm) | d (mm) |
|-----------------------|--------|--------|---------|--------|
| PREF A5 - TO 39 - TO5 | 5.08   | 2.54   | 1.40    | 4.00   |

## PREF B - LED



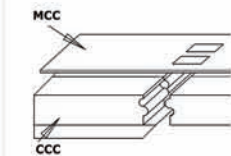
It forms and cuts 2.54 pitch led with the MLD mask, or 5.08 pitch led with the MCC mask. It is possible to increase the D measure by spacing the MLD or the MCC masks

\* The "c" value is referred to boards of 1.5mm thickness



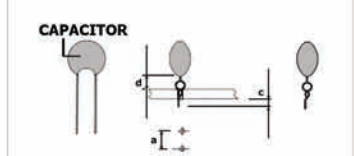
| Order code   | a (mm)      | c* (mm)         | d (mm) | f (mm) |
|--------------|-------------|-----------------|--------|--------|
| PREF B - LED | 2.54 - 5.08 | 1.40 short side | 3.50   | 0.60   |

## PREF C - CAPACITOR



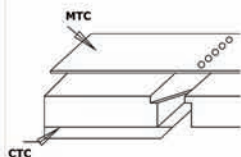
It forms and cuts the leds of 5.08 pitch capacitors. It is possible to increase the D measure by spacing the MCC mask

\* The "c" value is referred to boards of 1.5mm thickness



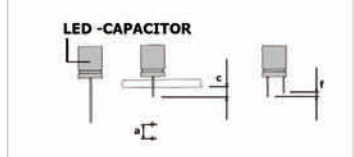
| Order code       | a (mm) | c* (mm) | d (mm) |
|------------------|--------|---------|--------|
| PREF C-CAPACITOR | 5.08   | 2.00    | 3.50   |

## PREF D - LED/CAPACITOR



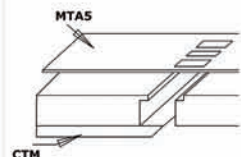
For cutting leds and capacitors when polarity needs to be distinguished. It is possible to increase the C measure by spacing the MTC mask

\* The "c" value is referred to boards of 1.5mm thickness



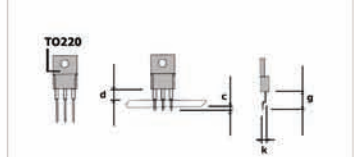
| Order code           | a (mm) | c* (mm)              | d (mm) |
|----------------------|--------|----------------------|--------|
| PREF D-LED/CAPACITOR | 2.54   | 1.50-4.50 short side | 0.6    |

## PREF E - TO220



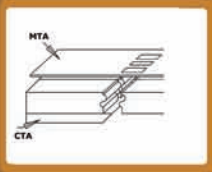
It forms and cuts the leds of TO 220 components. It is possible to increase the D and the G measures by spacing the MTA5 mask

\* The "c" value is referred to boards of 1.5mm thickness

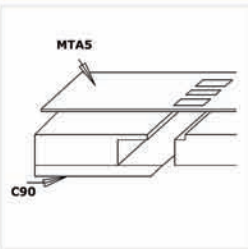


| Order code   | c* (mm) | d (mm) | k (mm) | g (mm) |
|--------------|---------|--------|--------|--------|
| PREF E-TO220 | 1.50    | 4.00   | 2.54   | 7.00   |



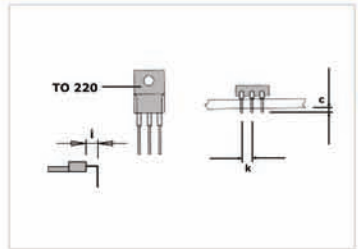


**PREF F - TO220**



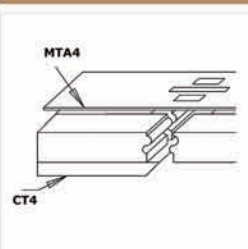
It forms at 90°angle and cuts the leds of TO 220 components, leds and capacitors. It is possible to increase the I measure by spacing the MTA5 mask

\* The "c" value is referred to boards of 1.5mm thickness



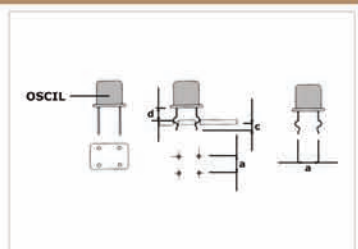
| Order code     | c* (mm) | i (mm) | k (mm) |
|----------------|---------|--------|--------|
| PREF F - TO220 | 1.50    | 2.50   | 2.54   |

**PREF G - OSCILLATOR**



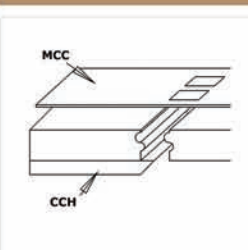
It forms and cuts oscillators. It is possible to increase the D measure by spacing the MTA4 mask

\* The "c" value is referred to boards of 1.5mm thickness



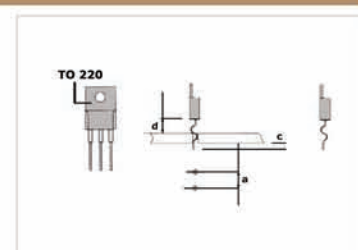
| Order code          | a (mm)    | c* (mm) | d (mm) |
|---------------------|-----------|---------|--------|
| PREF G - OSCILLATOR | 5.08-7.62 | 1.50    | 4.00   |

**PREF H - TO220 / CAPACITOR/LED**



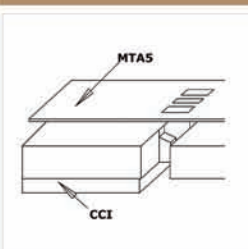
It forms and cuts 2.54 pitch led with the MLD mask, or 5.08 pitch led with the MCC mask. It is possible to increase the D measure by spacing the MLD or the MCC masks

\* The "c" value is referred to boards of 1.5mm thickness

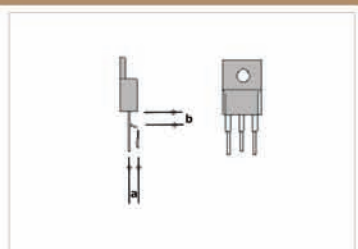


| Order code                                   | a (mm) | c *(mm) | d (mm) |
|--|--------|---------|--------|
| PREF H-TO220/CAPACITOR/LED TO 220 conden led | 2.54   | 1.40    | 4.00   |

**PREF I - TO220**

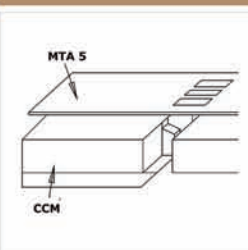


Special forming mask for the forming of TO 220 and TO 247. 2.54mm pitch of the central lead



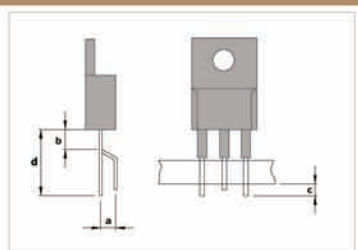
| Order code     | a (mm) | b (mm) |
|----------------|--------|--------|
| PREF I - TO220 | 2.54   | 3.00   |

**PREF M - TO220**



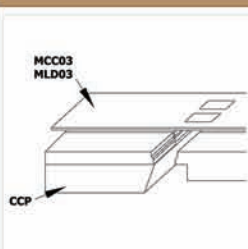
Special forming mask for the forming of TO 220. 2.54mm shift of the centre lead

\* The "c" value is referred to boards of 1.5mm thickness



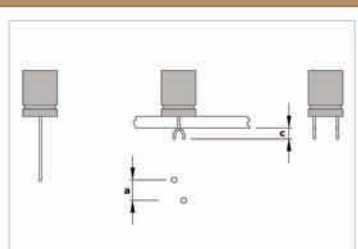
| Order code     | a (mm) | b (mm) | c* (mm) | d (mm) |
|----------------|--------|--------|---------|--------|
| PREF M - TO220 | 2.54   | 3.00   | 2.00    | 7.50   |

**PREF P - LED OR CAPACITOR**



It forms and cuts leds and capacitors, 2.54 pitch with MLD03 mask or 5.08 pitch with MCC03 mask

\* The "c" value is referred to boards of 1.5mm thickness



| Order code                | a (mm)    | c* (mm) |
|---------------------------|-----------|---------|
| PREF P - LED OR CAPACITOR | 2.54-5.08 | 1.50    |



# Cutting equipment

## MMP10



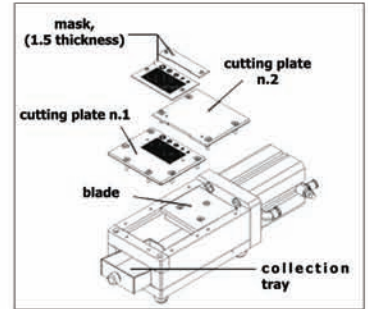
MMP 10 is a pneumatic machine designed to cut different untaped components (transistor, led, capacitor, resistor, etc.)

Standard cut is 3mm, but it can be modified increasing the thickness by means of the mask included (1.5 mm height).

Diameter of components leads the machine can cut goes from 0.3 to 1.3mm for a maximum number of 60 leads at the same time.

It can cut diameters up to 2.5mm with a customized mask.

Cutting capacity comp/hour 3000



| Order code | dimensions (LxDxH) cm | weight (kg) | working area |
|------------|-----------------------|-------------|--------------|
| MMP10      | 28x10x7.8             | 6.5         | 51x43        |

## MMP15



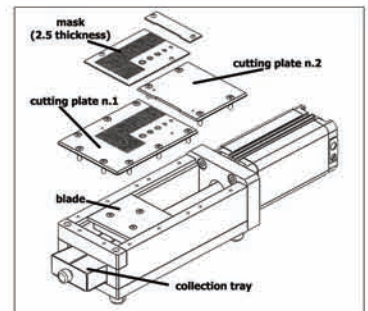
MMP 15 is a pneumatic machine designed to cut different untaped components (transistor, led, capacitor, resistor, etc.). Similar to MMP10 but with a bigger run.

Standard cut is 3mm, but it can be modified increasing the thickness by means of the mask included (height 1.5mm).

Diameter of components leads the machine can cut goes from 0.3 to 1.3mm for a maximum number of 60 leads at the same time.

It can cut diameters up to 2.5mm with a customized mask.

Cutting capacity comp/hour 3000.



| Order code | dimensions (LxDxH) cm | weight (kg) | working area |
|------------|-----------------------|-------------|--------------|
| MMP15      | 38x10x7.8             | 7.8         | 51x93        |

# Crimping equipment

## MMP 20



The MMP20 is an electric machine, CE approved, designed for the crimping of several STOCKO terminals

|                    |                   |
|--------------------|-------------------|
| MTL1 6670 terminal | from 1 to 12 path |
| MTL1 6690 terminal | from 1 to 12 path |
| MTL1 6710 terminal | from 1 to 12 path |
| MFMP 9290 terminal | from 2 to 12 path |
| MFMP 9261 terminal | from 2 to 12 path |
| MFMP 9271 terminal | from 2 to 12 path |

| Order code | dimensions (LxDxH) cm | weight (kg) |
|------------|-----------------------|-------------|
| MMP20      | 305x325x120           | 9.5         |

## MMP 25



The MMP25 is an electric machine, CE approved, designed for the crimping of several STOCKO terminals

|                           |                   |
|---------------------------|-------------------|
| Connector RFK 25-RAST 2.5 | with 2.5mm pitch  |
| Connector MFMP 7234       | from 2 to 20 path |
| Connector MFMP 7236       | from 2 to 20 path |
| Connector MFMP 7238       | from 2 to 20 path |
| Connector MFMP 7239       | from 2 to 20 path |
| Connector RAST 2.5        | with 5mm pitch    |
| Connector MFMP 7260       | from 2 to 12 path |
| Connector MFMP 7262       | from 2 to 12 path |

| Order code | dimensions (LxDxH) cm | weight (kg) |
|------------|-----------------------|-------------|
| MMP25      | 305x325x120           | 9.5         |

# 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) |
|------------|----------------|------------------------|--------------------|
| DP 15 N    | DP 15 N D      | 1.5 (.059")            | 3                  |
| DP 18 N    | DP 18 N D      | 1.8 (.070")            | 3                  |
| DP 20 N    | DP 20 N D      | 2.0 (.078")            | 3                  |
| DP 23 N    | DP 23 N D      | 2.3 (.090")            | 7                  |
| DP 24 N    | DP 24 N D      | 2.4 (.094")            | 7                  |
| DP 25 N    | DP 25 N D      | 2.5 (.098")            | 7                  |

## 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 |
|------------|----------------|------------------------|----------------------------|
| DPP 20 N   | DPP 20 N D     | 2.0 (.078")            | L20 - 2.0 mm (.078")       |
| DPP 23 N   | DPP 23 N D     | 2.3 (.090")            | L23 - 2.3 mm (.090")       |
| DPP 24 N   | DPP 24 N D     | 2.4 (.094")            | L24 - 2.4 mm (.094")       |
| DPP 25 N   | DPP 25 N D     | 2.5 (.098")            | L25 - 2.5 mm (.098")       |

## 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÷3 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÷3 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:

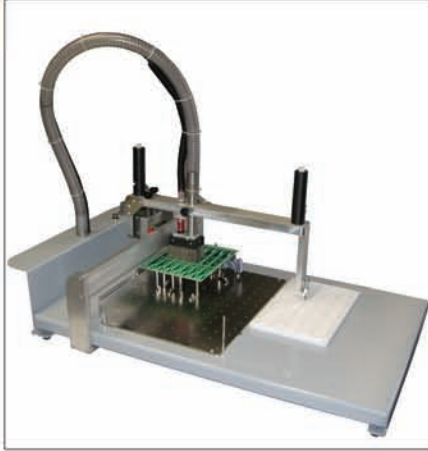
DPB-1-ST... blade thickness (2.5; 2.4; 2.3; 2) specifying also the type of blade.

The DPB is supplied with the "L" blade but it is possible to order also the "T" blade as shown in the picture.



# Depaneling-scoring systems

## 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.

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## TOOLS CATEGORIES

- tweezers
- form&crip systems
- optic fibres
- special tools
- shears & wire strippers
- depaneling
- extractors
- soldering
- blade treatment
- precision screwdrivers
- pliers
- forming tools
- cable strippers
- cable cutters
- pneumatic tools
-

## CUSTOM HANDLES

Piergiacomì is able to make custom handle (colour and brand) according to customers' requirements.  
Sales conditions to be defined



## ERGONOMIC NORMAL AND DISSIPATIVE MATERIAL

All our hand tools are supplied with new ERGONOMIC handles BIMATERIAL "dolphin".  
Furthermore all hand tools are available also in the dissipative version.



## CONVERSION TABLE AWG-Ø mm-Ø inches

| AWG  | Ø (mm) | Ø (inches) |
|------|--------|------------|
| 0000 | 11.64  | 0.4600     |
| 000  | 10.40  | 0.4096     |
| 00   | 9.266  | 0.3648     |
| 0    | 8.251  | 0.3249     |
| 1    | 7.348  | 0.2893     |
| 2    | 6.544  | 0.2578     |
| 3    | 5.627  | 0.2294     |
| 4    | 5.189  | 0.2043     |
| 5    | 4.621  | 0.1819     |
| 6    | 4.115  | 0.1620     |
| 7    | 3.685  | 0.1443     |
| 8    | 3.264  | 0.1285     |
| 9    | 2.906  | 0.1144     |

| AWG | Ø (mm) | Ø (inches) |
|-----|--------|------------|
| 10  | 2.588  | 0.1019     |
| 11  | 2.305  | 0.0907     |
| 12  | 2.053  | 0.08081    |
| 13  | 1.828  | 0.07196    |
| 14  | 1.628  | 0.06408    |
| 15  | 1.450  | 0.05707    |
| 16  | 1.291  | 0.05082    |
| 17  | 1.150  | 0.04526    |
| 18  | 1.024  | 0.04030    |
| 19  | 0.911  | 0.03589    |
| 20  | 0.818  | 0.03195    |
| 21  | 0.722  | 0.02846    |
| 22  | 0.643  | 0.02535    |

| AWG | Ø (mm) | Ø (inches) |
|-----|--------|------------|
| 23  | 0.573  | 0.02257    |
| 24  | 0.510  | 0.02010    |
| 25  | 0.454  | 0.01790    |
| 26  | 0.404  | 0.01594    |
| 27  | 0.360  | 0.01420    |
| 28  | 0.321  | 0.01264    |
| 29  | 0.285  | 0.01126    |
| 30  | 0.254  | 0.01003    |
| 31  | 0.226  | 0.008928   |
| 32  | 0.201  | 0.007950   |
| 33  | 0.179  | 0.007080   |
| 34  | 0.160  | 0.006305   |
| 35  | 0.142  | 0.005615   |

| AWG | Ø (mm) | Ø (inches) |
|-----|--------|------------|
| 36  | 0.127  | 0.005000   |
| 37  | 0.113  | 0.004453   |
| 38  | 0.100  | 0.003965   |
| 39  | 0.089  | 0.003531   |
| 40  | 0.079  | 0.003145   |
| 41  | 0.071  | 0.00280    |
| 42  | 0.063  | 0.00249    |
| 43  | 0.054  | 0.00222    |
| 44  | 0.050  | 0.001997   |
| 45  | 0.044  | 0.00176    |
| 46  | 0.039  | 0.00157    |

## THE COMPANY



Piergiacomì Sud, with its "Piergiacomì Quality Handtools" business line, is one of the leading company worldwide in the production of pressed steel hand tools for the electronics and, in part, for the electrotechnical fields. No other manufacturer has a range of tools as wide as Piergiacomì's: more than four hundred different types of tools, well known and sought after by the industrial electronics market worldwide.

Furthermore, with a view to a more professional outlook and also to diversify the range, since many years, vast investments have been made in order to develop a brand new line of products.

20 years ago another business line "Piergiacomì Robotics" was founded, with few machines for the production of bare boards and electronic circuits.

All Piergiacomì products can be seen on our website [www.piergiacomì.com](http://www.piergiacomì.com) or it is possible to ask for further information to the following e-mail address: [piergiacomì@piergiacomì.com](mailto:piergiacomì@piergiacomì.com)



## HOW TO REACH US

### Head quarters & Manufacturing Plant

via 81a strada 3, fraz. Centobuchi  
63076 Montepandone (ap), Italy  
tel +39 0735 703333 / 703315 fax +390735 703757

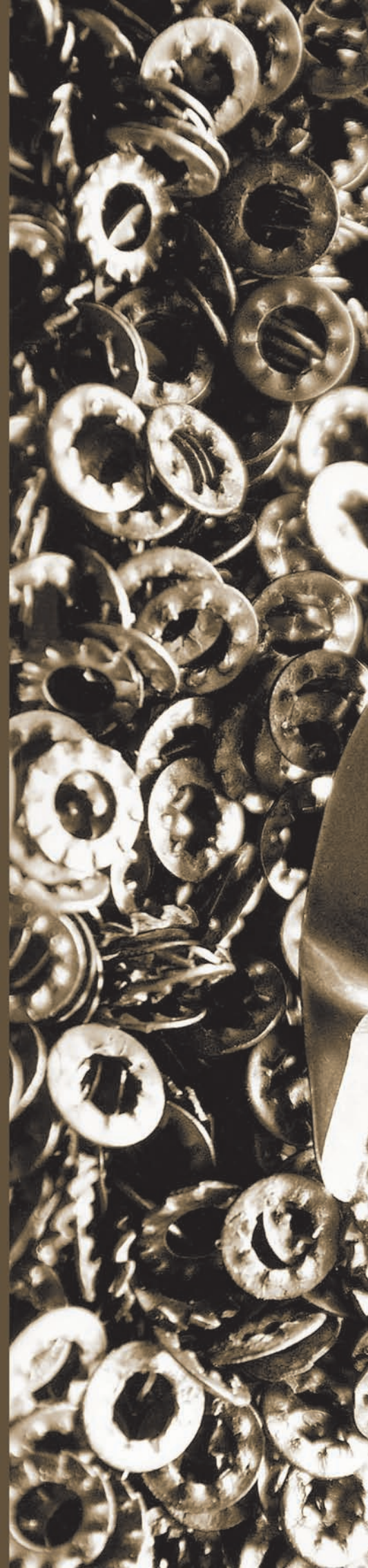


### Sales & Marketing

via gramsci 3, 60022 Castelfidardo (an), Italy  
tel +39 071 78678-780211 fax +39 071 7822536  
e-mail: [piergiacomì@piergiacomì.com](mailto:piergiacomì@piergiacomì.com)







## **Piergiacomì Sud**

### **sales & marketing**

60022 castelfidardo (an) italy - via gramsci 3

tel. +39 07178678 - 071 780211 - fax +39 0717822536

### **head quarters & manufacturing plant**

63076 montepandone (ap) italy - fraz. centobuchi via 81a strada 3

tel. +39 0735703333 (2 linee r.a.) fax +39 0735703757

[www.piergiacomì.com](http://www.piergiacomì.com)

[piergiacomì@piergiacomì.com](mailto:piergiacomì@piergiacomì.com)

printed october 2014



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QUALITY HAND TOOLS



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[37 33 125](#) [DRP10N](#) [32 11 135](#) [36 12 130](#) [0036](#) [64 11 115](#) [0032](#) [6231-08](#) [PN 5050/19D](#) [PNI 5000](#) [TP 5000/15D](#) [TR 5000 PR](#) [TR 58 R A D](#)  
[00 20 08 US2](#) [13 01 614](#) [87 28 250 SBA](#) [INCP8](#) [30993](#) [011820101](#) [011830101](#) [011910110](#) [003780032](#) [003780041](#) [134-69-160](#) [134-69-180](#)  
[135-49-VDE-190](#) [137-49-VDE-180](#) [137-49-VDE-200](#) [137-49-VDE-240](#) [137-69-180](#) [137-69-200](#) [137-69-240](#) [138-49-VDE-200](#) [138-69-200](#)  
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