













Special tools "C" shape forming pliers

| Order code | Tip | length (mm) | cutting force (kg) | copper wire Ø mm awg | | Notes |
|--------------------|---|-------------|--------------------|-------------------------|----|--|
| PNR 30D |  | 145 | 3 | 1.02 | 18 | C shape forming pliers. ESD safe handles. |
| PNG 5000D |  | 150 | 3 | 1.02 | 18 | C shape forming pliers. ESD safe handles. |
| PNR 5000D |  | 150 | 3 | 1.02 | 18 | cutting and C shape forming pliers. ESD safe handles. |
| PNR 5010D |  | 150 | 3 | 1.02 | 18 | it cuts & forms in a double opposite C shape the component wire in one step. ESD safe handles. |
| PTR 30 CD |  | 150 | 3 | 1.02 | 18 | C shape forming pliers which cuts the residual part at 3mm. ESD safe handles. |
| PTR 30 C/5D |  | 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 Ø mm awg | | Notes |
|------------------|---|-------------|--------------------|-------------------------|-------|---|
| PPR 5000D |  | 150 | 3 | 0.6-0.8 | 22-20 | U shape forming pliers. ESD safe handles. |
| PPR 5001D |  | 150 | 3 | 0.6-0.8 | 22-20 | U shape forming pliers. ESD safe handles. |
| PPR 5002D |  | 150 | 3 | 0.6-0.8 | 22-20 | U shape forming pliers. ESD safe handles. |
| PPR 5003D |  | 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 Ø mm awg | | Notes |
|--------------------|---|-------------|--------------------|-------------------------|----|---|
| PN 5040/90D |  | 158 | 3 | 1.30 | 16 | cutting and 90°shape forming pliers. ESD safe handles |
| PN 5040/7D |  | 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 Ø mm awg | | Notes |
|------------------|---|-------------|--------------------|-------------------------|----|---|
| PTR 30 LD |  | 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 Ø mm awg | | Notes |
|--------------------|---|-------------|--------------------|-------------------------|----|---|
| PN 5050D |  | 155 | 3 | 1.30 | 16 | forming of the central lead of TO 220, 3.81mm pitch. ESD safe handles. |
| PN 5050/3D |  | 158 | 3 | 1.30 | 16 | forming of the central lead of TO247 & TO220, 5.08mm pitch. ESD safe handles. |
| PN 5050/14D |  | 158 | 3 | 1.30 | 16 | forming of the central lead of TO 220, 3.0mm pitch. ESD safe handles. |
| PN 5050/15D |  | 158 | 3 | 1.30 | 16 | forming of the central lead of TO 220, 2.54mm pitch. ESD safe handles. |
| PN 5050/04D |  | 158 | 3 | 1.30 | 16 | forming of side leads of TO 247 and TO220, 5.08mm pitch. ESD safe handles. |
| PN 5050/10D |  | 158 | 3 | 1.30 | 16 | forming of side leads of TO 220 and TO 247, 2.54mm pitch. ESD safe handles. |
| PN 5050/60D |  | 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. |
| PN 5050/16D |  | 158 | 3 | 1.30 | 16 | forming of side leads of TO 247 and TO220, 3.81mm pitch. ESD safe handles. |
| PN 5050/19D |  | 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. |
| PN 5050/38D |  | 158 | 3 | 1.30 | 16 | forming of 1-3-5 leads of TO220 at 3.0mm pitch (5 leads). ESD safe handles. |
| PN 5050/54D |  | 158 | 3 | 1.30 | 16 | forming of 1-3-5 leads of TO220 at 2.54mm pitch (5 leads). ESD safe handles. |





| | | | | | | |
|--------------------|--|-----|---|------|----|--|
| PN 5050/36D | | 158 | 3 | 1.30 | 16 | forming of 2-4 dei TO220 leads of TO220 at 3.0mm pitch (5 leads). ESD safe handles. |
| PN 5050/53D | | 158 | 3 | 1.30 | 16 | forming of 2-4 dei TO220 leads of TO220 at 2.54mm pitch (5 leads). ESD safe handles. |
| PN 5050/6D | | 155 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving longer of 2.54mm the central lead. ESD safe handles. |
| PN 5050/7D | | 155 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving longer of 2.54mm the side leads. ESD safe handles. |
| PN 5050/17D | | 158 | 3 | 1.30 | 16 | forming of TO 220 at 90° leaving longer the central lead by 3.81mm. ESD safe handles. |
| PN 5050/21D | | 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 |
| PN 5050/37D | | 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 |
| PN 5050/46D | | 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 |
| PN 5050/47D | | 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 |
| PN 5050/49D | | 158 | 3 | 1.30 | 16 | forming of the central lead of TO 92 at 2.54mm pitch. ESD safe handles. |
| PN 5050/25D | | 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 Ø mm awg | | notes |
|------------------|-----|-------------|--------------------|-------------------------|----|---|
| PNI 5000D | | 150 | 3 | 0.80 | 20 | cutting and forming pliers of small ICS. ESD safe handles. |
| PNI 5015D | | 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 Ø mm awg | | notes |
|---------------|-----|-------------|--------------------|-------------------------|----|---|
| TS 30D | | 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 Ø mm awg | | notes |
|--------------------|-----|-------------|--------------------|-------------------------|----|---|
| TP 30D | | 138 | 3 | 1.02 | 18 | cut and bend pliers. ESD safe handles. |
| TP 5000/15D | | 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 |
|----------------|-----|-------------|---|
| P1 | | 155 | tool for the application of straight seegers |
| P2 | | 155 | tool for the application of straight seegers |
| PP1 | | 150 | tool for the application of seegers; 90° nosetool |
| PP2 | | 150 | for the application of seegers; 90° nose |
| PN 5030 | | 155 | tool for the manipulation of seegers |

pliers for contacts insertion

| Order code | Tip | Lenght (mm) | hrc | weight (gr) | notes |
|------------------|-----|-------------|-------|-------------|--|
| PPN 04 NB | | 170 | 46-48 | 115 | pliers for the insertion of contacts in multipolar connectors; dimensions 16-18-20 |
| PPN 05 NB | | 170 | 46-48 | 115 | pliers for the insertion of contacts in multipolar connectors; dimensions 12-16 |
| PPN 06 NB | | 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 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 force (kg) | copper wire Ø mm awg | plastic wire (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 (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 force (kg) | copper wire Ø mm awg | iron wire (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% |

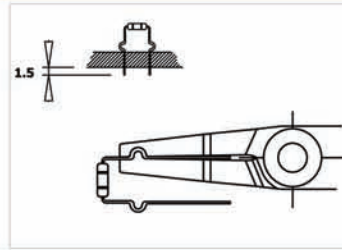
Special tools "C" shape forming pliers



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.

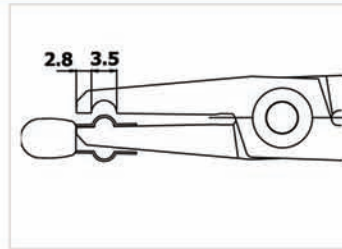


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNR 30 D | 145 | 3 | 1.02 | 18 |

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

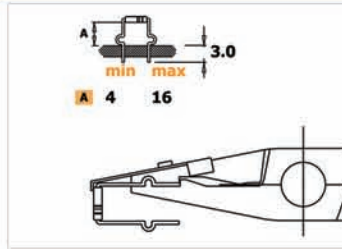


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNG 5000 D | 150 | 3 | 1.02 | 18 |

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

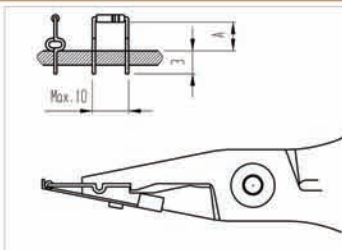


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNR 5000 D | 150 | 3 | 1.02 | 18 |

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

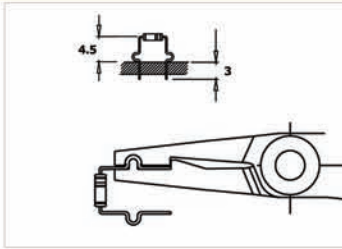


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNR 5010 D | 150 | 3 | 1.02 | 18 |

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

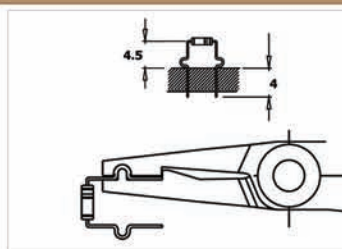


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PTR 30 CD | 150 | 3 | 1.02 | 18 |

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



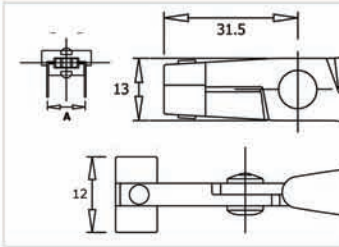
special tools

PPR 5000D



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

ESD-safe handles.



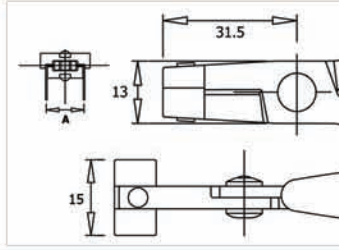
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5000D | 150 | 3 | 0.6-0.8 | 22-20 |

PPR 5001D



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

ESD-safe handles.



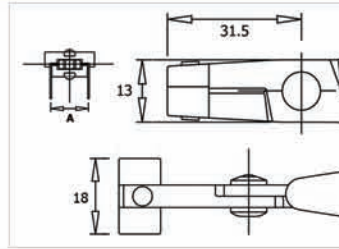
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5001D | 150 | 3 | 0.6-0.8 | 22-20 |

PPR 5002D



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

ESD-safe handles.



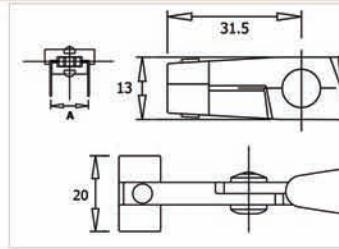
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PPR 5002D | 150 | 3 | 0.6-0.8 | 22-20 |

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 |

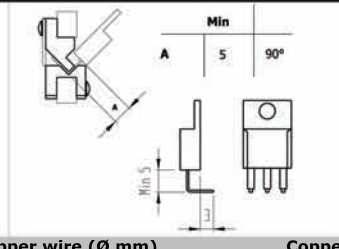
Special tools "90°" forming pliers

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.

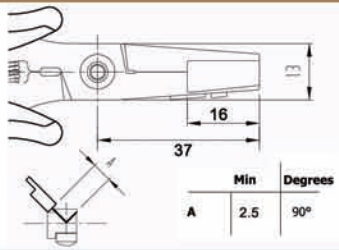


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5040/90D | 158 | 3 | 1.30 | 16 |

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 |

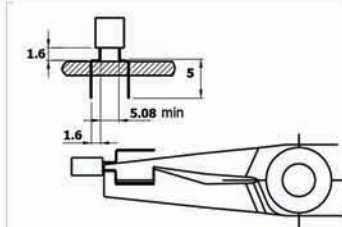


Special tools "L" shape forming pliers

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



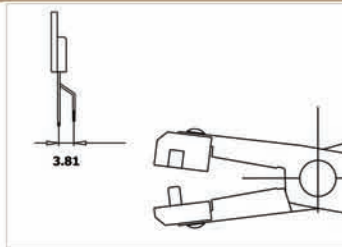
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PTR 30 LD | 150 | 3 | 1.02 | 18 |

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.

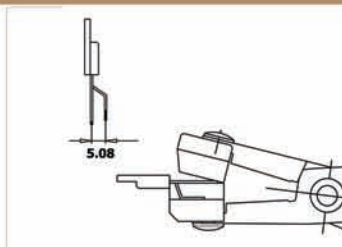


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050D | 155 | 3 | 1.30 | 16 |

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.

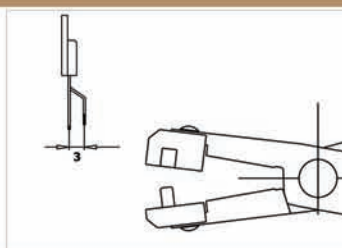


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/3D | 158 | 3 | 1.30 | 16 |

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.

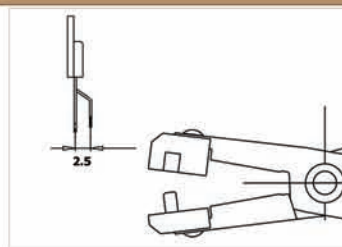


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/14D | 158 | 3 | 1.30 | 16 |

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.



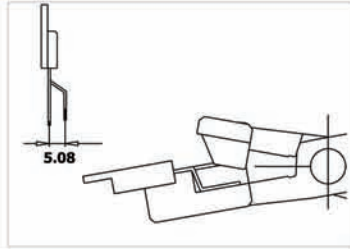
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/15D | 158 | 3 | 1.30 | 16 |



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.

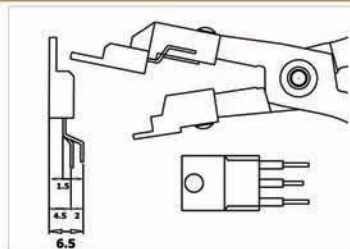


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/04D | 158 | 3 | 1.30 | 16 |

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.

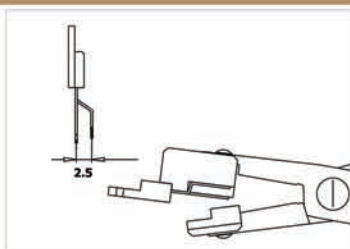


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/60D | 158 | 3 | 1.30 | 16 |

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.

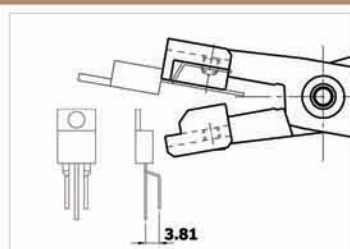


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/10D | 158 | 3 | 1.30 | 16 |

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.

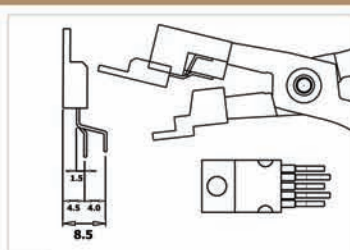


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/16D | 158 | 3 | 1.30 | 16 |

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.

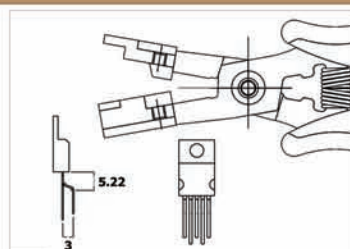


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/19D | 158 | 3 | 1.30 | 16 |

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.



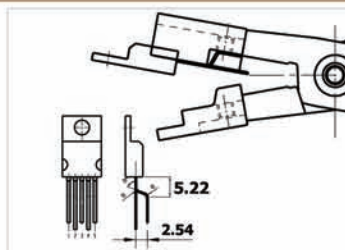
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/38D | 158 | 3 | 1.30 | 16 |



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.

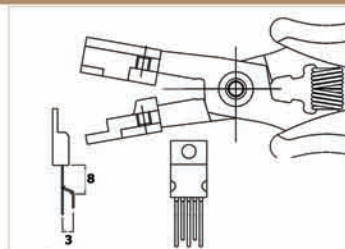


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/54D | 158 | 3 | 1.30 | 16 |

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.

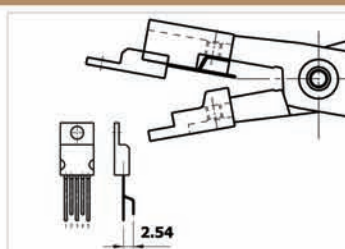


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/36D | 158 | 3 | 1.30 | 16 |

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.

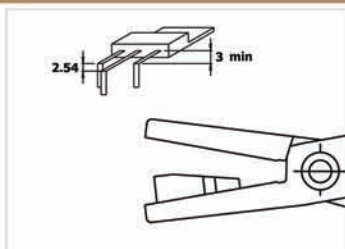


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/53D | 158 | 3 | 1.30 | 16 |

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.

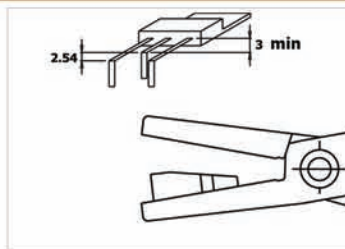


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/6D | 155 | 3 | 1.30 | 16 |

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.

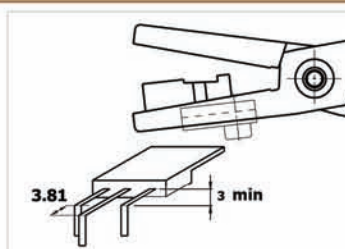


| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/7D | 155 | 3 | 1.30 | 16 |

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.



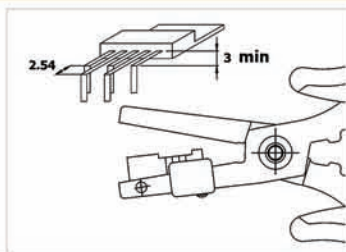
| Order code | Length (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/17D | 158 | 3 | 1.30 | 16 |



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.

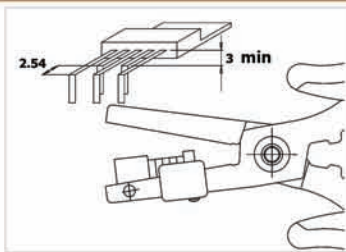


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/21D | 155 | 3 | 1.30 | 16 |

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.

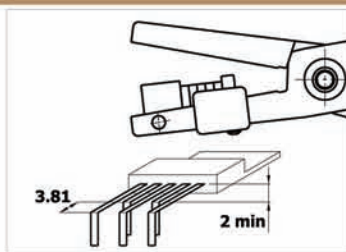


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/37D | 158 | 3 | 1.30 | 16 |

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.

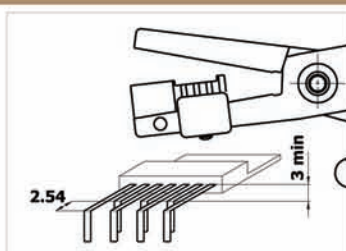


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/46D | 158 | 3 | 1.30 | 16 |

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.

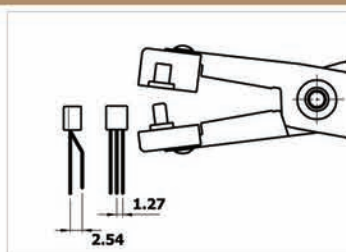


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/47D | 158 | 3 | 1.30 | 16 |

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.

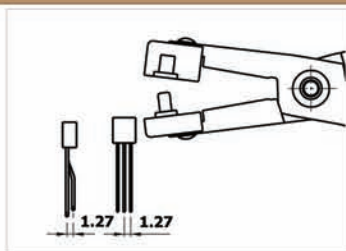


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|-------------|-------------|--------------------|--------------------|-------------------|
| PN 5050/49D | 158 | 3 | 1.30 | 16 |

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 |

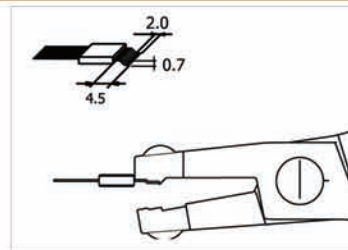


Special tools *cut of small ICs pliers*

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.

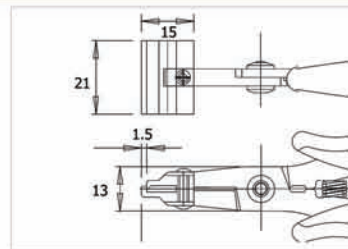


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNI 5000D | 150 | 3 | 0.80 | 20 |

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.



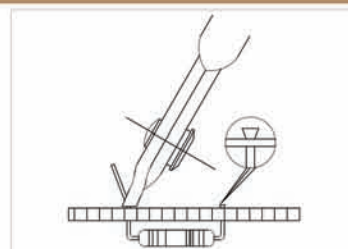
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| PNI 5015D | 155 | 5 | 0.64 | 22 |

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.



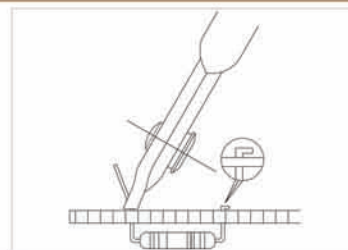
| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| TS 30D | 138 | 9 | 1.02 | 18 |

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.

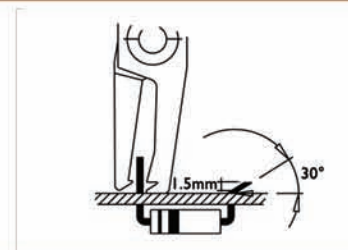


| Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|-------------|--------------------|--------------------|-------------------|
| TP 30D | 138 | 3 | 1.02 | 18 |

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*

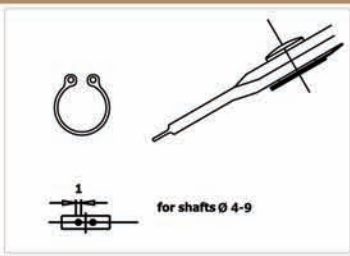


special tools

P1



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

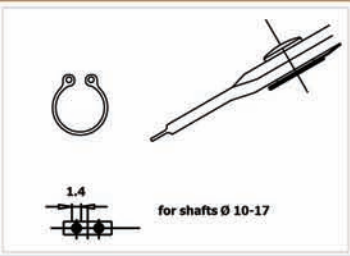


| Order code | ESD Order code | Lenght (mm) | For shafts (Ø mm) | Tip diameter (Ø mm) |
|------------|----------------|-------------|-------------------|---------------------|
| P1 | P1 D | 155 | 4-9 | 1.0 |

P2



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

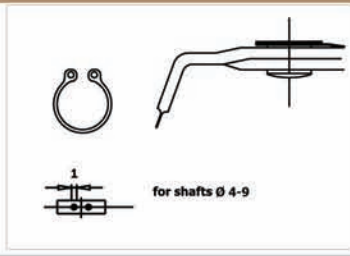


| Order code | ESD Order code | Lenght (mm) | For shafts (Ø mm) | Tip diameter (Ø mm) |
|------------|----------------|-------------|-------------------|---------------------|
| P2 | P2 D | 155 | 10-17 | 1.4 |

PP1



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

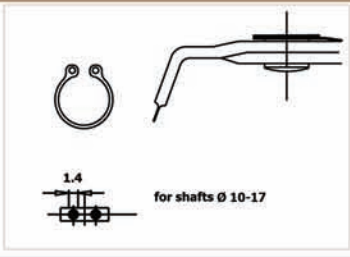


| Order code | ESD Order code | Lenght (mm) | For shafts (Ø mm) | Tip diameter (Ø mm) |
|------------|----------------|-------------|-------------------|---------------------|
| PP1 | PP1 D | 150 | 4-9 | 1.0 |

PP2



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

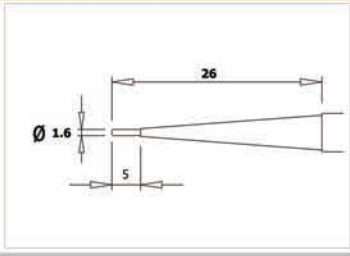


| Order code | ESD Order code | Lenght (mm) | For shafts (Ø mm) | Tip diameter (Ø mm) |
|------------|----------------|-------------|-------------------|---------------------|
| PP2 | PP2 D | 150 | 10-17 | 1.4 |

PN 5030



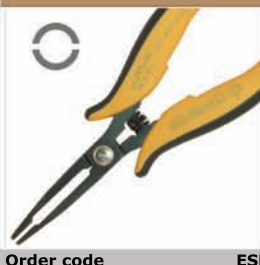
PN 5030: Pliers for the removal or insertion of internal seeger rings. For shafts Ø 14-30mm. Steel thickness 5mm. Tool length 155mm. ESD-safe handles version available



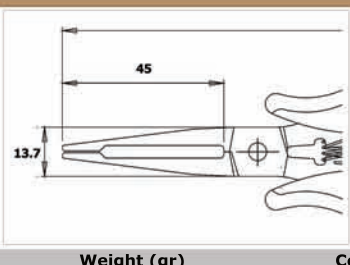
| Order code | ESD Order code | Lenght (mm) | For shafts (Ø mm) | Tip diameter (Ø mm) |
|------------|----------------|-------------|-------------------|---------------------|
| PN 5030 | PN 5030 D | 155 | 14-30 | 1.6 |

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

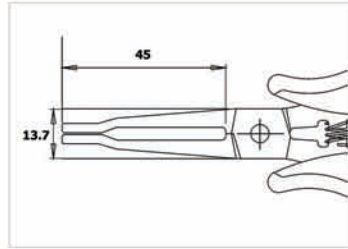


| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Contacts dimensions (Ø mm) |
|------------|----------------|-------------|-------------|----------------------------|
| PPN 04 NB | PPN 04 NB D | 170 | 115 | 16-18-20 |

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

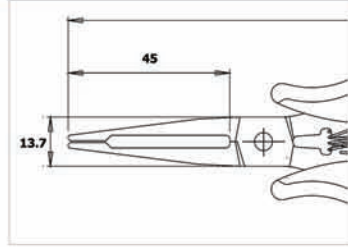


| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Contacts dimensions (Ø mm) |
|------------|----------------|-------------|-------------|----------------------------|
| PPN 05 NB | PPN 05 NB D | 170 | 115 | 12-16 |

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



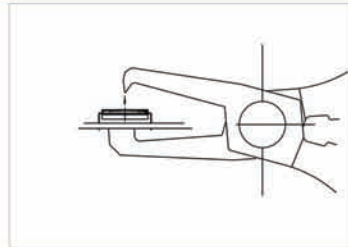
| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Contacts dimensions (Ø mm) |
|------------|----------------|-------------|-------------|----------------------------|
| PPN 06 NB | PPN 06 NB D | 170 | 115 | 20-22-26 |

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



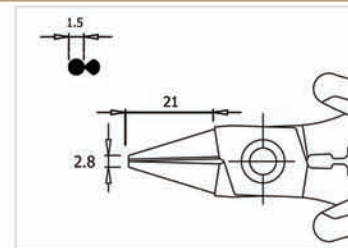
| Order code | ESD Order code | Lenght (mm) | Weight (gr) | Cutting force (kg) |
|------------|----------------|-------------|-------------|--------------------|
| PN 5050/5 | PN 5050/5 D | 152 | 100 | 3 |

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



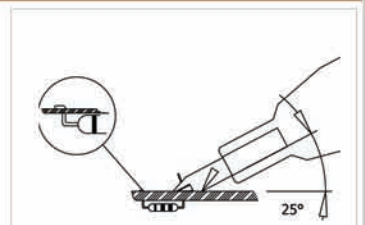
| Order code | ESD Order code | Lenght (mm) | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) |
|------------|----------------|-------------|--------------------|--------------------|-------------------|
| PN 5025 C | PN 5025 C D | 147 | 3 | 1.02 | 18 |

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.



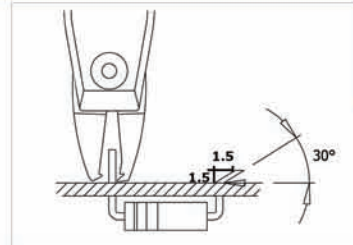
| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TP 6000 | 50 | 1.02 | 18 | - |



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

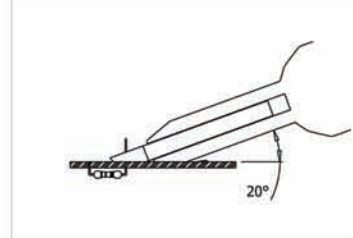


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|----------------|--------------------|--------------------|-------------------|-------------------|
| TPP TP 6000-15 | 70 | 1.02 | 18 | - |

TPP TR 6000



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

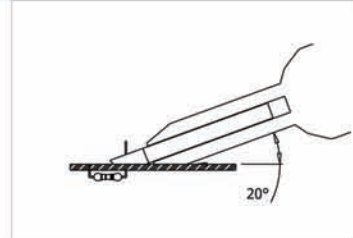


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 | 90 | 1.60 | 14 | - |

TPP TR 6000 C



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



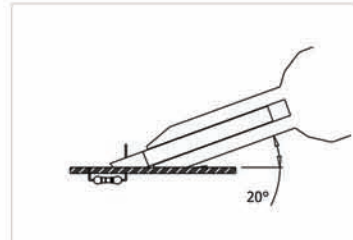
| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 C | 110 | 1.80 | 13 | - |

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

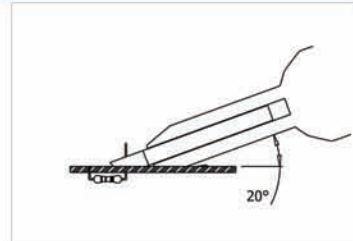


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 A | 90 | 1.60 | 14 | - |

TPP TR 6000 R



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

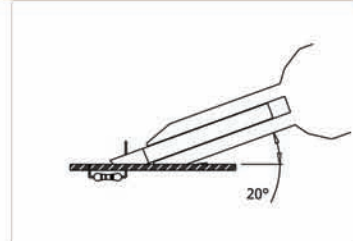


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 R | 90 | 1.60 | 14 | - |

TPP TR 6000 PR



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



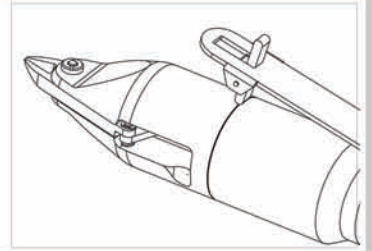
| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|----------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 PR | 90 | 1.30 | 16 | - |



TPP TM 6000



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

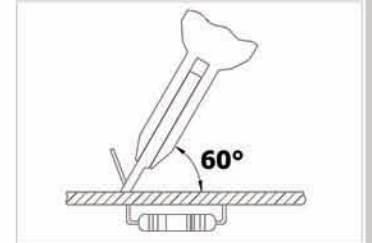


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TM 6000 | 190 | - | - | 7 |

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.

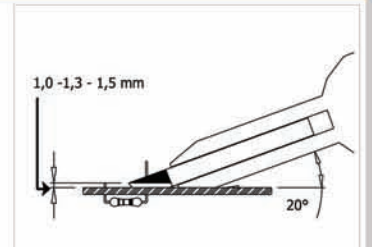


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|---------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 V | 80 | 1.30 | 16 | - |

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.

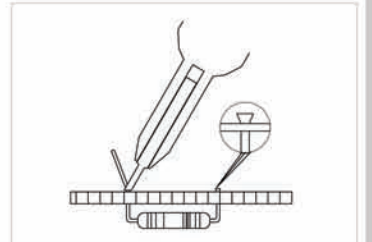


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|------------------------|--------------------|--------------------|-------------------|-------------------|
| TPP TR 6000 (10-13-15) | 90 | 1.60 | 14 | - |

TPP TS 6000



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

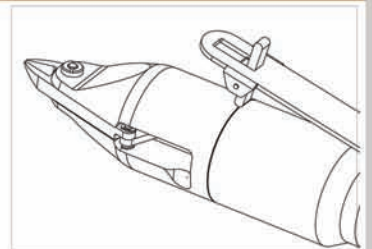


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Plastic wire (mm) |
|-------------|--------------------|--------------------|-------------------|-------------------|
| TPP TS 6000 | 80 | 1.30 | 16 | - |

TPP TM 6000 R



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

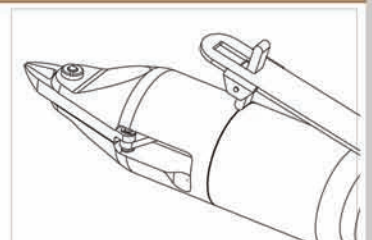


| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Iron wire (mm) |
|---------------|--------------------|--------------------|-------------------|----------------|
| TPP TM 6000 R | 190 | 2.60 | 10 | 2 |

TPP TM 6000 S



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



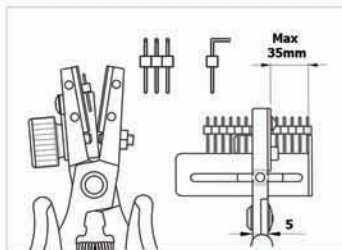
| Order code | Cutting force (kg) | Copper wire (Ø mm) | Copper wire (awg) | Iron wire (mm) |
|---------------|--------------------|--------------------|-------------------|----------------|
| TPP TM 6000 S | 190 | 2.60 | 10 | 2 |

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;



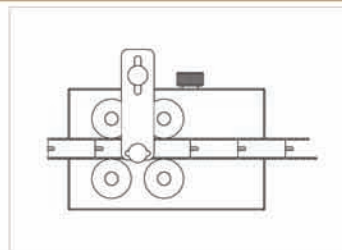
Special tools *pins aligners*

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)

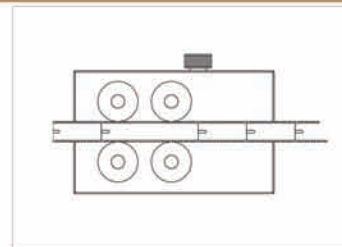


SAL 01 NN



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 \pm 10%.

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

