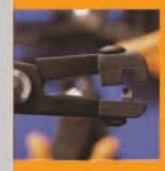
Special tools - summary



Tip	Order code	lenght mm	cutting force kg	copper wire Ø mm	awg	Notes
	TS 30	138	9	1.02	18	cutting and pressing tool
	TP 30	138	3	1.02	18	cutting and bending tool
	TP 5000/15	147	3	1.02	18	it cuts and bends the component lead in one operation, fixing it to the circuit board
	PNR 30	145	3	1.02	18	C type pre-forming tool
	PNG 5000	150	3	1.02	18	C type pre-forming tool
	PNR 5000	150	3	1.02	18	cutting and C type pre-forming tool
	PTR 30 C	150	3	1.02	18	cutting and C type pre-forming tool
	PTR 30 L	150	3	1.02	18	cutting and L type pre-forming tool
	PPR 5001	150	3	0.6-0.8	22-20	U type pre-forming tool
	PPR 5002	150	3	0.6-0.8	22-20	U type pre-forming tool
	PPR 5003	150	3	0.6-0.8	22-20	U type pre-forming tool
	PNI 5000	150	3	0.8	20	cutting and pre-forming tool for small ICs
	PNI 5015	155	5	0.64	22	cut at 1.5mm height from the surface of a leads row
	PN 5040	150	3	1.30	16	90°pre-forming tool
	PN 5050	155	3	1.30	16	pre-forming of centre lead of TO 220, 3.81mm pitch
	PN 5050/14	158	3	1.30	16	pre-forming of centre lead of TO 220, 3.0mm pitch
	PN 5050/15	158	3	1.30	16	pre-forming of centre lead of TO 220, 2.5mm pitch
	PN 5050/3	158	3	1.30	16	pre-forming of centre lead of TO247, 5.08mm pitch
	PN 5050/4	158	3	1.30	16	pre-forming of side leads of TO 247, 5.08mm pitch
	PN 5050/10	158	3	1.30	16	pre-forming of side leads of TO 220, 2.5mm pitch
	PN 5050/6	155	3	1.30	16	pre-forming of TO 220 at 90° leaving longer the central lead
	PN 5050/7	155	3	1.30	16	pre-forming of TO 220 at 90° leaving longer later leads
	PN 5050/21	155	3	1.30	16	pre-forming of TO 220 at 90° leaving the 1-3-5 leads shorter of 2 - 4 leads
	PN 5050/37	158	3	1.30	16	pre-forming of TO 220 at 90° leaving the 2-4 leads shorter of 1- 3 - 5 leads
	PN 5050/36	158	3	1.30	16	pre-forming of TO 220 2 - 4 leads, 3 mm pitch
	PN 5050/38	158	3	1.30	16	pre-forming of TO 220 1-3-5 leads, 3 mm pitch
	P1	155	-	-	-	tool for application of straight seegers
	P2	155	-	-	-	tool for application of straight seegers
	PP1	150	-	-	-	90°tool for application of straight seegers
	PP2	150	-	-	-	90°tool for application of straight seegers
	PN 5030	155	-	-	-	tool for application of internal seegers

PHOTO	NOTES	TECHNICAL SPECIFICATIONS

DPP

Pneumatic tool designed to eliminate all depannelling problems, above all taking into account the cost factor. 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 us to satisfy all customer requirements.

(Isthmus lenght 1÷3 mm)

Different blades available on request.

order code	blade thickness
DPP 20 N	2.0mm
DPP 23 N	2.3mm
DPP 24 N	2.4mm
DPP 25 N	2.5mm

SSF

"DPP MONO" Depanneling machine with 1 pneumatic head and blades of: 2-2.3-2.4-2.5 mm

PCB specifications when you use DPP MONO:

Blade thickness : 2.5 – 2.4 –2.3- 2 mm

Isthmus lenght 1÷4 mm

order code	blade thickness
SSF-1-ST-20	2.0mm
SSF-1-ST-23	2.3mm
SSF-1-ST-24	2.4mm
SSF-1-ST-25	2.5mm

SDP

"DPP TANDEM" Depanneling machine from 1 to 3 pneumatic heads and blades of: 2-2.3-2.4-2.5 mm

PCB specifications when you use DPP TANDEM:

Blade thickness: 2.5 – 2.4 –2.3- 2 mm
Isthmus: 1÷3 mm – Tol. 0 +0.1 mm
N° of heads max: 5
Min distance between two heads: 55 mm
Max. distance between two heads: 425 mm

How to order: SDP-...-ST-...

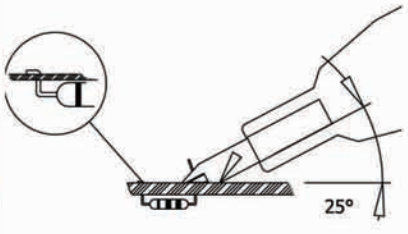
SDP - heads number (from 1 to 5) - ST - blade thickness (2.5; 2.4; 2.3; 2)

TPP-TP 6000

Pneumatic cutting and bending tool which blocks the component to the PCB.

Different blades available on request.

cutting force kg	copper wire Ø mm	copper wire awg
22	1.02	18

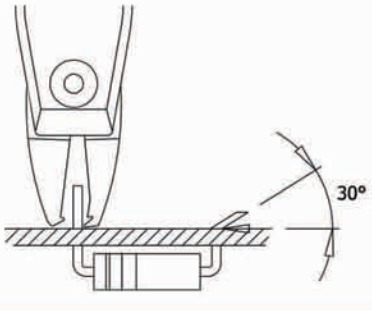


TPP-TP 6000-15

Pneumatic cutting and bending tool which blocks the component to the PCB. Similar to TPP-TP-6000 but more ideal for working in high density areas.

Different blades available on request.

cutting force kg	copper wire Ø mm	copper wire awg
22	1.02	18



TPP-TR 6000

Pneumatic chamfered cutting tool.

Different blades available on request.

cutting force kg	copper wire Ø mm	copper wire awg
22	1.60	14

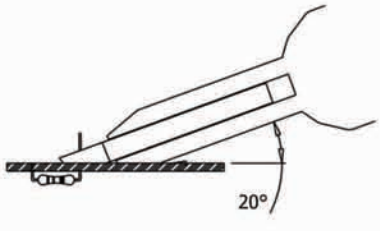
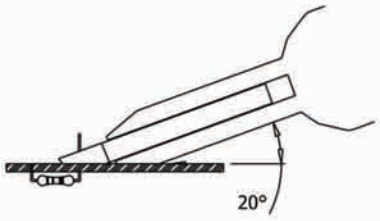


PHOTO	NOTES	TECHNICAL SPECIFICATIONS

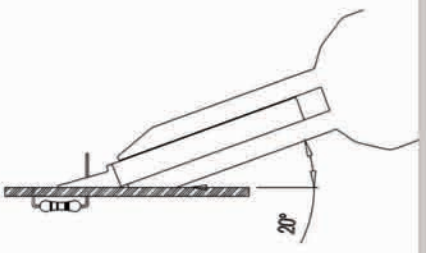
TPP-TR 6000 R
Pneumatic flush cutting tool.
Different blades available on request.

cutting force kg	copper wire Ø mm	copper wire awg
22	1.60	14



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

cutting force kg	copper wire Ø mm	copper wire awg
22	1.30	16

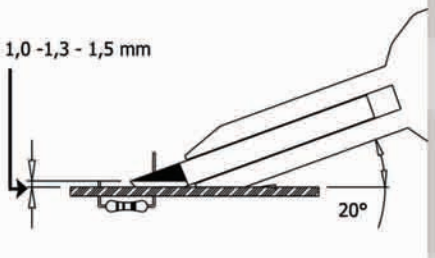


TPP-TR 6000 at different height
Pneumatic flush cutting tool at different height from the surface (1.0, 1.3, 1.5 mm).

order code	height from surface mm
TPP-TR 6000-10	1.0
TPP-TR 6000-13	1.3
TPP-TR 6000-15	1.5

Different blades available on request.

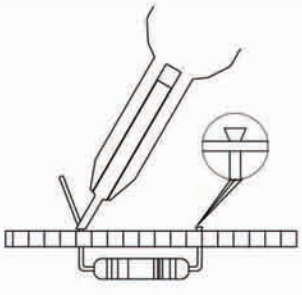
cutting force kg	copper wire Ø mm	copper wire awg
22	1.60	14



TPP-TS 6000
Pneumatic cutting and pressing tool which blocks the component to the PCB.

Different blades available on request.

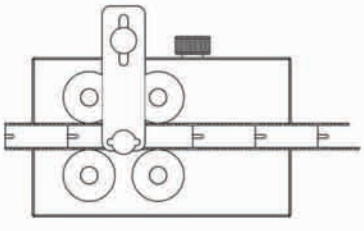
cutting force kg	copper wire Ø mm	copper wire awg
22	1.30	16



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

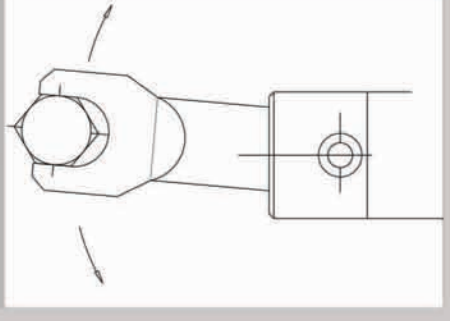
width pins (0.3" a 0.9") – (7 – 24 mm)

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



CHD 08 01
Torque spanner for M8 nuts with torque setting of 1 Nm ±10%.

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



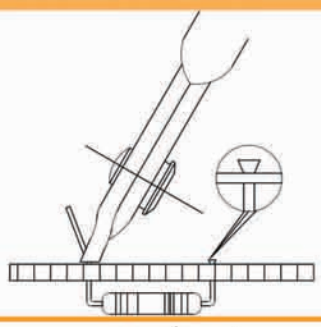
Tip	Order code	length mm	HRC	Weight	Notes
	PPN 04	113	46-48	170	pliers for the insertion of contacts in multipolar connectors with dimensions 16
	PPN 05	113	46-48	170	pliers for the insertion of contacts in multipolar connectors with dimensions 15-18-22-26
	PPN 06	113	46-48	170	pliers for the insertion of contacts in multipolar connectors with dimensions 20
			cutting force kg	copper wire Ø mm awg	
	PN 5025 C	147	3	1.02 18	round nose pliers with cutting points
	PN 5050/5	152	3	- -	pin separation tool
				blade mm	
	DP 15 N	147	3	1.5	MANUAL depanellizing tool
	DP 18 N	147	3	1.8	MANUAL depanellizing tool
	DP 20 N	147	3	2.0	MANUAL depanellizing tool
	DP 23 N	147	7	2.3	MANUAL depanellizing tool
	DP 24 N	147	7	2.4	MANUAL depanellizing tool
	DP 25 N	147	7	2.5	MANUAL depanellizing tool
	DPP 20 N	-	40	2.0	PNEUMATIC depanellizing tool
	DPP 23 N	-	40	2.3	PNEUMATIC depanellizing tool
	DPP 24 N	-	40	2.4	PNEUMATIC depanellizing tool
	DPP 25 N	-	40	2.5	PNEUMATIC depanellizing tool
	SSF	-	50	2÷2.5	depanneling machine with 1 pneumatic head
	SDP	-	50	2÷2.5	depanneling machine from 1 to 3 pneumatic heads
				copper wire Ø mm awg	
	TPP-TP 6000	-	22	1.02 18	pneumatic cutting and bending tool
	TPP-TP 6000-15	-	22	1.02 18	pneumatic cutting and bending tool
	TPP-TR 6000	-	22	1.60 14	pneumatic chamfered cutting tool
	TPP-TR 6000 R	-	22	1.60 14	pneumatic flush cutting tool
	TPP-TR 6000 PR	-	22	1.30 16	pneumatic flush cutting tool with pointed tips
	TPP-TR 6000 (10-13-15)	-	22	1.60 14	pneumatic flush cutting tool (at different height)
	TPP-TS 6000	-	22	1.30 16	pneumatic cutting and pressing tool
	SAL 01 SP	-	pins aligner with press for integrated MOS and CMOS from 4 to 64 pins		
	SAL 01 NN	-	pins aligner without press for integrated MOS and CMOS from 4 to 64 pins		
	CHD 08 01	-	torque spanner for M8 nuts with torque setting of 1 Nm ±10%.		

Special tools - description

PHOTO	NOTES	TECHNICAL SPECIFICATIONS

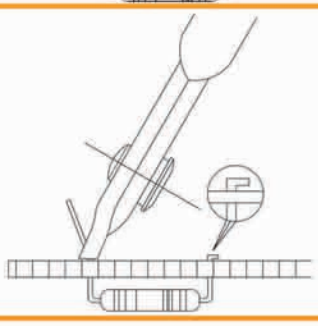
TS 30
A special tool that cuts and presses the component wire against the PCB in one operation.
Thickness 3mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
9	1.02	18



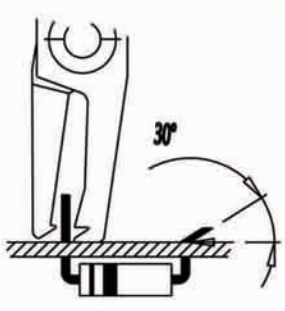
TP 30
A special tool that cuts and bends the component wire against the PCB in one operation.
Thickness 3mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



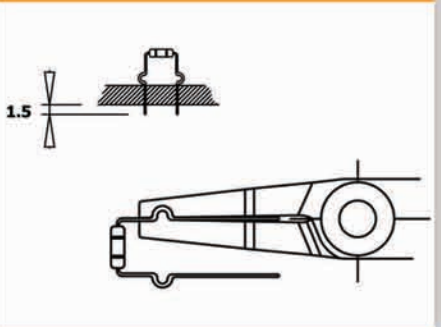
TP 5000/15
Specially designed tool for end cutting, suitable for access in dense areas of PCBs. It cuts and bends the component lead in one operation, fixing it to the circuit board.
Thickness 5mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



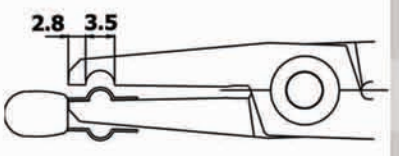
PNR 30
A specially designed forming tool that C shapes the component wire. Bent at 45°.
Thickness 3mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



PNG 5000
Specially designed tool for the forming of components in a C shape. Its special radius enables components to be pre-formed without any stress.
Thickness 5mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



PNR 5000
A special tool that cuts and forms the component wire in one operation. Lenght setting is carried out by means of a sliding stop (A min 3 max 16).
Thickness 5mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18

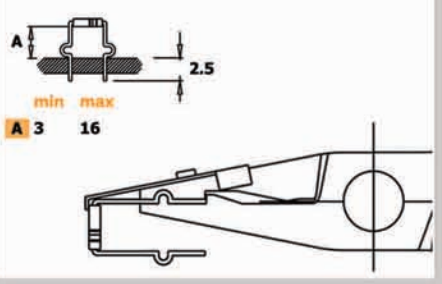
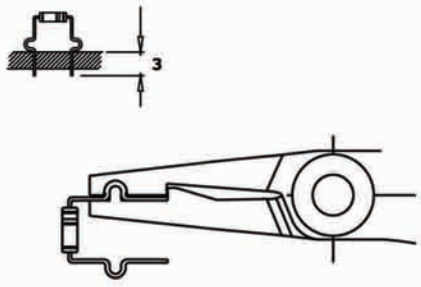


PHOTO	NOTES	TECHNICAL SPECIFICATIONS

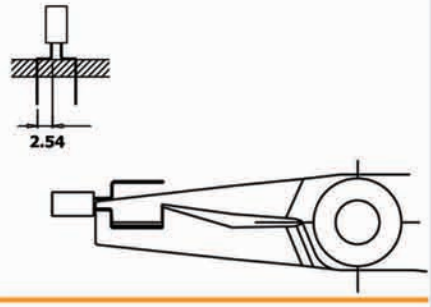
PTR 30 C
It forms the component wire in a C shape and cuts off the residual part.
Thickness 3mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



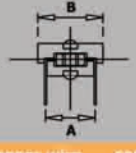
PTR 30 L
It forms the component wire in a L shape and cuts off the residual part .
Thickness 3mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



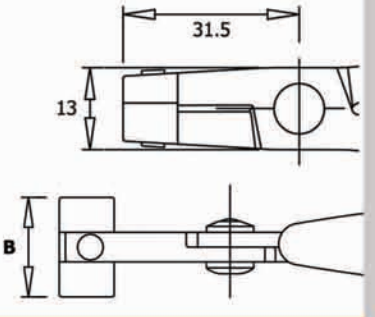
PPR 5001
Pre-forms the component wire in a U shape

A=10.16
B=15



cutting force kg	copper wire Ø mm	copper wire awg
3	0.6-0.8	22-20

Dissipative version available.

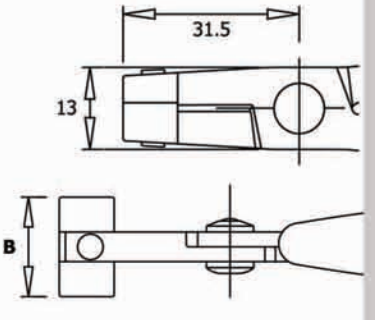


PPR 5002
Pre-forms the component wire in a U shape

A=12.70
B=18

cutting force kg	copper wire Ø mm	copper wire awg
3	0.6-0.8	22-20

Dissipative version available.

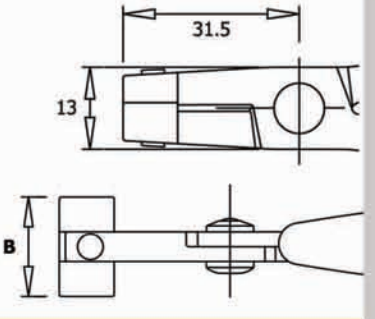


PPR 5003
Pre-forms the component wire in a U shape

A=15.24
B=20

cutting force kg	copper wire Ø mm	copper wire awg
3	0.6-0.8	22-20

Dissipative version available.



PNI 5000
Specially designed tool for pre-forming and cutting of IC pins in one operation.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	0.80	20

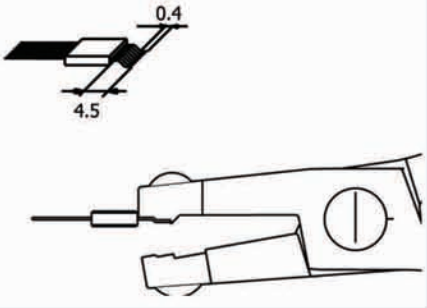


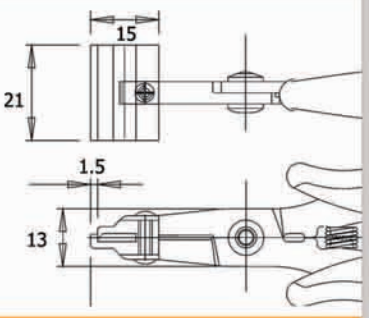
PHOTO	NOTES	TECHNICAL SPECIFICATION

PNI 5015

Specially designed tool for a clean and flush cut at 1.5mm 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).

cutting force kg	copper wire Ø mm	copper wire awg
5	0.64	22

Dissipative version available.

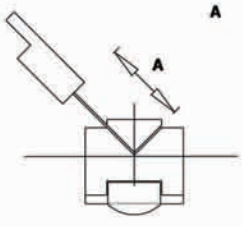


PN 5040

Pre-forms the component wire at a 90° angle. Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16

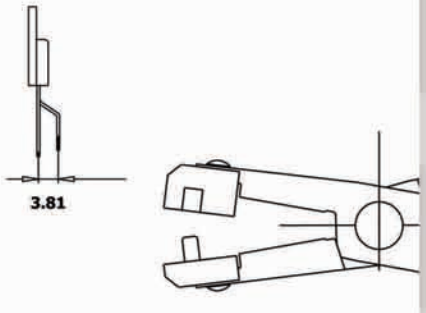
	Min	Degrees
A	5	90°



PN 5050

Specially designed tool for the pre-forming of central lead of TO 220 with 3.81mm pitch. Dissipative version available.

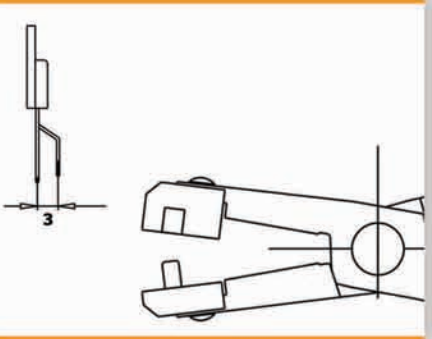
cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



PN 5050/14

Specially designed tool for the forming of centre lead of TO 220 with 3.0 mm pitch.
Dissipative version available.

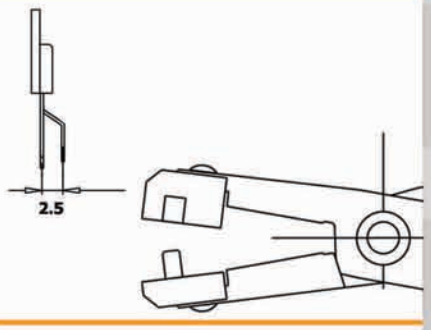
cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



PN 5050/15

Specially designed tool for the forming of centre lead of TO 220 with 2.5mm pitch.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



PN 5050/3

Specially designed tool for the forming of centre lead of TO 247 and TO 220 with 5.08mm pitch.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16

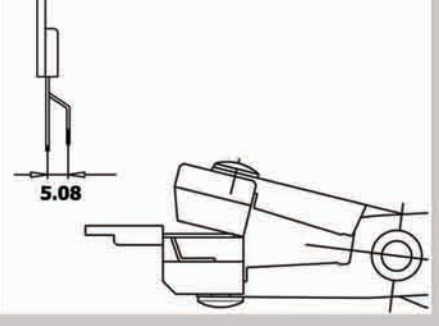
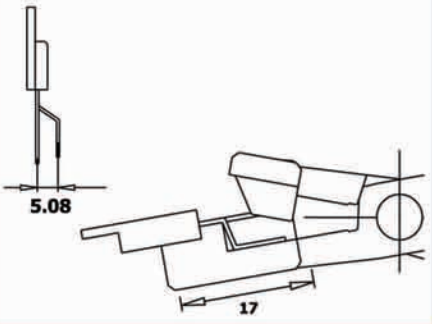


PHOTO	NOTES	TECHNICAL SPECIFICATIONS

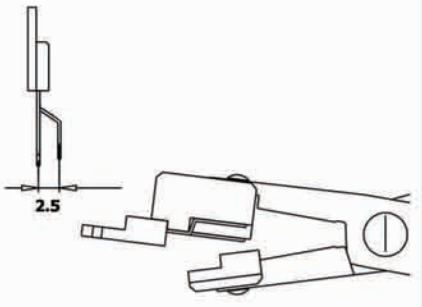
PN 5050/4
Special tool for the forming of side leads of TO 247 with 5.08mm pitch.
Dissipative version available.

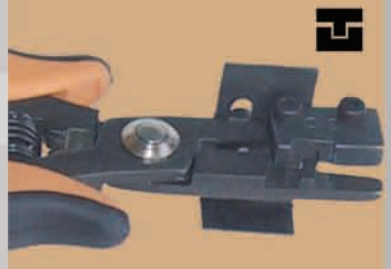
cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



PN 5050/10
Special tool for the forming of side leads of TO 220 with 2.5mm pitch.
Dissipative version available.

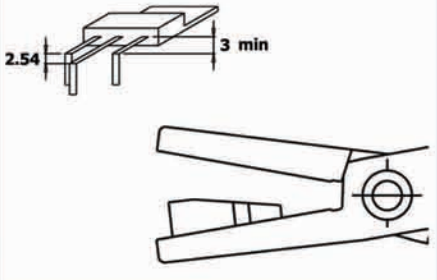
cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16





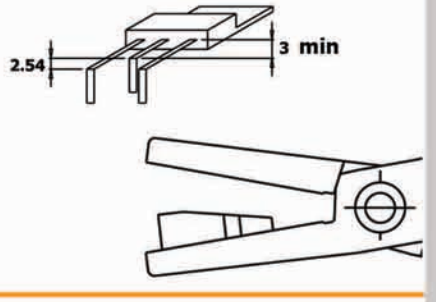
PN 5050/6
Special tool that enables TO220 component leads to be bent at a 90°angle in a single operation, in such a way that the centre lead will be 2.54mm longer than the side leads.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



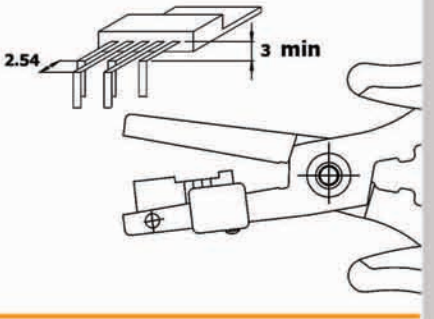
PN 5050/7
Special tool that enables TO220 component leads to be bent at a 90°angle in a single operation, in such a way that the centre lead will be 2.54mm shorter than the side leads.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



PN 5050/21
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 1- 3 - 5 leads will be 2.54 mm shorter than 2 - 4 leads.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



PN 5050/37
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.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16

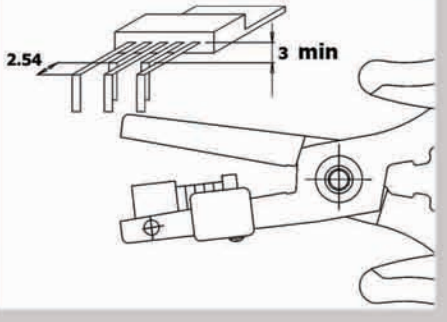
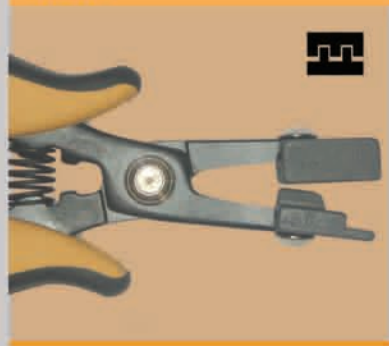
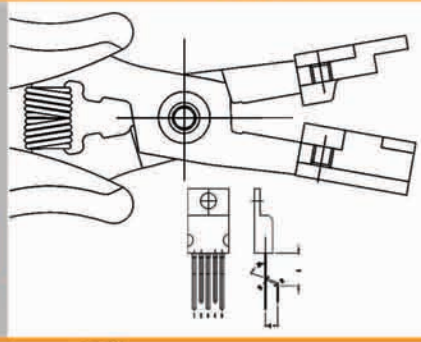


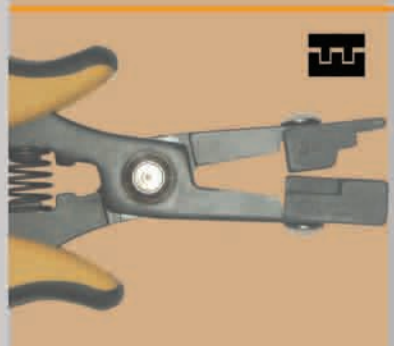
PHOTO	NOTES	TECHNICAL SPECIFICATIONS



PN 5050/36
Special tool for the forming of TO220 (5 leads). It formes leads 2-4, 3mm pitch.
Dissipative version available.

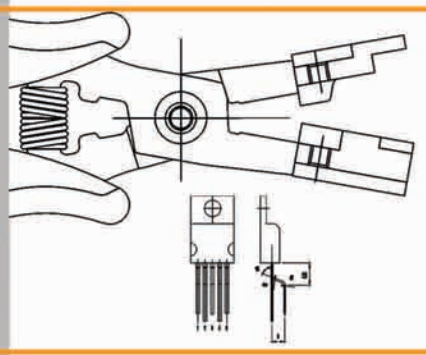
cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16





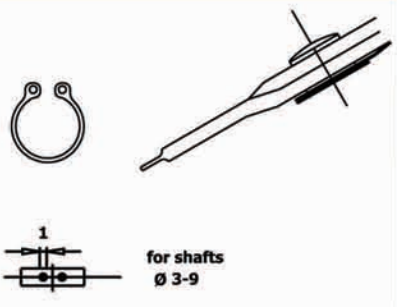
PN 5050/38
Special tool for the forming of TO220 (5 leads). It formes leads 1-3-5, 3mm pitch.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.30	16



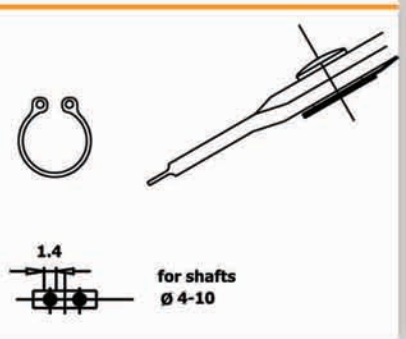
P1
Tool for the application and removal of circlips and seeger rings from shafts.
Thickness 2.5mm.
Dissipative version available.

cutting force kg	weight	lenght
-	81	155



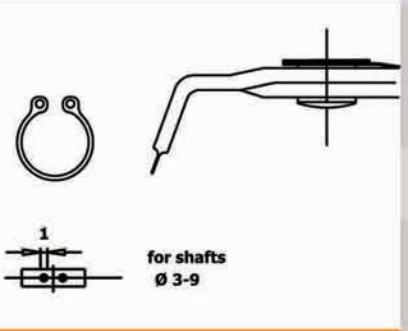
P2
Tool for the application and removal of circlips and seeger rings from shafts.
Thickness 2.5mm.
Dissipative version available.

cutting force kg	weight	lenght
-	81	155



PP1
Tool with 90°angled nose for the application and removal of circlips and seeger rings from shafts.
Thickness 2.5mm.
Dissipative version available.

cutting force kg	weight	lenght
-	83	150



PP2
Tool with 90°angled nose for the application and removal of circlips and seeger rings from shafts.
Thickness 2.5mm.
Dissipative version available.

cutting force kg	weight	lenght
-	83	150

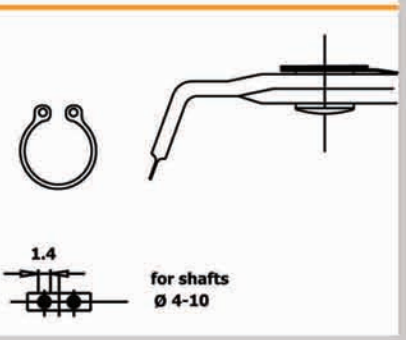
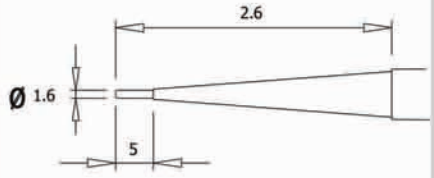


PHOTO	NOTES	TECHNICAL SPECIFICATIONS

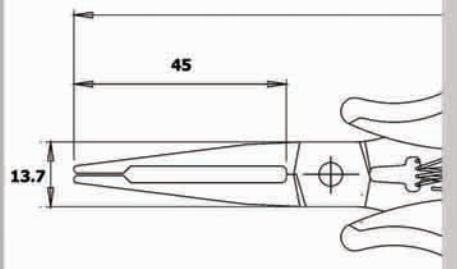
PN 5030
Tool for the removal of internal seeger rings.
Thickness 5mm.
Dissipative version available.

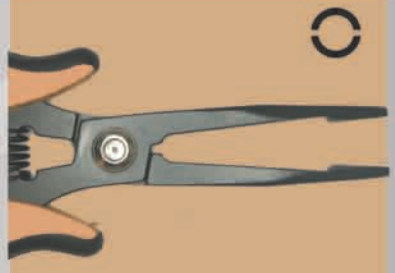
cutting force kg	weight	lenght
-	98	155



PPN 04
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

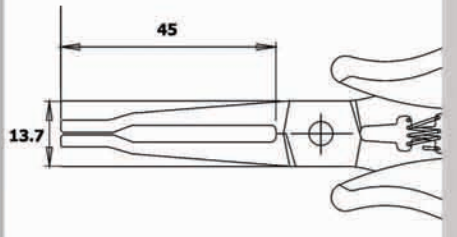
HRC	weight	lenght mm
46-48	170	113

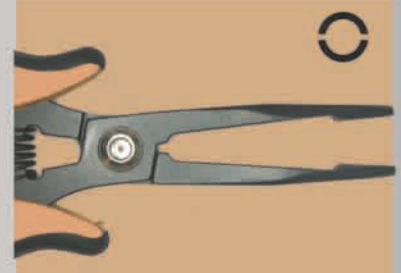




PPN 05
Special tool for the insertion of contacts into multi-polar connectors.
The ergonomic grip is curved on the bottom to make easier the insertion push.
Contact dimension: 15-18-22-26

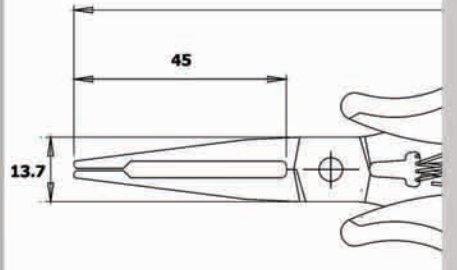
HRC	weight	lenght mm
46-48	170	113





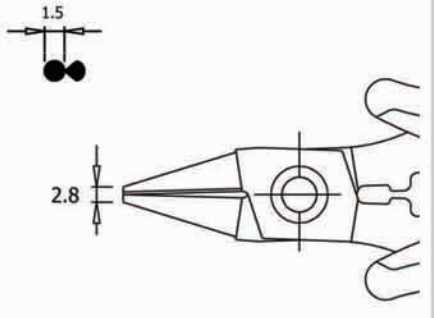
PPN 06
Special tool for the insertion of contacts into multi-polar connectors.
The ergonomic grip is curved on the bottom to make easier the insertion push.
Contact dimension: 20

HRC	weight	lenght mm
46-48	170	113



PN 5025 C
Pliers with rounded nose and tip cutting action, particularly suitable in the trinkets field.
Induction treatment on tips.
Thickness 5mm.
Dissipative version available.

cutting force kg	copper wire Ø mm	copper wire awg
3	1.02	18



PN 5050/5
Tool for the separation of pins (Jumper) in Dual In Line.
Thickness 5mm.
Dissipative version available.

cutting force kg	weight	lenght
3	100	152

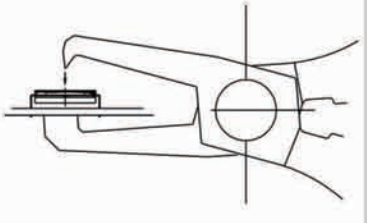
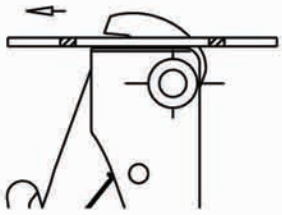


PHOTO	NOTES	TECHNICAL SPECIFICATIONS

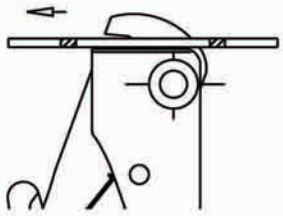
DP 15 N
A manual depanelling tool designed for separating PCB in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus 2.5 mm. Dissipative version available.

cutting force kg	cutting blade thickness mm
3	1.5



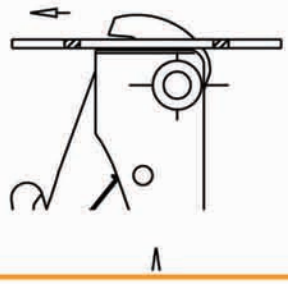
DP 18 N
A manual depanelling tool designed for separating PCB in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus 2.5 mm. Dissipative version available.

cutting force kg	cutting blade thickness mm
3	1.8



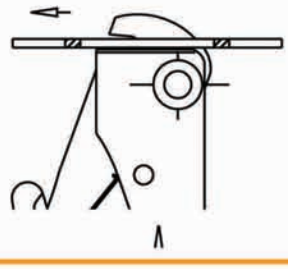
DP 20 N
A manual depanelling tool designed for separating PCB in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus 2.5 mm. Dissipative version available.

cutting force kg	cutting blade thickness mm
3	2.0



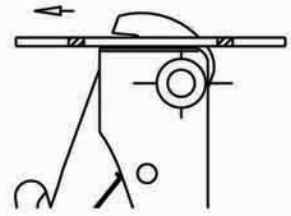
DP 23 N
A manual depanelling tool designed for separating PCB in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus 2.5 mm. Dissipative version available.

cutting force kg	cutting blade thickness mm
7	2.3



DP 24 N
A manual depanelling tool designed for separating PCB in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus 2.5 mm. Dissipative version available.

cutting force kg	cutting blade thickness mm
7	2.4



DP 25 N
A manual depanelling tool designed for separating PCB in a quick, economic and safe way, leaving well finished cut surfaces; maximum length of the isthmus 2.5 mm. Dissipative version available.

cutting force kg	cutting blade thickness mm
7	2.5