

## SPECIAL-TWEEZERS FOR THE SMD-TECHNIQUE

high precision tweezers from special steel  
stainless – matt finish – anti-magnetic – acid-resisting  
- alternative with ESD coating (-13) -

No.	Length		Finish	Weight
	mm	inches		
5-049	110	4 3/8"	straight, very sharply pointed	12 g
5-049-13	110	4 3/8"	as above, with ESD coating	12 g
5-051	115	4 1/2"	straight pointed	15 g
5-051-13	115	4 1/2"	as above, with ESD coating	15 g
5-052	110	4 3/8"	bent, very sharply pointed	13 g
5-052-13	110	4 3/8"	as above, with ESD coating	13 g
5-059	120	4 3/4"	flat, rounded tips, 2.0 mm width	15 g
5-059-13	120	4 3/4"	as above, with ESD coating	15 g
5-078	130	5 1/8"	tapering, chisel, 1.0 mm width	16 g
5-078-13	130	5 1/8"	as above, with ESD coating	16 g
5-053	110	4 3/8"	obliquely angled, very sharply pointed	13 g
5-053-13	110	4 3/8"	as above, with ESD coating	13 g
5-054	120	4 3/4"	sickle-shape-curved, very sharply pointed	16 g
5-054-13	120	4 3/4"	as above, with ESD coating	16 g
5-055	120	4 3/4"	sickle-shaped, very sharply pointed	15 g
5-055-13	120	4 3/4"	as above, with ESD coating	15 g
5-056	120	4 3/4"	slightly bent, very sharply pointed	15 g
5-056-13	120	4 3/4"	as above, with ESD coating	15 g
5-057	120	4 3/4"	self-locking, straight-pointed	13 g
5-058	120	4 3/4"	self-locking, bent, pointed	13 g



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No.	Length		Finish	Weight
	mm	inches		
5-061	115	4 1/2"	bent, flat rounded tips	16 g
5-062	115	4 1/2"	35° angled, 2.0 mm width, with gripping cavity Ø 0.8 mm	16 g
5-062-13	115	4 1/2"	as above, with ESD coating	16 g
5-063	115	4 1/2"	35° angled, 3.5 mm width, with gripping cavity Ø 0.8 mm	16 g
5-063-13	115	4 1/2"	as above, with ESD coating	16 g
5-065	120	4 3/4"	straight, 3.0 mm width with gripping cavity Ø 0.8 mm	16 g
5-065-13	120	4 3/4"	as above, with ESD coating	16 g
5-066	120	4 3/4"	30° angled, 2.5 mm width	15 g
5-066-13	120	4 3/4"	as above, with ESD coating	15 g
5-067	120	4 3/4"	tip 45° angled, 2.0 mm width	15 g
5-067-13	120	4 3/4"	as above, with ESD coating	15 g
5-068	120	4 3/4"	tip angled, 1.6 mm width	13 g
5-068-13	120	4 3/4"	as above, with ESD coating	13 g
5-071	85	3 3/8"	thin, straight-pointed	8 g
5-073	140	5 1/2"	long-thin, straight, very sharply pointed	13 g
5-073-13	140	5 1/2"	as above, with ESD coating	13 g
5-075	140	5 1/2"	straight, very sharply pointed, grip surface offset	13 g
5-076	120	4 3/4"	rigid, straight, pointed	19 g
5-076-13	120	4 3/4"	as above, with ESD coating	19 g
5-077	130	5 1/8"	round, tapering, pointed	16 g
5-077-13	130	5 1/8"	as above, with ESD coating	16 g



## ELECTRONIC-TWEEZERS

No.	Length		Finish	Weight
	mm	inches		

### Component tweezers

made from steel, with insulated jaws, a special tool for easy insertion and removal of plug-in transistors of various sizes

5-006	140	5 1/2"	nickel-plated	23 g
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### Component tweezers

made from steel, with semi-circular jaws, 5 mm wide, to facilitate the insertion and removal of horizontally positioned components of various sizes

5-007	140	5 1/2"	nickel-plated	25 g
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### Component tweezers

made from steel, with jaws bent inwards at right angles, 5 mm wide, to facilitate the removal of round or cube-shaped components

5-008	140	5 1/2"	nickel-plated	23 g
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### Component tweezers

made from steel, with insulated jaws, 5.5 mm wide, for gripping flat components

5-009	140	5 1/2"	nickel-plated	22 g
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### Heat dissipating tweezers

made from steel, for use when soldering transistors, gold-bonded diodes etc., the flat, wide points of the tweezers are narrow and provided with copper jaws

5-115	165	6 1/2"	nickel-plated	35 g
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### Jewellerie's tweezers

made from steel, fine-rounded tips, with X-serration

5-119	140	5 1/2"	nickel-plated	19 g
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### Sheet-metal tweezers

straight, flat and pointed

5-125	110	4 3/8"	nickel-plated	12 g
5-125-1	110	4 3/8"	polished, with antiallergical coating	15 g

### Sheet-metal tweezers

with sliding fastener for a firm grip, straight, with narrow pointed tips

5-126	160	6 1/4"	nickel-plated	22 g
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### IC-tweezers

for gripping, insertion and removal of IC's

2-601	125	5"	nickel-plated	20 g
2-601-13	125	5"	with ESD coating	20 g

### Lightning tweezers

Nickel-plated steel-tweezers with **LED light**

The lightning tweezers is focussing the light to the working area at the tweezers tips enabling optimal visibility e. g. for positioning of smallest components without additional light source.

Power supply: 2 x 3 Voltage Lithium Batteries

when pressing the tweezers jaws the LED light will be switched on

5-171	120	4 3/4"	straight, pointed, finely serrated	39 g
5-172	120	4 3/4"	with fine bent tips	39 g



## ELECTRONIC-TWEEZERS

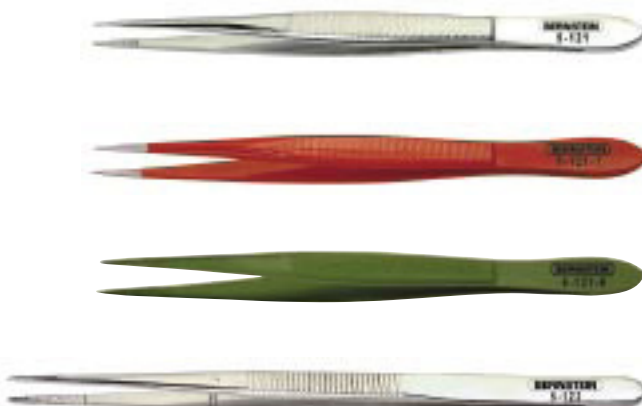
No.	Length		Finish	Weight
	mm	inches		
<b>Engineer's tweezers</b> made from steel, with fine, bent tips, finely serrated				
5-107	150	6"	nickel-plated	20g
5-107-1	150	6"	polished, with antiallergical coating	23 g
5-107-6	150	6"	nickel-plated, strong PVC-insulated	27 g
5-107 VDE	150	6"	with VDE insulation, 1000V	37 g
5-107-9	150	6"	teflon-coated	22 g



<b>Engineer's tweezers</b> made from steel, heavy type, straight, flat and wide, tips with serration				
5-117	145	5 3/4"	nickel-plated	25 g
5-117-1	145	5 3/4"	polished, with antiallergical coating	26 g
5-117-6	145	5 3/4"	nickel-plated, strong PVC insulated	31 g
5-117 VDE	145	5 3/4"	with VDE insulation, 1000V	39 g
5-117-9	145	5 3/4"	teflon-coated	29 g



<b>Engineer's tweezers</b> made from steel, straight, with narrow pointed tips, finely serrated				
5-121	120	4 3/4"	nickel-plated	14 g
5-121-1	120	4 3/4"	polished, with antiallergical coating	14 g
5-121-6	120	4 3/4"	nickel-plated, strong PVC-insulated	17 g
5-121-9	120	4 3/4"	teflon-coated	13 g
5-122	155	6 1/8"	nickel-plated	24 g



<b>Crossed tweezers (self-locking tweezers)</b> made from steel, jaws 5 mm wide, finely serrated				
5-155	160	6 1/4"	polished-nickel-plated	35 g
5-155-1	160	6 1/4"	polished, with antiallergical coating	36 g



<b>Crossed soldering tweezers (self-locking tweezers)</b> made from steel, with bent tips and gripping well hand guard				
5-156	160	6 1/4"	polished-nickel-plated	29 g



## SETS OF SPECIAL TWEEZERS in wallets of recycable nylon



### 5-030 **3-piece set of electronic tweezers from titan**

matt-stainless - super-light - immunity to corrosion - acid-resistant - solder-repellent - antibacterial - especially conductive - non-reflective

Weight: 60 g

No.	Description of individual tools
5-031	<b>Titan-tweezers</b> , sharply pointed, 110 mm
5-036	<b>Titan-tweezers</b> , straight, round, wide, 145 mm, with serration
5-037	<b>Titan-tweezers</b> , fine bent tips, 150 mm



### 5-110 **3-piece set of Engineer's Tweezers**

made from steel - nickel-plated

Weight: 95 g

No.	Description of individual tools
5-107	<b>Engineer's tweezers</b> , fine, bent tips, finely serrated, 150 mm
5-121	<b>Engineer's tweezers</b> , narrow pointed tips, finely serrated, 120 mm
5-155	<b>Crossed tweezers</b> , (self-locking) jaws 5 mm wide, finely serrated, 160 mm

### 5-100 **12-piece set special tweezers and tools**

Weight: 360 g

No.	Description of individual tools
2-126	<b>Desoldering lever</b> , slotted at one end, with plastic handle, 115 mm
2-127	<b>Tin knife with plastic handle</b> , 115 mm
2-601	<b>IC-tweezers</b> , nickel-plated, 125 mm, for gripping, inserting and removing of IC,s
5-006	<b>Component tweezers</b> , nickel-plated, with insulated jaws, a special tool for easy insertion and removal of plug-in transistors of various sizes, 140 mm
5-107	<b>Engineer's tweezers</b> , made from steel, with bent tips, nickel-plated, 150 mm
5-107-6	<b>Engineer's tweezers</b> , as above, strong PVC-insulation
5-115	<b>Heat dissipating tweezers</b> , nickel-plated, 165 mm, for soldering transistors, gold-bonded diodes etc.
5-117	<b>Engineer's tweezers</b> , straight, flat, wide, nickel-plated, 145 mm
5-117-6	<b>Engineer's tweezers</b> , as above, strong PVC-insulation
5-121	<b>Engineer's tweezers</b> , straight, with narrow pointed tips, 120 mm, nickel-plated
5-078	<b>Anti-magnetic tweezers</b> , tapering chisel, 1.0 mm width, matt finish, stainless and acid-resistant, 130 mm
5-156	<b>Crossed soldering tweezers</b> , (self-locking tweezers), made from steel, with bent tips and gripping well hand-guard, nickel-plated, 160 mm



## SPECIAL – TWEEZERS FOR THE SMD – TECHNIQUE

high precision tweezers from special steel  
stainless - matt finish - anti-magnetic - acid-resisting

**5-060 6-piece set ESD-Tweezers for the SMD-Technique**  
with black **ESD-coating**,  
in a wallet made from **conductive** material

The tweezers have been tested with good results adequate to DIN EN 61340-5-1, 61340-2-1, 61340-2-3 for work in ESD-protected areas.

Weight: 155 g

No.	Description of individual tools
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- |          |   |
|----------|---|
| 5-049-13 | <b>SMD-tweezers</b> , straight, very sharply pointed, 110 mm      |
| 5-055-13 | <b>SMD-tweezers</b> , sickle-shaped, very sharply pointed, 120 mm |
| 5-059-13 | <b>SMD-tweezers</b> , flat, rounded tips, 2 mm width, 120 mm      |
| 5-067-13 | <b>SMD-tweezers</b> , tip 45° angled, 2,0 mm width, 120 mm        |
| 5-068-13 | <b>SMD-tweezers</b> , tip angled, 1,6 mm, 120 mm                  |
| 5-078-13 | <b>SMD-tweezers</b> , tapering, chisel, 1,0 mm width, 130 mm      |



**5-050 6-piece set of special tweezers for the SMD-technique**  
matt finish - non-reflective -

Weight: 135 g

No.	Description of individual tools
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- |       |  |
|-------|--|
| 5-051 | <b>SMD-tweezers</b> , straight pointed, 115 mm                           |
| 5-052 | <b>SMD-tweezers</b> , bent, very sharply pointed, 110 mm                 |
| 5-054 | <b>SMD-tweezers</b> , sickle-shaped curved, very sharply pointed, 120 mm |
| 5-058 | <b>SMD-tweezers</b> , crossed, bent, pointed, 120 mm                     |
| 5-061 | <b>SMD-tweezers</b> , bent, flat tips 2 mm wide, 115 mm                  |
| 5-062 | <b>SMD-tweezers</b> , bent, flat tips, with gripping cavity, 115 mm      |





5-190

## ESD TWEEZERS

made from **antistatic**, black plastic material, reinforced with glass fibre, conductive and acid-resistant

No.	Length		Finish	Weight
	mm	inches		
5-191	120	4 3/4"	straight, rounded tips	5 g
5-192	120	4 3/4"	straight, 3 mm flat-hand tips, grip surface offset	4 g
5-193	120	4 3/4"	straight, 6 mm flat, and wide tips	5 g
5-194	120	4 3/4"	bent, pointed tips	5 g
5-195	120	4 3/4"	straight, pointed tips, grip surface offset	4 g

### 5-190 6-piece set of ESD tweezers

in a practical table support from **conductive** material

Contents: 5 tweezers made from conductive black plastic material, No. 5-191, 5-192, 5-193, 5-194, 5-195  
1 tweezers with ceramic tips No. 5-095

Weight: 125 g

### 5-090 5-piece set of ESD tweezers

in a practical table support from **conductive** material

Contents: 5 tweezers made from conductive black plastic material, No. 5-191, 5-192, 5-193, 5-194, 5-195

Weight: 94 g



## TWEEZERS FROM CERAMIC

Ceramic tweezers meet highest standards due to their excellent mechanical, thermic and electrical features, non magnetic, antistatic, acid-resistant and alkaliproof, solder-repellent and heat-resistant.

### Ceramic tweezers (each separately in a plastic case)

5-081	130	5 1/8"	straight, pointed	15 g
5-082	130	5 1/8"	straight, microscopic-pointed	16 g

### Ceramic-tipped tweezers (each separately in a plastic case)

5-095	130	5 1/8"	especially slim and pointed	6 g
5-096	130	5 1/8"	slim, 2mm flat tips	6 g

## TITAN TWEEZERS

Tweezers made from Titan are for highest demands, have a light weight, immunity to corrosion, even to aggressive acids, they are antimagnetic, antibacterial, solder-repellent, and non-reflective.

The melting point is 1677°C.

5-031	110	4 3/8"	matt-stainless, sharply pointed	9 g
5-035	120	4 3/8"	matt-stainless, sharply pointed	9 g
5-036	145	5 3/4"	matt-stainless, straight - round - wide tips with fine serration	15 g
5-037	150	6 "	matt-stainless, fine bent tips	12 g

## FILES – SCISSORS

No.	Length		Finish	Weight
	mm	inches		

### Needle files without handle

5-201	140	5 1/2"	flat-hand	7 g
5-202	140	5 1/2"	flat-entering	6 g
5-203	140	5 1/2"	round	6 g
5-204	140	5 1/2"	half round	6 g
5-205	140	5 1/2"	three square	6 g
5-206	140	5 1/2"	square	6 g

### 5-210 6-piece set of needle files

No. 5-201 – 5-206 in plastic wallet 50 g



### Warding files with wooden handle

overall length 175 mm – 6 3/4"

5-231	100	4"	flat-hand	17 g
5-232	100	4"	flat-entering	14 g
5-233	100	4"	round	13 g
5-234	100	4"	half round	27 g
5-235	100	4"	three square	18 g
5-236	100	4"	square	15 g

### 5-240 6-piece set of warding files

No. 5-231 – 5-236 with wooden handle, in plastic wallet 115 g



### Contact file

with fine cut

5-261	150	6"	flat-hand	9 g
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### Engineer's files with wooden handle

heavy type, fine cut, overall length 320 mm – 13 1/4"

5-271	200	8"	flat-hand	155 g
5-274	200	8"	half round	155 g



### Clamping scissors

made from stainless steel, with serrated gripping jaws

5-161	130	5 1/8"	polished	20 g
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### Special-scissors for cutting sheet-metal and wires, jaws extremely slim, serrated, for precision work

5-301	110	4 3/8"	nickel-plated	27 g
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### Universal cutting shears

for wires and thin sheet materials

5-306	180	7"	black-lacquered polished head	85 g
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### Telephone and cable shears

with one serrated blade

5-308	125	5"	nickel-plated	67 g
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### Domestic scissors

5-311	180	7"	nickel-plated, polished	80 g
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### Ceramic blade scissors for cutting e.g. aramid yarns and fiber optic cables, plastik handles reinforced with glass-fibre

5-353	125	5"	Blade length 45 mm conductive handles	26 g
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## SHEARS – SCISSORS – STRIPPING TOOLS



No.	Length		Finish	Weight
	mm	inches		

### Ribbon cable cutter

made from steel, with handy plastic handles, for special cutting of ribbon cable, also suitable for cutting of ledges and profiles from plastic, with interchangeable one-way blade and plastic support with straight stop

5-307	220	8 3/4"	chrome-plated	300 g
5-307-1			cutting length 55 mm spare blade	3 g

### Cable stripping shears

made from stainless steel, with handy plastic handles, compression spring, self-locking. The sheathing of round, flat and shield cables may be removed easily

5-309	190	7 1/2"	polished	125 g
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### Combination cutters (general purpose cutters)

made from stainless steel, with serrated cutting edge, handy plastic handles and compression spring

5-304	190	7 1/2"	polished	120 g
5-305	140	5 1/2"	polished	60 g

### Wire scraper tweezers

for stripping varnish or any other material on wires 0.6 mm Ø made from steel, with interchangeable cutters

5-181	130	5 1/8"	burnished	33 g
5-182		cutters (2 pieces)		2 g

### Electrician's knife

with steel blade, wire scraper and wooden handle

5-501	200	8"	knife opened	77 g
	110	4 3/8"	knife closed	

### Pocket knife

with one blade

5-511	180	7"	knife opened	44 g
	100	4"	knife closed	

### Universal blade knife

made from plastic material with adjustable blade

5-515	140	5 1/2"		10 g
5-516		set of blades for 5-515 (10 pieces)		25 g
5-517	150	6"	heavy type	46 g
5-518		set of blades for 5-517 (10 pieces)		73 g

### Rotary coaxial cable stripper

Handy plastic tool with adjustable cutters, for cable types RG 58, RG 59 and RG 62

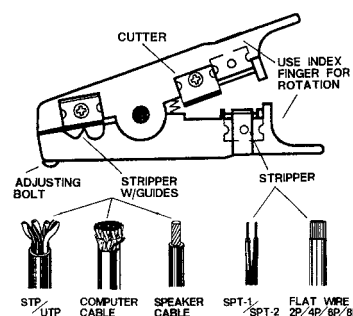
5-0601	100	4"	black	51 g
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### Universal stripping tool

Handy plastic tool with adjustable cutters, very easy to use

Weight: 47 g

5-0605	100	4"		
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## STRIPPING TOOLS

No.	Length mm	Length inches	Working range / Finish	Weight
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### Stripping and crimping tool

for easy stripping, crimping and cutting only with one tool, the special scanning system adjusts automatically to the wire diameter

5-532	160	6 1/4"	easy stripping from 0.5 to 6.0 mm <sup>2</sup> stripping length 5 mm crimping ranges for terminals: 0.5 to 2.5 and 4.0 to 6.0 mm <sup>2</sup> cutting capacity of the side cutters max. 6.0 mm <sup>2</sup> , solid conductors max. 4.0 mm <sup>2</sup>	115 g
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### Coax cable stripper

for two-or-three-level stripping of all common coaxial cables (e.g. antenna- and transmission cables) and flexible cables

5-535	110	4 3/8"	coax cable from 4.8 to 7.5 mm outside-Ø for flexible cable 3 x 0.75 mm <sup>2</sup> , 10 mm <sup>2</sup> and 16 mm <sup>2</sup>	30 g
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### Round cable stripper

with ergonomical handles

5-536	125	5"	round and continental type cable from 8 to 13 mm Ø e.g. NYM 3 x 1.5 mm <sup>2</sup> up to 5 x 2.5 mm <sup>2</sup>	45 g
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### Swivel-blade cable strippers

for accurate, fast and safe stripping of all common round cables of 4 - 28 mm Ø, cutting depth and adjustment via adjusting screw at end of handle, moving inner blade automatically adjusts itself from circular to longitudinal cuts

5-503	130	5 1/8"	without blade: 8 - 28 mm Ø	70 g
5-504	130	5 1/8"	without blade: 4 - 16 mm Ø	70 g
5-505	170	6 3/4"	hook blade: 4 - 28 mm Ø	80 g
5-506	180	7"	straight blade: 4 - 28 mm Ø	80 g



### Automatic wire stripper Super

fully insulated automatic wire stripper for all common stranded and solid conductors of 0.2 - 6.0 mm<sup>2</sup>, adjustable length stop of 5 - 12 mm, removable if required

5-531	200	8"	built-in side cutters for max. 2 mm Ø	105 g
15-531 VDE	200	8"	fibreglass re-enforced polyamide, fully insulated, approved for works on "hot" lines up to 1000 Volt	105 g