

BERNSTEIN



Electronic-Tools

ESD



EPA 6900 ELECTRONIC SERVICE CASE

The service case for maintenance and installation tasks in ESD protected areas



EPA ELECTRONIC SERVICE CASE

The service case made from **conductive material** for maintenance and installation tasks in **ESD protected areas** with a full assortment of special ESD-tools. For use at electrostatically endangered components and plants.

6900 **BERNSTEIN** EPA with tool set

6915 **BERNSTEIN** EPA without tool set



Description:

The body of the case, the tool trays as well as the bottom tray with adjustable partitions are made from conductive material according to **DIN EN IEC Norm 10 00 15 part 5**. The tools of this set have been tested with good results by several testing laboratories adequate to **DIN EN 61340-5-1, 61340-2-1, 61340-2-3** for work in ESD protected areas. The sturdy shells are pressed with the stable double aluminium frame.

32 tools are clearly arranged on two tool trays, one of it on both sides. The lid of the case has a pocket for documentations etc. The bottom tray allows with its partitions a clear arrangement of additional tools and instruments.

The case has two locks.

Outside dimensions: 460 x 310 x 165 mm

Weight without tools: 5.400 kg

Weight with tools: 6.280 kg

Tool set:

No.	Description of individual tools	No.	Description of individual tools
2-101	Tin knife with ceramic blade, 115 mm	4-632	Slotted screwdriver with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, 100 x 4.0 mm
2-265	2 Test prods , red and black, extremely slim, pointed and flexible, blade made from 1 mm steel wire	4-633	Slotted screwdriver with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, 125 x 5.5 mm
2-620	PLCC extractor	4-662	Cross-recess screwdriver Pozidriv size 1, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 80 mm
3-654-15	Side cutters EUROline-Conductive , 125 mm, for soft wire up to 1.5 mm Ø, for hard wire up to 0.4 mm Ø, slim rounded head, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	4-663	Cross-recess screwdriver Pozidriv size 2, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 100 mm
3-671-15	End cutters EUROline-Conductive , 130 mm, for soft wire up to 0.8 mm Ø, extremely slim, straight, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	5-191	Tweezers , made from conductive and acid-resistant black plastic material, reinforced with glass fibre, 120 mm, with straight, rounded tips
3-682-15	Flat nose pliers EUROline-Conductive , 130 mm, extremely slim, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	5-192	Tweezers , made from conductive and acid-resistant black plastic material, reinforced with glass fibre, 120 mm, with straight, 3 mm flat-hand tips
3-133-13	Side cutters , 145 mm, for soft wire up to 2.5 mm Ø, for hard wire up to 1.25 mm Ø, chrome-plated, conductive black hand guard	5-194	Tweezers , made from conductive and acid-resistant black plastic material, reinforced with glass fibre, 120 mm, with bent, pointed tips
3-245-13	Telephone pliers , 200 mm, snipe nose, with cutting edge for hard wire, chrome-plated, dissipative black hand guard	6-612	Socket wrench with dissipative handle, blade from chrome vanadium, nickel-plated, A/F 2.0 mm
3-732-13	Combination pliers , 165 mm, chrome-plated, dissipative black hand guard	6-617	Socket wrench with dissipative handle, blade from chrome vanadium, nickel-plated, A/F 4.0 mm
4-603	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 1.5 mm	6-621	Socket wrench with dissipative handle, blade from chrome vanadium, nickel-plated, A/F 5.5 mm
4-605	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 60 x 2.0 mm	6-659	TORX-screwdriver T 4, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-606	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 60 x 2.5 mm	6-661	TORX-screwdriver T 5, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-621	Cross-recess screwdriver size 000, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	6-662	TORX-screwdriver T 6, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-622	Cross-recess screwdriver size 00, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	6-663 L	TORX-screwdriver T 7 with hole, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-623	Cross-recess screwdriver size 0, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	6-665 L	TORX-screwdriver T 9 with hole, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
		7-422	ESD brush , bristles width 20 mm
		4-657	Extra long cross-recess screwdriver PH size 2, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm
		6-675 L	Extra long TORX-screwdriver T 10 with hole, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm
		6-676 L	Extra long TORX-screwdriver T 15 with hole, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm
		6-677 L	Extra long TORX-screwdriver T 20 with hole, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm

To complete the set we recommend:

9-316/5	5 Chip-Container , conductive box with lid, black, internal dimensions: 118 x 32 x 14 mm
9-356	ESD-Handling-Set , foldable, with contact bracelet and earth wire
4-643	Extra long slotted screwdriver with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, 300 x 5.5 mm
4-656	Extra long cross-recess screwdriver PH size 1, with dissipative special-square pattern handle, blade from chrome vanadium, chrome-plated, with black tip, blade length 300 mm

ESD PROFI-SET TRENDY 2280 AND 2285

The professional kit for ESD-Specialists for local and mobile use



2280 **BERNSTEIN** ESD Profi-Set **TRENDY**
with 20 tools and ESD handling set

2285 **BERNSTEIN** ESD Profi-Set **TRENDY**
with 20 tools

Description:

Selected ESD-tools in handy plastic case made from conductive material. The tools are clearly arranged in accurate-sized cutouts in conductive hardfoam. For individual accessories are one resp. two empty cutouts available.

Outside dimensions: 350 x 310 x 65 mm (when closed)

Tool set:



Weight : 1.650 / 1.500 kg

No.	Description of individual tools
2-620	PLCC extractor
3-133-13	Side cutters , 145 mm, for soft wire up to 2.5 mm Ø, for hard wire up to 1.25 mm Ø, chrome-plated, conductive black hand guard
3-651-15	Mini side cutters EUROline-Conductive , 120 mm, without sideface, for soft wire up to 1.5 mm Ø, medium hard wire up to 0.8 mm Ø, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard
3-682-15	Flat nose pliers EUROline-Conductive , 130 mm, finish as above
3-683-15	Snipe nose pliers EUROline-Conductive , 130 mm, short jaws, finish as above
4-601	Slotted screwdriver 50 x 0.8 mm, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-603	Slotted screwdriver 50 x 1.5 mm, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-605	Slotted screwdriver 60 x 2.0 mm, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-621	Cross-recess screwdriver size 000, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip

No.	Description of individual tools
4-622	Cross-recess screwdriver size 00, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-623	Cross-recess screwdriver size 0, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
5-049-13	SMD-tweezers , 110 mm, straight, very sharply pointed, ESD-coating
5-055-13	SMD-tweezers , 120 mm, sickle-shaped, very sharply pointed, ESD-coating
5-059-13	SMD-tweezers , 120 mm, flat, rounded tips, 2.0 mm width, as above
6-661	TORX screwdriver T 5, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
6-662	TORX screwdriver T 6, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
6-663 L	TORX screwdriver T 7, with bore-hole in the tip, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
7-422	ESD brush , bristles width 20 mm
9-354	ESD handling set (only in set 2280), consisting of: foldable, green workbench pad (surface resistance according to DIN 53482: approx. 10 ⁹ ohm), 500 x 400 x 0.35 mm, contact bracelet with spiral cord, earth wire 2500 mm long with 1 Mohm safety resistor including crocodile clip

ESD TOOL SETS

ESD Tool Sets for various operations in ESD areas, in handy cases from conductive material. The tools are clearly arranged in accurate-sized cutouts in conductive hardfoam.



2230 **BERNSTEIN** ESD Tool Set **ELITE** with 20 tools

Outside dimensions: 250 x 210 x 60 mm (when closed)

Weight: 0.870 kg

Tool set:

No. Description of individual tools

3-651-15	Mini side cutters EUROline-Conductive , 120 mm, without sideface, for soft wire up to 1.5 mm Ø and medium hard wire up to 0.8 mm Ø, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard
3-672-15	End cutters EUROline-Conductive , 130 mm, for soft wire up to 1.5 mm Ø and medium hard wire up to 0.8 mm Ø, cutting edge 20° angular, finish as above
3-682-15	Flat nose pliers EUROline-Conductive , 130 mm, finish as above
3-683-15	Snipe nose pliers EUROline-Conductive , 130 mm, short jaws, finish as above
4-901	ESD-handle from dissipative material, with metal clamping sleeve for following reversible blades:
4-905	Hex blade slotted 1.5 / 3.0 mm, matt chrome-plated, black tip
4-906	Hex blade slotted 2.0 / 3.5 mm, matt chrome-plated, black tip
4-907	Hex blade slotted 2.5 / 4.0 mm, matt chrome-plated, black tip
4-911	Hex cross-recess blade PH 000 / PH 00, matt chrome-plated, black tip
4-912	Hex cross-recess blade PH 0 / PH 1, matt chrome-plated, black tip

No. Description of individual tools

4-921	Hex cross-recess blade TORX T 5 / T 6, matt chrome-plated, black tip
4-922 L	Hex cross-recess blade TORX T 7 / T 8, with bore hole, matt chrome-plated, black tip
4-923 L	Hex cross-recess blade TORX T 9 / T 10, with bore hole, matt chrome-plated, black tip
5-049-13	SMD-Pinzette , 110 mm, straight, very shaply pointed, with ESD-coating
5-055-13	SMD-Pinzette , 120 mm, sickle-shaped, very sharply pointed, as above
5-059-13	SMD-Pinzette , 120 mm, flat, rounded tips, 2.0 mm width, as above
5-067-13	SMD-Pinzette , 120 mm, tip 45° angled, 2.0 mm width, with ESD-coating
5-068-13	SMD-Pinzette , 120 mm, tip angled, 1.6 mm width, with ESD-coating
5-078-13	SMD-Pinzette , 130 mm, tapering, chisel, 1.0 mm width, as above
7-422	ESD-brush , bristles width 20 mm

2210 **BERNSTEIN** 6-piece ESD tool set **PRECISE**

Outside dimensions: 178 x 160 x 42 mm (when closed), Weight: 0.390 kg



No. Description of individual tools

3-653-15	Mini side cutters EUROline-Conductive with very slim, pointed head and special flat cutting edge, 120 mm, without side face, for soft wire up to 1.5 mm and medium hard wire up to 0.8 mm Ø, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard
5-055-13	SMD-tweezers , 120 mm, sickle-shaped, very sharply pointed with ESD-coating
5-062-13	SMD-tweezers , 115 mm, 35° angled, 2.0 mm width, with gripping cavity Ø 0.8 mm, with ESD-coating
5-065-13	SMD-tweezers , 120 mm, straight, 3 mm width, with gripping cavity Ø 0.8 mm, with ESD-coating
5-066-13	SMD-tweezers , 120 mm, 30° angled, 2.5 mm width, with ESD-coating
5-068-13	SMD-tweezers , 120 mm, tip angled, 1.6 mm width, with ESD-coating





ELECTRONIC-SERVICE TOOL SETS

Special service sets for the maintenance and repairing of mobile phones and other high sensitive IT-Instruments

The tools are clearly arranged in cases made from **dissipative** black imitation leather, with zip fastener.

2251 Case with zip fastener, without tools

Outside dimensions: 190 x 135 x 35 mm (when closed)

2250 BERNSTEIN CARAT with tool set
9-piece set **dissipative** tools from the series EUROline-Conductive to meet highest quality standards.



2270 BERNSTEIN ACCENT with tool set
9-piece set **dissipative** tools with bright steel polished pliers

Tool set:

No.	Description of individual tools	Weight: 0.360 kg
3-601-13	Side cutters , 120 mm, for soft wire up to 1.5 mm and hard wire up to 0.4 mm Ø, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard	
3-633-13	Snipe nose pliers , 120 mm, plain jaws, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard	
4-601	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 0.8 mm	
4-603	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 1.5 mm	
4-621	Cross-recess screwdriver size 000, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	
4-623	Cross-recess screwdriver size 0, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	
5-191	Tweezers , made from conductive and acid-resistant black plastic material, reinforced with glassfibre, 120 mm, with straight, rounded tips	
6-661	TORX-screwdriver T 5, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	
6-663 L	TORX-screwdriver T 7, with bore-hole in the tip, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	



Tool set:

No.	Description of individual tools	Weight: 0.360 kg
3-672-15	End cutters EUROline-Conductive , 130 mm, for soft wire up to 0.8 mm Ø, cutting edge 20° angular, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	
3-683-15	Snipe nose pliers EUROline-Conductive , 130 mm, plain jaws, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	
4-601	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 0.8 mm	
4-603	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 1.5 mm	
4-621	Cross-recess screwdriver size 000, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	
4-623	Cross-recess screwdriver size 0, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	
5-191	Tweezers , made from conductive and acid-resistant black plastic material, reinforced with glassfibre, 120 mm, with straight, rounded tips	
6-661	TORX-screwdriver T 5, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	
6-663 L	TORX-screwdriver T 7, with bore-hole in the tip, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip	



3-680 BERNSTEIN EUROline-Conductive set of pliers

4-piece set **dissipative** pliers from the series EUROline-Conductive to meet highest quality standards

Tool set:

No.	Description of individual tools	Weight: 0.390 kg
3-651-15	Mini side cutters EUROline-Conductive , 120 mm, without sideface, for soft wire up to 1.5 mm and medium hard wire up to 0.8 mm Ø, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	
3-672-15	End cutters EUROline-Conductive , 130 mm, for soft wire up to 0.8 mm Ø, cutting edge 20° angular, box joint, double leaf spring, fine polished and bright burnished, dissipative bicoloured hand guard	
3-682-15	Flat nose pliers EUROline-Conductive , 130 mm, plain jaws, finish as before	
3-683-15	Snipe nose pliers EUROline-Conductive , 130 mm, plain jaws, finish as before	

ELECTRONIC-SERVICE TOOL SETS

The tool sets for mobile use at electrostatically endangered components



2220 **BERNSTEIN** SERVICE-SET ANTISTATIC with tool set

2221 Case with zip fastener, without tools

Description:

Elegant zipper case, made from **dissipative** black imitation leather and **dissipative** pockets for 12 ESD-tools and foldable ESD-workbench pad with accessories.

Outside dimensions: 320 x 250 x 50 mm (when closed)

Weight with tools: 0.950 kg

Tool set:

No.	Description of individual tools
2-620	PLCC-extractor
3-601-13	Side cutters , 120 mm, for soft wire up to 1.5 mm Ø and hard wire up to 0.4 mm Ø, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard
3-632-13	Flat nose pliers , 120 mm, plain jaws, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard
3-633-13	Snipe nose pliers , 120 mm, plain jaws, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard
4-601	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 50 x 0.8 mm
4-605	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 60 x 2.0 mm
4-606	Slotted screwdriver with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip, 60 x 2.5 mm
4-621	Cross-recess screwdriver size 000, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip



No.	Description of individual tools
4-622	Cross-recess screwdriver size 00, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
4-623	Cross-recess screwdriver size 0, with dissipative handle, blade from chrome vanadium, chrome-plated, with black tip
5-191	Tweezers , made from conductive plastic material, reinforced with glass fibre, 120 mm, with straight, rounded tips
5-192	Tweezers , made from conductive plastic material, reinforced with glass fibre, 120 mm, with straight, 3 mm flat-hand tips
9-354	ESD-handling-set , consisting of: foldable green workbench pad (surface resistance according to DIN 53482: approx. 10 ⁹ ohm), 500 x 400 x 0.35 mm, contact bracelet 9-342, earth wire 2500 mm long with 1 Mohm safety resistor

2300 **BERNSTEIN** ESD Service-Set with tools



Description:

The green tool folder serves as an electrical **dissipative** workbench pad of 680 x 680 x 0.35 mm. The surface resistance according to DIN 53482 is approx. 10⁹ ohm.

The workbench pad has 3 press-stud receptacles for connecting the contact bracelet and the earth wire.

With 2 additional press-buttons the pad may be closed as tool bag.

The 2 patch pockets carry the contact bracelet and the earth wire.

Furthermore 16 dissipative tools are placed in pockets, ready to hand.

Outside dimensions: 330 x 240 x 20 mm (when closed)

Weight with tools: 0.850 kg

Tool set:

No.	Description of individual tools
2-166	Glass fibre contact cleaner , with rotary mechanism, plastic casing
2-620	PLCC-extractor
3-601-13	Side cutters , 120 mm, for soft wire up to 1.5 mm Ø and hard wire up to 0.4 mm Ø, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard
3-633-13	Snipe nose pliers , 120 mm, plain jaws, bright steel-polished, box joint, double leaf spring, with dissipative black hand guard
4-601	Slotted screwdriver with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip, 50 x 0.8 mm
4-605	Slotted screwdriver with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip, 60 x 2.0 mm
4-606	Slotted screwdriver with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip, 60 x 2.5 mm
4-621	Cross-recess screwdriver size 000, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
4-622	Cross-recess screwdriver size 00, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
4-623	Cross-recess screwdriver size 0, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip

No.	Description of individual tools
5-191	Tweezers made from conductive, black plastic material, reinforced with glass fibre, 120 mm, with rounded tips
5-194	Tweezers made from conductive, black plastic material, reinforced with glass fibre, 120 mm with bent, pointed tips
6-616	Socket wrench with dissipative handle, blade made from chrome vanadium, nickel-plated, A/F 3.5 mm
6-661	TORX screwdriver T 5, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
6-664 L	TORX screwdriver T 8 with bore-hole in the tip, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
6-666 L	TORX screwdriver T10 with bore-hole in the tip, with dissipative handle, blade made from chrome vanadium, chrome-plated, with black tip
9-342	Contact bracelet cloth armband, allergy-free, edges and surface insulating, spiral cord, 1 Mohm safety resistor, combined press-stud and terminal connection, to DIN EN 100 015/1
9-346	Earth wire with 1 Mohm safety resistor, 2500 mm long, with terminal connection resp. press-stud, for connecting workbench pad and floor cover and connection to an earth potential



SPECIAL ELECTRONIC PLIERS EUROline-Conductive

Box joint

Double leaf spring

High quality steel

Fine polished and bright burnished, for dazzle free working

Ergonomically formed bicoloured hand guard from

dissipative anti-slide material

The pliers of this program have been tested with good results by several testing laboratories adequate to DIN EN 61340-5-1, 61340-2-1, 61340-2-3 for work in ESD protected areas



3-651-15



3-651-15 DR



3-652-15



3-653-15



3-654-15



3-655-15



3-671-15



3-672-15



3-673-15



3-674-15



3-675-15

CUTTING PLIERS

No.	Length mm inches	Finish	cutting capacity mm Ø			Weight g
			Soft wire	Medium hard	Hard wire	

Mini side cutters EUROline-Conductive

with very slim, rounded head for finest operations

3-651-15	120 4 3/4	without side face	1.5	0.8	-	65
3-651-15 DR	120 4 3/4	without side face, with retaining spring	1.5	0.8	-	65

Mini side cutters EUROline-Conductive

with very slim, pointed head for finest operations

3-652-15	120 4 3/4	without side face	1.5	0.8	-	60
3-653-15	120 4 3/4	without side face, with special flat cutting edge	1.5	0.8	-	60

Side cutters EUROline-Conductive

with slim, rounded head,

3-654-15	125 5	with side face	1.5	1.0	0.4	70
3-655-15	125 5	without side face	1.5	1.0	-	70

Side cutters EUROline-Conductive

with slim, pointed head,

3-656-15	125 5	with side face	1.5	1.0	0.3	70
3-657-15	125 5	without side face	1.5	1.0	-	70

End cutters EUROline-Conductive

extremely slim, without side face, for precision work at points difficult to reach

3-671-15	130 5 1/8	straight	0.8	0.6	-	65
3-672-15	130 5 1/8	cutting edge 20° angular	0.8	0.6	-	70

Top cutters EUROline-Conductive

extremely slim, without side face, head 45° angular, for flush cutting directly in front of and behind the components.

3-673-15	130 5 1/8	cutting edge inside	0.8	0.6	-	60
3-674-15	130 5 1/8	cutting edge outside	0.8	0.6	-	60

Oblique top cutters EUROline-Conductive

cutting plane 29° angular, flush cutting for horizontal and vertical use

3-675-15	115 4 1/2	without side face	1.2	1.0	0.4	65
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SPECIAL ELECTRONIC PLIERS EUROline-Conductive

CUTTING PLIERS



No.	Length		Finish	cutting capacity mm Ø			Weight g
	mm	inches		Soft wire	Hard wire	Piano- wire	

Carbide mini side cutters EUROline-Conductive

for continuous heavy work, **with inserted carbide cutting edges**,
also for tough nickel and electrode wires

3-661-15	120	4 3/4	with side face very slim rounded head	2.0	1.0	0.6	70
3-663-15	120	4 3/4	with side face very slim pointed head with special flat cutting edge	1.8	0.8	0.4	65

Carbide oblique top cutters EUROline-Conductive

for continuous heavy work, **with inserted carbide cutting edges**,
cutting plane 29° angular, for horizontal and vertical use,
also for tough nickel and electrode wires

3-667-15	115	4 1/2	without side face	2.0	1.0	0.6	65
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Glas fibre mini side cutters EUROline-Conductive

for continuous heavy work, **with inserted carbide cutting edges**,
with special side face, **for cutting glass fibre only**, max. 2.0 mm Ø

3-665-15	120	4 3/4	very slim rounded head				70
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ROUND, FLAT, SNIPE NOSE PLIERS

No.	Length		Finish	Weight g
	mm	inches		

Round nose pliers EUROline-Conductive

extremely slim

3-681-15	130	5 1/8	short plain jaws	60
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Flat nose pliers EUROline-Conductive

extremely slim

3-682-15	130	5 1/8	short plain jaws	70
3-688-15	130	5 1/8	short, ultra slim plain jaws	60

Snipe nose pliers EUROline-Conductive

extremely slim

3-683-15	130	5 1/8	short plain jaws	70
3-685-15	140	5 1/2	long plain jaws	70
3-686-15	140	5 1/2	long serrated jaws	70
3-687-15	130	5 1/8	short plain jaws, ultra slim pointed for precise handling of tiny components	70



3-661-15



3-663-15



3-667-15



3-665-15



3-681-15



3-682-15



3-688-15



3-683-15



3-685-15



3-687-15

SPECIAL ESD ELECTRONIC PLIERS



Box joint
Double leaf spring
Bright **steel-polished**
With **dissipative** black hand guard



CUTTING PLIERS

No.	Length		Finish	Cutting capacity mm Ø			Weight g
	mm	inches		Soft wire	Medium hard	Hard wire	

Side cutters

with slim, rounded head

3-601-13	120	4 3/4	with side face	1.5	1.0	0.4	70
3-602-13	120	4 3/4	without side face	1.5	1.0	-	70

Side cutters

with slim, pointed head

3-603-13	120	4 3/4	with side face	1.5	1.0	0.3	65
3-604-13	120	4 3/4	without side face	1.5	1.0	-	65

End cutters

with angular tips and oblique cutting edge, for flush cutting

3-606-13	120	4 3/4	without side face	1.0	0.8	-	55
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ROUND, FLAT AND SNIPE NOSE PLIERS

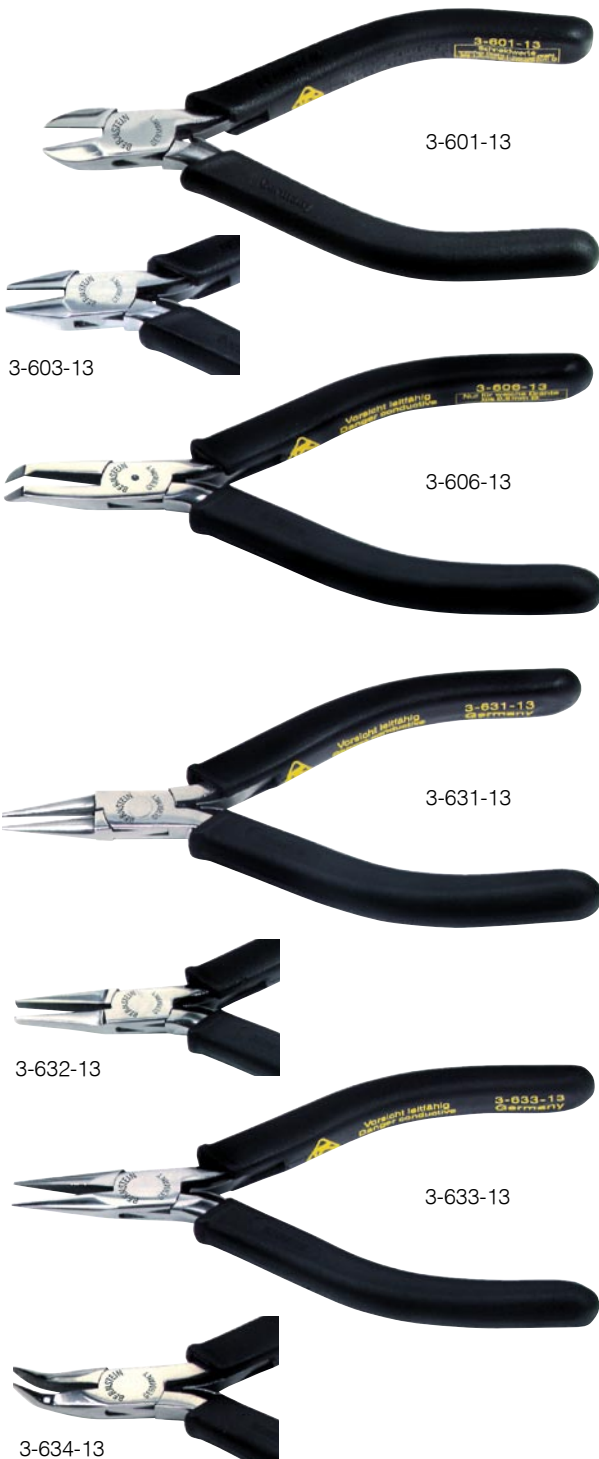
No.	article	Length		Finish	Weight g
		mm	inches		
3-631-13	Round nose pliers	120	4 3/4	plain jaws	55
3-632-13	Flat nose pliers	120	4 3/4	plain jaws	60
3-633-13	Snipe nose pliers	120	4 3/4	plain jaws	60
3-634-13	Snipe nose pliers, angular	120	4 3/4	plain jaws	60

SET OF ELECTRONIC PLIERS

3-650 **BERNSTEIN** Set of conductive pliers

5-piece set bright steel-polished pliers with **dissipative** black hand guard in a practical table support from **conductive** material

No.	Description of individual tools	Weight: 350 g
3-601-13	Side cutters , 120 mm, for soft wire up to 1.5 mm, for hard wire up to 0.4 mm	
3-631-13	Round nose pliers , 120 mm, plain jaws	
3-632-13	Flat nose pliers , 120 mm, plain jaws	
3-633-13	Snipe nose pliers , 120 mm, plain jaws	
3-634-13	Snipe nose pliers , angular, 120 mm, plain jaws	



3-634-13



3-650



SPECIAL ESD ELECTRONIC PLIERS

Lap joint
Double leaf spring
Bright polished - **chrome**-plated
With **dissipative** black hand guard



CUTTING PLIERS

No.	Length		Finish	Cutting capacity mm Ø			Weight g
	mm	inches		Soft wire	Medium hard	Hard wire	
Side cutters with slim, rounded head							
3-901-13	125	5	with side face	1.5	1.0	0.4	75

Side cutters with slim, pointed head and special flat cutting edge							
3-902-13	125	5	without side face	1.5	0.8	-	75

Top cutters with 3 mm wide cutting edge, jaw length 20 mm, for flush cutting							
3-905-13	135	5 1/2	without side face	0.8	0.6	-	85

End cutters with angular tips and oblique cutting edge, for flush cutting							
3-906-13	135	5 1/2	without side face	0.8	0.6	-	85

ROUND, FLAT AND SNIPE NOSE PLIERS

Round nose pliers							
3-931-13	130	5 1/8	plain jaws				80

Snipe nose pliers							
3-933-13	130	5 1/8	plain jaws				70

SIDE CUTTERS, TELEPHONE AND COMBINATION PLIERS

Lap joint, bright polished – chrome-plated
with **dissipative** black hand guard

Side cutters swedish design							
3-133-13	145	5 3/4	spezial-steel	2.5	1.25	-	155

Telephone pliers snipe nose, long straight jaws, with cutting edges for hard wire							
3-245-13	200	8	serrated jaws				180

Combination pliers with wire cutter, for hard wire							
3-732-13	165	6 1/2	serrated jaws				185



3-901-13



3-902-13



3-905-13



3-906-13



3-931-13



3-933-13



3-133-13



3-245-13



3-732-13



SPECIAL ESD ELECTRONIC PLIERS

Lap joint
Black burnished, double leaf spring
With **dissipative** black hand guard



CUTTING PLIERS

No.	Length		Finish	Cutting capacity mm Ø			Weight g
	mm	inches		Soft wire	Medium hard	Hard wire	

Side cutters

with slim, rounded head

3-901-7	120	4 3/4	with side face	1.5	1.0	0.4	65
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Side cutters

with slim, pointed head, special flat cutting edge,

3-902-7	120	4 3/4	without side face	1.5	0.8	-	65
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Top cutters

with 3 mm wide cutting edge, jaw length 20 mm,
for flush cutting

3-905-7	125	5	without side face	0.8	0.6	-	75
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End cutters

with angular tips and oblique cutting edge,
for flush cutting

3-906-7	125	5	without side face	0.8	0.6	-	75
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ROUND-FLAT-SNIPE NOSE PLIERS

No.	Length		Finish	Weight g
	mm	inches		

Round nose pliers with short jaws

3-931-7	120	4 3/4	plain jaws	70
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Flat nose pliers with short jaws

3-932-7	120	4 3/4	plain jaws	60
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Snipe nose pliers with short jaws

3-933-7	125	5	plain jaws	60
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Snipe nose pliers with long jaws

angular, slim model

3-945-7	145	5 3/4	serrated jaws	85
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3-960 **BERNSTEIN** Set of ESD pliers

4-piece set black burnished pliers with **dissipative** hand guard, in a wallet of nylon

No.	Description of individual tools	Weight: 350 g
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3-901-7 **Side cutters**, 120 mm,
for soft wire up to 1.5 mm, for hard wire up to 0.4 mm Ø

3-906-7 **End cutters**, 125 mm,
with angular tips and oblique cutting edge, without side face,
for flush cutting, for soft wire up to 0.8 mm Ø

3-932-7 **Flat nose pliers**, 120 mm

3-933-7 **Snipe nose pliers**, 125 mm



3-960

INOX HIGH-GRADE STEEL PLIERS

For **use in cleanrooms** (autoclavable)
antiseptic or in ESD protected areas.

Stainless steel, Swaged, Box joint construction 

With screwed stainless double leaf spring

Extremely fine polished, abrasionproof, easy to clean

On request with inserted carbide cutting edges

On request with ESD hand guard

The perfect pliers for works in following industries:

Aerospace - chemical - electronic -

Medical and dental technique - food production -

Shipbuilding - oil and gas production



33-115



33-215



33-135



33-235



33-255



33-275

No.	Length		Finish	cutting capacity mm Ø			Weight g
	mm	inches		Soft wire	Medium hard	Hard wire	

Side cutters

with very slim rounded head
for finest operations

33-115	110	4 3/8	without side face	1.1	0.4	-	36
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Side cutters

with very slim rounded head

33-215	115	4 1/2	with side face	1.1	0.6	0.2	53
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Oblique top cutters

straight head, flush cutting

33-135	110	4 3/8	without side face	0.8	0.6	0.2	40
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Top end cutters

bent, extremely slim, flush cutting

33-235	120	4 3/4	without side face	0.4	0.2	-	43
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Snipe nose pliers

extremely slim, straight, short jaws

33-255	120	4 3/4	with plain jaws				43
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Flat nose pliers

extremely slim, straight, short jaws

33-275	120	4 3/4	with plain jaws				44
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SET OF ELECTRONICS PLIERS

33-100 **BERNSTEIN** Set of INOX steel pliers

3-piece set INOX high grade steel pliers in a wallet of nylon

No.	Description of individual tools	Weight: 220 g
33-215	Side cutters , 115 mm, with side face, for soft wire up to 1.1 mm, for medium hard wire up to 0.6 mm Ø, for hard wire up to 0,2 mm Ø	
33-255	Snipe nose pliers , 120 mm, plain jaws	
33-275	Flat nose pliers , 120 mm, plain jaws	





TORQUE-SCREWDRIVER EUROLINE-POWER **ESD**

with ergonomical formed **dissipative**
two-components handle



Handle: impact-resistant, **dissipative**, two-coloured plastic, with slip off protection and practical hanging up hole, clear legible micrometer scale for a precise and perfect setting.
Torque adjusting without setting gauge

Torque mechanism: **wear-resistant** mechanism from hardened special steel, audible and touchable release signal

Lock mechanism: secure locking device by lock mechanism (lock point = vernier line)

Actuating mechanism: system with changeable blades, left tightening with more or less unlimited removing, right tightening with adjusted torque

Torque screwdrivers can be recalibrated and are in accordance with EN ISO 6789:2003

Torque-screwdriver

No.	measure range Nm	scale Nm	Fine scale Nm	Drive inner hexagon mm	Length mm	Weight
4-561	0.5 - 1.5	0.25	0.05	4	153	137 g
4-562	1.5 - 4.0	0.50	0.10	4	153	137 g

TORQUE CHANGEABLE BLADES

Blade: chrome vanadium, hexagon material, A/F 4 mm, hardened over its full length, matt chrome-plated, black tip

Slotted blades

No.	Blade width mm	Blade thickness mm	Length mm	Weight
4-571	1.5	0.25	160	10 g
4-572	2.0	0.40	160	10 g
4-573	2.5	0.40	160	10 g
4-574	3.0	0.50	160	10 g

Cross-recess blades

No.	Size	Length mm	Weight
4-582	PH 00	160	10 g
4-583	PH 0	160	10 g
4-584	PH 1	160	10 g

Cross-recess Pozidriv blades

No.	Size	Length mm	Weight
4-588	PZ 0	160	10 g
4-589	PZ 1	160	10 g

Torx blades

L = with bore-hole in the tip

No.	Size	for metric thread	Length mm	Weight
6-951	T 3	M 1.2 - 1.4	160	10 g
6-952	T 4	M 1.4 - 1.6	160	10 g
6-953	T 5	M 1.6 - 2.0	160	10 g
6-954	T 6	M 2.0	160	10 g
6-955 L	T 7	M 2.5	160	10 g
6-956 L	T 8	M 2.5	160	10 g

further shapes and sizes on request

ESD INTERCHANGEABLE SCREWDRIVER-SETS

for special service

Practical tool rolls made from dissipative material are equipped with double-ended screwdriver-blades and ESD handle with metal clamping sleeve, suitable for hexagon blades of A / F 4 mm

Blade: chrome vanadium, hexagonal material, A / F 4 x 120 mm, hardened over its full length, matt chrome-plated, black tip

4-920 **BERNSTEIN** 9-piece interchangeable screwdriver set with ESD-handle

Contents: ESD-handle
 3 slotted blades 1.5 / 3.0 mm, 2.0 / 3.5 mm, 2.5 / 4.0 mm
 2 cross-recess blades PH 000 / PH 00, PH 0 / PH 1
 3 TORX blades T 5 / T 6, T 7 L / T 8 L, T 9 L / T 10 L ("L" with bore hole)

Weight: 190 g

4-960 **BERNSTEIN** 11-piece interchangeable screwdriver set with ESD-handle

Contents: ESD-handle
 2 slotted blades 1.5 / 3.0 mm, 2.0 / 4.0 mm,
 2 cross-recess blades PH 000 / PH 00, PH 0 / PH 1
 4 TORX blades T 3 / T 4, T 5 / T 6, T 7 L / T 8 L, T 9 L / T 10 L ("L" with bore hole)
 2 Tri Wing / Four Wing blades TW 1 / FW 1, TW 2 / FW 2

Weight: 210 g



4-960

ESD SCREWDRIVERS

with special-square pattern handle from impact-resistant, **dissipative** black plastic

Blade: chrome vanadium, hardened over its full length, matt chrome-plated, with black tip

Handle: impact-resistant, **dissipative**, black plastic, electrostatic discharge according to DIN EN 100015/1



Slotted screwdrivers

No.	Blade length mm	Blade width mm	Blade thickness mm	Handle size mm	Weight
4-632	100	4.0	0.8	92 x 21	40 g
4-633	125	5.5	1.0	100 x 23	65 g
4-643	300	6.0	1.2	100 x 23	100 g

Cross-recess screwdrivers

No.	Size	Blade length mm	Blade Ø mm	Handle size mm	Weight
4-652	1	80	4.5	92 x 21	40 g
4-653	2	100	6.0	100 x 23	75 g

extra long cross-recess screwdrivers

4-656	1	300	4.5	100 x 23	80 g
4-657	2	300	6.0	100 x 23	115 g

Cross-recess screwdrivers Pozidriv

4-662	1	80	4.5	92 x 21	40 g
4-663	2	100	6.0	100 x 23	70 g

Tri Wing screwdrivers

6-641	TW 0	70	4.5	92 x 21	42 g
6-642	TW 1	70	4.5	92 x 21	42 g
6-643	TW 2	70	4.5	92 x 21	42 g
6-644	TW 3	70	4.5	92 x 21	42 g
6-645	TW 4	70	6.0	92 x 21	53 g
6-646	TW 5	70	6.0	92 x 21	54 g





ESD ELECTRONIC SCREWDRIVERS

with slim, ergonomically formed handles from black **dissipative** plastic. The swivel top guarantees a precise working without exhaustion.

Blade: chrome vanadium, hardened over its full length, chrome-plated, with black tip

Handle: impact-resistant **dissipative**, black plastic



4-610



6-630

Slotted screwdrivers

No.	Blade length mm	Blade width mm	Blade thickness mm	Blade Ø mm	Handle length mm	Weight
4-601	50	0.8	0.20	2.5	100	12 g
4-602	50	1.2	0.25	2.5	100	12 g
4-603	50	1.5	0.25	2.5	100	12 g
4-604	50	1.8	0.30	2.5	100	12 g
4-605	60	2.0	0.40	2.5	100	12 g
4-606	60	2.5	0.40	2.5	100	12 g
4-607	60	3.0	0.50	3.0	100	14 g

Cross-recess screwdrivers

No.	Size	Blade length mm	Blade Ø mm	Handle length mm	Weight
4-621	000	50	2.5	100	12 g
4-622	00	50	2.5	100	12 g
4-623	0	50	3.0	100	14 g

4-610 6-piece slotted screwdriver set

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

Contents: 6 screwdrivers No. 4-601, 4-603, 4-604, 4-605, 4-606, 4-607

Weight: 145 g

4-620 6-piece slotted screwdriver and cross-recess screwdriver set

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

Contents: 3 screwdrivers No. 4-602, 4-605, 4-607

3 cross-recess screwdrivers No. 4-621, 4-622, 4-623

Weight: 145 g

Wrench keys

No.	A/F mm	Blade length mm	Handle length mm	Weight
6-631	0.7	50	100	12 g
6-632	0.9	50	100	12 g
6-633	1.3	50	100	12 g
6-634	1.5	50	100	12 g
6-635	2.0	60	100	12 g
6-636	2.5	60	100	14 g

6-630 6-piece wrench key set

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

Contents: 6 wrench keys No. 6-631, 6-632, 6-633, 6-634, 6-635, 6-636

Weight: 145 g



ESD TORX SCREWDRIVERS AND SOCKET WRENCHES

with slim, ergonomically formed handles from black, **dissipative** plastic. The swivel top guarantees a precise working without exhaustion.

Blade: chrome vanadium, hardened over its full length, chrome-plated, black tip

Handle: impact-resistant, **dissipative** black plastic

TORX-screwdrivers

L = with bore-hole in the tip



No.	Size	Blade length mm	for metric thread	Handle length mm	Weight
6-656	T 1	50	M 0.9	100	12 g
6-657	T 2	50	M 1.0-1.2	100	12 g
6-658	T 3	50	M 1.2-1.4	100	12 g
6-659	T 4	50	M 1.4-1.6	100	12 g
6-661	T 5	50	M 1.6-2	100	12 g
6-662	T 6	50	M 2	100	16 g
6-663 L	T 7	50	M 2.5	100	16 g
6-664 L	T 8	60	M 2.5	100	16 g
6-665 L	T 9	60	M 3	100	19 g
6-666 L	T 10	60	M 3-3.5	100	21 g



6-660

6-660 6-piece TORX-screwdriver set,

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

Contents: 6 TORX-screwdrivers No. 6-661, 6-662, 6-663 L, 6-664 L, 6-665 L, 6-666 L

Weight: 163 g



Extra long TORX-screwdrivers

with dissipative special-square pattern handle

6-675 L	T 10	300	M 3-3.5	92 x 21	60 g
6-676 L	T 15	300	M 3.5-4	92 x 21	65 g
6-677 L	T 20	300	M 4-5	100 x 21	75 g

Socket wrenches



No.	A/F mm	Blade length mm	Handle length mm	Weight
6-611	1.5	70	100	15 g
6-612	2.0	70	100	15 g
6-613	2.5	70	100	18 g
6-614	3.0	70	100	18 g
6-615	3.2	70	100	18 g
6-616	3.5	70	100	18 g
6-617	4.0	70	100	18 g
6-618	4.5	70	100	19 g
6-619	5.0	70	100	19 g
6-621	5.5	70	100	20 g



6-610 6-piece socket wrench set

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

Contents: 6 Socket wrenches No. 6-612, 6-614, 6-617, 6-618, 6-619, 6-621

Weight: 180 g



6-610

SPECIAL-TWEEZERS FOR SMD-TECHNIQUE

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

No.	Length		Finish / Model	Weight
	mm	inches		
5-048	110	4 3/8"	straight, very sharply pointed, 5 SA	12 g
5-049	110	4 3/8"	straight, very sharply pointed, 4 SA	12 g
5-049-13	110	4 3/8"	as above, with ESD coating	12 g
5-051	115	4 1/2"	straight pointed, 2 SA	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, 5b SA	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, 2a SA	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, PSF SA	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, 51 SA	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, 7abb SA	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, 7a SA	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, 7 SA	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, 31 SA	13 g
5-058	120	4 3/4"	self-locking, bent, pointed, 31b SA	13 g
5-061	115	4 1/2"	bent, flat rounded tips, 2ab SA	16 g
5-062	115	4 1/2"	35° angled, 2.0 mm width, with gripping cavity Ø 0.8 mm, 59 SA	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, 58 SA	16 g
5-063-13	115	4 1/2"	as above, with ESD coating	16 g





SPECIAL-TWEEZERS FOR SMD-TECHNIQUE

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

No.	Length		Finish / Model	Weight
	mm	inches		
5-065	120	4 3/4"	straight, 3.0 mm width, with gripping cavity Ø 0.8 mm, 50 SA	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, 8b SA	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, 12 SA	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 SA	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, OC SA	8 g
5-072	110	4 3/8"	thin, straight-pointed, 3c SA	11 g
5-073	140	5 1/2"	long-thin, straight, very sharply pointed, SS SA	13 g
5-073-13	140	5 1/2"	as above, with ESD coating	13 g
5-074	120	4 3/4"	straight, pointed, 1 SA	14 g
5-075	140	5 1/2"	straight, very sharply pointed, grip surface offset, 60 SA	13 g
5-076	120	4 3/4"	rigid, straight, pointed, 00 SA	19 g
5-076-13	120	4 3/4"	as above, with ESD coating	19 g
5-077	130	5 1/8"	wide, tapering, pointed, AA SA	16 g
5-077-13	130	5 1/8"	as above, with ESD coating	16 g

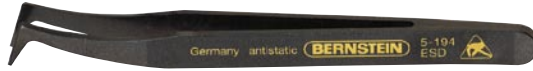
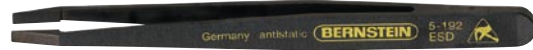


CUTTING TWEEZERS

Made from Carbon Steel, extremely hard,
excellent sharpness at the cutting edges.
For cutting of soft copper, gold and silver wires
up to 0.25 mm Ø.

No.	Length		Finish / Model	Weight
	mm	inches		
5-079	115	4 1/2"	Carbon Steel, matt finish, 15 AGW	25 g
5-079-13	115	4 1/2"	with ESD coating	25 g





5-190



ESD TWEEZERS

made from **conductive**, 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, flat, 6 mm 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

CERAMIC-TIPPED TWEEZERS

Characteristics of the Ceramic tips: antimagnetic, solder-repellent, acid- and heat-resistant.

(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 tips with fine serration	12 g

IC-Tweezers

for gripping, inserting and removing of IC's

No.	Length		Finish	Weight
	mm	inches		
2-601-13	125	5"	with ESD-coating	22 g

SETS OF TWEEZERS IN A WALLET

5-030 **3-piece set of electronic tweezers from titan**
non-reflective, stainless, solder-repellent
in a wallet of recyclable nylon

No.	Description of individual tools	Weight: 60 g
5-031	Titan-tweezers , sharply pointed, 110 mm	
5-036	Titan-tweezers , straight, round, wide, 145 mm, with serration	
5-037	Titan-tweezers , fine bent tips, 150 mm	



5-050 **6-piece set of special tweezers for the SMD-technique**
matt finish, stainless, anti-magnetic
in a wallet of recyclable nylon

No.	Description of individual tools	Weight: 135 g
5-051	SMD-tweezers , straight pointed, 115 mm	
5-052	SMD-tweezers , bent, very sharply pointed, 110 mm	
5-054	SMD-tweezers , sickle-shaped curved, very sharply pointed, 120 mm	
5-058	SMD-tweezers , crossed, bent, pointed, 120 mm	
5-061	SMD-tweezers , bent, flat tips 2 mm wide, 115 mm	
5-062	SMD-tweezers , bent, flat tips, with gripping cavity, 115 mm	



5-060 **6-piece set ESD-Tweezers for the SMD-Technique**
in a wallet made from **dissipative** material



No.	Description of individual tools	Weight: 155 g
5-049-13	SMD-tweezers , straight, very sharply pointed, 110 mm	
5-055-13	SMD-tweezers , sickle-shaped, very sharply pointed, 120 mm	
5-059-13	SMD-tweezers , flat, rounded tips, 2 mm width, 120 mm	
5-067-13	SMD-tweezers , tip 45° angled, 2,0 mm width, 120 mm	
5-068-13	SMD-tweezers , tip angled, 1,6 mm, 120 mm	
5-078-13	SMD-tweezers , tapering, chisel, 1,0 mm width, 130 mm	



5-110 **3-piece set of Engineer's Tweezers**
made from steel, nickel-plated
in a wallet of recyclable nylon

No.	Description of individual tools	Weight: 95 g
5-107	Engineer's tweezers , fine, bent tips, finely serrated, 150 mm	
5-121	Engineer's tweezers , narrow pointed tips, finely serrated, 120 mm	
5-155	Crossed tweezers , (self-locking) jaws 5 mm wide, finely serrated, 160 mm	



TOOLS FROM CERAMIC

antistatic – antimagnetic

Material: zirconium oxide

1-750 **BERNSTEIN** Ceramic adjusting screwdrivers set 13-pieces in a box with hinged lid

Contents: double-ended handle 1-735 and 12 ceramic bits

Weight: 90 g

Measurements of the ceramic bits in box 1-750

No.	Blade length mm	Blade tip mm	Weight g
1-751	32	0.90 x 0.30	1
1-752	32	1.30 x 0.30	1
1-753	32	1.50 x 0.30	1
1-754	32	1.80 x 0.30	1
1-755	32	1.95 x 0.35	1
1-756	32	2.50 x 0.70	1
1-757	32	3.00 x 0.30	1
1-761	32	1.95 AF	1
1-762	32	2.45 AF	1
1-765	32	size 00	1
1-766	32	size 0	1
1-767	32	2.40 x 0.80	1

BERNSTEIN Adjusting screwdrivers and bits

blades from ceramic

Adjusting screwdrivers with **conductive** handle No.: 1-851 – 1-876

Bits No.: 1-751 – 1-776 to use with screwdriver handle No.: 1-735

No.	Length mm	Bit No.	Length mm	Blade tip mm	Weight g
1-851	110	1-751	32	0.90 x 0.30	10 / 1
1-852	110	1-752	32	1.30 x 0.30	10 / 1
1-853	110	1-753	32	1.50 x 0.30	10 / 1
1-854	110	1-754	32	1.80 x 0.30	10 / 1
1-855	110	1-755	32	1.95 x 0.35	10 / 1
1-856	110	1-756	32	2.50 x 0.70	10 / 1
1-857	110	1-757	32	3.00 x 0.30	10 / 1
1-858	110	1-758	32	3.00 x 0.70	10 / 1
1-861	110	1-761	32	1.95 SW	10 / 1
1-862	110	1-762	32	2.45 SW	10 / 1
1-863	110	1-763	32	2.60 SW	10 / 1
1-864	110	1-764	32	KS Gr. 000	10 / 1
1-865	110	1-765	32	KS Gr. 00	10 / 1
1-866	110	1-766	32	KS Gr. 0	10 / 1
1-867	110	1-767	32	2.40 x 0.80	10 / 1
1-873	110	1-773	32	0.70 x 1.40	10 / 1
1-874	110	1-774	32	3.00 x 1.00	10 / 1
1-875	110	1-775	32	1.20 x 1.20	10 / 1
1-876	110	1-776	32	1.30 x 0.40	10 / 1

Tin knife with ceramic blade

for working at printed circuit boards, 105 mm long,
handle from **conductive** black plastic

No. 2-101 Tin knife with ceramic blade

Weight: 9 g

Ceramic blade scissors

for cutting e.g. aramid yarns and fiber optic cables, antistatic and electrically insulating, black plastic handles reinforced with glass-fibre

No.	Length mm	Length inches	Finish	Weight
5-353	140	5 1/2"	blade length 50 mm	26 g

ESD Brushes

with **conductive** handle, natural bristles with **conductive** fibres

No.	Finish	Bristles	Total length mm	Weight
7-421	round	6 mm Ø	150	9 g
7-422	flat	20 mm wide	150	26 g



ESD-COVERINGS AND ACCESSORIES



9-342 **Contact bracelet with spiral cord**
adjustable elastical bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud; high elastical spiral cord, 2400 mm long, 2 x 1 Mohm safety resistor, press-studs 3 mm for bracelet and 10 mm for earth wire; additionally insulated crocodile clip No. 9-353.
(Weight: 60 g)

9-342-1 **Contact bracelet**
adjustable elastical bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud
(Weight: 13 g)

9-342-2 **Spiral cord**
high elastical spiral cord, 2400 mm long, 2 x 1 Mohm safety resistor, press-studs 3 mm for bracelet and 10 mm for earth wire
(Weight: 25 g)

9-343 **Earth wire**
with 1 Mohm safety resistor, 1500 mm long, with 2 press-studs 10/10 mm, for connecting workbench pad and floor cover and connection to an earth potential; additionally insulated crocodile clip No. 9-353.
(Weight: 40 g)

9-353 **Crocodile clip**
insulated clip with banana plug connection socket and 10 mm press-stud.
(Weight: 18 g)

9-354 **ESD-handling set foldable** - especially for mobile use -
consisting of:
workbench pad, 500 x 400 x 0.35 mm, green, electrically dissipative, grained surface, (leakage resistance to DIN IEC 61340-4-1 R_G : ca. 10^9 ohm), with 2 press-studs 10/10 mm; contact bracelet No. 9-342-1, spiral cord 9-342-2 and earth wire No. 9-346 including crocodile clip No. 9-353.
(Weight: 170 g)

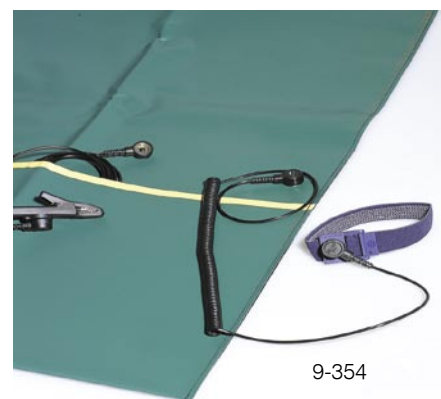
9-360 **ESD-handling set**
consisting of:
workbench pad, **resistant to soldering tin**, 800 x 600 x 1.5 mm, black, from homogeneous, electrically conductive synthetic caoutchouc, slightly grained surface, (leakage resistance to DIN IEC 61340-4-1 R_A : 10^3 - 10^6 ohm), with 2 press-studs 10/10 mm; contact bracelet No. 9-342-1, spiral cord 9-342-2 and earth wire No. 9-343 including crocodile clip No. 9-353.
(Weight: 1160 g)

9-361 **ESD-handling set**
consisting of:
workbench pad, **resistant to soldering tin**, 800 x 600 x 2.0 mm platinum grey, from dissipative synthetic caoutchouc, slightly grained, with homogeneous, electrically dissipative black rear, (leakage resistance to DIN IEC 61340-4-1 R_A : 10^5 - 10^7 ohm), with 2 press-studs 10/10 mm; contact bracelet No. 9-342-1, spiral cord No. 9-342-2 and earth wire No. 9-343 including crocodile clip No. 9-353.
(Weight: 1300 g)



9-342

9-343



9-354



9-360



9-361



SPANNFIX VICES with dissipative surface

BERNSTEIN clamping vices SPANNFIX constructed on ball-and-socket joints are rotatable easily in all directions and capable of being set securely with maximum working capacity by simple operation. A set screw below the ball socket allows an individual adjusting of the ball power. Long life is guaranteed by highest black powder-coated aluminium casting and surface-refined steel-parts.

With a surface resistance between 10^7 and $10^8 \Omega$ the ESD types ensure a safe dissipation of static charges.



9-205 ESD **BERNSTEIN SPANNFIX screw-on vice** with dissipative surface

for work benches or laboratory tables
with max. table thickness of 80 mm

Technical data:	Clamping pressure	150 kp
	Clamping capacity	70 mm
	Clamping depth	38 mm
	Jaw width	50 mm
	interchangeable plastic jaws from dissipative material	
	- Art.-No. 9-206-50 ESD	

Weight: 1.450 kg

9-251 ESD **Universal clamp base** with dissipative surface

with ball joint and threaded stud M 12 x 1.5, for work benches
or laboratory tables with max. table thickness of 80 mm

Weight: 0.950 kg

9-252 ESD **Screw-on mounting vice** with dissipative surface

Technical data see 9-205 ESD

Weight: 0.560 kg

9-253 ESD **Circuit board holder**

adjustable from 25 mm to 270 mm clamping capacity, correct
setting by adjusting the centre position, firm clamping of the
printed circuit by built-in resilience in the locating arms, height
of locating arms 70 mm

Weight: 0.280 kg

9-255 ESD **Angular adapter** with dissipative surface

to permit a larger turning circle when using 9-253

Weight: 0.095 kg

9-256 **Clamping lid for circuit boards** with components

covered with 20 mm thick **ESD foam**

Components of different sizes are pressed in such a way that
soldering can be carried out correctly after the circuit board
holder has been turned.

Size of cover: 240 x 130 mm

Use: in conjunction with circuit board holder 9-253

Weight: 0.260 kg

9-257 ESD **Rapid turning device** with dissipative surface

with permanently connected angular adapter, permits swift
rotation of the circuit board holder with the PCB and clamping
lid through 180°.

Weight: 0.270 kg