



**BERNSTEIN**<sup>®</sup>  
TOOLS FOR ELECTRONICS

## GENERAL CATALOGUE

BERNSTEIN TOOLS

TOOL KITS



CLAMPING DEVICES















ESD TOOLS





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**BERNSTEIN**<sup>®</sup>  
TOOLS FOR ELECTRONICS

**HAND TOOLS AND**

**SPECIAL TOOLS FOR**

**ELECTRONICS AND ELECTRICS**

### **BERNSTEIN TOOLS**

Industry and craftsmanship rely on the reliability, safety and precision of BERNSTEIN's hand tools every day. The range of special tools for electronics, electrical and precision mechanics is characterized by the highest quality and constant product range optimization.

The assortment covers among others:



Side cutters, combination pliers, telephone pliers etc., with ESD or VDE handles



Wire strippers and crimping pliers for different wire diameters and connectors



Screwdrivers, wrench keys, socket wrenches, open-ended wrenches and ring wrenches, also available with ESD or VDE handles



Tool sets and precision tools for working on ESD-sensitive components



Special tools and accessories for mechanics and installation works, as well as works up to 1.000 voltage



Service cases with tailored tool equipment for different applications, also with ESD or VDE tools



SMD tweezers, ESD tweezers, mechanics tweezers

The safety isolated electrician's tools for works under current up to 1.000 voltage are piece individually checked on electric strength up to 10.000 voltage. The result is documented in a corresponding test report. With it Bernstein guarantees the highest safety standards including the rules and instructions of VDE and IEC.

**YOUR HIGH STANDARDS**

**ARE OUR MOTIVATION**

### QUALITY MANAGEMENT

Our quality management system comprises all steps of production starting with the right material decision and ends with the final check of each product.





**BERNSTEIN**<sup>®</sup>  
TOOLS FOR ELECTRONICS

## WHY

## ESD TOOLS?

High potential differences lead to electrostatic discharge - ESD. Electrostatic discharges cause heavy damages while working at resp. with electronical components. Consequently, components as well as electronical units etc. have to be protected against electrostatic discharges (ESD). As damage resulting from these discharges is not always visible immediately, they can finally produce „latent failures“ in transistors and circuit boards.

Components with „latent failures“ or „walking wounded“ are not directly damaged. They are only wounded. Breakdowns resp. reduced performances first occur later with the consequence of guarantee cases in much bigger dimensions. In order to avoid uncontrolled discharges, professional dissipative equipment around the operation area is absolutely necessary. Due to the importance of the so-called EPA area (electrostatic protected area) the entrance is only allowed for persons with dissipative equipped and dress. Only so can the controlled discharging to the ground be ensured. In the majority of cases, the hand tools are the connection between humans and assembly. For this reason there is a high standard of demand of hand tools to protect humans and assembly.

### **Conclusion:**

Using high quality ESD hand tools is always a basic requirement and always the right economical decision.



Warning symbol denoting a device's susceptibility to electrostatic discharge



Symbol for an ESD protected area



Symbol for an ESD protection device - EPA



Symbol of an ESD grounding point for all components

## Bernstein ESD Hand Tools

As a tool manufacturer with a long tradition, Bernstein provides for those operations an almost complete range of high quality ESD hand tools. ESD pliers and ESD screwdrivers are equipped with dissipative handles. ESD tweezers and ESD vices are coated with a high grade dissipative powder burnt in by 200° Celsius. All ESD tools are manufactured according to ESD standard IEC 61340-5-1. Accordingly the surface resistance range of all Bernstein ESD tools correspond to the optimum targets between  $10^6$  and  $10^9$  Ohm. This resistance area guarantees a "soft discharge" in a defined time space for human and assembly and prevents damages on sensitive components.

Those tools may not be used in cases of existing tension! For those applications BERNSTEIN offers a range of isolated tools according to VDE-regulations.

shielding	conductive		dissipative	insulating	
$10^0$	$10^3$	$10^5$	$10^6$	$10^{10}$	$10^{12}$

The common values for surface resistance in EPA's are:

**conductive**

Surface resistance between  $< 1 \times 10^3$  Ohm to  $> 1 \times 10^5$  Ohm

**dissipative**

Surface resistance between  $< 1 \times 10^5$  Ohm to  $> 1 \times 10^{12}$  Ohm

The bigger the electrical resistance, the stronger the discharge is reduced.

The lower the resistance, the faster the discharge takes place.

# DISCOVER OUR NEW

# PRODUCTS!



## ESD TOOL HOLDER VARIO

PAGE 104

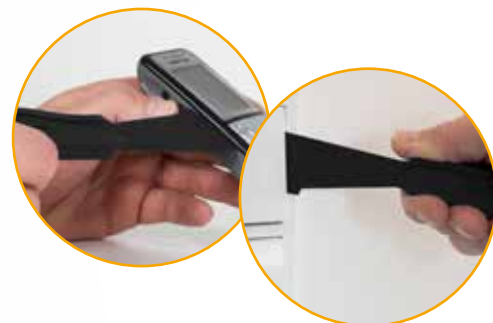
With the ESD tool holder VARIO your tools are always ready to use. Pliers, tweezers or screwdrivers - here everything finds its place! Available with different tool sets.



## NEW TOOL KITS CLASSICline

PAGE 14, 18, 20 AND 22

Precise, Elite, Carat and Trendy



## 2-113 ESD METAL OPENER PAGE 72

ESD metal opener lifting tool, dissipation capacity approx.  $10^9 \Omega$  ideal for gentle opening of sensitive devices



## 4-910 SERVICE SET HANDY REPAIR PAGE 30

47 pieces precision repair set in practical plastic case

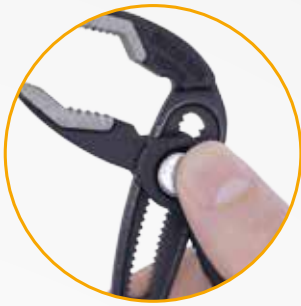


## 5-020 BAMBOO TWEEZER PAGE 124

Well-insulated and chemical resistant







**3-573**

**WATER PUMP PLIER**

**PAGE 90**

Water pump plier 180 mm with push-button



**2-656**

**LED  
POCKET  
LAMP**

**PAGE 73**

**3-734-13  
ESD SPECIAL  
PLIER**

**PAGE 90**

For gripping round screw heads optimal for opening defective screw connections.



**2-800**

**MINIATURE  
THREADING SET**

**PAGE 73**

Miniature thread set M1.0 - M2,5



**2290**

**ESD REPAIR SET**

**PAGE 25**

Adjustable ESD workbench pad with tools for mobile use on Electrostaticly endangered assemblies.



**2-301**

**MULTIFUNCTION  
PEN**

**PAGE 134**

Measuring scale 1/100 m, 1/50 m, 1/25 m, 1/20 m



**4-909**

**BIT SCREWDRIVER**

**PAGE 113**

20 pieces with magazine



**DISCOVER OUR NEW**

**PRODUCTS!**



**4000er CASE SERIES  
PERFORMANCE  
FROM PAGE 38**

Tool kit SECURITY, TECHNIC and TELEDATA



**PLIERS SETS**

**PAGE 79, 81, 84 AND 87**

BLACKline, CLASSICline, EUROline and TECHNICline on the VARIO tool holder in combination with ESD tweezers or 4-pieces in dissipative bag.



**JAWS  
PAGE 153**

Plastic, aluminium and rubber protective jaws.

**PHONE-  
CABLE SHEARS  
PAGE 130**



**DIGITAL  
CALIPERS  
PAGE 134**

In plastic case





**17-531 VDE  
VOLTAGE TESTER**  
PAGE 171

This voltage tester is universally applicable and is built according to the latest safety regulations and ensures safe and reliable operation.

**9-284 SW  
SPANNFIX BASE  
WITH MAGNETIC FEET**  
PAGE 150

Spannfix base with ball joint and threaded stud, with magnetic feet



**PENTALOB  
SCREWDRIVER**  
PAGE 99

Available in various sizes, perfect for Apple devices



**SPECIAL  
TWEEZERS FOR THE  
SMD TECHNOLOGY**  
PAGE 119



**6500 R AND 6600 R**  
PAGE 62, 64 AND 66

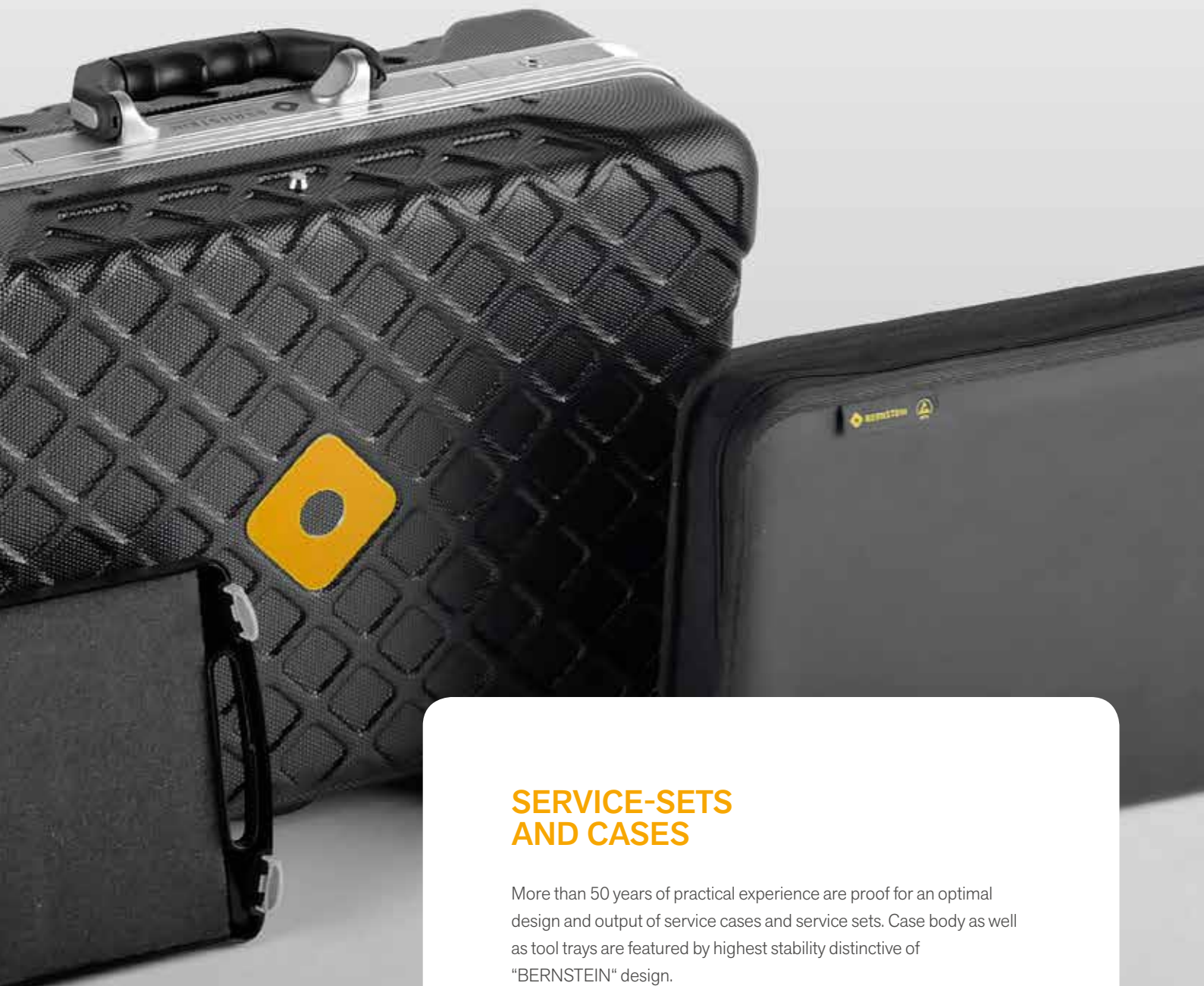
The dimensionally stable and robust roll case for high loads. With the double aluminium frame and the unbreakable X-ABS case shell, the suitcase can be loaded with up to 40 kg and is also airworthy.





THERE IS MORE

IN OUR CASES!



## SERVICE-SETS AND CASES

More than 50 years of practical experience are proof for an optimal design and output of service cases and service sets. Case body as well as tool trays are featured by highest stability distinctive of "BERNSTEIN" design.

The tool sets in the cases are composed with high quality tools and special tools for different applications.

## 2210 AND 2212 ESD TOOL-SETS PRECISE AND PRECISE C



ESD tool kits for a wide range of work in ESD areas, in a handy case from dissipative material.  
The tools are clearly arranged in accurate-sized cutouts in dissipative hard foam.

### 2210 6-pcs. ESD tool set PRECISE consisting of:

No.	Description of individual tools
3-653-15	Mine side cutters EUROline 120mm, with very slim, pointed head and special flat cutting edge, flush, for soft wire up to Ø 1,5 mm and medium hard wire up to Ø 0,8 mm, bicoloured hand guard, dissipative
5-055-13	SMD tweezers, 120 mm, sickle-shaped, very sharply pointed, ESD coating

No.	Description of individual tools
5-062-13	SMD tweezers, 115 mm, 35° angled, 2 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

NEW

### 2212 6-pcs. ESD tool set PRECISE C consisting of:

No.	Description of individual tools
3-602-15	Side cutters CLASSICline 115mm, with slim, rounded head, flush, bicoloured hand guard, dissipative
5-055-13	SMD tweezers, 120 mm, sickle-shaped, very sharply pointed, ESD coating
5-062-13	SMD tweezers, 115 mm, 35° angled, 2 mm width, with gripping cavity Ø 0.8 mm, with ESD coating

No.	Description of individual tools
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



Outside dimensions (closed):  
178 x 160 x 42 mm



390 g



6 Tools



**2210 PRECISE** ESD tool-set with 6 tools



Outside dimensions (closed):  
178 x 160 x 42 mm



390 g



6 Tools



**2212 PRECISE C** ESD tool-set with 6 tools



# 2220

## ESD TOOL SET

### ANTISTATIC



The tool set for mobile use on Electrostaticly endangered components

### 17 pcs. ESD tool set ANTISTATIC consisting of:

No.	Description of individual tools	No.	Description of individual tools
2221	ESD zipper case with 14 pockets for tools	4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm
2-620	PLCC extractor for easy removal of plug-in PLCC's	4-622	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 00, blade length 40 mm
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	5-192	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, 3 mm flat-hand tips, grip surface offset
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	9-354	5 pcs. ESD-handling set, consisting of: foldable workbench pad (No. 9-354-10), 500 x 400 x 0.5 mm, black, dissipative, with 2 press-studs, adjustable and elastic contact bracelet (No. 9-342-1 ) with press-stud, highly elastic spiral cable (No. 9-342-2) with two press-studs, 2400 mm, earth wire with 2 press-studs, 1500 mm, insulated crocodile clip with banana plug and press-stud (No. 9-343).
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm		
4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 50 x 2.5 mm		





## DESCRIPTION

Elegant zipper case made of black, dissipative synthetic leather, also with dissipative pockets for 13 ESD tools and a foldable ESD-workbench pad with accessories.



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



without tools: 950 g  
with tools: 1300 g



17 Tools



**2220 ANTISTATIC** with tool assortment  
**2221 ANTISTATIC** without tool assortment

## 2230 AND 2240 ESD TOOL-SETS ELITE AND ELITE C



ESD tool sets for a wide range of work in ESD areas, in a handy case from dissipative material. The tools are clearly arranged in accurate-sized cutouts in dissipative hard foam.

### 2230 20 pcs. ESD tool set ELITE consisting of:

No.	Description of individual tools	No.	Description of individual tools
3-651-15	Mini side cutters EUROline 120mm, with slim, rounded head, flush, 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, bicoloured hand guard, dissipative	4-911	Hex cross-recess blade PH 000 / PH 00, matt chrome-plated, black tip
3-672-15	End cutters EUROline, 130 mm, flush, for soft wire up to 0.8 mm Ø, medium hard wire up to 0.6 mm Ø, cutting edge 20° angular, finish as above	4-912	Hex cross-recess blade PH 0 / PH 1, matt chrome-plated, black tip
3-682-15	Flat nose pliers EUROline, 130 mm, short, smooth jaws, finish as above	4-921	Hex blade TORX T 5 / T 6, matt chrome-plated, black tip
3-683-15	Snipe nose pliers EUROline, 130 mm, short, smooth jaws, finish as above	4-922 L	Hex blade TORX T 7 / T 8, with hole, matt chrome-plated, black tip
4-901	ESD handle of dissipative material, with brass clamping sleeve for the following interchangeable blades:	4-923 L	Hex blade TORX T 9 / T 10, with hole, matt chrome-plated, black tip
4-905	Hex blade slotted 1.5 / 3.0 mm, matt chrome-plated, black tip	5-049-13	SMD tweezers, 110 mm, straight, very sharply pointed, with ESD coating
4-906	Hex blade slotted 2.0 / 3.5 mm, matt chrome-plated, black tip	5-055-13	SMD tweezers, 120 mm, sickle-shaped, very sharply pointed, ESD coating
4-907	Hex blade slotted 2.5 / 4.0 mm, matt chrome-plated, black tip	5-059-13	SMD tweezers, 120 mm, flat, rounded tips, 2 mm width, with ESD coating
		5-067-13	SMD tweezers, 120 mm, tip 45° angled, 2 mm width, with ESD coating
		5-068-13	SMD tweezers, 120 mm, tip angled, 1.6 mm width, with ESD coating
		5-078-13	SMD tweezers, 130 mm, tapering, chisel, 1 mm width, with ESD coating
		7-422	ESD brush with dissipative handle and bristles, 20 mm wide

NEW

### 2240 20 pcs. ESD tool set ELITE C consisting of:

No.	Description of individual tools	No.	Description of individual tools
3-604-15	Side cutters CLASSICline 115 mm, with slim, pointed head and special flat cutting edge, flush, for soft wire up to 1.5 mm Ø, medium hard wire up to 1.2 mm Ø, box joint, double leaf spring, fine polished and bright burnished, bicoloured hand guard, dissipative	4-911	Hex cross-recess blade PH 000 / PH 00, matt chrome-plated, black tip
3-606-15	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape Flush, dissipative, bicoloured hand guard	4-912	Hex cross-recess blade PH 0 / PH 1, matt chrome-plated, black tip
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws	4-921	Hex blade TORX T 5 / T 6, matt chrome-plated, black tip
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	4-922 L	Hex blade TORX T 7 / T 8, with hole, matt chrome-plated, black tip
4-901	ESD handle of dissipative material, with brass clamping sleeve for the following interchangeable blades:	4-923 L	Hex blade TORX T 9 / T 10, with hole, matt chrome-plated, black tip
4-905	Hex blade slotted 1.5 / 3.0 mm, matt chrome-plated, black tip	5-049-13	SMD tweezers, 110 mm, straight, very sharply pointed, with ESD coating
4-906	Hex blade slotted 2.0 / 3.5 mm, matt chrome-plated, black tip	5-055-13	SMD tweezers, 120 mm, sickle-shaped, very sharply pointed, ESD coating
4-907	Hex blade slotted 2.5 / 4.0 mm, matt chrome-plated, black tip	5-059-13	SMD tweezers, 120 mm, flat, rounded tips, 2 mm width, with ESD coating
		5-067-13	SMD tweezers, 120 mm, tip 45° angled, 2 mm width, with ESD coating
		5-068-13	SMD tweezers, 120 mm, tip angled, 1.6 mm width, with ESD coating
		5-078-13	SMD tweezers, 130 mm, tapering, chisel, 1 mm width, with ESD coating
		7-422	ESD brush with dissipative handle and bristles, 20 mm wide



2230 outside dimensions: 250 x 210 x 60 mm



2230: 870 g



2230: 20 Tools



**2230 ELITE** ESD tool set with 20 tools



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



850 g



20 Tools



**2240 ELITE C** ESD tool set with 20 tools

## 2250, 2252 AND 2270 ESD TOOL-SETS CARAT AND ACCENT



Special ESD service sets for maintenance and repair of mobile phones and other high-sensitivity electronic components. The ESD tools are clearly arranged in handy zipper-cases made of black, dissipative artificial leather.

### 2250 9 pcs. ESD tool-set CARAT consisting of:

No.	Description of individual tools	No.	Description of individual tools
3-672-15	End cutters EUROline, 130 mm, flush, for soft wire up to 0.8 mm Ø, medium hard wire up to 0.6 mm Ø, cutting edge 20° angular, finish as above	4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm
3-683-15	Snipe nose pliers EUROline, 130 mm, short, smooth jaws, finish as above	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
		6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm

NEW

### 2252 9 pcs. ESD tool set CARAT C consisting of:

No.	Description of individual tools	No.	Description of individual tools
3-606-15	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape flush, dissipative, bicoloured hand guard	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm		

### 2270 9 pcs. ESD tool set ACCENT consisting of:

No.	Description of individual tools	No.	Description of individual tools
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
		6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm



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



360 g



9 Tools



**2250 CARAT** 9-pcs. ESD tool set



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



360 g



9 Tools



**2250 CARAT C** 9-pcs. ESD tool set



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



360 g



9 Tools



**2270 ACCENT** 9-pcs. ESD tool set





## 2280 AND 2285 ESD PROFI SET TRENDY

23 pcs. ESD tool set  
consisting of:

### DESCRIPTION

Selected ESD tools in a handy plastic case made of dissipative material. The tools are clearly arranged in accurate-sized cutouts in dissipative hard foam. For individual needs, there are also 1 or 2 empty compartments.



No.	Description of individual tools	No.	Description of individual tools
2-620	PLCC extractor for easy removal of plug-in PLCC's	4-622	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 00, blade length 40 mm
3-133-13	Side cutter, Swedish design, 145 mm, for soft wire up to 4.0 mm Ø, for hard wire up to 2.5 mm Ø, lap joint, bright polished, chrome plated, with dissipative black hand guard	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
3-651-15	Mini side cutters EUROline 120mm, with slim, rounded head, flush, 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, bicoloured hand guard, dissipative	5-049-13	SMD tweezers, 110 mm, straight, very sharply pointed, with ESD coating
3-682-15	Flat nose pliers EUROline, 130 mm, short, smooth jaws, finish as above	5-055-13	SMD tweezers, 120 mm, sickle-shaped, as above
3-683-15	Snipe nose pliers EUROline, 130 mm, short, smooth jaws, finish as above	5-059-13	SMD tweezers, 120 mm, flat, rounded tips, 2 mm width, as above
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	6-662	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 6, blade length 40 mm
4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.5 mm	6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm	7-422	ESD brush with dissipative handle and bristles, 20 mm wide
		9-354	5 pcs. ESD-handling set ( <b>only in Set 2280</b> ), consisting of: foldable workbench pad (No. 9-354-10), 500 x 400 x 0.5 mm, black, dissipative, with 2 press-studs, adjustable and elastic contact bracelet (No. 9-342-1) with press-stud, highly elastic spiral cable (No. 9-342-2) with two press-studs, 2400 mm, earth wire with 2 press-studs, 1500 mm, insulated crocodile clip with banana plug and press-stud (No. 9-343).

NEW

## 2282 AND 2286 ESD PROFI SET TRENDY C

No.	Description of individual tools	No.	Description of individual tools
2-620	PLCC extractor for easy removal of plug-in PLCC's	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
3-133-13	Side cutter, Swedish design, 145 mm, for soft wire up to 4.0 mm Ø, for hard wire up to 2.5 mm Ø, lap joint, bright polished, chrome plated, with dissipative black hand guard	5-049-13	SMD tweezers, 110 mm, straight, very sharply pointed, with ESD coating
3-602-15	Side cutters CLASSICline 115mm, with slim, rounded head, flush, bicoloured hand guard, dissipative	5-055-13	SMD tweezers, 120 mm, sickle-shaped, as above
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	5-059-13	SMD tweezers, 120 mm, flat, rounded tips, 2 mm width, as above
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	6-662	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 6, blade length 40 mm
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.5 mm	7-422	ESD brush with dissipative handle and bristles, 20 mm wide
4-621	Cross-recess screwdriver as before, size PH 000, blade length 40 mm	9-354	5 pcs. ESD-handling set ( <b>only in Set 2280</b> ), consisting of: foldable workbench pad (No. 9-354-10), 500 x 400 x 0.5 mm, black, dissipative, with 2 press-studs, adjustable and elastic contact bracelet (No. 9-342-1) with press-stud, highly elastic spiral cable (No. 9-342-2) with two press-studs, 2400 mm, earth wire with 2 press-studs, 1500 mm, insulated crocodile clip with banana plug and press-stud (No. 9-343).
4-622	Cross-recess screwdriver as before, size PH 00, blade length 40 mm		



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



2280: 1650 g  
2285: 1500 g



2282: 23 Tools  
2286: 18 Tools



**2280 TRENDY** ESD tool set with ESD handling Set  
**2285 TRENDY** ESD tool set without ESD handling Set



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



2282: 1650 g  
2286: 1500 g



2282: 23 Tools  
2286: 18 Tools



**2282 TRENDY** ESD tool set with ESD handling Set  
**2286 TRENDY** ESD tool set without ESD handling Set



NEW

## 2290 ESD REPAIR SET PROFI



Adjustable ESD tool folder/workbench pad with ESD tools for mobile use on Electrostatically endangered assemblies.

### 27 pcs. ESD tool set PROFİ REPAIR consisting of:

No.	Description of individual tools	No.	Description of individual tools
2291	Adjustable ESD tool folder / workbench pad	5-055-13	SMD tweezers, 120 mm, sickle-shaped, very sharply pointed, ESD coating
2-111	Suction cup with ring / LCD opener, Ø 40 mm	5-059-13	SMD tweezers, 120 mm, flat, rounded tips, 2 mm width, with ESD coating
2-123	ESD lever tool „spudger“, 178 mm, metal with dissipative coating	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
2-124	Opening tool, extra flat, 120 x 20 x 2 mm	6-662	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 6, blade length 40 mm
2-129	6 plastic opener shape triangle, 3 plastic opener shape dart arrow, plastic opener shape pencil pointed, orange	6-721	Pentalob screwdriver with dissipative handle and centering head, P1
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	6-724	Pentalob screwdriver with dissipative handle and centering head, P4
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	9-342-1	Adjustable, elastic contact bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud
4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm	9-342-2	Highly elastic spiral cord, 2400 mm, with two press-studs 3/10 mm
4-622	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 00, blade length 40 mm	9-343-1	Earth wire, 1500 mm, with 2 press-studs, 10/10 mm
		9-353	Insulated crocodile clip with banana plug connection and 10 mm press-stud

NEW

### ACCESSORIES / SPARE PARTS

#### 2-129 PLASTIC OPENER / LIFTING TOOLS, ORANGE, 10 PCS.

consisting of:  
 6x plastic opener „guitar plate / 3 corner opener“  
 3x plastic opener „dart arrow“  
 1x plastic opener „pencil“, pointed







## DESCRIPTION

Handy tool folder / workbench pad made of dissipative synthetic leather. The bag has a total of 24 rubber loops to hold tools and other parts. The new design allows the tool area to be raised using a Velcro loop, which significantly improves access to the tools. The bag has two press-studs to which a contact bracelet and earth wire can be connected (included), allowing each workplace to be converted into an ESD workstation.

The large support surface (480 x 340 mm) provides enough space to handle sensitive electronic components safely. For transport, the bag can be quickly folded into a handy size and closed by a rubber band.



folded:  
270 x 160 x 60 mm



without tools: 0,485 kg  
with tools: 0,740 kg



27 Tools



**2290 ESD TOOLFOLDER PROFI** with tool assortment  
**2291 ESD TOOLFOLDER PROFI** without tool assortment

# 2300

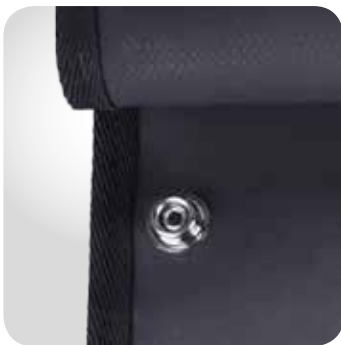
## ELECTRONIC TOOL SET ESD SERVICE SET



Foldable ESD tool folder / workbench pad with ESD tools for mobile use at Electrostatically endangered components.

### 20 pcs. ESD tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
2301	ESD tool folder / workbench pad	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm	5-194	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, bent, pointed tips
2-620	PLCC extractor for easy removal of plug-in PLCC's	6-616	Socket wrench with dissipative handle, A/F 3.5 mm
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	6-664 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 8 with bore-hole, blade length 50 mm
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	6-666 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 10 with bore-hole, blade length 60 mm
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	9-342-1	Adjustable, elastic contact bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud
4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.5 mm	9-342-2	Highly elastic spiral cord, 2400 mm, with two press-studs 3/10 mm
4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm	9-343-1	Earth wire, 1500 mm, with 2 press-studs, 10/10 mm
4-622	Cross-recess screwdriver as before, size PH 00, blade length 40 mm	9-353	Insulated crocodile clip with banana plug connection and 10 mm press-stud
4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm		



## DESCRIPTION

The foldable tool folder made of ESD material also serves as an electrically dissipative workplace pad and has the dimensions 680 x 660 x 35 mm. The surface resistance according to DIN 53482 is approx.  $10^8$  Ohm. The workplace support is provided with 3 press studs for the connection of the contact bracelet and the earth wire. The contact bracelet and the earth wire are located in the two attached pockets; in addition, 16 dissipative tools are placed in push-in compartments. The large working place (660 x 435 mm) offers enough space to handle sensitive electronic components safely. For transport, the bag can be quickly folded to a convenient size.



Outside dimensions (closed):  
345 x 230 x 30 mm



without tools: 525 g  
with tools: 870 g



20 Tools



**2300 ESD SERVICE SET** with tool assortment  
**2301 ESD SERVICE SET** without tool assortment

## 2700

# SERVICE SET NETWORK NETWORK

The set with all essential tools for the assembly and maintenance of networks in an elegant and handy black case with zip fastener.

### 23 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
2701	Tool case with middle wall, with a total of 23 pockets and a document compartment.	4-534	Cross-recess screwdriver, as above, blade length 100 mm, size PH 2
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	4-775	Plastic spring handle for socket wrench
3-603-15	Side cutters with slim, pointed head and special flat cutting edge, semi flush, bicoloured hand guard, dissipative	5-161	Clamping scissors, 130 mm, stainless, with serrated gripping jaws
3-235-16	Telephone pliers with wire cutter, 160 mm, chrome plated, with bicoloured hand guard	5-0601	Rotary stripping tool for 3-stage stripping of coaxial cables Types: RG 58, RG 59 and RG 62
3-815-16	Wire strippers, 155 mm, with adjusting screw for all wire thicknesses, chrome-plated, with bicoloured hand guard	6-203	Socket wrench, chrome vanadium, nickel plated, size 6.0 mm
3-0605	Combination-Crimping Pliers for connector types 6P/6C, 6P/4C, 6P/2C, 8P/8C	6-205	Socket wrench, chrome vanadium, nickel plated, size 8.0 mm
3-0611	Crimping pliers for BNC and TNC coaxial connectors	6-207	Socket wrench, chrome vanadium, nickel plated, size 10.0 mm
4-504	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 5.5 mm	6-772	Adjustable wrench, chrome vanadium, 150 mm, jaw opening 0 - 19 mm
4-522	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.0 mm	6-985 L	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 10, with bore hole in the tip
4-532	Cross-recess screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, blade length 60mm, size PH 0	6-986 L	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 15, with bore hole in the tip
4-533	Cross-recess screwdriver, as above, blade length 80 mm, size PH 1	6-987 L	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 20, with bore hole in the tip
		8-390	Desoldering pump, 195 mm long, Ø 20 mm
		8-376	Gas soldering iron „PIEZO INDY 75“, adjustable gas supply 15-75 W, max. temperature approx. 580 °C



## DESCRIPTION

Tool set for the construction and maintenance of networks in the elegant, black nylon zipper case. 23 special tools are placed in nylon pockets and are easy to handle. On the back of the middle wall is a compartment for documents.



Outside: 320 x 250 x 100 mm



without tools: 2000 g  
with tools: 2700 g



23 Tools



**2700 NETWORK** with tool assortment  
**2701 NETWORK** without tool assortment

NEW

# 4-910

## SERVICE SET HANDY REPAIR AND ADDITIONAL EQUIPMENT

47-piece precision repair kit in a practical plastic case

### 47 pcs. tool set consisting of:

No.	Description of individual tools
	Plastic case with matching foam inserts
2-111	Suction cup with M4 thread
2-124	Opening tool, 120 mm
5-059-13	SMD tweezers with ESD coating, 120 mm, flat rounded tips, 2.0 mm width, 2a SA

No.	Description of individual tools
6-340	Bit set of 44 pcs. (Including extension and holder) consisting of:
☉ Slot	1.0, 1.5, 2.0, 2.5, 3.0
⊕ Cross-recess	PH 000, 00, 0, 1
★ Torx	T3, T4, T5
✦ Torx Security	T6, T7, T8, T9, T10, T15
▼ Triangle	1.6, 2.0, 2.2, 2.3
▽ Tri-Point	0, 1
■ Square	S0, S1
⬠ Hex	0.9, 1.3, 1.5, 2.0, 2.5, 3.0
⦿ Pentalobe	P2, P5, P6
○ Socket wrenches	2.5, 3.0, 3.5, 4.0, 4.5, 5.0
	SIM-Eject-Bit



### DESCRIPTION

47-piece precision repair set in a practical plastic case with foam insert. Consisting of suction cup opener, opening tool, blunt ESD tweezers and a 42-piece bit set with magnetic ESD bit screwdriver, made of aluminium with twist cap and extension.



External dimensions:  
180 x 172 x 44 mm



390 g



47 Tools



**4-910 REPAIR SET** for smartphones and tablets



## EQUIPMENT

### 2-119 MAGNETIC MAT WITH PEN AND SPONGE

249 x 199 mm, grid division 50 x 50 mm

Rewritable pad for the repair of small electronic devices such as smartphones, tablets and more. Magnetic pad prevents rolling away of small components, as screws, etc.



### 2-123 ESD CROWBAR "SPUDGER"

Length 178 mm

Lever tool "Spudger" made of metal with dissipative black coating, e.g. for levering off micro plug connections for electronic devices



### 2-124 OPENING TOOL

Length 120 mm, width 20 mm, thickness 2 mm

An opening tool for opening hard-to-reach electronic devices e.g. Smartphones, Tablets, Notebooks etc.





# 1500

## ELECTRONIC SERVICE CASE

### in tool case „HANDY“

The small, extremely practical service case with the variable interior.

### 43 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
1515	Compact tool case with two tool boards with rubber band loops, divisible bottom shell and carrying strap	4-391	Watchmaker screwdriver, nickel plated, with 4 interchangeable slotted blades in the magazine, size 1.5, 2.0, 2.5 and 3.0 mm
1-152	Adjusting screwdriver, blade 40 x 4 mm	4-523	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 4 mm
2-126	Desoldering lever, slotted on one end, nickel plated, with dissipative (ESD) black plastic handle	4-542	Cross-recess screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, black tip, blade length 60mm, PZ 0
2-127	Tin knife with plastic handle, 115 mm	4-543	Cross-recess screwdriver as before, blade length 80 mm, size PZ 1
2-132	Spring hook, nickel plated, insulated, 175 mm	4-775	Plastic spring handle for socket wrench
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm	5-006	Component tweezers 145 mm, nickel-plated, with insulated jaws, for easy insertion and removal of plug-in transistors of various sizes
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	5-181	Wire scraper tweezers for stripping varnish on wires Ø 0.6 mm
2-275	Repair mirror, stainless, magnifying, concave mirror, Ø 21 mm	5-301	Special scissors for cutting sheet metal and wires, with serration, extremely slim, 110 mm, chrome-plated
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	5-515	Allround knife, blade adjustable and breakable, 130 mm
2-620	PLCC extractor for easy removal of plug-in PLCC's	6-202	Socket wrench, chrome vanadium, nickel plated, size 5.5 mm
3-132-16	Side cutters, 130 mm, for hard wire up to 1.0 mm, for soft wire up to 3.0 mm, chrome-plated, with bicoloured hand guard	6-204	Socket wrench, chrome vanadium, nickel plated, size 7.0 mm
3-603-15	Side cutters with slim, pointed head and special flat cutting edge, semi flush, bicoloured hand guard, dissipative	6-771	Adjustable wrench, chrome vanadium, 100 mm, jaw opening 0-13 mm
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm
3-634-15	Snipe nose pliers CLASSICline, 120 mm, with short jaws, angled, dissipative bicoloured hand guard	7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm
4-301	Miniature screwdriver, plastic handle, blade nickel-plated, 40 x 1.8 mm		
4-311	Screwdriver for headless screws, blade made of CV, 80 x 2.8 mm		
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm		
4-366	Cross-slot watchmaker screwdriver with swivel cap, size PH 00		





## DESCRIPTION

The case body made of granular black X-ABS plastic shell is rain-resistant as well as non-slip and impact-resistant. The solid aluminium profile frame provides additional stability. On two perforated tool boards, 43 special tools are clearly arranged in rubber band loops. Due to the regular perforation of the tool boards, a free and individual placement of the tools is possible. The bottom contains a stable plastic insert for spare parts, measuring or soldering devices. Adjustable partitions allow a flexible division. The case is equipped with two locks, an ergonomic handle and a padded shoulder strap.



Inside: 320 x 295 x 160 mm



without tools: 2700 g  
with tools: 3700 g



43 Tools



**1500 HANDY** with tool assortment  
**1515 HANDY** without tool assortment

**NEW**

# 5750

## TOOL CASE FACILITY

Mounting tool assortment in shoulder bag is made from genuine leather.

### 37 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
5755	Leather shoulder bag with a total of 17 pockets	7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
3-575-6	Water pump pliers, 240 mm, red insulation	13-906 VDE	Side cutter, 160 mm, chrome plated, with VDE safety insulation
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	13-915 VDE	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	13-936 VDE	Combination pliers with wire cutter, 160 mm, special steel, chrome plated, with VDE safety insulation
4-393	Watchmaker screwdriver, nickel plated, with 5 interchangeable blades in the magazine, slotted 1.5, 2.0, 2.5 mm, cross-recess PH00, 000	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
5-121	Engineer's tweezers, 120 mm, straight, narrow pointed tips	14-652 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
5-274	Engineer's file, 200 mm, half-round, fine cut, wooden handle	14-654 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 125 x 5.5 mm, with VDE safety insulation
5-517	Allround knife, blade adjustable and breakable, 150 mm	14-682 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
6-500	5-pcs. double open-ended wrench set, 6x7, 8x9, 10x11, 12x13, 14x17 mm	14-683 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm		
7-114	Engineer's hammer according to DIN 1041, 200 g		
7-316	Punch with impact-resistant plastic handle, blade Ø 6.0 mm		
7-502	Folding rule with steel spring, 2 m, made from wood		
7-535	Spirit level, made from plastic, with 3 levels, 200 mm		



## DESCRIPTION

The ideal companion for mobile use of tools. Because of the shoulder strap, the hands are free for other tasks. Thanks to its compact design, the bag can also be used for example on ladders etc. The tool set includes the most important tools and is suitable for most repairs.

The compact shoulder bag made from genuine leather is equipped with an adjustable shoulder strap and shoulder pad. The bag body is reinforced with an aluminium frame and is sealed with the patented magnetic look (single-hand operation). Front, rear and middle wall are equipped with a total of 17 pouches for tools. The transparent compartment in the lid is for documents.



Outside: 325 x 250 x 160 mm  
Inside: 300 x 230 x 140 mm



without tools: 1500 g  
with tools: 4140 g  
Volume capacity: approx. 10 liter



37 Tools



**5750 FACILITY** with tool assortment  
**5755 FACILITY** without tool assortment

# 6900

## ELECTRONIC SERVICE CASE

### EPA



The service tool case made from dissipative 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.

### 32 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
6915	ESD tool case with divisible bottom tray, 2 tool boards with a total of 42 pockets and a document compartment in the lid	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
2-101	Tin knife with ceramic blade, 105 mm long, dissipative handle	4-632	Slotted screwdriver with dissipative square handle, impact-resistant, blade made of CV, completely hardened, 100 x 4 mm
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	4-633	Slotted screwdriver with dissipative square handle, impact-resistant, blade made of CV, completely hardened, 125 x 5.5 mm
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	4-662	Cross-recess screwdriver Pozidriv PZ 1, blade length 80 mm
2-620	PLCC extractor for easy removal of plug-in PLCC's	4-663	Cross-recess screwdriver Pozidriv PZ 2, blade length 100 mm
3-133-13	Side cutter, Swedish design, 145 mm, for soft wire up to 4.0 mm Ø, for hard wire up to 2.5 mm Ø, lap joint, bright polished, chrome plated, with dissipative black hand guard	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
3-245-13	Telephone pliers, 200 mm, long straight jaws, serrated, with wire cutter, chrome-plated, with dissipative black hand guard	5-192	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, 3 mm flat-hand tips, grip surface offset
3-654-15	Side cutters EUROline, 125 mm, slim rounded head, semi flush, for soft wire up to 1.5 mm Ø, for medium wire up to 0.8 mm Ø, for hard wire up to 0.4 mm Ø, box joint, fine polished and bright burnished, double leaf spring, bicoloured hand guard, dissipative	5-194	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, bent, pointed tips
3-671-15	End cutters EUROline, 130 mm, flush, for soft wire up to 0.8 mm Ø, for medium wire up to 0.6 mm Ø, extremely slim, straight, box joint, fine polished and bright burnished, double leaf spring, bicoloured hand guard, dissipative	6-612	Socket wrench with dissipative handle, blade from chrome vanadium, A/F 2.0 mm
3-682-15	Flat nose pliers EUROline, 130 mm, short, smooth jaws, box joint, double leaf spring, fine polished and bright burnished, bicoloured hand guard, dissipative	6-617	Socket wrench with dissipative handle, blade from chrome vanadium, A/F 4.0 mm
3-732-13	Combination pliers with wire cutter for hard wire, 165 mm, chrome plated, with dissipative black hand guard	6-621	Socket wrench with dissipative handle, blade from chrome vanadium, A/F 5.5 mm
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm	6-659	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 4, blade length 40 mm
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.5 mm	6-662	TTORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 6, blade length 40 mm
4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm	6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
4-622	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 00, blade length 40 mm	6-665 L	TORX-screwdriver with dissipative handle, hardened over its full length, chrome-plated, size T 9 with bore-hole, blade length 50 mm
		7-422	ESD brush with dissipative handle and bristles, 20 mm wide



## DESCRIPTION

The case shells, tool boards and the variable subdivided bottom tray are made from dissipative material according to the DIN EN IEC standard 10 00 15 section 5. The tools have been successfully used by several test laboratories according to DIN EN 61340-5-1; 61340-2-1 as well as 61340-2-3 for works in the ESD-protected area tested. The robust shells are pressed with a stable double-aluminium frame.

On two tool boards, one of which can be fitted on both sides, 32 tools are ready for use in pockets. There is a document compartment in the lid. The freely divisible tray in the case floor allows additional tools and instruments to be accommodated. The case has 2 locks and in addition one combination lock.



Outside: 500 x 370 x 210 mm  
Inside: 480 x 320 x 190 mm



without tools: 5800 g  
with tools: 7100 g



32 Tools



**6900 EPA** with tool assortment  
**6915 EPA** without tool assortment



# TOOL CASE

# PERFORMANCE

## JUST DIFFERENT!



### OUTSIDE

The PERFORMANCE case provides a good balance between price and function. Reduced to the most important functions, it represents an inexpensive alternative to the PROTECTION cases.

The use of X-ABS plastic with an extreme slip resistant surface makes the case more resistant against external influences. The high impact and break resistant material makes the tool case suitable for air travel.

The stable aluminium frame and the lid locking mechanism round the image of a functional and at the same time low-priced tool case.

Case body made of robust X-ABS plastic and stable aluminium profile



**The case PERFORMANCE includes the following equipment:**

In the lid there is a permanently installed tool board with 22 pockets on the front and back. The bottom tray is available in two versions:



**4415**  
Cover plate with 32 pockets,  
ideal for many small tools



**5015**  
Cover plate with 6 pockets

## INSIDE

The tool boards made of CONPEARL® with pockets are robust, washable and firmly installed in the case. The bottom tray is freely partitionable with removable walls.

stable handle



freely partitionable bottom tray



locks



Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



4415: 3.910 g  
5015: 3.840 g

NEW

4100

## TOOL SET PC CONTACT in the tool case PERFORMANCE

The clearly arranged tool case with tools for installing and maintaining computers and peripheral devices.

### 61 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
4415	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 54 pockets</b>	4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm
2-127	Tin knife with plastic handle, 115 mm	4-607	Slotted screwdriver with dissipative handle, 50 x 3.0 mm
2-132	Spring hook, nickel plated, insulated, 175 mm	4-621	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm
2-161	Steel Scriber, Ø 7 mm, telescopic rod with magnetic lifter, 143-660 mm	4-622	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 00, blade length 40 mm
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm	4-623	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated
2-275	Repair mirror, stainless, magnifying, concave mirror, Ø 21 mm	5-210	6-pcs. set of needle files in plastic wallet
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	5-305	Combination cutters, 140 mm, stainless, with serrated cutting edge
2-620	PLCC extractor for easy removal of plug-in PLCC's	6-200	8-pcs. set of socket wrench, 4-10 mm, with changeable handle
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
3-606-15	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape Flush, dissipative, bicoloured hand guard	6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	6-750-3	Extra-flat (1.5 mm) double open-ended wrench, 3 x 3.5 mm
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	6-750-4	Extra-flat (1.5 mm) double open-ended wrench, 4 x 4.5 mm
4-331	Installation screwdriver with multi-component handle, 45 x 6 mm	6-750-5	Extra-flat (1.5 mm) double open-ended wrench, 5 x 5.5 mm
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	6-750-6	Extra-flat (1.5 mm) double open-ended wrench, 6 x 6.5 mm
4-522	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.0 mm	6-771	Adjustable wrench, chrome vanadium, 100 mm, jaw opening 0-13 mm
4-523	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 4 mm	6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm
4-533	Cross-recess screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, black tip, blade length 80 mm, size PH 1	6-984 L	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 9, with bore hole in the tip
4-542	Cross-recess screwdriver, as above, blade length 60mm, PZ 0	6-985 L	TORX screwdriver as before, size T 10, with bore hole in the tip
4-543	Cross-recess screwdriver as before, blade length 80 mm, size PZ 1	6-986 L	TORX screwdriver as before, size T 15, with bore hole in the tip
		7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm





Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



without tools: 3910 g  
with tools: 5530 g



61 Tools



**4100 SECURITY PERFORMANCE** with tool assortment  
**4415 SECURITY PERFORMANCE** without tool assortment

NEW

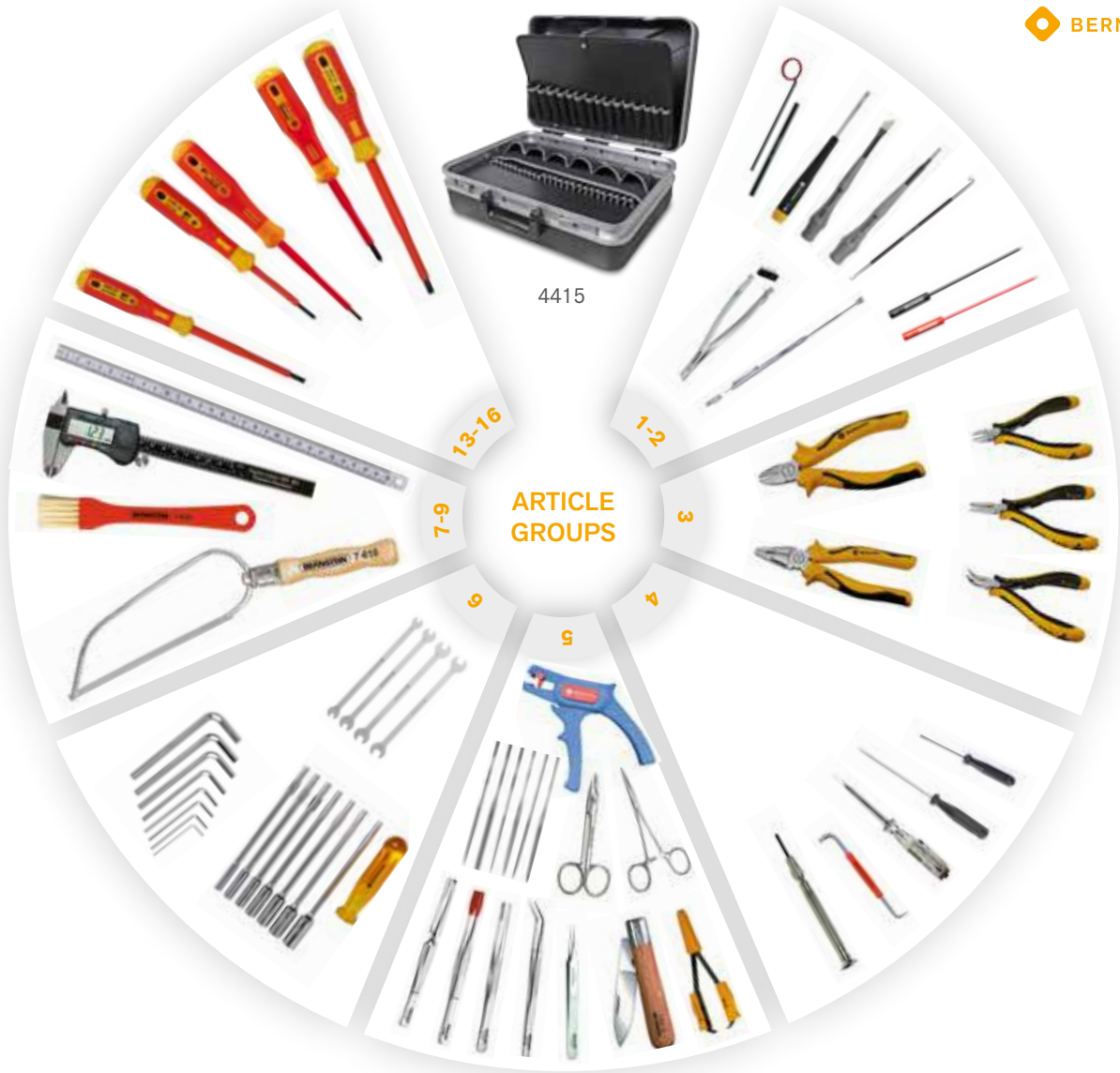
4400

## TOOL SET TECHNIC in the tool case PERFORMANCE

The tool set for technicians. All tools are clearly arranged on two tool boards.

### 68 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
4415	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 54 pockets</b>	5-049	SMD tweezers, 110 mm, straight, very sharply pointed, stainless
1-909	Engineer's mirror with extension, magnification, hollow mirror 23 mm Ø	5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
2-126	Desoldering lever, slotted on one end, nickel plated, with dissipative (ESD) black plastic handle	5-115	Heat dissipating tweezers, 165 mm, with flat, wide tips and copper jaws, nickel-plated
2-127	Tin knife with plastic handle, 115 mm	5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated
2-128	Tin scraper with blade of sharp parting tool, 115 mm	5-161	Clamping scissors, 130 mm, stainless, with serrated gripping jaws
2-132	Spring hook, nickel plated, insulated, 175 mm	5-181	Wire scraper tweezers for stripping varnish on wires Ø 0.6 mm
2-161	Steel Scriber, Ø 7 mm, telescopic rod with magnetic lifter, 143-660 mm	5-210	6-pcs. set of needle files in plastic wallet
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	5-301	Special scissors for cutting sheet metal and wires, with serration, extremely slim, 110 mm, chrome-plated
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	5-501	Electrician's knife with wooden handle, steel blade with wire scraper
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	5-531	Automatic wire stripper for cables 0.2 - 6 mm <sup>2</sup>
3-132-16	Side cutters, 130 mm, for hard wire up to 1.0 mm, for soft wire up to 3.0 mm, chrome-plated, with bicoloured hand guard	6-200	8-pcs. set of socket wrench, 4-10 mm, with changeable handle
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	6-750-3	Extra-flat (1.5 mm) double open-ended wrench, 3 x 3.5 mm
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	6-750-4	Extra-flat (1.5 mm) double open-ended wrench, 4 x 4.5 mm
3-634-15	Snipe nose pliers CLASSICline, 120 mm, with short jaws, angled, dissipative bicoloured hand guard	6-750-5	Extra-flat (1.5 mm) double open-ended wrench, 5 x 5.5 mm
3-732-16	Combination pliers, 165 mm, with wire cutter for hard wire, serrated jaws, lap joint, chrome-plated, bicoloured hand guard	6-750-6	Extra-flat (1.5 mm) double open-ended wrench, 6 x 6.5 mm
4-301	Miniature screwdriver, plastic handle, blade nickel-plated, 40 x 1.8 mm	6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm
4-311	Screwdriver for headless screws, blade made of CV, 80 x 2.8 mm	7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	7-508	Steel scale 30 cm, stainless steel
4-351	Offset screwdriver 100 x 4 mm, chrome vanadium, with plastic handle	7-511	Digital caliper, 150 mm, with cross points, depth gauge, fixing screw
4-393	Watchmaker screwdriver, nickel plated, with 5 interchangeable blades in the magazine, slotted 1.5, 2.0, 2.5 mm, cross-recess PH 00, 000	7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
5-006	Component tweezers 145 mm, nickel-plated, with insulated jaws, for easy insertion and removal of plug-in transistors of various sizes	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
		14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
		14-654 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 125 x 5.5 mm, with VDE safety insulation
		14-691 VDE	Cross-recesses screwdriver with multi-component handle, size PZ 0, blade length 60 mm
		14-692 VDE	Cross-recesses screwdriver with multi-component handle, size PZ 1, blade length 80 mm



4415

ARTICLE GROUPS



Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



without tools: 3910 g  
with tools: 5955 g



68 Tools



**4400** TECHNIC PERFORMANCE with tool assortment  
**4415** TECHNIC PERFORMANCE without tool assortment

NEW

4700

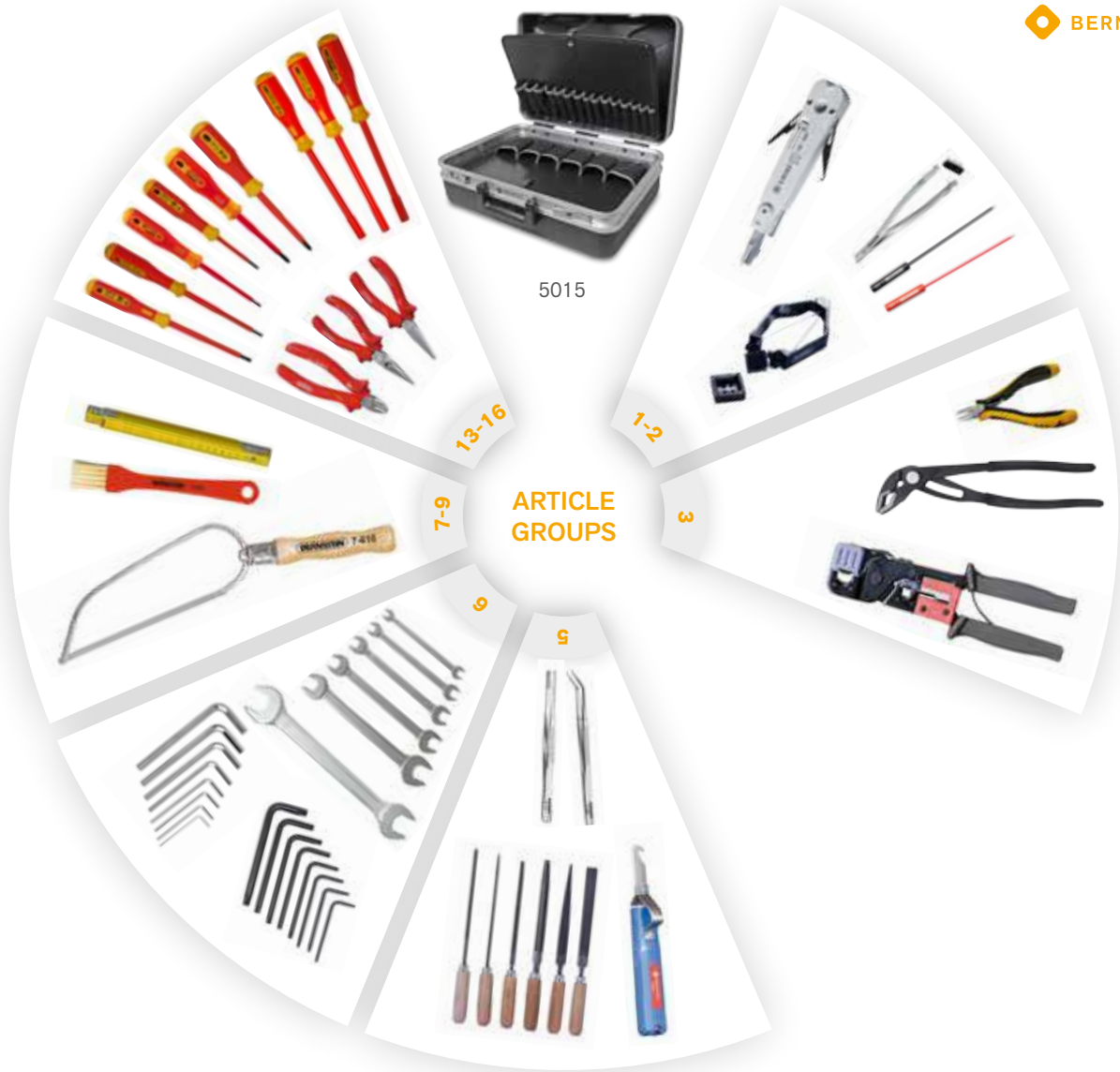
## TOOL SET TELEDATA in the tool case PERFORMANCE

The case with special tools for the installation and maintenance of telecommunication systems, data networks and working with VDE insulated tools.

### 54 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
5015	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 28 pockets</b>	6-995	8-pcs. set TORX-wrench keys with bore-hole, T9 - T40
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	7-502	Folding rule with steel spring, 2 m, made from wood
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
2-620	PLCC extractor for easy removal of plug-in PLCC's	13-906 VDE	Side cutter, 160 mm, chrome plated, with VDE safety insulation
2-701	LSA-Plus insertion tool with sensor, wire connection without soldering, screwing and stripping, cutting the remaining length, all in one operation	13-915 VDE	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
3-573	Water pump pliers 180 mm, with push-button, extra slim head	13-927 VDE	Flat nose pliers, 160 mm, with safety insulation
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
3-0605	Combination-Crimping Pliers for connector types 6P/6C, 6P/4C, 6P/2C, 8P/8C	14-652 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated	14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated	14-681 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 0 x 60 mm, with VDE safety insulation
5-240	6-pcs. set warding files with wooden handle, 175 mm, in a plastic wallet	14-682 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
5-505	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade	14-683 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
6-500	5-pcs. double open-ended wrench set, 6x7, 8x9, 10x11, 12x13, 14x17 mm	16-299 VDE	Socket wrench, 4 mm, with VDE safety insulation
6-500-18	Double open-ended wrench, 18x19 mm	16-301 VDE	Socket wrench, 5 mm, with VDE safety insulation
6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm	16-302 VDE	Socket wrench, 5.5 mm, with VDE safety insulation





Outside: 480 x 350 x 190 mm  
 Inside: 460 x 320 x 180 mm



without tools: 3840 g  
 with tools: 6790 g



54 Tools



**4700 TELEDATA PERFORMANCE** with tool assortment  
**5015 TELEDATA PERFORMANCE** without tool assortment

NEW

4750

## TOOL SET SECURITY in the tool case PERFORMANCE

The tool set with special tools for the installation and maintenance of complex security and alarm systems, as well as for working with VDE insulated tools and soldering with independent gas soldering iron.

### 52 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
5015	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 28 pockets</b>	8-376	Gas soldering iron „PIEZO INDY 75“, adjustable gas supply 15-75 W, max. temperature approx. 580 °C
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	8-390	Desoldering pump, 195 mm long, Ø 20 mm
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	13-906 VDE	Side cutter, 160 mm, chrome plated, with VDE safety insulation
2-701	LSA-Plus insertion tool with sensor, wire connection without soldering, screwing and stripping, cutting the remaining length, all in one operation	13-915 VDE	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	13-927 VDE	Flat nose pliers, 160 mm, with safety insulation
3-0611	Crimping pliers for BNC and TNC coaxial connectors	13-936 VDE	Combination pliers with wire cutter, 160 mm, special steel, chrome plated, with VDE safety insulation
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
5-505	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade	14-652 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
5-515	Allround knife, blade adjustable and breakable, 130 mm	14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
5-531	Automatic wire stripper for cables 0.2 - 6 mm <sup>2</sup>	14-681 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 0 x 60 mm, with VDE safety insulation
5-535	Coaxial cable stripper for coaxial cable Ø 4.8 - 7.5 mm	14-682 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
6-500	5-pcs. double open-ended wrench set, 6x7, 8x9, 10x11, 12x13, 14x17 mm	14-683 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
6-500-18	Double open-ended wrench, 18x19 mm	16-299 VDE	Socket wrench, 4 mm, with VDE safety insulation
6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm	16-301 VDE	Socket wrench, 5 mm, with VDE safety insulation
6-995	8-pcs. set TORX-wrench keys with bore-hole, T9 - T40	16-302 VDE	Socket wrench, 5.5 mm, with VDE safety insulation
7-114	Engineer's hammer according to DIN 1041, 200 g		
7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm		
7-502	Folding rule with steel spring, 2 m, made from wood		
7-535	Spirit level, made from plastic, with 3 levels, 200 mm		
7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal		



Outside: 480 x 350 x 190 mm  
 Inside: 460 x 320 x 180 mm



without tools: 3840 g  
 with tools: 7430 g



52 Tools



**4700 SECURITY PERFORMANCE** with tool assortment  
**5015 SECURITY PERFORMANCE** without tool assortment

## 5000

## TOOL SET BASIC, ADVANCED AND COMPLETE

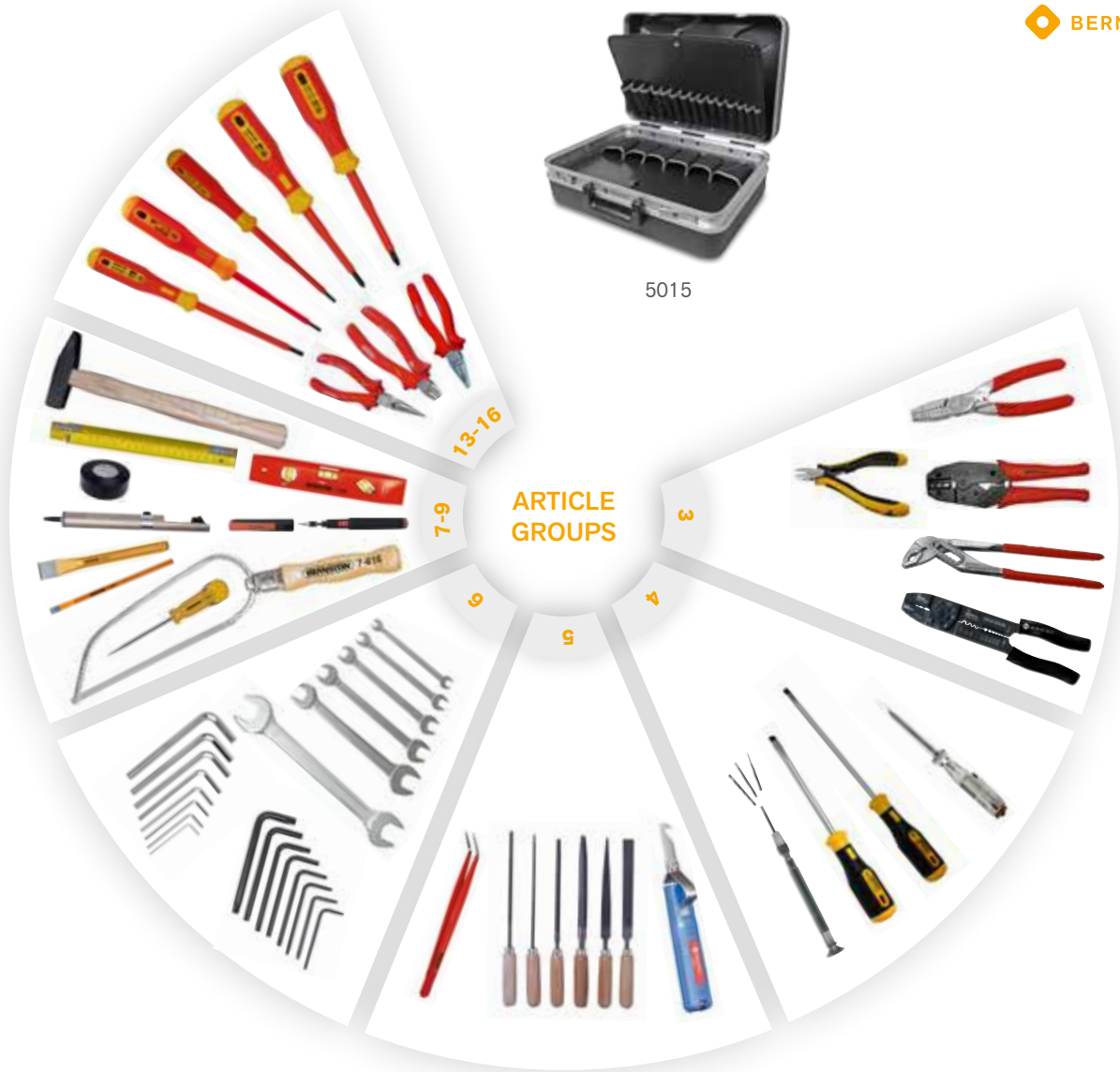
### in the tool case PERFORMANCE

Basic equipment with the most important tools (BASIC), advanced equipment with additional crimping / pressing pliers and other important screw tools (ADVANCED), complete equipment with additional tools for mobile soldering (COMPLETE).

### 48/64/68 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
	<b>5000 BASIC contains the basic equipment with 48 tools</b>		
5015	Tool case with divisible bottom tray, 2 tool boards with a total of 28 pockets	7-535	Spirit level, made from plastic, with 3 levels, 200 mm
3-0856	Crimp tool for insulated and uninsulated terminals, 230 mm	7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
3-575-6	Water pump pliers, 240 mm, red insulation	13-906 VDE	Side cutter, 160 mm, chrome plated, with VDE safety insulation
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	13-915 VDE	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	13-936 VDE	Combination pliers with wire cutter, 160 mm, special steel, chrome plated, with VDE safety insulation
4-392	Watchmaker screwdriver, nickel plated, with 5 interchangeable blades in the magazine, slotted 1.5, 2.0, 2.5, 3.0 mm, cross-recess PH 0	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
4-508	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 150 x 8.0 mm	14-652 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
4-524	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 150 x 5.0 mm	14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
5-107-6	Engineer's tweezers, 150 mm, bent tips, nickel-plated, strong PVC-insulated	14-682 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
5-240	6-pcs. set warding files with wooden handle, 175 mm, in a plastic wallet	14-683 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
5-505	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade		<b>5000 ADVANCED contains the extended basic equipment with 64 tools</b>
6-500	5-pcs. double open-ended wrench set, 6x7, 8x9, 10x11, 12x13, 14x17 mm	3-0612	Automatic crimping pliers with ratchet mechanism-, for insulated terminals
6-500-18	Double open-ended wrench, 18x19 mm	3-871-6	Pressing pliers for multicore cable end, combined with cable cutter and stripping-prism, for sleeves of 0.25 - 2.5 mm <sup>2</sup> , 155 mm
6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm	6-210	6-pcs. socket wrench set in a plastic wallet, 4.0, 5.5, 6.0, 7.0, 8.0 mm
7-116	Engineer's hammer according to DIN 1041, 300 g	6-995	8-pcs. set TORX-wrench keys with bore-hole, T9 - T40
7-235	Flat chisel, 200 x 14 x 20 mm		<b>5000 COMPLETE contains the complete equipment with 68 tools</b>
7-255	Electrician's chisel, chrome vanadium, 200 x 8 x 10 mm	7-429	PVC insulating tape, elastic, UV resistant, 25 m x 25 mm, black
7-316	Punch with impact-resistant plastic handle, blade Ø 6.0 mm	8-390	Desoldering pump, 195 mm long, Ø 20 mm
7-502	Folding rule with steel spring, 2 m, made from wood	8-396	Gas Soldering Iron
		-1	Spare soldering tip 1.0 mm





Outside: 480 x 350 x 190 mm  
 Inside: 460 x 320 x 180 mm



without tools: 3800 g  
 5000 BAS: 7400 g  
 5000 ADV: 8500 g  
 5000 COM: 8700 g



**5000 BAS** with tool assortment, 48 pcs.  
**5000 ADV** with tool assortment, 64 pcs.  
**5000 COM** with tool assortment, 68 pcs.  
**5015 PERFORMANCE** without tool assortment

# TOOL CASE

# PROTECTION

Ergonomic handle



## ALWAYS READY!



## OUTSIDE

The compact shape and the structured surface give this tool case a high stability and give it its unmistakable BERNSTEIN design.

The use of X-ABS plastic with an extreme anti-slip surface makes the case more resistant against external influences. The high impact and break-proof material makes the tool case suitable for air travel.

The stable aluminium frame, the ergonomically shaped handle with handle recess and the lid locking mechanism round the image of a highly functional and modern tool case.

Case body made of robust X-ABS plastic and stable aluminium profile



**The case PROTECTION includes the following equipment:**

There is a document compartment in the lid as well as a removable tool board with 26 pockets on the front and back. The bottom tray is available in two versions:



**6415**  
Cover plate with 32 pockets, ideal for many small tools



**6755**  
Cover plate with 16 pockets

Document compartment in the lid



**INSIDE**

The removable tool boards made from CONPEARL® with pockets are robust, washable and interchangeable. The bottom tray is freely partitionable with removable walls.



**OPTIONAL:** additional tool board with 10 compartments on the front



freely partitionable bottom tray



Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



6415: 4.320 g  
6755: 4.390 g

cylinder locks

on request also with TSA-LOCK (for travel to USA) or combination lock available





# 6100

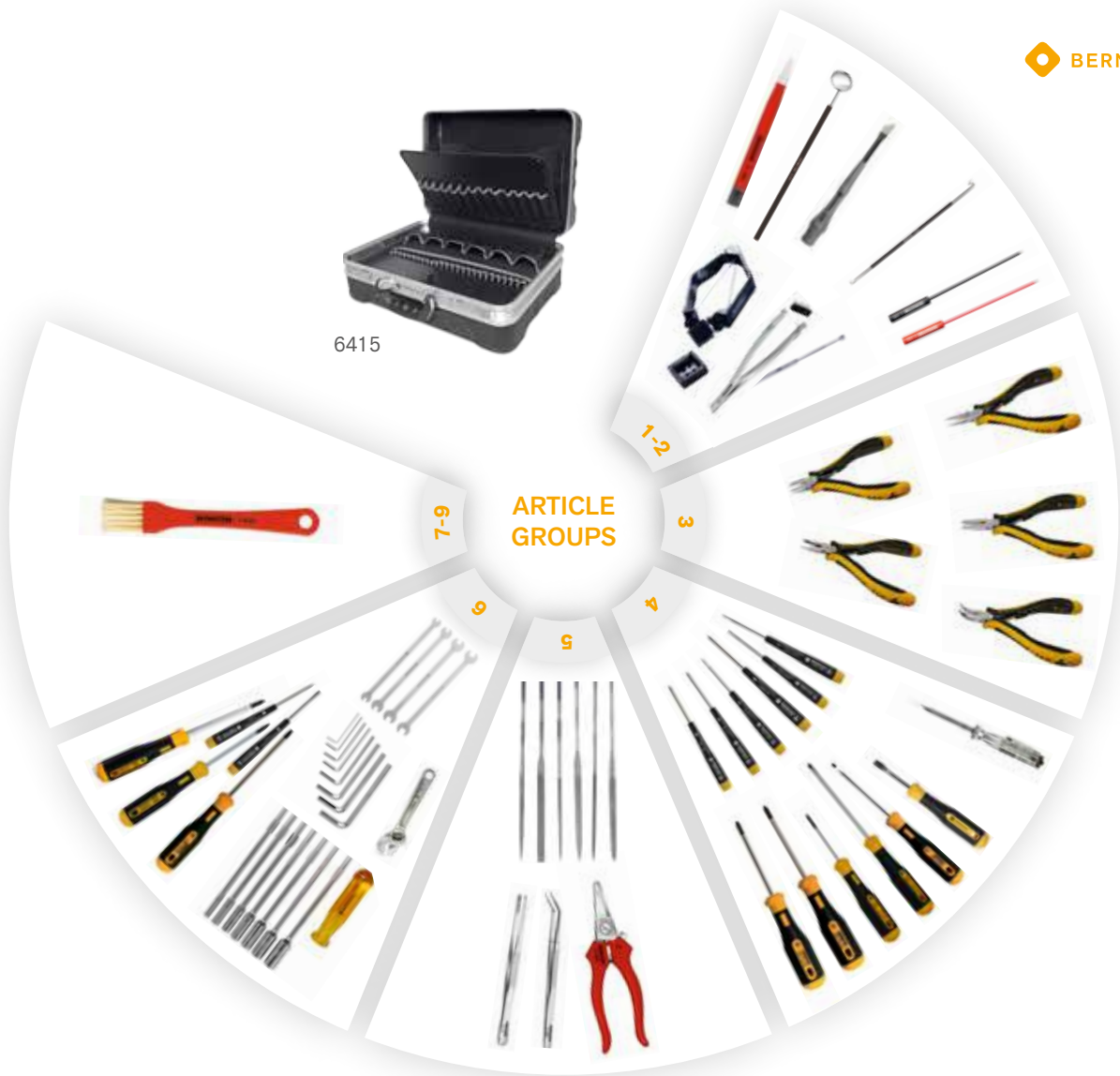
## TOOL SET PC CONTACT

### in the tool case PROTECTION

The clearly arranged tool case with tools for installing and maintaining computers and peripheral devices.

#### 65 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
<b>6415</b>	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 58 pockets and document compartment in the lid</b>	<b>4-622</b>	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 00, blade length 40 mm
<b>2-127</b>	Tin knife with plastic handle, 115 mm	<b>4-623</b>	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 0, blade length 40 mm
<b>2-132</b>	Spring hook, nickel plated, insulated, 175 mm	<b>4-624</b>	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 1, blade length 60 mm
<b>2-161</b>	Steel Scriber, Ø 7 mm, telescopic rod with magnetic lifter, 143-660 mm	<b>5-107</b>	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
<b>2-166</b>	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm	<b>5-117</b>	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated
<b>2-265-1</b>	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	<b>5-210</b>	6-pcs. set of needle files in plastic wallet
<b>2-265-2</b>	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	<b>5-305</b>	Combination cutters, 140 mm, stainless, with serrated cutting edge
<b>2-275</b>	Repair mirror, stainless, magnifying, concave mirror, Ø 21 mm	<b>6-200</b>	8-pcs. set of socket wrench, 4-10 mm, with changeable handle
<b>2-601</b>	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	<b>6-661</b>	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
<b>2-620</b>	PLCC extractor for easy removal of plug-in PLCC's	<b>6-663 L</b>	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
<b>3-601-15</b>	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	<b>6-750-3</b>	Extra-flat (1.5 mm) double open-ended wrench, 3 x 3.5 mm
<b>3-606-15</b>	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape Flush, dissipative, bicoloured hand guard	<b>6-750-4</b>	Extra-flat (1.5 mm) double open-ended wrench, 4 x 4.5 mm
<b>3-632-15</b>	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	<b>6-750-5</b>	Extra-flat (1.5 mm) double open-ended wrench, 5 x 5.5 mm
<b>3-633-15</b>	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	<b>6-750-6</b>	Extra-flat (1.5 mm) double open-ended wrench, 6 x 6.5 mm
<b>3-634-15</b>	Snipe nose pliers CLASSICline, 120 mm, with short jaws, angled, dissipative bicoloured hand guard	<b>6-750-7</b>	Extra-flat (1.5 mm) double open-ended wrench, 7 x 8 mm
<b>4-331</b>	Installation screwdriver with multi-component handle, 45 x 6 mm	<b>6-750-9</b>	Extra-flat (1.5 mm) double open-ended wrench, 9 x 10 mm
<b>4-343 VDE</b>	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	<b>6-771</b>	Adjustable wrench, chrome vanadium, 100 mm, jaw opening 0-13 mm
<b>4-522</b>	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.0 mm	<b>6-820</b>	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm
<b>4-523</b>	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 4 mm	<b>6-984 L</b>	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 9, with bore hole in the tip
<b>4-533</b>	Cross-recess screwdriver, with multi-component handle, blade of chrome-vanadium, chrome-plated, black tip, blade length 80 mm, size PH 1	<b>6-985 L</b>	TORX screwdriver as before, size T 10, with bore hole in the tip
<b>4-542</b>	Cross-recess screwdriver as before, blade length 60mm, PZ 0	<b>6-986 L</b>	TORX screwdriver as before, size T 15, with bore hole in the tip
<b>4-543</b>	Cross-recess screwdriver as before, blade length 80 mm, size PZ 1	<b>7-425</b>	Dust brush, 177 mm, with white bristles, bristle width 25 mm
<b>4-603</b>	Slotted screwdriver with dissipative handle, 40 x 1.5 mm		
<b>4-607</b>	Slotted screwdriver with dissipative handle, 50 x 3.0 mm		
<b>4-621</b>	Cross-recess screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size PH 000, blade length 40 mm		



6415



Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



without tools: 4320 g  
with tools: 5975 g



65 Tools



**6100 PC-CONTACT PROTECTION** with tool assortment  
**6415 PC-CONTACT PROTECTION** without tool assortment

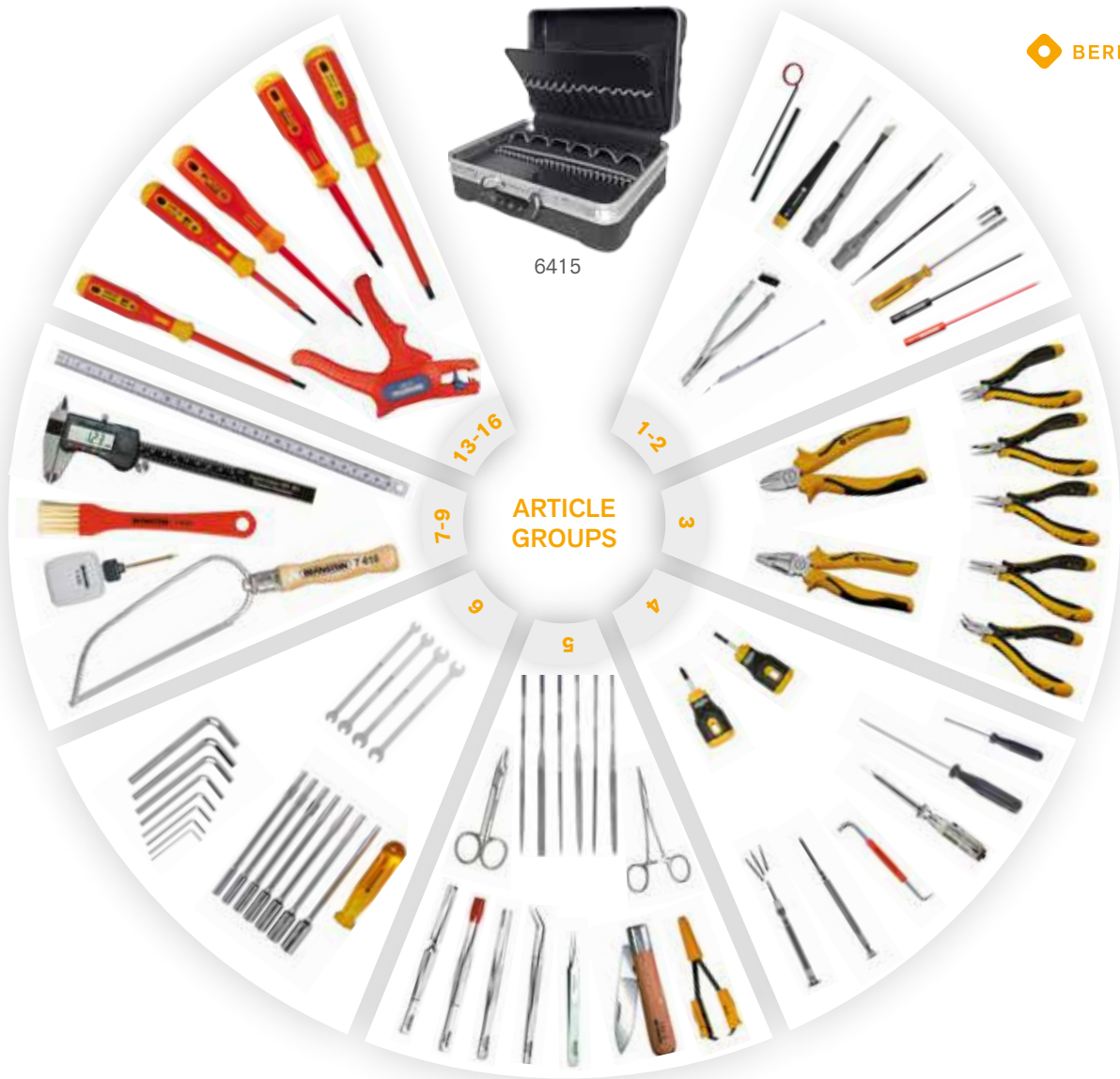
# 6400

## TOOL SET TECHNIC in the tool case PROTECTION

The tool set for technicians. All tools are clearly arranged on two tool boards.

### 76 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
6415	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 58 pockets and document compartment in the lid</b>	5-006	Component tweezers 145 mm, nickel-plated, with insulated jaws, for easy insertion and removal of plug-in transistors of various sizes
1-909	Engineer's mirror with extension, magnification, hollow mirror 23 mm Ø	5-049	SMD tweezers, 110 mm, straight, very sharply pointed, stainless
2-126	Desoldering lever, slotted on one end, nickel plated, with dissipative (ESD) black plastic handle	5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
2-127	Tin knife with plastic handle, 115 mm	5-115	Heat dissipating tweezers, 165 mm, with flat, wide tips and copper jaws, nickel-plated
2-128	Tin scraper with blade of sharp parting tool, 115 mm	5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated
2-132	Spring hook, nickel plated, insulated, 175 mm	5-161	Clamping scissors, 130 mm, stainless, with serrated gripping jaws
2-145	Screwdriver with guide sleeve, for easy and accurate setting of spindle resistors and potentiometers, with slotted axles up to 3.2 mm Ø	5-181	Wire scraper tweezers for stripping varnish on wires Ø 0.6 mm
2-161	Steel Scriber, Ø 7 mm, telescopic rod with magnetic lifter, 143-660 mm	5-210	6-pcs. set of needle files in plastic wallet
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	5-301	Special scissors for cutting sheet metal and wires, with serration, extremely slim, 110 mm, chrome-plated
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	5-501	Electrician's knife with wooden handle, steel blade with wire scraper
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	6-200	8-pcs. set of socket wrench, 4-10 mm, with changeable handle
3-132-16	Side cutters, 130 mm, for hard wire up to 1.0 mm, for soft wire up to 3.0 mm, chrome-plated, with bicoloured hand guard	6-750-3	Extra-flat (1.5 mm) double open-ended wrench, 3 x 3.5 mm
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	6-750-4	Extra-flat (1.5 mm) double open-ended wrench, 4 x 4.5 mm
3-606-15	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape Flush, dissipative, bicoloured hand guard	6-750-5	Extra-flat (1.5 mm) double open-ended wrench, 5 x 5.5 mm
3-631-15	Round nose pliers CLASSICline 120mm, with short jaws, box joint, double leaf spring, bicoloured hand guard, dissipative	6-750-6	Extra-flat (1.5 mm) double open-ended wrench, 6 x 6.5 mm
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	6-750-7	Extra-flat (1.5 mm) double open-ended wrench, 7 x 8 mm
3-634-15	Snipe nose pliers CLASSICline, 120 mm, with short jaws, angled, dissipative bicoloured hand guard	6-750-9	Extra-flat (1.5 mm) double open-ended wrench, 9 x 10 mm
3-732-16	Combination pliers, 165 mm, with wire cutter for hard wire, serrated jaws, lap joint, chrome-plated, bicoloured hand guard	6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm
4-261	Cross-recess screwdriver, PH 1, extra short, total length 80 mm	7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm
4-301	Miniature screwdriver, plastic handle, blade nickel-plated, 40 x 1.8 mm	7-435	Oiler with brass rotating seal, 40 ml
4-311	Screwdriver for headless screws, blade made of CV, 80 x 2.8 mm	7-508	Steel scale 30 cm, stainless steel
4-321	Slotted screwdriver, 4.0 mm, extra short, total length 80 mm	7-511	Digital caliper, 150 mm, with cross points, depth gauge, fixing screw
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
4-351	Offset screwdriver 100 x 4 mm, chrome vanadium, with plastic handle	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
4-366	Cross-slot watchmaker screwdriver with swivel cap, size PH 00	14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
4-391	Watchmaker screwdriver, nickel plated, with 4 interchangeable slotted blades in the magazine, size 1.5, 2.0, 2.5 and 3.0 mm	14-654 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 125 x 5.5 mm, with VDE safety insulation
		14-691 VDE	Cross-recesses screwdriver with multi-component handle, size PZ 0, blade length 60 mm
		14-692 VDE	Cross-recesses screwdriver with multi-component handle, size PZ 1, blade length 80 mm
		15-531 VDE	Automatic wire stripper for cables 0.2 - 6 mm <sup>2</sup>



6415

ARTICLE GROUPS

13-16

1-2

7-9

3

6

4

5



Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



without tools: 4320 g  
with tools: 6910 g



76 Tools



**6400** TECHNIC PERFORMANCE with tool assortment  
**6415** TECHNIC PERFORMANCE without tool assortment





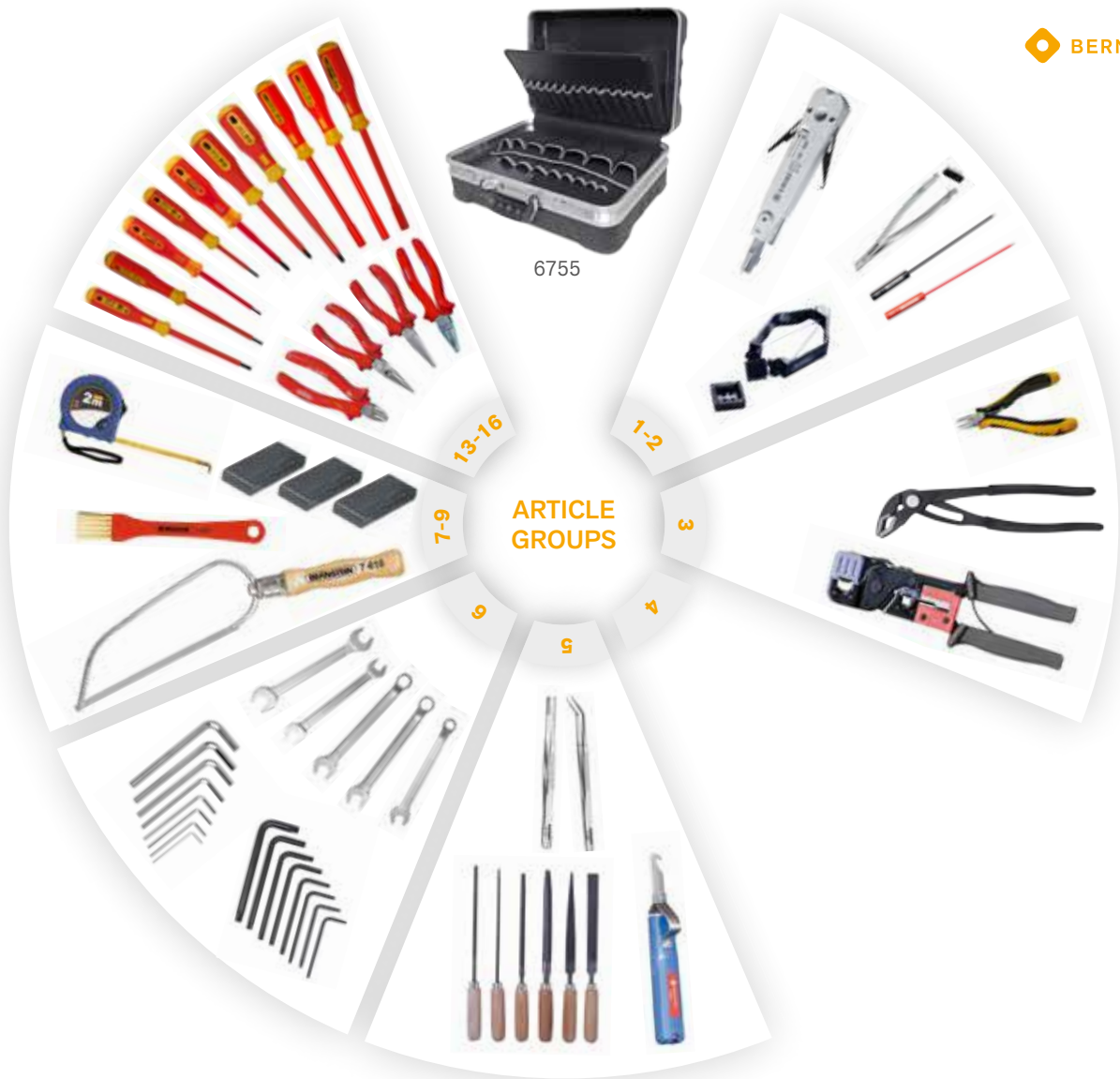
## 6700

### TOOL SET TELEDATA in the tool case PROTECTION

The case with special tools for the installation and maintenance of telecommunication systems, data networks and working with VDE insulated tools.

#### 65 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
6755	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 42 pockets and document compartment in the lid</b>	6-995	8-pcs. set TORX-wrench keys with bore-hole, T9 - T40
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	7-506	Tape measure, 2 m, steel tape, impact-resistant plastic housing
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
2-620	PLCC extractor for easy removal of plug-in PLCC's	9-316	3 pcs. ESD chip container, 118 x 32 x 14 mm
2-701	LSA-Plus insertion tool with sensor, wire connection without soldering, screwing and stripping, cutting the remaining length, all in one operation	13-906 VDE	Side cutter, 160 mm, chrome plated, with VDE safety insulation
3-573	Water pump pliers 180 mm, with push-button, extra slim head	13-915 VDE	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	13-927 VDE	Flat nose pliers, 160 mm, with safety insulation
3-0605	Combination-Crimping Pliers for connector types 6P/6C, 6P/4C, 6P/2C, 8P/8C	13-936 VDE	Combination pliers with wire cutter, 160 mm, special steel, chrome plated, with VDE safety insulation
5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated	14-652 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
5-240	6-pcs. set warding files with wooden handle, 175 mm, in a plastic wallet	14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
5-505	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade	14-681 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 0 x 60 mm, with VDE safety insulation
6-500-12	Double open-ended wrench, 12 x 13 mm	14-682 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
6-500-18	Double open-ended wrench, 18 x 19 mm	14-683 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
6-600	7-pcs combination wrench set, 6 - 11 mm and 13 mm	14-684 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 3 x 100 mm, with VDE safety insulation
6-600-12	Combination wrench, 12 mm	16-299 VDE	Socket wrench, 4 mm, with VDE safety insulation
6-600-17	Combination wrench, 17 mm	16-301 VDE	Socket wrench, 5 mm, with VDE safety insulation
6-600-19	Combination wrench, 19 mm	16-302 VDE	Socket wrench, 5.5 mm, with VDE safety insulation
6-950	8-pcs. hex key set with ball head, 1.5 - 8.0 mm		



Outside: 480 x 350 x 190 mm  
 Inside: 460 x 320 x 180 mm



without tools: 4390 g  
 with tools: 8170 g



65 Tools



**6700 TELEDATA PROTECTION** with tool assortment  
**6755 TELEDATA PROTECTION** without tool assortment

## 6750

### TOOL SET SECURITY in the tool case PROTECTION

The tool set with special tools for the installation and maintenance of complex security and alarm systems, as well as for working with VDE insulated tools and soldering with independent gas soldering iron.

#### 54 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
6755	Tool case with divisible bottom tray, 2 tool boards with a total of 42 pockets and document compartment in the lid	8-376	Gas soldering iron „PIEZO INDY 75“, adjustable gas supply 15-75 W, max. temperature approx. 580 °C
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	8-390	Desoldering pump, 195 mm long, Ø 20 mm
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	13-906 VDE	Side cutter, 160 mm, chrome plated, with VDE safety insulation
2-701	LSA-Plus insertion tool with sensor, wire connection without soldering, screwing and stripping, cutting the remaining length, all in one operation	13-915 VDE	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	13-927 VDE	Flat nose pliers, 160 mm, with safety insulation
3-0611	Crimping pliers for BNC and TNC coaxial connectors	13-936 VDE	Combination pliers with wire cutter, 160 mm, special steel, chrome plated, with VDE safety insulation
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm	14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
5-505	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade	14-652 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
5-515	Allround knife, blade adjustable and breakable, 130 mm	14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
5-535	Coaxial cable stripper for coaxial cable Ø 4.8 - 7.5 mm	14-681 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 0 x 60 mm, with VDE safety insulation
6-600	7-pcs combination wrench set, 6 - 11 mm and 13 mm	14-682 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
6-950	8-pcs. hex key set with ball head, 1.5 - 8.0 mm	14-683 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
6-995	8-pcs. set TORX-wrench keys with bore-hole, T9 - T40	14-684 VDE	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 3 x 100 mm, with VDE safety insulation
7-116	Engineer's hammer according to DIN 1041, 300 g	15-531 VDE	Automatic wire stripper for cables 0.2 - 6 mm <sup>2</sup>
7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm	16-299 VDE	Socket wrench, 4 mm, with VDE safety insulation
7-506	Tape measure, 2 m, steel tape, impact-resistant plastic housing	16-301 VDE	Socket wrench, 5 mm, with VDE safety insulation
7-535	Spirit level, made from plastic, with 3 levels, 200 mm	16-302 VDE	Socket wrench, 5.5 mm, with VDE safety insulation
7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal		



ARTICLE GROUPS

6755

13-16

1-2

7-9

3

6

4

5



Outside: 480 x 350 x 190 mm  
Inside: 460 x 320 x 180 mm



without tools: 4390 g  
with tools: 8100 g



54 Tools



**6750 SECURITY PROTECTION** with tool assortment  
**6755 SECURITY PROTECTION** without tool assortment





# TOOL CASE

## PROTECTION XL

THE GREAT  
WITH OR  
WITHOUT  
WHEELS!



The tool case **PROTECTION XL** is available with or without wheels. Both variants can be used with the following interior fittings:

There is a document compartment in the lid. The cover plate is fixed with the divisible bottom tray

4x telescopic  
extension  
1020 mm  
extension height

rubberized  
wheels with  
ball bearing

### OUTSIDE

The use of X-ABS plastic with an extreme anti-slip surface makes the case more resistant against external influences. The high impact and break-proof material makes the tool case suitable for air travel. The 4x telescopic extension is powder-coated and has an ergonomic handle, which complements the case handle positively. Thanks to the wide wheelbase and the rubberized wheels with ball bearings, the PROTECTION XL also manages uneven paths. The ratchet hinges with the lid locking mechanism belong to the standard of our tool cases.

88 mm high  
freely partitionable  
bottom tray





**6515 / 6515 R**  
Mobile workshop with 88 compartments, ideal for many small tools



**6615 / 6515 R**  
Equipment with 42 compartments



**7015 / 7015 OR**  
Equipment with 58 compartments, ideal for many small tools

## INSIDE

The removable tool boards made from CONPEARL with pockets are robust, washable and interchangeable. The bottom tray is freely partitionable with removable walls.



Handle and extension in one unit



Document compartment in the lid



**OPTIONAL:** additional tool board with 10 compartments on front

cylinder locks

on request also with **TSA-LOCK** (for travel to USA) or combination lock available





# 6500 AND NEW 6500 R TOOL SET BOSS in the tool case PROTECTION XL

The mobile workshop in the case

NEW

No.	Description of individual tools
6515	<b>Tool case with divisible bottom tray, 4 tool boards with a total of 88 pockets and document compartment in the lid</b>
6515 R	alternatively as before, but additionally with wheels and telescopic handle (roll able)
1-151	Adjusting screwdriver, blade 40 x 3 mm
1-153	Adjusting screwdriver, blade 130 x 2 mm
1-155	Adjusting screwdriver, blade 130 x 3.5 mm
1-909	Engineer's mirror with extension, magnification, hollow mirror 23 mm Ø
2-126	Desoldering lever, slotted on one end, nickel plated, with dissipative (ESD) black plastic handle
2-127	Tin knife with plastic handle, 115 mm
2-128	Tin scraper with blade of sharp parting tool, 115 mm
2-132	Spring hook, nickel plated, insulated, 175 mm
2-155	Claw-type gripper, nickel-plated, with 3 hardened wire claws, opening up to max. 12 mm, with clip
2-161	Steel Scribe, Ø 7 mm, telescopic rod with magnetic lifter, 143-660 mm
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated
2-296	Hand magnifier with LED illumination, 3x magnification
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's
2-620	PLCC extractor for easy removal of plug-in PLCC's
2-656	LED flashlight, made of plastic, black, waterproof and unbreakable, 143x19 mm
3-0856	Crimp tool for insulated and uninsulated terminals, 230 mm
3-132-16	Side cutters, 130 mm, for hard wire up to 1.0 mm, for soft wire up to 3.0 mm, chrome-plated, with bicoloured hand guard
3-235-16	Telephone pliers with wire cutter, 160 mm, chrome plated, with bicoloured hand guard
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative
3-603-15	Side cutters with slim, pointed head and special flat cutting edge, semi flush, bicoloured hand guard, dissipative
3-606-15	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape Flush, dissipative, bicoloured hand guard
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws
3-634-15	Snipe nose pliers CLASSICline, 120 mm, with short jaws, angled, dissipative bicoloured hand guard
3-732-16	Combination pliers, 165 mm, with wire cutter for hard wire, serrated jaws, lap joint, chrome-plated, bicoloured hand guard
3-815-16	Wire strippers, 155 mm, with adjusting screw for all wire thicknesses, chrome-plated, with bicoloured hand guard
4-351	Offset screwdriver 100 x 4 mm, chrome vanadium, with plastic handle

## 110 pcs. tool set consisting of:

No.	Description of individual tools
3-871-6	Pressing pliers for multicore cable end, combined with cable cutter and stripping-prism, for sleeves of 0.25 - 2.5 mm <sup>2</sup> , 155 mm
4-301	Miniature screwdriver, plastic handle, blade nickel-plated, 40 x 1.8 mm
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm
4-391	Watchmaker screwdriver, nickel plated, with 4 interchangeable slotted blades in the magazine, size 1.5, 2.0, 2.5 and 3.0 mm
4-504	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 5.5 mm
4-523	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 4 mm
4-543	Cross-recess screwdriver as before, blade length 80 mm, size PZ 1
4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm
4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm
4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.5 mm
4-607	Slotted screwdriver with dissipative handle, 50 x 3.0 mm
4-608	Slotted screwdriver with dissipative handle, 60 x 3.5 mm
4-621	Cross-recess screwdriver as before, size PH 000, blade length 40 mm
4-622	Cross-recess screwdriver as before, size PH 00, blade length 40 mm
4-623	Cross-recess screwdriver as before, size PH 0, blade length 50 mm
4-624	Cross-recess screwdriver as before, size PH 1, blade length 60 mm
5-006	Component tweezers 145 mm, nickel-plated, with insulated jaws, for easy insertion and removal of plug-in transistors of various sizes
5-049	SMD tweezers, 110 mm, straight, very sharply pointed, stainless
5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
5-107-6	Engineer's tweezers, 150 mm, bent tips, nickel-plated, strong PVC-insulated
5-115	Heat dissipating tweezers, 165 mm, with flat, wide tips and copper jaws, nickel-plated
5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated
5-161	Clamping scissors, 130 mm, stainless, with serrated gripping jaws
5-181	Wire scraper tweezers for stripping varnish on wires Ø 0.6 mm
5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
5-194	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, bent, pointed tips
5-210	6-pcs. set of needle files in plastic wallet
5-301	Special scissors for cutting sheet metal and wires, with serration, extremely slim, 110 mm, chrome-plated
5-305	Combination cutters, 140 mm, stainless, with serrated cutting edge
5-501	Electrician's knife with wooden handle, steel blade with wire scraper
5-515	Allround knife, blade adjustable and breakable, 130 mm
6-200	8-pcs. set of socket wrench, 4-10 mm, with changeable handle
6-631	Wrench Key with dissipative handle and centering head, hardened over its full length, matt chrome-plated, A/F 0.7 mm



No.	Description of individual tools
6-632	Wrench Key as before, A/F 0.9 mm
6-633	Wrench Key as before, A/F 1.3 mm
6-634	Wrench Key as before, A/F 1.5 mm
6-635	Wrench Key as before, A/F 2.0 mm
6-658	TORX-screwdriver with dissipative handle, Blade from CV, matt chrome-plated, T 3
6-659	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 4, blade length 40 mm
6-661	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 5, blade length 40 mm
6-662	TORX-screwdriver with dissipative handle, hardened over its full length, matt chrome-plated, size T 6, blade length 40 mm
6-663 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 7 with bore-hole, blade length 50 mm
6-664 L	TORX-screwdriver with dissipative handle, hardened over its full length chrome-plated, size T 8 with bore-hole, blade length 50 mm
6-750	6-pcs. set of extra slim double open-ended wrench, nickel-plated, 3,0 x 3,5, 4,0 x 4,5, 5,0 x 5,5 and 6,0 x 6,5 mm
6-771	Adjustable wrench, chrome vanadium, 100 mm, jaw opening 0-13 mm
6-820	8-pcs. L-keys for hexagon socket head screws, size 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, and 6.0 mm
6-984 L	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 9, with bore hole in the tip
6-985 L	TORX screwdriver as before, size T 10, with bore hole in the tip
6-986 L	TORX screwdriver as before, size T 15, with bore hole in the tip
7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm
7-506	Tape measure, 2 m, steel tape, impact-resistant plastic housing
7-508	Steel scale 30 cm, stainless steel
7-511	Digital caliper, 150 mm, with cross points, depth gauge, fixing screw
7-616	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal



Inside: 470 x 360 x 210 mm



with tool : 10200 g  
with tool, rollable: 11900 g



110 Tools



**6500 R BOSS** with tool assortment, rollable  
**6515 R BOSS** without tool assortment, rollable  
**6500 BOSS** with tool assortment  
**6515 BOSS** without tool assortment

# 6600 AND NEW 6600 R TOOL SET TELECOM in the tool case PROTECTION XL

The case with special tools and testing instruments for the installation and maintenance of complex telecommunication systems as well as for working with VDE insulated tools.

## 115 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
<b>6615</b>	<b>Tool case with divisible bottom tray, 2 tool boards with a total of 42 pockets and document compartment in the lid</b>	<b>6-950</b>	8-pcs. hex key set with ball head, 1.5 - 8.0 mm
<b>6615 R</b>	Alternatively as before, but additionally with wheels and telescopic handle (roll able)	<b>6-995</b>	8-pcs. set TORX-wrench keys with bore-hole, T9 - T40
<b>2-265-1</b>	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	<b>7-114</b>	Engineers's hammer according to DIN 1041, 200 g
<b>2-265-2</b>	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	<b>7-425</b>	Dust brush, 177 mm, with white bristles, bristle width 25 mm
<b>2-275</b>	Repair mirror, stainless, magnifying, concave mirror, Ø 21 mm	<b>7-429</b>	PVC insulating tape, elastic, UV resistant, 25 m x 25 mm, black
<b>2-601</b>	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	<b>7-506</b>	Tape measure, 2 m, steel tape, impact-resistant plastic housing
<b>2-620</b>	PLCC extractor for easy removal of plug-in PLCC's	<b>7-616</b>	Pocket hack saw „PUK“ with 150 mm saw blade for wood and metal
<b>2-656</b>	LED flashlight, made of plastic, black, waterproof and unbreakable, 143x19 mm	<b>8-376</b>	Gas soldering iron „PIEZO INDY 75“, adjustable gas supply 15-75 W, max. temperature approx. 580 °C
<b>2-701</b>	LSA-Plus insertion tool with sensor, wire connection without soldering, screwing and stripping, cutting the remaining length, all in one operation	<b>8-390</b>	Desoldering pump, 195 mm long, Ø 20 mm
<b>3-573</b>	Water pump pliers 180 mm, with push-button, extra slim head	<b>9-316</b>	3 pcs. ESD chip container, 118 x 32 x 14 mm
<b>3-601-15</b>	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	<b>13-906 VDE</b>	Side cutter, 160 mm, chrome plated, with VDE safety insulation
<b>3-0605</b>	Combination-Crimping Pliers for connector types 6P/6C, 6P/4C, 6P/2C, 8P/8C	<b>13-915 VDE</b>	Telephone pliers with wire cutter, 160 mm, long, straight and serrated jaws, special steel, chrome-plated, with VDE safety insulation
<b>4-379</b>	6-pcs. watchmaker screwdriver set, slotted blade 1.0-1.5-2.0-2.5-3.0-3.5 mm	<b>13-927 VDE</b>	Flat nose pliers, 160 mm, with safety insulation
<b>5-107</b>	Engineer's tweezers, 150 mm, fine curved tips, fine serrated	<b>13-936 VDE</b>	Combination pliers with wire cutter, 160 mm, special steel, chrome plated, with VDE safety insulation
<b>5-117</b>	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated	<b>14-651 VDE</b>	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation
<b>5-240</b>	6-pcs. set warding files with wooden handle, 175 mm, in a plastic wallet	<b>14-652 VDE</b>	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100 x 3.5 mm, with VDE safety insulation
<b>5-505</b>	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade	<b>14-653 VDE</b>	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation
<b>5-535</b>	Coaxial cable stripper for coaxial cable Ø 4.8 - 7.5 mm	<b>14-654 VDE</b>	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 125 x 5.5 mm, with VDE safety insulation
<b>6-320</b>	36 pcs. socket wrench set in metal case, 1/4 „, 4-14 mm, PH1 + PH2, slot 4.0 + 5.5 mm, hexagon socket 3-6 mm, TORX T20, T25, T27, T30	<b>14-681 VDE</b>	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 0 x 60 mm, with VDE safety insulation
<b>6-500-12</b>	Combination wrench, 12 x 13 mm	<b>14-682 VDE</b>	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 1 x 80 mm, with VDE safety insulation
<b>6-500-18</b>	Combination wrench, 18 x 19 mm	<b>14-683 VDE</b>	Cross-recess screwdriver with multi-component handle, blade made from chrome vanadium, burnished, size PH 2 x 100 mm, with VDE safety insulation
<b>6-600</b>	7-pcs combination wrench set, 6 - 11 mm and 13 mm	<b>16-299 VDE</b>	Socket wrench, 4 mm, with VDE safety insulation
<b>6-600-12</b>	Combination wrench, 12 mm	<b>16-301 VDE</b>	Socket wrench, 5 mm, with VDE safety insulation
<b>6-600-17</b>	Combination wrench, 17 mm	<b>16-302 VDE</b>	Socket wrench, 5.5 mm, with VDE safety insulation
<b>6-600-19</b>	Combination wrench, 19 mm		



## DESCRIPTION

The use of X-ABS plastic with an extreme anti-slip surface makes the case more resistant against external influences. The high impact and break-proof material makes the tool case suitable for air travel. With 115 tools, the case contains a complete tool kit specially designed for the electrical and electronic connection and maintenance operations at distribution boards in the telecommunication branch.

The tools are placed on two tool boards as well as in the stable plastic insert in the case floor. With its variable subdivisions, the case floor provides space for additional instruments, spare parts, soldering tools and other equipment. The case has 2 locks and is lockable.



Inside: 470 x 360 x 210 mm



with tool assortment : 11800 g  
with tool assortment, **rollable**: 13500 g



115 Tools



**6600 R TELECOM** with tool assortment, **rollable**  
**6615 R TELECOM** without tool assortment, **rollable**  
**6600 TELECOM** with tool assortment  
**6615 TELECOM** without tool assortment



# 7000 AND NEW 7015 OR TOOL SET COMPACT MOBIL in the tool case PROTECTION XL with wheels

The rollable tool case with special tools for mounting and maintenance of electronic devices.

## 61 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
7015	Tool case with divisible bottom tray, 2 tool boards with a total of 58 pockets and a document compartment in the lid, with wheels and telescopic handle (roll able)	4-523	Slotted screwdriver as before, blade 100 x 4 mm
7015 OR	alternatively as before, but without wheels and telescopic handle	4-533	Cross-recess screwdriver, with multi-component handle, blade of chrome-vanadium, chrome-plated, black tip, as above, blade length 80 mm, size PH 1
1-735	Adjustment screwdriver handle, double-ended, for blades with 3 mm Ø	4-534	Cross-recess screwdriver, as above, blade length 100 mm, size PH 2
1-738	Special hard plastic bit, blade 3 mm Ø, tip 1.5 x 0.5 mm	4-542	Cross-recess screwdriver as before, blade length 60mm, PZ 0
1-739	Special hard plastic bit, blade 3 mm Ø, tip 3.0 x 0.5 mm	4-543	Cross-recess screwdriver as before, blade length 80 mm, size PZ 1
1-909	Engineer's mirror with extension, magnification, hollow mirror 23 mm Ø	4-603	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 1.5 mm
2-126	Desoldering lever, slotted on one end, nickel plated, with dissipative (ESD) black plastic handle	4-605	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.0 mm
2-127	Tin knife with plastic handle, 115 mm	4-606	Slotted screwdriver with dissipative handle and centering head, hardened over its full length, matt chrome-plated, 40 x 2.5 mm
2-132	Spring hook, nickel plated, insulated, 175 mm	4-607	Slotted screwdriver with dissipative handle, 50 x 3.0 mm
2-155	Claw-type gripper, nickel-plated, with 3 hardened wire claws, opening up to max. 12 mm, with clip	4-608	Slotted screwdriver with dissipative handle, 60 x 3.5 mm
2-161	Steel Scriber, Ø 7 mm, telescopic rod with magnetic lifter, 143-660 mm	4-621	Cross-recess screwdriver as before, size PH 000, blade length 40 mm
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm	4-622	Cross-recess screwdriver as before, size PH 00, blade length 40 mm
2-265-1	Test prod, red, 1 mm, extremely slim and flexible, fully insulated	4-623	Cross-recess screwdriver as before, size PH 0, blade length 50 mm
2-265-2	Test prod, black, 1 mm, extremely slim and flexible, fully insulated	4-624	Cross-recess screwdriver as before, size PH 1, blade length 60 mm
2-296	Hand magnifier with LED illumination, 3x magnification	5-0605	Universal stripping tool, handy plastic version with adjustable knives
2-601	IC-tweezers, nickel plated, 125 mm, for gripping, inserting and removing IC's	5-006	Component tweezers 145 mm, nickel-plated, with insulated jaws, for easy insertion and removal of plug-in transistors of various sizes
2-620	PLCC extractor for easy removal of plug-in PLCC's	5-049	SMD tweezers, 110 mm, straight, very sharply pointed, stainless
2-656	LED flashlight, made of plastic, black, waterproof and unbreakable, 143x19 mm	5-107	Engineer's tweezers, 150 mm, fine curved tips, fine serrated
3-133-16	Side cutters, 145 mm, for hard wire up to 1.3 mm Ø, for soft wire up to 4.0 mm Ø, chromium-plated, bicoloured hand guard	5-115	Heat dissipating tweezers, 165 mm, with flat, wide tips and copper jaws, nickel-plated
3-235-16	Telephone pliers with wire cutter, 160 mm, chrome plated, with bicoloured hand guard	5-117	Engineer's tweezers, 145 mm, straight, flat and wide tips, serrated
3-601-15	Side cutters CLASSICline 115mm, with slim, rounded head, semi flush, bicoloured hand guard, dissipative	5-161	Clamping scissors, 130 mm, stainless, with serrated gripping jaws
3-606-15	End cutters CLASSICline, 120 mm, with slim, pointed head, special flat cutting edge, cutting shape Flush, dissipative, bicoloured hand guard	5-191	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, straight, rounded tips, 2 mm wide
3-632-15	Flat nose pliers CLASSICline as before, 120 mm, with short and plain jaws, dissipative, bicoloured hand guard	5-194	Tweezers made of dissipative, black, glass fiber-reinforced plastic material, 120 mm, bent, pointed tips
3-633-15	Snipe nose pliers CLASSICline as before, 120 mm, with short and plain jaws	5-301	Special scissors for cutting sheet metal and wires, with serration, extremely slim, 110 mm, chrome-plated
3-732-16	Combination pliers, 165 mm, with wire cutter for hard wire, serrated jaws, lap joint, chrome-plated, bicoloured hand guard	6-104	Socket wrench, with multi-component handle, blade of chrome vanadium, chrome-plated, 5.0 mm A/F
4-344 VDE	Voltage tester 220-250 V, blade completely insulated, 110 x 3.5 mm	6-105	Socket wrench as before, 5.5 mm A/F
4-351	Offset screwdriver 100 x 4 mm, chrome vanadium, with plastic handle	6-107	Socket wrench as before, 7.0 mm A/F
4-504	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 100 x 5.5 mm	6-771	Adjustable wrench, chrome vanadium, 100 mm, jaw opening 0-13 mm
4-506	Slotted screwdriver as before with black tip, 125 x 6.5 mm	6-984 L	TORX screwdriver with multi-component handle, blade of chrome-vanadium, chrome-plated, with black tip, size T 9, with bore hole in the tip
4-508	Slotted screwdriver as before with black tip, 150 x 8.0 mm	6-985 L	TORX screwdriver as before, size T 10, with bore hole in the tip
4-522	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, chrome-plated, with black tip, 75 x 3.0 mm	6-986 L	TORX screwdriver as before, size T 15, with bore hole in the tip
		7-425	Dust brush, 177 mm, with white bristles, bristle width 25 mm





## DESCRIPTION

For easy transport the case has sturdy wheels and a fixed telescopic handle. The tools are kept in the designated pockets. The tool case is equipped with 2 tool panels and a document compartment in the lid. The case is equipped with a total of 61 tools. With its variable subdivisions, the case floor provides space for additional instruments, spare parts, soldering tools and other equipment. The case has 2 locks and is lockable.



Inside: 470 x 360 x 210 mm



with tool assortment: 8100 g  
without tool assortment, **rollable**: 9800 g



61 Tools



**7000 COMPACT MOBIL** with tool assortment, **rollable**  
**7015 COMPACT MOBIL** without tool assortment, **rollable**  
**7000 OR COMPACT MOBIL** with tool assortment  
**7015 OR COMPACT MOBIL** without tool assortment

FOR HIGHEST

DEMANDS





## ADJUSTING AND SETTING IN ELECTRONICS

A large number of electrical and electronic appliances or assemblies must be adjusted and set after the production process. Even when servicing, when fitting new components or when electrical values have altered owing to age, adjustment is usually necessary in order to restore the optimum functioning of the appliance. Although this should be reduced to a minimum by design measures and technological processes, in order to save costs and to attain a high degree of reliability, adjustment cannot be eliminated completely.

BERNSTEIN uses a high-quality, fully insulated plastic material with the trademark „BERNSTEINIT“, which is hard and flexible, for adjusting screwdrivers and keys. A material made from hard special plastic is available to satisfy the stringent requirements with regard to torsional strength. BERNSTEIN supplies adjusting screwdrivers and keys with inserts made from resilient hard bronze for cores which are especially difficult to remove. This material is true to size even in the smallest dimensions. Since it is only used as small cutting tips in conjunction with BERNSTEINIT material, detuning by the resilient hard bronze is virtually eliminated.

For the industrial adjustment and the work with Electrostatically endangered components, BERNSTEIN manufactures a variety of high-grade ceramic bits as well as tweezers with ceramic tips. These ceramic bits made from zirconium oxide (ZrO<sub>2</sub>) meet the highest standards due to their excellent mechanical, thermic and electrical features. The hardness and breaking strength of the material allows the fabrication and usage even in the smallest dimensions with the greatest possible resistance to wear and tear. BERNSTEIN ceramic bits are extremely resistant and show a low thermal conductivity. The blades are non-magnetic, anti-static and electrically insulating, the electric resistance is approx. 10<sup>10</sup> Ω/cm.

In addition to the types indicated in the catalogue, on request BERNSTEIN also manufactures special wanted dimensions or forms also in smaller quantities.

## ADJUSTING SCREWDRIVER

For all adjusting work which requires a slotted blade

### With blade tips made from special hard plastic

The screwdriver is flexible because of the plastic blade. The hard special plastic insert at the tip gives the blade an exceptional torsional strength.

No.	Total length mm	Blade-length mm	Blade Ø mm	Blade width mm	Weight g
1-151	85	40	3.0	3.0	3
1-152	85	40	4.0	4.0	3
1-153	175	130	3.0	2.0	4
1-154	175	130	4.0	3.0	5
1-155	175	130	5.0	3.5	6
1-156	175	130	5.0	4.0	6
1-157	225	180	4.0	3.0	6



1-150

Set screwdriver set  
7-piece as above  
**1-151 - 1-157** in  
clear insert pocket  
Weight: 75 g



## WITH METAL INSERTS

### MADE FROM RESILIENT HARD BRONZE

For special fixing cores or extremely small dimensions

Material: handle made of plastic, blades made from special plastic with bronze tips

No.	Total length mm	Blade-length mm	Blade Ø mm	Bronze mm	Weight g
1-301	200	155	2.7	1.4 x 0.5	4
1-302	200	155	2.7	2.0 x 0.5	4
1-303	200	155	2.7	2.5 x 0.5	4
1-304	200	155	2.7	1.7 x 0.7	4
1-305	125	80	2.4	1.1 x 0.5	3
1-306	125	80	2.4	1.7 x 0.7	3
1-307	125	80	2.4	2.0 x 0.5	3



1-300

Set screwdriver set  
7-piece as above  
**1-301 - 1-307** in  
clear insert pocket  
Weight: 70 g



# CERAMIC TOOLS

antistatic - antimagnetic - material: zirconium oxide

**1-750** Ceramic adjusting screwdrivers set  
13 pcs. in a box with hinged lid

**Content:** double-ended handle 1-735 and 12 ceramic bits, Weight: 90 g

No.	Blade length mm	Blade	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 SW	1
1-762	32		2.45 SW	1
1-765	32		KS Gr. 00	1
1-766	32		KS Gr. 0	1
1-767	32		2.40 x 0.80	1



## BITS FOR ADJUSTMENT SCREWDRIVER HANDLE

hard special plastic

No.	Blade length mm	Blade tip	Blade mm	Weight g
1-738	32		1.5 x 0.5	1
1-739	32		3.0 x 0.5	1

**1-725** Adjustment screwdriver handle,  
Adjustment screwdriver handle, with rotatable finger cap,  
for blades with 3 mm Ø  
blades not included

5

**1-735** Adjustment screwdriver handle,  
double-ended, for blades with 3 mm Ø  
blades not included

6



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		32		0.70 x 1.40	10 / 1
1-874	110		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





# SPECIAL TOOLS

No.	Description of individual tools	Length	Weight g	
2-265	Test prod, red, 1 mm, extremely slim, pointed and flexible, blade made from 1 mm steel wire, with banana plug connection, fully insulated, available in red (2-265-1) and black (2-265-2)	155 mm	9	
2-126	Desoldering lever, slotted on one end, nickel plated, with dissipative (ESD) black plastic handle	115 mm	10	
2-127	Tin knife with pointed, sharp blade, for cutting circuit paths, with plastic handle, 115 mm	115 mm	14	
2-128	Tin scraper with blade of sharp parting tool, shape for scraping off excess solder and solder bridges	115 mm	14	
2-101	Tin knife with ceramic blade for working at printed circuit boards, 105 mm long, handle from dissipative black plastic	105 mm	9	
2-113	ESD metal opener lifting tool, dissipation capacity approx. 109 Ohm, ideal for gentle opening of sensitive equipment		22	
2-145	Screwdriver with guide sleeve, for easy and accurate setting of spindle resistors and potentiometers, with slotted axles up to 3.2 mm Ø, nickel-plated blade, plastic handle	140 mm	12	
2-155	Claw-type gripper, nickel-plated, with 3 hardened wire claws, opening up to max. 12 mm, with clip	165 mm	49	
2-157	Flexible claw-gripper with 4 spring claws, to reach inaccessible places, nickel-plated, long version	600 mm	75	
2-161	Steel Scriber, Ø 7 mm, telescopic rod with magnetic lifter, 143 - 660 mm	146 mm	37	
2-163	Brass contact cleaner brush, Ø 4 mm, with rotary mechanism, plastic casing	120 mm	10	
2-164	Replacement brass brush insert for 2-163	40 mm	1	
2-165	Contact cleaner, brush form, with wire bristles, nickel-plated	35 mm	2	
2-166	Glass fibre contact cleaner brush with rotary mechanism, plastic casing, 120 mm	120 mm	10	
2-167/10	Replacement glass fibre inserts for 2-166, 10 pieces	40 mm	12	
2-168	Glass fibre contact cleaner brush, Ø 2 mm	135 mm	9	
2-169	Replacement glass fiber for 2-168	110 mm	1	
1-909	Engineer's mirror with extension, magnification, hollow mirror 23 mm Ø	145/ 260 mm	9	
1-978	Engineer's mirror as above, but extension handle with ground 6 mm screwdriver blade made of grey plastic	145/ 260 mm	9	
2-275	Repair mirror, stainless, magnifying, concave mirror, Ø 21 mm	180 mm	7	
2-282	Telescopic mirror with double hinge, can be swivelled in any position, nickel-plated, rubberized handle, mirror 23 mm Ø	150 bis 460 mm	21	
2-285	Inspection mirror with telescopic rod, double joint and LED illumination, Ø 26 mm, 360° rotatable, stainless steel handle	240 bis 645 mm	58	

NEW

No.	Description of individual tools	Length	Weight g
2-292	Plastic magnifying glass with biconvex lens, 45 mm Ø, magnification 3.25 times	70 mm	6
2-293	Hand magnifier, biconvex PXM light-weight lens with anti-static coating, 65 mm Ø, 3 x magnifications, plano-convex additional lens in the handle, 5 x magnifications	180 mm	52
2-296	Hand magnifier with LED illumination, high-coverage chrome surround, anthracite-coloured „soft-touch“ surface, acrylic lens with 3x magnification	120 mm	19
2-130	Spring hook set, 6-pcs., nickel-plated, for gripping and straightening, inserting and removing of tension and compression springs of various kinds, hooks can be screwed onto handle, in plastic wallet	205 mm	42
2-131	Spring hooks, nickel-plated, for inserting and removing of tension and compression springs	205 mm	10
2-132	Spring hook, nickel plated, insulated, 175 mm	175 mm	8
2-133	Spring hook with ring, nickel-plated, with insulation, for the inserting and removing of strong tension springs	195 mm	13
2-605	PLCC puller for lifting out plug-in PLCC's	135 mm	6
2-656	LED flashlight, made of plastic, black, waterproof and unbreakable, 143x19 mm	143 mm	40
2-620	PLCC extractor for easy removal of plug-in PLCC's	100 mm	22


**NEW**

## INSERTION TOOL

No.	Description of individual tools	Length	Weight g
2-701	Krone LSA-Plus insertion tool with sensor, wire connection without soldering, screwing and stripping, cutting the remaining length, all in one operation	185 mm	63


**NEW**

## MINIATURE TAPPING SET

No.	Description of individual tools	Pieces	Weight g
2-800	Miniature thread set M1.0 - M2.5 31 pcs. in plastic box. 2x hand thread drills (HGB) M1.0 - 1.1 - 1.2 - 1.4 - 1.6 - 1.8 - 2.0 - 2.2 - 2.5, 1 x cutting tool M1.0 - 1.1 - 1.2 - 1.4 - 1.6 - 1.8 - 2.0 - 2.2 - 2.5, 1x cutting iron holder, 2x reducing rings and 1x cutting edge adapter	31	200



PERFECT CUT!

WITH OUR PLIERS





## BERNSTEIN PLIERS

Our high quality blank steels are either hot forged in forging dies or laser cut. So we are able to achieve structural conditions which ensure quality and long lifetime for our final products.

According to our strict internal rules, we handle the production process with modern machines. Finally the pliers are oil hardened and the tips get an additional inductive hardening. Result is a hardness value of 63 - 65 HRC for the highest efforts.



# PLIER

## DESCRIPTION

### MATERIAL

Depending on model and technical requirements, we use high-alloyed tool steels or high grade ball bearing steel (chrome steel) from selected suppliers which fully comply with our needs.

### CONSTRUCTIONS

We manufacture electronic pliers with 4 different joint constructions depending on application and execution of the pliers series.

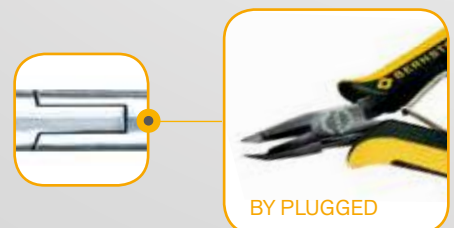
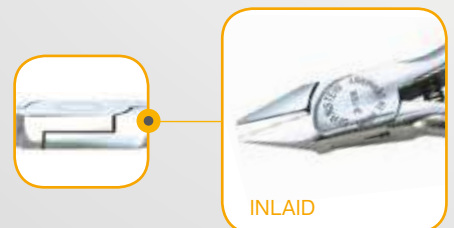
The simplest joint is the lay-on construction. Both pliers parts are simply riveted together. This execution is only for bigger sized pliers.

In case of the lap joint solution, both pliers joint planes are milled out, bedded together and subsequently riveted.

The most complex solution is the box joint construction. In a very special process the joint is made by sliding one pliers head through the under heated opened joint of the other pliers part. After that the joint is pressed together and tightened by a rivet. This construction ensures best parallel guidance of pliers' tips and an extremely long life time.

The highly precise manufactured joint planes of the screw joint construction provides an accurate jaw adjustment without backlash and a smooth friction free open-close movement. In combination with the basic hardness of the chrome vanadium ball bearing steel the screw system ensures a very high cutting capacity with a long life time.

Either a pressure or an interchangeable double leaf spring from stainless steel provides a smooth and equal open-close movement. The life time of all pliers can be extended by a drop of acid-free oil on the polished planes and in the joint.





## SURFACES

For several centuries we have developed surface characteristics for different applications and standards.

Those characteristics are protection against corrosion, hardness, wear and tear, break-offs, smoothness and surface roughness which are suitable for the specific applications and optimum operation results.

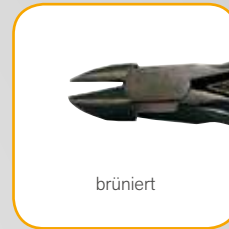
## WIRE CLASSES (N/mm<sup>2</sup> = tensile strength)

soft wire: copper, plastic, aluminium, 220 - 250 N/mm<sup>2</sup>

medium hard wire: nail, wire pin, 750 - 800 N/mm<sup>2</sup>

hard wire: steel wire, steel pin, 1600 - 1800 N/mm<sup>2</sup>

Piano wire: hardened spring wire, 2200 - 2300 N/mm<sup>2</sup>



brüniert



hochglanz stahlpoliert



feinpoliert and  
hochglanzbrüniert



reflektionsfrei

## CUTTING SHAPE AND CUTTING CAPACITY

The life time of the cutting tips depend among others on the sharpness. The sharper the tip (Full Flush) the faster the wear. For this reason, pliers in Semi Flush or Flush are preferable so far no Full Flush and shock reduced cut is necessary.

### SEMI FLUSH

applicable in case of hard and soft steel wires as well as for soft materials, e.g. copper wire; the cut leaves at the end of the wire a peak similar to a pyramid.

### FLUSH

nearly a flush cut with fine tips; applicable for soft steel wires and copper wire; cut slightly shock reduced; at the end of the wire only a small peak

### FULL FLUSH

cut absolutely flush; extremely sharp tips; exclusively for soft wires and copper wires; shock reduced cut; absolutely plane-parallel

### SPECIAL FLUSH

for cutting of glass fibre, Kevlar etc.

### HARD METAL EXECUTION

with inserted hard metal tips, for continuous heavy work, also for tough nickel and electrode wires



(Semi Flush)



(Flush)



(Full Flush)



(Special Flush)

# BLACKline

Made from quality steel, mirror polished, lap joint with dissipative dip insulation and double leaf spring.

The pliers of this program have been tested with great results according to DIN EN 61340-5-1, 61340-2-1 as well as 61340-2-3 for work in ESD protected areas.



## ESD ELECTRONIC PLIERS BLACKline

### CUTTING PLIERS

No.	Length mm	Headwidth mm	Cutting shape	Cutting capacity Draht Ø mm			Weight g
				soft	middle	hard	

#### Side cutters

with slim, rounded head

3-901-7	115	12	semi flush	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	12	flush	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	135	13	flush	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	13	flush	0.8	0.6	-	75
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3-901-7



3-902-7



3-905-7



3-906-7

## GRIPPING PLIERS

No.	Length mm	Headwidth mm	Finish	Weight g
<b>Round nose pliers with short jaws</b>				
3-931-7	120	12	plain jaws	70
<b>Flat nose pliers with short jaws</b>				
3-932-7	120	11	plain jaws	60
<b>Snipe nose pliers with short jaws</b>				
3-933-7	125	12	plain jaws	60
<b>Snipe nose pliers with long jaws, angular, slim model</b>				
3-945-7	145	13	serrated jaws	85



3-931-7



3-932-7



3-933-7



3-945-7

NEW



**3-960 VB**  
6-pcs. set consisting of:

4 ESD pliers from the BLACKline series  
2 ESD Tweezers

lined up on the ESD tool holder VARIO  
for mounting or hanging

**Content:** Side cutters Art. No. 3-901-7, End cutters Art. No. 3-906-7, Flat nose pliers Art. No. 3-932-7, Snipe nose pliers Art. No. 3-933-7, 2 ESD Tweezers, straight Art. No. 5-055-13 and curved Art. No. 5-078-13



3-960 VB

NEW



**3-960**  
ESD pliers set from the BLACKline series

ESD pliers in a dissipative bag with slip-in compartments, 4-pcs., with dissipative, black dip insulation; Content: Side cutters Art. No. 3-901-7, End cutters Art. No. 3-906-7, Flat nose pliers Art. No. 3-932-7, Snipe nose pliers Art. No. 3-933-7



3-960

# CLASSICline

Made from high quality tool steel, high gloss mirror polished, box joint, with dissipative ergonomically formed bicoloured hand guard and replaceable double leaf spring.

The pliers of this program have been tested with great results according to DIN EN 61340-5-1, 61340-2-1 as well as 61340-2-3 for work in ESD protected areas.



dissipative, ergonomically formed bicoloured hand guard



## ESD ELECTRONIC PLIERS CLASSICline 2.0

### CUTTING PLIERS

No.	Length mm	Head width mm	Cutting shape	Cutting capacity			Wire Ø mm	Weight g
				soft	middle	hard		

#### Side cutters

with slim, rounded head

3-601-15	115	11	semi flush	1.5	1.2	0.4	70
3-602-15	115	11	flush	1.5	1.2	-	70

#### Side cutters

with slim, pointed head and special flat cutting edge

3-603-15	115	11	semi flush	1.5	1.2	0.3	65
3-604-15	115	11	flush	1.5	1.2	-	65

#### End cutters

with angled tips 30° and oblique cutting edge

3-606-15	120	10.5	flush	0.8	0.6	-	55
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#### Oblique front cutter

Cutting surface angled 15°

3-625-15	120	10.5	flush	1.5	1.2	-	90
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#### Top cutters

17 mm wide cutting edge

3-627-15	120	10.5	flush	1.5	1.2	-	85
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3-601-15



3-602-15



3-604-15



3-604-15



3-606-15



3-625-15



3-627-15

## GRIPPING PLIERS

No.	Description	Length mm	Headwidth mm	Finish	Weight g
3-631-15	Round nose pliers	120	10	plain jaws	55
3-632-15	Flat nose pliers	120	9	plain jaws	60
3-633-15	Snipe nose pliers	120	10	plain jaws	60
3-634-15	Snipe nose pliers, 120 angular	120	10	plain jaws	60



3-631-15



3-632-15



3-633-15



3-634-15



### 3-650 V

5-pcs. set consisting of:

#### 5 pliers from the CLASSICline series

lined up on the ESD tool holder „VARIO“  
for mounting or hanging

**Content:** Side cutters Art. No. 3-601-15, Round nose pliers Art. No. 3-631-15, Flat nose pliers Art. No. 3-632-15, Snipe nose pliers Art. No. 3-633-15 and Snipe nose pliers, angular Art. No. 3-634-15

**Weight:** 750 g



3-650 V

NEW



### 3-960 VC

6-pcs. set consisting of:

#### 4 pliers from the CLASSICline series 2 ESD Tweezers

lined up on the ESD tool holder „VARIO“  
for mounting or hanging

**Content:** Side cutters Art. No. 3-601-15, End cutters Art. No. 3-606-15, Flat nose pliers Art. No. 3-632-15, Snipe nose pliers Art. No. 3-633-15, 2 ESD Tweezers, angled Art. No. 5-055-13 and straight Art. No. 5-078-13



3-960 VC

NEW



### 3-960 C

ESD pliers set from the CLASSICline series

ESD pliers in a dissipative bag with slip-in compartments, 4-pcs., with dissipative, bicoloured hand guard

**Content:** Side cutters Art. No. 3-601-15, End cutters Art. No. 3-606-15, flat nose pliers Art. No. 3-632-15, Snipe nose pliers Art. No. 3-633-15

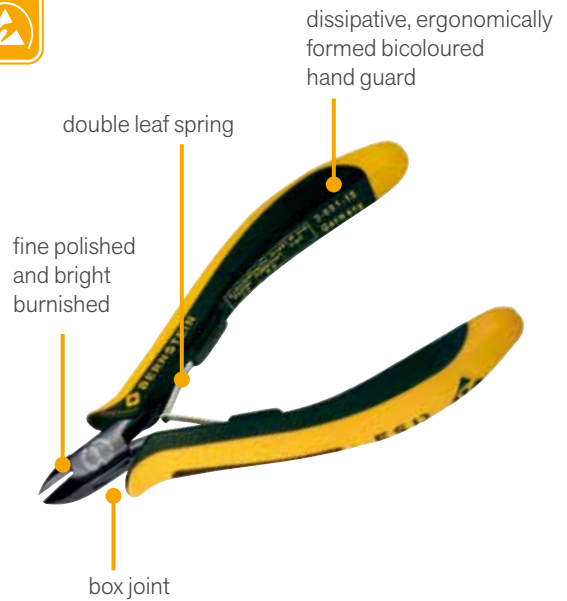


3-960 C



# EUROline

Made from high quality tool steel, fine polished and bright burnished, for dazzle free working, box joint, with dissipative ergonomically formed bicoloured hand guard and replaceable double leaf spring.



## ESD ELECTRONIC PLIERS EUROline

### CUTTING PLIERS

No.	Length mm	Head width mm	Finish	Cutting capacity			Weight g
				Wire soft	mm medium	Ø hard	

#### Mini side cutters

with very slim, rounded head for finest operations

<b>3-651-15</b>	120	10	flush	1.5	0.8	-	65
<b>3-651-15 DR</b>	120	10	flush	1.5	0.8	-	65

**with retaining spring**



3-651-15



3-651-15 DR

#### Mini side cutters

with very slim, pointed head for finest operations

<b>3-652-15</b>	120	10	flush	1.5	0.8	-	60
<b>3-653-15</b>	120	10	flush	1.5	0.8	-	60

**with special flat cutting edge**



3-652-15



3-653-15

#### Side cutters

with very slim, pointed head for finest operations

<b>3-654-15</b>	125	11	semi flush	1.5	1.0	0.4	70
<b>3-655-15</b>	125	11	flush	1.5	1.0	-	70



3-654-15



3-655-15

#### Side cutters

with slim, pointed head

<b>3-656-15</b>	125	11	semi flush	1.5	1.0	0.3	70
<b>3-657-15</b>	125	11	flush	1.5	1.0	-	70
<b>3-658-15</b>	125	11	full flush	1.5	0.6	-	70



3-656-15



3-657-15

## CUTTING PLIERS

No.	Length mm	Head width mm	Finish	Cutting capacity			Weight g
				Wire soft	mm medium	Ø hard	

### Side cutters

with rounded head

<b>3-668-15</b>	135	14	semi flush	2.0	1.5	0.7	110
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### Side cutters

with pointed head

<b>3-669-15</b>	135	14	flush	2.0	1.5	-	110
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### End cutters

Extremely slim, flush, for precision work at points difficult to reach

<b>3-671-15</b>	130	10	straight	0.8	0.6	-	65
<b>3-672-15</b>	130	10	cutting edge 20° angular	0.8	0.6	-	70

### Top cutters

extremely slim, flush, head 45° angular, for flush cutting directly in front of and behind the components

<b>3-673-15</b>	130	10	cutting edge insiden	0.8	0.6	-	60
<b>3-674-15</b>	130	10	cutting edge inside	0.8	0.6	-	60

### Oblique top cutters

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

<b>3-675-15</b>	115	10	flush	1.2	1.0	0.4	65
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No.	Length mm	Head width mm	Finish	Cutting capacity			Weight g
				Wire soft	mm hard	Ø piano	

### Carbide mini side cutters

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

<b>3-661-15</b>	120	11	semi flush, very slim, rounded head	2.0	1.0	0.6	70
<b>3-663-15</b>	120	11	flush, very slim pointed head with special flat cutting edge	1.8	0.8	0.4	65

### Carbide oblique top cutters

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

<b>3-667-15</b>	115	11	flush	2.0	1.0	0.6	65
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### Glass fibre mini side cutters

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

<b>3-665-15</b>	120	11	very slim rounded head, special flush				70
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3-668-15



3-669-15



3-671-15



3-672-15



3-673-15



3-674-15



3-675-15



3-661-15



3-663-15



3-667-15



3-665-15

## GRIPPING PLIERS

No.	Length mm	Head width mm	Finish	Weight g
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### Round nose pliers

extremely slim

3-681-15	130	10	short plain jaws	65
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### Flat nose pliers

extremely slim, short jaws

3-682-15	130	10	short plain jaws	70
3-688-15	130	9	short ultra slim plain jaws	60

### Flat nose pliers

extremely slim

3-683-15	130	10	short plain jaws	70
3-685-15	140	10	long plain jaws	70
3-686-15	140	10	long serrated jaws	70
3-687-15	130	10	short plain jaws, ultra slim pointed, for precise handling of tiny components	70
3-689-15	145	10	long plain jaws, angled	70



3-681-15



3-682-15



3-688-15



3-683-15



3-685-15



3-686-15



3-687-15



3-689-15

NEW



### 3-960 VE 6-pcs. set consisting of:

4 pliers from the EUROLINE series  
2 ESD Tweezers

lined up on the ESD tool holder VARIO  
for mounting or hanging

**Content:** Side cutters Art. No. 3-651-15, End cutters Art. No. 3-672-15,  
flat nose pliers Art. No. 3-682-15, flat nose pliers Art. No. 3-683-15,  
2 ESD Tweezers, straight Art. No. 5-055-13 and curved Art. No. 5-078-13



3-960 VE

NEW



### 3-960 E ESD pliers set from the EUROLINE series

ESD pliers in a dissipative bag with slip-in compartments, 4-pcs.,  
with dissipative, bicoloured hand guard:

**Content:** Side cutters Art. No. 3-651-15, End cutters Art. No. 3-672-15,  
flat nose pliers Art. No. 3-682-15, flat nose pliers Art. No. 3-683-15

Also available as **3-680** in a handy zipper case black dissipative artificial leather  
for highest quality requirements.



3-960 E

# TECHNICline

Made from high quality ball bearing steel (Chrome-steel) for extreme high efforts. The inductive hardened cutting edges achieve a value of 63 - 65 HRC. Precision joint with screw system - precise jaw adjustment.

Non-reflective surface for dazzle free working with dissipative ergonomically formed bicoloured hand guard and replaceable double leaf spring.

The pliers of this program have been tested with great results according to DIN EN 61340-5-1, 61340-2-1 as well as 61340-2-3 for work in ESD protected areas.



## ELECTRONIC PLIERS TECHNICline

### CUTTING PLIERS

No.	Length mm	Head width mm	Finish	Cutting capacity			Weight g
				Wire soft	mm medium	Ø hard	

#### Side cutters

with slim, rounded head

<b>3-961-15</b>	120	10	semi flush	1.3	0.8	0.5	75
<b>3-963-15</b>	120	10	ultra flush	1.3	0.7	-	75

#### Side cutters

with slim, pointed head

<b>3-964-15</b>	120	10	semi flush	1.2	1.0	0.5	75
<b>3-966-15</b>	120	10	ultra flush	1.0	0.8	-	75

#### Side cutters

with slim, pointed and relieved head

<b>3-967-15</b>	120	10	semi flush	0.8	0.6	-	75
<b>3-969-15</b>	120	10	ultra flush	0.8	-	-	75

#### Side cutters

with rounded head

<b>3-971-15</b>	125	12.5	semi flush	1.6	1.0	0.5	80
<b>3-973-15</b>	125	12.5	ultra flush	1.6	0.8	-	80
<b>3-974-15</b>	130	16	semi flush	3.0	2.5	1.1	85
<b>3-976-15</b>	130	16	ultra flush	2.5	2.0	-	85



3-961-15



3-963-15



3-964-15



3-966-15



3-967-15



3-969-15



3-971-15



3-974-15

No.	Length mm	Head width mm	Finish	Cutting capacity			Weight g
				Wire soft	mm medium	Ø hard	

### End cutters

with slim, pointed head, special fl at cutting edge and adjustable stop screw

3-981-15	135	10	ultra flush	0.8	0.6	-	80
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3-981-15



3-985-15

### Oblique top cutters

Cutting surface angled by 35 °, for flush cutting, for horizontal and vertical use.

3-985-15	130	10	flush	1.2	1.0	-	75
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3-985-15

### Wire lead catcher for side cutters (to retrofit)

3-999-1	3-961-15 to 3-969-15 ( 10 mm head width )						9
3-999-2	3-971-15 to 3-973-15 ( 12.5 mm head width )						9

## GRIPPING PLIERS

### Round nose pliers

extremely slim

3-991-15	130	10	short plain jaws				75
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3-992-15



3-991-15

### Flat nose plier

extremely slim

3-992-15	130	10	short plain jaws				75
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### Snipe nose plier

extremely slim

3-996-15	140	10	short plain jaws				80
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3-996-15

NEW



**3-960 VT**  
6-pcs. set consisting of:

**4 pliers from the TECHNICline series**  
**2 ESD Tweezers**

lined up on the ESD tool holder VARIO for mounting or hanging

**Content:** Side cutters Art. No. 3-963-15, End cutters Art. No. 3-981-15, Flat nose pliers Art. No. 3-992-15, Snipe nose pliers Art. No. 3-996-15, 2 ESD Tweezers, straight Art. No. 5-055-13 and curved Art. No. 5-078-13



3-960 VT



NEW



### 3-960 T ESD pliers set from the TECHNICline series

ESD pliers in a dissipative bag with slip-in compartments, 4-pcs., with dissipative, bicoloured hand guard;  
Content: Side cutters Art. No. 3-963-15, End cutters Art. No. 3-981-15, Flat nose pliers Art. No. 3-992-15, Snipe nose pliers Art. No. 3-996-15



3-960 T

NEW



### 3-970 T ESD pliers set from the TECHNICline series

ESD pliers in a dissipative bag with slip-in compartments, 4-pcs., with dissipative, bicoloured hand guard;  
Content: Side cutters Art. No. 3-963-15, Side cutters Art. No. 3-971-15, Flat nose pliers Art. No. 3-992-15, Snipe nose pliers Art. No. 3-996-15



3-970 T



### 3-970 ESD pliers set from the TECHNICline series

4-pcs. set of dissipative pliers from the series TECHNICline in a handy zipper case made from black dissipative artificial leather for the highest quality demands

Content: Side cutters Art. No. 3-963-15, Side cutters Art. No. 3-971-15, Flat nose pliers Art. No. 3-992-15, Snipe nose pliers Art. No. 3-996-15



3-970

## TELEPHONE PLIERS

Our pliers are characterized by the following features: quality steel, matt chromium-plated, lap joint, with bicoloured hand guard.

No.	Length mm	Head width mm	Finish	Weight g
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### Telephone pliers

oval pointed, short jaws, cutting edge for hard wire

3-225-16	145	13	serrated jaws	115
3-235-16	160	13	serrated jaws	150

### Telephone pliers

oval pointed, long straight jaws, with cutting edge for hard wire

3-245-16	200	18	serrated jaws	195
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### Telephone pliers

oval pointed, bent long jaws, with cutting edge for hard wire

3-255-16	200	18	serrated jaws	185
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## FLAT AND ROUND NOSE PLIERS

No.	Length mm	Head width mm	Finish	Weight g
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### Round nose pliers with long jaws

3-522-16	140	14	serrated jaws	135
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### Flat nose plier with long jaws

3-531-16	140	14	serrated jaws	105
3-532-16	160	15	serrated jaws	130



## SIDE CUTTERS

No.	Length mm	Head width mm	Finish	Cutting capacity Wire Ø mm			Weight g
				soft	medium	hard	

### Side cutters

Swedish form

3-132-16	130	17	chrome plated	3.0	2.0	1.0	135
3-133-16	145	18	chrome plated	4.0	2.5	1.3	165

### Side cutters

with stripping prism for single-core and multi-core wire 1.5 and 2.5 mm<sup>2</sup>

3-135-16	175	22	chrome plated	4.0	2.5	1.3	165
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### Power side cutters

powerful, handy model, with excellent cutting capacity for steel wire, special steel (lay-on joint)

No.	Length mm	Head width mm	Finish	Weight g
3-141-16	145	21	chrome plated	175
3-142-16	160	23	chrome plated	245



## COMBINATION AND ADJUSTMENT PLIERS

No.	Length mm	Head width mm	Finish	Weight g
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### Combination pliers

with wire cutter for hard wire

3-732-16	165	23	chrome plated	205
3-733-16	180	25	chrome plated	245



### Adjusting pliers

straight, flat and wide

3-335-16	135	13	chrome plated	95
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### Adjusting pliers

straight, pointed nose

3-345-16	135	13	chrome plated	95
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## WIRE STRIPPERS

Lap joint - bicoloured hand guard

No.	Length mm	Head width mm	Finish	Weight g
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### „Record“ wire strippers

Spring system enables safe working with automatic adjustment to the wire size. Easy to use: insert wire - close pliers - remove insulation

3-805-16	160	-	for wire thicknesses from 0.5 to 5 mm Ø nickel-plated	180
3-805-10			replacement blade	



### Wire strippers with adjusting screw

for all wire thicknesses, with opening spring

3-815-16	155	-	chrome plated	170
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# SIDE CUTTERS, TELEPHONE- AND COMBINATION-PLIERS



lap joint, bright polished, chrome plated, with dissipative black hand guard

No.	Length mm	Head width mm	Finish	cutting capacity			Weight g
				Wire soft	mm medium	Ø hard	
<b>Side cutters</b>							
Swedish form							
3-133-13	145	19	special steel	4.0	2.5	1.3	165
<b>Telephone pliers</b>							
snipe nose, long straight jaws, with wire cutter for hard wire							
3-245-13	200	18	serrated jaws				195
<b>Combination pliers</b>							
with wire cutter, for hard wire							
3-732-13	165	23	serrated jaws				185



3-133-13



3-245-13



3-732-13

NEW

## ESD SPECIAL-PLIER

For gripping round screw heads. Optimal for opening defective screw connections.

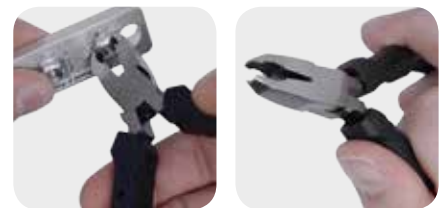
No.	Length mm	Head width mm	Finish	Weight g
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### ESD special combination plier

3-734-13	120	12	ESD special combination plier, 120 mm, polished, dissipative handles	90
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3-734-13



NEW

## WATER PUMP PLIER

with Push-Button

No.	Length mm	Finish	Weight g
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### Water pump plier

3-573	180	Water pump pliers 180 mm, with push button, extra slim head to access places difficult to reach, slip-resistant hand grips	180
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3-573



## WATER PUMP PLIER

No.	Length mm	Finish	Weight g
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### Water pump pliers

3-575-6	240	- nickel-plated, with red insulation	380
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3-575-6

## PRESSING PLIERS

Lay-on joint, carbon steel

No.	Length mm	Finish	Weight g
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### Pressing pliers for multicore cable end

combined with cable cutter and stripping-prism, for different cable dimensions for sleeves of 0.25 – 2.5 mm<sup>2</sup>

3-871-6	155	nickel-plated, with red insulation	165
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3-871-6

### Pressing pliers for multicore cable end

combined with cable cutter and stripping-prism, for different cable dimensions for sleeves of 0.50 – 16.0 mm<sup>2</sup>

3-875-6	225	nickel-plated, with red insulation	285
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3-875-6

## CUTTING TOOLS

No.	Length mm	Finish	Weight g
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### Cable cutters

especially for coaxial cable, robust execution with closed lock, for cable up to 10.5 mm Ø

3-0648	160	burnished, isolated	150
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3-0648

### Electronics side cutters

with spring, without side face, for CU-wires up to 1.0 mm Ø

3-0641	130	burnished, isolated	70
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3-0641

### Stripping side cutters

standard-execution, without side face, with spring, for CU-wires up to 0.8 mm Ø

3-0645	125	burnished, isolated	60
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3-0645



# CRIMPING PLIERS FOR MODULAR CONNECTORS

No.	Length		Finish	Weight g
	mm	inch		

**Crimping pliers solid metal type,**  
with interchangeable blades, spring and closed lock, for cutting, cable stripping and crimping of the most current connector types

3-0601	190	7 1/2"	4P4C / 4P2C	215
3-0603	200	8"	8P8C / RJ-45	260

## Combination-Crimping Pliers

solid metal pliers, interchangeable blades, opening spring and locking device, for cutting, cable stripping and crimping

3-0605	200	8"	6P6C, 6P4C, 6P2C, 8P, 8C	320
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## Universal crimping pliers

light execution, ergonomically formed plastic casing, for cutting, cable stripping and crimping

3-0609	200	8"	4P4C, 4P2C, 7.65 mm 6P6C / RJ-12, 6P4C / RJ-11, 9.65 mm, 8P8C / RJ-45, 11.68 mm, DEC 6P6C	520
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**Replacement blades** 4 blades for stripper and 2 blades for cutter  
3-609-00 1 Set blades

## Crimping pliers

For BNC and TNC coaxial connectors, with forced lock and automatic release, suitable for internal contacts and external sleeves

Pressing range	Crimping length	Inside-Ø
Hexagon for all internal contacts	2.3 mm	.068" 1.73 mm
small hexagon for RG 58	10.0 mm	.213" 5.41 mm
middle hexagon for RG 59/62	10.0 mm	.256" 6.50 mm
large hexagon for RG 6	10.0 mm	.319" 8.10 mm

3-0611	220	8 3/4"	burnished, isolated	530
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## Crimp tool

for insulated and uninsulated terminals

3-0856	230	9 1/4"	black-isolated	295
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## Automatic crimping pliers

with ratchet mechanism for crimping of insulated terminals

3-0612	220	8 3/4"	0.5 - 1.0 / 1.5 - 2.5 / 4 - 6 mm <sup>2</sup> (AWG 22 - 18 / 16 - 14 / 12 - 10)	520
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3-0601



3-0605



3-0609



3-0611



3-0856



3-0612

# STRIPPING TOOLS

No.	Length		Workspace / Finish	Weight g
	mm	inch		



### 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 - 6.0 mm <sup>2</sup> stripping length 5 mm crimping ranges for terminals: 0.5 - 2.5 und 4.0 - 6.0 mm <sup>2</sup> cutting capacity of the side cutters max. 6.0 mm <sup>2</sup> , conductors max. 4.0 mm <sup>2</sup>	115
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### Stripping tool Data-Strip

for stripping of data cord, telephone wire, control lines and special purpose cables

5-533	125	5"	data cord Ø 4 - 10 mm control lines Ø 0.2 - 0.8 mm adjustable inner knife 0.2 - 1.4 mm Side cutters up to 8 mm Ø (solid conductor up to 2 mm Ø)	60
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### Coaxial 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"	Coaxial cable from 4.8 - 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
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# STRIPPING TOOLS

No.	Length		Workspace / Finish	Weight g
	mm	inch		

## Round cable stripper

with ergonomically shaped handles, no adjustment of the cutting depth necessary, also for places where access is difficult, for example ceiling or wall area, in branch and distribution boxes, control cabinets, etc.



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

for precise, fast and safe stripping of all standard round cables of 4 - 28 mm Ø, cutting depth adjustment by adjusting screw at the end of the handle, the rotating inner knife automatically changes from round- to longitudinal cut.

The types 5-502 and 5-507 have an additional stripping function in the knife or a retractable hook blade.



5-502	145	5 3/4"	with stripping function	Ø 4 - 28 mm	61
5-507	145	5 3/4"	hook blade retractable	Ø 4 - 28 mm	72



## Swivel-blade cable strippers

for precise, fast and safe stripping of all standard round cables of 4 - 28 mm Ø, cutting depth adjustment by adjusting screw at the end of the handle, the rotating inner knife automatically changes from round- to longitudinal cut.



5-503	140	5 3/4"	without blade	Ø 8 - 28 mm	92
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# STRIPPING TOOLS

No.	Length		Workspace / Finish	Weight g	
	mm	inch			
	140	5 3/4"	without blade	Ø 4 - 16 mm	84
	185	6 3/4"	with hook blade	Ø 4 - 28 mm	98
	180	7"	with straight blade	Ø 4 - 28 mm	85



## Automatic wire stripper „Super“

fully insulated automatic wire stripper for all common stranded and solid conductor 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
5-531-10			spare blades	



FOR EACH SCREW

THE PERFECT BLADE







## BERNSTEIN SCREWDRIVERS

EUROline Power series covers the main common screwdriver applications. Particularly for the demand in the electronics the different kinds of screw heads can be served with the ESD screwdriver solutions.

# ESD PLUG-IN SCREWDRIVER SETS



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

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

## 4-920 Interchangeable screwdriver set with ESD handle, 9-pcs.

**Content:** 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 (from T 7 with hole)

**Weight:** 190 g

## 4-960 Interchangeable screwdriver set with ESD handle, 11-pcs.

**Content:** ESD-handle  
 2 Slotted blades 1,5 / 3,0 mm, 2,5 / 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 (from T 7 with 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, fully hardened, matt chromium-plated, 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	Thickness mm	Handle size mm	Weight g
4-632	100	4.0	0.8	92 x 21	40
4-633	125	5.5	1.0	100 x 23	65



4-633

### Cross-recess screwdrivers PH

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



4-653

### Cross-recess screwdrivers PZ

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

### Tri Wing screwdrivers

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



4-644

# SCREWDRIVER AND SOCKET WRENCHES FOR ELECTRONICS

With slim, ergonomically formed handles made of dissipative plastic.  
The rotatable centering head guarantees precision without exhaustion.

Blade: high grade chrome molybdenum steel, hardened over its full length, matt chrome-plated  
Handle: black precision handle with yellow centering head, surface resistance  $10^6 - 10^9$  Ohm  
Standards: IEC 61340-5-1

## Slotted screwdriver

No.	Blade-length mm	Blade-width mm	Blade-thickness mm	Blade Ø mm	Handle length mm	Weight g
4-603	40	1.5	0.25	2.0	80	11
4-605	40	2.0	0.40	2.0	80	11
4-606	50	2.5	0.40	2.5	95	17
4-607	50	3.0	0.50	3.0	95	18
4-608	60	3.5	0.60	3.5	110	26
4-609	60	4.0	0.80	4.0	110	28



## Cross-recess screwdriver PH

No.	Size	Blade-length mm	Blade Ø mm	Handle length mm	Weight g
4-621	PH000	40	2.0	80	10
4-622	PH00	40	2.0	80	11
4-623	PH0	50	3.0	95	18
4-624	PH1	60	4.0	110	28



## Cross-recess screwdrivers PZ

No.	Size	Blade-length mm	Blade Ø mm	Handle length mm	Weight g
4-626	PZ1	60	4.0	110	28



## Wrench Keys

No.	A/F mm	Blade length mm	Handle length mm	Weight g
6-631	0.7	40	80	10
6-632	0.9	40	80	11
6-633	1.3	40	80	12
6-634	1.5	50	95	16
6-635	2.0	50	95	17
6-636	2.5	60	110	22



## Pentalob screwdrivers

No.	Size	Blade length mm	Handle length mm	Weight g
6-721	1	40	80	8
6-724	4	40	80	8



SCREWDRIVERS

NEW

# ELECTRONIC SCREWDRIVERS



With slim, ergonomically formed handles from black dissipative plastic.  
The rotatable centering head guarantees a precise working without exhaustion.

Blade: high grade chromium molybdenum steel  
hardened over its full length, matt chrome-plated

Handle: black precision handle with yellow centering head  
surface resistance  $10^6 - 10^9$  Ohm

Standard: IEC 61340-5-1

Application: For all operations at Electrostatically endangered components

## TORX-screwdriver

L = with bore-hole in the tip



No.	Size mm	Blade length mm	for metric thread	Blade Ø mm	Handle length mm	Weight g
6-656	T1	40	M 0.9	2.5	80	13
6-657	T2	40	M 1.0-1.2	2.5	80	13
6-658	T3	40	M 1.2-1.4	2.5	80	13
6-659	T4	40	M 1.4-1.6	2.5	80	13
6-661	T5	40	M 1.6-2	2.5	80	13
6-662	T6	40	M 2	2.5	80	13
6-663 L	T7	50	M 2.5	3.5	95	13
6-664 L	T8	50	M 2.5	3.5	95	13
6-665 L	T9	50	M 3	4.0	110	19
6-666 L	T10	60	M 3-3.5	4.0	110	19

TORX-screwdrivers



## TORX Plus screwdriver



No.	Size mm	Blade length mm	Blade Ø mm	Handle length mm	Weight g
6-701	4IP	40	2.5	80	13
6-702	5IP	40	2.5	80	13
6-703	6IP	40	2.5	80	13
6-704	7IP	40	2.5	80	13
6-705	8IP	40	2.5	80	13
6-706	9IP	50	3.0	95	19
6-707	10IP	50	3.0	95	19
6-708	15IP	60	3.5	110	26

TORX Plus - screwdrivers



## Socket wrenches



No.	Size mm	Blade length mm	Blade Ø mm	Handle length mm	Weight g
6-611	1.5	60	2.5	95	12
6-612	2.0	60	2.9	95	12
6-613	2.5	60	4.0	95	25
6-614	3.0	60	5.0	95	25
6-616	3.5	60	5.3	95	26
6-617	4.0	60	5.5	95	26
6-618	4.5	60	6.2	95	27
6-619	5.0	60	6.8	95	28
6-621	5.5	60	7.6	110	31

Socket wrenches



# ELECTRONIC SCREWDRIVER SETS

With slim, ergonomically formed handles from black dissipative plastic.  
The rotatable centering head guarantees precision without exhaustion.

Blade: high grade chromium molybdenum steel hardened over its full length, matt chrome-plated  
Handle: black precision handle with yellow centering head surface resistance  $10^6 - 10^9$  Ohm

## 4-610 6-pcs. slotted screwdriver set

in a practical plastic holder for **mounting** or **hanging**

Content: 6 Slotted screwdrivers 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm  
Weight: 111 g

## 4-620 6-pcs. slotted screwdriver & cross-recess screwdriver set

in a practical plastic holder for **mounting** or **hanging**

Content: 1.5 mm, 2.0 mm, 3.0 mm and PH000, PH00, PH0  
Weight: 78 g

## 6-630 6-pcs. wrench key set

in a practical plastic holder for **mounting** or **hanging**

Content: 6 socket wrenches 0.7 mm, 0.9 mm, 1.3 mm, 1.5 mm, 2.0 mm, 2.5 mm  
Weight: 88 g

SCREWDRIVERS



4-610



4-620



6-630

# EXTRA LONG TORX-SCREWDRIVERS

with dissipative special-square pattern handle



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



**6-610 6-pcs. socket wrench set**

in a practical plastic holder for **mounting** or **hanging**

**Content:** 6 socket wrenches 2.0 mm, 3.0 mm, 4.0 mm, 4.5 mm, 5.0 mm, 5.5 mm

**Weight:** 148 g

**6-660 6-pcs. TORX -screwdriver set**

in a practical plastic holder for **mounting** or **hanging**

**Content:** 6 TORX-screwdrivers T5, T6, T7 with hole, T8 with hole, T9 with hole, T10 with hole


**Weight:** 90 g



6-610



6-660

 **5-090-0 ESD-tool holder VARIO**

Metal housing with dissipative black surface. Optimal for wall fastening or simple placing on the workbench with an individually tailored set of electronic pliers, tweezers and electronic screwdrivers.

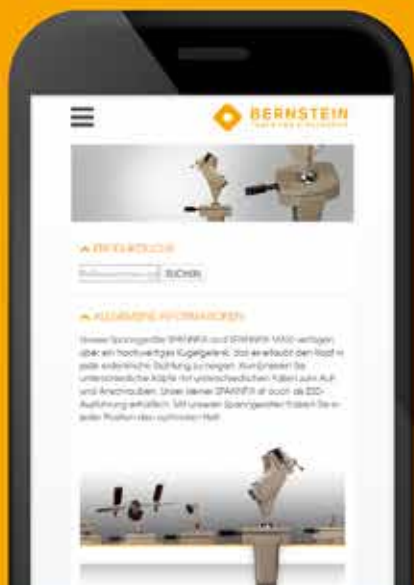
Maximum capacity:

- approx. 6 electronic pliers**  
of the series TECHNICline, EUROLline or CLASSICline or
- 8 ESD electronic screwdrivers**  
with slim ergonomically formed handles or
- approx. 8 ESD tweezers**  
for the SMD-Technique or an individually mixed set  
(Composed sets for pliers=3-650 V  
and for tweezers=5-090 V and 5-190 V)



5-090-0  
without tools

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# ESD TOOL HOLDER VARIO

With the ESD tool holder **VARIO** your tools are always ready to be used. Pliers, tweezers or screwdriver - suitable for everything! The sturdy tool holder made of multi-bent 1 mm thick steel sheet has been designed for several applications. On the upper edge, limited by two stoppers left and right, tweezers and pliers can be placed securely and easily to handle. The 8 long holes on the front of the tool holder are ideal to insert our electronic screwdrivers. Recesses on the back hold each screwdriver in the optimal position. The high-quality black ESD coating is corresponding to the optimum target between  $10^6$  and  $10^9$  Ohm and is suited ideally for working in EPA protected areas. Two holes on the back allow the tool holder to be fasten to the wall.



**NEW**



**4-610 VC**  
8-pcs. set consisting of:

- 6 Slotted screwdrivers
- 1 Side cutters
- 1 ESD Tweezers

lined up on the ESD tool holder VARIO for mounting or hanging

**Content:** 6 Slotted screwdrivers 1.5 mm, 2.0 mm, 2.5 mm, 3.0 mm, 3.5 mm, 4.0 mm, 1 Side cutters, Art. No. 3-604-15,  
1 ESD Tweezers, sickle-shaped, very sharply pointed Art. No. 5-055-13  
**Weight:** 590 g



4-610VC

**NEW**



**4-620 VC**  
8-pcs. set consisting of:

- 3 Slotted screwdrivers
- 3 Cross-recess screwdrivers
- 1 Side cutters
- 1 ESD Tweezers

lined up on the ESD tool holder VARIO for mounting or hanging

**Content:** 3 Slotted screwdrivers 1.5 mm, 2.0 mm, 3.0 mm  
3 Cross-recess screwdriver PH000, PH00, PH0  
1 Side cutters Art. No. 3-604-15, 1 ESD Tweezers, sickle-shaped, very sharply pointed Art. No. 5-055-13  
**Weight:** 545 g



4-620VC

NEW



6-610 VC

8-pcs. set consisting of:

6 Socket wrenches

1 Side cutters

1 ESD Tweezers

lined up on the ESD tool holder VARIO  
for mounting or hanging

**Content:** 6 Socket wrenches 2,0 mm, 3,0 mm, 4,0 mm, 4,5 mm, 5,0 mm, 5,5 mm  
1 Side cutters Art. No. 3-604-15, 1 ESD Tweezers, sickle-shaped, very  
sharply pointed Art. No. 5-055-13

**Weight:** 575 g



6-610 VC

NEW



6-630 VC

8-pcs. set consisting of:

6 Hexagon wrenches

1 Side cutters

1 ESD Tweezers

lined up on the ESD tool holder VARIO  
for mounting or hanging

**Content:** 6 Hexagon wrenches 0.7 mm, 0.9 mm, 1.3 mm, 1.5 mm  
2.0 mm, 2.5 mm, 1 Side cutters Art. No. 3-604-15,  
1 ESD Tweezers, sickle-shaped, very sharply pointed Art. No. 5-055-13

**Weight:** 555 g



6-630 VC

NEW



6-660 VC

8-pcs. set consisting of:

6 TORX-Screwdrivers

1 Side cutters

1 ESD Tweezers

lined up on the ESD tool holder VARIO  
for mounting or hanging

**Content:** 6 TORX-Screwdrivers T5, T6, T7 with hole, T8 with hole, T9 with hole,  
T10 with hole, 1 Side cutters Art. No. 3-604-15, 1 ESD Tweezers,  
sickle-shaped, very sharply pointed Art. No. 5-055-13

**Weight:** 555 g



6-660 VC

# SCREWDRIVER EUROLiNE-POWER

with ergonomic multi-component handle

Blade: chrome vanadium, whole length hardened,  
chrome plated, with black tip

Handle: impact resistant, bicoloured and multicomponent,  
with anti-slip protection and practical hanging up hole

## Workshop screwdrivers



No.	Blade-length mm	Blade-width mm	Blade-thickness mm	Handle size mm	Weight g
4-504	100	5.5	1.0	107 x 27	62
4-506	125	6.5	1.2	114 x 32	93
4-508	150	8.0	1.2	121 x 35	141
4-509	200	10.0	1.6	121 x 35	170



4-504

## Electrician's screwdrivers



No.	Blade-length mm	Blade-width mm	Blade-thickness mm	Handle size mm	Weight g
4-521	75	2.5	0.4	100 x 21	26
4-522	100	3.0	0.5	100 x 21	27
4-523	100	4.0	0.8	100 x 21	36
4-524	150	5.0	1.0	107 x 27	74
4-525	200	5.5	1.0	107 x 27	80



4-521

## Cross-recess screwdrivers



No.	Size	Blade-length mm	Blade-Ø mm	Handle size mm	Weight
4-532	0	60	3.0	100 x 21	28
4-533	1	80	4.5	107 x 27	55
4-534	2	100	6.0	114 x 32	90
4-535	3	150	8.0	121 x 35	160



4-532

## Cross-recess screwdrivers Pozidriv



No.	Size PZ	Blade-length mm	Blade-Ø mm	Handle size mm	Weight g
4-542	0	60	3.0	100 x 21	28
4-543	1	80	4.5	107 x 27	55
4-544	2	100	6.0	114 x 32	90
4-545	3	150	8.0	121 x 35	162



4-542



## TORX-Screwdriver

L = with bore hole in the tip



No.	Size	Blade-length mm	for metric thread	Handle size mm	Weight g
6-979	T 5	55	M 1.6 - 2	100 x 21	25
6-981	T 6	65	M 2	100 x 21	29
6-982 L	T 7	65	M 2.5	100 x 21	29
6-983 L	T 8	75	M 2.5	100 x 21	29
6-984 L	T 9	75	M 3	100 x 21	29
6-985 L	T 10	85	M 3-3.5	100 x 21	32
6-986 L	T 15	85	M 3.5-4	100 x 21	34
6-987 L	T 20	100	M 4-5	100 x 21	35
6-988 L	T 25	100	M 4.5-5	107 x 27	57
6-989 L	T 27	105	M 4.5-5-6	107 x 27	63
6-991 L	T 30	105	M 6-7	114 x 32	90



6-979

## Wrenches long

No.	Size	Blade-length mm	Handle size mm	Weight g
6-101	3.0	125	100 x 21	47 g
6-102	4.0	125	100 x 21	49 g
6-104	5.0	125	100 x 21	50 g
6-105	5.5	125	100 x 21	50 g
6-106	6.0	125	100 x 21	61 g
6-107	7.0	125	100 x 21	78 g
6-108	8.0	125	107 x 27	102 g



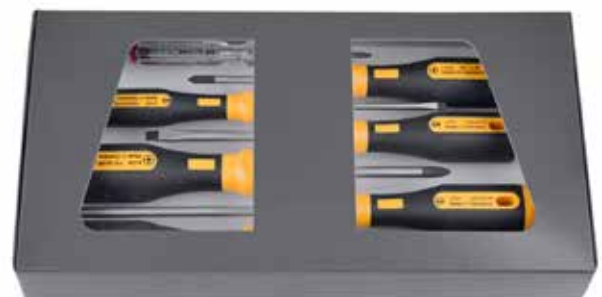
6-101

4-530

### 7-piece screwdriver set from the series EUROline-Power visible packed in a carton box

Content: 1 Slotted screwdrivers 100 x 5.5 mm, 125 x 6.5 mm  
1 Slotted screwdrivers 100 x 4.0 mm, 150 x 5.0 mm  
1 Cross-recess screwdriver PH1 and PH2  
and 1 voltage tester, 60 x 3.0 mm

Weight: 520 g



4-530

# SCREWDRIVER

## Screwdriver extra short

Blade: chrome vanadium, nickel-plated with black tip  
 Handle: impact-resistant, two-coloured plastic



No.	Size PH	Blade-length mm	Blade-Ø mm	Handle size mm	Weight g
4-261	01	25	4.5	55 x 30	30
4-262	02	25	6.0	55 x 30	35



4-261

No.	Blade-length mm	Blade-width mm	Blade-thickness mm	Handle size mm	Weight g
4-321	25	4.0	0.8	55 x 30	30
4-322	25	6.5	1.2	55 x 30	35



4-321

## Miniature screwdriver

Blade: special steel nickel-plated  
 Handle: black plastic



4-301	40	1.8	0.5	45 x 9	3
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4-301

## Screwdriver for headless screws

Blade: Chrome vanadium, nickel-plated  
 Handle: impact resistant, black plastic



4-311	80	2.8	0.6	60 x 11	12
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4-311

## Installation screwdriver

Blade: special steel, nickel-plated  
 Handle: impact resistant, bicoloured and multicomponent, with anti-slip protection and practical hanging up hole



4-331	65	6.0	1.0	100 x 21	40
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4-331

## VDE voltage tester 220 - 250 V. DIN VDE 0426 part 6:1977-04



Blade: chrome-vanadium, nickel-plated, completely insulated  
 Handle: transparent plastic

4-343 VDE	60	3.0	0.7	76 x 15	15
4-344 VDE	110	3.5	0.7	92 x 18	31



4-343 VDE

## Offset screwdriver

Material: chrome vanadium, nickel-plated, plastic handle



No.	Total-length mm	Blade-width mm	Blade-thickness mm	Blade-Ø mm	Weight g
4-351	100	4.0	0.65	4.5	12

## 4-820 60-piece miniature screwdriver stand

Content: 60 screwdrivers with tool steel blades, 40 x 1.8 mm and transparent yellow plastic handles  
 Weight: 235 g



4-820

# WATCHMAKER'S SCREWDRIVERS

## Watchmaker's screwdrivers

Blade: chrome vanadium, burnished  
 Handle: metal, nickel-plated, with swivel top

No.	Blade length mm	Blade width mm	Total length mm	Weight g
4-371	14	1.0	85	7
4-372	18	1.5	90	7
4-373	21	2.0	105	18
4-374	24	2.5	108	18
4-375	24	3.0	120	37
4-376	27	3.5	123	38



4-373

## Cross-slot watchmaker's screwdrivers

Blade: Chrome-vanadium, burnished  
 Handle: metal, nickel-plated, with swivel cap

No.	Size PH	Blade length mm	Total length mm	Weight g
4-364	000	21	92	9
4-366	00	21	92	23
4-367	0	21	105	33
4-368	1	21	117	37



4-366

### 4-360 3-piece watchmaker's screwdriver set in a plastic wallet

Content: 2 watchmaker's screwdrivers No. 4-372 + 4-374,  
 1 cross-recess watchmaker's screwdriver No. 4-367  
 Weight: 360g



4-360

### 4-365 3-piece watchmaker's screwdriver set in a plastic wallet

Content: 3 cross-recess watchmaker's screwdrivers  
 PH00, PH0 + PH1  
 Weight: 100g



4-365

### 4-379 6-pcs. watchmaker's screwdriver set in plastic wallet

Content: slotted blade 1.0-1.5-2.0-2.5-3.0-3.5 mm,

### 4-370 6-pcs. watchmaker's screwdriver set in a metal box

Content: 6-pcs. watchmaker with cross recess, 1.0 mm,  
 1.0-2.0-2.5-3.0-3.5 mm  
 Weight: 165g



4-379

**Watchmaker's screwdriver, slot blade**

Blade: chrome-Vanadium, burnished  
 Handle: black plastic, with rotatable finger cap and colour coding

No.	Blade length mm	Blade width mm	Total length mm	Weight g
4-381	18	1.0	104	5
4-382	18	1.4	104	6
4-383	18	1.8	104	6
4-384	18	2.3	104	6
4-385	18	3.0	104	6



**4-380 5-piece Watchmaker's screwdriver**  
 in plastic box

Content: 5 Watchmaker screwdrivers No. 4-381 - 4-385,  
 Weight: 64g

4-380

**Magazine-Watchmaker's Screwdrivers with replaceable blades**

Blades: chrome vanadium, burnished  
 Handle: brass, nickel plated, with swivel cap

**4-391 Watchmaker's screwdriver**  
 with 4 slotted blades in the magazine  
 Size 1.5 - 2.0 - 2.5 - 3.0 mm  
 Weight: 31 g



4-391

**4-392 Watchmaker's screwdriver**  
 with 4 slotted blades in the magazine  
 Size 1.5 - 2.0 - 2.5 - 3.0 mm and 1 Cross slot blade PH 0  
 Weight: 32 g

**4-393 Watchmaker's screwdriver**  
 nickel plated, with 5 interchangeable blades in the magazine  
 3 slotted blades size 1.5, 2.0, 2.5 mm and 2 blades cross-recess  
 PH 00, 000  
 Weight: 32 g

# SPECIAL WRENCHES

## 6-995 8-pcs. TORX-wrench keys with bore hole in plastic wallet

Material: chrome-vanadium, burnished, offset model

Content: 8 pcs. TORX-wrench keys T9, T10, T15, T20, T25, T27, T30, T40  
 Weight: 205 g

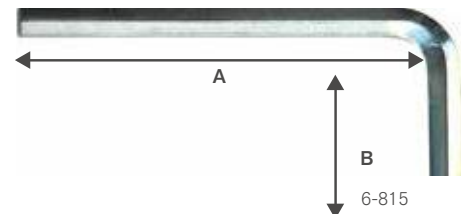


6-995

## Wrench keys angle-shaped screwdrivers for hex socket-head screws.

Material: special steel, nickel-plated

No.	A/F mm	No.	A/F		Leg length		Weight g
			inches	≈ mm	A	B	
6-813	1.5	6-852	1/16"	1.59	50 x 12	1	
6-814	2.0	6-853	5/64"	1.98	55 x 15	2	
6-815	2.5	6-854	3/32"	2.38	60 x 18	3	
6-816	3.0	6-855	1/8"	3.18	65 x 20	5	
6-817	3.5	6-856	9/64"	3.56	68 x 22	8	
6-818	4.0	6-857	5/32"	3.97	72 x 25	11	
6-819	4.5	6-858	3/16"	4.76	75 x 27	13	
6-821	5.0	-	-	-	80 x 28	19	
6-822	5.5	6-859	7/32	5.56	85 x 30	22	
6-823	6.0	6-861	1/4	6.35	90 x 32	28	
6-825	7.0	6-862	9/32	7.14	95 x 34	41	
6-826	8.0	6-863	5/16	7.94	100 x 36	60	
6-827	9.0	6-864	11/32	8.73	105 x 38	81	
6-828	10.0	6-865	3/8	9.53	112 x 40	105	



6-815



6-810

## 6-810 8-pcs. L-keys for hexagon socket head screws

angled, galvanized on ring

Content: 8 pcs. L-keys 2.0 - 2.5 - 3.0 - 4.0 - 5.0 - 6.0 - 8.0 - 10.0 mm  
 Weight: 255 g

## 6-820 8-pcs. L-keys for hexagon socket head screws

angled, galvanized, in plastic wallet

Content: 8 pcs. L-keys 1.5, 2.0, 2.5, 3.0, 4.0, 5.0, 5.5, 6.0 mm  
 Weight: 100 g



6-820

## 6-950 8-pcs. L-keys for hexagon socket head screws with ball

chrome-vanadium, nickel-plated, angled

Content: 8 pcs. L-keys 1.5 - 2.0 - 2.5 - 3.0 - 4.0 - 5.0 - 6.0 - 8.0 mm  
 Weight: 200 g



6-950



# WRENCHES, SOCKET WRENCHES SPECIAL WRENCHES

**Socket wrench without handle** with flap for changeover  
chrome-vanadium, nickel-plated



No.	Wrench size mm	Blade length mm	Weight g
6-201	4.0	140	30
6-202	5.5	140	35
6-203	6.0	140	35
6-204	7.0	140	40
6-205	8.0	140	40
6-206	9.0	140	43
6-207	10.0	140	45

**6-200 Socket wrench set 8-pcs.** for changing, in a plastic wallet

Content: 7 socket wrench 4.0 mm, 5.5 mm, 6.0 mm, 7.0 mm, 8.0 mm, 9.0 mm, 10.0 mm  
1 Plastic spring handle No. 4-775

Weight: 310 g



6-205



6-200

## Sets of socket wrenches in metal cases

Type: 1/4 square drive, chrome vanadium, chrome-plated

**6-320 36-pcs. socket wrenches in metal cases**

Content: Chrome-vanadium steel, chrome-plated  
36 pcs. in a steel box

1/4" Socket wrenches, 6-point 4 · 4.5 · 5 · 5.5 · 6 · 6.5  
7 · 8 · 9 · 10 · 11 · 12 · 13 mm  
1/4" PH Screwdriver socket PH1 · PH2  
1/4" Screwdriver sockets 4 · 4.5 mm  
1/4" Screwdriver sockets allen key 3 · 4 · 5 · 6 mm  
1/4" TORX Screwdriver sockets TX20 · TX25 · TX27 · TX30  
1/4" Universal joint  
1/4" Extension 50 · 100 mm  
1/4" Sliding T-handle  
1/4" Screwdriver handle with 1/4" drive  
1/4" Reversible ratchet, 72 teeth 140 mm  
Allen keys 1.25 · 1.5 · 2 · 2.5 · 3 mm

Weight: 870 g



6-320

**6-500 Double open-ended wrench set chrome vanadium, chrome-plated**

Content: 5-pcs. double open-ended wrenches 6x7, 8x9, 10x11, 12x13, 14x17 mm

Weight: 370 g



# WRENCHES, SOCKET WRENCHES SPECIAL WRENCHES

## 6-600 Combination wrench set, 7 pcs.

Content: 7-pcs combination wrenches 6 - 7 - 8 - 9 - 10 - 11 and 13 mm  
Weight: 290 g



6-600

## 6-750 Double open-ended wrench, extra slim, 6 pcs. in plastic wallet

Material: chrome vanadium, nickel-plated  
Content: 4 pcs. 3.0 x 3.5 - 4.0 x 4.5 - 5.0 x 5.5 - 6.0 x 6.5 mm  
material thickness 1.5 mm, 120 mm long  
2 pcs. 7.0 x 8.0 and 9.0 x 10.0 mm  
material thickness 2.0 mm, 120 mm long  
Weight: 85 g



6-750

## Adjustable wrench

chrome-vanadium, chrome-plated

No.	Jaw-opening mm	Total length mm	Jaw length mm	Weight g
6-771	0 - 13	100	12	55
6-772	0 - 19	150	22	135
6-773	0 - 24	200	25	265



6-772

NEW

## 4-909 Bit-Screwdriver B-PEN



Material: made of high-quality Gun-Metal with powder coating in metallic grey.  
The set consists of 22 bits and a bit holder in handy pen design and one magnetic cap with clip. The magazine can be equipped with 5 bits individually.  
The remaining bits can be stowed in the practical plastic holder.

Content:

- Square S 1
- Pentalobe P 2, P 5, P 6
- ★ Torx Security T 8, T 9, T 10
- ★ Torx 5, 6, 7
- ⊕ Cross-slot 00, 0, 1
- ⊖ Slot 1.5, 2.0, 2.5, 3.0
- Hexagon 0.9, 1.3, 1.5, 2.0
- Sim-Eject-Bit 0.8

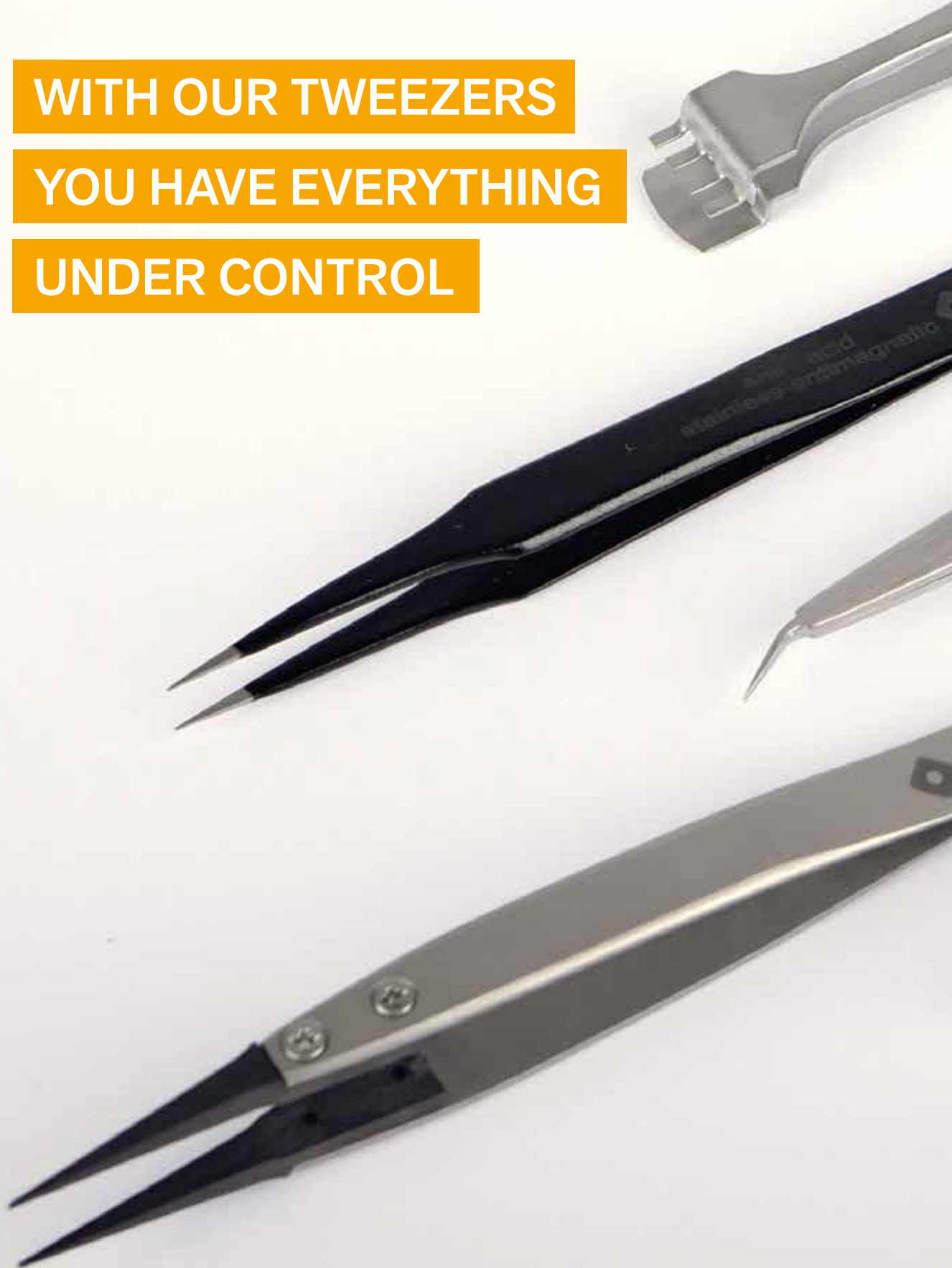


4-909

WITH OUR TWEEZERS

YOU HAVE EVERYTHING

UNDER CONTROL





## BERNSTEIN TWEEZERS

Depending on the requirements the tweezers are manufactured from different material. The selection covers high quality special steel, stainless high grade steel and Titan alloys. In the electronic industry the tweezers are preferable manufactured out of stainless high grade steel.

# TWEEZERS

Depending on the requirements, tweezers are manufactured from different materials. The selection covers high quality special steel, stainless high grade steel and titan alloys. In the electronic industry tweezers are preferably manufactured out of stainless high grade steel. The advantage of this material is the excellent corrosion immunity with a very high consistency. For this reason the tiny tips of the SMD/ESD tweezers are extremely hard and tough. The advantage of titan tweezers is their tremendous heat resistance. The melting point is about 1677o C. Above all these tweezers are super light.

different tip shapes  
for each application



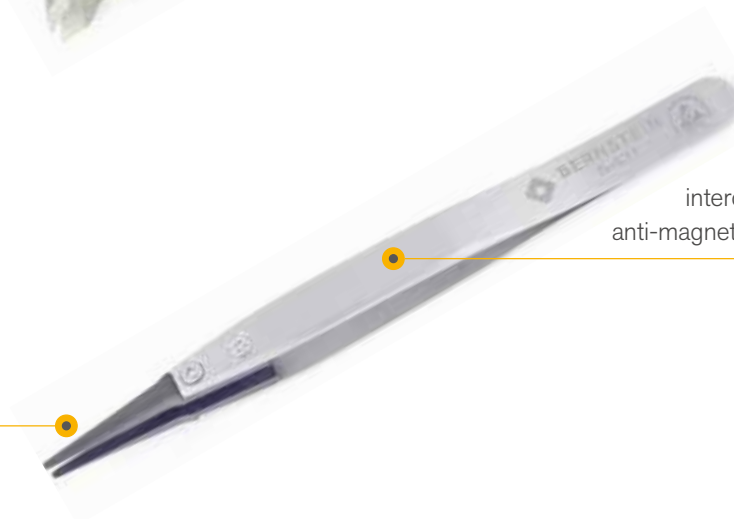
Chrome high-grade  
steel stainless - antimagnetic  
matt finish - acid-resistant

optimum sharpness  
and extremely strong  
by Carbon steel



ESD-coating,  
for all SMD tweezers

soft plastik or Delrin tips  
for sensitive assemblies



interchangeable tips,  
anti-magnetic, acid resistant





SMD tweezers



Cutting tweezers



SMD/ESD tweezers



Wafer tweezers

## SURFACES

We manufacture tweezers with different surface treatments.

### Steel tweezers

All stainless steel tweezers are protected by a nickel-plated surface polished- against corrosion.

Additionally there are some special types available:

- polished, with antiallergical coating for persons with nickel allergy
- nickel-plated strong PVC-insulated for works under voltage
- with VDE insulation for works under voltage up to 1000 V
- teflon-coated, no adherence of solder

### High grade tweezers

All tweezers of this high grade execution are matt finished. The tweezers are stainless, anti-magnetic and acid-resistant. For the special ESD protection these tweezers are available with a dissipative ESD surface coating.

### Titan tweezers

All Titan tweezers are matt finished. Material-caused, they are anti-magnetic, anti-bacterial, solder-repellent and immune to corrosion and to aggressive acids.

### Ceramic tweezers

We distinguish between full ceramic tweezers and plastic tweezers with ceramic tips. Ceramic tweezers are anti-magnetic, antistatic, solder-repellent, acid- and heat-resistant and very hard.

### Plastic tweezers

Consist of conductive black plastic material, reinforced with glass fibre.

## TWEEZERS EXECUTIONS

Bernstein manufactures different types of tweezers.

The selection includes finest SMD tweezers, engineer's tweezers, wafer and cutting tweezers.

### Component tweezers

The pick-up jaws of the component tweezers are dimensional shaped for exact positioning of round and cubical assemblies.

### SMD tweezers

Due to the delicate assembly, the SMD technique requires the finest precision tweezers. The variety of shapes and jaw types enables an easy and precise handling of the assembly even in the smallest space.

### Wafer tweezers

Are special tweezers for the careful handling of sensitive semiconductors.

### Cutting tweezers

Are destined for cutting of fine and soft wires and tiny assemblies. Hardened tips guarantee a long life time.


### Engineer's tweezers

Are used for different handlings.

# 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 g	Image
	mm	inch			
5-048	110	4 3/8"	straight, very sharply pointed	12	
5-048-13	110	4 3/8"	as before, with ESD coating	12	
5-049	110	4 3/8"	straight, very sharply pointed, 4 SA	12	
5-049-13	110	4 3/8"	as before, with ESD coating	12	
5-051	115	4 1/2"	straight pointed, 2 SA	15	
5-051-13	115	4 1/2"	as before, with ESD coating	15	
5-052	110	4 3/8"	bent, very sharply pointed, 5b SA	13	
5-052-13	110	4 3/8"	as before, with ESD coating	13	
5-053	110	4 3/8"	obliquely angled, very sharply pointed, 51 SA	13	
5-053-13	110	4 3/8"	as before, with ESD coating	13	
5-054	120	4 3/4"	sickle-shape-curved, very sharply pointed, 7abb SA	16	
5-054-13	120	4 3/4"	as before, with ESD coating	16	
5-055	120	4 3/4"	sickle-shaped, very sharply pointed	15	
5-055-13	120	4 3/4"	as before, with ESD coating	15	
5-056	120	4 3/4"	slightly bent, very sharply pointed, 7 SA	15	
5-056-13	120	4 3/4"	as before, with ESD coating	15	
5-057	120	4 3/4"	self-locking, straight-pointed, 31 SA	13	
5-057-13	120	4 3/4"	as before, with ESD coating	13	
5-058	120	4 3/4"	self-locking, bent, pointed, 31b SA	13	
5-058-13	120	4 3/4"	as before, with ESD coating	13	
5-059	120	4 3/4"	flat, rounded tips, 2.0 mm width, 2a SA	15	
5-059-13	120	4 3/4"	as before, with ESD coating	15	
5-061	115	4 1/2"	bent, flat rounded tips, 2ab SA	16	
5-061-13	115	4 1/2"	as before, with ESD coating	16	
5-062	115	4 1/2"	35° angled, 2 mm width with gripping cavity Ø 0.8 mm	16	
5-062-13	115	4 1/2"	as before, with ESD coating	16	
5-063	115	4 1/2"	35° angled, 3.5 mm width, with gripping cavity Ø 0.8 mm, 58 SA	16	
5-063-13	115	4 1/2"	as before, with ESD coating	16	
5-065	120	4 3/4"	straight, 3 mm width, with gripping cavity Ø 0.8 mm	16	
5-065-13	120	4 3/4"	as before, with ESD coating	16	

No.	Length		Finish / Model	Weight g
	mm	inch		
<b>5-066</b>	120	4 3/4"	30° angled, 2.5 mm width 8b SA	15
5-066-13	120	4 3/4"	as before, with ESD coating	15
<b>5-067</b>	120	4 3/4"	tip 45° angled, 2 mm width 12 SA	15
5-067-13	120	4 3/4"	as before, with ESD coating	15
<b>5-068</b>	120	4 3/4"	tip angled, 1.6 mm width, 13 SA	13
5-068-13	120	4 3/4"	as before, with ESD coating	13
<b>5-071</b>	85	3 3/8"	thin, straight-pointed, OC SA	8
5-071-13	85	3 3/8"	as before, with ESD coating	8
<b>5-072</b>	110	4 3/8"	schmal, straight-spitz, 3c SA	11
5-072-13	110	4 3/8"	as before, with ESD coating	11
<b>5-073</b>	140	5 1/2"	long-thin, straight, very sharply pointed, SS SA	13
5-073-13	140	5 1/2"	as before, with ESD coating	13
<b>5-074</b>	120	4 3/4"	straight, pointed, 1 SA	14
5-074-13	120	4 3/4"	as before, with ESD coating	14
<b>5-075</b>	140	5 3/4"	straight, very sharply pointed, grip surface offset, 60 SA	13
5-075-13	140	5 3/4"	as before, with ESD coating	13
<b>5-076</b>	120	4 3/4"	rigid, straight, pointed, 00 SA	19
5-076-13	120	4 3/4"	as before, with ESD coating	19
<b>5-077</b>	130	5 1/8"	wide, tapering, pointed, AA SA	16
5-077-13	130	5 1/8"	as before, with ESD coating	16
<b>5-078</b>	130	5 1/8"	tapering, chisel, 1 mm width, PSF SA	16
5-078-13	130	5 1/8"	as before, with ESD coating	16
<b>5-083</b>	140	5 3/4"	straight, pointed	8
5-083-13	140	5 3/4"	as before, with ESD coating	8


**TWEEZERS**
**NEW**

## 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.

<b>5-079</b>	115	4 1/2"	Carbon Steel, matt finish 15 AGW	25
<b>5-079-13</b>	115	4 1/2"	as before, with ESD coating	25



# WAFER-TWEEZERS

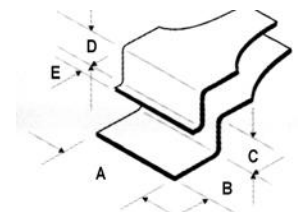


For positioning of flat and fine components, e.g. extremely sensitive and breakable wafer (glass-wafer etc.) fine PCB's and LCD's very smooth and non-reflective surface  
high grade steel SA, anti-magnetic

No.	Length		Finish / Model	Weight g
	mm	inch		
5-411	130	5 1/8"	with graduated lower paddle and 3 teeth 3 DWF small	14
5-411-13			as before, with ESD coating	
5-412	130	5 1/8"	with graduated lower paddle and 3 teeth 3 DWF	14
5-412-13			as before, with ESD coating	
5-413	130	5 1/8"	with graduated lower paddle and 4 teeth 4 DWF	17
5-413-13			as before, with ESD coating	
5-414	130	5 1/8"	with graduated lower paddle and 5 teeth 5 DWF	20
5-414-13			as before, with ESD coating	
5-415	130	5 1/8"	with graduated lower paddle and 6 teeth 6 DWF	20
5-415-13			as before, with ESD coating	
5-421	130	5 1/8"	with graduated lower paddle, no teeth 3 DW small	14
5-421-13			as before, with ESD coating	
5-422	130	5 1/8"	with graduated lower paddle, no teeth 4 DW	17
5-422-13			as before, with ESD coating	
5-423	130	5 1/8"	with graduated lower paddle, no teeth 5 DW	20
5-423-13			as before, with ESD coating	
5-424	130	5 1/8"	with graduated lower paddle, no teeth 6 DW	20
5-424-13	130	5 1/8"	as before, with ESD coating	



	Dimension					for Wafer Size Zoll
	A	B	C	D	E	
	mm	mm	mm	mm	mm	
5-411	6	6	4	4	3.2	2"
5-412	9	6	2.5	3	3.2	2"
5-413	12	8	4	5	3.2	3"
5-414	16	6	4	5	3.2	4" - 5"
5-415	20	8	4	5	3.2	6"
5-421	6	6	4	5	3	2"
5-422	12	8	4	5	3	3"
5-423	16	8	4	4	3	4" - 5"
5-424	20	8	4	5	3.5	6"



# TITAN TWEEZERS

Tweezers made from titan are for the 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
5-035	120	4 3/4"	matt-stainless, sharply pointed	9
5-036	145	5 3/4"	matt-stainless, straight - round - wide, tips with fine serration	15
5-037	150	6"	matt-stainless, fine bent tips tips with fine serration	12



## TWEEZERS WITH INTERCHANGEABLE PLASTIC TIPS

Special tweezers with soft and ESD safe tips

Tweezers: anti-magnetic, acid-resistant, ESD safe  
 Tips: soft, dissipative plastic tips for very sensitive assemblies

No.	Length		Finish / Model	Weight g
	mm	inch		
<b>5-431</b> 5-431-0	125	5"	rounded tips 1.5 mm wide, 70 CV replacement tips for 5-431	17
<b>5-432</b> 5-432-0	125	5"	flat tips 2 mm wide, 72 CV replacement tips for 5-432	17
<b>5-433</b> 5-433-0	125	5"	fine fl at tips 1 mm wide, 74 CV replacement tips for 5-433	17
<b>5-434</b> 5-434-0	125	5"	very fine rounded tips, 76 CV replacement tips for 5-434	17
<b>5-435</b> 5-435-0	125	5"	fine rounded tips, 80 CV replacement tips for 5-435	17



## SPECIAL TWEEZERS WITH „DELFIN“ TIPS

Tweezers: anti-magnetic, acidfree  
 Tips from Delrin: highest consistency, stiffness and hardness, ductile, fatigue-steady

No.	Length		Finish / Model	Weight g
	mm	inch		
<b>5-441</b> 5-441-0	125	5"	rounded tips 1.5 mm wide, 70 DV replacement tips for 5-441	17
<b>5-443</b> 5-443-0	125	5"	fine flat tips 1 mm wide, 74 DV replacement tips for 5-443	17



## SPECIAL TWEEZERS WITH INTERCHANGEABLE ESD CERAMIC TIPS

Tweezers: anti-magnetic, acid-resistant  
 Tips ESD Ceramic: dissipative, solder-resisting, heat-resistant and resistant to acids and alkalis, particularly hard, long life

No.	Length		Finish / Modell	Weight g
	mm			
<b>5-452</b> 5-452-0	125		rounded tips, 2 mm wide replacement tips for 5-452	17
<b>5-454</b> 5-454-0	125		fine rounded tips, 0.7 mm wide replacement tips for 5-454	17





## SPECIAL TWEEZER SETS



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

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



5-030

### 5-110 3-piece set of engineer's tweezers made from steel, nickel-plated in a wallet

No. Description of individual tools Weight: 95 g

- 5-107 Engineer's tweezers, 150 mm, fine curved tips, fine serrated
- 5-121 Engineer's tweezers, 120 mm, straight, narrow pointed tips
- 5-155 Crossed tweezers, (self-locking) jaws 5 mm wide, finely serrated, 160 mm



5-110

### 5-050 6-pcs. set of special tweezers for the SMD-technique, matt finish, stainless, anti-magnetic in a wallet

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, fl at tips 2 mm wide, 115 mm
- 5-062 SMD-tweezers, bent, flat tips, with gripping cavity, 115 mm



5-050

### 5-060 6-pcs. 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, 110 mm, straight, very sharply pointed
- 5-055-13 SMD-tweezers, sickle-shaped, very sharply pointed, 120 mm
- 5-059-13 SMD tweezers, 120 mm, flat, rounded tips, 2 mm width, 2aSA
- 5-067-13 SMD tweezers, 120 mm, tip 45° angled, 2 mm width
- 5-068-13 SMD-tweezers, tip angled, 1.6 mm, 120 mm
- 5-078-13 SMD tweezers, 130 mm, tapering, chisel, 1 mm width



5-060

NEW

### 5-180 5-piece set of ESD plastic tweezers

aligned on ESD tool holder

**Content:** 5 Tweezers made of dissipative, glass fiber reinforced plastic, 120 mm straight, rounded tips, 2 mm wide straight, 3 mm flat-hand tips grip surface offset straight, flat, 6 mm wide tips bent, pointed tips straight, pointed tips, grip surface offset

**Weight:** 200 g



5-180

### 5-190 V 5-piece set of ESD Tweezers

aligned on ESD tool holder VARIO

**Content:** 5 Tweezers made of dissipative, glass fiber reinforced plastic, 120 mm straight, rounded tips, 2 mm wide straight, 3 mm flat-hand tips grip surface offset straight, flat, 6 mm wide tips bent, pointed tips straight, pointed tips, grip surface offset, 1 Special Tweezers with interchangeable ESD ceramic tips No. 5-454

**Weight:** 460 g



5-190 V

### 5-090 V 5-piece set of ESD Tweezers

aligned on ESD tool holder VARIO

**Content:** 5 Tweezers made of dissipative, glass fiber reinforced plastic, 120 mm straight, rounded tips, 2 mm wide straight, 3 mm flat-hand tips grip surface offset straight, flat, 6 mm wide tips bent, pointed tips straight, pointed tips, grip surface offset

**Weight:** 400 g



5-090 V

## ESD-TWEEZERS

made from dissipative, black, glass fiber-reinforced plastic material, acid-resistant, melting point 175°C

No.	Length		Finish	Weight g
	mm	inch		
5-191	120	4 3/4"	straight, rounded tips, 2 mm wide	5
5-192	120	4 3/4"	straight, 3 mm flat-hand tips grip surface offset	4
5-193	120	4 3/4"	straight, flat, 6 mm wide tips	5
5-194	120	4 3/4"	bent, pointed tips	5
5-195	120	4 3/4"	straight, pointed tips, grip surface offset	4



## IC-TWEEZERS

for gripping, inserting and removing IC's

2-601-13 125 5" with ESD coating

22



# ENGINEERS'S TWEEZERS AND SET FOR SPECIAL TWEEZERS

No.	Length		Finish	Weight g
	mm	inch		

## Component tweezers

Made from steel, with insulated bent jaws (5 mm), special tool for easy insertion and removal of plug-in transistors of various sizes

5-006	145	5 1/2"	polished, nickel-plated	23
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5-006

## Assembly tweezers

Made from steel, with half-round jaws (5 mm), special tool for easy insertion and removal of horizontal components of different sizes

5-007	140	5 1/2"	polished, nickel-plated	25
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5-007

## Assembly 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"	polished, nickel-plated	23
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5-008

## Assembly tweezers

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

5-009	140	5 1/2"	polished, nickel-plated	22
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5-009

## Heat dissipating tweezers (crossed / self-locking 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"	polished, nickel-plated	35
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5-115

## Jeweler tweezers

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

5-119	140	5 1/2"	polished, nickel-plated	19
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5-119

## Sheet-metal tweezers

Straight, flat and pointed

5-125	110	4 3/8"	polished, nickel-plated	12
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5-125

## Sheet-metal tweezers

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

5-126	160	4 1/4"	polished, nickel-plated	22
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5-126

## IC-Tweezers

For gripping, inserting and removing IC's

2-601	125	5"	polished, nickel-plated	20
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2-601

NEW

## BAMBOO TWEEZER

Bamboo tweezers are non-dissipative and non-magnetic. They have good isolation and are partially chemically resistant. Supplied with abrasive paper to grind the tips, thus can be shaped according to individual requirements.

5-020	150	6	no damage to sensitive objects	5
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5-020

# ENGINEER'S TWEEZERS

No.	Length		Finish	Weight g
	mm	inch		

## Engineer's tweezers

Made from steel, fine curved tips, finely serrated

5-107	150	6"	polished, nickel-plated	20
5-107-1	150	6"	polished with antiallergical coating	23
5-107-6	150	6"	nickel-plated, strong PVC-insulated	27
5-107 VDE	150	6"	with VDE insulation	37
5-107-9	150	6"	teflon-coated	22

## Engineer's tweezers

Made from steel, heavy type, straight, flat and wide tips, serrated

5-117	145	5 3/4"	polished, nickel-plated	25
5-117-1	145	5 3/4"	polished with antiallergical coating	26
5-117-6	145	5 3/4"	nickel-plated, strong PVC-insulated	31
5-117 VDE	145	5 3/4"	with VDE insulation	39
5-117-9	145	5 3/4"	teflon-coated	29

## Engineer's tweezers

Made from steel, straight, narrow pointed tips, finely serrated

5-121	120	4 3/4"	polished, nickel-plated	14
5-121-1	120	4 3/4"	polished with antiallergical coating	14
5-121-6	120	4 3/4"	nickel-plated, strong PVC-insulated	17
5-121 VDE	120	4 3/4"	with VDE insulation	13

## Crossed tweezers (self-locking tweezers)

Made from steel, jaws 5 mm wide, finely serrated

5-155	160	6 1/4"	polished, nickel-plated	35
5-155-1	160	6 1/4"	polished with antiallergical coating	36

## Crossed soldering tweezers (self-locking tweezers)

Made from steel, with bent tips and gripping well hand guard

5-156	160	6 1/4"	polished, nickel-plated	29
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## 5-100 12-pcs. set special tweezers and tools

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



5-100



FOR THE

WELL-PREPARED REPAIRMAN





## VARIOUS HAND TOOLS

Whether cutting, filing or measuring, **BERNSTEIN** offers not only very special tools but also classic hand tools for Different applications. The assortment ranges from files, shears and hammers to various auxiliary devices, right up to Various measuring and soldering tools.

# FILES

No.	Length		Finish	Weight
	mm	Zoll		

## 5-210 6-pcs. set of needle files

No. 5-201-5-206, in plastic wallet 50

### Needle files without handle

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



5-210

No.	Length		Finish	Weight
	mm	Zoll		

## 5-240 6-pcs. set warding files

No. 5-231-5-236, in plastic wallet 115

### warding files with wooden handle

total length 175 mm - 6 3/4"

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



5-240

No.	Length		Finish	Weight
	mm	Zoll		

## Contact file

with fine cut

5-261	150	6"	flat-hand	9
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5-261

## Engineer's files with wooden handle

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

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



5-271



5-274

## SCISSORS - KNIVES - STRIPPERS

No.	Length		Finish	Weight g
	mm	Zoll		

### 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"	stainless	125
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5-309

### Combination cutters (general purpose cutter)

Stainless steel, with serrated cutting edge, handy plastic grips, compressing spring and locking mechanism

5-305	140	5 1/2"	polished	60
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5-305

### Wire scraper tweezers

For stripping varnish on wires 0.6 mm Ø, made of steel, with interchangeable cutters

5-181	130	5 1/8"	burnished	33
5-182			replacement cutters (2 pcs.)	2



5-181

### Electrician's knife

With wooden handle, steel blade with wire scraper

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



5-501

### Allround knife

Made from plastic, blade adjustable and breakable

5-515	180	5 1/8"		10
5-516			Spare blades for 5-515 (10 piece)	25
5-517	150	6"		46
5-518			Spare blades for 5-517 (10 piece)	73



5-515

### Stripping tool for coaxial cables

handy plastic version with adjustable knives, for 3-stage stripping of coaxial cable types RG 58, RG 59 and RG 62

5-0601	100	4"	black	51
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5-0601

### Universal stripping tool

Handy plastic version with adjustable knives, easy handling

5-0605	100	4"		38
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5-0605

### Precision Wire Stripper ESD Plus

For applications in the electronic and computer technology, with cutter and adjustable stripper length up to 15 mm. Body made from dissipative plastic for PVC, Teflon, and similar materials.

5-542	100	4"		28
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5-542

# SCISSORS

No.	Length		Finish	Weight g
	mm	Zoll		

## Universal cutting shears

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

NEW	5-302	130	5"	chrome plated with coarse toothing	67
	5-308	125	5"	with fine toothing on one side inside, chrome-plated	67

## Domestic scissors

5-311	180	7"	plated, polished	80
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## Clamping scissors

5-161	130	7"	stainless, with serrated gripping jaws	80
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## Special scissors

5-301	110	7"	for cutting sheet metal and wires, with serration, extremely slim, chrome-plated	80
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## Ceramic blade scissors

5-353	175	7"	for cutting e.g. aramid yarns and fiber optic cables, antistatic and electrically insulating, black plastic handles reinforced with glass-fibre, 140 mm long, blade length 50 mm,	80
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5-306



5-302



5-308



5-311



5-161



5-301



5-353

# HANDTOOLS

No.	Length mm	Head width	Total weight g
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## Engineers's hammers according to DIN 1041

forged, precision ground, stem and path finish grinded, lacquered and rustproof, with lacquered ash-handle

7-112	260	100	155
7-114	280	200	260
7-116	300	300	435
7-119	320	500	615



5-116

No.	Length mm	Head-Ø mm	Total- weight g
-----	--------------	--------------	--------------------

## Plastic hammers

with impact-resistant, cellidor plastic tops, lacquered wooden handle

7-121	255	22	130
7-122	265	27	225
7-123	285	32	330



7-122

No.	Blade- width mm	Blade length mm	Total length mm	Weight g
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## Firmer chisel with impact-resistant wooden handle

7-202	16	130	240	130
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7-201

No.	Head width mm	Length mm	Ø mm	Weight g
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## Flat chisel chrome vanadium, safety impact head

7-235	20	200	16	300
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7-235

## Electrician's chisel chrome vanadium, safety impact head

7-255	10	200	8	140
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7-255



# HANDTOOLS

No.	Drill-Ø mm	Blade length mm	Total length mm	Weight g
-----	---------------	--------------------	--------------------	----------

## Twist gimlets

black lacquered, with knurled ring handle

7-304	4		140	20
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7-304

No.	Blade-Ø mm	Blade length mm	Total length mm	Weight g
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## Punch

with impact-resistant plastic handle

7-316	6	100	185	80
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7-316

No.	Blade width mm	Total length mm	Weight g
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## Painting trowel

with conical forged blade and wooden handle

7-405	50	200	70
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7-405

## Slicker trowel

polished with round shank

7-410	16	220	25
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7-410

No.	Blade length mm	Length mm	Weight g
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## Pocket hack saw „PUK“

with adjustable wooden handle, with saw blade for wood and metal, in a plastic wallet

7-616	150	300	140
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## Hack saw blade special for „Puk“ hack saws

7-617		150	3
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7-616

## HANDTOOLS

No.	Ø mm	Total length mm	Weight g
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### Dust brush

with white bristles, red plastic handle

7-425	25	177	10
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7-425

### ESD Brush

with dissipative handle, natural bristles with dissipative fibers

7-421	6	150	9
7-422	20	150	26



7-421



7-422

### PVC insulating tape

elastic, UV resistant, 25 m x 25 mm, black

7-429			100
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7-429

No.	Volume ml	Total length mm	Weight g
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### Oiler

made from transparent plastic, with brass rotating seal

7-435	40	110	15
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7-435

## MEASURING TOOLS

No.	Length m	Material	Width mm	Weight g
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### Folding ruler with steel spring

7-502	2	wood	15	120
7-503	1	plastic	13	60



7-502



7-503

### Tape measure

steel tape, impact-resistant plastic housing with automatic tape retraction and push brake for stopping and locking the tape

7-506	2		13.0	71
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7-506

# MEASURING TOOLS

## Multifunctional ballpoint pen

measuring scale 1/100, 1/50, 1/25, 1/20, rubberized cap for the operation of touch screens of smartphones and tablets etc., under the unscrew able end cap is a bit with bit holder (PH and slot), integrated spirit level.

No.	Length mm	Diameter mm	Weight g
2-301	160	10	78



NEW

2-301

## Steel scale

made of stainless steel, lines and numbers etched and black coloured

7-508	300	13 x 0.5	20
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7-508

No.	Measuring range mm	Nose mm	Display mm/inch	Weight g
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## Digital caliper with LCD-display

cross-tips, depth gauge, fixing screw, hardened, stainless, in plastic case

7-509	100	30	0.01 / 0.001	110
7-510	150	40	0.01 / 0.001	170



7-509



7-510

## Digital caliper with large LCD-display DIN 862

cross-tips, depth gauge, fixing screw, hardened, stainless, with digital LCD-display, in plastic case

7-511	150	40	0.01 / 0.001	170
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7-511

## Digital caliper with metal LCD-display DIN 862

cross-tips, depth gauge, fixing screw, hardened, stainless, in plastic case

7-512	100	30	0.01 / 0.0005	110
7-513	150	40	0.01 / 0.0005	170



7-512



7-513



7-514

## Digital mini caliper with LCD-display

made of plastic, cross-tips, in a transparent plastic case

7-514	100	30	0.01 / 0.001	30
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## MEASURING TOOLS

No.	Handle-Ø mm	Needle-Ø mm	Total length mm	Weight g
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### Scriber

with roughened nickeled handle, needles hardened and burnished, interchangeable

7-521	6	2.5	200	26
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7-521

No.	Length mm	Weight g
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### Spirit level

made from plastic with 3 levels: horizontal, vertical and 45° angle

7-535	200	58
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7-535

No.	Messbereich	Blattlänge	Blatt	Weight g
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### Feeler gauge

with tapered sheets

7-515	0.10 - 2.0	200	20	171
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7-515

## GAS SOLDERING IRONS

The progressive gas soldering iron is suitable for laboratories, service and production.

### 8-376 Gas soldering iron „PIEZO INDY 75“

adjustable gas supply 15-75 W, max. temperature approx. 580 °C



8-376

## DESOLDERING PUMPS

### Desoldering pump PRAKTIK

Handy desoldering pump in all-metal housing with replaceable teflon tip, high suction by double sealing of the piston, colour: gold

### 8-390 Desoldering pump 195 mm long, Ø 20 mm



8-390

### 8-238 SMD Vacuum pick-up Vampir

For easy, safe and precise handling of SMD components dissipative execution complete with bent nozzle and suction cups 3, 4, 6 and 9mm



8-238





**WORK LIKE**

**A PRO**



## **WORKPLACE EQUIPMENT**

ESD work area, workshop or laboratory.

On the following pages we offer various products

Equipment of a well-stocked and secure workplace.

# MAGNIFYING LAMPS

## 9-101 LUXO LED-MAGNIFYING LAMP

The high level of flexibility between the lamp head and the arm enables an easy and precise positioning of the lens.  
Light Magnifying Lamp with a circular LED module and total energy consumption of 9.5 W.

### Casing

colour white

### Optics

Primary lens 3 dioptries  
 extensible with top lens 4, 6 or 10 dioptries  
 Total magnification 175 %  
 Focal length 330 mm

### Light source

Light source LED  
 Number of lamps 1  
 Lamp power (W) 10  
 with dimming

### Technical data

IP-classification 20  
 Tension (V) 230  
 Arm length in cm 100



## 9-121 LUXO LED-MAGNIFYING LAMP WAVE

with flexible, self-balancing luminaire. Shadow-free illumination with light from both sides,  
or the three-dimensional with light coming from the right or left side.

### Casing

colour white

### Optics

Primary lens 3.5 dioptries  
 extensible with top lens 4, 6 or 10 dioptries  
 Total magnification 188 %  
 Focal length 285 mm

### Light source

Light source LED  
 Number of lamps 2  
 Lamp power (W) 12  
 with dimming

### Technical data

IP-classification 20  
 Tension (V) 230  
 Arm length in cm 105



Articlenumber	Primary lens diopter	Secondary lens diopter	Total magnification	Magnification in %	Focal length
9-101	3.0		1.8X	175%	330 mm
	3.0	4.0	2.8X	275%	140 mm
	3.0	6.0	3.3X	325%	110 mm
	3.0	10.0	4.3X	425%	70 mm
9-121	3.5		1.9X	188%	285 mm
	3.5	4.0	2.9X	288%	130 mm
	3.5	6.0	3.4X	338%	105 mm
	3.5	10.0	4.4X	438%	75 mm

## MAGNIFYING LAMP SLIMLINE

High quality magnifying lamp, perfect for precise inspection work

### 9-721 DAYLIGHT MAGNIFYING LAMPS SLIMLINE LED

- 2 Glass lenses each Ø 13 cm
- magnification 1.75 x, 2.25 x
- ultra-light LEDs ( 6000 Lux on 15 cm )
- flicker-free light
- total arm length 95 cm including table bracket
- „Quick Lens Swap System“ for quick lens change



## STEREO MICROSCOPE

The microscope is especially well suited for reliable monitoring details of materials and assemblies as well as precision work in SMD technology.

### 9-155 STEREO-MICROSCOPE WITH TABLE STAND

#### Technical data:

- Stereo-Head: 45° oblique view, 360° rotating pupillary distance adjustable from 54 - 74 mm
- Size of base: 200 x 150 mm
- Magnification: 10 x / 20 x with attachment lens extensionable up to 40 x
- Ocular: wide field 10 x eyepiece with diopter adjustment +/- 5 dpt, eyepiece cup
- Support: stable metal support, length 245 mm, black-white plastic plate for illumination
- Illumination: LED ring light source with light shadow-free illumination, fitted at turret head, life time 20.000 h, with flicker-free LED light (light colour 5800 K), luminosity 0 - 15.000 lux continuously adjustable (with 80 mm work distance), voltage variable from 100 V - 240 V / 60 / 50 Hz, output voltage 18 V / 3.6 W
- Work Distance: 83 mm at magnification 10 x / 20 x
- Vision field: Ø 19 mm 10 x, Ø 9.5 mm 20 x



### 9-158 STEREO-MICROSCOPE WITH ARTICULATED ARM

- as 9-155, however with stable hinge arm, 850 mm length
- with 3 setscrews in the spring arms, optional adjustable,
- with table clamp as well as screw down table foot



# ESD SPECIAL TOOLS, MATS 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

## 9-342-1 Contact bracelet

adjustable, elastic contact bracelet with woven silvered synthetic fibres, allergy-free, with 3 mm press-stud  
(Weight: 13 g)



9-342-1



9-342-2

## 9-342-2 Spiral cord

Highly elastic spiral cord, 2400 mm long, 2x1 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)



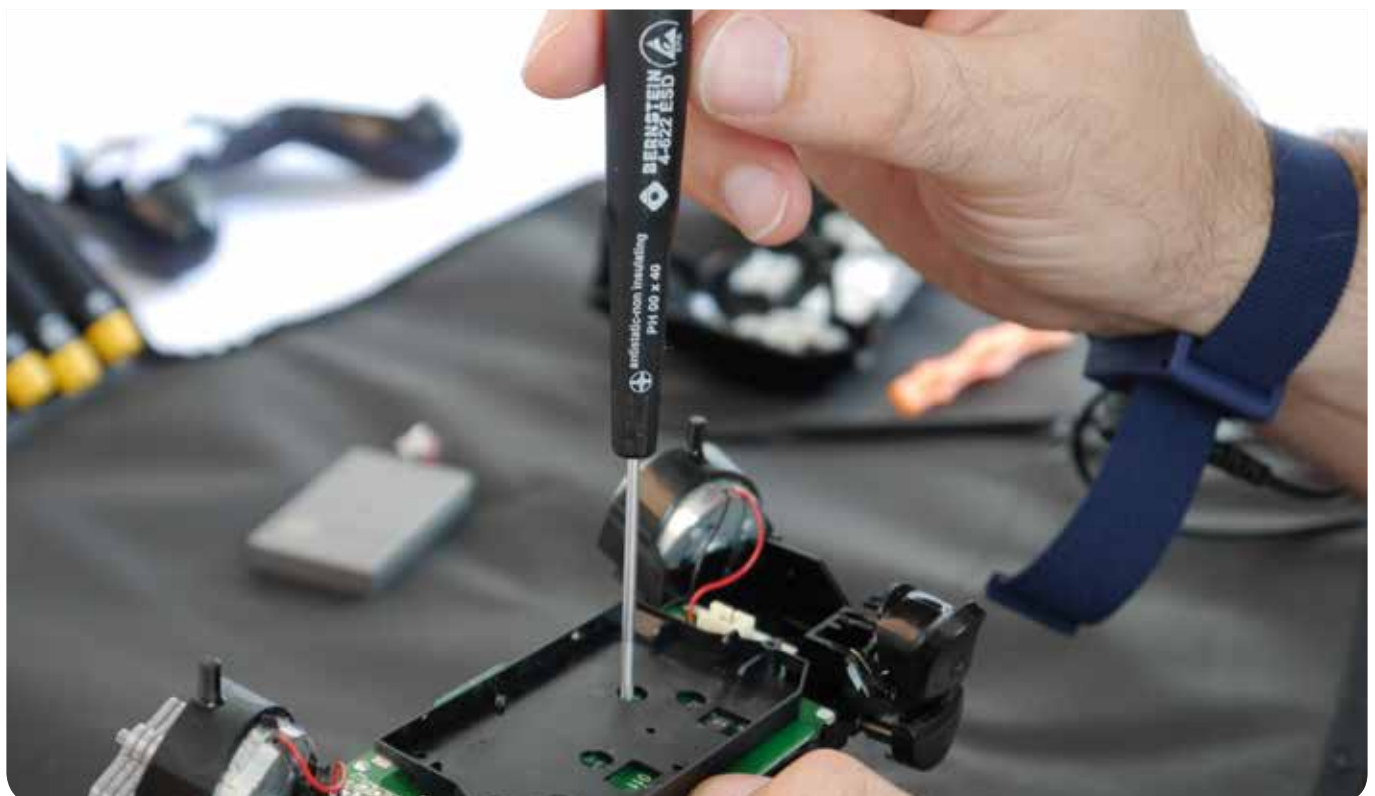
9-346



9-353

## 9-353 Crocodile clip

insulated crocodile clip with banana plug connection and 10 mm press-stud  
(Weight: 18 g)



**9-354 5 pcs. ESD-handling set**

consisting of: foldable workbench pad (No. 9-354-10), 500 x 400 x 0.5 mm, black, dissipative (leakage resistance to DIN IEC 61340-4-1 RS: approx.  $10^8$  Ohm), with 2 press-studs, adjustable and elastic contact bracelet (No. 9-342-1) with press-stud, highly elastic spiral cable (No. 9-342-2) with two press-studs, 2400 mm, earth wire with 2 press-studs, 1500 mm, insulated crocodile clip with banana plug and press-stud (No. 9-343).  
(Weight: 170 g)



9-354

**9-359 Earth wire with dummy Schuko-plug**

spiral cord 2400 mm long, 1 Mohm safety resistance, one side press-stud 10 mm, other side dummy Schuko-plug.  
(Weight: 50g)



9-359

**9-360 ESD-handling set**

consisting of: workbench pad, resistant to soldering tin, 800 x 600 x 1.5 mm, black, from homogeneous, electrically dissipative synthetic caoutchouc, slightly grained surface, (leakage resistance to DIN IEC 61340-4-1 RA: 103 - 106 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)



9-360

**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 RA: 105 - 107 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)



9-361

**9-367 ESD-Set**

Pad 600x450mm especially for CPU (central processing units), printer, scanner consisting of: workbench pad with 1 press-stud 10mm for the earthing connection; earth wire with dummy Schuko-plug No. 9-359  
(Weight: 930g)

**9-321/10 ESD SMD flip box only available in sets of 10**

16 x 12 x 15mm (internal dimensions)

**9-322/10 ESD SMD flip box only available in sets of 10**

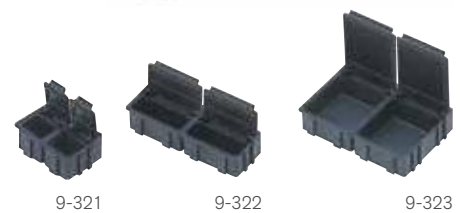
37 x 12 x 15mm (internal dimensions)

**9-323/10 ESD SMD flip box only available in sets of 10**

41 x 37 x 15mm (internal dimensions)

**9-316/10 ESD SMD flip box only available in sets of 10**

118 x 32 x 14 mm (internal dimensions)



9-321

9-322

9-323



9-316

**9-334 Assembly grid mat**

Sturdy supporting mat which prevents damage of components by e.g. screws and the loss of small parts.

Dimensions: 610 x 370 x 20 mm  
Cell dimensions: 50 x 45 mm  
Resistance to ground:  $10^3 - 10^4$  Ohm  
Colour: Black  
(Weight: 3200 g)



9-334



A close-up photograph of a mechanical component, likely a part of a microscope or similar precision instrument. The component is primarily black with a textured surface. A prominent feature is a silver-colored metal rod that extends downwards from a circular opening. At the end of this rod is a black, spherical knob. The background is a plain, light color.

**OPTIMAL HOLD**

**IN EVERY POSITION!**

ALSO  
AVAILABLE  
AS ESD



## CLAMPING VICE SPANNFIX

BERNSTEIN clamping vice 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 powder-coated aluminium casting and surface-refined steel-parts.

# SPANNFIX

## CLAMPING DEVICES WITH BALL JOINT

### DESCRIPTION

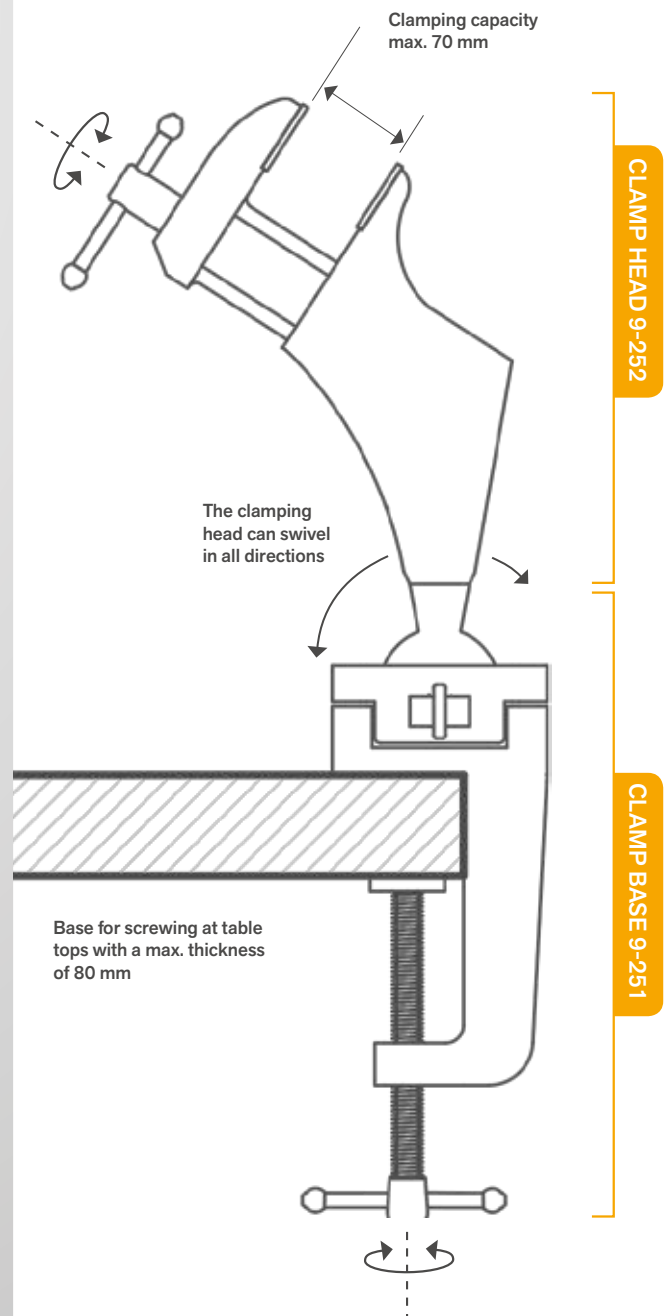
The SPANNFIX is a multifunctional vice with a flexible head and many possible applications.

By using a high-quality ball joint, the head of the SPANNFIX can be tilted and fixed in any direction and provides optimum support in any position.

The ball movement can be adjusted individually with the aid of an adjusting screw at the lower seat of the ball. The ball is held and released with a simple lever movement.

Long life is guaranteed by the high-quality, powder-coated aluminium casting and the surface-refined steel parts!

Excellent with the  
Bernstein Quality  
MADE IN GERMANY



## SPANNFIX – MODELS AND FINISHES

The Spannfix is available in the model versions STANDARD, VARIO and MAXI.  
The STANDARD and VARIO models are produced in various colour versions.

For various applications, the Spannfix VARIO offers the possibility to combine the base with different head parts. The BERNSTEIN base parts are also used for different applications.

The article numbers listed in the table are explained in detail on the following pages.



MODELL	STANDARD		VARIO			MAXI
DESIGN	fixed		modular			fixed
Colour VARIATIONS	umbra	ESD-black	umbra	ESD-black	black	beige grey
SURFACE	structure	smooth, silky	structure	smooth, silky	fine, matt	beige grey
PRODUCT VERSIONS	9-205 9-215	9-205 ESD	9-240 9-250 9-270			9-225 9-226
BASES			9-251 9-261 9-262 9-281 -	9-261 ESD - - - -	9-251 SW 9-261 SW 9-262 SW 9-281 SW 9-284 SW	9-227 9-228 9-229
HEADS			9-252 9-253 9-255 9-254 9-257	9-252 ESD 9-253 ESD 9-255 ESD - 9-257 ESD		
ADDITIONAL PARTS			9-262	9-252 ESD		
SPECIAL	components fixed together		Head and foot parts can be combined as desired (except 9-262)			large version, components are fixed together
JAWS	Plastic jaws, glued		Plastic jaws, glued			Steel jaws, bolted
BACK WIDTH (if included)	50 mm		50 mm			100 mm
SPARE JAWS	9-900-0181 ESD		9-900-0181ESD			9-900-0766-1



## SPANNFIX STANDARD - PRODUCT RANGE

### 9-205 SPANNFIX

for screwing



#### DESCRIPTION

The Spanifix **9-205** is suitable for workbenches or work areas with a maximum table thickness up to 80 mm. Due to its table clamping; the small vice with ball joint can be quickly and easily mounted to any workbench or table. Slight pressure on the lever is sufficient and the clamped work piece can be moved into any suitable position.

Clamping pressure:	1470 N
Clamping capacity:	70 mm
Clamping depth:	38 mm
Jaw width:	50 mm



Position as picture:  
approx. 310 x 160 x 75 mm  
(Dimensions for orientation)



Weight: 1430 g



## SPANNFIX STANDARD - PRODUCT RANGE

### 9-215 SPANNFIX

for fixed screwing on



#### DESCRIPTION

The Spanifix **9-215** is suitable for all workbenches and surfaces due to its screwable base. The vice can be fixed with four holes (Ø 9 mm) to each table top. Slight pressure on the lever is sufficient and the clamped work piece can be moved into any suitable position.

Clamping pressure:	1470 N
Clamping capacity:	70 mm
Clamping depth:	38 mm
Jaw width:	50 mm



Position as picture:  
approx. 220 x 160 x 115 mm  
(Dimensions for orientation)



Weight: 1310 g



### 9-205 ESD SPANNFIX

for screwing, with ESD coating and ESD clamping jaws



#### DESCRIPTION

The Spanifix **9-205 ESD** with dissipative powder coating is suitable for workbenches or work areas with a maximum table thickness of up to 80 mm. Due to its table clamping, the small vice with ball joint can be quickly and easily mounted to any workbench or table. Slight pressure on the lever is sufficient and the clamped work piece can be moved into any suitable position.

Clamping pressure:	1470 N
Clamping capacity:	70 mm
Clamping depth:	38 mm
Jaw width:	50 mm



Position as picture:  
approx. 310 x 160 x 75 mm  
(Dimensions for orientation)



Weight: 1430 g



# SPANNFIX STANDARD - PRODUCT RANGE

## 9-250 SPANNFIX-VARIO

5-pcs. set with interchangeable screw-on work mounts



### DESCRIPTION OF SETS

The three **VARIO sets** differ in the number of their interchangeable Spannfix head parts. The basic equipment includes the base with table clamp, as well as an adapter for holding the board holder. Sets 9-250 and 9-240 provide the simple angular adapter, while the 9-270 incorporates the practical rapid turning device. The Spannfix 9-250 VARIO is additionally equipped with the Spannfix clamping head and a universal screw-on plate delivered. All sets are quick and easy to attach to any workbench or table due to its table clamp. A small pressure to the lever is sufficient and the respective head part can be fixed in any suitable working position.



Position as picture:  
approx. 310 x 160 x 75 mm  
(Dimensions for orientation)



Weight: 2010 g

## SPANNFIX STANDARD - PRODUCT RANGE

### 9-240 SPANNFIX-VARIO

3-pcs. set with interchangeable screw-on work mounts



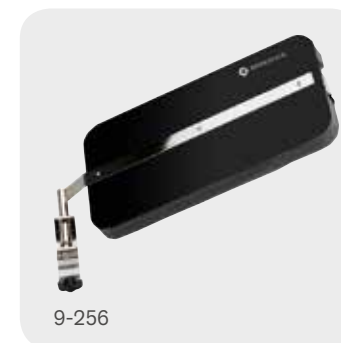
Position as picture:  
approx. 360 x 280 x 180 mm  
(Dimensions for orientation)



Weight: 1330 g

### 9-270 SPANNFIX-VARIO-PLUS

4-pcs. set with board holder, clamping lid for boards with components and rapid turning device



Position as picture:  
approx. 410 x 300 x 240 mm  
(Dimensions for orientation)



Weight: 1560 g

# SPANNFIX - BASES

The variable Spannfix bases enable accurate and secure positioning in all directions, e.g. sensors, measuring devices, monitors and cameras. The ESD versions have a dissipating black surface with a resistance between  $10^7$  and  $10^8 \Omega$ .

## SPANNFIX base with ball joint and threaded stud M 12 x 1.5, for screwing

- 9-251 Colour: umbra | Surface: structured | Weight: 940 g
- 9-251 ESD Colour: ESD black | Surface: smooth, silky | Weight: 940 g
- 9-251 SW Colour: black | Surface: fine, matt | Weight: 940 g



## SPANNFIX base with ball joint and threaded pin, for fixed screwing on

- 9-261 Colour: umbra | Surface: structured | Weight: 830 g
- 9-261 SW Colour: ESD black | Surface: smooth, silky | Weight: 830 g
- Size of the base plate: 150 x 105 mm
- Thread: M 12 x 1.5
- Through holes:  $\varnothing$  9 mm



- 9-262 Colour: umbra | Surface: structured | Weight: 910 g
- 9-262 SW Colour: ESD black | Surface: smooth, silky | Weight: 910 g
- Size of the base plate: 150 x 105 mm
- Thread: M 12 x 1.5
- Thread length extra long: 25 mm
- Support plate:  $\varnothing$  40 mm
- Through holes:  $\varnothing$  9 mm



- 9-281 Colour: umbra | Surface: structured | Weight: 660 g
- 9-281 SW Colour: ESD black | Surface: smooth, silky | Weight: 660 g
- Size of the base plate: 110 x 72 mm
- Size of the holes:  $\varnothing$  6 mm
- Thread: M 12 x 1.5



NEW

## SPANNFIX-base with ball joint and threaded stud, with magnetic feet

- 9-284 SW Colour: ESD black | Surface: smooth, silky | Weight: 730 g
- Size of the base plate: 110 x 72 mm
- Size of the magnets:  $\varnothing$  20 mm
- Threaded stud with self-locking nut: M 12 x 1.5
- Thread length: 25 mm
- Holding force with plastic caps (without caps): 15 Kg (32 Kg)
- Shear force with plastic caps (without caps): 7 Kg (15 Kg)



# SPANNFIX - HEAD

Different Spannfix head parts can be combined with the base parts via a screw connection M12 x 1.5.

## SPANNFIX HEAD

- 9-252** Colour: umbra | Surface: structured | Weight: 560 g
- 9-252 ESD** Colour: ESD black | Surface: smooth, silky | Weight: 560 g
- Clamping pressure: 1470 N
- Clamping capacity: 70 mm
- Clamping depth: 38 mm
- Jaw width: 50 mm



## Circuit board holder, adjustable

- 9-253** Colour: umbra | Surface: structured | Weight: 290 g
- 9-253 ESD** Colour: ESD black | Surface: smooth, silky | Weight: 290 g
- Clamping capacity: to 270 mm
- Jaws: non-contact-safe, dissipative plastic, tight clamping seat due to built-in suspension
- Height of locating bars: 70 mm



## Angular adapter

- 9-255** Colour: umbra | Surface: structured | Weight: 100 g
- 9-255 ESD** Colour: ESD black | Surface: smooth, silky | Weight: 100 g
- To be used as an additional attachment with 9-253, permits an even larger turning circle



## Rapid turning device

- 9-257** Colour: umbra | Surface: structured | Weight: 260 g
- 9-257 ESD** Colour: ESD black | Surface: smooth, silky | Weight: 260 g
- With permanently connected angular adapter, permits swift rotation of the circuit board holder with the PCB and clamping lid through 180°



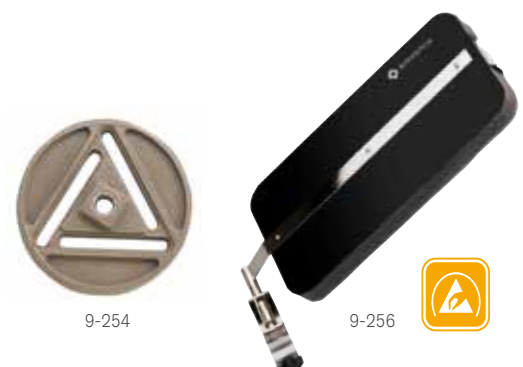
## Universal screw-on plate

- 9-254** Colour: umbra | Surface: structured | Weight: 120 g
- Slots machined for common standard screws for building prototypes or for holding e.g. tuner, line output transformer, small loudspeaker etc.

## ACCESSORIES FOR 9-253 AND 9-253 ESD

### Clamping lid for circuit boards with components

- 9-256** Colour: chrome Finish: shiny Material: ESD foam | Weight: 340 g
- Size of the cover plate: 240 x 130 mm
- Components of different sizes are pressed by the dissipative foam of 20 mm so that soldering is possible after turning the circuit board.





# SPANNFIX MAXI - PRODUKTVARIANTEN

## 9-225 SPANNFIX MAXI

for screwing



### DESCRIPTION

The **Spannflix 9-225** is suitable for workbenches or work areas with a maximum table thickness up to 85 mm. Due to its table clamping; the small vice with ball joint can be quickly and easily mounted to any workbench or table. Slight pressure on the lever is sufficient.

Clamping pressure: 2940 N  
Clamping capacity: 100 mm  
Clamping depth: 50 mm  
Jaw width: 100 mm  
Jaws: Steel, smooth and toothed, reversible and interchangeable



Position as picture:  
approx. 420 x 270 x 100 mm  
(Dimensions for orientation)



Weight: 3900 g



## 9-226 SPANNFIX MAXI

for screwing



Application  
with jaws

### DESCRIPTION

The **Spannflix 9-215** is suitable for all workbenches and surfaces due to its screwable base. The vice can be fixed with the four through holes (Ø 10 mm) to each table top. Slight pressure on the lever is sufficient and the clamped work piece can be moved into any suitable position.

Clamping pressure: 2940 N  
Clamping capacity: 100 mm  
Clamping depth: 50 mm  
Jaw width: 100 mm  
Jaws: Steel, smooth and toothed, reversible and interchangeable



Position as picture:  
approx. 380 x 230 x 150 mm  
(Dimensions for orientation)



Weight: 3600 g



## SPANNFIX MAXI - BASES

**SPANNFIX MAXI base with ball joint and threaded stud M 12 x 1,5, for screwing**

**9-227** Colour: beige grey | Surface: structured | Weight: 2220 g



**SPANNFIX MAXI base with ball joint and threaded pin, for fixed screwing on**

**9-228** Colour: beige grey | Surface: structured | Weight: 1850 g  
Size of the base plate: 190 x 155 mm  
Thread: M 12 x 1,5

**9-229** Colour: beige grey | Surface: structured | Weight: 1900 g  
Size of the base plate: 190 x 155 mm  
Thread: M 12 x 1,5  
Thread length: 25 mm  
Support plate: Ø 40 mm



9-228



9-229

**NEW**

## PROTECTIVE VICE JAWS

No.	Width mm	Finish
-----	-------------	--------

### Protective jaws made of plastic

9-900-S1100	100	grey, with magnetic strip
9-900-S7100	100	yellow, with magnetic strip
9-900-S7125	125	yellow, with magnetic strip
9-900-S7150	150	yellow, with magnetic strip

### Protective jaws made of aluminium and rubber

9-900-S8100	100	silver and black with magnets
9-900-S8125	125	silver and black with magnets
9-900-S8150	150	silver and black with magnets

### Protective jaws made of aluminium

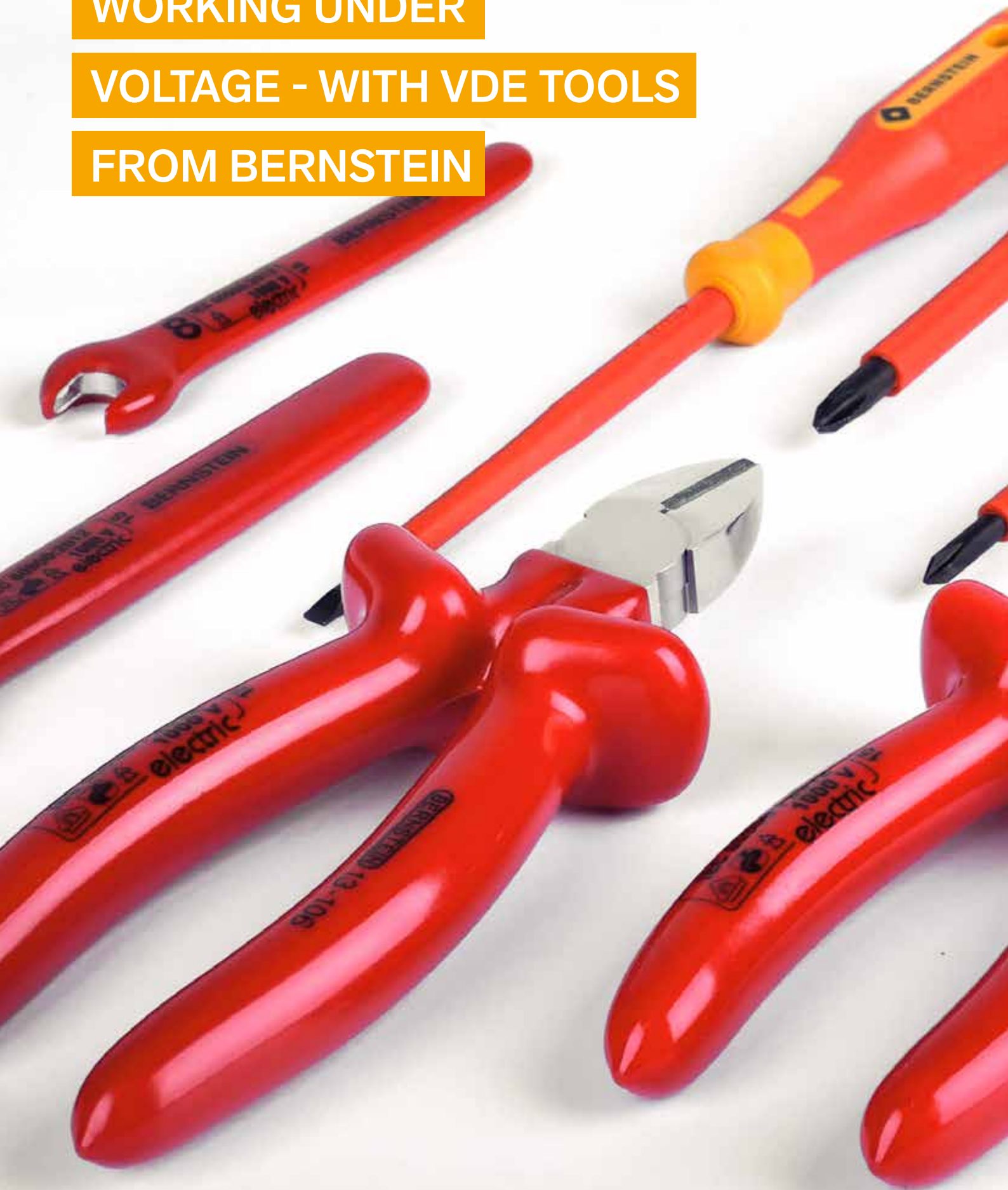
9-900-S9100	100	with different grooves, with magnets
9-900-S9125	125	with different grooves, with magnets
9-900-S9150	150	with different grooves, with magnets



**WORKING UNDER**

**VOLTAGE - WITH VDE TOOLS**

**FROM BERNSTEIN**







## BERNSTEIN VDE TOOLS

All VDE tools are tested according to VDE regulations IEC 60900 / EN 60900 and are therefore approved for work under a voltage of AC 1 000 V and DC 1 500 V.

### TESTED SECURITY

#### Voltage test

Individual safety test, tested with 10,000 V, approved for 1000 V. This means 10-fold security.

#### Penetrating test

Load with 20 N at 70 ° C, no electrical breakdown is allowed when a voltage of AC 5000 V is tested.

#### Off forces check

The adhesion of the PVC coating with 500 N or 50 N, after storage for 168 hours and 70 ° C.

# 8100

## VDE TOOL CASE SAFETY

Safety tools for working under voltage up to 1 000 V in a plastic case.

The tools have a VDE dual-colour multi-layer dip insulation or a VDE 1 or 2-component handle

### 35 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
4-344 VDE	Voltage tester 220-250 V, blade completely insulated, 110 x 3.5 mm	16-444 VDE	Socket wrench 1/2" square drive, 13 mm A/F, chrome vanadium
13-106 VDE	Side cutters, 160 mm, for steel wire up to Ø 2.0 mm, chrome plated	16-445 VDE	Socket wrench 1/2" square drive, 14 mm A/F, chrome vanadium
13-207 VDE	Telephone pliers with wire cutter, for steel wire up to Ø 2.5 mm, straight, 200 mm, chrome-plated	16-447 VDE	Socket wrench 1/2" square drive, 17 mm A/F, chrome vanadium
13-208 VDE	Telephone pliers with wire cutter, for steel wire up to Ø 2.5 mm, bent, 200 mm, chrome-plated	16-448 VDE	Socket wrench 1/2" square drive, 19 mm A/F, chrome vanadium
13-707 VDE	Combination pliers with wire cutter, for steel wire up to Ø 2.4 mm, 180 mm, chrome-plated	16-449 VDE	Socket wrench 1/2" square drive, 22 mm A/F, chrome vanadium
13-806 VDE	Wire strippers with adjusting screw, 160 mm, chromium-plated	16-451 VDE	Socket wrench 1/2" square drive, 24 mm A/F, chrome vanadium
14-652 VDE	Slotted screwdriver with multi-component handle, blade 100 x 3.5 mm	16-471 VDE	Reversible ratchet 1/2", length 260 mm
14-653 VDE	Slotted screwdriver with multi-component handle, blade 100 x 4.0 mm	16-476 VDE	Rigid extension with locking device 1/2", length 125 mm
14-654 VDE	Slotted screwdriver with multi-component handle, blade 125 x 5.5 mm	16-503 VDE	Single-ended open wrench, 8 mm A/F
14-656 VDE	Slotted screwdriver with multi-component handle, blade 150 x 6.5 mm	16-504 VDE	Single-ended open wrench, 9 mm A/F
14-658 VDE	Slotted screwdriver with multi-component handle, blade 175 x 8.0 mm	16-505 VDE	Single-ended open wrench, 10 mm A/F
14-682 VDE	Cross-recess screwdriver size PH 1 x 80 mm, with VDE safety insulation	16-506 VDE	Single-ended open wrench, 11 mm A/F
14-683 VDE	Cross-recess screwdriver size PH 2 x 100 mm, with VDE safety insulation	16-507 VDE	Single-ended open wrench, 12 mm A/F
15-522 VDE	Cable stripping knife with blade-protection, Blade 35 mm	16-508 VDE	Single-ended open wrench, 13 mm A/F
16-441 VDE	Socket wrench 1/2" square drive, 10 mm A/F, chrome vanadium	16-509 VDE	Single-ended open wrench, 14 mm A/F
16-442 VDE	Socket wrench 1/2" square drive, 11 mm A/F, chrome vanadium	17-501 VDE	Electrician's protective gloves, size 10
16-443 VDE	Socket wrench 1/2" square drive, 12 mm A/F, chrome vanadium	17-521 VDE	Plug-in grip with leather gauntlet for NH-fuses
		17-523 VDE	Plastic clip with internal spiral spring, length 170 mm





## DESCRIPTION

Extremely stable case made from cowhide, red safety-colour. The hinged front plate for easy access to the 35 tools placed in partitions and in the tray at the bottom. Behind the tool set there is a partition for protective gloves, security grip etc.. Furthermore there is a separate pocket for connection diagrams and other documents. The case has two locks. At the side it has loops for attaching a carrying strap.

BERNSTEIN safety tools are produced in accordance with the specification EN 60.900 of the Association of German Electrical Engineers (VDE) - the guarantee of optimal safety. The two-colour multilayered insulation (outside red - inside yellow) allows a simple safety-control, practicable at any time: damages of the external red insulation immediately become visible by the yellow layer below.



Outside: 440 x 175 x 310 mm  
(closed)



without tools: 3000 g  
with tools: 7500 g



35 Tools



**8100 SAFETY** with tool assortment  
**8115 SAFETY** without tool assortment

## 8150 AND 8160 VDE TOOL SETS

Safety tools for working under voltage up to 1 000 V in a plastic case.

The tools have a VDE dual-colour multi-layer dip insulation or a VDE 1 or 2-component handle

### 8150 24 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
13-106 VDE	Side cutters, 160 mm, for steel wire up to Ø 2.0 mm, chrome plated	16-444 VDE	Socket wrench 1/2" square drive, 13 mm A/F, chrome vanadium
13-708 VDE	Combination pliers with wire cutter, for steel wire up to Ø 2.8 mm, 200 mm, chrome-plated	16-445 VDE	Socket wrench 1/2" square drive, 14 mm A/F, chrome vanadium
14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation	16-447 VDE	Socket wrench 1/2" square drive, 17 mm A/F, chrome vanadium
14-656 VDE	Slotted screwdriver with multi-component handle, blade 150 x 6.5 mm	16-448 VDE	Socket wrench 1/2" square drive, 19 mm A/F, chrome vanadium
14-682 VDE	Cross-recess screwdriver, PH 1 x 80 mm, with VDE safety insulation	16-475 VDE	T-socket-wrench with locking device, 1/2" drive, 200 mm
14-683 VDE	Cross-recess screwdriver PH 2 x 100 mm, with VDE safety insulation	16-505 VDE	Single-ended open wrench, 10 mm A/F
15-521 VDE	Cable knife with blade protection, blade straight, 50 mm	16-506 VDE	Single-ended open wrench, 11 mm A/F
15-522 VDE	Cable stripping knife with blade-protection, Blade 35 mm	16-507 VDE	Single-ended open wrench, 12 mm A/F
16-441 VDE	Socket wrench 1/2" square drive, 10 mm A/F, chrome vanadium	16-508 VDE	Single-ended open wrench, 13 mm A/F
16-442 VDE	Socket wrench 1/2" square drive, 11 mm A/F, chrome vanadium	16-509 VDE	Single-ended open wrench, 14 mm A/F
16-443 VDE	Socket wrench 1/2" square drive, 12 mm A/F, chrome vanadium	16-512 VDE	Single-ended open wrench, 17 mm A/F
		16-513 VDE	Single-ended open wrench, 19 mm A/F
		17-531 VDE	Voltage tester 6 - 690 V AC/DC, Automatic AC/DC detection

### 8160 12-pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
13-106 VDE	Side cutters, 160 mm, for steel wire up to Ø 2.0 mm, chrome plated	14-652 VDE	Slotted screwdriver with multi-component handle, blade 100 x 3.5 mm
13-207 VDE	Telephone pliers with wire cutter, for steel wire up to Ø 2.5 mm, straight, 200 mm, chrome-plated	14-654 VDE	Slotted screwdriver with multi-component handle, blade 125 x 5.5 mm
13-707 VDE	Combination pliers with wire cutter, for steel wire up to Ø 2.4 mm, 180 mm, chrome-plated	14-656 VDE	Slotted screwdriver with multi-component handle, blade 150 x 6.5 mm
13-806 VDE	Wire strippers with adjusting screw, 160 mm, chromium-plated	14-682 VDE	Cross-recess screwdriver PH 1 x 80 mm, with VDE safety insulation
14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation	14-683 VDE	Cross-recess screwdriver PH 2 x 100 mm, with VDE safety insulation
		15-521 VDE	Cable knife with blade protection, blade straight, 50 mm
		15-522 VDE	Cable stripping knife with blade-protection, Blade 35 mm



2230: outside dimensions: 350 x 310 x 110 mm



with tools: 3900 g



24 Tools



**8150 VDE-TOOL SET** with 24 tools



outside dimensions: 350 x 310 x 110 mm



with tools: 2800 g



12 Tools



**8160 VDE-TOOL SET** with 12 tools

## 8200

### VDE TOOL SET PROTECTION

#### In the PERFORMANCE tool case

A tool set with the basic equipment of common safety tools. Safety tools for working under voltage up to 1000 V. The tools have a VDE dual-colour multi-layer dip insulation or a VDE 1 or 2-component handle

#### 22 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
5-505	Swivel-blade cable stripper for cable Ø 4 - 28 mm, with hook blade	14-654 VDE	Slotted screwdriver with multi-component handle, blade 125 x 5.5 mm
7-116	Engineer's hammer according to DIN 1041, 300 g	14-656 VDE	Slotted screwdriver with multi-component handle, blade 150 x 6.5 mm
7-235	Flat chisel, 200 x 14 x 20 mm	14-682 VDE	Cross-recess screwdriver, PH1, Blade 80 mm
7-255	Electrician's chisel, chrome vanadium, 200 x 8 x 10 mm	14-683 VDE	Cross-recess screwdriver, PH2, Blade 100 mm
7-405	Painting trowel with conical forged blade and wooden handle, 50 mm	14-692 VDE	Cross-recess screwdriver, PZ1, Blade 80 mm
7-410	Slicker trowel, polished with round shank, 16 mm width	14-693 VDE	Cross-recess screwdriver, PZ2, Blade 100 mm
7-426	Flat brush with 40 mm wide bristles, wooden handle	15-521 VDE	Cable knife with blade protection, blade straight, 50 mm
13-908 VDE	Side cutters, for steel wire 2.5 mm, 180 mm, chrome-plated	15-531 VDE	Automatic wire stripper for cables 0.2 - 6 mm <sup>2</sup>
13-917 VDE	Telephone pliers with wire cutter, for steel wire up to 2.5 mm, 200 mm, long, straight and serrated jaws, special steel, chrome-plated	17-523 VDE	Plastic clip, 170 mm, with internal spiral spring
13-937 VDE	Combination pliers with wire cutter, for steel wire up to 2.3 mm, 185 mm, long, serrated jaws, special steel, chrome-plated	17-541 VDE	Metal saw with pistol handle, frame out of alu die cast, two-colour multilayered insulation, fully insulated
14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation		
14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation		



## DESCRIPTION

The compact shape and the structured surface give the case a high stability. The shell is made from X-ABS plastic with an extremely slip and scratch-resistant surface makes the case resistant to external influences. The high-impact and break-resistant material makes the tool case „airworthy“ and also raises the rough luggage handling of abandoned flight luggage.

An ergonomic handle, robust ratchet hinges with lid locking mechanism, tool boards made of moisture-resistant and break-resistant ConPearl® plastic with sewn-in pockets and a freely divisible bottom shell (height 60 mm) round off the equipment of the tool case.



Outside: 480 x 350 x 170 mm  
(closed)



without tools: 4000 g  
with tools: 7100 g



22 Tools



**8200 VDE PROTECTION** with tool assortment  
**5015 PERFORMANCE** without tool assortment



## 8300 AND 8310 VDE TOOL BACKPACK GLOBETROTTER

A tool set with the basic equipment of common safety tools. Safety tools for working under voltage up to 1000 V.  
The tools have a VDE dual-colour multi-layer dip insulation or a VDE 1 or 2-component handle

### 22/36 pcs. tool set consisting of:

No.	Description of individual tools	No.	Description of individual tools
	<b>8300 VDE tool set with 22 pcs.</b>		<b>8310 additionally with the following tools (36 pcs.)</b>
13-106 VDE	Side cutters, 160 mm, for steel wire up to Ø 2.0 mm, chrome plated	16-440 VDE	Socket wrench and T-spanner with 1/2" square drive, 200 mm, 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm A/F, 9-pcs. in red artificial leather bag
13-207 VDE	Telephone pliers with wire cutter, for steel wire up to Ø 2.5 mm, straight, 200 mm, chrome-plated	16-471 VDE	Reversible ratchet 1/2", 260 mm long, two-colour multilayered insulation
13-707 VDE	Combination pliers with wire cutter, for steel wire up to Ø 2.4 mm, 180 mm, chrome-plated	16-476 VDE	Rigid extension 1/2", 125 mm long, with locking device, two-colour multilayered insulation
14-651 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 75 x 2.5 mm, with VDE safety insulation	17-501 VDE	Electrician's protective glove, size 10
14-653 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 100x 4.0 mm, with VDE safety insulation	17-521 VDE	Plug-in grip leather gauntlet for NH fuses
14-654 VDE	Slotted screwdriver with multi-component handle, blade made from chrome vanadium, burnished, 125 x 5.5 mm, with VDE safety insulation	17-523 VDE	Plastic clip, 170 mm long, with internal spiral spring
14-656 VDE	Slotted screwdriver with multi-component handle, blade 150 x 6.5 mm		
14-658 VDE	Slotted screwdriver with multi-component handle, blade 175 x 8.0 mm		
14-682 VDE	Cross-recess screwdriver PH 1 x 80 mm, with VDE safety insulation		
14-683 VDE	Cross-recess screwdriver PH 2 x 100 mm, with VDE safety insulation		
14-692 VDE	Cross-recess screwdriver, PZ1, Blade 80 mm		
14-693 VDE	Cross-recess screwdriver, PZ, PH 2, Blade 100 mm		
15-521 VDE	Cable knife with blade protection, blade straight, 50 mm		
15-522 VDE	Cable stripping knife with blade-protection, Blade 35 mm		
15-531 VDE	Automatic wire stripper for cables 0.2 - 6 mm <sup>2</sup>		
16-503 VDE	Single-ended open wrench, 8 mm A/F		
16-504 VDE	Single-ended open wrench, 9 mm A/F		
16-505 VDE	Single-ended open wrench, 10 mm A/F		
16-506 VDE	Single-ended open wrench, 11 mm A/F		
16-507 VDE	Single-ended open wrench, 12 mm A/F		
16-508 VDE	Single-ended open wrench, 13 mm A/F		
16-509 VDE	Single-ended open wrench, 14 mm A/F		



## DESCRIPTION

Backpack made from highly durable nylon with padded backpack system, stomach and chest strap, rubberized ergonomic carrying handle and splash-proof floor. Outside, the backpack has a large front pocket with zipper. At the side is a business card compartment, including a mesh pocket (160 x 90 mm) and a Velcro pocket (80 x 40 x 30 mm) on the carrying strap. The backpack is lockable with a high-quality zipper and can be opened 90°.

There are 8 pockets for tools on the back wall. On a removable tool panel there are 8 pockets on the front and 2 rows of elastic loops on the back for further tools. Inside the front panel is a padded notebook compartment (340 x 300 x 50 mm). In the basic equipment, the backpack is equipped with 22 VDE tools.

BERNSTEIN safety tools are certified according to VDE regulations IEC 60900 / EN 60900 are isolated, tested and offer a guarantee for maximum safety. The double-colour, multi-layer dip insulation makes damage visible to the outer red insulation (due to the yellow insulation inside). The advantage is a simple and at any time feasible safety control.



Outside: 350 x 430 x 230 mm  
(closed)



without tools: 2000 g  
with tools: 4000 - 7300 g



22 or 36 Tools



**8300 VDE GLOBETROTTER** with 22 tools  
**8310 VDE GLOBETROTTER** with 36 tools  
**8315 VDE GLOBETROTTER** without tools

# SAFETY INSULATED PLIERS

Insulated according to VDE regulations IEC 60900 / EN 60900 and are therefore approved for work under a voltage of AC 1 000 V and DC 1 500 V.

Pliers made from special tool steel, oil-hardened, chrome-plated for hard and soft wire, with **double-colour multi-layer** dip insulation outside red - inside yellow. Damage to the outer red insulation is immediately visible through the underlying yellow insulation. The advantage is a simple and at any time feasible safety control.



No.	Length mm	Finish cutting capacity	Weight g
<b>Side cutters</b>			
DIN ISO 5749			
<b>13-106 VDE</b>	160	for steel wire up to Ø 2.0 mm	210
<b>13-108 VDE</b>	180	for steel wire up to Ø 2.5 mm	290
<b>Telephone pliers</b>			
DIN ISO 5749		long, straight jaws, gripping surface serrated	
<b>13-207 VDE</b>	200	for steel wire up to Ø 2.5 mm	240
<b>Telephone pliers</b>			
DIN ISO 5749		45 ° bent jaws, gripping surfaces serrated	
<b>13-208 VDE</b>	200	for steel wire up to Ø 2.5 mm	250
<b>Round nose pliers</b>			
DIN ISO 5749 (5257)		with long, round, serrated jaws	
<b>13-506 VDE</b>	160	-	190
<b>Flat nose pliers</b>			
DIN ISO 5745		long, flat, serrated jaws	
<b>13-516 VDE</b>	160	-	190
<b>Combination pliers</b>			
DIN ISO 5746		with wire cutter, jaws serrated	
<b>13-707 VDE</b>	180	for steel wire up to Ø 2.3 mm	290
<b>13-708 VDE</b>	205	for steel wire up to Ø 2.8 mm	390
<b>Wire strippers</b>			
DIN ISO 5743		with adjusting screw and spring for stripping up to Ø 5 mm or 10 mm <sup>2</sup>	
<b>13-806 VDE</b>	160	-	200



# SAFETY INSULATED PLIERS

Insulated and piece-checked in accordance with VDE-specification IEC 60900 / EN 60900, permissible voltage at which the VDE pliers can be used: 1000 V a.c. or 1.500 V d.c

Pliers made from special steel, for hard and soft wire, chromed, with

**1- component plastic handles with anti-slip protection**



No.	Length mm	Finish cutting capacity	Weight g
<b>Side cutters</b>			
DIN ISO 5749 (5238B)			
<b>13-906 VDE</b>	160	for steel wire up to 2.0 mm	210
<b>13-908 VDE</b>	180	for steel wire up to 2.5 mm	290
<b>Telephone pliers</b>			
DIN ISO 5745 (5236A)		long, straight and serrated jaws	
<b>13-915 VDE</b>	160	for steel wire up to 2.0 mm	150
<b>13-917 VDE</b>	200	for steel wire up to 2.5 mm	220
<b>Telephone pliers</b>			
DIN ISO 5745 (5236A)		45 ° bent jaws, gripping surfaces serrated	
<b>13-916 VDE</b>	160	for steel wire up to 2.0 mm	150
<b>13-918 VDE</b>	200	for steel wire up to 2.5 mm	220
<b>Round nose pliers</b>			
DIN ISO 5745 (5249)		with long, round, serrated jaws	
<b>13-926 VDE</b>	160	-	165
<b>Flat nose pliers</b>			
DIN ISO 5745 (52489)		long flat jaws, gripping surfaces serrated	
<b>13-927 VDE</b>	160	-	175
<b>Combination pliers with wire cutter</b>			
DIN ISO 5746 (5244)		serrated jaws	
<b>13-936 VDE</b>	160	for steel wire up to Ø 2.0 mm	220
<b>13-937 VDE</b>	180	for steel wire up to Ø 2.3 mm	280
<b>13-938 VDE</b>	205	for steel wire up to Ø 2.8 mm	350
<b>Wire strippers</b>			
DIN ISO 5743		with adjusting screw and spring for stripping up to Ø 5 mm or 10 mm <sup>2</sup>	
<b>13-946 VDE</b>	160	-	190



13-906 VDE



13-915 VDE



13-916 VDE



13-926 VDE



13-927 VDE



13-938 VDE



13-946 VDE

## SAFETY TOOLS

BERNSTEIN VDE screwdrivers are monitored by the VDE Test Center. Each screwdriver is piece-checked in accordance with specification IEC 60900 / EN 60900 of the German Electrical Engineers (VDE). Permissible voltage at which the VDE screwdrivers can be used: 1,000 V a.c. or 1,500 V d.c.

**Blade:** chrome vanadium, hardened over its full length, burnished

**Handle:** impact-resistant, bicoloured, with VDE safety insulation, with slip off protection and practical hanging up hole



### Safety insulated slotted screwdrivers

DIN IEC 60900 / EN 60900, IEC 900



No.	Blade-length mm	Blade-width mm	Blade-thickness mm	Handle size mm	Weight g
14-651 VDE	75	2.5	0.4	100 x 21	26
14-652 VDE	100	3.5	0.6	100 x 21	34
14-653 VDE	100	4.0	0.8	100 x 21	37
14-654 VDE	125	5.5	1.0	107 x 27	75
14-656 VDE	150	6.5	1.2	114 x 32	112
14-658 VDE	175	8.0	1.2	121 x 35	175



14-651 VDE

### Safety insulated cross-recess screwdrivers PH

DIN IEC 60900 / EN 60900, IEC 900



No.	Size	Blade-length mm	Blade-Ø mm	Handle size mm	Weight g
14-681 VDE	0	60	3.0	100 x 21	27
14-682 VDE	1	80	4.5	107 x 27	57
14-683 VDE	2	100	6.0	114 x 32	92
14-684 VDE	3	150	8.0	121 x 35	166



14-682 VDE

### Safety insulated cross-recess screwdrivers PZ

DIN IEC 60900 / EN 60900, IEC 900



No.	Size	Blade-length mm	Blade-Ø mm	Handle size mm	Weight g
14-691 VDE	0	60	3.0	100 x 21	27
14-692 VDE	1	80	4.5	107 x 27	57
14-693 VDE	2	100	6.0	114 x 32	92
14-694 VDE	3	150	8.0	121 x 35	166



14-692 VDE

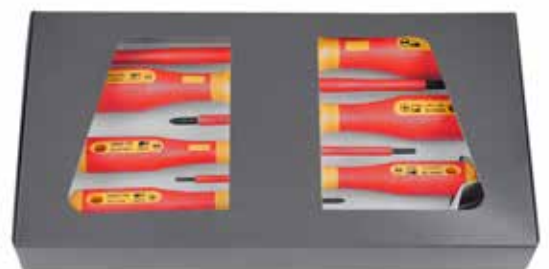
### 14-650 VDE

#### 7-piece VDE screwdriver set

visibly packed in an carton box, Total weight 350g



14-651 VDE	Slotted screwdriver 75 x 2.5 mm, with VDE safety insulation
14-652 VDE	Slotted screwdriver 100 x 3.5 mm, with VDE safety insulation
14-654 VDE	Slotted screwdriver 125 x 5.5 mm, with VDE safety insulation
14-656 VDE	Slotted screwdriver 150 x 6.5 mm, with VDE safety insulation
14-681 VDE	Cross-recess screwdriver PH 0
14-682 VDE	Cross-recess screwdriver PH 1 x 80 mm
4-343 VDE	Voltage tester 220-250 V, blade completely insulated, 60 x 3 mm




14-650 VDE



# SAFETY TOOLS

**Safety insulated socket wrench** DIN IEC 60900 / EN 60900, IEC 900

**Blade:** chrome vanadium, hardened over its full length 

**Handle:** impact-resistant, bicoloured, with VDE safety insulation, with slip off protection and practical hanging up hole



No.	A/F mm	Blade-length mm	Handle size mm	Weight g
16-298 VDE	3.0	125	100 x 21	40
16-299 VDE	4.0	125	100 x 21	45
16-301 VDE	5.0	125	100 x 21	55
16-302 VDE	5.5	125	107 x 27	85
16-303 VDE	6.0	125	107 x 27	90
16-304 VDE	7.0	125	114 x 32	125
16-305 VDE	8.0	125	114 x 32	125
16-306 VDE	9.0	125	114 x 32	130
16-307 VDE	10.0	125	114 x 32	130
16-308 VDE	11.0	125	121 x 35	170
16-309 VDE	12.0	125	121 x 35	175
16-311 VDE	13.0	125	121 x 35	175



16-307 VDE

## Single-ended open-jaw wrenches

chrome vanadium, to DIN 7446, IEC 60900:2004,

two-colour multilayered insulation. 1000 V, 15° open-end position



No.	A/F mm	Weight g	No.	A/F mm	Weight g
16-501 VDE	6.0	24	16-511 VDE	15.0	88
16-502 VDE	7.0	25	16-512 VDE	17.0	120
16-503 VDE	8.0	26	16-513 VDE	19.0	160
16-504 VDE	9.0	38	16-514 VDE	21.0	210
16-505 VDE	10.0	42	16-515 VDE	24.0	300
16-506 VDE	11.0	48	16-517 VDE	26.0	340
16-507 VDE	12.0	58	16-518 VDE	27.0	380
16-508 VDE	13.0	68	16-519 VDE	28.0	430
16-509 VDE	14.0	48	16-522 VDE	30.0	485
			16-524 VDE	32.0	590

- other dimensions available on request -



16-508 VDE

## Single-ended ring wrenches

chrome vanadium, to DIN 7446, IEC 60900:2004,

two-colour multilayered insulation. 1000 V



No.	A/F mm	Weight g	No.	A/F mm	Weight g
16-531 VDE	6.0	50	16-543 VDE	17.0	180
16-532 VDE	7.0	58	16-544 VDE	18.0	240
16-533 VDE	8.0	65	16-545 VDE	19.0	245
16-534 VDE	9.0	72	16-547 VDE	21.0	317
16-535 VDE	10.0	80	16-548 VDE	22.0	353
16-536 VDE	11.0	100	16-551 VDE	24.0	357
16-537 VDE	12.0	110	16-553 VDE	26.0	436
16-538 VDE	13.0	120	16-554 VDE	27.0	438
16-539 VDE	14.0	150	16-555 VDE	28.0	445
16-541 VDE	15.0	155	16-557 VDE	30.0	454
16-542 VDE	16.0	170	16-558 VDE	32.0	580

- other dimensions available on request -



16-537 VDE

# SAFETY TOOLS

## Adjustable wrenches

To DIN 3117, IEC 60900:2004, two-colour multilayered insulation, 1000 V, open-end position 15°, with graduation



No.	Length mm	Range	Weight g
16-773 VDE	200	0 - 26	300
16-774 VDE	250	0 - 30	500
16-775 VDE	300	0 - 35	800




16-773 VDE

## Socket wrenches

Made from chrome-vanadium, chrome-plated to DIN 7448 with square drive, double-colour multi-layer dip insulation to IEC 60900: 2004, 1000 V



No.	A/F mm	Weight g	No.	A/F mm	Weight g
with 3/8" square drive			with 1/2" square drive		
16-481 VDE	6.0	23	16-441 VDE	10.0	60
16-482 VDE	7.0	28	16-442 VDE	11.0	63
16-483 VDE	8.0	29	16-443 VDE	12.0	64
16-484 VDE	9.0	31	16-444 VDE	13.0	64
16-485 VDE	10.0	31	16-445 VDE	14.0	67
16-486 VDE	11.0	33	16-446 VDE	15.0	63
16-487 VDE	12.0	33	16-447 VDE	17.0	74
16-488 VDE	13.0	34	16-448 VDE	19.0	83
16-489 VDE	14.0	36	16-449 VDE	22.0	114
16-491 VDE	15.0	44	16-451 VDE	24.0	117
16-492 VDE	16.0	50	16-452 VDE	27.0	181
16-493 VDE	17.0	54	16-453 VDE	30.0	195
16-494 VDE	18.0	58	16-454 VDE	32.0	200
16-495 VDE	19.0	70			
16-496 VDE	20.0	72	for hexagon socket: with 1/2" square drive 		
16-497 VDE	21.0	77	16-461 VDE	5.0	87
16-498 VDE	22.0	94	16-462 VDE	6.0	107
			16-463 VDE	8.0	108
			16-464 VDE	10.0	109

- other dimensions available on request -



16-444 VDE



16-559 VDE



16-475 VDE

## T-socket-wrench

with locking device, DIN 7436, two-colour multilayered insulation according to IEC 60900: 2004, 1000 V



No.	Length mm	Finish	Weight g
16-475 VDE	200	1/2" square drive	453

## 16-440 VDE 9-piece socket wrench set with T-spanner

in red artificial leather bag

socket wrenches and T-spanner with 1/2" square drive, 200 mm, 10 - 11 - 12 - 13 - 14 - 15 - 17 - 19 mm A/F



16-440 VDE

## SAFETY TOOLS

No.	Length mm	Finish	Weight g
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**Reversible ratchet** DIN 7449, two-colour multilayered insulation according to IEC 60900:2004, 1000 V, fixing and removing of the inserts by pushing the button, right / left turn by reversing the lever



16-471 VDE	260	1/2" square drive	668
16-472 VDE	200	3/8" square drive	356



16-471 VDE

### Rigid extension

DIN 7434, two-colour multilayered insulation according to IEC 60900:2004, with locking device



16-476 VDE	125	1/2" square drive	206
16-477 VDE	250	1/2" square drive	410
16-478 VDE	125	3/8" square drive	154
16-479 VDE	250	3/8" square drive	280



16-476 VDE

### Electrician's Glove

insulating gloves for work under voltage up to 1000 Volt, out of natural rubber, high flexibility, each tested according to DIN EN 60903



17-499 VDE	Größe 9	175
17-501 VDE	Größe 10	175
17-502 VDE	Größe 11	175



17-501 VDE

### Plug-In Grip with arm protection

suitable for fixing and removing NH-fuses



17-521 VDE	Siemens handle for NH-fuses 00-3, arm protection when interrupting high current intensity (arc)	450
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17-521 VDE

### Rubber Cover

DIN VDE 0680 part 1, thickness 1.6 mm, surface smooth, for working on electrical facilities, up to 1000 V



17-702 VDE	500 x 500 mm	590
17-703 VDE	1000 x 1000 mm	1936



17-703 VDE

### Rubber Isomat

tested according to DIN VDE 0303, thickness 4.5 mm one side smooth, other side grooved



17-707 VDE	1000 x 1000 mm	5700
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### Plastic Clip

for fixing covers



17-523 VDE	160 mm, clamping width 15 mm, opening width 40 mm with internal coil spring, rubber bridge against slipping	60
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17-523 VDE

### Self-Clamping Slip on Caps

1000V protection against touching a cable-end under voltage



17-551 VDE	Ø 10 x 80 mm	20
17-552 VDE	Ø 20 x 85 mm	30
17-553 VDE	Ø 30 x 100 mm	60



17-552 VDE

# CABLE-CUTTING TOOLS

No.	Length mm	Finish	Weight g
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## Cable knife

Blade of stainless steel, with blade protection, handle made shock resistance, 1000 V



15-521 VDE	180	straight blade, blade length 50 mm	66
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15-521 VDE

## Cable stripping knife

Blade of stainless steel, with blade-protection, handle made of impact plastic, 1000 V



15-522 VDE	180	hook blade, blade length 35 mm	66
15-523 VDE	180	special blade	73



15-522 VDE



15-523 VDE

## 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

15-531 VDE	200	fibreglass re-enforced polyamide, fully insulated, approved for works on „hot „ lines up to 1000 Volt	110
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15-531 VDE

## Cable shear

forged of special steel, for copper and aluminium cable, two-colour multilayered insulation according to IEC 60900:2004, with re-adjustable joint



15-501 VDE	210	max. Ø 20 mm / 60 mm <sup>2</sup>	360
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15-501 VDE

## Ratcheting cable cutters

easy cutting of big diameters, for copper and aluminium cable, two-colour multilayered insulation, fully insulated according to IEC 60900:2004, 1000 V



15-506 VDE	250	max. Ø 32 mm / 240 mm <sup>2</sup>	800
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15-506 VDE

## Metal saw

with pistol handle frame out of alu die cast, two-colour multilayered insulation, fully insulated according to IEC 60900:2004, 1000 V



17-541 VDE	270	saw blade exchangeable	310
7-617	150	spare blade 150 mm	3
17-547 VDE	460	saw blade exchangeable 300 x 13 mm	580



17-541 VDE

No.	Length mm	Finish	Weight g
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## Engineer's tweezers with VDE Isolation

5-107 VDE	150	pointed, curved	37
5-117 VDE	145	border straight	39



5-107 VDE



5-117 VDE



## VOLTAGE TESTER

DIN EN 61243-3, DIN CDE 0682, part 401, IEC 61010

This voltage tester is universally applicable and is designed according to the latest safety regulations and guarantees safe and reliable work. The voltage tester is characterized by the following functions:

Voltage test up to 690 VAC / DC, Automatic AC / DC detection, Bright LED indication, robust, ergonomic housing for easy handling, impossible to lose measuring tips.

No.	Length mm	Finish	Weight g
17-531 VDE	6 - 690 VAC/DC		110



17-531 VDE

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




















































VDE TOOLS



# REGISTER

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2700	28	1-301	70	1-909	72	3-235-16	88	3-687-15	84
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4100	40	1-303	70	2-101	72	3-245-16	88	3-689-15	84
4400	42	1-304	70	2-111	30	3-255-16	88	3-732-13	90
4415	42	1-305	70	2-113	72	3-335-16	89	3-732-16	89
4700	44	1-306	70	2-119	31	3-345-16	89	3-733-16	89
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5000 BAS	48	1-725	71	2-124	31	3-531-16	88	3-805-10	89
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# TERMS OF SALE AND DELIVERY

## GENERAL

The nature and scope of delivery are specified in the order confirmation. The following delivery terms shall apply to all deliveries to be carried out by us. Purchasing conditions of the customer do not oblige us, even if we do not expressly contradict this. Verbal or by intercom agreements made require our written confirmation. Obvious mistakes in offers, order confirmations, etc. are expressly reserved and can be considered at any time. We are entitled to process any data relating to the business relationship or in connection with the same concerning buyers, whether the buyer itself or third parties, within the framework of the Federal Data Protection Act.

## OFFER

Our offers are permissive, an order is deemed to be granted if confirmed by us in writing.

## PRICES, DELIVERY BASIS AND PACKAGING

Unless otherwise agreed, the prices in Euros, ex works, are exclusive packaging. In the case of special packaging regulations of the customer, the additional costs involved are invoiced. Packaging is not accepted.

## DELIVERY

The delivery takes place at the expense and risk of the buyer without regard to who bears the freight costs. We reserve the right to place orders in partial deliveries. For custom-made products, excess or short deliveries of up to 10% are permitted.

## DELIVERY TIME

The delivery time begins upon receipt of all information required for the execution of the order. We endeavor to comply with the delivery time specified in the order confirmation. No claims of any kind can be asserted from a delayed delivery.

## COMPLAINTS

Complaints can only be accepted within 8 days after receiving of the goods.

## GUARANTEE

For all BERNSTEIN tools, which are unusable due to proven material or manufacturing defects, we deliver within one year after delivery a replacement. This free replacement service is excluded if the tools have become unusable due to natural wear or improper handling.

## DISCLAIMER

We do not assume any guarantee for the suitability of our products for the intended purpose of the customer. For damages caused by unsuitable or improper use, commissioning by the customer or third parties, and for the natural wear and tear we assume no guarantee. Any claims for damages, irrespective of the legal basis, as well as, in particular, the liability by tort (product liability) are excluded to the extent permitted by law.

## PAYMENT

Our invoices are payable within 10 days of the invoice date with 2% discount or in 30 days net, unless otherwise agreed in the order confirmation.

## RESERVATION OF TITLE

We reserve the title to all goods delivered by us until the buyer has paid all claims arising from the business relationship.

The buyer is entitled to resell the reserved goods in ordinary business transactions. In the case of resale, the buyer has to reserve the ownership of the sold goods on the same terms as his customer. The purchaser hereby assigns to us the purchase price claim against the buyer from the resale.

## FULFILLMENT AND JURISDICTION

Place of performance and jurisdiction for delivery and payment is Remscheid. In any case, only German law shall apply, with the exclusion of any foreign law.



