

BERNSTEIN-Pliers are made from specially selected top-quality special steels. The blanks are drop-forged and are then further processed in accordance with the latest production techniques.

BERNSTEIN pliers are oil-hardened and all cutting pliers additionally undergo subsequent induction hardening. All pliers are carefully produced for the cutting capacities indicated, either with a side face for cutting hard and soft wire or without a side face for flush cutting soft wire only.

BERNSTEIN pliers without side faces are marked with a dot on the head of the pliers. In the case of pliers for electronic engineers, the cutting capacities are indicated on the handle.

All BERNSTEIN pliers are guaranted tools. Defective pliers will be replaced if they contain material or production defects.

#### Special design features

Most BERNSTEIN pliers for electronic engineers are produced with a **box joint**.



As a result of this expensive design, optimum parallel guiding edges is obtained and the service lifes are long.

The decision to produce a lap joint



or a lay-on joint



is made according to the type of pliers and the use.



#### **Finishes**

BERNSTEIN-pliers are supplied as standard in the following finishes:

Bright-polished chrome-plated Fine-polished and bright-burnished Bright steel-polished Nickel-plated Burnished

Additional insulation or other types of finish are indicated by a suffix after the article number

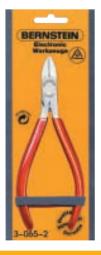
Finish	No.suffix
chrome-plated, polished with transparent hand-guard (=BERNSTEINIT-insulation) with transparent or coloured insulation with conductive black hand-guard with yellow-grey hand-guard	without -1 -2 -13 -20
nickel-plated with transparent hand-guard (=BERNSTEINIT-insulation) with coloured hand-guard insulation with coloured insulation	-3 -4 -5 -6
steel-polished with coloured hand-guard insulation with coloured insulation with conductive black hand-guard	-8 -9 -13
burnished with coloured insulation	-10 -12
bright-burnished, fine-polished with yellow-grey hand-guard with conductive black-yellow hand-guard	-14 -15
Safety insulation  VDE-safety insulation  two-colour multilayered insulation	-VDE -VDE
ESD/EGB-insulations conductive black hand-guard conductive black-yellow hand-guard	-13 -15

Only the finishes indicated in the discriptions of the pliers are available from stock, all other finishes are available on request.

#### **Packing**

All pliers are supplied in skin packs as standard. Packing in plastic bags can also be selected if required. Both are for recycling. Quantities of 10 pairs of pliers per type are packed in a 3-coloured covered box and are clearly labelled.







# **BERNSTEIN**



## SPECIAL ELECTRONIC PLIERS

# **EUROline-Conductive**

Box joint

Double leaf spring

High quality steel

Fine polished and bright burnished, for dazzle free working Ergonomically formed bicoloured hand-guard from conductive anti-slide material

The pliers of this program have been tested with good results by a well-known electronic group adequate to IEC 61340

### **CUTTING PLIERS**

No.	Ler mm	ngth inches	Finish	Copper- wire	ng capa Soft wire	city mm ( Hard wire	Weig g
Mini side	Cutta	ere Fl	JROline-Condi	ıctive			
			for finest operations	401110	•		
3-651-15	120	4 3/4	without side facee	1.2	0.6	_	55
3-651-15 DI	R 120	4 3/4	without side face, with retaining spring	1.2	0.6	-	55
			JROline-Condu	uctive	ļ		
•			or finest operations	4.0	0.0		
3-652-15	120	4 3/4	without side face	1.0	0.6	-	55
3-653-15	120	4 3/4	without side face, with special flat cutt	1.0 ing edge	0.6	-	55
Side cutt	ers E	UROI	ine-Conductiv	е			
with slim, rou available with			face				
3-654-15	125	5	with side face	1.5	1.0	0.4	60
3-655-15 ——————————————————————————————————	125 ers <b>E</b>	5 UROI	without side face	1.5 <b>e</b>	1.0	-	60
	ers E	UROI ad,	ine-Conductiv		1.0	0.4	
Side cutt with slim, poi available with	ers E	UROI ad, out side	ine-Conductiv	e		0.4	60
Side cutt with slim, poi available with 3-656-15 3-657-15	ers Ented hen or with 125 125	SUROI ad, out side 5 5	ine-Conductive face with side face without side face ne-Conductive ace,for precision	1.2 1.2	1.0		60
Side cutt with slim, poi available with 3-656-15 3-657-15  End cutto extremely slir	ers Ented hen or with 125 125	SUROI ad, out side 5 5	ine-Conductive face with side face without side face ne-Conductive ace,for precision	1.2 1.2	1.0		60 60
Side cutte with slim, poi available with 3-656-15 3-657-15  End cutte extremely slir work at points	nted hen or with 125 125	EUROI ad, out side 5 5	ine-Conductive face with side face without side face ne-Conductive ace, for precision ch	1.2 1.2	1.0		60
Side cutte with slim, poi available with 3-656-15 3-657-15  End cutte extremely slir work at points 3-671-15 3-672-15	ers Ented hen or with 125 125  ers Elm, without 130 130  ers Elm, without 130 130	SUROI ad, out side 5 5  UROIi ut side f lt to rea 5 1/8 5 1/8  UROIi ut side f ctty in fro	ine-Conductive face with side face without side face me-Conductive ace, for precision ch straight cutting edge 20° angular  me-Conductive ace, head 45° angula	1.2 1.2 1.2 0.6 0.6	1.0		60
Side cutte with slim, poi available with 3-656-15 3-657-15  End cutte extremely slir work at points 3-671-15 3-672-15  Top cutte extremely slir for flush cuttil	ers Ented hen or with 125 125  ers Elm, without 130 130  ers Elm, without 130 130	SUROI ad, out side 5 5  UROIi ut side f lt to rea 5 1/8 5 1/8  UROIi ut side f ctty in fro	ine-Conductive face with side face without side face me-Conductive ace, for precision ch straight cutting edge 20° angular  me-Conductive ace, head 45° angula	1.2 1.2 1.2 0.6 0.6	1.0		600