

# PLIERS

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Bahco has a wide range of pliers and cutters for every use - from small, convenient electronic cutters and neat, high-precision gripping pliers to sturdy cutters and heavy duty slip-joint pliers. This extensive range meets all high-quality demands in terms of materials and manufacturing processes as well as ergonomics and safety.



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# TYPES OF PLIERS

## CUTTING PLIERS



**Side cutter**



**Oblique cutter**



**End cutter**



**Cable cutter**

## HOLDING PLIERS



**Flat nose pliers** are used mostly for assembly work.



**Snipe nose pliers** are also used for assembly work. The slender jaws make the work easier in confined spaces.



**Round nose pliers** are used mostly for bending and shaping wire.



**Combination pliers** are used both for holding and for cutting.



**Circlips pliers** are intended for fitting internal and external circlips.



**Slip joint pliers** have an adjustable joint which provides a wide range of jaw openings and a firm grip on work pieces of varying shape.



**Gripping and welding pliers** are used for clamping work pieces during welding and assembly work.



**Pincers** are mainly intended for pulling nails, but can also be used for medium hard wire.



**Nut pliers** are intended to use for gripping small nuts (counter grip) in confined spaces.

### Use the right tool for the right job

- Using cutters or pliers in the wrong way will shorten their lifespan by damaging the tool, and may even result in a personal injury
- Don't use cutting pliers that are too small for the job. This not only damages the cutting edges and the work piece, but could also cause personal injury from flying splinters
- Always use the right tool and safety equipment

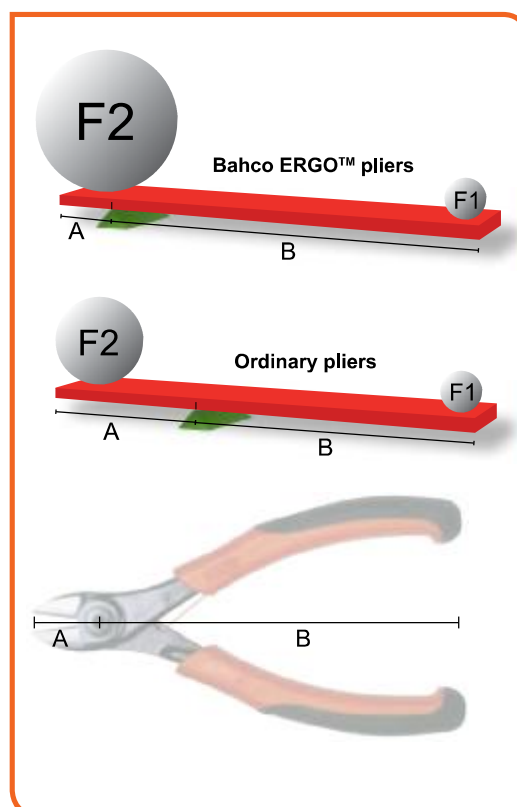
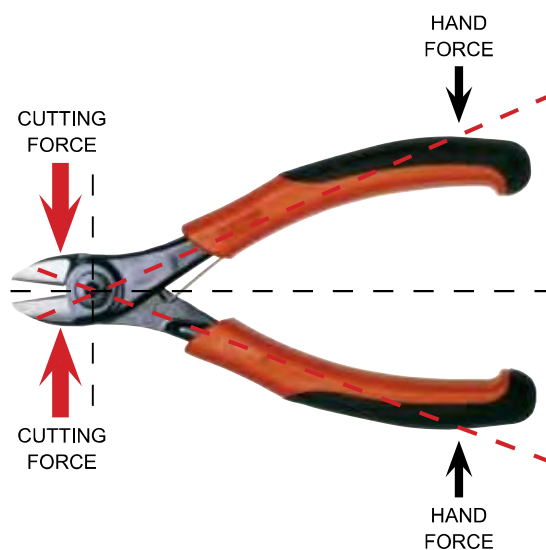
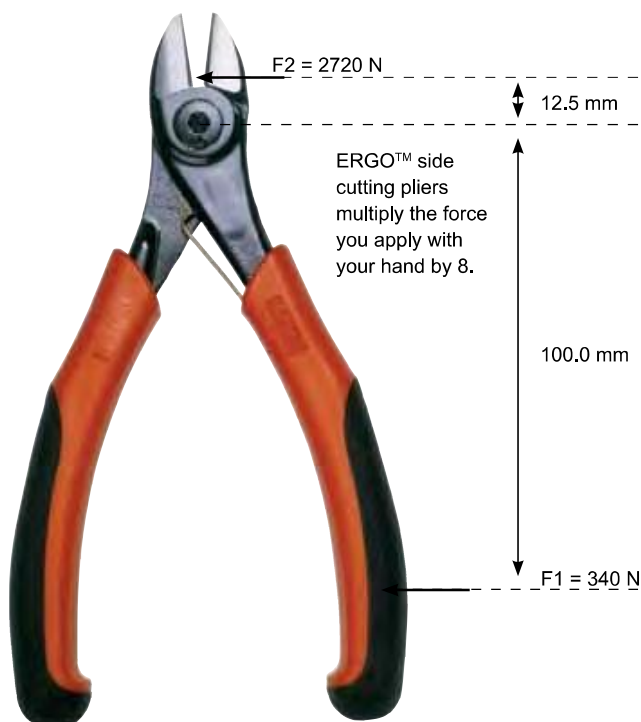


# PLIERS - BASIC PRINCIPLES

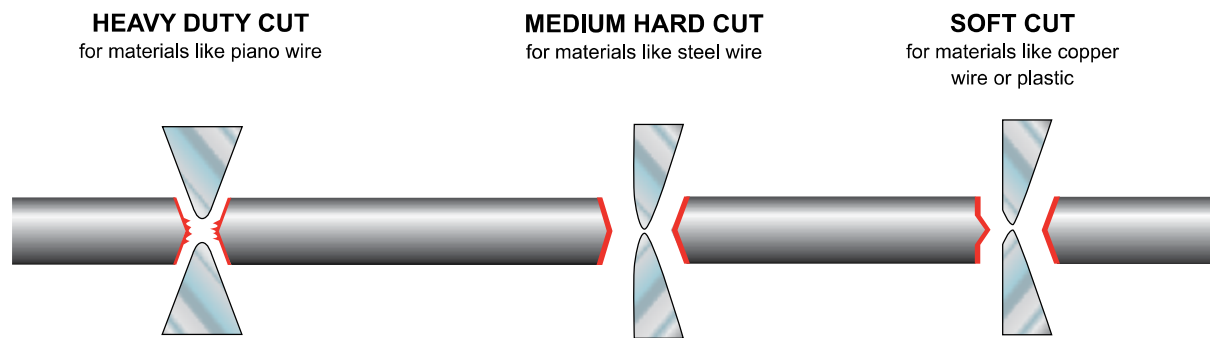
**1. CUTTING FORCE** - The smaller the distance between the rivet and the bevel, the higher the leverage you can achieve.

F1 = force applied by the user's hand

F2 = force applied by the cutting edges

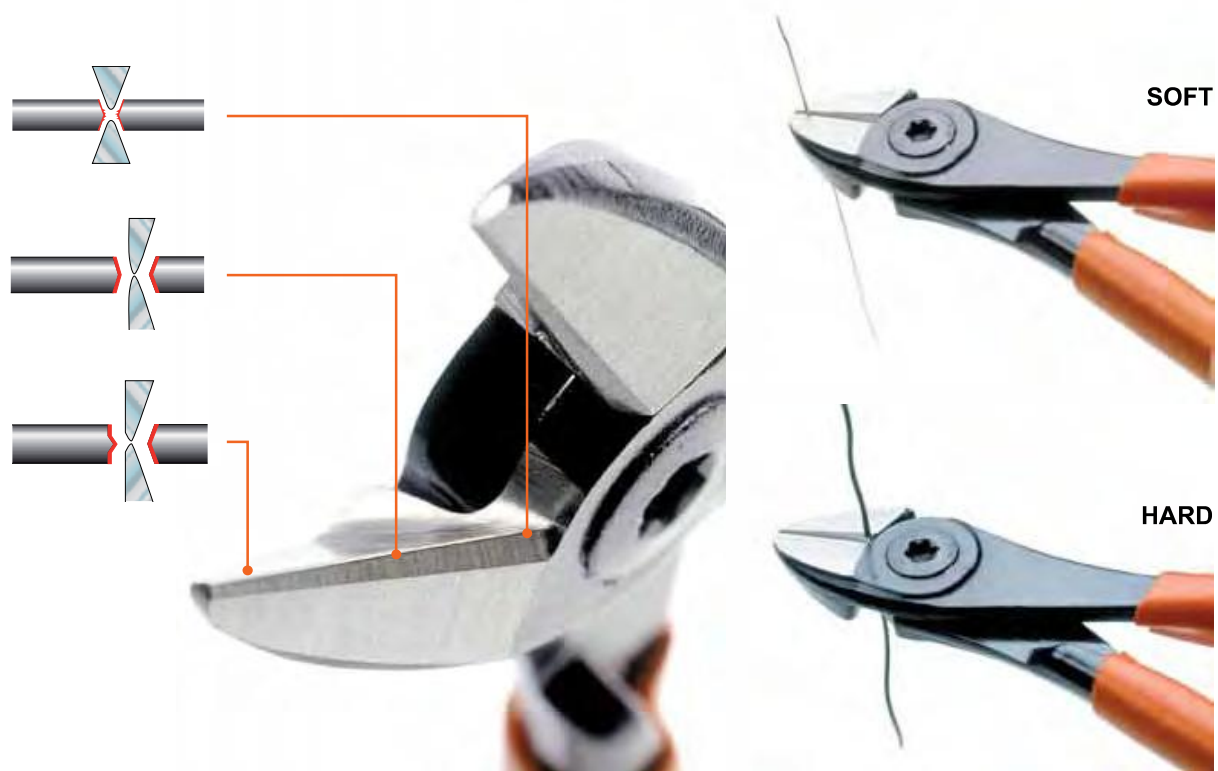


**2. CUTTING EDGES** - The cutting edges are designed to suit the intended use. The sharper the cutting edge, the softer materials it is intended to cut. Bahco has 2-in-1 pliers with progressive edges that cut both soft cables and thick wires.



### 2-PLIERS-IN-1

The ERGO™ side cutting pliers have a so called progressive edge. Effectively, this means you can cut soft, thin wire close to the tip, and hard wire close to the screw. At the tip, the cutting edge is sharper so that it can cut softer materials such as copper, instead of simply squeezing them like most of the heavy duty pliers would.



**3. EDGE ALIGNMENT** - The joint must move easily, yet stay tight without loosening, to achieve optimum cutting accuracy and leverage.



Rivet joints are effective joints for pliers where precision is not a priority.



Screw joints allow excellent precision and adjustment for perfect alignment of the cutting edges and maximum cutting accuracy.

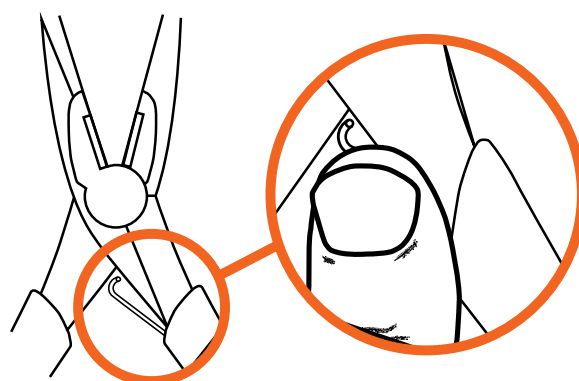
**4. RETURN SPRING** - The Bahco ERGO™ cutters and pliers have return springs, with on/off function.



Opening  
spring  
activated



Opening  
spring  
deactivated



The on-off return spring increases ease of cutting with an automatic opening of the jaws and handles when the grip is loosened.

**5. COMFORTABLE GRIPS** - High cutting forces and an intensive pace of work place stringent demands on the design of handles for pliers. There are grips suited for every need and user.



PVC coated handles



2-component handles



2-component **ergo**<sup>®</sup> handles



1000V injected handles



1000V 3-layer insulated handles

**6. JAWS** - The jaws of Bahco cutters and pliers are designed to suit the intended type of work. Cutters have high-frequency hardened edges, whereas gripping and holding pliers have flat or serrated surfaces to provide a firmer grip.



**7. RUSTPROOFING** - All Bahco cutters and pliers are subjected to various anti-corrosion treatments, depending on the intended application. The most common methods are black-oxidation with a heat-cured layer of transparent plastic varnish, a drying anti-corrosion oil or chromium plating.



**Black-oxidizing** is a process that partially protects against rust by covering the metal with a layer of oxide that gives a characteristic deep black colour.



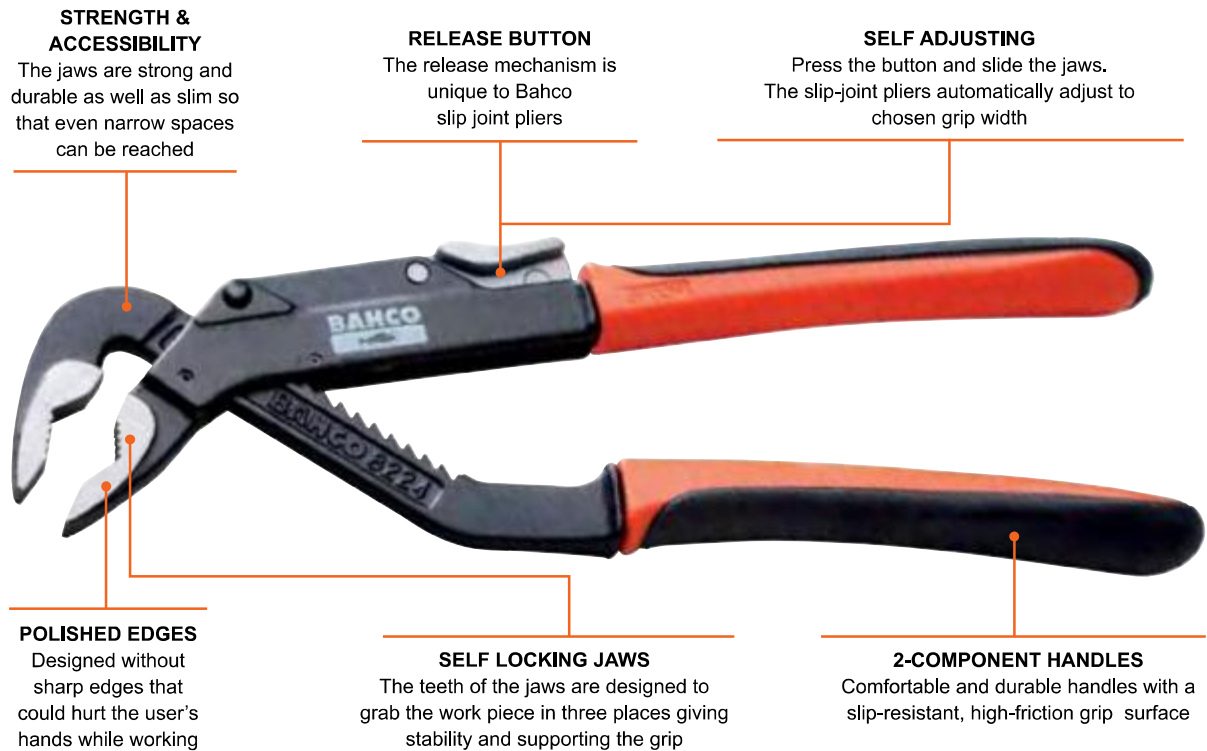
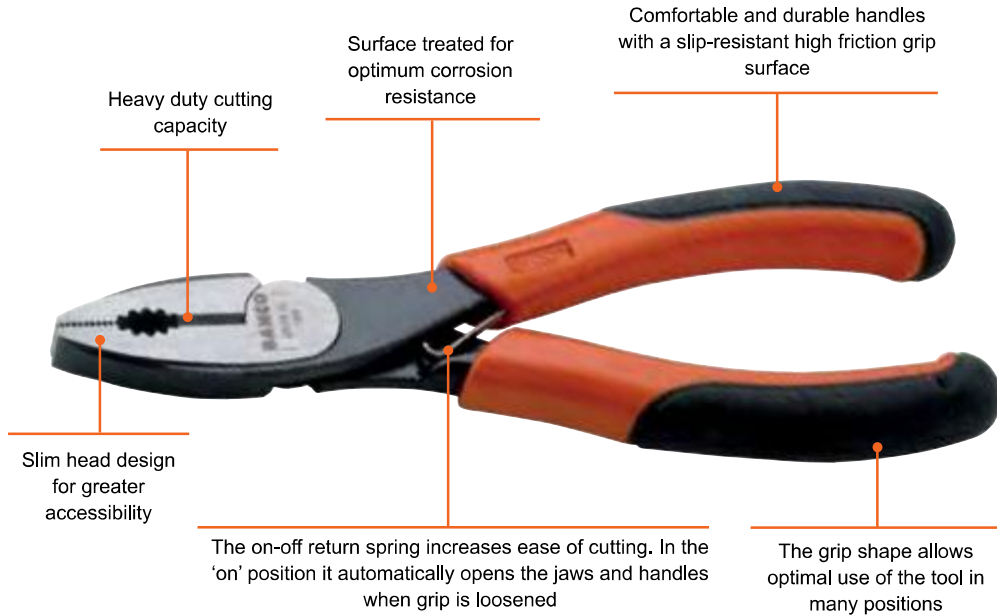
**Chrome-plating** is a layer of nickel and chrome that protects the pliers from corrosion. If the treatment is not well implemented the layer can peel off. Bahco pliers are tested to ensure that the nickel and chrome layers are perfectly adhered.



# PLIERS



Bahco ERGO™ pliers are developed in accordance with the Bahco ERGO™ Process. For more details, please refer to the chapter on ERGO™.

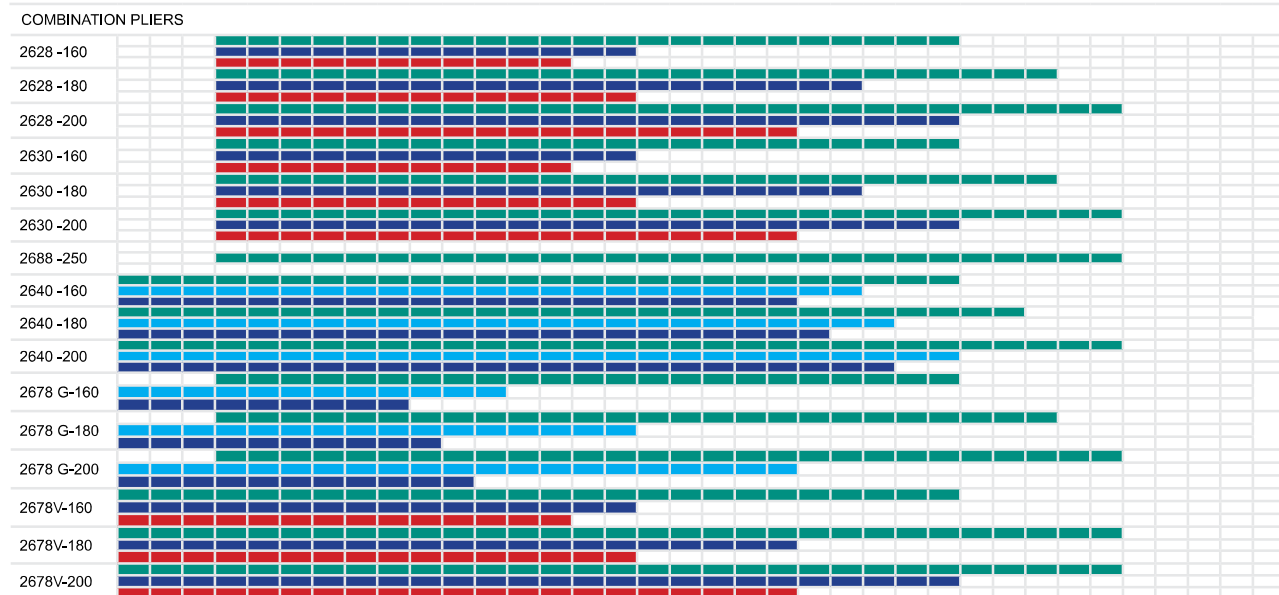
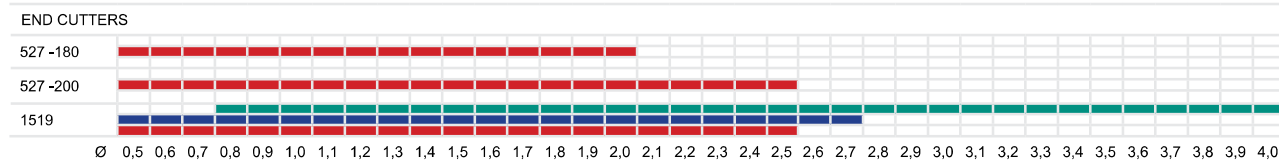
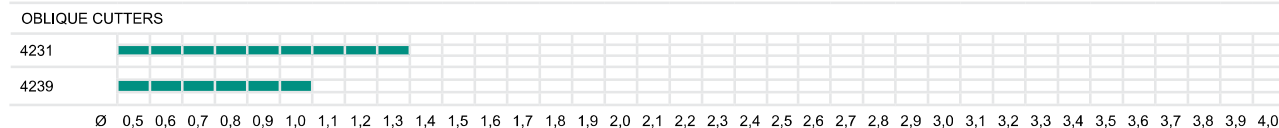
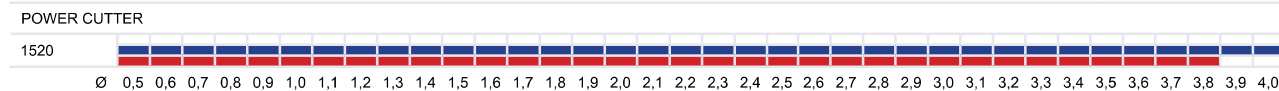
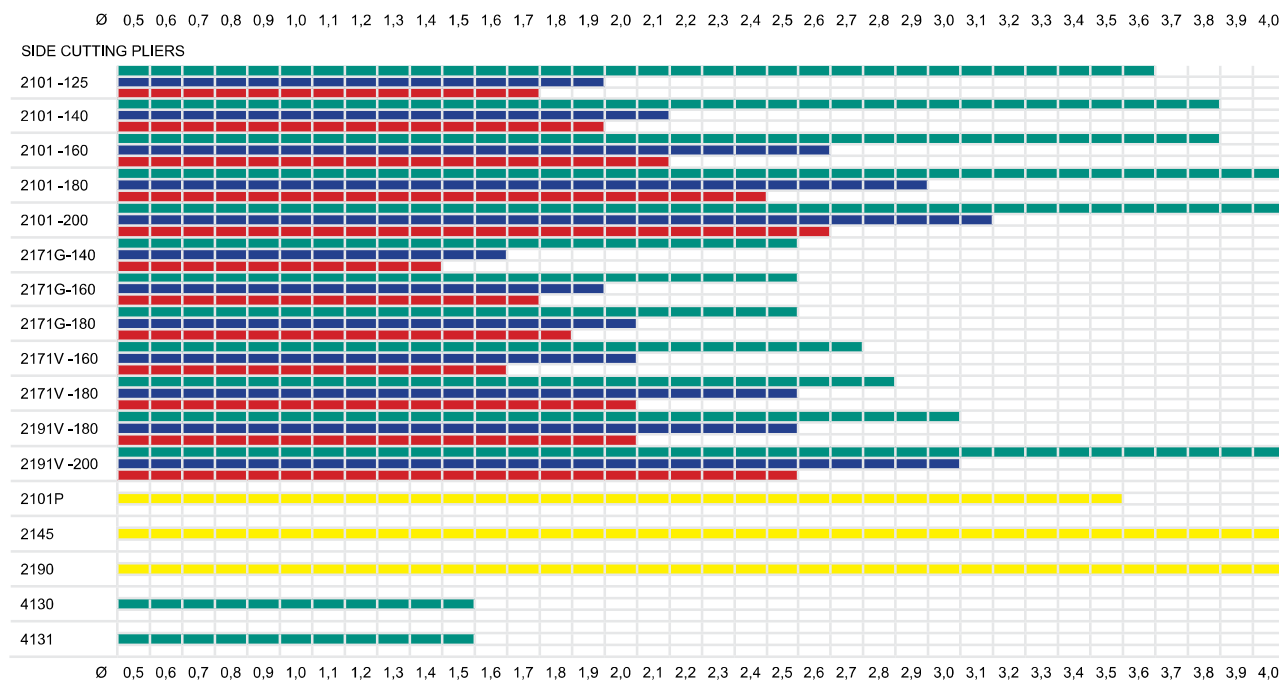


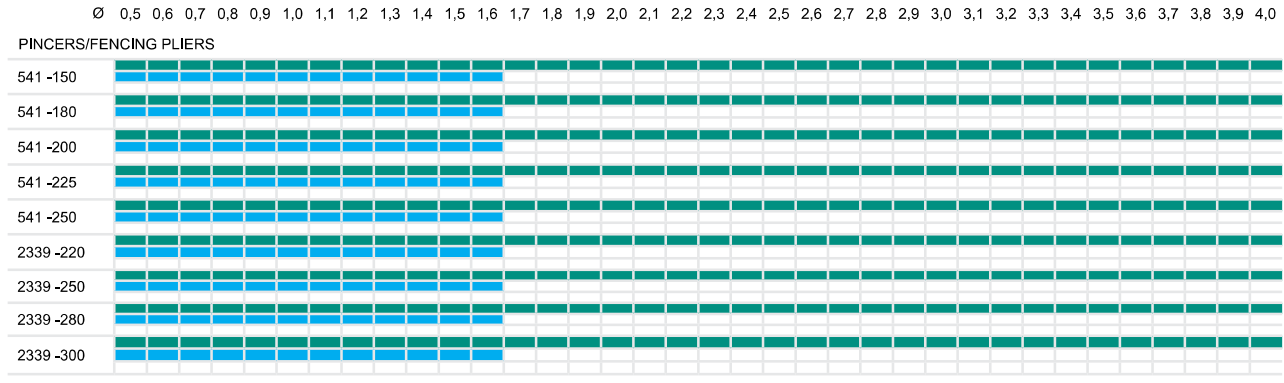
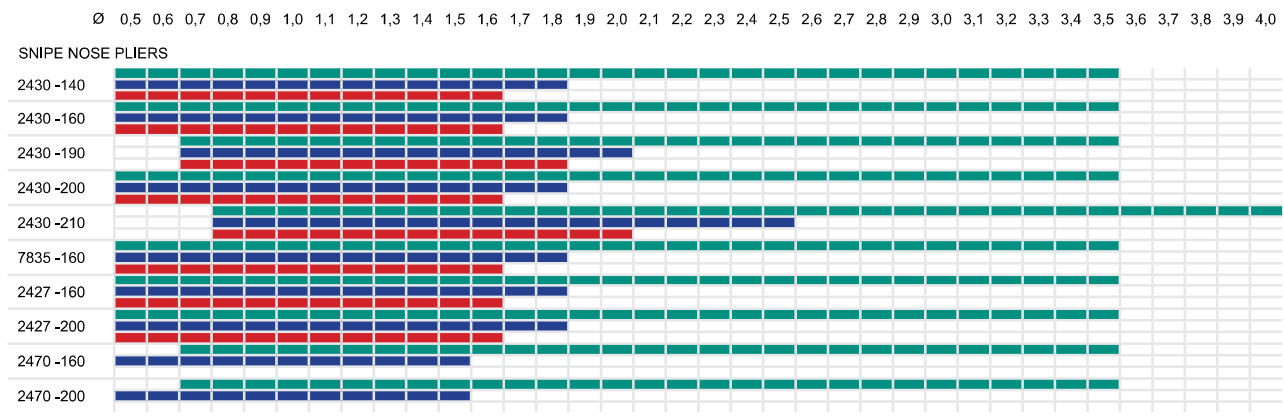
# CHOICE OF PLIERS

■ Plastic   
 ■ Cu   
 ■ Fe   
 ■ Fe+   
 ■ Piano   
 ■ Wire stripping capacity

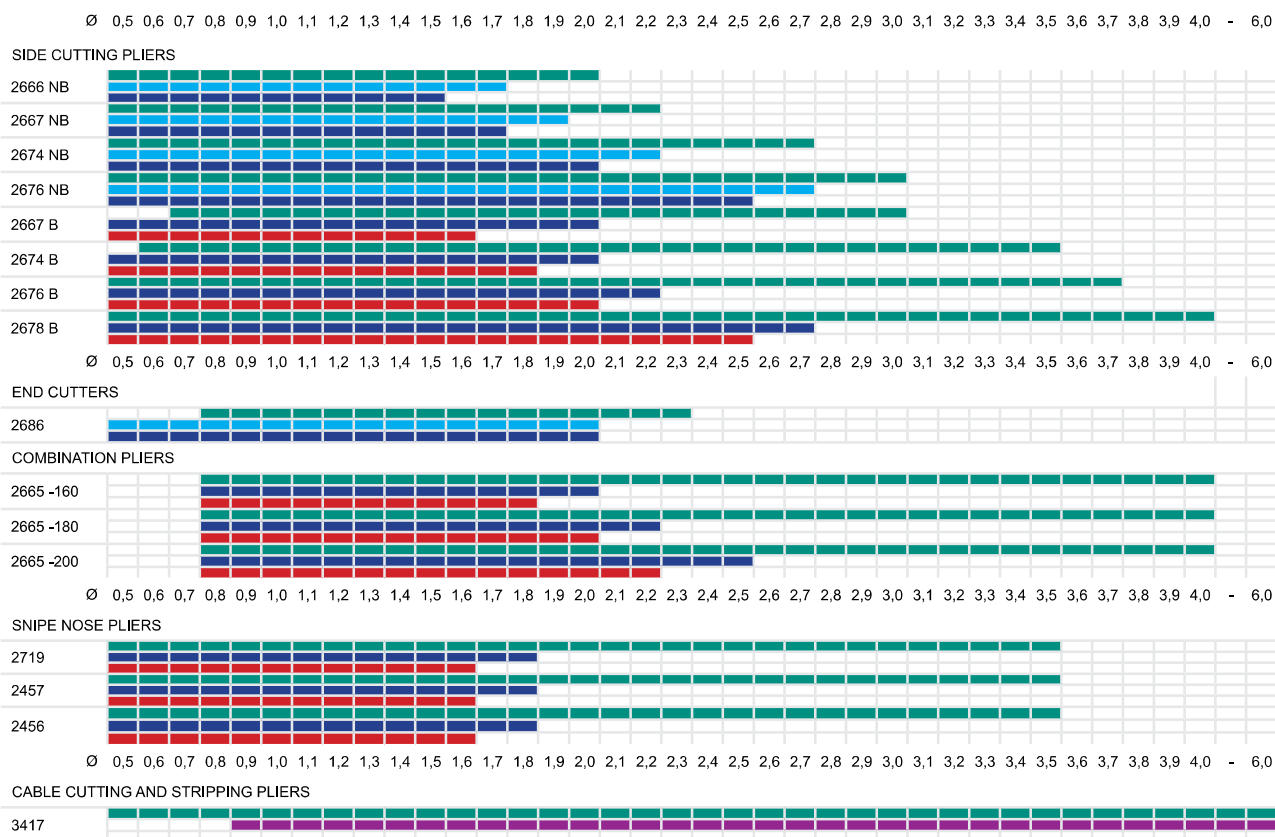
N/mm<sup>2</sup>                      230 - 250    1600 - 1800                      1800 - 2100                      2100<

Wire ■ ■ ■ ■





# BELZER

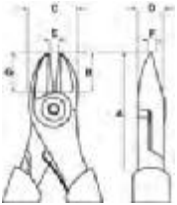




## SIDE CUTTERS

### 2101G

ergo®



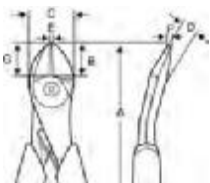
### SIDE CUTTING PLIERS

- Side cutting pliers developed according to the scientific ERGO™ process
- ISO 5749
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel, ERGO™ handles with 2-component combination, thermoplastic surface on tough polypropylene which gives superior grip
- Induction hardened cutting edges
- Progressive edges: The cutting radius progresses along the edge in order to cut hard material like piano wire close to the joint and soft materials like copper and plastic insulated wire at the tip
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- The distance from the joint to the centre of the cutting edges is reduced: giving greater leverage and increased cutting capacity
- Round shaped jaws give improved accessibility in confined spaces
- Equipped with a return spring featuring an on/off function
- IP: Industrial packed

			A	B	C	D	E	F	G				
	731415		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	g
2101G-125	0106462	5	125	14	17.5	8	1.0	1.2	14	3.5	1.8	1.6	105
2101G-140	0106479	5	140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	126
2101G-160	0106486	5	160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	162
2101G-180	0106493	5	180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	245
2101G-200	0106509	5	200	22	25.5	11	2.5	1.5	22	4.5	3.0	2.5	304
2101G-125IP	0106516	5	125	14	17.5	8	1.0	1.2	14	3.5	1.8	1.6	105
2101G-140IP	0106288	5	140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	126
2101G-160IP	0106295	5	160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	162
2101G-180IP	0106523	5	180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	245
2101G-200IP	0106530	5	200	22	25.5	11	2.5	1.5	22	4.5	3.0	2.5	304

### 2101G-A

ergo®



### SIDE CUTTING PLIERS

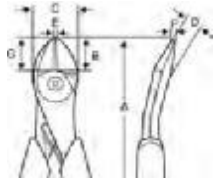
- Side cutting pliers developed according to the scientific ERGO™ process
- ISO 5749
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel, ERGO™ handles with 2-component combination, thermoplastic surface on tough polypropylene which gives superior grip
- Induction hardened cutting edges
- Progressive edges: The cutting radius progresses along the edge in order to cut hard material like piano wire close to the joint and soft materials like copper and plastic insulated wire at the tip
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- The distance from the joint to the centre of the cutting edges is reduced: giving greater leverage and increased cutting capacity
- Round shaped jaws give improved accessibility in confined spaces
- Equipped with a return spring featuring an on/off function
- 14° head angle enables better accessibility

			A	B	C	D	E	F	G				
	731151		mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	g
2101G-140A	8269500	5	140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	126
2101G-160A	8269517	5	160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	162
2101G-180A	8269524	5	180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	245



## 2101G-AHL

### SIDE CUTTING PLIERS

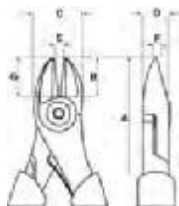


- High leverage side cutting pliers
- ISO 5749
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel, handles with 2-component combination, thermoplastic surface on tough polypropylene which gives superior grip
- Induction hardened cutting edges
- Progressive edges: The cutting radius progresses along the edge in order to cut hard material like piano wire close to the joint and soft materials like copper and plastic insulated wire at the tip
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- High leverage: Redesigned for optimum cutting performance and reduced cutting effort
- Equipped with a return spring featuring an on/off function
- 14° head angle enables better accessibility

Icon	Barcode	Icon	A	B	C	D	E	F	G	Cu	Fe+	Piano	g
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
	731151		200	21	29	11	2.5	1.5	21	4.5	3.0	2.5	304

## 2101GC

### SIDE CUTTING PLIERS



- Side cutting pliers developed according to the scientific ERGO™ process
- ISO 5749
- Finish: Nickel-chrome plated, anti-corrosion treated
- Material: High performance alloy steel
- ERGO™ handles with 2-component combination, thermoplastic surface on tough polypropylene which gives superior grip
- Induction hardened cutting edges
- Progressive edges: The cutting radius progresses along the edge in order to cut hard material like piano wire close to the joint and soft materials like copper and plastic insulated wire at the tip
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- The distance from the joint to the centre of the cutting edges is reduced: giving greater leverage and increased cutting capacity
- Round shaped jaws give improved accessibility in confined spaces
- Equipped with a return spring featuring an on/off function
- IP: Industrial packed

Icon	Barcode	Icon	A	B	C	D	E	F	G	Cu	Fe+	Piano	g
			mm	mm	mm	mm	mm	mm	mm	mm	mm	mm	
	731415		125	14	17.5	8	1.0	1.2	14	3.5	1.8	1.6	105
	0106547		140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	126
	0106554		160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	162
	0106561		180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	245
	0106578		200	22	25.5	11	2.5	1.5	22	4.5	3.0	2.5	304



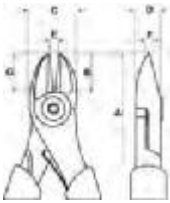
## SIDE CUTTERS

### 2101PG

ergo®



PLASTIC

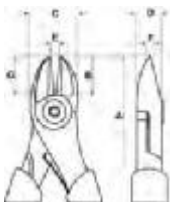


### SIDE CUTTING PLIERS

- Side cutting pliers developed according to the scientific ERGO™ process
- Dimensions according to ISO 5749
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel. ERGO handles with 2-component combination, thermoplastic surface on tough polypropylene which gives superior grip
- Induction hardened cutting edges
- Full flush cutting edge without bevelling which is designed to smoothly cut all kinds of plastic parts such as the flash of plastic component
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- Round shaped jaws give improved accessibility in confined spaces
- Equipped with a return spring featuring an on/off function
- Max cutting capacity: Cu 1.5 mm and plastic material PA (Nylon) 3 mm

			A	B	C	D	E	F	G	
	731415		mm	mm	mm	mm	mm	mm	mm	g
2101PG-160	0113972	5	160	18	21.5	10	2.0	1.5	18	162

### 2101D



### SIDE CUTTING PLIERS

- ISO 5749
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel, PVC coated handles
- Induction hardened cutting edges
- Progressive edges: The cutting radius progresses along the edge in order to cut hard material like piano wire close to the joint and soft materials like copper and plastic insulated wire at the tip
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- The distance from the joint to the centre of the cutting edges is reduced, giving greater leverage and increased cutting capacity
- Round shaped jaws give improved accessibility in confined spaces
- IP: Industrial packed

			A	B	C	D	E	F	G				
	731415		mm	mm	mm	mm	mm	mm	mm	Cu mm	Fe+ mm	Piano mm	g
2101D-125	0106387	5	125	14	17.5	8	1.0	1.2	14	3.5	1.8	1.6	104
2101D-140	0106394	5	140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	107
2101D-160	0106400	5	160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	144
2101D-180	0106417	5	180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	235
2101D-200	0106424	5	200	22	25.5	11	2.5	1.5	22	4.5	3.0	2.5	282
2101D-125IP	0106431	5	125	14	17.5	8	1.0	1.2	14	3.5	1.8	1.6	104
2101D-140IP	0106325	5	140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	107
2101D-160IP	0106318	5	160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	144
2101D-180IP	0106448	5	180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	235
2101D-200IP	0106455	5	200	22	25.5	11	2.5	1.5	22	4.5	3.0	2.5	282

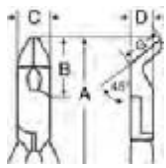


**2145PD**

**SIDE CUTTING PLIERS**



**PLASTIC**



- Side cutting pliers for plastic and other soft materials
- Finish: Black finish, anti-corrosion treated
- Material: Carbon steel and PVC coated handles
- Shape: 45° angled plane cutting edge for improved accessibility
- Full flush cutting edges without bevelling which are designed to smoothly cut all kinds of plastic parts e.g. the flash of plastic components
- With opening spring
- Max cutting capacity: Cu 1.8 mm and plastic material PA (Nylon) 3 mm

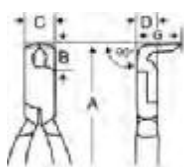
	 731415		A mm	B mm	C mm	D mm	G mm	 g
2145PD-150	0114009	5	154	21	15	11	17	135

**2190PD**

**SIDE CUTTING PLIERS**



**PLASTIC**



- Oblique cutting pliers for plastic and other soft materials
- Finish: Black finish, polished head, anti-corrosion treated
- Material: Carbon steel and PVC coated handles
- Shape: 90° angled plane cutting edge for improved accessibility
- Full flush cutting edges without bevelling which are designed to smoothly cut all kinds of plastic parts e.g. the flash of plastic components
- With opening spring
- Max cutting capacity: Cu 1.8 mm and plastic material PA (Nylon) 3 mm

	 731415		A mm	B mm	C mm	D mm	G mm	 g
2190PD-150	0114016	5	143	11.5	15	11	20	135



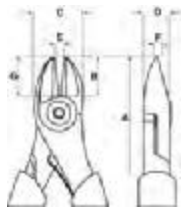


## SIDE CUTTERS

### 2101S











IEC 60900  1000V

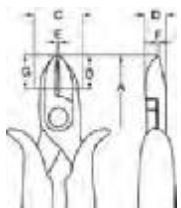


### SIDE CUTTING PLIERS

- Insulated side cutting pliers
- ISO 5749, IEC 60900
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel, plastic injected handles
- Induction hardened cutting edges
- Progressive edges: The cutting radius progresses along the edge in order to cut hard material like piano wire close to the joint and soft materials like copper and plastic insulated wire at the tip
- Screw joint that provides excellent running and accurate alignment of the cutting edges
- The distance from the joint to the centre of the cutting edges is reduced, giving greater leverage and increased cutting capacity
- Round shaped jaws give improved accessibility in confined spaces






			A mm	B mm	C mm	D mm	E mm	F mm	G mm					
2101S-140	0106592	3	140	16	19.5	9	1.5	1.3	16	3.7	2.0	1.8	126	
2101S-160	0106608	3	160	18	21.5	10	2.0	1.5	18	3.8	2.5	2.0	162	
2101S-180	0106615	3	180	20	23.5	11	2.5	1.5	20	4.0	2.7	2.3	245	
2101S-200	0106622	3	200	22	25.5	11	2.5	1.5	22	4.5	3.0	2.5	304	

### 2666NB-2676NB

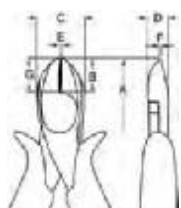


### SIDE CUTTING PLIERS

- Side cutting pliers with external edge bevel
- ISO 5749
- Finish: Nickel-chrome plated, fine-polished, anti-corrosion treated
- Material: Vanadium-extra, handles are orange, transparent cellulose acetate
- Induction hardened cutting edges
- Screw joint that provides excellent running and accurate alignment of the cutting edges





			A mm	B mm	C mm	D mm	E mm	F mm	G mm					
2666 NB	1066093	1	125	16	16	8.0	1.5	1.2	16	2.0	1.7	1.5	-	100
2667 NB	1066192	1	140	17	18	8.5	1.8	1.2	17	2.2	1.9	1.7	-	145
2674 NB	1066321	1	160	18	20	10.0	2.0	1.2	18	2.7	2.2	2.0	-	200
2676 NB	1066413	1	180	21	22	11.0	2.1	1.2	21	3.0	2.7	2.0	-	250

### 2667B-2678B



### SIDE CUTTING PLIERS

- Heavy duty side cutting pliers with external edge bevel
- ISO 5749
- Finish: Nickel-chrome plated, fine-polished, anti-corrosion treated
- Material: Vanadium-extra, handles are orange, transparent cellulose acetate
- Induction hardened cutting edges
- Screw joint that provides excellent running and accurate alignment of the cutting edges

			A mm	B mm	C mm	D mm	E mm	F mm	G mm					
2667 B	1066154	1	125	14	18	8.0	1.5	1.2	14	3.0	2.0	1.6	1.6	120
2674 B	1066307	1	140	17	20	10.0	2.0	1.5	17	3.5	2.0	1.8	1.8	150
2676 B	1066390	1	160	19	23	11.0	2.1	2.0	19	3.7	2.2	2.0	2.0	215
2678 B	1066468	1	200	21	26	11.0	2.1	2.0	21	4.0	2.7	2.5	2.5	325

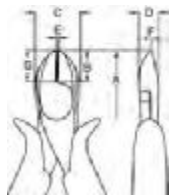


## 2667NVDE-2676NVDE

### SIDE CUTTING PLIERS



- Insulated side cutting pliers with external edge bevel
- ISO 5749, IEC 60900
- Finish: Nickel-chrome plated, fine-polished, anti-corrosion treated
- Material: Vanadium-extra, handles are red, transparent cellulose acetate
- Induction hardened cutting edges
- Screw joint that provides excellent running and accurate alignment of the cutting edges



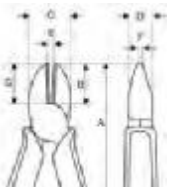
	Barcode	731415	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Cu mm	Fe mm	Fe+ mm	Piano mm	g
2667 NVDE	1497996	1	140	17	18	8.5	1.8	1.2	17	3.5	2.0	1.8	1.8	150
2674 NVDE	1498535	1	160	18	20	10.0	2.0	1.2	18	3.7	2.2	2.0	2.0	205
2676 NVDE	1498962	1	180	21	22	11.0	2.1	1.2	21	4.0	2.7	2.5	2.5	255

## 2171G

### SIDE CUTTING PLIERS



- ISO 5749
- Finish: Polished and oiled
- Material: High performance alloy steel, 2-component handles for added comfort



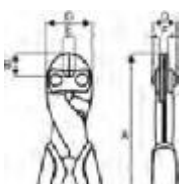
	Barcode	731415	A mm	B mm	C mm	D mm	E mm	F mm	G mm	Cu mm	Fe mm	Piano mm	g
2171G-140	0116232	5	150	18.5	20	10.5	2	1.5	18.5	2.5	1.6	1.5	170
2171G-160	0116133	5	165	20	22	12	2.5	1.5	20	2.5	1.6	1.5	240
2171G-180	0116140	5	185	22	24	12	3	1.5	22	2.5	1.6	1.5	290

## 1520G

### SIDE CUTTING PLIERS



- Power cutter with centric precision cutting edges
- Finish: Black finish anti-corrosion treated
- Material: High performance alloy steel, handles in 2-component thermoplastic elastomer surface on tough polypropylene which gives a superior grip
- Forged with cutting edges for piano, hard and soft wire
- High leverage giving exceptional cutting performance with minimum effort
- The precision cutting edges are additionally induction hardened 63-64 HRC



	Barcode	731151	A mm	B mm	C mm	D mm	E mm	F mm	Piano mm	g
1520 G	8266516	5	210	16	33.5	17.1	8	6	3.8	310



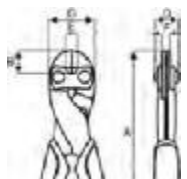
## SIDE CUTTERS

1520D

### SIDE CUTTING PLIERS



- Power cutter with centric precision cutting edges
- Finish: Black finish anti-corrosion treated
- Material: High performance alloy steel, PVC coated handles
- Forged with cutting edges for piano, hard and soft wire
- High leverage giving exceptional cutting performance with minimum effort
- The precision cutting edges are additionally induction hardened 63-64 HRC



	 731151		A mm	B mm	C mm	D mm	E mm	F mm	 Piano mm	 g
1520 D	8278922	5	205	16	33.5	17.1	8	6	3.8	300



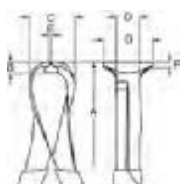
## END CUTTERS

527D

### END CUTTING PLIERS



- ISO 5748
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel
- Handles of orange PVC



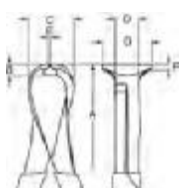
	 731415		A mm	B mm	C mm	D mm	E mm	F mm	G mm	 Piano mm	 g
527 D-160	0032723	3	160	7	26.5	11	3.0	3.0	21	2.0	205
527 D-200	0032730	3	200	7	35	13	3.0	3.0	29.5	2.5	320

2686

### END CUTTING PLIERS



- ISO 5748
- Finish: Nickel and chrome plated, anti-corrosion treated, fine-polished
- Material: Vanadium-extra, handles of orange PVC



	 731415		A mm	B mm	C mm	D mm	E mm	F mm	G mm	 Piano mm	 g
2686	1066598	1	160	13	20	11	2.0	2.0	28	2.0	185