

# 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

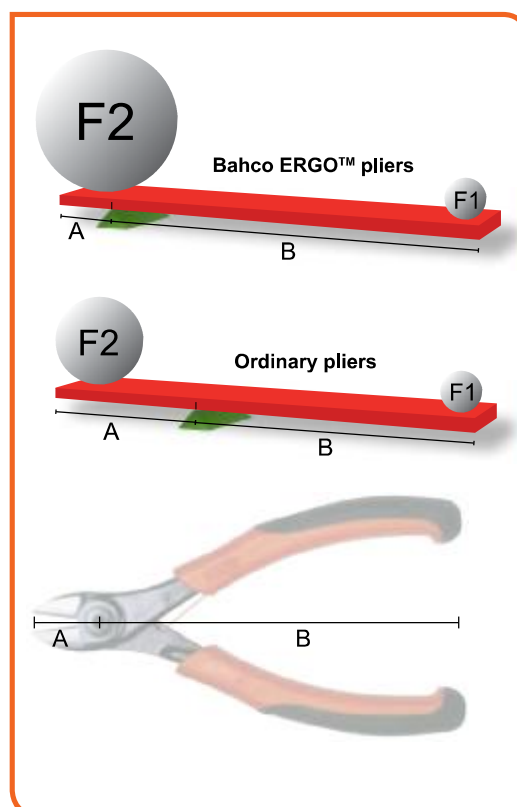
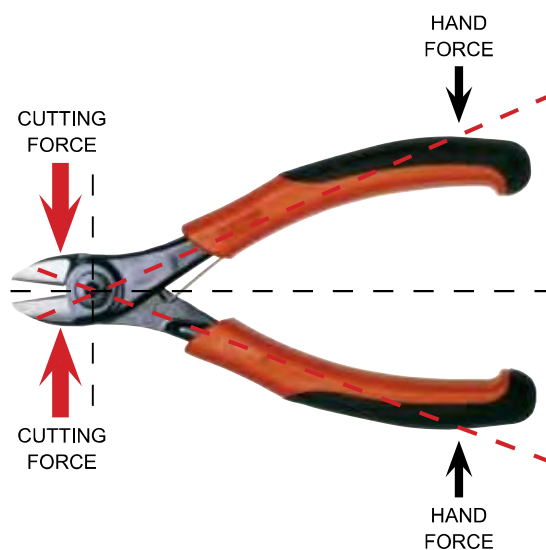
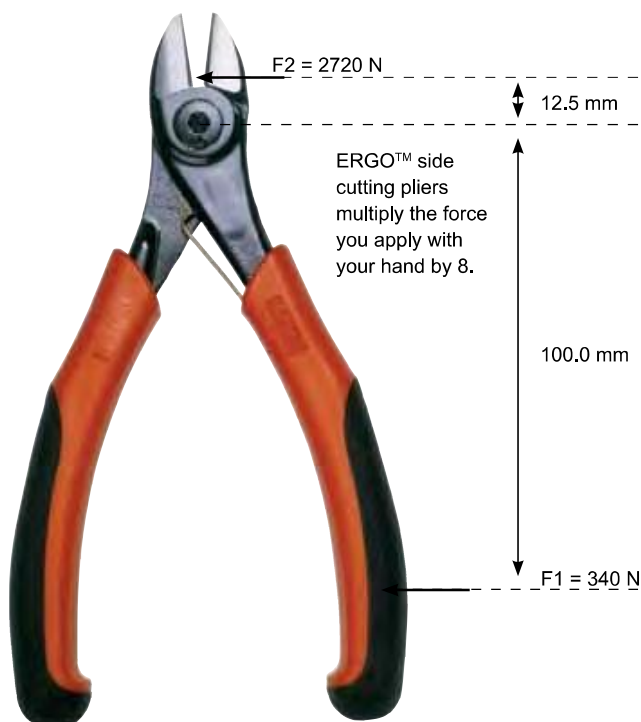


# PLIERS - BASIC PRINCIPLES

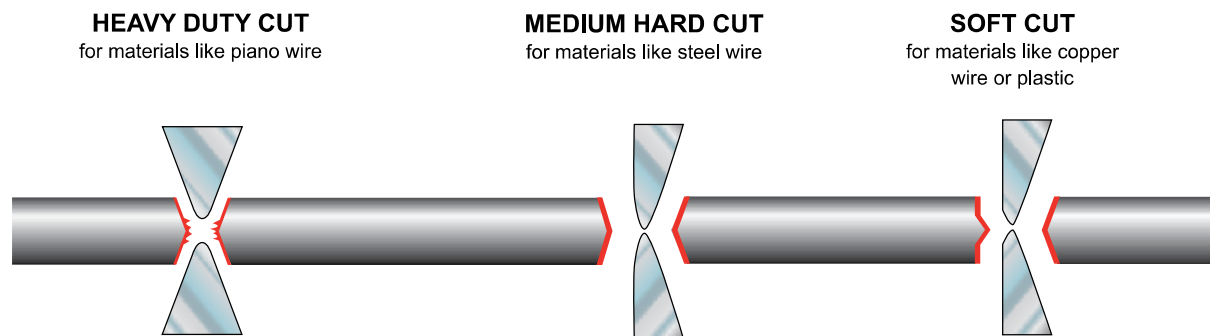
**1. CUTTING FORCE** - The smaller the distance between the rivet and the bevel, the higher the leverage you can achieve.

F1 = force applied by the user's hand

F2 = force applied by the cutting edges

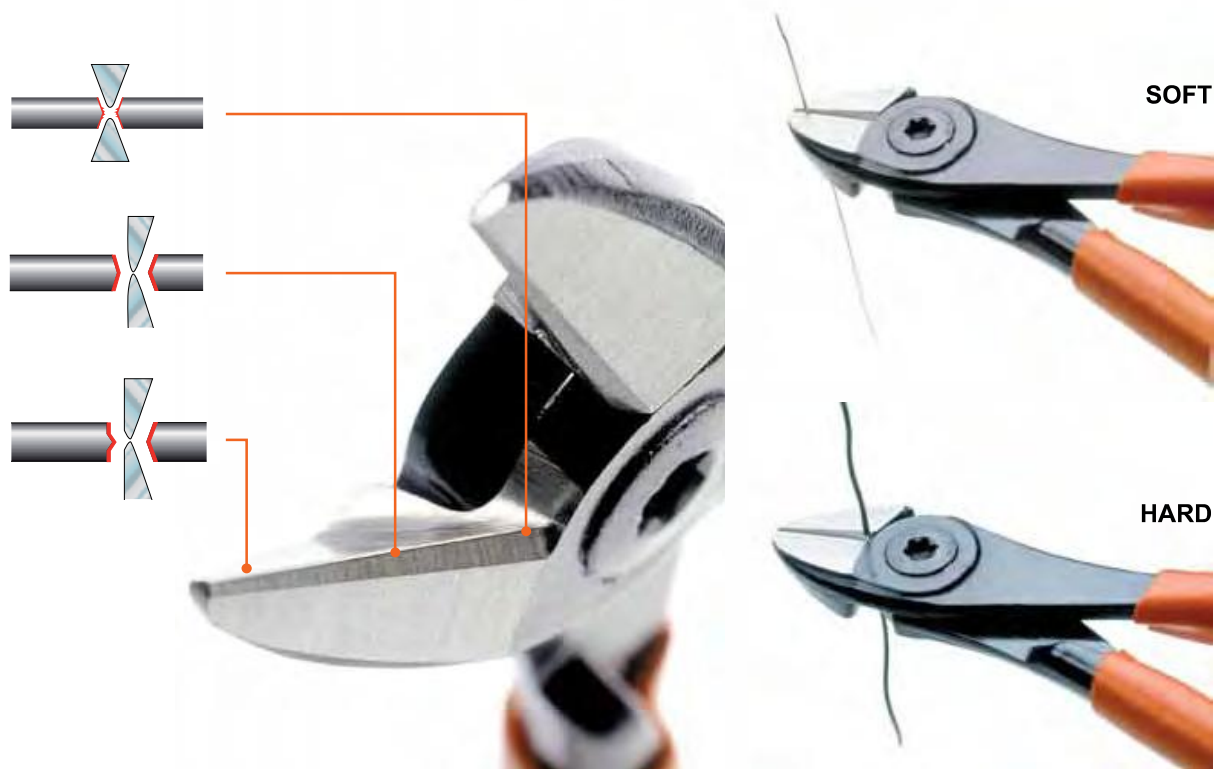


**2. CUTTING EDGES** - The cutting edges are designed to suit the intended use. The sharper the cutting edge, the softer materials it is intended to cut. Bahco has 2-in-1 pliers with progressive edges that cut both soft cables and thick wires.



### 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.

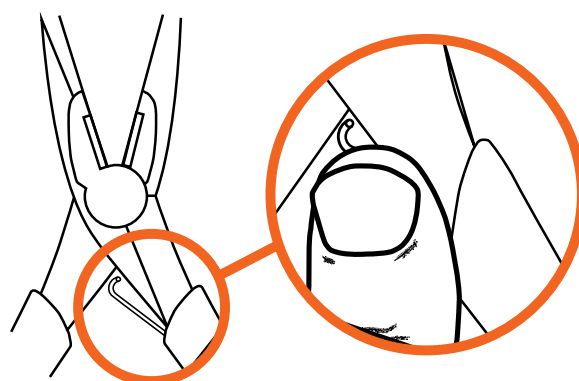
**4. RETURN SPRING** - The Bahco ERGO™ cutters and pliers have return springs, with on/off function.



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.



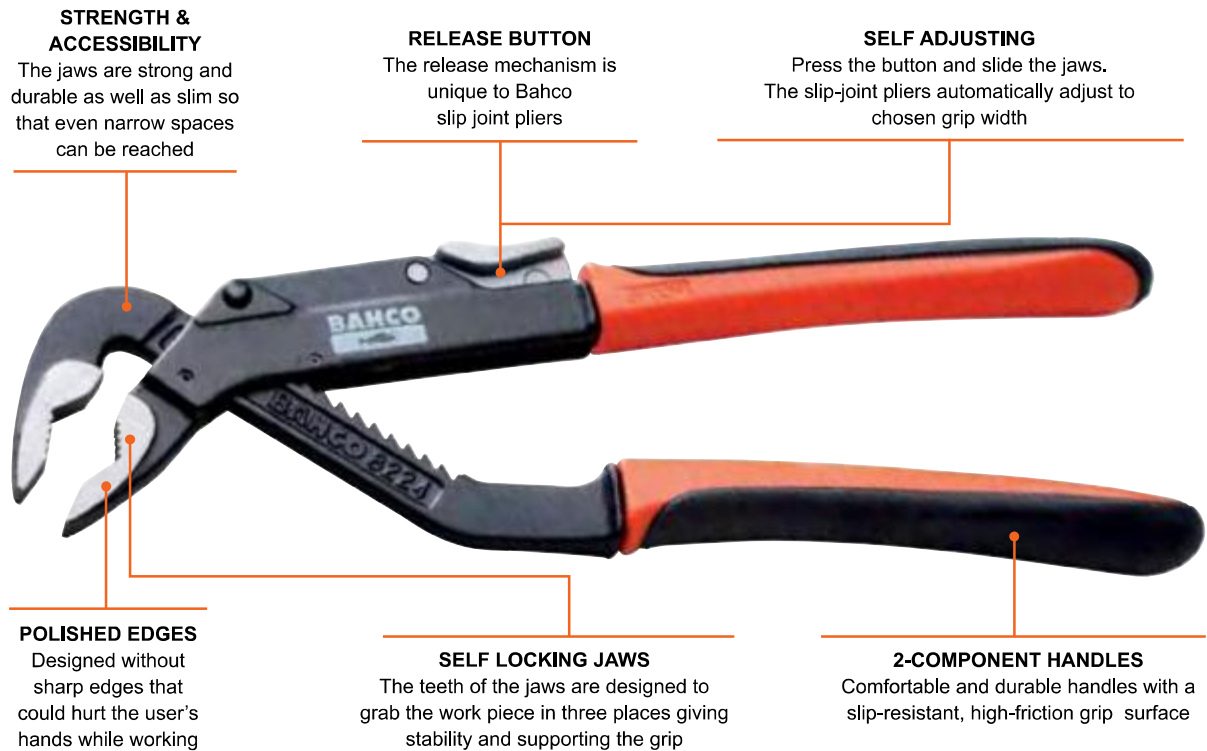
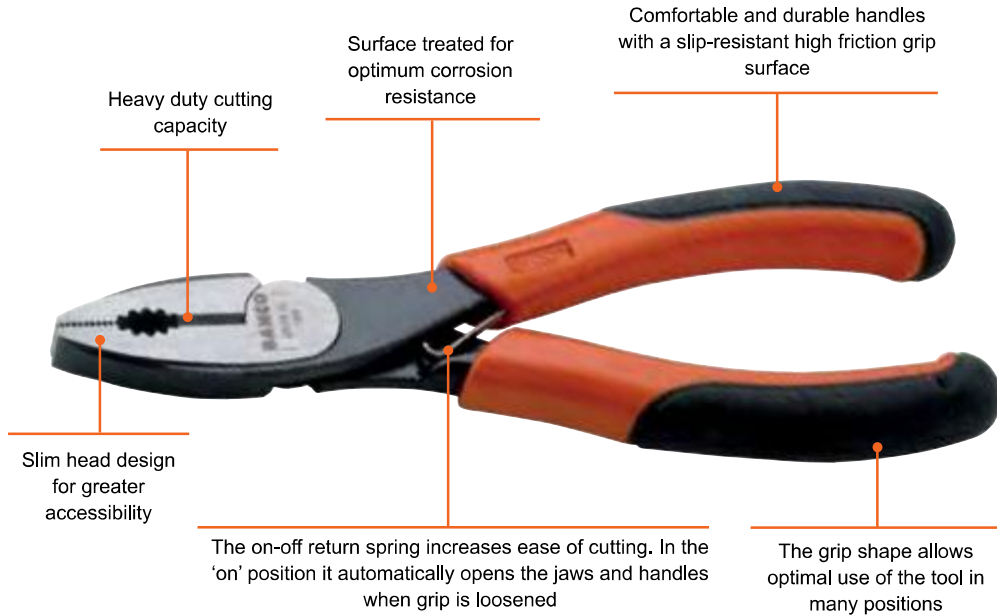
**Chrome-plating** is a layer of nickel and chrome that protects the pliers from corrosion. If the treatment is not well implemented the layer can peel off. Bahco pliers are tested to ensure that the nickel and chrome layers are perfectly adhered.



# PLIERS



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

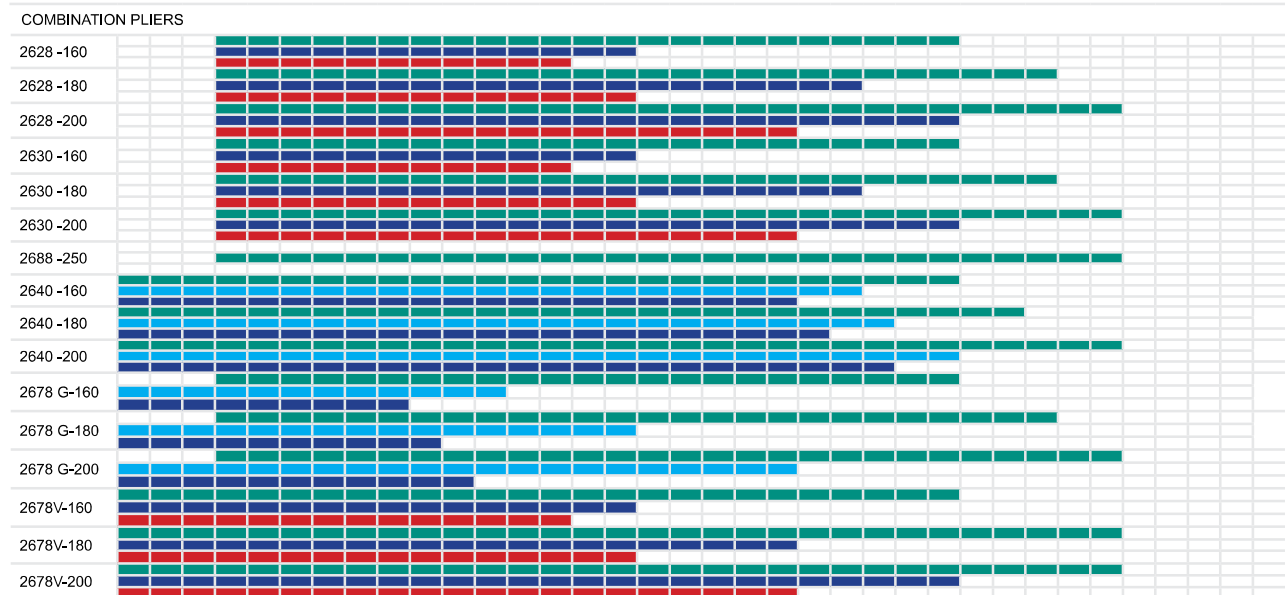
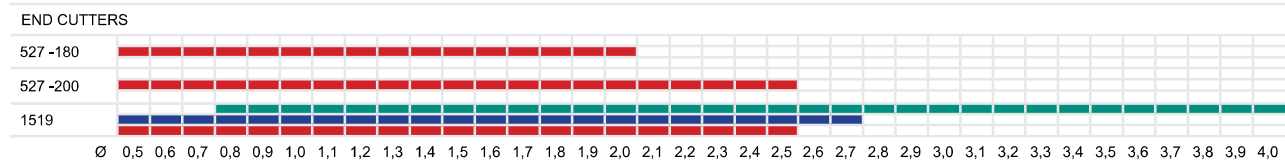
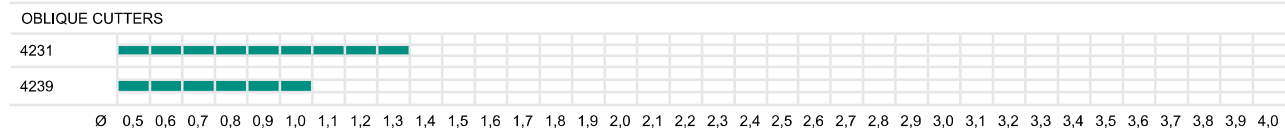
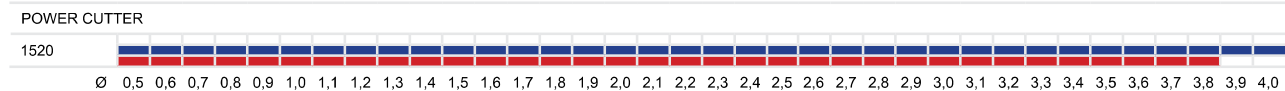
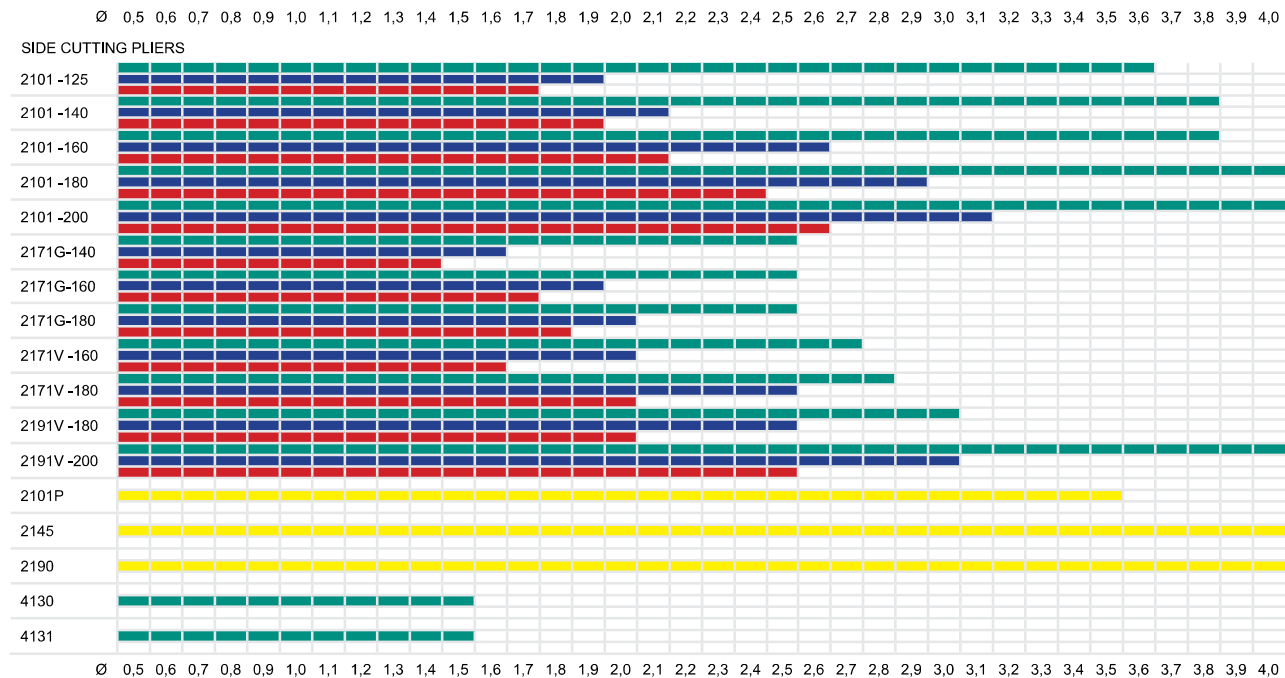


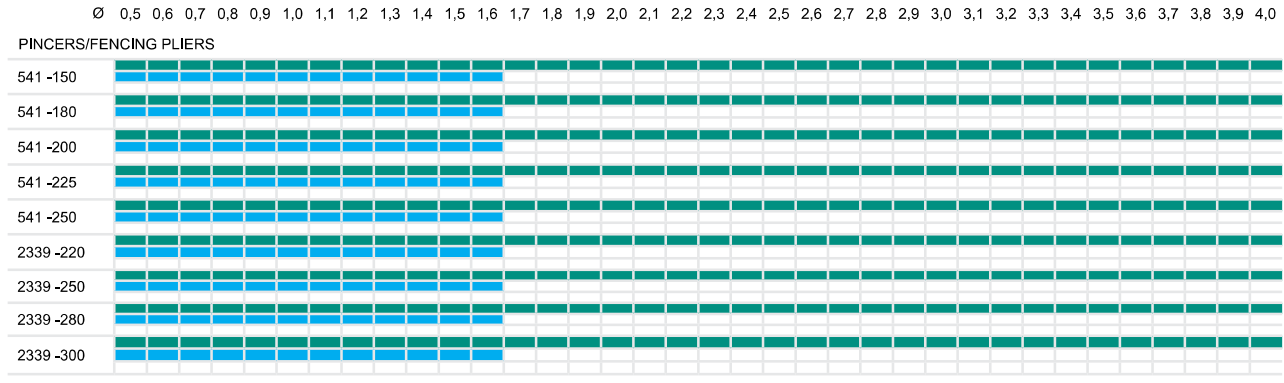
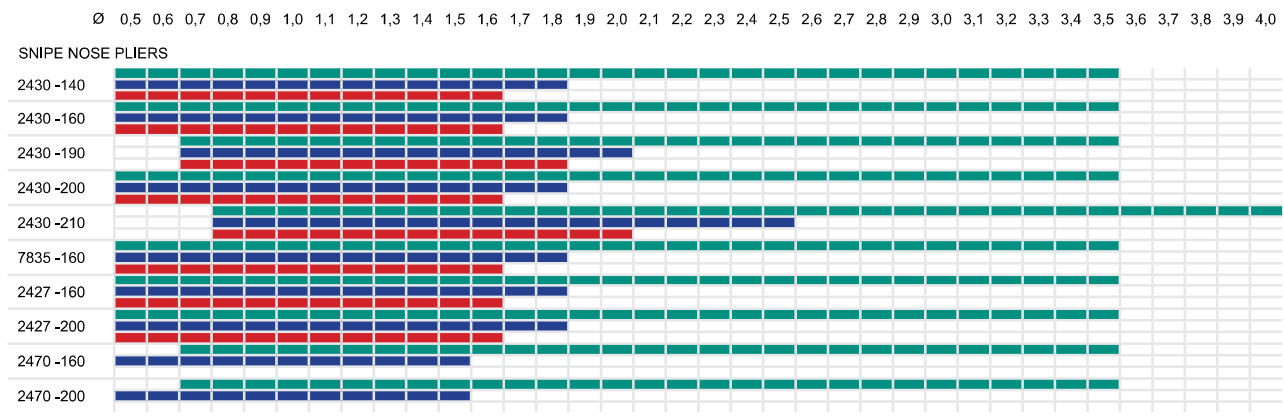
# CHOICE OF PLIERS

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

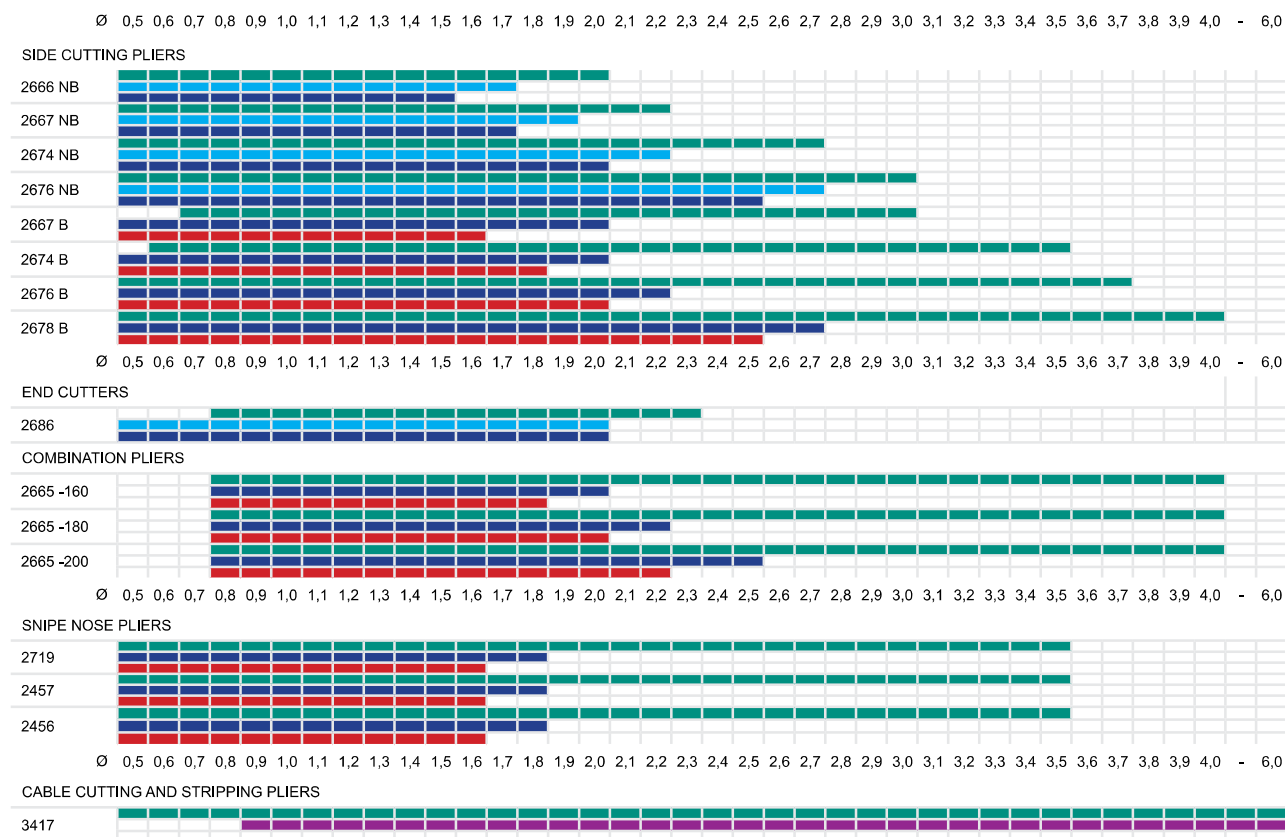
N/mm<sup>2</sup>                      230 - 250    1600 - 1800                      1800 - 2100                      2100<

Wire ■ ■ ■ ■





# BELZER





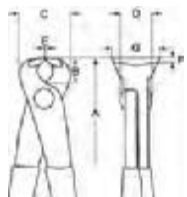
## FENCING PLIERS

2339D

### END CUTTER/ FENCING PLIERS



- Finish: Black epoxy powder coated, anti-corrosion treated
- Material: High performance alloy steel, PVC coated handles
- With high leverage design
- For wire twisting and cutting at construction sites (armouring) and to cut medium hard wire used in this application
- IP = Industrial Packed



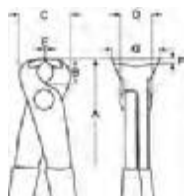
			A mm	B mm	C mm	D mm	E mm	F mm	G mm		
	731415									Fe mm	g
2339 D	0032792	3	220	16	28	21	1.0	3.0	21	2.5	320
2339 DIP	0103508	5	220	16	28	22	1.0	3.0	22	2.5	320

2339

### END CUTTER/ FENCING PLIERS



- Finish: Black epoxy powder coated, anti-corrosion treated
- Material: High performance alloy steel
- With high leverage design
- For wire twisting and cutting at construction sites (armouring) and to cut medium hard wire used in this application
- 300 mm size designed for greater leverage
- IP = Industrial Packed



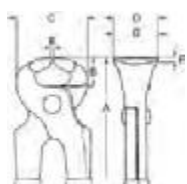
			A mm	B mm	C mm	D mm	E mm	F mm	G mm		
	731415									Fe mm	g
2339-220IP	0101061	5	220	16	28	22	1.0	3.0	22	2.0	205
2339-250IP	0101078	5	250	16	33	23	1.0	4.0	23	2.5	360
2339-280IP	0101948	5	280	18	33	23	1.5	4.0	23	3.0	420
2339-300IP	0123865	5	300	12	36	21	6	2	6	4.5	465

541D

### PINCERS



- Finish: Black epoxy powder coated, anti-corrosion treated
- Material: High performance alloy steel, handles plastic coated
- Edges are induction hardened and annealed withstand the high breaking stresses from pulling nails etc

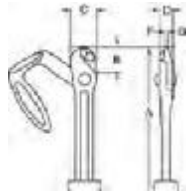


			A mm	B mm	C mm	D mm	E mm	F mm	G mm		
	731415									Fe mm	g
541 D-150	0032754	5	150	16	45	20.5	1.5	7.0	20.5	2.0	230
541D-180	0127160	5	180	21	52	21.5	2.0	8.0	21.5	2.0	265
541 D-200	0032761	5	200	24	53	23.0	1.5	9.0	23.0	2.5	385
541D-225	0127290	5	225	27	58	26.0	2.0	12.0	26.0	2.5	484
541 D-250	0032778	5	250	20	55	29.0	2.0	12.0	29.0	2.5	630



38

## NAIL PULLER

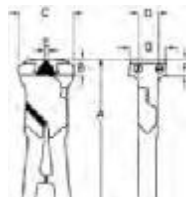


- A robust tool for fast easy removal of nails in crates etc
- Finish: Black finish, anti-corrosion treated
- Material: High performance alloy steel
- Comfortable handle of malleable cast iron, other parts forged, specially hardened jaws

			A mm	B mm	C mm	D mm	F mm	G mm	
38	0021734	1	450	23	36	18	4.5	4.5	2300

1519D

## END CUTTER/ FENCING PLIERS



- Finish: Black finish
- Material: High performance alloy steel
- Extra long handles for high leverage and cutting capacity
- 1519-9 : Spare jaws 2 pcs jaws and screws

			A mm	B mm	C mm	D mm	E mm	F mm	G mm		
1519 D	0032747	3	230	10.5	37	13.5	2.5	11.5	25	2.5	450
1519-9	0026074	1									



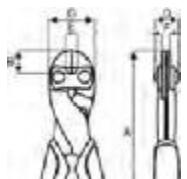
## SIDE CUTTERS

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



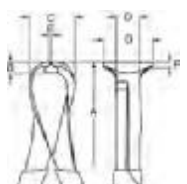
## END CUTTERS

527D

### END CUTTING PLIERS



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



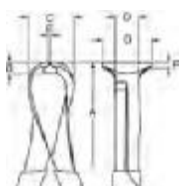
	 731415		A mm	B mm	C mm	D mm	E mm	F mm	G mm	 Piano mm	 g
527 D-160	0032723	3	160	7	26.5	11	3.0	3.0	21	2.0	205
527 D-200	0032730	3	200	7	35	13	3.0	3.0	29.5	2.5	320

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